

**Berkeley Township**  
Ocean County, New Jersey

**2008 LAND USE &  
CIRCULATION ELEMENTS**

---

Adopted March 5, 2009



## **Berkeley Township Planning Board**

ANTHONY MAZZELLA, *Chairperson*

JOHN DISTEFANO, *Vice Chairperson*

JACK WIEGARTNER, *Secretary*

JASON J. VARANO, *Mayor*

NAT ABBE, *Councilman*

PETER SCHULTZ

JEFFREY SUAREZ

KAREN HARVEY, *Alternate*

ROBERT W. WINWARD, *Alternate*

Alycia Marshall, *Planning Board Secretary*

Edward F. Liston, Jr., Esq., *Planning Board Attorney*

Chris A. Theodos, PE, *Township Engineer*

David G. Roberts, PP, AICP, CLA, *Township Planner*

*Prepared by:*



200 State Highway Nine

Manalapan, NJ 07726

The original of this master plan was signed and sealed in  
accordance with N.J.S.A. 45:14A-12.

---

David K. Maski, PP, AICP

License Number 02354

**Berkeley Township  
2008 Land Use and Circulation Elements**

---

**TABLE OF CONTENTS**

<b>Introduction.....</b>	<b>1</b>
<b>I. Goals and Objectives.....</b>	<b>5</b>
• Vision Statement...5	
• Goals...8	
• Objectives...10	
<b>II. The Planning Context.....</b>	<b>10</b>
• Population...10	
• Land Use...15	
• Pinelands and CAFRA...18	
• Zoning...20	
• Community Facilities...23	
• Parks and Open Space...25	
• Natural and Cultural Resources...29	
• Circulation...34	
• Utilities...40	
• Build Out Analysis...43	
<b>III. Land Use Plan.....</b>	<b>47</b>
• Major Initiatives...47	
• Land Use Districts...50	
• Recommended Zoning Changes...61	
<b>IV. Circulation Plan.....</b>	<b>62</b>
• Roadways...62	
• Alternative Transportation Modes...68	
<b>V. Relationship to Other Plans.....</b>	<b>69</b>
• Contiguous Municipalities...69	
• Ocean County...72	
• State Development and Redevelopment Plan...73	
• Pinelands Comprehensive Management Plan...76	

<b>VI. Maps.....</b>	<b>77</b>
1. Existing Land Use	
1A. Existing Land Use East of Parkway	
1B. Existing Land Use West of Parkway	
2. Vacant Land	
3. Existing Zoning	
4. Existing Land Use and Zoning	
5. Community Facilities	
6. Parks and Open Space	
7. Flood Zones	
8. Wetlands	
9. Threatened or Endangered Species Habitat	
10. Well Head Protection Areas	
11. Known Contaminated Sites	
12. Circulation System	
13. Municipal Rights-of-Way	
14. Water Service Areas	
15. Sewer Service Areas	
16. Unconstrained Vacant Land	
17. Land Use Plan	
18. Roadway Plan	
18A. Roadway Plan East of Parkway	
19. Alternative Transportation Modes	

## INTRODUCTION

Berkeley last adopted a comprehensive master plan in 1997. By way of the 2003 Reexamination Report, the 1997 land use element of the master plan was updated with the incorporation of the Open Space Preservation Study prepared in 2000, the 2020 Vision Statement, and the Pinelands Area Master Plan Amendment. A 2008 Reexamination Report was prepared as a precursor to the preparation of these new master plan elements.

The location, intensity and arrangement of land uses have a substantial impact on the capacity, performance and safety of the transportation system. In recognition of that fact, the Planning Board has decided to prepare and adopt a new land use element *and* a new circulation element of the master plan. The 2008 Land Use Element provides a comprehensive and coordinated approach to achieving the community's vision. It will serve as a sound basis for the Township's policy, regulatory and investment decisions, and as an alternative to an incremental, site-by-site decision making process. Decisions made by all municipal boards and agencies should be measured by their support of and consistency with the land use element. The 2008 Circulation Element complements the land use element and makes recommendations based on the Township's ability to move goods and people in an efficient manner given existing and future development patterns outlined in the land use element.

### **Township Overview**

Berkeley Township is a growing suburban coastal community with over 45,000 residents, 21,000 households, and 5,500 jobs. The Township covers an area of approximately 40 square miles (excluding Barnegat Bay) in east-central Ocean County along the Atlantic Ocean and Barnegat Bay (See Figure 1). The adjoining municipalities are Seaside Park Borough on the Barrier Island, Ocean Gate Borough, Pine Beach Borough, Beachwood Borough, South Toms River Borough and Toms River Township to the north, Manchester Township to the west in the Pinelands, and Lacey Township to the south. The Barrier Island, on which South Seaside Park and Island Beach State Park are situated, is the Township's eastern boundary. Major portions of the Township are within the Coastal Zone Management Area (CAFRA) and the Pinelands (See Figure 2).

Berkeley has approximately 35 miles of shoreline comprised of roughly 10 miles of oceanfront, 18 miles of bay frontage and 7 miles of creek, stream and river frontage. The two major north-south routes in the Township are the Garden State Parkway and U.S. Route 9, which is the main commercial district in the Township. The housing stock consists predominantly of single-family homes of post-war ranch and Cape Cod styles, with newer subdivisions and retirement communities constructed over the last 30 years. The Township also contains a number of housing developments on lagoons and has a significant number of second homes that are utilized as summer homes.

The Township can be viewed as three distinct areas – The Pinelands and senior communities, which lie west of the Garden State Parkway; the “eastern mainland,” which stretches from the Parkway to the shores of Barnegat Bay; and the barrier island. The future of the Township west of the Parkway is, for all intents and purposes, established for the foreseeable future (by the Pinelands Comprehensive Management Plan and existing adult/senior communities of Holiday City and Silver Ridge). The future of the barrier island is likewise established by the presence of the South Seaside Park section of Berkeley, an older built-out seasonal community, and Island Beach State Park.

The future of the Township between the Parkway and the bay is not so certain. The Eastern mainland consists of neighborhoods such as Bayville, Berkeley Shores, Holly Lake Park and Pinewald with long-established development patterns and available infrastructure. Paralleling the Parkway is the Route 9 corridor, the Township’s primary business, retail and commercial area. Along the bay front are large tracts of wetlands and open space interspersed with existing residential developments. This area contains the bulk of the vacant developable land in the Township and as such is the primary focus of future development and redevelopment proposals.

It is the Township’s intention to be proactive about the future of the Eastern mainland and to reverse undesirable land use trends through the identification of a preferred future for the year 2020, and the adoption of policies that promote that vision.

INSERT FIGURE 1 REGIONAL LOCATION

INSERT FIGURE 2 PINELANDS AND CAFRA AREAS



## I. GOALS AND OBJECTIVES

### VISION STATEMENT

In 2002-2003, Berkeley Township conducted a public visioning process to identify long-range goals for the Township's physical, recreational, business, and community development particularly within the eastern mainland section of the Township. The process resulted in a 2020 Vision Statement – a guide for the Township's long-term policy and planning initiatives. The process was led by a Steering Committee, which consisted of a 20-member cross-section of the community. The Committee hosted the visioning sessions and drafted a vision statement for the Township Council's consideration.

The visioning process focused on determining areas for development and conservation, the desired and appropriate locations and intensities of land uses, and community design. The resulting vision statement identified long-range goals for the Eastern mainland's physical, economic and environmental future. The 2020 vision map (see Figure 2) translates the vision statement into a graphic depiction of the future landscape of the Eastern mainland. The vision statement departs from trend by establishing four primary targets for future development – Town Center and three commercial nodes – while preserving a substantial portion of the Township as open land. By contrast, the trend scenario would continue to disperse growth throughout the Eastern mainland while consuming most of the remaining open lands.

#### *The Vision*

*In the year 2020 the eastern mainland is a comfortable mix of quality residential neighborhoods and convenient shopping and employment opportunities defined by an extensive open space system. The eastern mainland is both internally and externally linked by public transportation and a coordinated pedestrian and bicycle trail system. Over the previous 17 years, the Township has reversed the trend toward further sprawl by adopting policies to:*

- *retrofit existing strip-type development along the Route 9 corridor into concentrated, mixed-use alternatives;*
- *promote in-fill development and efficient use of existing infrastructure;*
- *promote a well designed town center as the focus of the Township's growth;*
- *preserve environmentally sensitive coastal resources;*
- *maximize circulation and mobility options; and*
- *maximize housing opportunities.*

*The population has continued to grow but not nearly at the pace experienced in the last quarter of the 20th century. Senior citizens have been drawn to the eastern mainland by the ability to walk to shopping and services and to interact with diverse age groups. Younger Berkeley residents are staying in Berkeley (or returning) to start their own households due in part to the availability and*

*affordability of housing, an attractive school system, numerous active and passive recreation opportunities, and the possibility of finding a job in town. Some new residents are drawn by the excitement generated by the new Town Center, easy access to the bay and the community's extensive hiking and biking trails. Others have been drawn by Berkeley's family-friendly neighborhoods and quick access to employment centers via bus and park and ride opportunities. But population growth has been phased and controlled over the years by growth management policies that funneled residential development into a finite number of well-planned neighborhoods and into the Town Center.*

*Although still primarily a residential community, there is a healthy balance between housing and employment. As a result of the new Town Center and the retrofitted and revitalized commercial nodes along Route 9, new employment opportunities have surfaced in the form of entry-level as well as managerial positions in retail and service establishments and professional offices. The High School has established cooperative education opportunities with several of these local businesses.*

*Single-family detached homes are still the predominant residential form in the eastern mainland. Newer single-family homes can be found in the now completed Pinewald subdivisions and in the Town Center. Singles, couples and active seniors can choose from attractive townhouses and apartments in the Town Center and in some of the Route 9 commercial nodes.*

*Berkeley's historic connection to the Barnegat Bay and the Township's vast natural areas has been preserved and strengthened through an aggressive and long-standing open space campaign that began with the establishment of the Township's open space trust fund in 2002. Strategic parcels and sensitive resources have been preserved through purchases, easements, donations, and innovative land use policy. Berkeley's open space infrastructure is a wide-ranging but linked system of municipal, county, state, federal and non-profit lands. Residents and visitors can tour the entire system by way of uninterrupted hiking and biking trails, and in some areas by canoe and kayak. Parks are an integral part of the open space system, offering active recreation opportunities while serving as hub sites within the system.*

*The recreation system is on par with or exceeds those found in any other town in the county. It has been expanded over the years to ensure adequate access and opportunity for a variety of activities (both active and passive), sports, leagues, organizations and age groups. Berkeley prides itself on a recreation system that is fully accessible to the special needs population. The recreation system has been supplemented by a full service indoor recreation center that provides a wide range of programs for groups and individuals of all ages. Expansion has not come at the expense of existing facilities. All facilities, old and new, are maintained on a regular basis and meet or exceed all recommended performance and safety standards.*

*Residents of the eastern mainland are secure in the knowledge that public safety – police, fire, first aid and emergency management – has always been a priority in the Township. New substations have been incorporated into the Town Center and at strategic commercial nodes along Route 9. Services are bolstered by inter-municipal agreements with surrounding municipalities.*

*Circulating through, in and around the eastern mainland is no longer a burdensome task. Route 9 is functioning at a much higher level of service due to the decrease in curb cuts and access points made possible by concentrating development into specific activity nodes. Route 9 is also no longer the lone major north-south route. Local and regional traffic now have the option of the Route 9 bypass – an attractive boulevard sensitively designed to complement the Town Center. A new Parkway interchange funnels traffic directly to the Towns Center. Local circulation has been greatly enhanced by the strategic completion of the neighborhood grid systems.*

*The automobile is no longer the sole means of transportation. The Town Center and the commercial nodes have been designed to accommodate the increased bus service along Route 9 that allows residents to access regional employment, shopping services and entertainment. More and more local trips – to the library, schools, parks, recreation center, shopping – are being made by bicycle via the extensive interconnected bikeways. It is not uncommon to see people walking to their destinations as neighborhoods are connected to nearby schools and parks by sidewalks. (Not surprisingly, all this biking and walking has made the eastern mainland one of the fittest communities in the county.)*

*Public sewer and water service has been strategically extended to existing neighborhoods, infill development, and the Town Center. Decisions to provide these services have been based on cost-effectiveness, the need to address health issues, and consistency with the Township's growth management policies.*

*In 2003, there were 21 properties in the eastern mainland listed on the NJ Department of Environmental Protection's Known Contaminated Sites List. In 2020, every one of those sites have been remediated and returned to a productive use.*

*The Eastern mainland boasts a great deal of physical appeal. Its natural beauty is complemented by well-maintained residential neighborhoods and by the award winning Town Center. The Town Center's mix of land uses, diversity of housing types, green spaces, alleys, themed but flexible architecture, and general accommodation of the pedestrian over the automobile, creates a human scale community that has become the center of community life (as evidenced by the many street fairs and parades held on Main Street).*

*The once drab and rundown strip commercial corridor known as Route 9 is a pleasant boulevard hosting a string of well defined, active and accessible commercial nodes separated by open space and very low-density development. Each node is designed to present a pleasing view from the highway with buildings rather than parking lots being the focal point. Trees are plentiful and soften the visual impact of each node. Multiple retail and service establishments are available allowing for one-stop shopping in many instances (no need to hopscotch down the highway). Some nodes even host a limited number of apartments. In all cases they are connected to nearby neighborhoods by sidewalks and bikeways. Vehicular access is channeled to well-defined access points, signalized intersections and service roads.*

## GOALS

The following goals give focus to the broader vision statement and set the stage for more pointed objectives and recommendations.

1. Promote aesthetically pleasing human scale development that recognizes the character of traditional New Jersey bay front towns.
2. Provide a healthy balance of land uses that preserves the residential character of the neighborhoods; maintains a balanced stock of quality housing that accommodates diverse lifestyles and age groups; and provides convenient opportunities to acquire essential goods and services.
3. Direct most new development to a well planned, compact, mixed use Town Center and redevelop existing commercial centers into accessible, compact and well-defined nodes with linkages to the surrounding neighborhoods.
4. Provide connections between residential areas, commercial nodes, community facilities and the Town Center through an attractive, free flowing circulation system.
5. Provide opportunities for residents and visitors to access multiple modes of transportation including public transportation, bikeways and pedestrian ways.
6. Provide an alternate route for north-south through traffic that enhances rather than detracts from the community; and supports the development of a Town Center as opposed to a strip/sprawl development pattern.
7. Create a comprehensive open space system that provides passive and active recreation opportunities, preserves sensitive lands, creates connected green and blue ways, provides environmental education opportunities, and establishes greenbelts around existing and planned development.
8. Preserve the Township's natural resources to protect water quality, manage stormwater, reduce the potential of flood damage, protect endangered habitats, and provide open space.
9. Encourage and support policies and actions to reduce the introduction of harmful green house gasses by reducing sprawl, and encouraging green buildings, promoting alternate means of transportation including walking, biking and public transit, and preserving open space and wetlands.
10. Strategically extend public water and sewer service to existing neighborhoods, infill development, identified commercial nodes and the Town Center based on cost-effectiveness, the need to address health issues, and consistency with the Township's growth management policies.

## OBJECTIVES

- Complete the planned build-out of existing residential neighborhoods and strategically complete the residential street grids to ensure connectivity within and between neighborhoods.
- Encourage traditional neighborhood elements such as sidewalks, alleys, front porches, public spaces, green spaces, street grids, street trees, and mixed uses that support pedestrian activity, human interaction, public safety, mass transit, and easy access to goods and services.
- Encourage commercial development and retrofitting that emphasizes quality architecture, shared access and parking, transit friendly facilities, pedestrian circulation, appropriate intensification of buildings, and extensive landscaping; and which avoids oversized parking areas, light pollution, and multiple and uncontrolled highway access points.
- Encourage a mix of quality commercial uses, retail, entertainment, dining, and upper story residences in the Town Center and corridor nodes to create vibrancy and to serve local and regional markets.
- Continue aggressive open space preservation efforts with funding shared among Berkeley Township, Ocean County, the State and federal governments and non-profit groups.
- Improve the level of service along the Route 9 corridor through the implementation of creative engineering, land use and design techniques including appropriate recommendations from the Route 9 Corridor Master Plan. Utilize traffic calming measures in areas of high pedestrian activity.
- Create a multi-use trail system that ties into the Barnegat Branch Rail Trail to link neighborhoods, community facilities, parks and open space and Barnegat Bay.
- Develop an access management plan for Route 9.
- Determine the feasibility of additional local bus or jitney routes or of modifying existing routes to better serve demands.

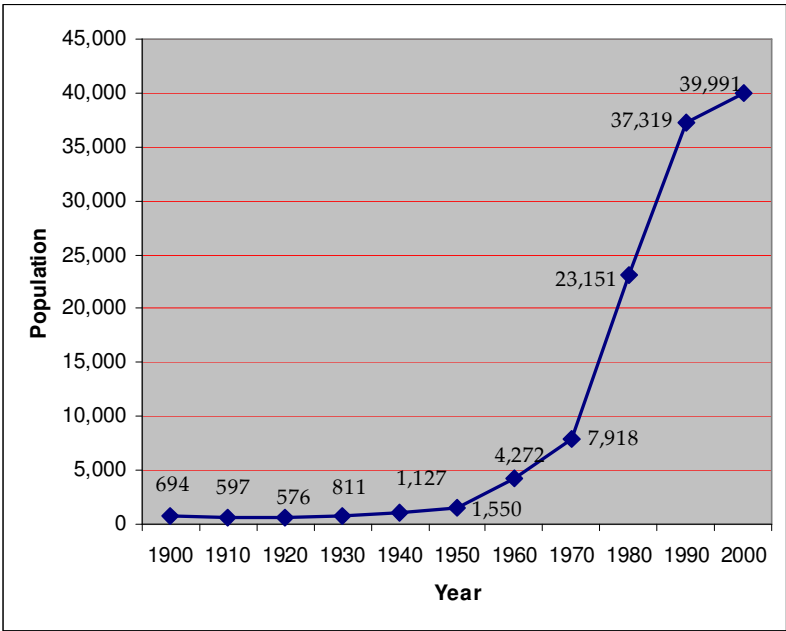
## II. PLANNING CONTEXT

### POPULATION

#### Growth

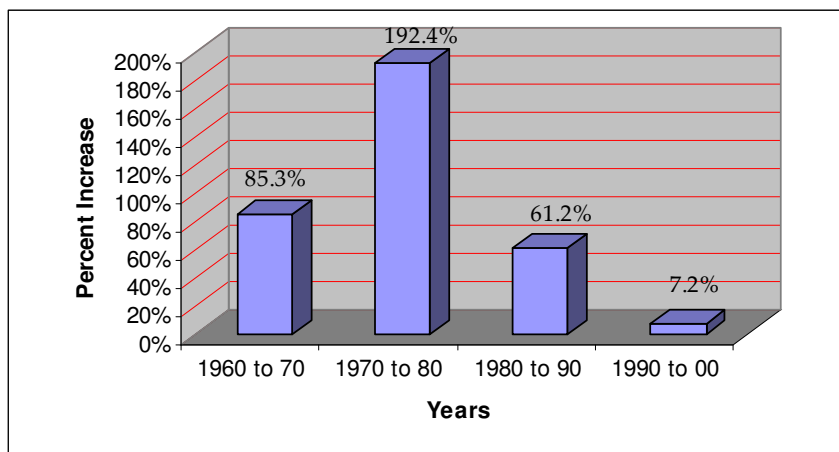
The 2000 Berkeley Township population of 39,990 persons was nearly a ten-fold increase over the 1960 population of 4,272 persons (see Figure II-1). The decennial population growth rates were extremely high between 1960 and 1990 with the population almost tripling during the 1970s with an increase of nearly 200% (see Figure II-2). This is also when the majority of the senior communities were constructed. In 2000, the eastern mainland portion of the Township accounted for 44% of the total population in Berkeley with 17,631 persons, up from 40% in 1990.

**Figure II-1**  
**Population Growth 1900 – 2000 – Berkeley Township**



Source: US Census

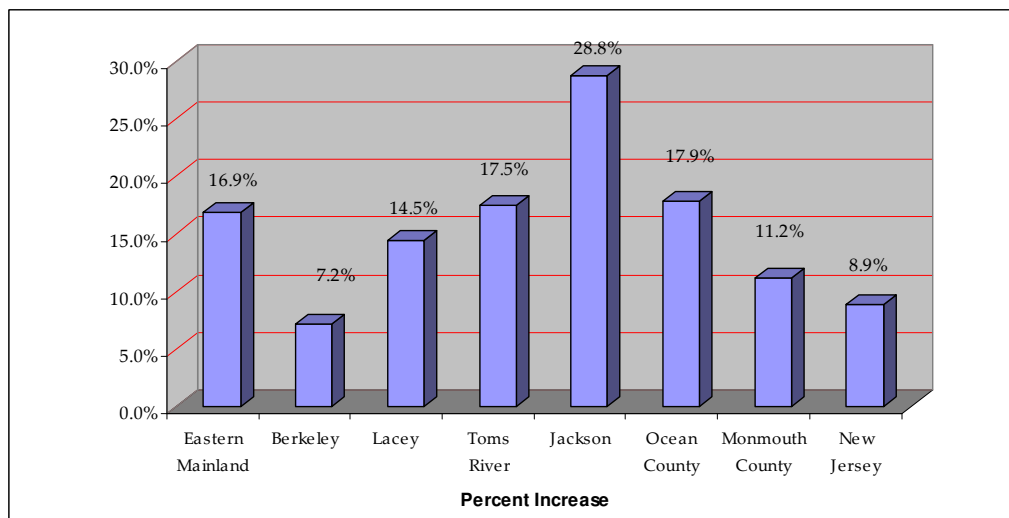
**Figure II-2**  
**Population Growth Rates – Berkeley Township 1960 – 2000**



Source: US Census

The overall population growth rate in Berkeley dropped considerably to only 7.2% during the 1990's. This slow growth rate was less than half that experienced in neighboring Lacey and Dover townships. The Eastern mainland, on the other hand, experienced a population growth rate (16.9%) that was more consistent with Dover (now Toms River) Township (17.5%) and Ocean County (17.9%), notably contrary to the slow growth in Berkeley Township overall. (See Figure II-3)

**Figure II-3**  
**Comparative Population Growth Rates – 1990 to 2000**



Source: US Census

The US Census 2006 population estimate for Berkeley is 42,577, an increase of over 2,500 people from 2000, a rate of growth of 6.5%, which is only slightly lower than the growth rate experienced between 1990 and 2000.

The North Jersey Transportation Planning Authority (NJTPA) issued population, housing, and employment projections on March 14, 2005. As reported by NJTPA, the number of residents in Berkeley is expected to increase from 45,680 in 2005 (notably higher than the Census 2006 estimate) to 57,440 in 2030; the number of households is expected to increase from 21,120 households in 2005 to 27,150 households in 2030; and the number of jobs in the Township projected to increase from 5,540 jobs in 2005 to 7,480 jobs in 2030 (see Table II-1). With little opportunities for development west of the Parkway and on the barrier island, the eastern mainland is presumably where the majority of Township's growth would be accommodated.

**Table II-1  
NJTPA Projections – Berkeley Township**

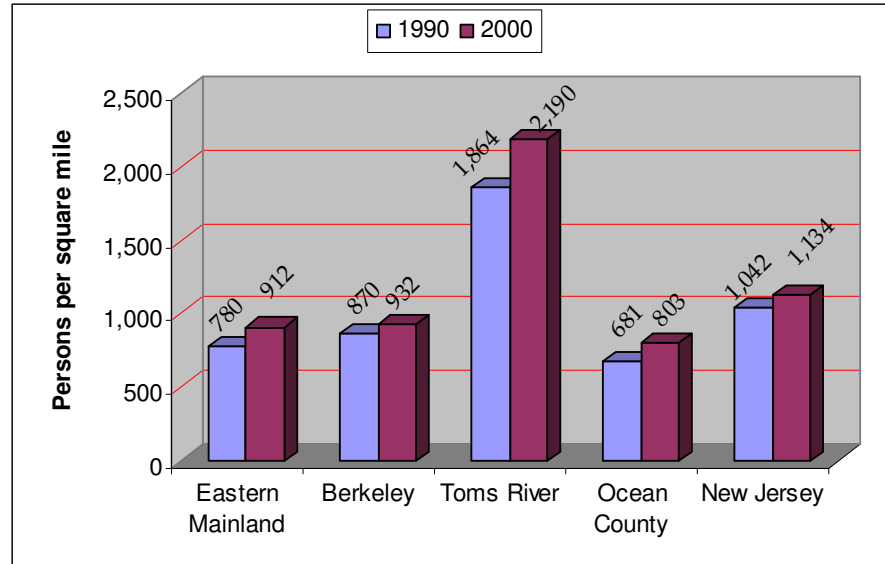
	US Census	NJTPA					
	2000	2005	2010	2015	2020	2025	2030
<b>Population</b>	39,990	45,680	46,870	48,630	51,240	54,340	57,440
<b>Households</b>	19,830	21,120	21,800	22,780	24,190	25,740	27,150
<b>Jobs</b>	5,310	5,540	5,880	6,180	6,480	6,800	7,480

## Density

Berkeley Township and Ocean County had comparable densities in 2000 with 932 persons per square mile (PPSM) and 803 PPSM, respectively (see Figure II-4). Population density in the eastern mainland reached 912 PPSM in 2000 compared to 780 PPSM in 1990. New Jersey was slightly more densely populated in 2000 with 1,134 PPSM. Toms River Township, adjacent to the north, had 2,190 PPSM, almost two and a half times the density in the eastern mainland.



**Figure II-4**  
**Comparative Population Density – 1990 and 2000**

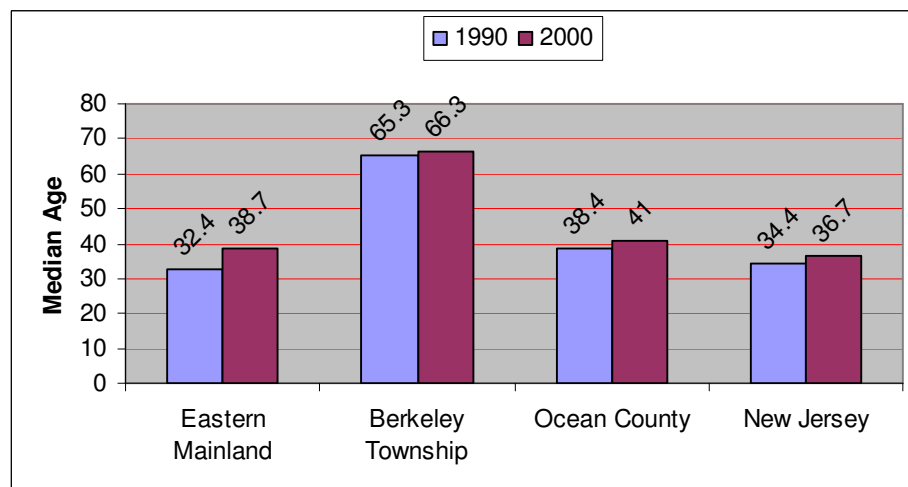


Source: US Census

## Age

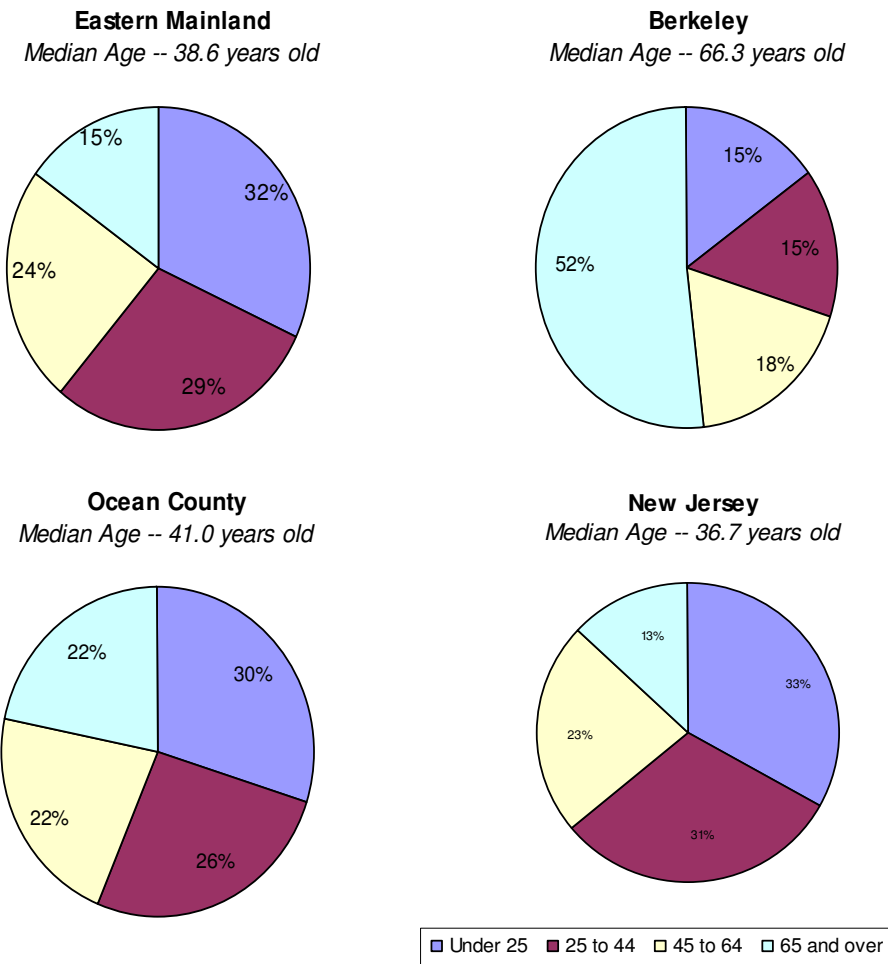
As illustrated in Figure II-5, the median age increased in Berkeley between 1990 and 2000 consistent with County and Statewide trends. The eastern mainland median age in 2000 (38.7) fell between New Jersey's (36.7) and Ocean County's (41.0).

**Figure II-5**  
**Comparative Median Age – 1990 and 2000**



With the prevalence of senior communities west of the Parkway, it is no surprise that the median age in Berkeley Township overall was 66.3 years old in 2000. Berkeley Township seniors accounted for 52% of the total population with 20,806 persons. Approximately 18,000 seniors resided west of the Parkway compared to the roughly 2,600 seniors residing in the eastern mainland (205 seniors were reported in South Seaside Park). As seen in Figure II-6, the age distribution in the eastern mainland is more similar to the State and County distributions than that of the entire Township.

**Figure II-6**  
**Median Age in 2000**  
*Source: US Census*



## EXISTING LAND USE

Existing Land Use in Berkeley Township is illustrated on Map 1. The land use inventory is based on MOD IV tax data, Township records and field adjustments. Berkeley's landscape includes residential, commercial, industrial and institutional land uses as described below. Table II-2 shows the distribution of each category by parcel acreage (generally excludes public streets, rights-of-way and water) and as a percentage of the total Township.

### Residential

Residential properties (single and multi-family) cover 4,745 acres in the Township; this is approximately 19% of the total parcel area in the Township. Single-family properties account for 98% of the residential category.

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. Additional 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.

The eastern portion of the Township is primarily developed with older post-war subdivision, as well as some new residential development occurring along the lagoons and east and west of Route 9. The Bayville section is primarily developed with post-war colonial or ranch style subdivisions. 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.

The South Seaside Park and Pelican Island sections of the township have the unique character of a year-round resort community. The South Seaside Park section does still have some smaller bungalow type housing which is primarily utilized as summer rentals.

### Commercial

The commercial component of Berkeley Township comprises approximately 508 acres or 2% of the Township. Commercial development occurs primarily (96%) in the eastern mainland along the Route 9 corridor as strip-malls and shopping centers.

There is also a small commercial concentration along Central Avenue in South Seaside Park, which was originally intended to serve the needs of summer vacationers. There is evidence, however, that this commercial area is shifting to a more year-round presence as many of the restaurants and other establishments remain open all year and are supported by the permanent population of the Township during the winter months.

### **Industrial**

The industrial/mining/utilities category comprises just over 1,000 acres, or 4% of the Township. The vast majority of that acreage – 876 acres – is accounted for by the asphalt and mining operations behind and to the west of the Beachwood Mall.

### **Public/Quasi-Public**

Public (not including parks and open space) and quasi-public (e.g., churches and charitable institutions) land uses comprise 1,026 acres, 4% of the Township. Included in this land area are the municipal complex, schools, fire stations, churches, cemeteries, civic organizations and other community facilities.

### **Parks and Preserved Open Space**

Parks and preserved open space account for 12,316 acres or 49% of the Township. The majority of that acreage – 60% – is located in the Pinelands. The Community Facilities section of this chapter provides a detailed description of the parks and open space in the Township.

### **Vacant**

Approximately 17% of the Township – 4,196 acres – remains vacant (see Map 2). While most of the vacant land (71%) is privately owned, over 1,200 acres are owned by the Township. Much of the vacant land east of the Garden State Parkway is made up of small lots (25 feet by 100 feet) on paper streets that were platted in the early 1900's or in some cases earlier. If the paper streets were to be vacated, an additional 800 acres would be added to the vacant land inventory. (See Circulation section for further discussion of the paper streets.) Most of the vacant land that lies west of the Parkway is under the jurisdiction of the Pinelands Council.

A substantial amount of the vacant land, approximately 1,900 acres or 46%, is severely constrained by environmental conditions such as wetlands, flood hazards and threatened or endangered species habitats and not considered suitable for development.

Table II-2  
2008 Existing Land Use

Land Use Category	Parcel Acres*	% of Total Acres
<b>TOTAL TOWNSHIP</b>	<b>25,003.77</b>	<b>100.00</b>
Agricultural	56.74	.23
Apartment	94.23	.38
Church & Charitable Property	73.94	.30
Commercial	508.07	2.03
Homeowners Assoc. Designated Green Area	1,033.21	4.13
Industrial/Mining/Utilities/Railroad	1,098.80	4.39
Parks & Preserved Open Space	12,316.47	49.26
Public Building/Facility	797.72	3.19
Public School	154.49	.62
Residential	4,650.65	18.60
Public Vacant Land	1,225.78	4.90
Private Vacant Land	2,970.69	11.88
Misc. NJDOT	22.99	.09
<b>NON-PINELANDS MAINLAND</b>	<b>12,681.19</b>	<b>100.00</b>
Agricultural	56.74	.45
Apartment	89.51	.71
Church & Charitable Property	67.45	.53
Commercial	489.64	3.86
Homeowners Ass'n Designated Green Area	952.19	7.51
Industrial/Mining/Utilities/Railroad	1,034.54	8.16
Parks & Preserved Open Space	2,828.15	22.30
Public Building/Facility	235.42	1.86
Public School	154.49	1.22
Residential	4,231.02	33.36
Public Vacant Land	779.80	6.15
Private Vacant Land	1,762.25	13.90
<b>BARRIER ISLAND</b>	<b>2,247.34</b>	<b>100.00</b>
Apartment	4.21	.19
Commercial	4.35	.19
Industrial/Mining/Utilities/Railroad	.22	.01
Parks & Preserved Open Space	2,141.27	95.28
Residential	89.14	3.97
Public Vacant Land	.04	.00
Private Vacant Land	8.11	.36
<b>PELICAN ISLAND</b>	<b>26.57</b>	<b>100.00</b>
Apartment	.51	1.94
Commercial	1.94	7.30
Residential	19.81	74.57
Public Vacant Land	1.00	3.76
Private Vacant Land	.26	.98
Misc. NJDOT	3.05	11.21
<b>PINELANDS</b>	<b>10,048.67</b>	<b>100.00</b>
Church & Charitable Property	6.49	0.06
Commercial	12.14	0.12
Misc. NJDOT	19.94	0.20
Homeowners Assoc. Designated Green Area	81.03	0.81
Industrial/Mining/Utilities/Railroad	64.04	0.64
Parks & Preserved Open Space	7,347.04	73.11
Public Building/Facility	562.30	5.60
Residential	310.68	3.09
Public Vacant Land	445.69	4.44
Private Vacant Land	1,199.32	11.94

Source: Berkeley tax records and field adjustments

\* Streets and public rights-of-way are not included in these acreage figures.

## PINELANDS AND CAFRA

In 1978, the National Parks and Recreation Act established the 1.1 million acre Pinelands National Reserve that includes portions of seven counties and all or portions 56 municipalities in New Jersey. In 1979, the New Jersey Legislature passed the Pinelands Protection Act which established the Pinelands Commission as the planning entity charged with developing the management plan for the National Reserve and granting regulatory authority over 934,000 of the total 1.1 million acres. The Pinelands Commission prepared the New Jersey Pinelands Comprehensive Management Plan (CMP) which divides this region into eight separate management areas, and establishes environmental regulations and development standards governing those areas, with the main goal to preserve and protect significant environmental features, and land and water resources of the Pinelands.

Approximately 19,500 acres in Berkeley are within the Pinelands National Reserve – east and west of the Garden State Parkway, south of Route 37 and extending out to the Barrier Island (Island Beach State Park). Approximately 10,310 acres in Berkeley -- west of the Garden State Parkway and south of the New Jersey Central Power and Light Company right-of-way – fall under the jurisdiction of the Pinelands Commission (See Figure 2 in the Introduction). Most of the National Reserve that is not under the jurisdiction of the Pinelands Commission (generally east of the Parkway) falls within the CAFRA regulatory jurisdiction where the NJDEP is charged with implementing the Pinelands CMP. The Berkeley Township Master Plan and zoning ordinance have been certified by the Pinelands Commission.

The Commission-regulated portion of the Township (the “Pinelands Area”) currently falls within the Preservation Area, Forest Area, Agricultural Production Area, Rural Development Area, and Regional Growth Area. The Preservation Area is the most critical ecological region of the Pinelands environment and is home to many threatened and endangered species. No residential development, except for one- acre lots in designated infill areas, and special "cultural housing" exceptions on minimum 3.2 acre lots for property owned by families prior to 1979. There are limited commercial uses in designated infill areas. The Forest Area contains high quality water resources and wetlands and provides suitable habitat for many threatened and endangered species. Permitted residential densities average one home for every 28 acres.

Except for certain municipal facilities (e.g. municipal complex, law enforcement center, public works building, etc.), county facilities (Ocean County Air Park), a small Township owned industrial park and the Holiday Heights senior community, the majority of Berkeley’s Pinelands Area is undeveloped.

The Coastal Area Facility Review Act (CAFRA) applies to that portion of Berkeley east of the Parkway. The Act splits the CAFRA area into zones and regulates different types of

development in each zone. Generally, the closer a project is to the water, the more likely it will be regulated.

The CAFRA law regulates almost all development activities involved in residential, commercial, or industrial development, including construction, relocation, and enlargement of buildings or structures; and all related work, such as excavation, grading, shore protection structures, and site preparation. CAFRA contains exemptions for certain minor activities such as maintenance, plantings, decks or similar structures at a residence, rebuilding a damaged structure on the same building footprint (if it was damaged after 7/19/94), and enlarging a dwelling without increasing its footprint or number of units.

In very general terms, a development in the coastal area at a point beyond 150 feet landward of the mean high water line of any tidal waters or the landward limit of a beach or dune, whichever is most landward, is subject to CAFRA if it involves:

1. A residential development having 25 or more dwelling units;
2. A commercial development having 50 or more parking spaces; or
3. A public development or industrial development.

In those cases, CAFRA standards related to such items as impervious coverage and vegetation will need to be met. Impervious coverage standards are tied to the planning areas and centers of the State Development and Redevelopment Plan. In Berkeley's case, the maximum impervious coverage permitted in the Suburban Planning Area is 30%; in the Environmentally Sensitive Planning Area it is 3%; and in a Town Center it is 70%. (See Chapter V for additional discussion of the State Plan.)

## EXISTING ZONING

There are 44 zoning districts in Berkeley, 30 of which are outside of the Pinelands (see Tables II-3A and II-3B, and Map 3). Approximately one third of the Township is zoned for residential use and another third is covered by Pinelands zones. Only 7% of the Township is zoned for commercial, industrial and mixed-use, and 20% is zoned for conservation purposes. In the eastern mainland section, 63% of the land is zoned residential, 13% for commercial and mixed-use, and 23% for conservation. South Seaside Park, a relatively small area covering 220 acres on the barrier island, is covered by eight different zoning districts including five residential, two commercial and one conservation district. Generally, there are very few inconsistencies between the general zoning categories (e.g., residential, commercial) and the underlying land use (see Map 4).

Berkeley's zoning ordinance was certified by the Pinelands Commission based on the Township's adoption of the Pinelands Area Master Plan and Pinelands Area Land Development Ordinance in 2001.



**Table II-3A**  
**Existing Zoning Districts – Berkeley Township**

Category	Zone		Acres	% of Total
Conservation	PPC	Public Preservation Conservation	1,793.92	6.43
	CR	Conservation Residential	1,775.66	6.37
	BC	Beach Conservation	2,184.46	7.84
	Total Conservation		5,754.04	20.63
Residential	R-100	Residential	1,033.79	3.70
	R-100T/R-100	Residential (Overlay)	103.12	--
	R-125	Residential	856.20	3.07
	R-150	Residential	1,005.43	3.62
	R-200	Residential	853.53	3.06
	R-2F	Residential Two Family	42.82	0.15
	R-400	Residential	850.19	3.05
	R-400 PRRC	Planned Res. Retirement Com.	3,848.39	13.80
	R-50	Residential	206.90	0.74
	R-50-150/150	Residential (Overlay)	33.99	--
	R-60	Residential	196.40	0.70
	R-64	Residential	304.52	1.09
	R-90	Residential	316.13	1.13
	R-MF	Residential Multi-Family	95.85	0.34
	MLC/L/R-200	Mount Laurel Compliance (Overlay)	26.02	--
	R-31.5	Residential	44.62	0.16
	R-4F	Residential 4 Family	13.06	0.05
	R-LR	Residential Low Rise	18.87	0.07
	R-TH	Residential Town House	16.90	0.06
	Total Residential		9,703.60	34.79
Commercial & Mixed Use	NB	Neighborhood Business	28.57	0.10
	GI	General Industrial	643.58	2.31
	HB	Highway Business	513.92	1.84
	RHB	Rural Highway Business	96.13	0.34
	ResHB	Resort Highway Business	32.94	0.12
	LI	Light Industrial	297.67	1.07
	RC	Resort Commercial	18.29	0.07
	TC	Town Center	441.45	1.58
	Total Commercial or MU		2,072.54	7.43
Pinelands	AP	Agricultural Production	748.17	2.68
	FA-C	Forest Area Conservation	4,382.14	15.71
	FA-HC	Forest Area Highway Commercial	35.15	0.13
	FA-LI	Forest Area Light Industrial	79.54	0.28
	FAR-30	Forest Area Residential	798.34	2.86
	FAR-30C	Forest Area Residential (Cluster)	994.32	3.57
	FAR-5	Forest Area Residential	351.77	1.26
	M/CF	Municipal County Facility	810.85	2.91
	ASOZ	Airport Safety Overlay Zone	541.55	--
	PA	Preservation Area	1,510.97	5.42
	RDR	Rural Development Recreation	60.77	0.22
	RDA	Rural Development Area	416.12	1.49
	RGR	Regional Growth Residential	76.08	0.27
	RGR - A	Regional Growth Residential Zone A	95.11	0.34
	Total Pinelands		10,359.33	37.14
TOTAL BERKELEY TOWNSHIP			27,889.51	100%

Table II-3B  
Existing Zoning Districts by Sub-Area

CATEGORY	ZONE		ACRES	% OF TOTAL
	<b>NON-PINELANDS MAINLAND</b>		<b>15,161.27</b>	<b>100</b>
<b>Conservation</b>	PPC	Public Preservation Conservation	1,793.92	11.83
	CR	Conservation Residential	1,775.66	11.71
		<b>Total Conservation</b>	<b>3,569.58</b>	<b>23.54</b>
<b>Residential</b>	R-100	Residential	1,033.79	6.82
	R-100T/R-100	Residential (Overlay)	103.12	--
	R-125	Residential	856.20	5.65
	R-150	Residential	1,005.44	6.63
	R-200	Residential	853.53	5.63
	R-2F	Residential Two Family	42.82	0.28
	R-400	Residential	850.19	5.61
	R-400 PRRC	Planned Res. Retirement Com.	3,848.39	25.38
	R-50	Residential	173.16	1.14
	R-50-150/150	Residential (Overlay)	33.99	--
	R-60	Residential	166.16	1.10
	R-64	Residential	304.52	2.01
	R-90	Residential	316.13	2.08
	R-MF	Residential Multi-Family	95.85	0.63
	MLC/L/R-200	Mount Laurel Compliance (Overlay)	26.02	--
		<b>Total Residential</b>	<b>9,546.18</b>	<b>62.96</b>
<b>Commercial &amp; Mixed Use</b>	NB	Neighborhood Business	23.29	0.15
	GI	General Industrial	643.58	4.25
	HB	Highway Business	510.45	3.37
	RHB	Rural Highway Business	96.13	0.63
	ResHB	Resort Highway Business	32.94	0.22
	LI	Light Industrial	297.67	1.96
	TC	Town Center	441.45	2.91
		<b>Total Commercial or MU</b>	<b>2,045.51</b>	<b>13.49</b>
	<b>BARRIER ISLAND</b>		<b>2,335.21</b>	<b>100</b>
<b>Conservation</b>	BC	Beach Conservation	2,184.46	93.55
<b>Residential</b>	R-31.5	Residential	44.62	1.91
	R-4F	Residential 4 Family	13.06	0.56
	R-50	Residential	33.74	1.44
	R-LR	Residential Low-Rise	18.87	0.81
	R-TH	Residential Town House	16.90	0.72
<b>Commercial</b>	NB	Neighborhood Business	5.27	0.23
	RC	Resort Commercial	18.29	0.78
	<b>PELICAN ISLAND</b>		<b>33.70</b>	<b>100</b>
<b>Residential</b>	R-60	Residential	30.23	89.70
<b>Commercial</b>	HB	Highway Business	3.47	10.30
	<b>PINELANDS</b>		<b>10,359.33</b>	<b>100</b>
	AP	Agricultural Production	748.17	7.22
	FA-C	Forest Area Conservation	4,382.14	42.30
	FA-HC	Forest Area Highway Commercial	35.15	0.34
	FA-LI	Forest Area Light Industrial	79.54	0.77
	FAR-30	Forest Area Residential	798.34	7.70
	FAR-30C	Forest Area Residential (Cluster)	994.32	9.60
	FAR-5	Forest Area Residential	351.77	3.40
	M/CF	Municipal County Facility	810.85	7.83
	ASOZ	Airport Safety Overlay Zone	541.55	--
	PA	Preservation Area	1,510.97	14.58
	RDR	Rural Development Recreation	60.77	0.59
	RDA	Rural Development Area	416.12	4.02
	RGR	Regional Growth Residential	76.08	0.73
	RGR - A	Regional Growth Residential Zone A	95.11	0.92

## COMMUNITY FACILITIES

### Administrative

The Berkeley Township municipal complex is located in the Pinelands on either side of Pinewald-Keswick Road and contains municipal offices including finance, business administrator, clerk, registrar, tax assessor, police department, construction, and public works (see Map 5).

### Library

The Berkeley Branch of the Ocean County Library System is located on Station Road near Route 9. The Library maintains a 45,000-volume library of books, encyclopedias and other reference materials, and subscriptions to over 100 magazines and newspapers. There are more than 1,400 feature films on video and DVD, a large and varied collection of compact discs, and hundreds of books in large print, and on cassette and compact disc. Eight Internet and two word processing computers are available for use by the public. The Ocean County Library Long Range Facilities Plan includes plans to expand the Berkeley branch by 8,700 square feet (an approximately 54% increase) by 2012 to accommodate the needs of Berkeley's expanding population.

### Schools

The Berkeley Township School District is a Type II school district that is contiguous with the borders of the Township. The school district includes four elementary schools: Bayville, Clara B. Worth, H&M Potter, and Berkeley Township. The Central Regional High School District was established in 1955 in Berkeley Township, and is a Type II district which includes the municipalities of Berkeley, Island Heights, Ocean Gate, Seaside Heights and Seaside Park. The regional district operates a middle school and a high school. Details for each school are provided in Table II-4.

**Table II- 4**  
**Berkeley Township Elementary Schools**

Facility	Construction Date	Grades	Student Capacity	Student Enrollment
Bayville Elementary	1926	K-4	421	451
Clara B. Worth Elementary	1962	K-4	723	431
H&M Potter Elementary	1973	K-4	736	460
Berkeley Twp. Elementary	2005	5 & 6	650	553
Middle School	1981	7-8	721	718
High School	1956	9-12	1568	1171

### **Recreation Center**

The Berkeley Recreation Center is located at the intersection of Route 9 and Eugene Furey Boulevard, and provides meeting space for residents to use for community events.

### **Public Safety**

The Police Department, which is located at the municipal complex, had 76 Officers at the time of this report. The Department includes a Boat Division, ATV Division, Marine Division with Coast Guard and State Marine Police Certification, and a Regional SWAT.

The Fire Department consists of three volunteer fire companies with approximately 150 volunteer firemen. Fire Company #1, the Bayville Volunteer Fire Company, covers the eastern portion of the Township. Fire Company #2, the Pinewald Pioneer Volunteer Fire Company, covers the western portion of the Township. Fire Company #3, the Manitou Park Volunteer Fire Company, covers the northern portion of the Township including Holiday City.

Presently, there are four Volunteer First Aid squads operating within the Township. They are the Bayville First Aid Squad, the Silver Ridge Park First Aid Squad, Holiday Heights First Aid Squad and the Holiday City at Berkeley First Aid Squad. All Berkeley Township First Aid Squads are run on a volunteer basis, raising money through fund drives and donations.

## PARKS AND OPEN SPACE

### Municipal Recreation Areas

The Township's recreation system covers approximately 680 acres (see Map 6). Table II-5 provides details about each of the Township's 15 developed parks and available facilities, which account for just under 500 acres. The Township also maintains approximately 190 acres of undeveloped recreation areas spread over nine locations -- Butler Beach, Allen Road, Ocean Gate, Barnegat Pier, Bayview Park Sloop Creek, Cedar Creek Park, Sandpiper Beach, and Bel Aire Park.

**Table II-5  
Berkeley Township Developed Parks and Recreation Areas**

Municipal Park	Approx. Acres	Playgrounds	Picnic Areas	Swimming	Fishing	Concessions	Bathrooms	Bike Trails	Ball Fields	Tennis	Basketball	Golf Course	Info Center
Bayville Park	4	√							√		√		
Berkeley Shores	1	√	√	√	√		√						
Centennial (Station Road)	25						√		√				
Eastern Blvd. Soccer Facility	11	√	√				√		√				
Forest Hills Field	6								√				
Mallard Park	5	√					√		√		√		
Manitou Park	1	√	√								√		
Moorage Avenue	7	√					√		√		√		
Recreation Center	3	√					√		√		√		√
Roberts Avenue	1				√								
Sylvan Lakes	3	√											
Toms River Park	90		√				√		√				
Veterans Park	289	√	√			√	√		√	√		√	
White Sands	7			√	√		√	√	√				
William J. Dudley	40	√	√	√			√	√					
<b>TOTAL</b>	<b>493</b>												

## County Recreation Areas

Berkeley Island County Park, approximately 25 acres, is located at the southeastern-most tip of Berkeley's mainland, and offers one of the County's largest playgrounds, in addition to a conservation area, pier, crabbing, fishing, swimming, horse shoes, gazebos, picnic tables and grills. There is also a 75-person group picnic area available by reservation for a fee. Berkeley Island also hosts the Annual Beach Bash.

Robert J. Miller Airport Park is the site of the County Fair every summer in July. The park has 35 acres of common space featuring a conservation area, cross-country skiing, open playing fields, a pavilion, dog park, picnic area and restrooms. Also on the grounds are a small airport, a DMV road test area, and a National Civil Defense office. The park is located near the Manchester and Lacey borders. There is a nominal lease fee for those who wish to lease the fair grounds.

The Mill Creek County Park is a small, 14 acre informational park along the Mill Creek between Pine Beach and Ocean Gate, in the River Bank neighborhood of Berkeley Township. There are three age-appropriate playgrounds at the park, hiking trails, a picnic area and a gazebo.

**Table II-6  
Ocean County Parks**

County Park	Acres	Playgrounds	Picnic Areas	Swimming	Boat Launch	Fishing	Concessions	Bathrooms	Bike Trails	Hiking Trails
Berkeley Island	25	√	√	√	√	√	√	√		
Robert J. Miller Airport Park	35	√	√					√	√	√
Mill Creek	14	√	√			√		√	√	√

The following properties were acquired for open space under the Ocean County and/or State Natural Lands Trust Fund Program:

- Good Luck Point and Good Luck Point Extension: a 363 acre area near Veeder, Bayview, Allen, and Sloop Creek Roads, with an extension of 175 acres.
- Roberts Avenue Marsh: a 7.1 acre marshland near Roberts and Bay View Avenues.
- Toms River Divide: a 126.5 acre area near the Garden State Parkway and Magnolia Avenue.
- Lifetime Homes: 126.1 acres acquired in 2000 through "Save Barnegat Bay," located near Veeder Lane.
- Berkeley Island West: 17 acres near the Brennan Concourse.
- KGE: 100 acres of land located near Pinewald – Keswick Road.

- Barnegat Branch Rail Trail: Stretching through Barnegat, Berkeley and Ocean Townships, this trail occupies 52 acres of rail ROW, acquired through “Rails to Trails” program.
- Sloop Creek Donation: 5.7 acres of land encumbered by wetlands, directly adjacent to Lifetime Homes property.
- Potter’s Creek: Large area along Potter’s Creek totaling 118 acres acquired in 2006.
- Haines: 400 acres along Route 530 acquired in 2007.
- NJ Natural Land Trust parcel – 200 acres.

### **State Recreation Areas**

There are two parks and one preserve maintained by the NJ Department of Environmental Protection and a wildlife sanctuary managed by the Audubon Society.

Island Beach State Park totals over 3,000 acres on the barrier island separating the Atlantic Ocean from the Barnegat Bay. The park permits fishing, swimming, and daily educational / recreational programs are offered during the summer season.

Double Trouble State Park totals 7,881 acres, of high quality Pinelands watershed. The park includes a nature trail and a preserved historic village associated with New Jersey cranberry agriculture and Atlantic White Cedar logging and milling industries. The village consists of cranberry bogs and fourteen original historic structures dating from the late 19th century through the early 20th century including a general store, a schoolhouse and cottages. The sawmill was restored in 1995, and the operating cranberry sorting and packing house was completed in 1996. Adjacent Cedar Creek is considered an excellent stream for canoeing and kayaking, although no rentals are available.

The Crossley Preserve consists of 1,200 acres of pinelands habitats, oak uplands, and Atlantic white cedar swamps and bogs and provides prime habitat for several threatened and endangered plants and animals. A 1.5 mile self-guided nature trail begins at the access point adjacent to the parking lot, located at the dead end of Crossley Road. In the 1800’s and early 1900’s the town of Crossley was the center of an active clay mining operation. Today, only ruins remain, and hiking trails have replaced the old narrow gauge railroad tracks, and small pits left from clay excavation have evolved into bogs, two of which, along Wrangle Brook and Oxhead Branch, support cranberries.

The Greenwood Forest Wildlife Management Area (WMA) provides hiking trails and opportunities for wildlife-watching, and is located adjacent to the Manchester- Berkeley boundary in the Pinelands. As defined by New Jersey Fish, Game and Wildlife, WMAs are public land that offers citizens the opportunity to hike, bike, kayak, boat, bird watch, and hunt and fish.

**Table II- 7**  
**State Parks and Recreation Areas**

State Park/Reserve	Picnic Areas	Swimming	Fishing	Concessions	Bathrooms	Bike Trails	Hiking Trails	Info Center
Crossley State Preserve							√	
Island Beach State Park	√	√	√	√	√	√	√	√
Double Trouble State Park			√		√		√	√
Green Wood Forest Wildlife Management Area							√	

### Quasi-Public Open Space

There are two large open space parcels located in the Pinelands that are owned by non-profit organizations. The Hovnanian Wildlife Sanctuary is a 465 acre preserve owned by the NJ Audubon Society. The Nature Conservancy owns a 361 acre parcel in the vicinity of the County Airport.



## NATURAL AND CULTURAL RESOURCES

Map 7- Flood Zones, Map 8 - Wetlands, and Map 9 -Threatened and Endangered Species Habitat; illustrate the location and extent of those natural features in Berkeley. Combined, these features cover 19,991 acres accounting for 72% the Township's total area.

### Flood Zones

As can be expected in a bay front community, flood zones cover the entire coastline of Berkeley, in some cases reaching almost as far as Route 9. The barrier island and Pelican Island are entirely within flood zones. Flood zones can be found along most of the streams and brooks throughout the Pinelands. The ocean side of the barrier island and a portion of the mainland (at the terminus of Butler Boulevard) are also subject to wave action velocity hazard.

### Wetlands and Water Bodies

Wetlands are heavily concentrated in the Pinelands Area, and along the Barnegat Bay coast. Category One (C-1) waters are mapped within Island Beach State Park, along the Barnegat Bay, and in the Pinelands. These water bodies are classified as such due to their clarity, color, scenic setting, ecological significance, exceptional water supply significance or exceptional fisheries resources. C-1 waters require a 300-foot buffer, and their protection is the highest form of water quality protection in the State. The required buffers provide added protection to critical drinking water sources and limit degradation by non-point source pollutants.

### Threatened or Endangered Habitat

The Pinelands portion of the Township is almost entirely covered by forest habitat as are large portions of the Township between Route 9 and the Garden State Parkway. Forest habitat generally consists of a mixture of deciduous, coniferous, and shrub like plants. These areas are suitable habitats for a number of threatened and endangered species such as the long-eared owl, the northern pine snake, and the Allegheny wood rat.

Forested wetland habitats are concentrated around streams and wetlands in wooded areas. Forested wetland habitat is primarily found in the Pinelands. These habitats are important to threatened and endangered species such as the blue-spotted salamander, red-shouldered hawk, and the Indiana bat.

Emergent wetland habitats are found along Barnegat Bay and Island Beach State Park. Emergent wetlands are suitable habitats for numerous threatened and endangered species, including the peregrine falcon, the eastern tiger salamander, and the bog turtle.

Beach habitat is found in Island Beach State Park along the Atlantic Ocean. These habitats are suitable for a number of threatened and endangered species such as osprey, the black skimmer, and the northeastern beach tiger beetle.

### **Wellhead Protection Areas**

A wellhead protection area (WHPA) is an area around a public community water supply (PCWS) well that delineates the horizontal extent of ground water captured by a well pumping at a specific rate over a two, five, and twelve-year period of time. NJDEP has delineated five such areas in Berkeley. The delineations of the WHPA are published by the New Jersey Geological Survey of the New Jersey Department of Environmental Protection and are illustrated on Map 10.

The NJDEP uses a three tiered ranking for WHPAs based on the amount of time water takes to move in the ground to the well. Within Berkeley Township there is approximately:

- 452 acres of Tier One WHPA – An area of land from which groundwater may enter a PCWS well within two years.
- 978 acres of Tier Two WHPA – An area of land from which groundwater may enter a PCWS well within five years.
- 2,946 acres of Tier Three WHPA – An area of land from which groundwater may enter a PCWS well within 12 years.

### **Historic Sites and Districts**

The Berkeley Township Historical Museum is located in the 1890 original Township Hall, and features the private collections of area families and a circa 1900 kitchen. The museum offers guided tours and permanent exhibits.

There are three sites in Berkeley that are on both the State and National Registers of Historic Places:

*Double Trouble State Park Historic District* was designated to ensure the preservation of buildings associated with the past cranberry cultivation of the area. The buildings have been restored as has much of the original machinery, which has been brought back to working order.

*Manitou Park School House* is a one-room school built in 1929 to service a large African American settlement in Berkeley Township. It is the only public building in the Manitou Park area that has historic ties to this group.

*US Lifesaving Station Number 14.* The U.S. Lifesaving Service was formed in 1848 in order to decrease the amount of death and loss of property due to shipwrecks. Numerous stations were built and funded by the Federal government and manned by volunteer

crews. In 1915 the U.S. Lifesaving Service joined with the Revenue Cutter Service and created the U.S. Coast Guard.

**Table II-8**  
**State and National Register Historic Sites**

Site	Location	Designation
Double Trouble State Park Historic District	Keswick Road at Double Trouble Road	NR 2/23/1978 SR 10/14/1977
Manitou Park School House	167 Third Avenue	NR 3/15/2005 SR 12/6/2004
US Lifesaving Station Number 14	Island Beach State Park	NR1/30/1978 SR 3/7/1977

Source: New Jersey and National Registers of Historic Places

Besides the properties listed on the State Register, there are three other eligible or “opinioned” assets in the Township. A SHPO Opinion is an opinion of eligibility issued by the State Historic Preservation Officer (SHPO). The opinion is in response to a federally funded activity, such as a road project, that will have an effect on historic properties not listed on the National Register.

*Coast Guard Station 112* is located on NJ Route 35 in Island Beach State Park.

*The Garden State Parkway Historic District* contains the entire GSP Right-of-Way.

*Midway Camps Historic District* is located in South Seaside Park. The district is bounded by Central Avenue to the west, 13<sup>th</sup> Avenue to the north, Ocean Avenue to the East, and 20<sup>th</sup> Avenue to the south.

**Table II-9**  
**Opinioned Historic Assets**

Site	Opinion
Coast Guard Station 112	5/9/1996
Garden State Parkway Historic District	10/12/2001
Midway Camps Historic District	10/15/2001

Source: New Jersey and National Registers of Historic Places

## **Contaminated Sites**

The Known Contaminated Sites in New Jersey Reports consists of three categories:

- Active Sites with Confirmed Contamination – Active sites are those sites having one or more active case with any number of pending and closed cases.
- Pending Sites with Confirmed Contamination – Pending sites are those sites having one or more pending cases, no active cases, and any number of closed cases.
- Closed Sites with Confirmed Contamination - Closed sites are those sites having only closed cases. Sites in this category have no active or pending cases.

Detailed information describing the case history at a site, including active cases, is available through the Data Miner reporting tool using the Site Remediation Program Interest (PI) Number provided in the KCS Reports.

The 32 active known contaminated sites and one pending known contaminated site in Berkeley Township are listed below and illustrated on Map 11.

Active Sites with Confirmed Contamination			
Site ID	Place Number	Place Name	Address
66463	G000005629	Holiday City At Berkeley	730 Jamaica Blvd
3240	003062	Lacey Garage	Mule Rd & Dover Rd
120119	003055	Ocean County Airpark Hangar	Rte 530 Mule Rd
3236	002393	Robert J Miller Airport	Rte 530
39067	030392	Double Trouble State Park	Pinewald Keswick Rd
3250	006705	Cumberland Gulf 126467	10 Atlantic City Blvd
45253	000406	Morweb Inc	72 Rte 9
24718	033748	Berkeley Water Co	98 Rt 9
13478	008422	Hess Station 30307	Rt 9 & Jfk Blvd
66584	G000008562	South Brunswick Asphalt Company	Gladney Ave
187617	246614	102 Holly Lane	102 Holly Lane
358150	442859	11 Cover Drive	11 Cover Drive
128296	169785	25 Browning Avenue	25 Browning Ave
22212	017835	S.B.A Hydraulics	252 Rt 9
67260	G000011561	Brooks Avenue	Brooks Avenue Ground Water Contamination
3247	011230	Delta	385 Rte 9
24719	G000008858	Berkeley Township Water Co Bay Well 2	Sherman Ave & Bell St
105070	197640	Berkeley Plaza Shopping Center	417 Rt 9
85915	G000011669	Princess Laudromat & Dry Cleaning	Rt 9 S
85914	G000011658	Harborage Ave & Dockage Rd Gw Contamination	Harborage Ave & Dockage Rd
13529	031526	Bayville Russo	399 Rt 9
66146	G000002832	Denzer & Schafer X Ray Company	186 Hickory Ln
67306	G000011677	Western Boulevard Grd Wtr Contamination	Western Blvd & Manhattan & Hoover Ave
362833	448137	293 Grand Central Parkway	293 Grand Central Parkway
41341	000027	Bayville William Penn	Rte 9 & Station Rd
189637	249186	620 Riverside Drive	620 Riverside Drive
66696	G000008866	Butler Boulevard Ground Water Contam	Butler Blvd
13530	010554	A Kurnel & Sons	821 Rte 9
3243	005862	Cumberland Farms 2904	Rte 9 & Morris Blvd
123739	162708	Coastal	941 Rt 9
363215	448747	56 Harley Boulevard	56 Harley Boulevard
38432	025188	Coty Marine	301 Rt 37
Pending Sites with Confirmed Contamination			
55140	025224	All Four Seasons Rental Center	82 Rt 9

Source: NJDEP, March 2008

## CIRCULATION

### Roadways

The primary north-south routes through Berkeley Township are the Garden State Parkway and US Highway 9, which also serves as the Township's main commercial district. Berkeley has one Parkway interchange – Exit 77 – at Pinewald Keswick Road. Additional north-south routes include Bayview Avenue (County Road 617), Western Boulevard, and Grand Central Parkway (County Road 621). The primary east-west routes are County Road 618 (Butler Boulevard / Central Parkway / Veterans Boulevard / Forest Hill Parkway / Pinewald Keswick Road) and County Road 530 (Pinewald Keswick Road / Dover Road).

The Township's roadways are classified in accordance with the Uniform Functional Classification of Streets established by the United States Department of Transportation, Federal Highway Administration, in conjunction with the New Jersey Department of Transportation (see Table II-10 and Map 12). Roadways are classified in terms of the functions they perform:

- Principal arterial highways include freeways and expressways. They are characterized by high traffic volumes and long trip lengths at high sustained speeds. Principal arterials create a continuous network of roads, and connect to other major arterials.
- Minor arterial highways interconnect with the principal highway system. They serve trips of moderate length, and the level of travel mobility is considered low.
- Collector roads primarily serve local trips as opposed to statewide trips. The travel speed and volume of a collector road are rated the lowest compared to the principal and arterial roads. Collector roads are designed to connect neighborhoods and other development to the overall arterial system.

The following State and County roads have been identified as evacuation routes by the NJ Office of Emergency Management: the Garden State Parkway, Route 9, and County Road 530 on the mainland, and Route 35 on the Barrier Island. Oyster Creek evacuation routes include the Parkway northbound, County Road 530 westbound of the intersection with County Road 618 and Route 35.

**Table II-10**  
**Functional Classification of Roadways**

<b>Classification</b>	<b>Roadway</b>	<b>Jurisdiction</b>
<i>Freeway/Expressway</i>	Garden State Parkway	NJ Turnpike Authority
<i>Urban Minor Arterial</i>	US Route 9	NJDOT
	Bayview Avenue – North (CR 617)	Ocean County
	Sloop Creek Road	Berkeley
	Veterans Boulevard/Central Parkway (CR 618)	Ocean County
	Grand Central Parkway (CR 621)	Ocean County
	Pinewald Keswick / Dover Road (CR 530)	Ocean County
<i>Urban Collector</i>	Mill Creek Road	Berkeley
	Ocean Gate Drive	Berkeley
	Veeder Lane	Berkeley
	Butler Boulevard	Berkeley
	Bayview Avenue – South (CR 617)	Ocean County
	Brennan Concourse/Harbor Inn (CR 617)	Ocean County
	Forest Hill Parkway (CR 618)	Ocean County
<i>Rural Major Collector</i>	Pinewald Keswick Road (CR 618)	Ocean County

Source: NJDOT

There are 364 miles of municipal rights-of-way (mapped streets) in Berkeley Township. Berkeley's road system is not quite that extensive, however, as a substantial portion of those rights-of-way are paper streets that only exist on tax maps (see Map 13). Many of the paper streets are the products of early 20<sup>th</sup> Century subdivisions that were never developed. As shown in Table II-11, only 221 miles, or 61% of the rights-of-way fall into the paved category. Another 16 miles (4.5%) are gravel roads and 126.6 miles (35%) are paper streets. Paper streets account for approximately 800 acres of land. (Note: Roads that are not currently paved but have been included in a bonded road improvement project have been included here as paved.)

**Table II-11**  
**Municipal Rights-of-Way**

<b>Status</b>	<b>Miles</b>	<b>% of Total</b>
Paved	221.02	60.74
Gravel	16.28	4.47
Paper	126.61	34.79
<b>TOTAL</b>	<b>363.91</b>	<b>100.00</b>

Source: Berkeley Township and CMX

### **Transportation Improvement Program (TIP)**

The North Jersey Transportation Planning Authority is responsible for the development and management of the Transportation Improvement Program (TIP), a four-year agenda of transportation improvement projects for the region. The TIP describes each project's location, phase of work, construction schedule, cost and funding source. Projects must be approved for inclusion in the TIP to qualify for federal funding. Each year the TIP is updated to reflect changing priorities, the addition of new projects, advances or delays in project readiness and federal funding allocation levels.

The 2008 – 2011 TIP does not include any transportation improvement projects in Berkeley.

The draft FY 2009 – 2018 Statewide Transportation Improvement Program includes the restoration of Route 35 on the Barrier Island. The project includes pavement restoration, drainage improvements, sidewalks, crosswalks and increased shoulders for bicycle use. Funding for construction is projected for FY 2017.

### **Public Transit**

#### **Bus**

New Jersey Transit bus #559 (Lakewood to Atlantic City) runs along Route 9 and makes a designated stop at the Shop Rite Shopping Center between Ocean Gate Drive and Frederick Drive. NJ Transit bus #137 provides service from the Toms River bus terminal to New York and during the summer months also provides service to Island Beach State Park.

Ocean County provides bus service through "Ocean Ride," a fixed-route service for the handicapped and elderly. Ocean Ride provides two bus routes that serve the eastern and western portion of the Township. The eastern route (OC7) operates Monday, Wednesday, and Friday and stops at the Bay Ridge Apartment complex off Route 9, the Berkeley Shopping Center on Route 9, Baywick Plaza on Route 9, Ocean Gate Drive and Point Pleasant Avenue.. The western route (OC8) operates daily and makes several stops within the Holiday City and Silver Ridge adult/senior communities of Berkeley.

#### **Rail**

There is no passenger or freight rail service in Berkeley. The nearest passenger station is in Bay Head at the southern terminus of the North Jersey Coast Line. Service is available from Bay Head to Newark, Hoboken and New York.



### *Air Transportation*

The Robert J. Miller – Ocean County Airport (MJX) is located within the Robert J. Miller Airport County Park. The airport features a 6,000 foot long runway, accommodating various types of aircraft. Ocean County has worked closely with the FAA and the NJDOT Aeronautics Division to make this airfield one of the premier general aviation facilities in New Jersey.

### **Bicycle and Pedestrian Routes**

Ocean County is developing a 15.6 mile linear “rail-to-trail” project along the former Barnegat Branch railroad right-of-way. Upon completion, the multi-purpose trail will extend from Barnegat in the south to downtown Toms River in the north. The trail enters Berkeley in the vicinity of William Dudley Park and exits at Beachwood Borough, where an existing paved bikeway continues north to Toms River. The county has identified two potential trail extensions of the Barnegat Branch Trail in Berkeley. The first is an approximately eight mile stretch running from Whiting east through Berkeley to Toms River, following sections of the abandoned Pennsylvania Railroad. The second is an approximately 5.5 mile stretch of bicycle compatible public streets – Pennsylvania Avenue in Pine Beach and Atlantic Avenue in Ocean Gate – that leads to Good Luck Point. (The Barnegat Branch Trail Conceptual Plan is available on the Ocean County web page.)

The only dedicated bike lane in Berkeley is on County Road 618 in the vicinity of the High School, Middle School, and Veterans Park, which is intended to encourage bike access to schools and recreational uses.

There are a limited number of streets in the Township that have sidewalks. They are found in the newer subdivisions and at recent commercial development along Route 9.

### **Journey to Work**

#### *Travel Mode*

In 2000, the majority of commuters in Berkeley (82.2%) drove alone to work, 11.2% carpooled, 2.1% used public transportation and the remaining 4.5% either walked to work or worked from home (See Table II-13 and Figure II-6). Berkeley had a higher percentage of workers that carpooled, than the County and State, and had a larger percentage of commuters using public transportation than adjacent Toms River and Lacey Township or the County as a whole.

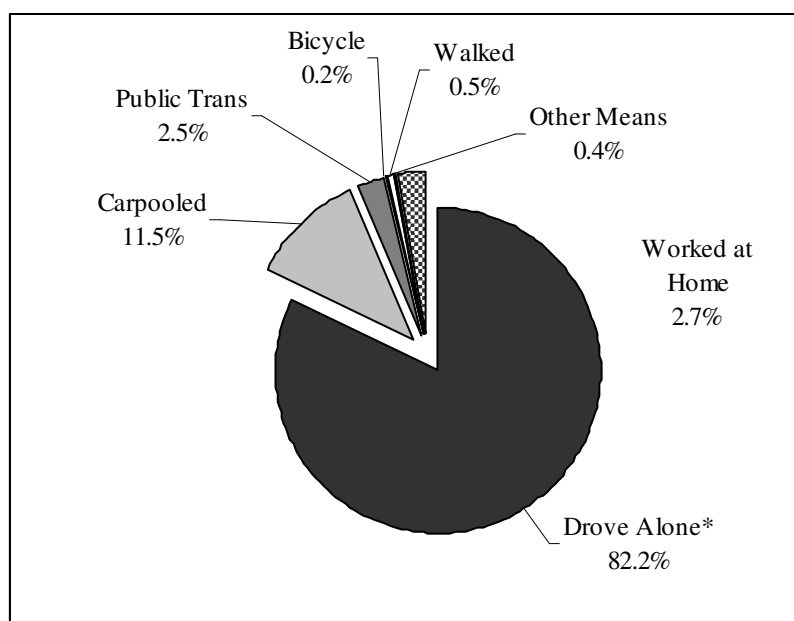
**Table II-13**  
**Commute to Work, Mode of Travel, 1990 & 2000**  
**(Expressed as a % of workers 16+)**

Mode of Travel	Berkeley		Toms River		Lacey		Ocean County		New Jersey	
	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
Drove Alone*	82.8	82.2	81.5	84.8	83.6	85.8	79.5	82.8	71.7	73.0
Carpooled	11.2	11.5	12.7	9.2	11.8	10.7	13.3	10.5	12.4	10.6
Public Transportation	2.1	2.5	1.2	1.8	1.2	0.9	2.0	1.9	8.8	9.6
Bicycle	0.1	0.2	0.2	0.4	0.1	0.2	0.3	0.3	0.2	0.2
Walked	1.5	0.5	1.4	0.9	1.3	0.5	2.3	1.5	4.1	3.1
Other Means	0.6	0.4	0.6	0.3	0.6	0.1	0.5	0.4	0.6	0.7
Worked at Home	1.6	2.7	2.3	2.7	1.4	1.8	2.1	2.5	2.1	2.7

Source: US Census

\*Car, truck, van or motorcycle

**Figure II-6**  
**Commute to Work, Mode of Travel, Berkeley 2000**



Source: US Census

### Travel Time

In 2000, the majority of Berkeley commuters (53%) traveled less than one-half hour to work; just over 18% traveled one hour or more to work. Mean travel time for Berkeley commuters increased between 1990 and 2000, reflecting a trend throughout the County and State. (See Table II-14.)

**Table II-14**  
**Travel Time to Work, 2000**  
*(Workers 16+ that did not work at home)*

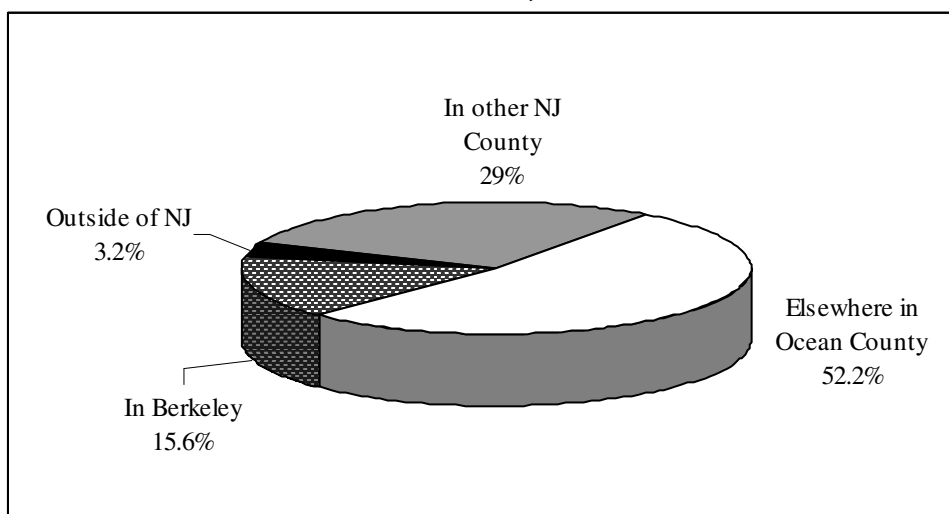
Jurisdiction	Number & % of commuters by travel time in minutes						Mean Travel Time	
	0 - 29		30 - 59		60 +		1990	2000
	#	%	#	%	#	%		
Berkeley	5,484	53.5	2,912	28.4	1,856	18.1	28.1	33.5
Toms River	24,011	60.6	8,567	21.6	7,062	17.8	25.7	31.3
Lacey	6,133	52.9	3,205	27.7	2,248	19.4	28.3	33.4
Ocean County	113,425	55.6	54,795	26.9	35,817	17.6	26.9	32.4
New Jersey	2,148,091	57.0	1,110,867	29.5	510,919	13.6	25.0	30.0

*Source: US Census*

### Job Location

In 2000, over two-thirds (68%) of Berkeley residents worked within Ocean County, 15.6% of which worked in Berkeley (see Figure II-7). Only 3% of workers commuted to a job outside of the State. Twenty-nine percent of Berkeley residents worked in a New Jersey County other than Ocean.

**Figure II-7**  
**Job Location, 2000**



*Source: US Census*

## UTILITIES

### Potable Water

There are four privately owned water companies and one public entity providing potable water to Berkeley Township (see Map 14). The three primary suppliers are Aqua New Jersey, Berkeley MUA, and United Water Toms River. Areas not currently provided with public water service rely on individually operated wells. Public water infrastructure has gradually been extended to targeted, developed areas to replace individual wells. One such project was the partnering of the MUA with the US Department of Agriculture to complete wet main improvements in the Pinewald neighborhood. A 1989 Water Supply Master Plan for Berkeley Township determined saturation development in the MUA's service area to be approximately 7,800 units. According to the US Census, the MUA franchise area contained 3,186 dwelling units in 2000. Table II-15 provides the most recent NJDEP capacity data for Aqua, Berkeley MUA, and United Water. All three suppliers are currently showing a surplus.

**Table II-15**  
**Water Capacity**

Franchise	Monthly Allocation	Monthly Demand	Surplus
Aqua New Jersey	48 MGM	39.789 MGM	8.211 MGM
Berkeley MUA	65 MGM	33.554 MGM	31.446 MGM
United Water Co.	754.350 MGM	596.053 MGM	138.298 MGM

Source: NJDEP Division of Water Supply – Last updated 1/10/08, 4/9/08, 8/22/07.

### Wastewater Treatment

*Sewer Service Area* - The majority of the Eastern mainland and the senior communities in the northwestern portion of the Township are within an approved sewer service area (see Map 15). Areas not within a sewer service area are isolated, and are mostly located near Barnegat Bay and Cedar Creek or in the Pinelands. These areas are either preserved open-space or severely encumbered by wetlands.

*Sanitary Sewer Collection Facilities* - Sanitary sewer service is provided by the Berkeley Township Sewerage Authority (BTSA). Most areas east of the railroad right-of-way are presently provided with sanitary sewer service, or have reasonable access to sanitary sewer infrastructure. The BTSA also provides wastewater collection service to the senior citizen communities of Holiday City and Silver Ridge Park West, in addition to Bayville and South Seaside Park. Those residents and businesses not served by the BTSA operate septic systems. The BTSA has the capacity to extend sanitary sewer service to developed lots currently served by septic systems (particularly in the Pinewald area), and has been identifying and locating streets and/or individual lots throughout the Eastern mainland that lack sanitary sewer service. Presently the BTSA wastewater collection system

consists of approximately 260 miles of gravity sewer interceptors and force mains, and 14 pump stations.

*Wastewater Treatment* – The Ocean County Utilities Authority (OCUA) operates a regional wastewater reclamation system serving a total of 36 municipalities in Ocean and Monmouth Counties, including Berkeley Township. One of the OCUA's key treatment facilities, the Central Water Pollution Control Facility, is located to the north of the Pinewald neighborhood. This facility treats a combination of domestic, light industrial and commercial wastewaters, as well as septage generated from within the OCUA service area. The BTSA has a service agreement with OCUA under which OCUA is obligated to annually receive and treat all the wastewater flow from the BTSA.

The following capacity information for the Central Water Pollution Control Facility was supplied by the OCUA.

Permitted capacity	32.000 mgd
Actual Flow - 4 <sup>th</sup> quarter 2007	20.483 mgd
Reserved for approved projects	1.666 mgd
Total committed flow	22.149 mgd
<b>Remaining capacity</b>	<b>9.851 mgd</b>

### **Stormwater Management**

Berkeley adopted a Municipal Stormwater Management Plan (MSWMP) and associated ordinances in 2005 and 2006. The MSWMP outlines specific stormwater design and performance standards for new development. Additionally, the plan proposes stormwater management controls to address impacts from existing development. Preventative and corrective maintenance strategies are included in the plan to ensure long-term effectiveness of stormwater management facilities. The plan also outlines safety standards for stormwater infrastructure to be implemented to protect public safety. All future development in Berkeley Township must utilize the best available technology to minimize off-site stormwater runoff, increase on-site infiltration, simulate natural drainage systems and minimize off-site discharge of pollutants to ground- or surface water and encourage natural filtration functions.

Non-structural stormwater management measures are to be considered first and shall include site design and preventive source controls. To confirm the effectiveness of such measures, development proposals must verify the control of stormwater quantity impacts as detailed in the Stormwater Management rules.

The general standards for structural measures shall be incorporated as needed to meet the soil erosion, infiltration and runoff quantity standards included in the Township's Stormwater Ordinance. The design standards for the specific structural stormwater management measures are those included in the New Jersey Stormwater Best Management Practices Manual. Other designs or practices may be used if they are

approved by the Ocean County Soil Conservation District. The design and construction of such facilities must comply with the Soil Erosion and Sediment Control Standards as well as any other applicable state regulation, including the Freshwater Wetland Protection Act rules, the Flood Hazard Control rules, the Surface Water Quality Standards, the Coastal Area Facilities Review Act, Waterfront Development and Harbor Facilities Act, and the Dam Safety rules.

Stormwater runoff quality controls for total suspended solids and nutrient loads shall meet the design and performance standards as specified in the Stormwater Management rules. The minimum design and performance standards for infiltration and groundwater recharge specified in the Stormwater Management Rules must be met for all applicable development.

Currently, Berkeley requires all basins for major subdivisions to be owned and maintained by a private Homeowners Association. Basins for non-residential development are to be owned and maintained by the property owner or other official designated at the time of application to the applicable Board.

## BUILD-OUT ANALYSIS

### Methodology

The purpose of a build-out analysis is to provide an estimate of what the population and job yields might be if all the available developable land was fully developed to its current zoning capacity. This information would then alert the community to potential future demands on infrastructure and services. It should be noted that the build-out analysis presents the upper limits of development given a gross application of current land use policy and various assumptions as described below. A more definitive build-out would have to be conducted on a site by site basis taking into account all of the physical, regulatory, and design limitations that are peculiar to each site.

In order to arrive at a reasonable estimation of the amount of land that is available for development, the Township's land area was categorized as either "unconstrained vacant" or "developed and/or constrained." Land that is considered vacant and unconstrained includes unimproved sites not under public ownership and generally unconstrained by critical natural features. Developed and constrained lands include areas such as preserved open-space, park and recreation areas, wetlands, 100-year flood hazard areas, and developed land. Vacant land that is subject to utility or other easements was also removed from the pool of available land. Whenever possible, non-contiguous undersized parcels were also removed.

The next step is to assign a number of housing units or commercial/industrial square footage to the available acreage based on the maximum permissible residential density or the maximum permissible building coverage or floor area ratio for commercial uses. Lastly the housing units and commercial square footage projected to be built in Berkeley Town Center was added to the totals.

The following parameters were also applied to the build-out calculation:

1. The build-out assumes that all the land identified as "available" could be built to its absolute physical limits, i.e., not accounting for site specific geometry, soil conditions, slopes or CAFRA and Pinelands limitations.
2. The focus of the build-out is on vacant land since the potential development is most likely to go there. However, the redevelopment potential of already built areas, particularly the Route 9 corridor, also has the potential to add housing units and commercial space to the future landscape.
3. As a general rule, available vacant land is reduced by 20% to allow for roads and infrastructure improvements. In this case, however, the build-out is primarily based on actual subdivided parcels fronting on platted streets, thereby obviating the need for the 20% reduction.

## Development Potential

Approximately 2,200 parcel acres is considered vacant and unconstrained and potentially available for development outside of the Town Center (see Map 16).

Development potential was calculated by applying current zoning categories to all unconstrained vacant land and calculating the resulting build-out. The exception is the Town Center Zone where a pre-set number of dwelling units and commercial square footage was assigned and added to the dwelling unit and commercial space build-out calculated for the other zones in the Township. The results are presented in Tables II-16 and II-17.

Residential build-out is based on the maximum permitted density for each zone district. Full development of the 1,898 acres of residentially zoned unconstrained vacant land would yield approximately 2,793 additional dwelling units. Full build-out of Berkeley Town Center under the current Town Center Ordinance could add approximately 500 dwelling units for a total of 3,293 units. By applying the 2000 Census Township-wide figure of 1.99 persons per occupied dwelling unit, the potential exists for 6,553 additional residents at build-out, or a total population of approximately 49,000. In 2000, there were 2.8 persons per occupied dwelling unit in the Eastern Mainland portion off the Township. When that number is applied to the number of additional dwelling units, the potential exists for an additional 9,220 residents in Berkeley, or a total population of approximately 52,000.

Nonresidential build-out is measured in terms of additional gross floor area and is calculated using Floor Area Ratio (FAR), which is the total permitted floor area divided by the total land area. Approximately 308 acres of unconstrained vacant land are zoned for commercial/industrial uses outside of the Town Center. The analysis indicates a potential for 11,018,291 square feet of additional nonresidential floor area in Berkeley. Full build-out of the Berkeley Town Center Zone would add approximately 900,000 square feet of nonresidential floor area.

The nonresidential build-out does not include the entire NJ Pulverizing site in the vacant land inventory. Even though there are few built improvements on the site, the majority of the site (558 acres) is currently an active extraction/mining operation. If, however, those acres were to be redeveloped to the full extent of the General Industrial Zone, they could yield over 14 million square feet of industrial floor area.



Table II-16  
Residential Build-out Summary

Zoning District	Net Yield (DU/acre)	Developable Acres	Dwelling Unit Yield
<b>Non-Pinelands Mainland</b>			
PPC	0.33	10.00	3
CR	0.33	76.91	26
R-100	4.36	45.11	196
<i>R-100T/R-100</i>	<i>N/A</i>	<i>14.16</i>	<i>N/A</i>
R-125	3.48	130.90	456
R-150	2.90	286.76	833
R-200	2.18	121.32	264
R-2F	2.90	0.16	0.0
R-400	1.09	116.23	127
R-400 PRRC	1.09	76.42	83
R-50	8.71	0.00	0
<i>R-50-150/150</i>	<i>N/A</i>	<i>1.37</i>	<i>N/A</i>
R-60	7.26	0.23	2
R-64	6.81	1.04	7
R-90	4.84	42.00	203
R-MF	12.00	15.26	183
<i>MLC/L/R-200</i>	<i>N/A</i>	<i>7.73</i>	<i>N/A</i>
<b>subtotal</b>		<b>922.34</b>	<b>2,384</b>
<i>TC - Town Center</i>	<i>N/A</i>	<i>N/A</i>	<i>500</i>
<b>Area Total</b>		<b>922.34</b>	<b>2,884</b>
<b>Barrier Island</b>			
R-31.5	13.83	0	0
R-4F	7.13	0	0
R-50	8.71	0	0
R-LR	30	0	0
R-TH	10	0	0
<b>Area Total</b>		<b>0</b>	<b>0</b>
<b>Pelican Island</b>			
R-60	7.26	0	0
<b>Area Total</b>		<b>0</b>	<b>0</b>
<b>Pinelands</b>			
AP	0.31	50.88	16
FAR - 30	0.03	233.01	8
FAR - 30C	0.03	471.66	16
FAR - 5	0.20	1.48	0
FA - C	0.02	9.89	0
RDA	0.31	0.62	0
RDR	1.00	44.29	44
RGR-A	2.00	86.57	173
RGR	2.00	75.82	152
PA	0.31	1.20	0
<b>Area Total</b>		<b>975.42</b>	<b>410</b>
<b>Township Residential Total</b>			
		<b>1,898</b>	<b>3,293</b>

**Table II-17  
Nonresidential Build-out Summary**

Zoning District by Area	FAR	Developable Acres	Floor Area Yield (SF)
<b>Non-Pinelands Mainland</b>			
NB	0.6	0	0
GI	0.6	5.62	146,884
HB	1.0	68.97	3,004,333
RHB	0.5	23.54	512,701
Resort HB		0	
LI	0.6	153.27	4,005,865
	<b>subtotal</b>	<b>251.4</b>	<b>7,669,783</b>
<i>TC - Town Center</i>	<i>N/A</i>	<i>N/A</i>	<i>900,000</i>
	<b>Area Total</b>	<b>251.4</b>	<b>8,569,783</b>
<b>Barrier Island</b>			
NB	0.6	0	0
RC	0.7	0	0
	<b>Area Total</b>	<b>0</b>	<b>0</b>
<b>Pelican Island</b>			
HB	1.0	0	0
	<b>Area Total</b>	<b>0</b>	<b>0</b>
<b>Pinelands Mainland</b>			
FA - HC	1.0	5.61	244,372
FA - LI	1.0	50.6	2,204,136
	<b>Area Total</b>	<b>56.21</b>	<b>2,448,508</b>
<b>Township Non-Residential Total</b>			
		<b>307.61</b>	<b>11,018,291</b>

### III. LAND USE PLAN

It is the Township's intention to provide for tightly managed growth that is consistent with the Township's goals and objectives by clearly identifying the preferred location and intensity of future land uses. All development should be supportive of the immediate neighborhood and sensitive to its environmental context. All land use decisions should be mindful of a parcel's context and discourage inappropriate intrusions into established residential neighborhoods or environmentally sensitive areas.

The sections that follow provide a general description of the major initiatives found in the land use plan and detailed descriptions of each land use district. Following the adoption of the land use plan, the Township's zoning ordinance will need to be reviewed and revised to maintain consistency with the land use plan and to provide more detailed standards for implementing the plan's recommendations.

#### Major Initiatives

##### ◆ Town Centers and Corridor Nodes

An important component of the land use plan is the establishment of two Town Centers and three corridor nodes at strategic locations along the Route 9 corridor. These targeted compact growth areas are integral to achieving the Township's vision of concentrating growth in areas with access to infrastructure while preserving environmentally sensitive areas of the Township for open space. To that end, the Town Centers will serve as receiving zones in the Township's Transfer of Development Rights program, and along with the nodes will provide an alternative to continued strip development in the Route 9 corridor. The two Town Centers will also play a role in meeting the Township's affordable housing obligations as outlined in the Township's housing element.

##### ◆ Island Zones

The South Seaside Park neighborhood is located on the barrier island between Seaside Park Borough and the entrance to Island Beach State Park. The neighborhood covers approximately 220 acres and contains 1,290 housing units (2000 US Census) creating a fairly dense development pattern of 5.86 housing units per acre. According to the Census, only about one quarter of these units is occupied year-round. The area also contains scattered commercial uses, multi-family condos, and hotels. This relatively small area is presently covered by nine different zoning districts: One conservation district covering the beach, six different residential districts (R-31.5, R-4F, R-50, R-LR, BR and R-TH), and two business districts (neighborhood business and resort commercial).

The land use plan creates five new land use districts for South Seaside Park – *Island Residential A, Island Residential B, Island Townhouse, Island Cottage Community, and Island Mixed-Use* – in an attempt to consolidate zones and provide context sensitive residential and commercial standards for this unique island neighborhood. Although similar in some respects to certain zones on the mainland in terms of permitted uses and densities, these island-specific districts create an opportunity to further customize the applicable standards for such elements as parking, signage, landscaping, and building mass without impacting the mainland zones.

#### ◆ **Route 9 Corridor**

The Route 9 corridor is currently a continuous strip of Highway Business Zones extending approximately 500 +/- feet on either side of the highway. The Land Use Plan proposes to restructure the land use districts along Route 9 to better reflect the Township's desire for more concentrated and better designed development in the corridor. This is accomplished through the introduction of centers and nodes and the reduction of the HB Zone to reflect existing development patterns. General corridor design guidelines are provided in the circulation plan.

#### ◆ **Transfer of Development Rights**

In 2004, New Jersey established a statewide Transfer of Development Rights (TDR) program. Berkeley Township was one of six communities selected to participate in a state sponsored TDR demonstration program by the New Jersey Department of Community Affairs. The purpose of the TDR program is to provide an incentive-based process for permanently preserving environmentally sensitive and open space lands that provide a public benefit through their natural state - *sending zones*. The TDR provisions are intended to preserve land by transferring the development rights associated with a parcel of land in a sending zone to a pre-determined *receiving zone*. The receiving zones – in Berkeley's case the two Town Centers - are delineated based on their ability to support additional growth and density due to the availability of infrastructure and the absence of severe environmental constraints.

A separate development transfer master plan element is being prepared by the Township in accordance with Article 18 of the Municipal Land Use Law, "State Transfer of Development Rights," and will serve as the basis for Berkeley's TDR program and ordinance. Following is an overview of Berkeley's sending and receiving zones.

Six sending zones have been proposed. They are located in an area of the Township generally bounded by the Garden State Parkway to the west, Route 9 to the east, Lacey Township to the south, and Beachwood Borough to the north (see Map 17). This section of Berkeley Township, commonly known as Pinewald, is developed primarily with low-density single-family uses that do not have access to public sewers. The six sending zones are generally large tracts of undeveloped, residentially zoned land within Pinewald that are not severed by roads or public water or sewer infrastructure. When taken together

the sending zones encompass approximately 1,600 acres of forested open land that for the most part are categorized as Threatened Forest Habitat (Rank 3) by NJDEP. Based on current zoning, the sending zones could yield approximately 500 residential units.

Although the sending zones are generally undeveloped woodlands and not linked to the street grid, they consist of numerous small tax lots and paper streets as a result of early 1900's subdivisions that were never developed. It is the intention of the Land Use and Circulation Plans to clearly define the limits of future infrastructure extensions in Pinewald thereby differentiating those portions of the subdivisions that can reasonably be expected to be supported by public infrastructure and therefore built-out; and those that are more suitable for conservation through the TDR program.

The Township is proposing to designate the two Town Centers as receiving zones (see Map 17). Both Town Centers are served by public water and wastewater infrastructure (both are in the OCUA sewer service area); and have the potential for either comprehensive redevelopment or infill development. Parcels eligible for additional density through the TDR program would have to be located in one of these receiving zones.

## Land Use Districts

The following land use districts are illustrated on the Land Use Plan Map (Map 18) and described in more detail below.

- Conservation – Very Low Density Residential
- Low Density Residential
- Medium Density Residential
- Medium-High Density Residential
- High Density Residential
- Multi-Family Residential
- Planned Residential Retirement Community
- Bay Front Commercial
- Highway Commercial
- Corridor Node
- Conservation – Light Industrial
- Light Industrial
- Town Center 1
- Town Center 2
- Island Residential A
- Island Residential B
- Island Townhouse
- Island Cottage Community
- Island Mixed-Use
- Public Buildings and Facilities
- Parks & Open Space
- Preservation and Conservation
- Pinelands Districts

### Residential Districts

- *Conservation – Very Low Density Residential*

The purpose of this district is to provide for very low density residential development – one-third unit per acre - in a manner that will: (1) reduce sprawl development; (2) promote stream corridor, wetlands, and critical habitat preservation; (3) encourage reduced impervious coverage to maintain ground and surface water quality; and (4) reduce the detrimental impact of non-point pollution on Cedar Creek, Barnegat Bay and the various waterways and tributaries draining into these water bodies.

This land use district generally coincides with the existing CR Zone and the proposed TDR sending zones AA, A, B, C and D. These areas are characterized by a lack of infrastructure and the presence of sensitive environmental features such as wetlands, flood hazard areas and threatened or endangered species habitat. These areas contain primarily vacant properties, much of which is publicly owned.

It should be noted that the development capacity for the TDR sending zones will be based on the current zoning in those areas, i.e. R-150 and R-400, in accordance with the Berkeley Township TDR Ordinance. The intent is to apply the Conservation Residential standards to any future development in these areas that is not transferred to a receiving zone through the TDR program.

- *Low Density Residential*

This district applies to those portions of the existing R-400 Zone that are not included in a TDR sending zone or corridor node – two small areas at the southern end of Eastern Boulevard. The primary use is single-family homes at a density of one unit per acre.

Due to the greatly reduced size of this district, consideration should be given to folding what is left of the R-400 Zone into the adjoining R-150 Zone.

- *Medium Density Residential*

This district generally corresponds to the R-200 Zone and those portions of the R-150 Zone that are not covered by a TDR sending zone. The primary use is single-family homes at a density of two to three units per acre with a cluster option to enhance and preserve open space and environmentally sensitive features.

- *Medium-High Density Residential*

This district generally corresponds to the R-125, R-100 and R-90 Zones. The primary use is single-family homes at a density of three to five units per acre or less.

- *High Density Residential*

This district generally corresponds to the existing lagoon and bay front developments that are currently in the R-64, R-60 and R-50 Zones. The primary use is single-family homes at a density of five to nine units per acre.

Consideration should be given to consolidating the R-64, R-60 and R-50 zones based on a thorough lot size analysis of each zone.

- *Multi-Family Residential*

This district is relatively small and is restricted to the existing multi-family developments in the Township with the exception of those that are located in a town center or corridor node. It encompasses the R-MF Zone as well as the R-2F Zone, which has been developed with multi-family units. The maximum density range in this district is 10 to 12 units per acre.

- *Planned Residential Retirement Community*

This district incorporates the R-400 Planned Residential Retirement Community Zone in the northwestern portion of the Township. No changes are anticipated in this district.

### Island Districts

The following districts apply exclusively to the South Seaside Park neighborhood on the barrier island.

- *Island Residential A*

This district generally corresponds to the existing R-50 Zone; and replaces the R-4F Zone along Beach Drive and the R-TH Zone along 24<sup>th</sup> Avenue. The primary use is single-family homes at a density of nine units per acre.

- *Island Residential B*

This district generally corresponds to the existing R-31.5 Zone and replaces the R-4F Zone between Beach Drive and 20<sup>th</sup> Avenue. The primary use is single-family homes at a density of 14 units per acre.

- *Island Townhouse*

This district generally corresponds to the existing R-TH Zone south of 14<sup>th</sup> Avenue between Bay View Avenue and Central Avenue and replaces the R-31.5 Zone in the Central Avenue median. The primary use is townhomes at a density of 15 units per acre. The existing R-TH standards need to be reviewed and revised as necessary to increase the density and incorporate design standards that require such elements as build-to lines and rear-facing garages with access from alleys.

Townhomes built in the Central Avenue median would have special standards to address the unique location and configuration of these properties. For example, the units should face east and have access to garages from the rear utilizing the West Central Avenue right-of-way. They should be built in sets of four (quads) and line up with the ends of the perpendicular blocks to maintain views to the east via landscaped pedestrian areas. To enhance circulation, West Central Avenue could be connected to Central Avenue at two locations. A minimum of eight units (two sets) would have to be built to ensure at least one pedestrian and one vehicular connection are created. This concept is illustrated in Figure III-1.

- *Island Cottage Community*

This district covers the entire Midway Beach community. The goal is to accommodate and to some extent preserve the existing tight knit development pattern that provides its own aesthetic value. At the same time, homeowners should not be prohibited from making reasonable renovations and improvements to their homes to comply for instance with building, fire and health codes and CAFRA and FEMA requirements. The standards in the current BR Beachfront Residential Zone would govern in this case. Any deviations from the current BR standards to permit replacement of existing one-story cottages with permanent detached units of more than one-story in height should be addressed through amended zoning requirements and design standards, and implemented through a coordinated site plan application for the entire Midway Beach Association property.



This district also provides an option for a planned unit residential development (PURD) given a minimum contiguous parcel size of five acres that would be developed as a single entity according to a comprehensive plan. Specific standards need to be developed for the PURD and incorporated into the Zoning Ordinance. Generally, principal permitted uses would include single-family detached and townhouse units, and four-unit manor homes at an overall density not to exceed 15 units per acre. Streets would be oriented east to west – in the same fashion as the existing lanes – to maintain views to the dunes from Central Avenue. Garages would be accessed from rear alleys to maintain an attractive and pedestrian-friendly street front. No development would be permitted on the dunes.

- *Island Mixed-Use*

This district replaces the Resort Commercial Zone and the adjoining Neighborhood Business Zone at the southern end of Central Avenue. The area is currently a mix of motels, restaurants, multi-family units, attached and detached single family homes, and parking lots with no apparent theme or direction. The current RC Zone favors large scale hotels, motels, restaurants and theaters on 60,000 square foot lots; and commercial parking lots on 40,000 square foot lots. The RC Zone also permits detached single-family homes in accordance with R-50 standards. Newer construction in this area, however, appears to favor attached and multi-family residential projects, neither of which is permitted in the RC Zone.

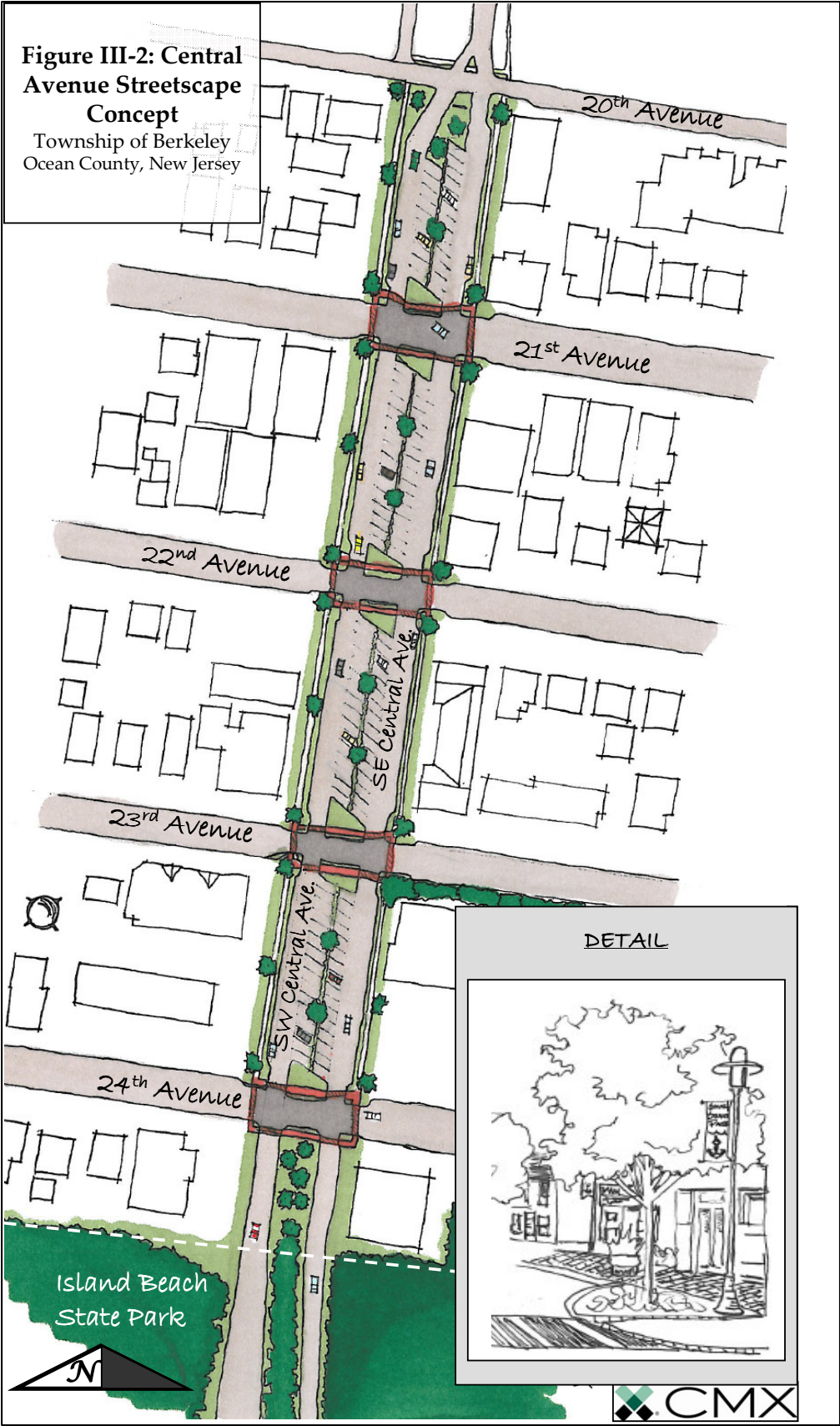
The purpose of the Island Mixed-Use District is to promote an orderly mix of complementary uses at a scale that is more in keeping with the surrounding neighborhood. To that end, the district provides opportunities for recreation/resort oriented retail establishments including restaurants, food stores, beach supplies, and miscellaneous dry goods primarily fronting on Central Avenue and a range of residential types that would include hotels, multi-family condominiums, attached and detached single-family homes in the balance of the district.

New standards will need to be developed to ensure that new structures are right-sized to their lots possibly through the use of residential and commercial floor area ratios; that adequate parking is provided on-site; and that appropriate and sustainable landscaping is provided. Parking lots would only be permitted as an accessory use to an adjoining principal use. All retail and service uses should primarily service the local and tourist markets as opposed to a regional market.

Design guidelines should also be developed to create a more pedestrian-friendly “Main Street” environment along this portion of Central Avenue, which could serve as a focal point for the Island community. Façade, awning and signage standards should be developed for the commercial properties, and a streetscape plan should be developed to make Central Avenue itself more attractive through such means as landscaped islands and medians to better organize and soften the parking areas, corner bump-outs and defined pedestrian crossings, trees and ornamental street lights. This concept is illustrated in Figure III-2.

Central Avenue is also NJ Route 35. The draft FY 2009-2018 Statewide Transportation Improvement Program includes pavement restoration, drainage improvements and improved pedestrian crossings along Route 35. Construction funding is projected for FY 2017. This would be an opportune time for the Township to prepare a Central Avenue Plan to influence any future DOT plans.





### Commercial Districts

- *Bay Front Commercial*

This district replaces the small Neighborhood Business and Resort Highway Business Zones fronting the bay and the Highway Business Zone on Pelican Island. The district is meant to accommodate small scale water-dependent and recreation/resort oriented uses such as marinas, restaurants and bed and breakfast establishments. New zoning standards will need to be developed that are patterned after the Resort Highway Business Zone but with fewer permitted uses.

- *Highway Commercial*

This district represents a more concentrated land use scheme for the Route 9 corridor including a reduced HB Zone. The Highway Commercial district covers those portions of the corridor that are not included in the Town Centers or corridor nodes. The current HB Zone has also been reduced to reflect the expansion of residential uses along the corridor and opportunities for further conservation and open space initiatives.

- *Corridor Node*

The three corridor nodes are located at existing commercial concentrations along Route 9. They currently are, or are planned to be significant concentrations of commercial or mixed-use activity that should be designed, organized or retrofitted to meet certain performance standards associated with center-based development, and that incorporate the Route 9 design guidelines found in the circulation element.

Node A consists of 47 acres, 22 of which are occupied by the Foodtown shopping center. This node has the potential to accommodate additional commercial space primarily through infill and retrofitting.

Node B, at Central Parkway/Butler Boulevard, covers 29 acres and is less intensely developed than Node A. It contains a mixture of smaller commercial uses, vacant land and some underdeveloped parcels.

Node C, which is the southernmost receiving zone, covers 136 acres, primarily on the southbound side of Route 9 in the vicinity of Harbor Inn Road. This node has the most potential for new development and redevelopment. It is currently sparsely developed with the predominate use being an abandoned mining operation that constitutes the majority of the node. This node abuts the Barnegat Branch Trail on its western border and a sewer line that runs along Railroad Avenue.

The zoning ordinance will need to incorporate unique standards or conceptual designs for each node to ensure that smart growth principles will be incorporated into each node.

- *Conservation – Light Industrial*

Similar to the Conservation - Residential district, the purpose of this district is to provide for low impact light industrial development in a manner that will: (1) reduce sprawl

development; (2) promote stream corridor, wetlands, and critical habitat preservation; (3) encourage reduced impervious coverage to maintain ground and surface water quality; and (4) reduce the detrimental impact of non-point pollution on the various waterways located in the district or draining to water bodies outside the district.

Performance standards will need to be developed for this district that minimize land disturbance and impervious coverage; minimize noise and odors; reduce light pollution; maximize sustainable landscaping and buffers; provide for habitat preservation and restoration; minimize water consumption; provide for effective on-site treatment and recharge of wastewater and stormwater; reduce heat island effects; maximize alternative sources of energy; remediate any existing contamination; and maximize access to alternative transportation modes.

This land use district coincides with TDR sending zone E, which includes the existing GI Zone and a portion of the existing LI Zone. Although there are presently few built improvements in this district, the majority of the district is an active extraction/mining operation also known as the NJ Pulverizing site. In spite of its industrial history, the district contains scattered wetlands and threatened or endangered species habitat.

It should be noted that the development capacity for the TDR sending zones will be based on the current zoning in those areas, i.e. GI and LI, in accordance with the Berkeley Township TDR Ordinance. The intent is to apply the Conservation Light Industrial standards to any future development in these areas that is not transferred to a receiving zone through the TDR program.

- *Light Industrial*

This district covers the LI Zone at the northern end of Hickory Lane – that portion of the LI zone outside of the TDR sending zone and not owned by the Ocean County Utility Authority. The current Light Industrial standards would be maintained.

### **Town Center Districts**

- *Town Center 1*

TC-1 consists of Berkeley Town Center, the northernmost and largest TDR receiving zone covering 436 acres immediately south of the Beachwood Borough border. The concept for Berkeley Town Center – a compact, mixed-use, human-scaled community – was conceived as part of the Berkeley visioning process in 2002-2003. The Township has taken several proactive steps since then to bring the Town Center to fruition. The Township Council designated the majority of the proposed Town Center as an “area in need of redevelopment” in June of 2003. In 2006, the Township adopted the Town Center Zoning District, which consists of six sub-districts including Mixed Use, Small Scale Commercial, Core Commercial, Residential, Open Space Parks and Recreation, and Environmentally Sensitive. In 2008, the Township adopted the Berkeley Town Center Redevelopment Plan to guide the comprehensive redevelopment of the site.

- *Town Center 2*

TC-2 is a second and smaller Town Center District and TDR receiving zone – 86 acres – meant to take advantage of an existing concentration of residential and commercial uses and promote pedestrian and transit friendly mixed-use design. This secondary Town Center straddles Route 9 from its intersection with Korman Road and Ocean Gate Drive, south to Bow Street. The goal is to forge a strong pedestrian link between the high density residential development on the west side of Route 9 with the commercial area anchored by the Shop Rite supermarket on the east side of Route 9 while promoting better quality design and landscaping, shared parking, and more controlled access to Route 9. A comprehensive plan needs to be developed for this center to guide the adoption of appropriate ordinance requirements.

**Public and Conservation Districts**

- *Public Buildings and Facilities*

This district includes existing and proposed public buildings, facilities and schools.

- *Parks & Open Space*

This district includes existing and proposed parks and preserved open space. (See the 2004 Berkeley Township Recreation and Open Space Plan for additional details.)

- *Public Preservation & Conservation*

This district covers those portions of the Public Preservation/Conservation Zone that are not presently preserved as open space. The purpose of this district is to safeguard and preserve governmental open space and conservation areas and provide for very low density single-family residential development – one-third unit per acre or less with sewers, and one-fifth unit per acre or less without sewers. The purpose is also to encourage reduced impervious coverage to maintain ground and surface water quality and reduce the detrimental impact of non-point pollution on Cedar Creek, Barnegat Bay and the various waterways and tributaries draining into these water bodies.

- *Beach Conservation*

This district corresponds with the existing Beach Conservation Zone covering the ocean, beach and dune lines of the Township. No structures other than temporary structures erected by a public body for essential government services or seasonal activities are permitted.

*Wellhead Protection and Stream Corridor Protection Overlay Districts*

These two overlay districts are not presently included in the land use element. It is recommended that the Township prepare a master plan *conservation element* to further define these resources and explore the creation of wellhead protection and stream corridor protection overlay districts – and supporting ordinances – that could be added to the land use plan.

**Pinelands Districts**

The Pinelands land use districts conform to the current Pinelands zoning districts certified by the Pineland Commission without any alterations or revisions. The Pinelands Commission is presently considering revisions to the Pinelands Management Areas. Three changes are proposed for Berkeley –

- 48 acres of Rural Development Area to Forest Area,
- 740 acres of Agricultural Production Area to Forest Area, and
- 369 acres of Rural Development Area to Regional Growth Area.

The land use element and zoning ordinance will be reviewed and amended as necessary to maintain conformance with any changes eventually adopted by the Pinelands Commission.



## Recommended Zoning Changes

The zoning ordinance will need to be revised to ensure conformity with the master plan. At a minimum, the zoning map should be revised to match zone boundaries to land use districts as needed. The zoning ordinance will also need to incorporate use standards, bulk requirements, design standards and nomenclature changes to reflect the new districts; eliminate other districts; and to generally implement the goals, objectives and policies of the master plan. Following is a list of specific zoning recommendations that need to be considered.

<i>Specific Zoning Recommendations</i>	
• Create new zones –	
○ Bay Front Commercial	Replaces NB and Resort Highway Business Zones.
○ Five Island Zones	Replaces existing zones on barrier island.
○ Conservation–Light Industrial	Replaces GI and LI Zones in TDR sending zones.
○ Corridor Node A, B, & C	Replaces portions of HB and RHB Zones.
○ Town Center 2	Replaces portion of HB Zone.
• Eliminate R-400 Zone	Convert portions in TDR sending zones to Conservation–Residential; fold remainder into adjoining zones.
• Eliminate R-2F Zone	Split between R-MF and R-100 Zones.
• Eliminate GI Zone	Convert entire zone (located in TDR sending zone) into Conservation–Light Industrial Zone.
• Eliminate NB Zone	Replace with Bay Front Commercial Zone and Island Mixed–Use Zone.
• Eliminate Resort HB Zone	Replace with Bay Front Commercial Zone.
• Eliminate Rural HB Zone	Replace with Corridor Node and Conservation–Residential Zones.
• Eliminate R-TH, R-LR, R-31.5, R-4F, Resort Commercial, & Beachfront Residential Overlay	Replace with five new Island Zones.
• Consolidate R-50, R-60 and R-64 Zones into one zone	Establish appropriate zone designation based on lot size inventory.

## IV. CIRCULATION PLAN

**From the 2020 Vision Statement** – *Route 9 is functioning at a much higher level of service due to the decrease in curb cuts and access points made possible by concentrating development into specific activity nodes. Route 9 is also no longer the lone major north-south route. Local and regional traffic now have the option of the Route 9 bypass – an attractive boulevard sensitively designed to complement the Town Center. Local circulation has been greatly enhanced by the strategic completion of the neighborhood grid systems.*

*The automobile is no longer the sole means of transportation. The Town Center and the commercial nodes have been designed to accommodate the increased bus service along Route 9 that allows residents to access regional employment, shopping services and entertainment. More and more local trips – to the library, schools, parks, recreation center, shopping – are being made by bicycle via the extensive interconnected bikeways.*

The circulation plan that follows provides service to existing development, expands the system to link strategically planned and located new development, and promotes access to multiple modes of transportation, all in support of the Township's vision and land use plan.

### ROADWAYS

#### Municipal Rights-of Way

As discussed in Chapter II and illustrated on Map 12, a number of the municipal roads in Berkeley are paper streets – remnants of subdivisions that were platted several decades ago and never developed or only partially developed. Over the years, individual lots have been developed in an incremental fashion, often skipping over several vacant lots. This development pattern has at times resulted in streets being improved in a haphazard fashion and at times extending development into areas that the Township has identified for conservation in the land use plan or as potential sending districts in the TDR element.

Maps 18 and 18A – Roadway Plan – illustrate how the municipal road system is planned to be completed. Individual road segments could be removed from the map based on: a more efficient subdivision or lot consolidation proposal that would alter the existing street grid; a potential opportunity for open space acquisition that would negate the need for a given road; or physical or environmental constraints that would make completion of the road unfeasible. The remaining unimproved rights-of-way should be considered for vacation if they are located in a TDR sending zone, located in preserved open space areas, located in an area of the Township that is largely vacant and publically owned, or are unlikely to be built due to physical or environmental constraints. Certain road segments have been identified solely for pedestrian, bicycle and emergency vehicle links.

The haphazard paving of road segments over the years has resulted in several disconnected streets in the Township that maintain the same name over the entire length of the street in spite of those large gaps. This can make navigating those streets confusing especially for emergency service vehicles. In those instances where the circulation plan does not contemplate filling in those gaps, it is recommended that a north, south, east or west prefix or suffix be added to the existing street name as follows:

- East Amsterdam and West Amsterdam
- East Virginia and West Virginia
- North McKinley and South McKinley
- East Manhattan and West Manhattan
- North Clifton and South Clifton
- East Lexington and West Lexington
- East Madison and West Madison
- East Nolan and West Nolan
- Southern Boulevard East and Southern Boulevard West

### **Western Boulevard**

The extension of Western Boulevard by Ocean County from its current terminus at Northern Boulevard northward to Route 9 has been included in the Berkeley Master Plan since at least 1997 and is carried forward in this circulation plan. Two alternatives are illustrated on Maps 18 and 18A. Alternative #1 is the alignment that the County has been considering to date. Alternative #2 is a possible alignment proposed by the circulation plan that works in tandem with the Barnegat Branch Trail. The Western Boulevard project is presently undergoing various assessments by the County and a final determination on the exact route has yet to be made.

Whatever the final route, an extended Western Boulevard will likely traverse one of the Township's TDR sending areas and Berkeley Town Center. The road should therefore be sensitively designed as a rural parkway with minimal access through the sending area; and as a boulevard with "main street" features through the Town Center. The road should also accommodate pedestrians and bicycles as part of the Township's trail system.

### **Route 9 Corridor**

In 2004/2005, Berkeley Township participated in the NJDOT Route 9 Corridor Study. The intent of the study was to develop multi-modal strategies for addressing transportation issues within the corridor based on a vision of the corridor's future. The Route 9 Corridor Study was one of a series of NJDOT pilot projects aimed at exploring more holistic and sustainable transportation solutions in support of the State's smart growth agenda. The resulting Route 9 Corridor Master Plan is organized around six major principles that integrate standards of smart land use, transportation and urban design and incorporates the key lessons learned during the study.

The six principles are:

1. Balance regional mobility and local access needs.
2. Focus on improving capacity where it counts.
3. Reconnect and enhance the street network.
4. Strengthen community character.
5. Provide alternatives to the car.
6. Match growth to infrastructure limitations.

In support of those principles, the following guidelines have been developed for non-residential properties located in the Route 9 corridor regardless of zone. These guidelines are meant to encourage quality architecture, shared access and parking, transit friendly facilities, pedestrian circulation, appropriate intensification of buildings, and extensive landscaped areas. In addition, the Township should explore the appropriateness of developing Access Management Plans for pertinent sections of Route 9 as provided for in the State Highway Access Management Code.

1. Plazas, courtyards and green areas should be considered an integral component of all development in the corridor and should be designed to provide a lively human scale environment. These features should also be designed to protect environmentally sensitive features, and provide appropriate visual and noise buffers especially between residential and non-residential areas.
2. Buildings should be designed to provide architectural interest and avoid a monolithic box-like appearance. Pitched roofs and architectural embellishments such as dormers are encouraged. Flat roofs should include appropriate ornamentation such as cornices or parapets. The front of each building should be oriented toward a sidewalk, courtyard or street. Sidewalks should facilitate pedestrian movement and create opportunities for outdoor eating and shopping areas, and providing space for bus waiting areas or shelters, street furniture, etc.
3. Ground floor commercial facades should have large, clear storefront glass areas to display the nature of the business and produce an interesting streetscape. A storefront should be separated from the roofline or a second floor by a horizontal architectural element such as a sash, cornice, frieze or molding. The design of awnings and canopies should be architecturally compatible with the style, materials, colors and details of buildings and should not conceal significant architectural features, such as cornices, columns, pilasters or other trim details.
4. Freestanding signs should be consolidated at strategic locations, complement the architectural style of the development, avoid a cluttered appearance, and be limited to the name and logo of a project or center. Tenant directory signs should be located away from the right-of-way. Façade signs should complement and not interfere with, be out of proportion with, or cover over a building's architectural details.

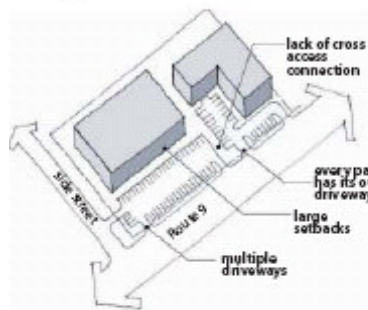
5. Mass transit opportunities should be enhanced through the incorporation of design features that accommodate bus and shuttle service such as shelters, street furniture, and pull-off lanes within reasonable proximity to major uses and destinations.
6. Oversized parking areas and multiple and uncontrolled access points should be reduced through the use of shared and connected parking facilities.
7. Parking lots should be located behind or next to buildings, so that the buildings can be closer to the roadway, be more visible, and be more accessible to pedestrians.
8. Surface parking lots should be extensively landscaped to provide visual relief from large expanses of parking, to guide circulation, and to minimize impervious coverage.
9. Landscaped areas should be provided along the highway edge and include provisions for walkways, bike paths, plantings, and shade trees.

Some of these guidelines are illustrated in the following excerpt from the Route 9 Corridor Master Plan.

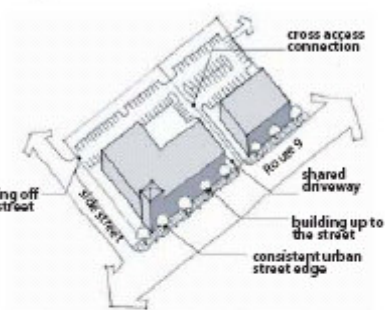
#### ***In Centers***

- Buildings should be placed and oriented toward Route 9 with parking placed to the rear of the building.
- Establish a minimum setback (e.g. 10-15 feet) and maximum "build-to" setback (e.g. 20 to 25 feet)
- All buildings should have a pedestrian entrance from Route 9
- Parking behind buildings

Existing



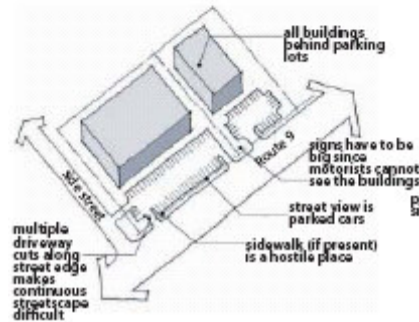
Proposed



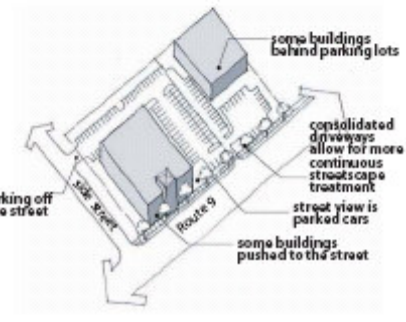
#### ***In Suburban areas***

- Buildings should be placed and oriented toward Route 9 with parking placed to the rear or side of the building
- Establish a parcel based minimum percentage of building wall fronting the street (conforming to the build-to) requirements
- When parking areas front a street, adequate buffer (landscaping, low wall, etc.) should be provided.
- Parking behind or on the side of buildings

Existing



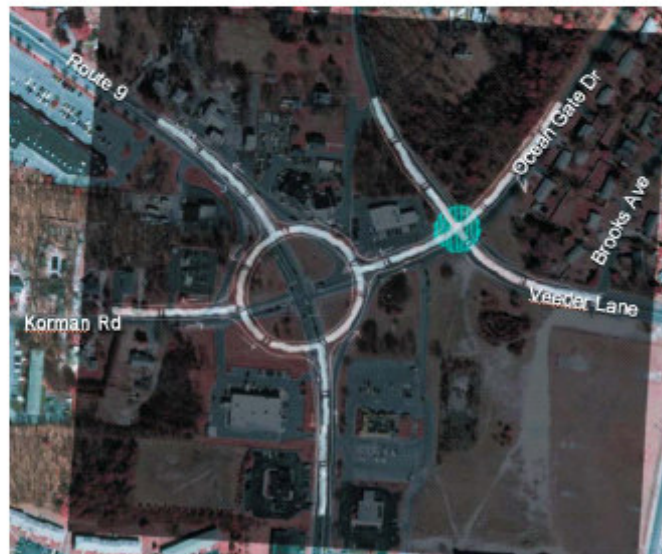
Proposed



The Route 9 Corridor Master Plan also proposed certain capital improvements along Route 9 in Berkeley. The circulation plan supports the following specific proposals:

- Re-align Washington Avenue and extend to Capstan Avenue; Extend Mizzen Avenue to Washington Avenue.
- Construct a roundabout at the intersection of Route 9 and Ocean Gate Drive, Veeder Lane and Korman Road as seen in the following illustration from the Route 9 Corridor Master Plan.

- Option B: Replacing signal with a modern roundabout.  
This option replaces the current intersection configuration with a modern roundabout (please refer to Route 9/Green Street Option C for modern roundabout discussion). With the difficult configuration of Route 9's bend through the Korman Drive/Ocean Gate intersection, a roundabout's size and geometry is appropriate. Also, as the area around this intersection redevelops from suburban to more urban uses, the roundabout will become more effective as it can typically accommodate high volume streets with slow traffic better than traffic signals.



*Replacing Signal with a Modern Roundabout*

## ALTERNATIVE TRANSPORTATION MODES

### Mass Transit

The primary mass transit opportunity in Berkeley is provided by NJ Transit Bus Route #559 which runs along Route 9 between Atlantic City and Lakewood. The nearest park and ride facility is in Toms River, approximately 3.5 miles from the center of Berkeley, where connections can be made to busses serving Newark and New York.

In a memorandum from NJ Transit to the Office of Smart Growth related to the SPC plan endorsement process, NJ Transit states that *“Given Berkeley’s optimal access to NJ Transit services through the nearby Toms River Park-Ride, and that most residential pockets are either senior citizen developments with their own transportation services or are areas that are served by Ocean County-operated paratransit, it appears existing development and future growth will be adequately served by existing transit systems. Therefore, NJ Transit does not foresee expanding service to Berkeley Township. If more localized service is desired, the municipality should work with Ocean Ride to add service.”*

Given that it is unlikely that additional NJ Transit bus service will be provided in Berkeley, it is important to ensure that access to the existing service is enhanced whenever possible. To that end, the land use plan recommends concentrating growth in centers and nodes while the circulation plan calls for transit-friendly design features that accommodate bus and shuttle service such as shelters, street furniture, and pull-off lanes within reasonable proximity to major uses and destinations. Bus stops should also be connected to the bike and pedestrian trail system discussed below. In addition, park and ride opportunities should be provided whenever feasible in the centers and nodes utilizing surplus retail parking during the off-peak daytime hours.

### Bicycle and Pedestrian Trails

The circulation plan contemplates a fairly extensive trail system in Berkeley building on the County’s Barnegat Branch Trail. The circulation plan combines the Barnegat Branch Trail with the existing bike route along Central Boulevard and Veterans Boulevard and the trails proposed in the vision plan. Whenever possible, the trail system is linked to centers and nodes and bus stations to provide not only a recreation amenity but a viable transportation alternative.

The transit and trail systems are illustrated on Map 19.



## V. RELATIONSHIP TO OTHER PLANS

The Municipal Land Use Law requires the master plan to 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 plans of contiguous municipalities, (2) the master plan of the county in which the municipality is located and (3) the State Development and Redevelopment Plan. This chapter provides an analysis of the relationship of the Berkeley Land Use Element to the documents listed in Table V-1. In some instances a current land use plan map was not available for a given town. In those cases the town's zoning map was used as an indicator of potential land uses.

**Table V-1  
Plans Reviewed**

<b>Jurisdiction</b>	<b>Documents</b>
Beachwood	2000 Master Plan and Zoning Map (last revised 2001)
Lacey	1991 Master Plan and 2000 Master Plan Update
Manchester	1999 & 2007 Master Plan, Zoning Map (last revised 2001)
Ocean Gate	1998 Master Plan Land Use Plan, 2005 Reexamination
Pine Beach	1995 Master Plan
Seaside Park	2007 Reexamination, 2004 Master Plan, Zoning Map (last revised 1998)
South Toms River	1993 Master Plan
Toms River	1994 Master Plan Revision, 2007 Zoning Map
Ocean County	1988 Comprehensive Master Plan
New Jersey	2001 State Development and Redevelopment Plan
Pinelands Commission	Comprehensive Management Plan

### PLANS OF CONTIGUOUS MUNICIPALITIES

Berkeley shares its municipal border with Seaside Park Borough on the Barrier Island; Ocean Gate Borough, Pine Beach Borough, Beachwood Borough, South Toms River Borough and Toms River Township to the north; Manchester Township to the west in the Pinelands; and Lacey Township to the south. Berkeley technically shares a border with a two other municipalities – Island Heights and Seaside Heights. Both borders are considered inconsequential due to the fact that Island Heights is separated from Berkeley by the Toms River, and the Seaside Heights border adjoins Pelican Island, a small bay island separated from the Berkeley mainland by Barnegat Bay.

**Borough of Beachwood**

The Borough of Beachwood abuts the Berkeley Town Center and the Conservation – Light Industrial District. Beachwood’s Land Use Plan includes single family residential, school and recreational uses (active recreation and recreation-conservation) uses in Beachwood. The smart growth mixed-use principles and stringent design guidelines for the Town Center should mitigate any direct conflicts with Beachwood. The Conservation-Light Industrial District envisions very low-impact uses adjacent to Beachwood. It is also a proposed TDR sending area which could result in minimal if any development in this area.

**Lacey Township**

Berkeley’s border with Lacey is primarily planned for parks and preserved open space running along Cedar Creek. The Lacey side of the border is planned for residential uses.

**Manchester Township**

The Manchester Master Plan designates the area adjacent to Berkeley as Conservation, which abuts an existing retirement community, Holiday City, in Berkeley Township. The Pine Ridge Park retirement communities in Manchester Township abut a conservation area in Berkeley Township, yet the two retirement community uses are very close in proximity. Large areas of land abutting the Berkeley and Manchester Township border remain undeveloped due to environmental sensitivity in the Pinelands.

**Borough of Ocean Gate**

Use variations along the Berkeley Township and Ocean Gate borders are not considered to be significant. According to the updated Land Use Plan, the section of Berkeley Township that abuts Ocean Gate is intended for medium density residential to the west of Ocean Gate and Parks and Preserved Open Space for the remainder of the shared border. According to Ocean Gate’s Land Use Plan, the abutting land in Ocean Gate is primarily residential with a small area of community facilities and publicly owned land.

**Borough of Pine Beach**

The planning and zoning policies of the Borough of Pine Beach are generally 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 Seaside Park**

The Seaside Park Zoning Map delineates the areas bordering Berkeley Township for residential and park uses which is compatible with the residential districts in the South Seaside Park section of Berkeley Township.

**Borough of South Toms River**

The Borough of South Toms River borders the Manitou Park section of Berkeley Township. Manitou Park is a single-family residential district. Land on the South Toms River side of the border is primarily single-family residential (10,000 SF min lot size), and therefore consistent.

**Toms River Township**

The northwesterly corner of Berkeley Township, which partially abuts the Toms River Industrial Park, is developed as a planned residential retirement community. The remainder of the adjoining areas in Berkeley Township that abut the existing residential areas of Toms River Township are also planned for residential development. The 1994 Revision of the Master Plan also provides for the preservation of the open space along the Toms River.

There are several Industrial Zones in Toms River Township that abut the Holiday City retirement community in Berkeley Township. While the Toms River 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 that abut the Toms River Township boundary are separated from Toms River Township by the expansive tidal portions of the Toms River.

## OCEAN COUNTY

Berkeley's 2008 Land Use Plan is largely consistent with the General Development Plan of the 1988 Ocean County Master Plan and the following county goals:

- Continue to provide a coordinated management program to control the spatial development of the County by directing new growth to environmentally suitable areas which can be provided with essential infrastructure and support facilities.
- Promote the provision of a broad range of housing opportunities for all income levels and household types by encouraging the maintenance or rehabilitation of the existing housing stock and through the construction of new housing units.
- Promote the development of an improved and balanced, multi-modal transportation system which integrates the highway system with bus, rail, and waterborne transport systems.
- Continue the economic development efforts of the County to reduce unemployment, provide year-round employment opportunities and enhance the tax base by encouraging compatible industrial and commercial operations to locate or expand in Ocean County.

In addition, growth areas were identified in the county plan to provide an objective measure of development opportunities and constraints within the county. The Berkeley Town Center is identified as a "maximum growth area." Growth areas were determined based on environmental features, ability to accommodate increased land use activity, growth trends, area development patterns, local zoning policies, water supply, wastewater treatment facilities, and transportation facilities (accessibility to major highways and travel distance to major commercial and shopping facilities). The development criteria associated with maximum growth areas include:

- Infill of vacant lands within existing developed areas;
- Redevelopment of existing developed areas consistent with land use and density guidelines; and
- Serviced by an existing wastewater treatment system with sufficient capacity to provide treatment for increased wastewater flows.

## NJ STATE DEVELOPMENT AND REDEVELOPMENT PLAN

The State Development and Redevelopment Plan places the non-pinelands portion of Berkeley in the Suburban (PA2) and Environmentally Sensitive (PA5) Planning Areas (see Figure V-1). The State Plan considers the Pinelands a “Planning Region Established by Statute” and as such is generally outside the jurisdiction to the State Plan although there is some degree of cooperative planning. The Barrier Island, which contains Island Beach State Park and the South Seaside Park neighborhood is designated PA5B.

The Berkeley Land Use Plan, with its focus on concentrating future development in centers and nodes while preserving vacant and environmentally sensitive lands as open space, is consistent with the State Plan’s intentions for both Planning Areas 2 and 5 as outlined here:

*The Suburban Planning Area* – provide for much of the state’s future development; provide growth in centers and other compact forms; protect the character of existing stable communities; protect natural resources; redesign areas of sprawl; reverse the trend toward further sprawl; and revitalize cities and towns.

*The Environmentally Sensitive Planning Area* – protect environmental resources through the protection of large contiguous areas of land; accommodate growth in centers; protect the character of existing stable communities; confine programmed sewers and public water services to centers; and revitalize cities and towns.

In particular, Berkeley’s planned centers and nodes coupled with the TDR program will move Berkeley several steps forward toward the realization of one of the State Plan’s major objectives – providing alternatives to sprawl by planning for and creating new “communities of place.” In addition, the plan would achieve the following State Plan goals:

- Promoting beneficial economic growth – The centers and nodes will provide a focal point for future economic activity in the Township. It is expected that a higher quality and greater diversity of goods and services will be available to residents than is currently found in the strip developments that characterize the Route 9 corridor.
- Revitalizing cities and towns – Much of the Berkeley Town Center is underutilized and contaminated and detracts from the quality of life in the community. Those conditions will be replaced with a Town Center that will attract quality investment into the Township.
- Improving environmental quality – The extensive contamination of the soil and ground water at the Town Center site will be remediated as a result of the redevelopment project. Endangered habitats, wetlands and other environmentally sensitive features on the site will be preserved. Open space preservation is a prime goal of the Berkeley vision and master plan.

- Ensuring cost-effective delivery of infrastructure – The State Plan offers centers as the model for cost-effective delivery of infrastructure. The land use and circulation plans focus growth in centers and nodes and generally direct a strategic expansion of infrastructure throughout the Township.
- Preserving and enhancing the quality of community life – Centers provide a focal point for the community as a whole and a vibrant, human-scaled living environment for those who live and work in the center.
- Preserve and enhance areas with historic, cultural, scenic open space and recreational value – Open space will be an integral part of the Township's future. Various bikeways and trails will traverse the Township including the historic Barnegat Branch Trail.

In 2004, the State released the Preliminary State Plan, and the Preliminary State Plan Policy Map (SPPM) for the third round of cross-acceptance. Berkeley Township participated in cross-acceptance as facilitated by the Ocean County Department of Planning. The results of cross-acceptance are documented in the County's Final Cross-Acceptance Report dated January 2005. At the time of this plan, the State Planning Commission had not yet adopted a finalized State Plan. Generally, there were no substantive changes being recommended to the State Plan that would change the Berkeley Land Use Plan's consistency with the State Plan.

**INSERT FIGURE V-1 SDRP**

## PINELANDS COMMISSION

Approximately 19,500 acres in Berkeley are within the Pinelands National Reserve – east and west of the Garden State Parkway, south of Route 37 and extending out to the Barrier Island (Island Beach State Park). Approximately 10,310 acres in Berkeley -- west of the Garden State Parkway and south of the New Jersey Central Power and Light Company right-of-way – fall under the jurisdiction of the Pinelands Commission (See Figure 2 in the Introduction). The Commission regulated portion of the Township (the “Pinelands Area”) currently falls within the Preservation Area, Forest Area, Agricultural Production Area, Rural Development Area, and Regional Growth Area. Most of the National Reserve that is not under the jurisdiction of the Pinelands Commission (generally east of the Parkway) falls within the CAFRA regulatory jurisdiction where the NJDEP is charged with implementing the Pinelands CMP.

According to the Comprehensive Management Plan (CMP), municipalities that have land within the Pinelands Area must bring their master plan and land use ordinances into conformance with the minimum standards set forth in the CMP. Berkeley was certified by the Pinelands Commission based on the Township’s adoption of the Pinelands Area Master Plan and Pinelands Area Land Development Ordinance in 2001.



## VI. MAPS

1. Existing Land Use
  - 1A. Existing Land Use East of Parkway
  - 1B. Existing Land Use West of Parkway
2. Vacant Land
3. Existing Zoning
4. Existing Land Use and Zoning
5. Community Facilities
6. Parks and Open Space
7. Flood Zones
8. Wetlands
9. Threatened or Endangered Species Habitat
10. Well Head Protection Areas
11. Known Contaminated Sites
12. Circulation System
13. Municipal Rights-of-Way
14. Water Service Areas
15. Sewer Service Areas
16. Unconstrained Vacant Land
17. Land Use Plan
18. Roadway Plan
  - 18A. Roadway Plan East of Parkway
19. Alternative Transportation Modes