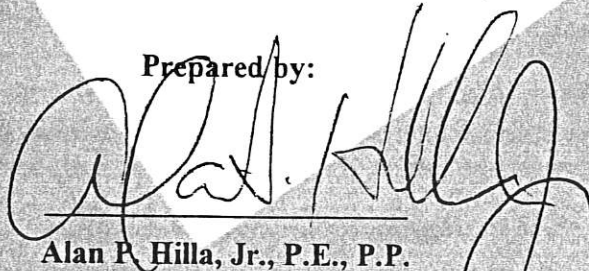


BOROUGH OF BRIELLE

MASTER PLAN

AUGUST, 2000

Prepared by:

A large, stylized handwritten signature in black ink, appearing to read 'Alan P. Hilla, Jr.', is written over a large, light gray, semi-transparent watermark that resembles a large 'V' or a stylized letter 'B'.

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BRIELLE MASTER PLAN – 2000

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I.
INTRODUCTION

INTRODUCTION

A Master Plan for the Borough of Brielle is a plan for the physical, economic and social development of the Borough. This Master Plan was developed in accordance with the provisions of the Municipal Land Use Law (N.J.S.A. 40:55D - 1 et. Seq.) and was designed to guide the appropriate use, development and redevelopment of lands within the Borough of Brielle, which will promote, enhance and sustain the public health, safety and general welfare of the present and future residents of the Borough of Brielle.

A Master Plan presents a general statement for the desirable long-range and comprehensive physical development policy of a community by designating appropriate uses for private land and the general location and extent of all necessary public improvements and facilities. It can function as a guide for future physical and economic growth of a community with the overall development policy. Although it represents an ideal, the Master Plan is scaled to the realities of the present community, for its goals must be achievable by the community. The Zoning Ordinance, in fact, must reflect the intent and objectives of the adopted Master Plan.

The Borough of Brielle is basically a residential community, with a central commercial area and marine related development. The Borough of Brielle requires a plan that protects existing residential areas, provides development opportunities in vacant areas most suited for infill uses, provides adequate services and facilities for the present and projected population, and preserves and encourages enhancement of the environment. It is important to establish a planning program that permits the management of growth, with consideration to fiscal capabilities of the Borough of Brielle and other levels of government.

In formulating this Master Plan for the Borough of Brielle, consideration has been given to the Master Plans and development occurring in the surrounding municipalities of Wall Township, Manasquan Borough, Point Pleasant Borough and Point Pleasant Beach Borough. Policy established in this plan is coordinated with the Monmouth County Comprehensive Master Plan, and the New Jersey State Development and Redevelopment Plan.

In preparing this Master Plan, assistance and input was received from the Mayor and Council, Borough Clerk, Tax Assessor, Environmental Commission, Attorney, Board of Education, Fire Department, First Aid Squad, Library, Recreation Commission, Public Works Department and Police Department, in addition to various County and State agencies.

II.
OBJECTIVES, PRINCIPLES, ASSUMPTIONS,
POLICIES AND STANDARDS

OBJECTIVES, PRINCIPLES, ASSUMPTIONS, POLICIES AND STANDARDS

The Borough of Brielle Master Plan is based on objectives, principles, assumptions, policies and standards developed over time by the Mayor and Council, Borough Planning Board, Board of Adjustment, and other Borough boards and agencies. The Master Plan proposals for the physical, economic, and social development of Brielle are based upon the following planning and development guidelines.

OBJECTIVES

The Brielle Master Plan is based on several objectives in accordance with the Municipal Land Use Law:

1. To encourage municipal actions that will guide the long-range appropriate use and development of the lands within the Borough of Brielle, in a manner that promotes the health, safety, morals and general welfare of present and future residents.
2. To secure safety from fire, flood, panic and other natural and man-made disasters.
3. To provide adequate light, air and open space.
4. To ensure that development within the Borough of Brielle does not conflict with the development and general welfare of neighboring municipalities, the County, the region and the State as a whole.
5. To promote the establishment of appropriate population densities in locations that will contribute to the well being of persons, neighborhoods and community, while enhancing the environment.
6. To encourage the appropriate and efficient expenditure of public funds by coordinating public and private development within a framework of land use and development, principles and policies.
7. To provide sufficient areas in appropriate locations within the Borough of Brielle for residential, business, office and public and quasi-public uses in a manner, which will provide for balanced growth and development.
8. To encourage the location and design of transportation and circulation routes which will promote the free flow of traffic in appropriate locations while discouraging roadways in areas which would result in congestion, blight, or depreciate property values.
9. To promote and enhance a visually desirable natural and man-made environment.

10. To promote the conservation and enhancement of open space and natural systems and resources, while preventing degradation of the natural and man-made environment through improper use of land.
11. To encourage the preservation and restoration of historical buildings and sites within the Borough of Brielle in order to maintain the heritage of Brielle for enjoyment by future generations.
12. To encourage coordination of the numerous public and private regulations and activities which influence land development towards a goal of producing efficient uses of land with appropriate development types and scales.
13. To encourage the practicable recovery and recycling of municipal solid waste through the use of planning practices designated to incorporate the State Recycling Plan and to complement Monmouth County and Brielle recycling programs.

PRINCIPLES

The Brielle Master Plan is based upon several principles concerning development of land.

These include:

1. Encouraging residential development in locations and at densities, which are compatible with existing development, patterns and can be properly serviced by public roadways, utilities and services.
2. Locating public, commercial, service and office uses at sites and in locations which are suitable for their use environmentally, economically and geographically, and are compatible with existing uses, public facilities, roadways and natural features.
3. Protection of natural systems and environmental resources, including floodplains, freshwater and saltwater wetlands, streams, ponds, trees and vegetation, slopes, shorelines, wildlife and air quality, noise control, etc.
4. Protection, enhancement and maintenance of areas suitable for public and quasi-public recreational activities.
5. Encourage a development pattern, which will protect and enhance the long-term economic, environmental, and social welfare values of present and future residents of Brielle.

ASSUMPTIONS

The Brielle Master Plan is based upon several assumptions:

1. That there will be no catastrophic disruption of the existing natural and/or cultural development of the Borough of Brielle.
2. That Brielle will be able to guide its growth in accordance with the Municipal Land Use Law and will have major input into any proposed County, Regional, State and/or Federal development plans that may affect the Borough of Brielle or its immediate environs.
3. That future growth during the next five-year period will not exceed the capacity of the Borough of Brielle to provide essential community facilities, utilities and/or services.

POLICIES

The Brielle Master Plan is based upon policies developed by the Planning Board and other land development review agencies.

1. Planning will encourage a variety of residential and non-residential conservation uses, which will enhance the Borough of Brielle as a quality suburban/residential and commercial maritime community in southern Monmouth County.
2. To protect and enhance the environmental quality of the Borough of Brielle.
3. To consider and evaluate innovative development proposals, which would enhance and protect environmental features, minimize energy and usage and encourage development densities consistent with existing patterns of development.
4. To encourage commercial, office, service and recreational development appropriate to a maritime community center, to provide employment for residents and to contribute to the stable economic and ratable base of Brielle.

STANDARDS

The Master Plan provides general guidelines for development, including type, density and location of development. The Borough of Brielle Land Use procedures, zoning and various development ordinances including, site plan, land subdivision and design regulations, provide specific standards for the design, construction, and development of individual land uses within the Borough of Brielle. In addition, Brielle regulations pertaining to utilities, fire prevention, waste disposal and other development factors have been adopted and are applied by the Planning Board and Board of Adjustment and other boards and agencies. Monmouth County, the State of New Jersey, and federal planning and regulatory agencies also have detailed standards pertaining

to environmental features, roadways, utilities, etc., utilized in the overall development process in the Borough of Brielle.

The specific standards that govern the design, construction and development of land in the Borough of Brielle include, but are not limited to, the following:

Federal

Federal regulations governing the use of navigable waterways would affect the Manasquan River and Glimmer Glass.

Brielle Borough falls within the purview of the EPA Stormwater Phase II Rule that requires all urbanized municipalities of 1,000 residents or more to obtain a National Pollutant Discharge Elimination System permit under the Clean Water Act. This permit program requires that each municipality utilize storm water controls including public education, storm sewer inspections, ordinances and best management practices for controlling storm water pollution.

State

The entire Borough of Brielle is located in the CAFRA Zone. Therefore, any development within the Borough of Brielle will comply with the latest CAFRA rules and regulations. The latest rules were adopted in early 2000 and coordinate with the NJ State Development and Redevelopment Plan. The Borough of Brielle is identified in that plan as being Planning Area 1 (PA 1), an urban, developed area and will not have to comply with the strictest enforcement of the CAFRA regulation because most of the potential development will be primarily infill or redevelopment of existing commercial or residential areas.

Additional State statutes govern development along the waterfront or affecting wetlands such as bulkheads, piers and docks, whether for public or private use.

Any activity, which will involve the disturbance of 5,000 square feet or more of land area, requires a soil erosion and sedimentation control permit from the Freehold Soil Conservation District.

Developments that require access from State Highways are required to obtain an access permit from New Jersey Department of Transportation.

A stream encroachment permit is required for any stream crossing or the discharge of surface waters into a stream or other body of water.

Monmouth County

All development not classified as minor by the local Municipal Land Use Law and all commercial development along County highways or affecting County drainage facilities must be reviewed and approved by the Monmouth County Planning Board.

Local

Zoning

The Brielle Zoning Ordinance governs the use of land in the various prescribed zones and established the bulk requirements (lot sizes, setbacks, height limitations, distance between buildings and structures, etc.) parking, landscaping, lighting and other standards.

Subdivision

The Subdivision Ordinance provides standards for ingress and egress, traffic circulation and safety, streets, curbs, sidewalks, stormwater management and provisions for water supply, sanitary sewers, shade trees, landscaping, street lighting, etc.

Site Plans

The Brielle Site Plan requirements provide for the review of non-residential development plans and prescribe the standards for ingress and egress, traffic circulation, parking, drainage, shade trees, landscaping, exterior lighting, etc., in this type of development.

III.
DEMOGRAPHICS

III. DEMOGRAPHICS

Demographic information from State, County and regional resources has been compiled to present a general overview of the character of the Borough of Brielle's citizenry. Population data, density, income and educational data provide an overall picture of the population residing in the Borough of Brielle.

POPULATION

From 1950 to 1960, Brielle experienced its largest population increase in any 10-year period. This increase resulted from the post-WWII-housing boom and the availability of good land suitable for development in Brielle. The construction of the NJ Garden State Parkway also increased the opportunity for Brielle to grow as a suburban bedroom community as well as a summertime resort for city dwellers. Since then, the rate of growth has declined and is continuing to decline. From 1960 to 1970, the population increased 37 percent; from 1970 to 1980, it increased 13 percent; from 1980 to 1990, it increased from 4,406 in 1990 to only 4,605 by 1999, a 4.5 percent increase. This declining growth trend is to be expected because the amount of land available for development in the Borough of Brielle is diminishing.

The 1990 population by age group was reported as:

Pre-school-Under 5 years	219	5.0%
5 to 20 years-School Age	811	18.4%
21-64-Working Age	2,507	56.9%
65 and over-Senior Citizen	869	19.7%
<i>Total</i>	<i>4,406</i>	<i>100%</i>

Compared to the averages for Monmouth County, Brielle is similar in age composition. However, the percentage of pre-school children is 2.0% less than the county average and the percentage of the senior population is 7.0% higher.

The racial composition of the Borough of Brielle's residents in 1990 was 4,121 white, 240 African American, 45 Asian and others and 66 of Hispanic origin. In the last ten years, the white and Asian and Hispanic populations increased while the African American and others decreased.

The racial composition by percentage is as follows:

White	93.5%
African American	5.5%
Asian and Other	1%
Hispanic Origin	1.5%

DENSITY

The Borough of Brielle encompasses 1.65 square miles. Most of this small area is residential in nature. Since the 1980's building boom, when the density of the municipality grew by 8.3% in ten years, the rate of development has slowed due to the lack of available property. The density increased between 1990 and 1998 by 4.0%, making the 1998 population density 2,777 persons per square mile from the 1990 overall density of 2,670 persons per square mile.

According to the New Jersey Development and Redevelopment plan, the Borough of Brielle is located within the Metropolitan Planning Area (PA1). This planning area is described as municipalities with a density of more than 1,000 persons per square mile, with existing public water, sewer, and transit systems within a land area greater than 1 square mile. These areas are targeted for redevelopment and upgrade of existing infrastructure due to the lack of developable land.

INCOME 1989

The Borough of Brielle's average income and projections are considerably higher than the Monmouth County Average. Most residents indicated by the education and employment data are working families or retired professionals who contribute much to the local economy.

Median Family Income	\$60,401
Median household Income	\$53,485
Per Capita Income	\$24,027

EDUCATION

The educational attainment among the residents of the Borough of Brielle is primarily above the average for Monmouth County. 2.4% of the residents have achieved less than a 9th grade education, 6.3% have completed between 9th and 12th grade with no diploma, 26.9% are High School graduates, 23.9% have completed some college, 7.4% have achieved an Associates Degree, 22.3% have achieved a Bachelors Degree and 10.8% have received their Graduate Degree.

The student faculty ratio for the 1996-1997 school year was 12.8:1. The average Math SAT score was 507 and the average Verbal SAT score was 512. Per pupil spending reached \$7,974.

Currently, the Board of Education is preparing for a referendum vote in the General Election 2000 to seek voter approval of an expansion of Grammar School by 8 to 10 classrooms and common use space. The exact scope of the project is not available as of issuance of this document.

IV.
LAND USE PLAN ELEMENT

IV. LAND USE PLAN ELEMENT

Existing land development patterns and current zoning in the Borough of Brielle provide a framework upon which future land planning should be based. The type, density and distribution of uses have evolved over time to produce the current framework. While the Borough of Brielle is predominantly residential in character, there still exist a variety of land use types such as parks, a golf course, retail/office/commercial and marine uses within the existing development pattern.

Residential Uses

The residential character of Brielle is predominantly single-family homes on individual lots. Development potential of more residential properties declines as the municipality becomes built. From 1995 to 1998, 62 residential building permits were issued in the Borough of Brielle. As of January 2000, there were 1846 residences in the Borough of Brielle. A number of these lots front on the Manasquan River, Debbies Creek and the Glimmer Glass, where water-oriented activities are available to the owners.

The topography in the southern portion of the Borough of Brielle also provides some higher elevations from which the Manasquan River and the Atlantic Ocean may be seen.

The residential properties generally south of Route 35 and Higgins Ave. comprise the low-density development and are designated as R-2 on the existing land use plan of the Town. The medium to higher density residential development occurs generally north of Route 35 and is designated as R-3 and R-4 on the existing Land Use Plan. Homes and lots in the northern portion of Brielle are of more modest size, but are substantially built and well maintained. This area also contains the school, Borough offices, public works and recreational facilities.

A majority of the lots in the southern part of Brielle were wooded with mature trees. Many of the trees were preserved during the development of the lots and supplemented by appropriate landscaping. Stands of natural holly and laurel abound in some areas and are highly valued by the populace. Vegetation in these areas includes a blend of native and ornamental plant species often associated with suburban landscaping practices. Tree lined streets, flower and vegetable gardens, lawns and ornamental shrubs provide food and cover for some wildlife species that can cohabitate with people. Sufficient natural habitat remains in the area to support small animal wildlife. Chipmunk, squirrel, skunk and rabbit are prevalent. Migratory and resident bird populations are also common in the Borough. American Robin, starlings, cardinals, sparrows, Canadian Geese, doves and gulls are very common in the area.

Traffic

The increasing use of Riverview Drive as a through street and the relatively high volume of traffic on it during commuter hours is causing considerable concern for residents whose

properties front on the street and whose ingress and egress to their property is directly from Riverview Drive. This traffic increase is caused somewhat by the overall development of the region, but primarily by the inability of the traffic circle at Routes 34, 35 and 70 to handle the peak hour traffic around it. The traffic increase on Riverview Drive has probably adversely affected the market price of homes along the road compared to the market price of homes located at least one property removed from the road. If traffic on Riverview Drive continues to increase, the effect on the quality of life in, and thus the market value of, the homes along it will become more adversely affected. The Department of Transportation (DOT) has undertaken a major road reconstruction project for Route 70. This roadway project also includes the realignment of the intersection of Routes 35, 34 and 70. According to the DOT, the current traffic situation will be improved upon completion of the roadway widening. A major bridge reconstruction project will follow the completion of the Route 70 reconstruction; this will also potentially improve the overall impacts of traffic on the major collector roadways in Brielle.

Commercial

As of January 2000, 86 commercial lots exist in the Borough of Brielle. The commercial areas along Higgins Avenue and Route 71 contain most of the Borough's offices, retail stores and personal service establishments. Some of these stores derive a large portion of their business from Brielle residents while most depend on business from the surrounding municipalities. Therefore, maintaining access to the commercial area by Route 35, Higgins Avenue and Route 71 is important to them.

The marine commercial area located primarily on the Manasquan River between Higgins and Ocean Avenues serves the marinas and boating business located there. Widely recognized as a sport-fishing center along the East Coast, this area attracts a sizable amount of business to the Borough of Brielle and is responsible for a significant part of the economy of the town. It is important to continue to recognize this industry and encourage redevelopment and revitalization wherever needed.

Undeveloped Areas

The scale of future development will be restricted to the limited amount of vacant, developable land and redevelopment of existing parcels. However, the Borough of Brielle has the opportunity to plan and guide future development and redevelopment to achieve desirable growth patterns within Brielle and to be compatible with adjoining municipalities.

There are only a few undeveloped areas within the Borough of Brielle, including oversized lots with subdivision potential. Many of these are encumbered with steep slopes, drainage problems and/or other environmental concerns. The Monmouth County Planning Board received one subdivision application as of 1999 for a 1.7-acre parcel to be subdivided into six new residential lots. This subdivision will most probably provide residential infill development.

EXISTING LAND USE

The Borough of Brielle consists of approximately 2,044 individual parcels of land, 1,105 acres or about 1.73 square miles. (Not including waterways or islands). Of this total, 1,938 lots, 1,045 acres or 94.6 percent of the Borough of Brielle is developed. This leaves approximately, 106 lots, 60 acres or 5.4 percent as vacant land with some development potential.

For the purpose of analyzing existing land use within the Borough of Brielle, six (6) major land use categories were utilized. These are Residential, Commercial, Public, Quasi-Public, Streets and Railroads and Vacant Lands.

EXISTING LAND USE MAP

An existing Land Use Map (Appendix C) provides a graphic pattern of existing developed and undeveloped land within the Borough of Brielle. Vacant lands and existing land use conflicts are identified. This provides a basis for planning future development patterns for the Borough of Brielle.

Use of the existing Land Use Map should not end upon completion of the basic planning studies that create the Master Plan, but should be updated and renewed by Municipal Officials when considering future decisions on Zoning, land development proposals and improvement of public facilities.

LAND USE CLASSIFICATIONS

Classification of land by use and function is important in analyzing land development patterns. The following definitions of uses and land area functions were used to identify overall land use in Brielle.

RESIDENTIAL

Residential Land Uses are classified by type of dwelling units and lot size. A dwelling unit represents a household with customary facilities needed to accommodate one family.

R-1 Single Family

A parcel of land of 40,500 s.f., minimum, on which is located a structure representing one permanent detached dwelling unit.

R-2 Single Family

A parcel of land of 15,000 s.f., minimum, on which is located a structure representing one permanent detached dwelling unit.

R-3 Single Family

A parcel of land of 11,250 s.f., minimum, on which is located a structure representing one permanent detached dwelling unit.

R-4 Single Family

A parcel of land of 5,000 s.f., minimum, on which is located a structure representing one permanent detached dwelling unit.

R-5 Garden Apartment

A parcel of land with a minimum area of eight acres, on which multi-family dwellings are located with a maximum density of six dwelling units per acre.

R-6 Townhouse

A parcel of land with a minimum area of two acres, on which multi-family dwellings are located with a maximum density of six dwellings per acre.

COMMERCIAL

Commercial land uses are classified by location and the focus of the retail operation.

C-1 Central Commercial

A retail district intended to meet the daily needs of the resident population, consisting of traditional "downtown" business.

C-1A Gateway Zone

A themed, multi-use zone retail and services district intended to meet the daily needs of the resident population, dovetailing with the Gateway "streetscape" redevelopment occurring along the Higgins Avenue corridor.

C-2 Marine Commercial

A retail district located along the Manasquan River providing sales and services with an orientation toward marine activities, in addition to marina operations.

C-3 Highway Commercial

A retail sales and services district designated to accommodate the traveling public, consisting of business with a more regional attraction.

PUBLIC LAND USES

Any building or land dedicated to public administration, health, safety and welfare, such as the Borough Hall, Public Works, Firehouse, Post Office, First Aid, Library, Schools, Parks, Open Space and Conservation Areas.

Quasi-Public

Any building or land area of an organization that is generally open to the public, but usually requires some form of membership or affiliation, such as churches, fraternal organizations and country clubs.

Streets and Railroads

Rights-of-way for developed and underdeveloped (paper) streets, public streets and railroads are in this classification.

VACANT LANDS

Any land area not utilized for developed uses or recreation.

LAND USE STUDIES

Residential Land Use

Residential development constitutes approximately 605 acres (54.8%) of the total land area in the Borough of Brielle. Of this total, 548 acres (90.6 %) is Single Family Development; 51 acres (8.7%) is Condominium Development and 6 acres (1%) is Townhouse Development.

Commercial Land Use

Commercial development in the Borough of Brielle is located along Higgins Avenue, New Jersey State Highways 70 and 71, and the Manasquan River. Each area has a very distinct identity due to the present uses.

At this time, approximately 60 acres, or 5.4% of the Borough of Brielle land area is developed for commercial uses.

Public Land Use

Public facilities occupy almost 40 acres (3.6 %) of the developed land area in Brielle. These uses include the Borough Hall complex, the school grounds and the parks. The Firehouse, First Aid Building, Post Office and other public uses are included in this category.

Quasi Public Land Use

Of the 170 acres (15.4%) of the Borough of Brielle land are included in this category, the Manasquan River Golf Course represents 140 acres of the total.

Streets and Railroads

In the Borough of Brielle, streets and railroad rights-of-way occupy 170 acres (15.4%) of the total land area.

Vacant Lands

At this time, approximately 60 acres (5.4%) are vacant lands in the Borough of Brielle.

RECOMMENDATIONS

An examination of existing land uses and the zoning map reveals that there are a few land uses that are inconsistent with the existing zoning map. Each of these should be reviewed with consideration being given to amending the zoning map where appropriate. New development should be encouraged in areas where existing land uses are inconsistent with zoning and the municipal ordinance. In conjunction with the adoption of this Master Plan, the Higgins Avenue area will be rezoned to encourage redevelopment of existing uses and to encourage development within the "Gateway" theme as promoted by the Monmouth County Planning Board and as defined by the Borough of Brielle through this plan and subsequent land use ordinances. This new zone will encourage new commercial uses such as retail and office spaces while providing for public parking and other amenities.

V.
HOUSING PLAN ELEMENT

V.
HOUSING PLAN ELEMENT

Effective July 2, 1985, the Supreme Court established a constitutional obligation for each municipality to establish a realistic opportunity for the provisions of fair share low and moderate-income housing obligations, generally through land use and zoning powers. In addition, every community must include a Housing Plan Element as a part of the Master Plan. As a result of the Supreme Court decision, the Council on Affordable housing (COAH) was created by the Fair Housing Act of 1985. COAH provides municipalities that choose to enter its process and obtain substantive certification of their "fair share" plans with an administrative shield for developer's lawsuits. The Borough of Brielle prepared a Housing Element and Fair Share Plan in July 1988 that determined Brielle's present and prospective fair share of low and moderate-income housing.

Fair Share

In the first round of Fair Share, COAH determined that the Borough of Brielle needed to provide 169 dwelling units that are affordable to low and moderate income households by 1993. COAH revised the Fair Share quotas during round two, as a result of the 1990 Census. The newest obligation for the Borough is 170 total units: 11 rehabs and 159 new construction. This new obligation was required to have been met during a cumulative 12-year period from 1987 through 1999. As of the date of this document, the Borough has not met their obligation but is working towards reaching certification under COAH guidelines. An examination of the existing housing stock and housing statistics as of 1999 is provided herein.

HOUSING STOCK

<u>Households</u>	1999 Estimate	1,815
	January 2000 Tax roll	1,846

Housing 1990

Housing Units	Number	Percent
<i>Total</i>	1,986	100.0
<i>Owner-Occupied</i>	1,428	71.9
<i>Renter-Occupied</i>	307	15.5
<i>Vacant</i>	251	12.6

<i>Median Value</i>	\$243,400
<i>Owner-Occupied</i>	

<i>Median Rent</i>	\$816
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Types of Units

Single Units	Number	Percent
<i>Total</i>	1,645	100.0

<i>Detached</i>	1,499	91.1
<i>Attached</i>	146	8.9
<i>Multiple Units</i>	279	100.0
<i>2-4 Units</i>	255	91.0
<i>5-9 Units</i>	11	4.0
<i>10+ Units</i>	13	5.0
<i>Mobile Homes</i>	62	100.0
<i>And Other</i>		

RECOMMENDATIONS

The municipality does have restrictions upon which it may be difficult to reach the capacity to accommodate present and prospective housing needs under the COAH guidelines. However, it is recommended the Borough attempt to meet its allocated fair share by utilizing the major provisions provided within its Fair Share Plan. These provisions include: examining existing age-restricted and rental housing to determine existing low-moderate income residents, establish contracts with neighboring municipalities for regional contribution agreements to satisfy 50% of fair share obligation, amending zoning ordinances and pursuing other possible routes to achieve fulfilling its obligation for providing low and moderate housing.

VI.
CIRCULATION PLAN ELEMENT

VI. CIRCULATION PLAN ELEMENT

REGIONAL ROADWAYS

Although no major roadways exist in the Borough of Brielle, the regional highway system has a direct effect on local traffic movement and the local street system. The Garden State Parkway and I-195 are located nearby and provide access for residents and commuters to regional employment centers. The proximity of Brielle and other seashore communities with a seasonal attraction is reflected by the heavy traffic experienced on local highways.

PRIMARY ARTERIAL ROADWAYS

A primary roadway serves as a regional connector for the vehicular movement of people and goods. Ideally, there is a limited access to these roads from adjacent properties.

The New Jersey State Highways 35 and 70 are in this classification as they provide access to Brielle from the New York and Philadelphia metropolitan regions.

SECONDARY ARTERIAL ROADWAYS

A secondary arterial roadway serves as an inter-municipal connector for the vehicular movement of people and goods. In addition, these roadways serve as main traffic arteries within the community.

New Jersey State Highway 71 is in this classification as it is the major connection with Brielle to neighboring municipalities to the north.

MAJOR COLLECTOR ROADWAYS

Major collector roadways carry traffic from local streets and major traffic generated land uses to and from the arterial roads.

Major collector roadways in the Borough of Brielle are Riverview Drive, Fisk Avenue and Old Bridge Road. Other road segments, which service the commercial areas, are Higgins Avenue, Ashley Avenue and Green Avenue.

MINOR COLLECTOR ROADWAYS

Minor collector roadways serve to collect traffic from major residential areas and provide access to major collector and arterial roadways.

Minor collector roadways in the Borough of Brielle are Union Lane, Holly Hill Drive, Ocean View Road, School House Road, Rankin Road, Valley Road, South Street and Park Avenue.

The intersection of Route 70 and Riverview Drive will also be modified during the Route 70 realignment project. This intersection will receive new flow patterns through the introduction of a jug handle on the west side of Route 70.

The intersection of Route 35 and Higgins Avenue will be modified during the Borough's Higgins Avenue reconstruction project. This intersection will receive a new off-ramp from Route 35 South onto Higgins Avenue to permit safer crossing movements to the adjacent Brandywyne East development.

TRAFFIC ACCIDENTS

The Borough of Brielle Police Department reported the following numbers of traffic accidents:

1990	161
1991	168
1992	129
1993	126
1994	138
1995	106
1996	132
1997	140
1998	131
1999	115

Approximately twenty percent of these accidents resulted in injuries. No fatalities were reported.

PUBLIC TRANSPORTATION

New Jersey Transit operates rail service to points North to New York through the Borough of Brielle. The nearest station stops are at Manasquan, one mile to the north and Point Pleasant Beach, two miles to the south.

Regional Bus Service is provided by New Jersey Transit, Monmouth Bus Lines and Asbury Park-New York Transit. Routes along New Jersey State Highways 70,71 and 35 provide access to New York, Philadelphia and Atlantic City along with intermediate points.

VII.
UTILITY SERVICE PLAN ELEMENT

VII. UTILITY SERVICE PLAN ELEMENT

WATER FACILITIES

Potable water is supplied to the residents of Brielle through the Department of Public Works. At present, the Brielle water sources consist of three (3) groundwater wells and an interconnection with the New Jersey Water Supply Authority (NJWSA). In addition, the Borough has emergency interconnections with Wall Township and the Borough of Manasquan. NJWSA water is supplied from the Manasquan Reservoir at a contractual volume of 350,000 gallons per day. The Borough is currently seeking to increase said volume to 370,000 gallons per day. The water is delivered to the Union Lane facility where a connection to the system rides under the pressure of the elevated tank. The NJWSA supply is supplemented by two Borough wells located in the Englishtown formation. The Borough wells are used only in the summer months. The third Borough well, located in the Kirkwood formation has not been used due to high iron content.

In general, peak daily demands occur during the summer months of June, July, August and September with many peaks falling on popular summer weekends. With the availability of the water delivered from the Manasquan River, there are no anticipated or historical supply problems.

The Borough monitors unaccounted-for water routinely by checking hydrants and implementing repairs. Quarterly lists of detected problems are addressed with repairs and replacements.

The governing body has the right to restrict water use during a drought emergency. In addition, the Borough of Brielle encourages the use of water saving devices. Activities with respect to water conservation are coordinated by the Borough Clerk with the assistance of the Water Superintendent.

The current system has a treatment/storage capacity of 1.2 million gallons per day. The total number of metered service connections is 1,977. The system operates at a pressure between 40 to 60 psi. The average water demand in 1999 was 0.458 million gallons per day, which equated to an average per capita use of nearly 100 gallons per day.

SANITARY SEWERAGE

The Borough of Brielle is a member of the Southern Monmouth Regional Sewerage Authority (SMRSA) based in Wall Township. The Borough of Brielle sends untreated raw sewage directly to the SMRSA Treatment Plant. Borough owned and operated pumping stations are located at Green, Laurel, Osprey and Cedar Avenues. The authority owns and operated a single pumping station at Magnolia Avenue.

SOLID WASTE DISPOSAL

Solid waste is collected in Brielle by an outside contractor, with a weekly pick-up at each residence. At present, waste is disposed of at the Monmouth County Reclamation Center in Tinton Falls.

Leaves and vegetative waste are transported outside the boundary of Brielle. A recycling plan is included as a separate section in the Master Plan.

STORM DRAINAGE AND FLOOD CONTROL

A separate study of the stormwater infrastructure was conducted under the Sewage Infrastructure Improvement Act (SIIA) and completed in 1998. This study identified all storm water outfall pipes into the Manasquan River and its tributaries located in Brielle. These pipes were monitored to determine if possible interconnections with sanitary sewer lines existed. Two pipes were identified to have elevated levels of bacteria. However, the cause of these elevated levels was determined to be from non-point sources of pollution and was remediated. Currently, all stormwater outfall pipes conform to all water quality standards.

According to the Flood Emergency Management Act (FEMA) Map 5, most of the Borough of Brielle is located in Zone C, which is the 100 to 500, year Flood Hazard area. Portions of the Borough of Brielle, located along the Manasquan River and its tributaries, are classified as Zone A, the 50 to 100 year Flood Hazard area.

PUBLIC WORKS DEPARTMENT

The Borough of Brielle has a Public Works Department that consists of 13 employees. The responsibilities for the Public Works Department include, maintaining the streets, sweeping the streets, maintenance of parks, and maintenance of buildings. The Public Works Department is also responsible for recycling of leaves and brush. The Department currently has the following equipment: four 5 cubic yard dump trucks for snow plowing and sand placement; one front end loader; one street sweeper; one rack body truck with hydraulic tailgate; one 25 cubic yard packer truck; two one-ton pickup trucks; a 1 ½-ton utility Water Department truck; superintendent's truck and an assistant superintendent's car.

The utilities maintained by the Public Works Department include stormwater sewers and sanitary sewers.

VIII.
COMMUNITIES FACILITIES PLAN

VIII. COMMUNITIES FACILITIES PLAN

MUNICIPAL BUILDING

The Borough of Brielle Municipal Building is situated at the corner of Union Avenue (New Jersey State Highway 71) and Union Lane, and is located in the first Borough Public School building, which was constructed in 1919 and renovated in 1991-1992. The building houses many of the daily functions of the Borough of Brielle.

Offices located in this building include the Assessor, Borough Clerk, Building Inspector, Health Officer, Tax Collector, Magistrate and Violations Clerk. The Municipal Court and Council Chambers share a meeting room. The Police Department is also located here.

Parking is provided to the rear of the building. A joint Borough/School parking and circulation arrangement is envisioned upon completion of planning for expansion of classroom space at the Grammar School.

BOROUGH OF BRIELLE LIBRARY

The Brielle Library Association was incorporated in 1954 and has a Board of Trustees consisting of appointed members and elected members. The Library is located in a Borough owned building for the last five years and has a floor area of 6,200 s.f. with 400 additional square feet of attic space. Presently, 30,000 volumes of books are available for review in addition to County books. The Library presently can seat 40 users. The Library Association obtains funding through the Borough of Brielle and from gifts and fund raising. The municipal budget component in 2000 was \$109,000. They have adequate space for their needs at this time, however they are in the process of remodeling for a new reading room space. This reading room is utilized for various children's programs. The children's programs are held every Tuesday and Thursday and consist of storytimes for toddlers, ages 3-5 and Kindergarten through fourth grades. These programs usually include guest speakers, puppeteers or clowns. Currently, the library has 3,250 regular borrowers, with a circulation of 57,000 books per year. The staff consists of eight personnel.

BOROUGH OF BRIELLE POLICE DEPARTMENT

The Borough of Brielle Police Department presently has a staff of 19 personnel consisting of the following positions: chief, captain, sergeants, detective, patrolmen, special officers, dispatchers and records clerk. The force presently has four patrol units that were purchased in 1997, 1998, 1999 and 2000. A DWI unit was purchased in 1991 and one detective unit was purchased in 1994. They currently operate a Traffic Safety Bureau and have computer linkups with the County and State Information Systems.

A review of incoming police calls reveals that approximately 10 percent of all calls are for major crimes related problems and 90 percent are service calls.

BOROUGH OF BRIELLE SCHOOLS

The Borough of Brielle currently only has one elementary school with grades Kindergarten through Eighth Grade. The school system employs one superintendent who also is the principal of the school, an assistant principal, a secretary to the Board of Education, a secretary to the superintendent and a secretary for the Board of Education office. There were 483 students enrolled in the system during the 1998-1999 school year. A demographic report commissioned by the Board of Education in 1999 estimates increasing enrollment through 2004. The estimated enrollment for the 2003-2004 school year is 517 students. The existing condition and usage of the school facilities coupled with these estimates of increased enrollment has forced the Board of Education to embark on a school expansion program.

BOROUGH OF BRIELLE FIRE DEPARTMENT

The Borough of Brielle currently has one Fire Department, which has in excess of 30 members. The active membership is approximately 30 with the number of members regularly responding to fires between 22 and 28. The firehouse has four truck bays with a meeting/voting room, kitchen and office. The Department currently has 3 engines and 2 auxiliary vehicles. All fire fighting equipment, except for one engine, is currently up-to-date and meets all NFPA standards. For the last three years, the Borough of Brielle Fire Department has responded to an average of 65 to 75 calls per year, with approximately five classified as major structural fires. The remainder of the calls falls into one of the following categories (in order of frequency):

- False alarms
- Community assistance
- Mutual aid to other fire companies
- Motor vehicle fires

Calls are received through home paging systems that are issued from their own dispatcher and the fire whistle siren is used on all calls.

Funding for Fire Department activities is provided by the Borough of Brielle and supplemented by fundraising efforts conducted four times a year. The Department is currently in need of a new pumper truck to replace the non-compliant engine mentioned above.

BOROUGH OF BRIELLE FIRST AID SQUAD

The Borough of Brielle First Aid Squad currently has 25 members of which approximately 13 to 15 are active. They have a need for additional members at this time. The First Aid Station has three ambulance bays, one kitchen and a meeting room. All equipment is currently up-to-date and meets all code requirements. The First Aid Department currently responds to approximately 350 to 400 calls per year consisting of the following types of calls:

Emergencies	90 %
Fires and Miscellaneous	10 %

Thirty (30) percent of the calls require transport of victims to the Jersey Shore Medical Center, while remaining seventy (70) percent of the calls are taken to Brick Township Hospital. The Department currently has two (2) box-type ambulances, purchased in 1989 and 1997.

In addition to the above, the Brielle First Aid Squad sponsors blood drives, attends Manasquan High School football games, and provides mutual aid services to the Borough of Manasquan.

BOROUGH OF BRIELLE CHURCHES

Brielle Borough has one church, the Reformed Church of America at the corner of Riverview Drive and Rankin Road. Regional places of worship for a variety of denominations are in abundance in the surrounding communities and are within close proximity to the residents of Brielle.

IX.
PARKS AND RECREATION PLAN ELEMENT

IX. PARKS AND RECREATION PLAN ELEMENT

Parks and open space areas enhance the quality of life in the Borough of Brielle by providing opportunities for public recreation, and moderating residential development densities. Open space used for recreational purposes can also enhance the aesthetic quality of the environment and preserve natural resources such as forests and wetlands.

In spite of the abundance of water frontage in the Borough of Brielle, open space along the waterfront is a scarce resource. It is important that existing sites be maintained and provision of new sites become a Borough priority.

Existing parks and recreation sites are owned by the Borough of Brielle, the Board of Education and private interests. Borough of Brielle parks include Green Acres Tract and the Elementary School on Union Lane and Carpenter Park on Green Avenue. Osborne/Nienstedt Island is located in the Manasquan River.

Total acreage of the Parks is approximately 29 acres. Major areas are identified as follows:

Osborne/Nienstedt Island	7 Acres
Carpenter Park	Less than 1 Acre
Elementary School	6 Acres
Green Acres Tract	15 Acres

The National Recreation Association recommends as a general standard, that one-acre of park and recreation should be available for each 100 residents. Under this guideline, Brielle should have 44.5 acres of municipal parks set aside for the resident population. However, when including the 140-acre Manasquan River Golf Course located centrally within the Borough, Brielle is well within the National Recreation Association recommendation.

There are many additional recreational opportunities available regionally through county and state facilities. These include: Manasquan River Golf Course, Monmouth County Shark River Park, and Shark River Golf Course in Neptune Township, the Howell Park Golf Course and Manasquan Reservoir in Howell Township and Allaire State Park and Spring Meadow Golf Course in Wall Township. In addition, public beaches are available in the Boroughs of Manasquan and Point Pleasant Beach. The adjacent Manasquan River and nearby Barnegat Bay and Atlantic Ocean provide ample opportunity for boating, fishing, swimming, snorkeling, water skiing and similar seasonal water-related recreational activities.

Most of the few remaining vacant parcels of land in the Borough of Brielle that are large enough to develop with active recreational facilities would be difficult to develop due to significant environmental constraints including topography and drainage conditions. The cost for purchasing the properties, clearing and grading to prepare them for construction of recreational facilities and the resultant impacts on the neighborhood may be difficult to justify. However, areas where passive recreation including walking, running and bicycling paths may be appropriate for these areas. The Borough should consider these areas for these purposes.

X.
CONSERVATION PLAN ELEMENT

X. CONSERVATION PLAN ELEMENT

The Borough of Brielle is uniquely positioned to address post-development impacts upon natural resources as a component of its Conservation Plan element. Realizing the ability to conserve open spaces and protect natural resources in the Borough is severely limited due to the "built-out" state of the municipality, other conservation issues can be addressed herein. The ability of the Conservation Plan Element to encourage municipal action to guide the appropriate use of all lands in the municipality can be accomplished by examining the existing land uses (residential) and the impacts they have on the remaining natural resources.

Conservation Planning

Conservation planning can address a variety of issues including open space preservation, marshes and wetlands, water resources, and marine resources.

Open Space

Open space preservation was primarily addressed in the Recreation Plan Element due to the urbanized nature of the municipality. The 1978 Natural Resource Inventory and Study of Brielle identified many of the open spaces appropriate for preservation. Many of these areas were either deed restricted, owned by the municipality through recreational programs or not suitable for any type of development. However, the Borough does have an impressive list of areas that are preserved. Those areas include: Owl Woods, The Indian Settlement, Indian Lake, Glimmer Glass, Brielle Wildlife Sanctuary, Osborne Island, and Sedge Island. Owl Woods is also recognized as regionally significant in the Monmouth County Unique Areas Study of 1978. It was designated as unique for its value as a wildlife habitat and watershed/floodplain.

The preservation of open spaces provides many aesthetic and environmental benefits to a community. Large tracts of undisturbed vegetation and soils can provide ground water recharge, flood protection, wildlife habitat, and areas of passive recreation for residents. It has also been demonstrated in various studies that housing values are greater in areas adjacent to open spaces and preserved forests. The ability to preserve additional open space in the Borough of Brielle is severely limited due to the lack of available land. However, it is recommended that any suitable land available for preservation or any sensitive lands associated with a proposed development be considered for preservation through easements, dedications or purchase.

Marshes and Wetlands

Marshes and Wetlands are protected under the New Jersey Freshwater Wetlands Protection Act. This law prohibits the filling and development of any areas proven to be freshwater wetlands. Coastal wetlands or salt marshes are also protected under the Coastal Areas Facility Review Act (CAFRA). These laws were enacted after most of the Borough was developed in the mid to early 1970's. As a result, many areas of the borough that contained marshes and wetlands may have been filled to support residential development. The remaining areas of marshes and wetlands are of great aesthetic and environmental quality. They provide for the purification of

surface water and ground water, wildlife habitat and flood protection. The wildlife habitat that is provided by these marshes and wetlands is integral to a large bird population. Many birdwatchers can observe migratory birds, resident waterfowl and nesting bird populations year round in the coastal wetlands and marshes located in the Manasquan River.

Water Resources

Due to the developed nature of the Borough of Brielle, many of the once natural water features that existed have been diverted into stormwater collection systems and directed into the Manasquan River. Water that once ran over land to natural streams had opportunity to recharge into aquifers that are located in the underlying geology. This groundwater recharge helped to reduce flooding impacts at times of heavy rainfall and provide fresh drinking water to residents with wells. The surface water also had opportunity to filter out pollutants as it ran over naturally vegetated areas such as forests and meadows. As the borough became more developed, these opportunities for natural water quality protection become less possible. This resulted in two undesirable conditions. Less potential for groundwater recharge and higher volumes of surface water runoff that carries evidence of "people pollution" or Non-Point Source Pollution (NPS) into our streams.

NPS is pollution that results from everyday land-uses. The way in which people use the land they live on impacts the quality of water located in our streams and rivers. Every pollutant that is on our lawns or our pavement ends up in our rivers. This includes trash, fertilizers, pesticides, oil, gasoline, road salts, soil and even animal and pet droppings. The impacts of NPS can degrade water quality, negatively impact recreational activities such as beach closings, and contribute to sedimentation in our waterways.

State and County programs have been ongoing to address NPS. The New Jersey Department of Environmental Protection and Monmouth County have been conducting a watershed study in the Manasquan River Watershed. A watershed is an area of land that drains to a lake, stream, river or bay. The Borough of Brielle is located completely within the Manasquan River Watershed along with five other municipalities. The basis behind the watershed management process is rooted in addressing the impacts of NPS on the receiving water bodies. Local management plans have been drafted to change local land-use practices such as zoning and ordinance implementation. Ordinances have been adopted to control NPS. These ordinances include pooper-scooper laws, stream corridor protection, open space preservation, stormwater management and flood protection. It is recommended that the Borough of Brielle consider adopting similar ordinances to protect its marine recreational and commercial character and promote water quality protection.

Marine Resources

The Borough of Brielle serves as a major marine center in New Jersey. Marinas that house commercial and recreational boating facilities are located along the Manasquan River. The Manasquan River serves as a nursery and foraging ground for many fishes. The Manasquan River ecosystem complex includes freshwater streams, estuarine marshes, tidal floodplains, brackish coves and saltwater tidelands. It is a haven for many commercial and recreational grade fishes, crabs and shellfish. The importance of the health of this complex is dependent on the land uses that drain to it. Therefore, these resources need protection from NPS.

Federal, State and County programs have also addressed the protection of the River through designation of the Manasquan River as a No Discharge Zone in the spring of 1998. This designation makes it illegal for any vessel to discharge untreated or treated sewage directly into the River. Through this program, pump-out facilities were provided at many locations along the river for boaters to pump out their boat waste.

These initiatives have helped to improve water quality resources and will continue to protect the water resources of the Manasquan River. However, it is recommended that the Borough consider adopting similar ordinances and policies to be consistent with the watershed initiatives and water resource protection. These initiatives include an outreach and education program targeted at the residents of Brielle. Programs such as storm drain stenciling, pooper-scooper ordinances and proper lawn maintenance should be considered.

XI.
RESOURCE CONSERVATION AND RECYCLING PLAN ELEMENT

XI. RESOURCE CONSERVATION AND RECYCLING PLAN ELEMENT

WATER CONSERVATION

A conscious effort should be made by the Borough of Brielle to have all homeowners consider water conservation fixtures for new installations or when replacements are made. Suggesting flow rates for conservation fixtures are:

Kitchen faucets	2.5 gallons per minute
Bathroom faucets	1.0 gallons per minute
Toilets	3.5 gallons per flush
Showerheads	2.0 gallons per minute

Restrictions on lawn watering, car washing and unnecessary uses should be considered for enforcement, particularly during the summer months when demand for water is greater.

NEW CONSTRUCTION GUIDELINES

Conservation techniques for new construction have been established by the NJDEP. These energy conservation measures for residential construction are intended to maximize energy efficiency in new construction:

Conservation techniques include, but are not limited to, the following:

Siting – locating units with long axis within 30 degrees of true south, minimal shading, limiting glass on north, east and west walls to maximum of 100 square feet.

Windows – double pane with wood frame or thermal break, with low infiltration rating.

Doors – metal faced insulated door with magnetic weather stripping.

<u>Insulation</u> –	Ceiling	R-30 or R38
	Walls	R-17 or R-19
	Floor over vented crawl space	R-11 or R-19

Water heating – off peak metering/storage water heater; complete insulation of hot water piping; installation of heat traps on water lines.

Heating – clock controlled thermostat, heat pump and high efficiency heat units.

Cooling – whole house fan and efficient air conditioner units

Appliances – high efficiency models are now available for most household appliances.

Landscaping – evergreens along north and west sides, deciduous shading on south, east and west windows.

STORMWATER MANAGEMENT

The Borough of Brielle is an active participant in the Sewage Infrastructure Improvement Act (SIIA). Grand funds were used to prepare detailed maps showing all stormwater pipes and 42 outfalls. The Borough also completed a sampling and testing program of the stormwater outfalls. The testing program was conducted to actively monitor water quality and identify and eliminate any potential sanitary sewer cross connections. No cross connections were found and all outfalls meet state standards for water quality.

RECYCLING PLAN ELEMENT

A Recycling Plan was prepared and adopted by the Borough of Brielle in 1988. This plan meets all County and State requirements. It is included by reference in this section and is reprinted in full in the Appendix.

XII.
ECONOMIC DEVELOPMENT PLAN ELEMENT

XII.

ECONOMIC DEVELOPMENT PLAN ELEMENT

The Borough of Brielle's economic base consists of primarily residential properties and a commercial central to retail and marine trade. The residential tax base provides approximately 80% of the municipality's revenue. The commercial tax base provides approximately the remaining 20%. The 1999 Brielle general tax rate was 1.992% providing a total assessed value of \$553,853,700.

The Borough of Brielle is estimated to have 146 retail, service, construction, finance transportation and wholesale establishments with a total of 464 employees. The 1998 estimated annual average available labor force totaled 2,415. The 1998 employed by municipality for Brielle are 2,285 and 130 unemployed.

The Monmouth County 1989 Median Household Income was \$60,401.00. The 1989 Median Household Income for the Borough of Brielle was \$53,485.00 (+22 percent from the 1979). The County Average Per Capita Median Income (1989) was \$20,565.00. The Borough of Brielle Median Per Capita Income (1989) was \$24,027.00.

RECOMMENDATIONS

In conjunction with the adoption of this Master Plan, the Borough of Brielle is proposing to rezone the commercial center along Higgins Avenue to provide incentives for redevelopment. The Borough will rezone this area to create a commercial "gateway" district along Higgins Avenue. This will revitalize the area and provide an economic benefit to the community. The Borough is also undertaking an extensive streetscape of Higgins Avenue. The plans for the streetscape can be viewed at Borough Hall.

BOROUGH OF BRIELLE RECYCLING ELEMENT OF THE MASTER PLAN

This element of the Master Plan has been prepared in response to a State mandate to revise and review the Borough's Master Plan to reflect State, County and local policies that require the collection, disposition and recycling of designated materials. This plan shall be reviewed and revised at least every 36 months to reflect changes in Municipal, County and State Recycling policies and objectives.

Purpose

The Borough of Brielle recognizes that separating recyclable materials from all residential, commercial and industrial solid waste sources is of paramount concern;

- a) Due to the lack of existing and future landfill space;
- b) To conserve valuable resources, and;
- c) To reduce the demands on high technology central resource recovery facilities.

Promoting recycling through the use of planning practices will ensure that future needs of the municipal recycling program will be met as recycling policies and demands change.

Collection of Recyclable Materials

Existing

The Borough of Brielle maintains a recycling collection system. It began as a voluntary newspaper recycling program in June 1985. In January 1986, a curbside collection and drop-off for aluminum cans and glass bottles was initiated. Mandatory curbside collection was enforced in January 1987. Commercial recycling became mandatory in July 1987.

The Recycling Coordinator promulgates rules and regulations, which are approved by the Governing body, as to the manner, days and times for the collection, storing and transportation of the recyclables.

Currently, the Borough provides curbside pick-up service of designated* materials for all Borough residents as well as approximately 83 commercial establishments. Drop-off service is available for non-designated* recyclables (including used motor-oil, magazines and office paper) during weekdays and Saturday mornings at the Public Works Yard. Commercial establishments which use private collection for some recyclables provide the Borough with tonnage information for state grants tied to the amount of materials recycled as well as required reporting to the County Recycling Office.

There are four full-time personnel in the Recycling Department and nine in the Public Works Department for a total of thirteen full-time employees. Town-wide newspaper pick-ups occur twice a month. The pick-ups for commingled takes place twice a month. Leaves are collected curbside with a vacuum truck and transported to Atlantic Farms.

***Designated materials** are those listed as mandatory recyclables in the Borough of Brielle recycling ordinance. ***Non-designated materials** are those which are recycled by choice.

The Department operates four, five-cubic-yard dump trucks; an "Eager Beaver Recycler"; a small compartmentalized trailer; a retrofitted truck with a rack body and a hydraulic lift; and maintains the storage area in the Public Works Yard.

Planning

During the Planning Board review of new development of:

- a) Fifty (50) or more single-family dwellings;
- b) Twenty-five (25) or more multi-family dwellings, or;
- c) Commercial or industrial developments of 1,000 square feet or more.

The impact on the recycling collection system must be considered to ensure that adequate resources will be made available for collection of additional recyclables produced by the proposed development. Although the existing facilities could incorporate additional volume, additional personnel would be necessary if the volume of recyclables were increased significantly.

The following information should be included in a Planning Board submittal:

- 1. A list identifying recyclables that will be produced by the proposed development;
- 2. Estimates of quantities of recyclables that will be produced;
- 3. A site plan or plot plan showing temporary centralized storage area for the recyclables which is easily accessible for pick-up by the Borough, deposit by the users, and;
- 4. New developments which will make use of a Homeowner's Association should include a draft copy of the bylaws which address the enforcement of waste separation and maintenance of temporary centralized storage facilities for recyclables.

See Attachment A for further information on standards to be used for planning adequate space for temporary storage of recyclables.

Disposition of Recyclable Materials:

Existing

After recyclable materials are collected, they are stored within the Public Works Yard until quantities are sufficient for transport to the various markets. The sale and marketing of recycling materials are subject to rules and regulations promulgated by the Recycling Coordinator as approved by the Governing Body. The Borough is currently contracted to sell all their recyclables.

The Public Works Yard facilities include four 10'x 20'x 5' bins used for commingled. Two 10'x 20' sheds are used for temporary newspaper storage. One 16'x 20' fenced area is used for residentially produced corrugated cardboard. One compartmentalized trailer is used for magazines and office paper.

Planning

During the Planning Board review of new development of:

- a) Fifty (50) or more single-family dwellings;
- b) Twenty-five (25) or more multi-family dwellings, or;
- c) Commercial or industrial developments of 1,000 square feet or more of impervious area;

The impact on disposition of recyclables must be considered to ensure that markets are available for the additional recyclables produced by the proposed development. Information about the type, quantities and temporary storage of recyclables should be provided and analyzed using the standards set forth in Attachment A.

Recyclable Materials

Materials to be recycled are defined within the recycling ordinance of the Borough. At this time, newspapers, glass bottles and jars, high grade paper, cardboard, aluminum cans, plastics, tin cans, leaves and used motor oil are required to be removed from all other solid waste.

Relationship to the Monmouth County District Solid Waste Plan

The policies of the Monmouth County District Solid Waste Management Plan, published in the January 1987 Plan, comply with the 25% state mandated volume reduction of the solid waste stream. The Borough of Brielle has complied with the policies to reach this goal through implementation of its recycling program.

As a private carter is used to transport solid waste from the Borough, it is impractical to determine an accurate percentage of the waste stream that is being recycled. Using 1987 tonnage figures and estimated 1987 population provided by the Monmouth County Planning Board, the following pounds per person per month were recycled:

Newspaper	11 pounds per person per month
Glass	4.5 pounds per person per month
Aluminum Cans	0.2 pounds per person per month

These estimates compare favorably with the following average generation rates provided by the New Jersey State Office of Recycling:

Newspaper	8-10 pounds per person per month
Glass	5-7 pounds per person per month
Aluminum	0.4 pounds per person per month

SINGLE-FAMILY HOMES

Space should be allowed in the kitchen, laundry room, basement or the garage for storage of recyclables. Approximately three square feet of floor area will adequately hold a week's accumulation of recyclables. Municipalities with bi-weekly or monthly collection may need to allow extra space for material storage. This is sufficient space to hold either a three-tier unit or three or four 5-gallon buckets.

CONDOMINIUMS/TOWNHOUSES/APARTMENT BUILDINGS

Each individual unit should be designed to accommodate a week's accumulation of paper, glass and metals. This can be accomplished by allowing space under the sink area or in a closet for a three tier stacking unit or, four 5-gallon buckets. This would occupy only about three square feet of floor area and would give residents a convenient area for storing their recyclables.

A central location near the refuse receptacle units, or in a common area of the condominium units, i.e. near the laundry room, should be easily accessible for the residents of the building to drop-off their materials. They should also be planned with truck access in mind in order to facilitate loading of materials for delivery to markets. In a multi-story building, a space provided on each floor will produce the highest participation rates. The bins should be clearly labeled so it is obvious they are for recyclables and not trash.

It is also important that these storage areas be designed in compliance with local fire codes.

APPENDIX A

The following standards are provided by the New Jersey State Office of Recycling:

AVERAGE GENERATION RATES

Newspaper	8-10 pounds per person per month
Glass	5-7 pounds per person per month
Aluminum	0.4 pounds per person per month
Tin Cans	6 pounds per person per month
Plastic Containers:	
PET	0.4 pounds per person per month
HDPE	0.4 pounds per person per month
Corrugated	Depends on level of commercial activity
Hi-Grade	
Office Paper	15 pounds per office worker per month
Mixed	
Office Paper	30 pounds per office worker per month

AVERAGE DENSITIES OF MATERIAL

Newspaper	1 cubic yard = 600 pounds 1-1/2" stack = 35 pounds
Glass (whole bottle)	1 cubic yard = 600 pounds 1 grocery bag = 16 pounds (3) 12oz. bottles = 1 pound
Aluminum Cans (whole)	1 cubic yard = 74 pounds 1 grocery bag = 1.5 pounds
Tin Cans	1 cubic yard = 150 pounds 12 cans = 1 pound
Plastic Containers (Approximately 50% Flattened)	
PET	1 cubic yard = 45 pounds
HDPE	1 cubic yard = 25 pounds