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1989 MASTER PLAN LAND USE ELEMENT UPDATE

CINNAMINSON TOWNSHIP

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New Jersey Lic. 1997

January 1989

Revised August 1989

as per May 16, 1989 Public Hearing

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ACKNOWLEDGEMENTS

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In addition, without listing the many Township staff individuals, outside agencies including the County Planning Board, residents and individuals in the local business community, appreciation is expressed for their input.

I. INTRODUCTION

WHAT IS A MASTER PLAN UPDATE?

This document, in accordance with N.J.S.A. 40:55D-89, represents an update of the Cinnaminson Township Master Plan adopted in February 1983. N.J.S.A. 40:50D-89, requires that the governing body of a municipality shall at least every six (6) years, provide for a general re-examination of its Master Plan Land Use Element and development regulations by the Planning Board. The re-examination report shall state:

- A. The major problems and objectives relating to land development in the municipality at the time of the adoption of the last re-examination report.
- B. The extent to which such problems and objectives have been reduced or have increased subsequent to such date.
- C. The extent to which there have been significant changes in the assumptions, policies and objectives forming the basis for the master plan or development regulations as last revised, with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, and changes in State, county and municipal policies and objectives.
- D. The specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulations should be prepared.

A. REVIEW OF CINNAMINSON'S 1983 MASTER PLAN

The 1983 Master Plan found Cinnaminson Township's land use pattern to be one of a developed community. While almost one quarter of the Township remains either vacant or agricultural, the largest portion of the vacant land consists of wetlands and flood plains along the Delaware River and Pennsauken and Pompeston Creeks, some isolated large residential parcels which could be subdivided, a few scattered farm sites near the Moorestown and Maple Shade boundary, rear portions of undeveloped commercial property along Route 130, and scattered tracts in the industrial district.

The 1983 Master Plan concluded that future development in the Township will be limited to the slower in-filling process on remaining sites along with a few changes that might occur in existing buildings. In addition, design constraints can be expected on many of the few remaining sites because of either environmental problems or restrictions on the size and shape of the property.

B. PRESENT CONDITIONS AND POLICY CHANGES SINCE 1983

Growth in the Township has been characterized as slow since the adoption of the 1983 Master Plan. The New Jersey Building Permits Summary Reports records that 84 building permits were issued for residential construction in Cinnaminson Township from 1983 through 1987. There were six (6) permits for residential demolitions in the same time period. Non-residential development has also been limited in the Township; it has been located primarily in the northwest portion of the Township and along Route 130.

In addition to discussing Cinnaminson Township's developed nature, the 1983 Master Plan identifies several features which will continue to influence development patterns. The major features which are identified include Route 130 and the Conrail railroad line which divides the Township into segments, and environmental features such as flood plains and wetlands adjacent to the Pompeston and Pennsauken Creeks and the Delaware River. As traffic continues to increase within the Township, particularly along Route 130, traffic circulation patterns will continue to influence land use patterns in Cinnaminson.

Environmental constraints will also continue to be important limiting considerations over the next planning period, particularly those constraints related to the more stringent wetlands and flood plain regulations established by the New Jersey Fresh Water Wetlands Act of 1987 and the Flood Hazard Areas Ordinance established by the Township in 1987.

Because Cinnaminson is a developed community with much of its remaining vacant land environmentally unsuitable for development, future land use in the Township will involve infill, redevelopment and development of underutilized lands. Policies to ensure compatibility of existing and new land uses should be considered as part of the Master Plan Update.

A major change in State policy since the adoption of the last Master Plan is represented by the adoption of the Fair Housing Act of 1985 which was established in response to the New Jersey Supreme Court Mount Laurel I and Mount Laurel II decisions. The Act requires that all municipalities prepare a Housing Element to achieve the goal of providing access to affordable housing to meet present and prospective housing needs, with particular attention to low and moderate income housing. The Fair Housing Act required that all municipalities adopt a Housing Element of the Master Plan by August 1, 1988. The absence of the adoption of a plan constitutes a "rebuttable presumption" that the municipal development regulations are no longer reasonable.

Another major change in State policy since the adoption of the last Master Plan is the requirement for a Recycling Plan Element

to incorporate the State Recycling Plan goals. These include: (1) provisions for the collection, disposition and recycling of recyclable materials to be designated in a municipal recycling ordinance, (2) a plan for the collection, disposition and recycling of recyclable materials to be included within any proposal for the construction of 50 or more units of single-family residential housing, any proposal for 25 or more units of multi-family residential housing, and any commercial or industrial development proposal for the utilization of 1,000 square feet or more of land.

Another change in State policy since the adoption of the Master Plan is the preparation of a draft Preliminary State Development and Redevelopment Plan. The State Development and Redevelopment Plan is a growth management plan which strives to accommodate the projected growth for the State to the year 2010 in an orderly manner without affecting the economic vitality of the State. A municipal master plan must include a specific policy statement indicating the relationship of the proposed development of the municipality to the State Development and Redevelopment Plan.

Burlington County is also preparing a comprehensive Master Plan. There has, however, been no change in county policy since the last adoption of the Cinnaminson Master Plan.

Although Cinnaminson is regarded as a developed community, infill development and changes in land use will occur through redevelopment over the next planning period. This raises concerns about planning and zoning policies, which the Master Plan will address.

C. LAND USE AREAS OF CONCERN

Cinnaminson is bordered to the north by the Delaware River. Over 400 acres of the Township, much of which are undeveloped, are located between the river to Broad Street, the nearest improved street to the river. The Cinnaminson waterfront is zoned for heavy industrial land use, but there have been proposals for various types of development along the waterfront in recent years. The most recent proposals were for residential and commercial development, with the property owner requesting rezoning to allow these land uses. A special study of the Cinnaminson waterfront is necessary as part of the 1989 Master Plan Update in order to ensure the proper development and use of lands along the waterfront in the Township.

State Route 130 passes through the Township for a distance of 2.8 miles, from just east of Taylor's Lane which separates Cinnaminson from Delran, to the Pennsauken Creek and Route 73 intersection separating Cinnaminson from Pennsauken Township. The portion of Route 130 which passes through Cinnaminson is a six (6) lane road with no shoulder and eight intersections.

Route 130 was once the major north/south corridor through the State, but it has since been superceded in the State Highway network by the New Jersey Turnpike and Interstate 295. As Route 130 has evolved from a major State highway into a local and regional highway, the function of the land use along the Route 130 corridor has also evolved and traffic patterns have changed. To ensure redevelopment compatibility of land use with the existing characteristics of the highway, a special focus study and comprehensive land use scheme is necessary as part of the 1989 Master Plan Update. Particular attention should be given to promoting development of vacant lands in the corridor while also upgrading underutilized lands in a manner appropriate to the physical highway setting, the established traffic patterns and the visual character of Cinnaminson Township.

The following section contains a list of updated goals and objectives which have been formulated in accordance with the concerns discussed above.

II. GOALS AND OBJECTIVES

WHAT ARE GOALS AND OBJECTIVES?

Goals and objectives provide the guiding principles upon which proposals for land use and development are based. Goals are broad topics corresponding to the major elements of the master plan. Objectives are specific policies to be advanced by the goals.

The following text summarizes the goals of previous Township Master Plans and presents a list of goals and objectives for the 1989 Master Plan Update.

A. REVIEW OF GOALS OF 1983 CINNAMINSON TOWNSHIP MASTER PLAN

1. Environmentally critical areas are intended to be avoided by development. If encroached upon in exceptional cases, the intrusion should be minimal and with design features incorporating methods to deal with the natural limitations.
2. The intensity of development shall be a consideration in establishing new uses in existing neighborhoods.
3. Selective senior citizen townhouse development on small, scattered sites is recommended to accommodate the rising elderly population.
4. The underutilized rear yards of commercial properties along Route 130 should be carefully planned as transition areas to protect the single-family homes behind them. Some may be considered for senior citizen townhouses to assist the housing objectives.
5. Expanded employment opportunities are contemplated in the industrial and commercial areas. These areas have developing non-residential characteristics with convenient access to major transportation routes.
6. The strip development characteristics along Route 130 should be improved. While many of the larger regional shopping centers have controlled access, other areas are an accumulation of smaller lots with numerous driveways. As new uses are proposed, or old uses come in with amended site plans, it is recommended efforts be made to redesign the areas to reduce the number of access points to Route 130, improve the quality of the access drives, and reduce the accident pattern along the state highway.

7. The intent of the few recommendations for street improvements is to achieve consistent rights-of-way and make those spot improvements where the need is the greatest and likelihood of success is reasonable.
8. There are no major public facility changes because the Township is watered and sewerred and has major recreational areas. The primary concerns are to maintain existing facilities, make some adjustments in recreational services due to the changing age characteristics, and anticipate sufficient school sites beyond the closings which may result in the foreseeable future.

GOAL II:

Offer opportunities for varied commercial activities and services in appropriate areas while maintaining the Township's quality of life and present character.

OBJECTIVES:

- A. Encourage the continuation of a variety of types of commercial land use within the Township's existing commercial districts.
- B. Enhance the Township's economy and employment opportunities through encouraging quality commercial uses in commercial districts and other areas where appropriate access for such uses is available.
- C. Promote varied and convenient shopping opportunities for residents.
- D. Maintain the Township's environmental and visual quality by control of commercial land use patterns and adoption of improved design and performance standards for land use in commercial areas.

GOAL III:

Safeguard the environmental resources of the community.

OBJECTIVES:

- A. Require that an Environmental Impact Statement be submitted with all preliminary major site plan and subdivision applications.
- B. Authorize the adoption of a Waterfront Master Plan concept:
 - 1- Designate appropriate land use categories
 - 2- Plan for a public open space "greenbelt" network through a planned linear walkway and public access program utilizing private and public sector resources.

III. RECOMMENDATIONS TO ADDRESS 1989 MASTER PLAN LAND USE ELEMENT
GOALS AND OBJECTIVES

The following contains recommendations for amendments to municipal policies and regulations in accordance with the goals and objectives outlined in Section II. Each of these recommendations corresponds to one of the categories whose goals were previously identified.

The specific goals and objectives will not be reiterated. Rather, the following recommendations are offered as specific means of achieving the stated objectives of the 1989 Master Plan Update. Many of the following recommendations are intended for implementation by inclusion in the Land Development Ordinance as standards or requirements. Subsequent to the adoption of this 1989 Master Plan Update, a text of all recommended ordinance revisions will be prepared and offered as additions and amendments to the ordinance of Cinnaminson Township.

A. CINNAMINSON RESIDENTIAL LAND USE RECOMMENDATIONS

The purpose of the residential land use recommendations is to determine areas of Cinnaminson Township which are suitable for housing based upon location, surrounding land uses, infrastructure and access. The residential recommendations when coupled with other social, economic and natural resource data provide a sound basis for land use decisions in Cinnaminson Township.

Since 1983, Cinnaminson Township has experienced minimal changes in its residential land use patterns. As stated in the 1983 Master Plan, "Cinnaminson is no longer a developing community. Little undeveloped land remains, and the only future growth that can be expected is the slow in-filling of the remaining fragmented parcels. At the same time that fewer new residents have been entering the community, there has been an aging of Cinnaminson's in-place population and a trend toward smaller household sizes". As in 1983, the Township's stock of relatively large size single-family homes is high when compared to the housing stock of the County or the region.

The 1983 Cinnaminson Master Plan contained recommendations regarding residential land use in the Township. These 1983 recommendations are reiterated in Subsection 1. below, accompanied by comments on their status. Subsection 2. summarizes changes which have occurred in residential land use in the Township since 1983; Subsection 3. contains a list of newly formulated recommendations for the 1989 Master Plan Update.

1. RECOMMENDATIONS OF 1983 MASTER PLAN--STATUS

- (a) The 1983 Master Plan recommended that "selective small sites be planned for senior citizen townhouses to meet the needs of the growing number of elderly residents." The purpose of this was (1) to provide housing units for older couples and (2) to "allow older couples to move from their larger single-family home, making the larger home available for younger couples needing the space."

It was recommended that land be rezoned for senior citizen townhouses in two (2) areas: along Route 130 (4 sites) and adjacent to East Riverton.

Status: The Cinnaminson Zoning Ordinance was amended to create an SRC-1 zone (Specially Restricted Commercial Senior Citizen Townhouse District) where senior citizen townhouses would be a conditional use. This zone is located in selected areas along Route 130. Since 1983, one (1) of these sites, Westfield Leas, has been developed with 144 units and one (1), Sweetwater, is

under construction with 96 age restricted units. The east Riverton site referred to in the 1983 Master Plan was not zoned SRC-1.

- (b) It was proposed in the 1983 Master Plan that a new residential zone district be created adjacent to Moorestown. This district was to have minimum lot sizes of 21,000 square feet. This was to have provided a transition between the existing 25,000 square foot lots in Moorestown and 15,000 square foot lots in Cinnaminson.

Status: A 21,000 square foot minimum lot size zone district adjacent to Moorestown was not created subsequent to the adoption of the 1983 Master Plan. The area adjacent to Moorestown remains R-2A with minimum lot sizes of 11,475 square feet and R-1 with minimum lot size of one (1) acre.

2. CHANGES IN RESIDENTIAL LAND USE SINCE 1983

- (a) There have been approvals of subdivision or site plan applications for a total of 416 dwelling units since the adoption of the 1983 Master Plan. This includes 240 age-restricted attached units in the SRC-1 district along Route 130. The remainder of the approved units are single-family detached. The following represents units approved since the adoption of the 1983 Master Plan.

<u>Application</u>	<u>Block/Lot</u>	<u>Street</u>	<u>Units</u>
8308	2003B/12	Branch and Fork Landing	10
8401	1201/4-7	Par and River	7
8414	2202/31	Rt.130 and Meetinghouse	144*
8613	3106/2	Riverton-Moorestown	7
8615	1004/24	Rt.130 and Wynwood	96*
8618	2901/ 75.02-76.07	Chapel Road	11
8703	608/1	Parry Avenue	8
8705	3402/1	Church and Lenola	129
8706	3201/1.03 1.04	Branch Pike	4

*Age Restricted Townhouse Units

- (b) According to the New Jersey Building Permits Summary Reports, a total of 84 building permits were issued for residential construction in Cinnaminson Township between 1983 and 1987.
- (c) A review of use variances to detect intrusions of non-residential land uses into residentially zoned areas reveals the following:

- (1) A variance to permit construction of part of an office/warehouse development in an R-2 zone district adjacent to an SRC zone at Route 130 and Church Road.
- (2) A variance for DNA Plant Technology, Inc., to construct a greenhouse and offices on Branch Pike as part of their existing plant research farm.

3. RECOMMENDATIONS FOR THE 1989 MASTER PLAN UPDATE

- (a) Rezone residential zoned lands with non-residential land uses to reflect their existing uses. Specifically, this would involve rezoning the R-2 portion of Block 2001, Lot 2 at Route 130 and Church Road, developed as an office and warehouse, from R-2 to be compatible with the remainder of the site. An additional area for consideration for rezoning from residential is along the Branch Pike, adjacent to Hathaway's Restaurant to Edgewood Avenue, now designated R-3. The rezoning is recommended in recognition of the character of the intense commercial land use surrounding the lands and access along a major artery in the Township.
- (b) Areas of the Township have been found to be residential in character, but located in a nonresidential zone. It is recommended these lands be zoned accordingly, respecting the residential use of the lands. Specific areas for rezoning include designating R-4, those lands now designated IND, Industrial, which front Bannard Street south to Rowland Avenue between Snowden Avenue west to the municipal boundary. Another area to include in the R-4 district, in recognition of existing residential land use, is along Broad Street from North Read Avenue to North Pompess Avenue, as shown on the Cinnaminson Township Land Use Map.
- (c) It is anticipated that future residential development in Cinnaminson will consist of infill of the remaining vacant parcels. To ensure the consistency and compatibility of future infill development with existing residential land use, it is recommended the Township maintain the existing residential zone districts, their boundaries and their densities as listed below, except where noted.

(1) R-1 Residential Zone

Single-family detached dwellings, 1 acre minimum lot size. This vacant tract is located on the western side of New Albany Road adjacent to the Moorestown border.

(2) R-2 Residential Zone

Single-family detached dwellings, 15,000 square foot minimum lot size. Located along Church Road and Branch Pike and between Pomona Road and the Pompeston Creek south of Route 130, and between Cinnaminson Avenue and the Pompeston Creek north of Route 130.

(3) R-2A Residential Zone

Single-family detached dwellings, 11,475 foot minimum lot size. Located between the Pennsauken Creek and Riverton-Moorestown Road south of Route 130; in far southeastern corner of Township adjacent to Moorestown; and along the eastern side of Cinnaminson Avenue north of Route 130.

(4) R-3 Residential Zone

Single-family detached dwellings, 11,250 square foot minimum lot size.. Located along the Pennsauken Creek, east of the Pompeston Creek, and south of the SRC zone on the southern side of Route 130; and east of the Industrial zone bordering the Pennsauken Creek north of Route 130. Areas in the R-3 located in the Parry section of the Township are to be designated R-6, Residential as discussed in Section (d) below.

(5) R-4 Residential Zone

Single-family detached dwellings, 5000 square foot minimum lot size. Located north and south of Broad Street (River Road) in the northern half of the Township. Recommended for expansion as discussed in (b) above.

(6) R-5 Residential Zone

Single-family detached dwellings, 8000 square foot minimum lot size. Located in the northeastern sector of the Township adjacent to the Borough of Palmyra.

(7) S.R.C.-1 Zone

Senior citizen townhouses permitted as a conditional use in the Specially Restricted Commercial zone on the northern and southern sides of Route 130.

- (d) It is recommended that a new residential zone be created in the Parry section of the Township now designated R-3. It has been found that the development pattern in this portion of the Township is such that most lots are smaller than the 11,250 square feet required under the R-3 designation. It is recommended the Parry section, as shown on the Land Use Map, be designated R-6. Minimum lot size recommended for the R-6 district is 7,500 square feet in recognition of the existing development pattern in this area of the Township.

- (e) Residential development along the Delaware River waterfront should be considered as a future possibility, based upon the waterfront focus area study.
- (f) The design standards for subdivisions in the Cinnaminson Ordinance should be revised to better address aesthetic and environmental considerations which may affect the development of the few remaining large tracts of vacant land in Residential Zones. These should include:

- (1) Clustering

Clustering of residential dwellings maintains the overall density of housing on a tract while permitting the preservation of environmentally sensitive areas. Minimum lot size and/or setback restrictions may be reduced in order to permit housing to be concentrated in the portion of a site which is most suitable for development, thereby leaving sizeable areas of open space to provide an aesthetic setting, buffer adjacent developments and offer recreational opportunities.

- (2) Buffers and Setbacks

The Ordinance should contain standards for buffering of residential land uses. These should include requirements for increased setbacks and vegetative buffer areas on commercial and industrial sites which adjoin residential zones, as well as provisions for buffering to reduce traffic noise, headlight glare, etc. in development located on major roadways.

- (3) Environmental Constraints

Environmental Impact Statements should be required as part of the submission requirements of major subdivision and site plan applications to ensure that protection of natural resources may be adequately addressed during the review process by qualified experts. The requirement for the Environmental Impact Statement can be waived at the discretion of the Reviewing Board.

B. COMMERCIAL LAND USE DEVELOPMENT AND REDEVELOPMENT
RECOMMENDATIONS

Growth of the southern New Jersey service and employment commercial section has generally been centered in the Camden County area. The commercial growth corridor, however, has expanded to include Burlington County, where commercial land use benefits from lower land cost, less congestion and an efficient road network.

1. FOCUS AREA: 130 CORRIDOR

The commercial district in Cinnaminson Township is centered along the Route 130 corridor. Route 130 was once the major north/south corridor through the State, but has since been superceded in the State highway network by the New Jersey Turnpike. Much of the land use found along the Route 130 commercial corridor in Cinnaminson is representative of a major State highway with an abundance of restaurants, gas stations and motels. As the function of Route 130 evolves in the State highway network, the function of the land use must also evolve.

a. PURPOSE OF COMMERCIAL REDEVELOPMENT RECOMMENDATIONS

The purpose of the Commercial Land Use Recommendations is to prepare a redevelopment strategy for Cinnaminson Township's Route 130 corridor which will determine appropriate land uses and establish design guidelines for the State highway corridor, the Township's commercial district, as it evolves from a major State highway to one providing local and regional employment and service needs. The Township recognizes that without attention to the land use patterns and design controls, the highway corridor may continue to develop and redevelop in such a way as to undermine the economic vitality of the commercial land uses along the highway, threaten to change the image of the Township and contribute to local and regional traffic problems.

b. EXISTING COMMERCIAL DISTRICT CONDITIONS

Route 130 is a major State highway traversing New Jersey. The highway travels in a southwest direction from New Brunswick continuing to the Delaware Memorial Bridge in Salem County. Route 130 runs east to west through Cinnaminson for 2.8 miles, from the eastern border with Delran Township to the western border with Pennsauken Township. Route 130 through Cinnaminson consists of six traffic lanes with no shoulder. The highway is separated by a concrete median strip. Eight roads intersect the highway as it passes through the Township. Seven of the intersections are controlled by traffic signals.

For the purposes of the Route 130 Focus Area Study, the highway commercial district is defined as the entire length of the highway through the Township and the adjacent land uses located in

the Specially Restricted Commercial (SRC), Specially Restricted Commercial Senior (SRC-1) and Commercial (C) districts. These lands generally are those with frontage on the highway. The land area in the SRC, SRC-1 and C districts adjacent to Route 130 consists of 316 acres or 6.5 percent of Cinnaminson's total land area. The following represents the highway commercial corridor by zone designation:

<u>District</u>	<u>Acres</u>	<u>Percent</u>
SRC	273.9	86.7
SRC-1	36.6	1.6
C	5.5	36.7
Total	<u>316.0</u>	<u>100.0</u>

In the SRC district, permitted use of buildings and lands include professional offices, hospitals and rest homes, automobile sales agencies, banks and other financial corporation offices, business colleges and trade schools, restaurants and catering establishments, florist shops, pet hospitals, photographic reproduction and blueprinting, legitimate theater, undertaking parlors, contracting shops, electrical appliances repair shops, major retail establishments and amusement centers. Minimum lot size in the SRC district is 40,000 square feet, maximum height is 45 feet and maximum lot coverage for principal building is 50 percent.

In addition to the uses permitted in the SRC district, permitted uses in the SRC-1 district include senior citizen townhouses. The minimum tract size for senior citizen townhouse development is two acres with a maximum of eight units per acre.

Permitted uses of buildings and lands in the C district include single family detached dwellings, retail stores, offices, hotels and motels, restaurants, indoor movie theaters, mortuaries, banks, tailor shops, newspaper or job-printing establishments, warehouses, open-air parking, public garages for automobile repair, and amusement centers. Minimum lot area in the C district is 5,000 square feet with 70 percent maximum building coverage. Maximum building height is 35 feet.

While the land use within the Route 130 highway commercial corridor is diverse, a review of the Township's 1988 Tax List shows 66 percent of the land area is classified commercial. Based upon the Tax List the following classifications of land are located along Route 130 in the study area:

<u>Classification</u>	<u>Acres</u>	<u>Percent</u>
1 - Vacant	36.6	11.6
2 - Residential	33.3	10.5
4A- Commercial	208.0	65.7
4B- Industrial	3.4	1.1
15B- Other School	3.4	1.1
15C- Public Property	6.2	2.0
15D- Charitable	4.4	1.4
15E- Cemetery	20.7	6.6
Total	<u>316.0</u>	<u>100.0</u>

A land use inventory of the Route 130 highway commercial corridor reveals a variety of commercial uses in the study area. Based upon the land use inventory of the study area, completed in November, 1988 as shown in the attached list, the commercial land uses include professional office buildings, gas stations and other auto service uses including auto dealerships, restaurants, diners and fast food establishments, banks, general retail establishments including seven shopping centers and motels.

As found through the Township Tax List, 88 percent of the land area in the Route 130 highway commercial corridor area is classified developed. Of the 37 acres classified vacant in the Route 130 highway commercial corridor, 26 acres have or are pending site plan or subdivision approvals.

The 1983 Cinnaminson Master Plan established that the Land Use Policy of the Route 130 highway commercial corridor through the Township should continue to be the commercial service area of the community containing highway services, daily conveniences and regional shopping centers. The 1983 Master Plan also recommends selected areas along Route 130 for senior citizen townhouses. The result of the 1983 land use policy has been the continuation of varied commercial land use along the corridor. Additionally, four sites were zoned SRC-1 to permit the development of senior citizen townhouses. One of these sites, Westfield Leas has been developed with 144 units. Another site, designated as the Sweetwater development, is being developed with 96 units. The remaining two sites, consisting of approximately six acres, have not been developed with senior citizen townhouses. Three vacant acres of land designated SRC-1 located at Route 130 and Andover Road have been purchased by the U.S. Postal Service as a post office site.

Land use within the Route 130 corridor is controlled by the Township's zoning ordinance. In addition to regulating use, the ordinance includes standards for the regulation of lots and yards, lighting, parking, landscaping, signs, storm drainage, and fencing.

Route 130 is a major State highway in Cinnaminson Township. The right-of-way widths are determined by the New Jersey Department of Transportation (DOT). The right-of-way widths of Route 130 vary through the Township. Maintenance, safety standards, right-of-way

widths and development access are dictated by the State. DOT is required to provide at least a single access onto the highway of all individual lots. State highway access policy of the DOT, however, is that where access to the State highway, cannot be granted without impairing safety and efficiency or where access to alternate roads exists, the DOT may deny access to the highway. The DOT does not permit advertising signs placed within the right-of-way of a State highway. In defining the land owner access rights, DOT evaluates the highway's level of service and safety provided by the highway and impacts upon the level of service and safety by the proposed development determining the basis of the extent and type of access that will be permitted in order to ensure efficient and safe use of the highway.

The Route 130 highway commercial corridor through Cinnaminson is classified as developed. Strategies are sought by the Township to stimulate the redevelopment of the corridor and enhance the visual character of Cinnaminson along Route 130. Objectives to achieve the goal of an economically active and visually pleasing corridor include recommending land use opportunities for providing smooth traffic flow to alleviate congestion and enhance safety, review the permitted land uses for the corridor and recommend any changes as necessary, make any necessary zoning recommendations pertaining to bulk and area requirements, and recommend design guidelines to achieve the appearance and character desired for the Route 130 corridor; such as landscaping, parking, site layout, pedestrian circulation, signs, lighting, and vehicular circulation and access management.

c. CINNAMINSON TOWNSHIP ROUTE 130 COMMERCIAL DISTRICT
LAND USE INVENTORY- NOVEMBER 1988

<u>Block/Lot</u>	<u>Use</u>
701/29	Tri Boro Pontiac
702/10.01	Office/Warehouse
702/20	Residential
702/21	Riverton Garden Center
702/22	Kingsway Professional Office Bldg.
702/23	Vacant
804/9	Vacant/approved for 24 lot commercial/industrial park
804/10	Doyran Co.- wholesale of rugs
804/11	Vacant
805/1	Electronic repair shop/residential
805/2	U-Haul truck and trailer rentals.
806/1	Vacant/approved for 2 office/warehouses
807/1	Medical office building

<u>Block/Lot</u>	<u>Use</u>
901/39.01	Cinnaminson Manor Nursing Home
901/39.02	Vacant
901/40	Merion Caterers
901/41	Vacant
901/42	Vacant
901/43	Cinnaminson Motor Lodge
1004/12	Residential
1004/13.01&03	Clover Market Place (retail)
1004/13.02	Vacant (Township of Cinnaminson)
1004/29	Vacant- approved for 96 attached residential units (Sweetwater)
1004/30	Cinnaminson Dental/Medical Building
1004/31	Gabriel's Restaurant
1004/33	Color Tile Supermart (retail)
1004/34	Office- Burlington County Board of Realtors
1004/35	Horizon, Princeton Bank
1005/1	Shell gas station
1005/2	Residential
1302A/1	Office- New Jersey Bell
1302A/2,3	Mobil gas station
1302A/4	Professional Office
1302A/6	Residential
1302A/7	American House Tavern
1302A/8	Fairway Collision Center (auto repair)
1302A/9	Residential
1302A/10,11.03	Cinnaminson Liquor Store
1304/16	Lancaster Dress Co. (retail)
1304/17	Residential
1304/18	Retail nursery
1304/19	Friendly's Restaurant
1304/19.01	Garden State Motel
1304/20	Vacant
1304/21	Vacant
1305/1	Mobil gas station
1403/19	Warehouse- storage of antique cars
1403/20	Exxon gas station
1403/21	Professional Office
1403/23	Cinn-A-Mint Car Wash
1403/24	American Appliance (retail)
1403/25	Professional Office
1403/26	Professional Office
1403/27	Professional Office and Auto detail shop
1403/28	Photography studio

<u>Block/Lot</u>	<u>Use</u>
1403/29	Caldor Shopping Center (includes Acme, Pizza Hut, Health Club)
1404/1	Jiffy Lube and Guaranteed Tune-Up
1904/1	Convenience shopping center
1904/2, 3	Moravian Church and Cemetery
1904/4	Dunkin Donuts
1904/5	Residential
1905/4	The Presidential Center Professional Office
1912/5, 7	The Presidential Center Professional Office
1913/2	Hallmark Motel
1920/2	Stan Esposito's Cadillacs (used car sales)
1921/6	Meineke Auto Repair
1925/1	Acme Pumps Repair (retail)
2001/1	Barlow Buick
2001/2	Haines Farm Garden Supply (retail/warehouse)
2001/3	Wall to Wall Sound Corporate Headquarters
2001/3	Cinnaminson Shop Rite Shopping Center
2015/1.01	Mobil gas station
2015/1.02	Colonial Square Shopping Center
2015/1.03	The Wine Cellar (retail)
2101/1	Exxon gas station
2101/3	Chang Karate School
2102/43	Warehouse
2102/48	Vacant
2102/46.01	Sunoco gas station and Roy Rogers
2102/50	The Finest Hour (restaurant)
2102/51	Hathaway Restaurant
2102/52	Hi-Way Host Motel
2102/53	Blue Lantern Motel
2102/54.01	Residential
2102/55	Vacant building for sale (commercial)
2102/56	Carolyn Motel
2102/57	Northern Motor Lodge
2102/60	Seaboard Motel and Fugi Sushi Bar
2102/61	410 Motel
2102/62	March Realty Office
2102/63	Justin Spain Realty Office
2102/64	Burger King
2102/65	Vacant

<u>Block/Lot</u>	<u>Use</u>
2201/14	Security Bank and Office Building
2201/15	Bayard's Chocolate House
2201/16	Westfield Friends Meeting
2202/22.02	Westfield Leas age restricted attached residential
2202/32.01	Silvermans Bridal Store (retail)
2202/32.02	Prudential Insurance Office
2202/33	Lamon Realty Office
2202/34	Vacant
2202/35	Vacant-approved, with lots 33 and 34 for a professional office
2202/36.01	New Jersey National Bank
2301/1	Getty gas station
2302/1.01	Main Line Professional Office Building
2302/1.02	Mister Donut and 7-11
2302/2	Gene's Motel
2302/3	Snover Funeral Home
2302/4	Main Line II Shopping Center and Bo's Wok Chinese Restaurant
2302/5	Mobil gas station
2312/1	
2312/2	Texaco gas station
2312/2.01	Main Line Shopping Center
2507/1	Lakeview Memorial Park Cemetery
2701/36	Vacant
2701/37	Vacant
2701/38	Vacant
2701/39	Vacant
2701/40	Cinnaminson Animal Hospital
2701/41	Professional Office (attorney, CPA)
2701/42	Dakis Oldsmobile
2701/43	Apollo Motel
2701/44	Golden Eagle Diner
2701/45	Capece Realty Office/Residential
2707/24	Asbury Cemetery
2707/25	Asbury Methodist Church
2707/26	Aluna Pool Service (office)
2801/1	Hillers Prime Meat
2801/2	Rosvold Pharmacy
2802/1	Amalfi Italian Restaurant
2802/28	
2802/29	New Albany Professional Building
2802/30	Cherry Hill National Bank

d. RECOMMENDATIONS FOR 1989 MASTER PLAN UPDATE

- (1) To reflect the Planning Board's new goals and objectives for the Route 130 commercial district, a change in the land use designation is recommended with a corresponding change in permitted land use. As shown on the Township of Cinnaminson 1989 Land Use Map, the designation of the SRC and C districts fronting Route 130 is recommended to be changed to BD, Business Development. In recognition of the objective to continue to provide opportunities for the development of senior citizen housing and in recognition of existing senior citizen housing, the SRC-1 district is recommended to remain.

The purpose and intent of the BD land use designation is to provide an integrated system of land use management for the redevelopment of the Route 130 commercial district through Cinnaminson compatible with the highway and adjacent land use, particularly residential land use. Land use to be encouraged in the BD district should reflect the changed status of Route 130 from a State highway with uses permitted limited to those which need the support and visibility of the local/regional highway. These primary uses should include general corporate, administrative and professional offices, banks and other financial corporation offices, hospitals and rest homes, municipal uses and buildings and public utilities. Also permitted are commercial uses, such as cafeterias, limited to office uses.

Recognizing that certain uses and activities are necessary to serve the needs and conveniences of the Township, additional land uses may be permitted in the district with conditions. Included are major retail establishments as presently permitted in the SRC district, food service establishments, including sit-down restaurants, coffee shops, catering services and bakeries, auto service stations and other appropriate existing land uses.

- (2) In addition to changing land use designation of the Route 130 commercial corridor, design guidelines are presented to address the visual quality and enhance traffic flow and safety

along the Route 130 highway commercial corridor. Guidelines to consider include:

- (a) The Route 130 highway commercial corridor is characterized by small lots. To promote the acquisition of nonconforming uses and the renovation and expansion of existing uses to up-scale uses, it is recommended that larger minimum lot sizes than the minimum of 40,000 square feet now required in the SRC district be permitted. Uses on a minimum lot of two acres with minimum road frontage of 200 feet would permit higher maximum lot coverage and maximum height than permitted under SRC area and bulk requirements. Floor area ratios could be established for one-story buildings and increased for multi-story buildings on the larger lots. Uses on less than two acres would be limited to the bulk and height requirements now established for the SRC district.
- (b) In order to minimize the number of curb cuts along the Route 130 highway commercial corridor, require adjoining land uses to share driveways and use access easements which interconnect parking lots of adjoining properties.
- (c) In addition to requiring buffers wherever the BD district abuts a property line of a lot in a residence district, buffer requirements can similarly be required along the highway within the front yard setback. The purpose of the buffer is not to hide the buildings, but to frame them and to provide a common element linking all the diverse styles and arrangements of buildings, as well as buffering the harsh appearance of too much asphalt.
- (d) In conjunction with front yard buffers for an improved appearance along the Route 130 highway commercial corridor, the reverse parking concept is encouraged. The reverse parking concept can provide a certain number of important front spaces while downplaying the glaring appearance of unrelieved rows of parking. A cap on permitted front yard parking, with most parking required to be in the back,

reverse parking, in effect, creates two fronts to a building. The two fronts created by reverse parking can bring a greater number of parking spaces closer to the entrance, and the building can be located closer to the road, providing increased visibility.

- (e) Minimum landscaping requirements should include yard buffers consisting of plants, fences and berms, landscaping of parking lots; and landscaping and screening of service areas including loading and trash areas. Density bonus incentives could be provided to encourage landscaped courtyards and plazas beyond minimum landscape requirements.
- (f) More than one use per lot may be permitted with minimum setbacks between buildings established. Taller buildings would require larger setbacks. Where there is more than one use per lot, all buildings should be arranged in a group or groups, constructed in accordance with an overall plan and should be designed as a single architectural scheme with appropriate common landscaping.
- (g) Where more than one use exists on a site, with an internal access system to the use, access to the site from Route 130 should be limited solely to the access road. If no internal access system is proposed, access should be limited to right-turn in and right-turn out.
- (h) Signs for land use along Route 130 can serve as an indication of the Township's intent of quality land use for the commercial corridor. Accordingly, it is recommended the Township's requirements for signs correspond to the goal of quality land use with the limiting of location, size and number of signs. It is recommended that each freestanding office, or store may have its own sign, while each block of offices or stores may have a multiple occupancy sign identifying the center. Appropriate lighting of signs in the commercial areas shall be encouraged.

(i) Due to the varied right-of-ways found along Route 130 through Cinnaminson, building and setback lines in the BD district should be established from the center line of the highway to provide a uniform setback from the highway.

(j) In addition to establishing maximum lot coverage for principal buildings in the Route 130 highway commercial corridor, additional lot coverage requirements should be considered. Included are floor area ratios (FAR), impervious coverage and open space requirements. Minimum open space requirements with upgrading of site plan landscaping requirements will ensure adequate provision of attractive settings for land use in the Route 130 highway commercial corridor.

2. ADDITIONAL COMMERCIAL LAND USE RECOMMENDATIONS

- a. In recognition of the 1989 Master Plan Update objective of promoting varied and convenient shopping opportunities for residents, it is recommended the Township's C, Commercial district, as shown on the 1989 Land Use Map, remain. To emphasize the neighborhood convenience intent of the district, land use permitted in the district should only include: retail stores, business or professional offices, studio, personal service shop, bakery or confectionery shop, restaurants as presently permitted, banks, tailor shop, auto repair and motor vehicle service station. To be eliminated from the Commercial district are residential uses motels and hotels.
- b. As shown on the 1989 Land Use Map and as discussed in the Delaware River waterfront focus area section, additional commercial uses are proposed in the waterfront area of the Township. Similar design guidelines, as discussed for the Route 130 highway commercial corridor, can be required in this district to ensure aesthetics and visual quality of the land use.

- c. As shown on the 1989 Land Use Map, the SRC district is proposed to remain along the Route 73 corridor through Cinnaminson. Design guidelines as recommended for the BD district can apply to the SRC district along Route 73.

C. ENVIRONMENTAL PROTECTION AND ENHANCEMENT RECOMMENDATIONS FOR WATERFRONT LAND USE

1. FOCUS AREA: DELAWARE RIVER WATERFRONT

The following section of this 1989 Master Plan Update focuses on the Waterfront or Delaware Riverfront section of Cinnaminson. This study addresses the Planning Goal to preserve and enhance Cinnaminson's environmental resources.

a. PURPOSE FOR WATERFRONT RECOMMENDATIONS

Throughout the country, waterfront communities are rediscovering their waterfronts as a very special feature possessing an inherent magnetism unlike any other location in the community.

Historically, waterfronts are the *raison d'etra*- the reason for the existence of a community. Most settlements occurred at the waters-edge, geographic and environmental constraints permitting, and evolved into towns and cities with water-modes of transportation providing the initial economic development and commercial vitality of the community. This same trend ultimately segregated and isolated the waterfront from the mainstream of community life as industrial uses and their perceived negative impacts began to dominate.

Typical of many Delaware River waterfront communities, Cinnaminson Township's present zoning supports heavy industrial uses on its waterfront. However, to date, for various reasons, including lack of economic and environmental feasibilities, much of the Cinnaminson waterfront remains undeveloped. Consequently, several intense residential and mixed-use developments proposals have been presented to Cinnaminson Township for consideration.

The focus on the Waterfront as a Study Area of the 1989 Master Plan Update is partly in response to this interest. It is evident that a thorough re-assessment and re-evaluation of Cinnaminson's entire waterfront is both timely and appropriate.

The inherent public interest in this most valuable resource is further reinforced by the Public Trust Doctrine which establishes that all tidally flowed waterways are in the public domain and, as such, should not be restricted either physically or visually.

The responsibility of the planning process is to consider the broad possibilities and liabilities for land use for the benefit of not only the properties' owners, but also for the public good. Therefore, it is necessary to consider the entire waterfront as an entity. It is important to establish the parameters for cohesive

and concerted development efforts that, within the confines of environmental protection, afford not only realistic economic returns for property investors, but also create amenities for the public.

Included in this section will be a review of the present land uses and transportation patterns.

The study of existing features, conditions and restrictions evolves into a general "Concept Plan" with related design guidelines and amendments to land use designations.

b. EXISTING CONDITIONS

The northern boundary of Cinnaminson Township is formed by the Delaware River beginning at Riverton and the Pompeston Creek, continuing east along the river for 1.6 miles. The Township recognizes the importance of its waterfront to the community and seeks to encourage responsible development of the waterfront. This report and accompanying maps include a comprehensive study of the Cinnaminson waterfront and recommendations for its future.

The study area is south of and adjacent to the Delaware River generally between Camden and Trenton. The study area, exclusive of roads, consists of 443 acres (0.69 square miles) and includes the entire land area in Cinnaminson Township from the Delaware River south to Broad Street. The study area is bordered on the west by Pompeston Creek separating Cinnaminson from Riverton Township. The study area is bordered on the east by Dredge Harbor separating Cinnaminson from Delran Township.

The area around the waterfront study area is primarily suburban. As noted by the 1983 Cinnaminson Master Plan, the Township is classified as a developed suburban community with only 18 percent of the total land area classified vacant. The waterfront study area, however, consists largely of vacant tracts and farmland. Based upon the 1988 Cinnaminson Township Tax List, 45 percent of the study area is classified as vacant land and 28 percent is classified as farmland. Industrial and commercial land uses account for 11 percent of the land in the study area. The following represents the land use classification of the study area.

	<u>Acres</u>	<u>Percent</u>
Vacant	200.7	45.3
Farmland	123.7	27.9
Industrial	35.1	7.9
Public Property	38.2	8.7
Residential	30.4	6.7
Commercial	15.3	3.5
Total	443.4	100.0

The vacant lands in the study area consist primarily of a few large parcels. One parcel is at Taylors Lane and Broad Street bordering the Delaware River at Plum Point. According to Cinnaminson Waterfront Today and Yesterday prepared by Joseph H. Taylor (Taylor Report, 1988), this 50 acre parcel includes 30 acres of flood plain, tidal marsh and freshwater wetlands. Further, the report notes that only five acres of this parcel was ever dredge filled and the filled area has restored itself to a high degree with substantial tree growth. About five acres of the parcel are covered with a black industrial waste and has not restored itself enough to support plants and trees. This property has changed ownership frequently with various development proposals including a deep-water port and oil refinery proposed by Shell Oil. The most recent development proposal for this site was a mixed use development including 450 condominium units, 40,000 square feet of commercial space, two restaurants, a club house, and a marina.

The other significant vacant tract in the study area includes 99 acres adjacent to an unnamed tidal stream which bisects the Cinnaminson waterfront. While access to this portion of the study area is limited, aerial photographs of the study area from July, 1988, show portions of the 99 acre tract as heavily wooded with other portions, closest to the river, cleared. The most recent development proposal for a portion of this vacant land, generally located between North Read Avenue and Union Landing Road, consisted of a marine terminal for the import and export of motor vehicles and general cargo.

Farmland found along the riverfront includes active farmland producing organic fruit, vegetables, hay and straw. Ninety acres of the farmland includes a wildlife preserve, deed restricted in perpetuity with an open space, conservation easement. According to the Taylor Report, the 90 acre wildlife preserve includes 60 acres that have remained swamp, tidal marsh and freshwater wetlands since the Indians used the land in the 1600's. Another 30 acres of former swamp, tidal marsh and freshwater wetlands were dredge filled in 1957 with the area today containing significant tree growth, underbrush and surface water resources that provide habitat for animal or bird life.

Land use classified industrial in the waterfront study area consists largely of the Hoeganaes Corporation which is located in the center portion of the study area at the riverfront. This property is divided and drained by the unnamed tidal stream. A portion of the site is used by the Hoeganaes Corporation as a landfill. Land use classified public property in the study area includes five acres of municipal property bordering North Randolph Avenue where the Township's sewage treatment plant is located. Additional public property consists of riparian lands which are lands formerly flowed by tidal waters owned by the State of New Jersey, Department of Environmental Protection, Bureau of Tidelands. The riparian land consist of three parcels including

an 11 acre parcel located along the border of the Pompeston Creek adjacent to the Township sewage treatment plant, a one acre parcel located at the end of North Read Avenue and a 20 acre parcel located directly north of Riverside Drive. Use and possession of the riparian lands requires a grant from the Bureau of Tidelands.

Residential land use in the study area includes homes near the river adjacent to the farmland and wildlife preserve. The majority of the residential land use in the study area, however, consists of homes away from the river on small lots located along Inman, Kern and Zeisner Streets. Residential land use is also located between North Read and Pompess Avenues adjacent to Broad Street. Commercial land use in the study area consists of a number of small businesses located primarily along Broad Street.

Dredge Harbor, the eastern boundary of the study area, is a man-made harbor created during sand and gravel mining operations conducted by non-federal interests beginning in the late 1920's. Dredging was undertaken to depths of 30 to 40 feet, except in northern portions of the harbor where depths were generally less than 20 feet. Amico Island, at the northeast edge of Dredge Harbor, was created in the 1950's by placing material dredged from the Delaware River, Philadelphia to Trenton project.

In a Small Navigation Project, Environmental Assessment prepared by the Department of Army Corps of Engineers, it has been found the depth of Dredge Harbor has decreased significantly over the years. Decreased depths in the harbor result from sediments from the Delaware River and Rancocas Creek and spoils deposited on Amico Island. Mean low water depth of Dredge Harbor is reported to range from 2 to 10 feet.

With four marinas in operation along the harbor, Dredge Harbor contains one of the largest marina concentrations on the Delaware River. Marinas located on the Dredge Harbor include the Riverside Marina, G. Winters Sailing Center, Castle Harbor Marina, and Dredge Harbor's Yacht Basin. All the marinas are located in Delran Township. The Riverton Yacht Club is located west of the waterfront study area along the Delaware River in Riverton.

While not within the defined waterfront study area, adjacent land uses will affect land use policy proposed for the Cinnaminson waterfront. To the west, the Cinnaminson waterfront is separated from Riverton Township by the main stem of the Pompeston Creek. Land use in Riverton, adjacent to the Pompeston Creek consists of one major industrial concern, the National Casein Corporation, which manufactures glue. The eight acre property owned by the National Casein Corporation is only partially developed with no plans for further development at this time. The remainder of the property in Riverton, located along the Pompeston Creek adjacent to the study area, consists of a four acre parcel that fronts the Delaware River and is partially used for equipment storage of the

Riverton Public Works Department.

The most recent Riverton Borough Master Plan designates the Casein Corporation property for industrial land use. The Master Plan finds the site, however, may be better suited for light manufacturing, offices, or commercial land use. The Riverton Master Plan designates the Borough owned property for residential land use.

To the east, the Cinnaminson waterfront study area is bordered by the Dredge Harbor, separating the study area from Delran Township. Dredge Harbor is an irregular rectangle measuring 3,000 feet by 2,000 feet which is subdivided into two basins by projections of land. The harbor is separated from the Delaware River by Amico Island, except for the outlet located at the west end adjacent to Cinnaminson. The primary use of lands in Delran Township adjacent to Dredge Harbor is residential characterized by small houses on lots of one-quarter to one-half acre. There are also commercial and industrial land uses located in Delran Township along the Dredge Harbor. Industrial land uses located in Delran along Dredge Harbor include the Amico Sand and Gravel Company and the Industrial Pattern Works. In addition to the marinas, commercial land use found in Delran Township adjacent to Dredge Harbor, includes a drive-in restaurant, the Moose Hall, a farm stand, a garden center and an office complex.

The most recent Delran Township Master Plan designates the land area adjacent to Dredge Harbor H, Harbor District. The purpose of the H district is to permit a variety of housing in an integrated community compatible with and related to the current marine oriented commercial land use. Accordingly, the Delran Township Zoning Ordinance implementing the land use policy established by the Master Plan designates the area a Harbor District.

The waterfront study area in Cinnaminson is separated from the developed portion of Cinnaminson Township to the south by the Conrail railroad line and Broad Street, a four-lane thoroughfare which runs parallel to the railroad line. To the south of Broad Street, land use adjacent to the study area includes three large manufacturing firms extending from Taylor's Lane west to Union Landing Road. The manufacturing firms include the Hoeganaes Corporation, a manufacturer of iron, steel and high alloy powders, AFG Industries, a glass manufacturer and Airco Incorporated, a manufacturer of rare and specialty gases. Across Union Landing Lane, west of the industrial area, the land use adjacent to the study area is characterized as residential. Access to the Delaware waterfront in Cinnaminson is limited with only two roads connecting Broad Street to the Delaware River. Taylor's Lane, at the eastern end of the study area is a private road paved for 25 feet into the site and then continues as a dirt roadway almost to the waters edge. North Randolph Avenue at the western end is a municipal road

paved from Broad Street almost to the waters edge.

In Cinnaminson and Delran Townships, Broad Street, the southern border of the study area is undivided and has two lanes in each direction. Approaching the Taylor's Lane intersection from either direction, Broad Street widens to three lanes, one of which is a separate left turn lane.

Access to the waterfront study area from the remainder of Cinnaminson Township is by way of Taylor's Lane and Union Landing Road. Taylor's Lane and Union Landing Road run from Broad Street south to Route 130 for 1.5 miles. Both roads have a single-wide lane in each direction. Taylor's Lane is a county road and Union Landing Road is a municipal road. Route 130 which parallels Broad Street is a major arterial highway with three moving lanes in each direction. Left turns from this highway segment are made from the right lanes via jughandles.

Connecting arterial roadways and interstate highways are an additional access consideration for development of the waterfront study area. The closest interstate highway interchange is Exit 40 of I-295, located on NJ Route 38 near Marter Avenue in Mount Laurel Township. A circuitous trip of 7.5 miles is required to the waterfront study area.

Access to the study area in Cinnaminson from I-295 or the NJ Turnpike is by taking Route 130 to NJ 73 for southbound travel and via Route 130 to Route 541 for northbound travel. The distances for these trips utilizing Route 73 range from 9.5 to 13 miles. While the distance to a fully controlled access highway is relatively long, the connecting roadways provide adequate truck routes with sufficient capacities to accommodate a moderate increase in traffic.

Public transportation serving the study area is limited to NJ Transit's Route 9 bus which runs on Broad Street between Philadelphia and Burlington or Trenton. The frequency of service in each direction is about 30 minutes. The Conrail freight line which runs along the south side of Broad Street does not provide service to properties in the study area.

An additional development consideration is the availability of sewage capacity. The 1983 Master Plan found sewer service exists throughout the Township. The sewage treatment plant, located along the Delaware River, has a treatment capacity of 2 million gallons per day (mgd). According to the Cinnaminson Sewerage Authority, average daily flow to the sewage treatment plant for the last quarter of 1988 was 1,530,000 gallons plus a committed flow of 250,000 gallons per day including 100,000 gallons per day for a temporary period of one to two years committed to Palmyra for a total committed flow of 1,780,000 gallons per day. This leaves an uncommitted balance of 220,000 gallons per day.

Limited areas of the Township are still not served by sanitary sewer service, instead, utilizing individual septic disposal systems. The Township should require these units connect to the Township's sanitary sewer system.

Cinnaminson has exceeded 80 percent capacity, therefore it is required by the State to present plans on improvements and upgrading of the sewer plant to provide assurance that the Township will meet the necessary criteria for discharge into the river. The Sewerage Authority is in the process of determining the requirements for improving and upgrading the sewage plant together with the associated costs. It is expected changes will enable the Township to reach the 2.2 million gallons per day as recommended in the 201 Study for Cinnaminson.

c. ENVIRONMENTAL CHARACTERISTICS AND CONSTRAINTS

Development of the waterfront study area requires consideration of existing land uses and surrounding land uses. An additional factor affecting development of the study area is environmental constraints. Environmental constraints of particular concern in the Cinnaminson waterfront study area include wetlands, flood plains, soils, and vegetation and wildlife.

The Cinnaminson waterfront study area lies within and along the western limits of the Inner Coastal Plain Province. Lands along the Delaware River are generally flat. The crystalline basement rock of Wissahickon formation which outcrops immediately to the north of the study area across the Delaware River is overlain by gently dipping unconsolidated sediments ranging in age from Cretaceous to Recent. At the waterfront, the oldest unconsolidated sediments belong to the Raritan and Magothy formations of Cretaceous age and consist of sands, silts, and stiff variegated clays. These formations are mantled by Pleistocene Cape May deposits consisting of sands and gravel with occasional clayey layers and Recent alluvium composed chiefly of dark-gray silts.

One of the most important planning tools is an accurate map of the soil types. The structure and composition of each particular soil determines its suitability for various kinds of land development. Soils which possess similar characteristics can be grouped into associations. Soil associations provide a means by which to generally characterize the ability of larger land areas to support certain land use.

Soils within the waterfront study area in Cinnaminson are in the Galestown-Klej association. The Galestown soils are excessively drained and have a low available water capacity. Klej soils are moderately well drained and somewhat poorly drained. Both Galestown and Klej soils are sandy. Soils are further designated by Series or the particular parent material from which they developed. Through the use of the Burlington County, New

Jersey Soil Survey prepared by the Soil Conservation Service, the following soils have been mapped in the waterfront study area as shown on the Environmental Constraints Map.

- (1) Berryland sand (Bp) is a sandy poorly drained soil because it is found in nearly level areas such as marsh borders, swamp borders, or the bottoms of circular depressions. Depth to seasonal high water table of Bp soils is zero feet. Because of these characteristics, poorly drained and a high water table, development in the Bp soils is limited.
- (2) Galestown sand (GaA) soils are characterized as sandy. Depth to seasonal high water table of the GaA soils is greater than five feet. The GaA soils are good for construction of buildings and impose only slight limitations upon development of septic tank disposal fields. Additionally, GaA soils impose only slight limitations upon development of streets and parking lots but, due to low available water capacity and low fertility GaA soils impose moderate limits upon landscape plants and lawns.
- (3) Klej fine sands (KoA) are described as soils consisting of fine sands and are generally unstable. Depth to seasonal high water table is one to 2.5 feet. The moderately high water table makes development of low buildings with foundations and streets and roads moderately acceptable. Also, the KoA soils impose moderate limitations for landscape plants and lawns.
- (4) Made land (Ma) dredged coarse material, is a coarse soil consisting of material dredged from the Delaware River and pumped into diked areas beside the river to settle. Ma soils are very sandy and extremely low in fertility. Depth to the seasonal high water table of Ma soils is greater than five feet. The soil survey finds Ma soils to be good for construction of low residential and commercial buildings (three stories or less) with foundations. Ma soils impose slight limitations on septic tank disposal fields and for the construction of streets and parking lots. Because of the low fertility and low water capacity, Ma soils pose severe limits for landscape plants and lawns.

- (5) Made land, sanitary fill (Mg) consists of areas used for rubbish disposal and then covered by soil or landfills. Landfills are subject to uneven settling. Limitations are severe for use of Mg soils for septic tank disposal fields or building sites. Mg soils may be suitable for parks.

An additional environmental consideration is wetlands. Wetlands are lands of transition between terrestrial and aquatic systems where the water table is usually at or near the surface of the land and the land is covered by shallow water. Wetlands are where land saturation with water is the dominating factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. Wetlands are classified as coastal or freshwater with the general distinction being the plant materials they support.

Wetlands provide many important benefits including pollution filtration, flood prevention, soil erosion and sediment control, habitat for fish and wildlife including habitat for threatened and endangered species and shoreline stabilization. Wetlands also offer unspoiled, open space for the aesthetic enjoyment of nature as well as recreation activities and environmental education. The alteration and destruction of wetlands by draining, filling, or other methods has an adverse effect on environmental quality and ecological systems.

Wetlands identified within the Cinnaminson waterfront study area are those indicated by the U.S. Fish and Wildlife Service in the National Wetlands Inventory and Coastal Wetlands Maps prepared by the New Jersey Department of Environmental Protection. Wetlands maps delineate and classify wetlands based upon a hierarchical system structured around a combination of ecological, hydrological, and substrate characteristics. The classification system also contains provisions to apply modifiers to describe the amount of flooding, water chemistry, soil type, and the actions of man.

Due to the scale of the wetlands maps and the delineation process which is based upon aerial photographs, development of the waterfront study area requires site specific delineation of wetlands to be identified based upon the three-parameter approach established by the New Jersey Freshwater Wetlands Protection Act of 1987. The three-parameter approach requires wetlands be mapped on the basis of the presence of hydric soils, supporting wetland plant species and the presence of a high water table.

In addition to consideration of soils and wetlands, an additional environmental consideration is flood plains. Flood plains are usually flat areas of land bordering rivers which are periodically inundated by flood waters. Flood plains are areas of substantial ecological value. The sediments deposited in the flood

plain by slow-moving flood waters increase the fertility of the land.

Where flood plains are undeveloped, the natural shrub and lowland forest vegetation provide excellent habitat for wildlife. Proximity to water heightens the flood plains value to wildlife, and overhanging vegetation offers shade and refuge for stream organisms and helps maintain natural stream temperatures. Vegetated flood plains can also act to filter out non-point source pollutants before they enter streams, thus providing a natural mechanism for water quality benefits. Flood plains are excellent locations for water related recreation sites. Since standing flood waters are steadily absorbed by flood plain soils, groundwater supplies are maintained and flood peaks downstream are reduced.

Flood plains mapped in the waterfront study area are based upon the 100 year flood boundary delineated by the Federal Emergency Management Agency (FEMA) as part of the National Flood Insurance Program for the Township. The Flood Insurance Rate Map for the Township contains the official delineation of flood insurance zones and base flood elevation lines showing the locations of the expected whole-foot water-surface elevations of the base 100 year flood developed in accordance with the latest flood insurance map preparation guidelines published by the Federal Insurance Administration. The base flood elevation established for the Delaware River and Pompeston Creek is Elevation 10. Based upon a Flood Insurance Study of Cinnaminson Township prepared by FEMA, floods within the waterfront study area are classified tidal.

The flood insurance study identified the greatest flood experienced in the waterfront study area resulted from tidal flooding of the Delaware River in August 1933. In addition to the 1933 flood, the Taylor Report identifies eight additional floods in the study area in this century with the most recent occurring in 1980. As land development continues along the Delaware River, decreasing undeveloped lands, the frequency and intensity of flooding will increase in the Cinnaminson waterfront study area.

Vegetation and wildlife are a final environmental consideration in the waterfront study area. Man, wildlife, vegetation and open space are inextricably linked. Plants take in carbon dioxide, release oxygen, serve as a filter to remove air pollution and serve as a setting for recreational activities. Rapid development has significant detrimental impacts on maintaining stable and balanced wildlife populations in the region.

The U.S. Department of Interior Fish and Wildlife Service conducted a preliminary report of fish and wildlife in the study area as part of a U.S. Army Corp Small Navigation Project of Dredge Harbor. The preliminary report found the Delaware River in the vicinity of the study area has water quality problems from June through September or October each year. Low dissolved oxygen

levels make this reach of the river unsuitable for fishes and invertebrates during this period. Fish kills have occurred at Dredge Harbor in the past, but none within the last seven years. Oxygen levels in the harbor are low during the summer but usually satisfactory for fish survival.

On a field trip in the study area in association with the preliminary report, U. S. Fish and Wildlife biologists collected silvery minnows, alewives and blueback herring in spawning condition. Banded killifish, brown bullhead, American eel, golden shiner, white perch and pumpkinseed sunfish were also collected. The biologists report Dredge Harbor may be used as a spawning and nursery area for several of the fishes common to the Delaware River. The shortnose sturgeon, a federally designated Endangered Species, has been reported from Rancocas Creek and may occur in Dredge Harbor in the spring.

The preliminary report also reported aquatic vegetation in the study area. Areas along the waterfront protected from prop wash and wave action support stands of spatterdock, arrowhead, wildrice, bigleaf pondweed, wild celery and bladderwort. Common reed and cattails are also scattered along the shoreline. Some river birch, alder, willow and staghorn sumac also grow along the shoreline.

Upland vegetation recorded by the U.S. Army Corps preliminary report in the waterfront study area includes stands of mature trees. Species identified included white oak, black cherry, sweet gum, sugar maple and red maple. Additionally, the study area contains plants associated with moist lowland forests such as sweet gum, red maple, magnolia and white cedar. Understory recorded by the biologists in the study area consists of service bush, honeysuckle, wild grape, and spice bush.

The study area is on the Atlantic Flyway and provides an excellent stop over point for migrating waterfowl and shorebirds. Wildlife species observed by the U.S. Fish and Wildlife biologists in the study area and lands adjacent to the harbor include a black duck nest, several green herons and great blue herons. The wildlife sanctuary found in the study area provides the best and most diverse wildlife populations with bird watching and nature walks common in the sanctuary.

d. POLICIES AND REGULATIONS

Development of the waterfront study area must adhere to land use regulations and guidelines. Regulations and guidelines for the study area serve to assure proper development of the waterfront through consideration of the unique environment.

Land use policy for the study area established by the 1983 Cinnaminson Master Plan designates the riverfront study area single family residential at densities consistent with existing

development. The remainder of the site is designated as flood plain and critical areas. Additionally, the 1983 Master Plan identifies the major recreation proposal for the Township is to anticipate a waterfront park along the Delaware River between North Read Avenue and Union Landing Road. The 1983 Master Plan finds the result of implementation of a park at the riverfront can be a positive, aesthetic use of the area, not a forgotten dumping ground. The 1983 Master Plan circulation plan recommends a loop street west of Broad Street to serve the large undeveloped area of the river. The 1983 Master Plan recommends the road be an extension of Union Landing Road so access would be aligned with a railroad crossing and be convenient for persons coming from Route 130 and areas east. The proposal is to extend Union Landing Road about half way to the river, then loop west, parallel to the river and connect to either North Read or North Randolph Avenues. This road can serve as a divider between the riverfront development and the industrial uses toward Broad Street.

The 1983 Cinnaminson Master Plan established an important land use goal for consideration in preparing the 1989 waterfront study. The goal recommends environmentally critical areas be avoided by development. If encroached upon in exceptional cases, the intrusion should be minimal, incorporating design features to deal with the natural limitations.

Because of extensive areas of flood plains in the study area, a final municipal regulation to consider is the Flood Hazard Areas ordinance adopted in 1987. The purpose of the ordinance is to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions. Methods established by the ordinance to accomplish the purpose include:

- (1) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion or in flood heights or velocities.
- (2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
- (3) Controlling the alteration of natural flood plains, stream channels and natural protective barriers which help accommodate or channel floodwaters.
- (4) Controlling filling, grading, dredging and other development which may increase flood damage.

- (5) Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

In addition to the municipal land use policies affecting development of the waterfront, another consideration is the 90 acre deed restricted wildlife preserve. The deed establishes an open space conservation easement with the NJ Natural Lands Trust, an agency of the State of New Jersey under the Department of Environmental Protection. Under the terms of the deed, only buildings for agricultural, educational, museum or passive recreation purposes are permitted.

The primary County regulation affecting development of the waterfront study area in Cinnaminson is the Soil Erosion and Sediment Control Act. The Act requires municipalities and all other public agencies to condition development project approvals upon local soil conservation district certification of a plan for soil erosion and sediment control. Certification is required for projects that disturb more than 5,000 square feet of surface area of land. The Act excludes single-family dwelling units unless such units are part of a project involving two or more single family dwelling units. Certification is also required for demolition of structures, construction of parking lots, construction of public facilities, operation of mining or quarrying activities and for clearing or grading of land for other than agricultural or horticultural purposes.

In addition to regulations by the municipality and county, development of the waterfront study area is regulated by state laws. The following is a list of State regulations specifically affecting waterfronts and development of sensitive lands. Additional state regulations may also affect development in the study area.

Under the Wetlands Act of 1970, administered by the NJDEP, Division of Coastal Resources, virtually all forms of construction activities on coastal wetlands are regulated, requiring Type A or Type B permits. Type A permits are required for minor projects including excavation of small boat mooring slips, maintenance or repair of bridges, roads, highways, and construction of catwalks, piers, docks, landings, and observation decks. Type B permits are required for projects that dredge, fill, excavate or alter the marsh contour.

The Flood Hazard Area Control Act is administered by the NJDEP, Division of Coastal Resources, Bureau of Flood Plain Management. The Act requires a Stream Encroachment Permit for construction in wetlands found within the 100 year flood plain. The jurisdiction of this law is State-wide. Permits are required

for the construction, installation or alteration of any structure or permanent fill along, in, or across the channel or flood plain of any stream. A permit is also required for any alteration of the stream itself.

The New Jersey Water Pollution Control Act requires all projects requiring Federal permitting for the discharge of dredged or fill material into State waters and/or their adjacent wetlands also receive State Water Quality Certification. The purpose of the certification is to ensure that all such activities are consistent with New Jersey water quality standards and management policies.

The Delaware River Basin Compact requires approval from the Delaware River Basin Commission, an interstate agency responsible for the conservation and best utilization of water resources for a 12,500 square mile watershed that includes parts of New Jersey, New York, Pennsylvania and Delaware. In New Jersey, the Basin Commission has jurisdiction over 3,000 square miles of land drained within the State by Delaware River tributaries including the waterfront study area in Cinnaminson.

On July 1, 1988, the Freshwater Wetlands Protection Act went into effect and allows the State to protect New Jersey's freshwater wetlands resources. The Act is intended to preserve the purity and integrity of wetlands from random, unnecessary or undesirable alterations or disturbances. The Act is another step forward in recognizing and protecting an important and valuable environmental resource in New Jersey. Freshwater wetlands perform many biological and physical functions, and in doing so, provide many benefits to the citizens of the State.

A Freshwater Wetlands Permit is needed for virtually any activity proposed within the boundaries of a freshwater wetland. Activities which are regulated include the dredging, excavation or removal of soil, the drainage or disturbance of the water levels, filling or discharge of any materials, the driving of pilings, placing of obstructions or the destruction of plant life.

As of July 1, 1989, development adjacent to freshwater wetlands may require buffers up to 150 feet wide. Wetlands buffers may be up to 300 feet wide in accordance with the Rules on Coastal Resource and Development which may supercede the Freshwater Wetlands Regulations.

Development in the Cinnaminson waterfront study area may require a Waterfront Development Permit from the New Jersey Department of Environmental Protection, Division of Coastal Resources. Waterfront development, as defined by the state means docks, wharves, piers, bulkheads, bridges, pipelines, cables and pilings, dredging or removing of sand or other materials from lands under all tidal waters, and limited upland construction.

Specifically, the waterfront area to be regulated under the Act is as follows:

- (1) A Water Area, which shall include any navigable waterway or stream of this State and all lands lying thereunder up to the mean high water land and,
- (2) An Upland Area, which shall include all lands extending landward from the mean high water line of such water area to the first surveyable property line existing on the effective date of the Rules, public road, railroad right-of-way, or other cultural feature generally parallel to the waterway; not subject to CAFRA provided that the landward boundary of such area shall be at least 100 feet and no greater than 500 feet from the waterway except where lands formerly flowed by the tide (i.e. tidelands) extends more than 500 feet from the mean high water line. In such cases, the boundary of the upland fringe area shall be the upland boundary of such tidelands.

The minor maintenance and repair of docks, piers and bulkheads is exempt from this requirement.

The Rules on Coastal Resource and Development Policies (N.J.A.C. 7:7E-1.1 et seq.) of the Coastal Management Program guide the Division of Coastal Resources in reviewing applications for Waterfront Development Permits. The Coastal Resource and Development Policies are grouped into three categories: Location Policies, Use Policies and Resource Policies.

The Location Policies classify all land and water locations into General Areas and/or into one or more Special Areas. Special Areas are those 44 types of coastal areas which merit focused attention and special management policies. While not inclusive the following Special Areas policies may be applicable to development of the Waterfront Study area in Cinnaminson Township.

Finfish Migratory Pathways

The Delaware River has been confirmed to support spawning runs of anadromous species. Species of concern include alewife (*Alosa pseudoharengus*), blue-back herring (*Alosa aestivalis*), American shad (*Alosa sapidissima*), and Shortnose Sturgeon (*Acipenser brevirostrum*). Development which would jeopardize the continued utilization of the river by these species is prohibited.

Submerged Vegetation

No information is currently available documenting the existence or absence of aquatic vegetation beds in the waterfront study area. Field investigation, however, will be necessary to address this issue. Destruction of submerged aquatic vegetation is prohibited.

Navigation Channels

Development which results in a loss of navigability is prohibited. This policy is concerned with recreational craft as well as commercial vessels. Approval from the U.S. Coast Guard is required to demonstrate consistency with this policy.

Intertidal and Subtidal Shallows

These Special Areas include all permanently or twice daily inundated areas from Mean High Water to a depth of 4 feet below Mean Low Water. New dredging and filling of shallows is discouraged.

Filled Water's Edge Areas

These areas are existing filled areas lying between wetlands or water areas and either the upland limit of fill or the first paved public road. Some existing dredge spoil disposal sites are considered to be filled water's edge areas. Generally development of filled water's edge areas must be water dependent that is, uses that cannot physically function without direct access to the body of water along which it is proposed.

Natural Water's Edge - Flood Plains

These are special areas where development is discouraged or prohibited. Under the State regulations, development is prohibited in the natural water's edge/flood plain within 100 feet of a navigable water body unless the use is water dependent. Development elsewhere in the flood plain is discouraged unless there is no feasible alternative and it would not preempt use of the waterfront for water-dependent uses. The addition of fill material to the floodway fringe encroachment increases the height of floodwaters, and a permit from the N.J. Department of Environmental Protection is required. A limit of 20 percent fill area per site has been established.

Alluvial Flood Margins

Alluvial flood margins are mainland areas adjacent to flood plains. They extend inland to the limit of alluvial soils

with a seasonal high water table equal to or less than one foot. The policy regarding alluvial flood margins is, development be limited to wildlife refuge and low intensity recreational use or if it is a landward extension of a water-dependent use.

Wetland Buffers

All land within 300 feet of wetlands as defined in N.J.A.C. 7:7E-3.26 and within the drainage area of those wetlands, comprises an area within which the need for a wetlands buffer shall be determined. Development is prohibited in a wetlands buffer unless it can be demonstrated that the proposed development will not have an adverse impact.

Critical Wildlife Habitats

Critical Wildlife Habitats are specific areas known to serve an essential role in maintaining wildlife, particularly in wintering, breeding, or migration. Development which would directly or indirectly degrade these habitats is discouraged. The value of this area for migrating waterfowl and raptors would need to be assessed.

Marina Moorings

Marina Moorings are areas of water that provide mooring, docking and boat maneuvering room as well as access to land and navigational channels for recreational boats. Policy regarding non-water dependent development in a marina mooring area is to prohibit any use that detracts from existing or proposed recreational boating use in marina mooring areas. Maintenance dredging in the marina mooring area and the access channel is encouraged, provided that turbidity is controlled and that there is an acceptable dredge soil disposal site.

All coastal areas are also subject to General Water or General Land Area Policies as part of the Location Policies.

General Water Areas include all areas which lie below either the Mean High Water Line or the normal water level of non-tidal waters. Except at times of drought or extreme low tide, these areas are inundated. The General Water Area policies designate the Delaware River adjacent to Cinnaminson a Large River.

Large Rivers are defined as the principal freshwater input to the Open Bays, and the critical estuarine functions performed by these bays depends, in large part, on maintenance or improvement of water quality and flow patterns in Large Rivers. Large Rivers have a long history of intensive human use, especially in commerce. These economic interests must be accommodated. Large Rivers are all drained by watersheds in excess of 1,000 square miles, and are

tidally influenced. These factors allow for flushing of pollutants, although extensive portions of Large Rivers are overstressed with sewage and industrial wastes.

The following Policy Summary Table indicates the Location Policy for various uses along Large Rivers as established by the Rules on Coastal Resources and Development.

WATER AREA POLICY SUMMARY TABLE

<u>USE</u>	<u>LARGE RIVERS</u>
Aquaculture	Encouraged
Boat Ramps	Conditionally Acceptable
Docks (cargo)	Conditionally Acceptable
Docks (recreation)	Conditionally Acceptable
Dredging (maintenance)	Conditionally Acceptable
Dredging (new)	Conditionally Acceptable
Dredged Material	
Disposal	Conditionally Acceptable
Dumping	Prohibited
Filling	Discouraged
Piling	Conditionally Acceptable
Mooring	Conditionally Acceptable
Sand, Gravel Extraction	Conditionally Acceptable
Bridges	Conditionally Acceptable
Submerged	
Infrastructure	Conditionally Acceptable
Overhead Lines	Discouraged
Dams & Impoundments	Prohibited
Outfalls & Intakes	Conditionally Acceptable
Realignment	Discouraged
Miscellaneous	Conditionally Acceptable

General Land Areas include all mainland land features located upland of Special Water's Edge Areas. The acceptability for development of Land Areas is defined in terms of three levels of acceptable development intensity. The three levels include the Coastal Growth Rating established by the Rules on Coastal Resource and Development, Environmental Sensitivity and Development Potential.

The Coastal Growth Rating for the waterfront study area in Cinnaminson is Development Region. The Development Region is already largely developed. From a coastwide perspective, development in this region would be infill development. In accordance with the coastal policy on concentration of development, development in this region is preferred over development in other regions. Infill, extension and some scattered development is acceptable here. Development in these regions, however, must be consistent with Recreation and Public Access Policies.

Environmental sensitivity is rated high, moderate or low, depending upon the presence of vegetation, fertile soils and high permeability wet soils. The presence of these three factors indicate high environmental sensitivity; their absence indicates low environmental sensitivity.

Development potential, rated high, medium or low, depends upon the presence of roads, sewerage and surrounding development. The presence of these three factors indicates high development potential; their absence indicates low development potential.

The synthesis of Coastal Growth Rating, Environmental Sensitivity and Development Potential indicates the appropriate pattern of development from a broad, regional perspective and provides a method for determining the acceptable intensity of development of the study area as well as entire regions.

The second stage in the screening process of the Coastal Resource and Development Policies is a set of policies for particular uses of coastal resources. Use Policies do not preempt Location Policies which restrict development, unless specifically stated. In general, Use Policies impose conditions which must be satisfied by specific uses, in addition to meeting the Location Policies and Resource Policies.

Coastal uses are classified in the following categories:

Housing
Resort and recreational
Energy
Transportation
Public facility
Industry

Mining
Ports
Commercial facility
Coastal engineering
Dredge spoil disposal on land
National defense facilities

The third step in the screening process of the Coastal Resource and Development Policies involves a review of a proposed development in terms of its effects on various resources of the built and natural environment of the coastal zone, both at the proposed site as well as in its surrounding region. These policies serve as performance standards to which proposed development must adhere.

The Resource Policies concern the following resources:

Marine Fish and Fisheries
Shellfisheries
Water Quality
Surface Water Use
Groundwater Use
Public Services
Public Access to the Shorefront
Scenic Resources and Design

Buffers and Compatibility of Uses
Solid Waste
Energy Conservation
Neighborhoods and Special Communities
Runoff
Soil Erosion and Sedimentation
Vegetation
Important Wildlife Habitat
Air Quality
High Permeability Moist Soils
Wet Soils
Flood Hazard Areas
Decommissioning of Projects
Noise Abatement
Barrier Free Design
Traffic

A Resource Policy of particular note is Public Access to the Shorefront. Public access to the waterfront, as defined by the Rules on Coastal Resource and Development, is the ability of all members of the community at large to pass physically and visually to, from and along the ocean shore and other waterfronts.

The Cinnaminson waterfront is a valuable, but limited public resource. Development of waterfronts often block the waters from public view and makes physical access difficult or impossible. In addition, private ownership of land immediately inland of tidelands often limits public access to those lands and the waters which flow over them. This limits access to and enjoyment of public resources by citizens who, through taxes, support the protection and maintenance of the waters and lands.

The right to public access has been established through the Public Trust Doctrine which states in general, that tidal waters and the lands which are flowed by the tides shall be preserved for the use of the public for navigation and commerce. In recent times, the rights of the general public under the doctrine have been extended beyond navigation to include fishing and recreational uses.

Policy established by the Rules on Coastal Resource and Development regarding public access are as follows.

- (1) Coastal development adjacent to all coastal waters, including both natural and developed waterfront areas, shall provide perpendicular and linear access to the waterfront to the maximum extent practicable, including both visual and physical access. Development that limits public access and the diversity of waterfront experiences is discouraged.

- (2) All development adjacent to water shall, to the maximum extent practicable, provide, within its site boundary, a linear waterfront strip accessible to the public. If there is a linear waterfront accessway on either side of the site and it is not feasible to continue it within the boundaries of the site, a pathway around the site connecting to the adjacent parts, or potential parts of the waterfront path system in adjacent parcels shall be provided.
- (3) Municipalities that do not currently provide, or have active plans to provide, access to the water will not be eligible for Green Acres or Shore Protection Bond funding.
- (4) Public access must be clearly marked, provide parking where appropriate, be designed to encourage the public to take advantage of the waterfront setting, and must be barrier free where practicable.
- (5) A fee for access to, including parking where appropriate, or use of publicly owned waterfront facilities must be no greater than is required to operate and maintain the facility and shall not discriminate between residents and non-residents except that municipalities may set a fee schedule that charges up to twice as much to non-residents for use of marinas and boat launching facilities for which local funds provided 50 percent or more of the costs.
- (6) All establishments, including marinas and beach clubs, which control access to tidal waters shall comply with the Law Against Discriminating, N.J.S.A. 10:5-1 et seq.
- (7) Public access, including parking, where appropriate, shall be provided to publicly funded shore protection structures and to waterfronts created by public projects unless such access would create a safety hazard to the user. Physical barriers or local regulations which unreasonably interfere with access to, along or across a structure are prohibited.
- (8) Development adjacent to coastal waters shall provide fishing access within the provision of public access wherever feasible and warranted.

The State also maintains a policy on marinas which "aim to ensure that the area devoted to marinas is fully and efficiently utilized to keep the size of the area required to a minimum". The policy states that "new or expanded marinas for recreational boating are conditionally acceptable if the demonstrated regional demand for recreational boating facilities cannot be met by the upgrading or expansion of existing marinas. Expansions of existing marinas shall be encouraged by limiting non-water dependent land uses that preclude support facilities for boating."

The following are U.S. Government regulations that potentially regulate development in the Cinnaminson waterfront study area.

The River and Harbor Act of 1899 requires a permit to construct structures in a navigable waterway of the United States.

Section 404 of the Clean Water Act established a federal permit program which regulates the discharge of dredged material and fill material into the "Waters of the United States". The geographic jurisdiction of the Corps includes wetlands not regulated under other federal permit programs. Evaluation of the proposed discharge in the aquatic ecosystem must follow the criteria of U.S. Environmental Protection Agency (US-EPA). The US-EPA may restrict or prohibit discharge of dredged or fill material that may cause an unacceptable adverse effect.

Wetlands subject to regulation under Section 404 are defined by the Corps. They include those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. (This is the same definition for wetlands and used by NJDEP under the New Jersey Freshwater Wetlands Protection Act.)

Several classes of "Nationwide" permits are authorized by the regulations in addition to individual permits. Nationwide permits for activities considered to have insignificant adverse effects were issued with the regulations. These may not correspond directly with any statewide or general permits issued by NJDEP.

Under Section 401 of the Federal Clean Water Act, the Corps of Engineers requires that all activities which will result in a discharge of dredged or fill material must obtain a Water Quality Certification from NJDEP.

e. RECOMMENDED DESIGN GUIDELINES

The following represents a synthesis of general design considerations, which have served as guidelines for development and preservation in other successful waterfront locations with similar

characteristics. The primary concerns for the Cinnaminson Waterfront Study include environmental protection based upon the constraints outlined in the "Waterfront Study-Background Inventory and Assessment" and the need to maintain physical, visual and interpretive access.

A design concept for the Cinnaminson Waterfront Study is to see the Delaware River as a resource, and to recognize its potential to serve as an amenity. The river can serve as open space for Cinnaminson Township. With the Delaware River serving as open space, public access to the 1.6 mile Cinnaminson waterfront is a primary concern which must be addressed by any waterfront development in the study area in association with the constraints imposed by environmentally sensitive lands as previously outlined. The basic ways of obtaining public access to the waterfront can be divided into three (3) categories, physical, visual and interpretive.

Physical access means people's ability to reach the shoreline and use the waterfront by gaining direct access on or near the site, with pathways, parks or street-end improvements. Pathways enable people to move in a continuous fashion through the entire Cinnaminson waterfront. Public access pathways should be between the first public thoroughfare from the river's edge, allowing Township residents to enjoy the river's edge. Pathways are more complicated than other means of gaining public access along the Cinnaminson waterfront because of their linear nature and involvement of multiple land owners, plus shoreline constraints including pre-existing uses. Parks, another means of physical access to the waterfront, are often expensive as land must be purchased or leased, improvements made, and there is the continual expense of operation and maintenance. Waterfront parks when wisely placed, however, enhance the waterfront setting, diversifying the use of the waterfront and providing for stopping points along a continuous public access system. Parks should be contiguous to and easily entered from the public access pathway system. Street-ends generally are leftover bits of land, in most instances owned and managed by a government entity. Street-ends are probably the handiest windows on the waterfront and can be made into low-cost pocket parks providing opportunities for preserving view corridors and guaranteeing visual links. Waterfront street-ends along the waterfront can be linked with public access pathways and parks permitting an integrated waterfront public access system.

Visual access enables people to see the waterfront. The ability to see is important to the public's understanding and appreciation of the waterfront. Maintaining view corridors and restricting building heights at the shoreline particularly help preserve visual links to the water and waterfront.

Interpretive access involves the ability to understand, appreciate and enjoy what is happening along the waterfront. It

is the educational component of public access. Plaques, interpretive signs and brochures are a natural complement to a person's experiences around the waterfront.

The consideration for public access is within the Township's control through its land development ordinance. To ensure public access the Township can adopt standards to promote physical, visual and interpretive access. All public access should be planned, designed, executed and maintained on the basis of the following principles.

Public access should:

1. Feel public;
2. Be usable by the greatest number and diversity of people, including the physically handicapped;
3. Provide, maintain, and enhance visual access;
4. Enhance and maintain the visual quality of the shoreline;
5. Connect to public areas or thoroughfares, or to other public access areas;
6. Take advantage of the waterfront setting; and
7. Be compatible with the natural features of the shoreline, the project and the adjacent development.

Standards for land use categories should be established in accordance with the following principles:

(a) Waterfront Residential Areas

-Provide substantial improved shoreline accessory parks adjacent to the waterfront to serve the general public and project residents

-Take advantage of the setting, to the maximum extent feasible by orienting the project to the waterfront and otherwise providing the residents and public with reminders of the proximity of the waterfront.

-Provide unobtrusive paths, that respect the residents' privacy, to or along the shoreline to encourage passive public use where appropriate as part of individual residences.

-Develop multiple unit projects with all-weather paths, landscaping, and other improvements that are appropriate for the anticipated demand, size and location of the

project. The public access system should generally provide continuous access along the shoreline with connection to other public areas or streets. Provide public parking if none exists in the area.

-Use elevational changes, planting, fences, and signs to clearly differentiate the public access areas from the private residential areas.

-Where feasible, the use of indigenous vegetation and architectural style conducive to the established character of area should be encouraged.

(b) Waterfront Commercial Uses

-Provide the maximum amount of highly improved public access because commercial land uses are capable of exposing large numbers of people to the waterfront and benefit the most from well-designed and improved public access areas.

-Provide the maximum amount of waterfront access, unless the overall project design would be improved by reverse orientation inland. Provide for continuous access through the site and provide public areas that are large enough so as not to interfere with commercial operations.

-Take advantage of the waterfront setting by relating the development to the waterfront. Locate uses that do not relate to the waterfront well back from the shoreline to minimize adverse impacts.

-Provide public access improvements, such as parking, paved walkways, benches, kiosks, trash containers, landscaping, lighting, restrooms, and drinking fountains, where the costs of the improvements are reasonably related to the private benefits of the shoreline use.

(c) Water-Related Recreational and Marina Land Uses

-Provide the greatest amount of improved or natural public access to and along the waterfront shoreline.

-Create some variety in the public access experience by providing pedestrian spaces or nodes, especially in marina projects which are often linear in nature.

-Provide public access for fishing wherever possible on piers and breakwaters.

-Provide public boat launching ramps wherever possible.

(d) Other Urban Land Uses in Waterfront Areas

-Set uses that do not relate to the waterfront, including light industrial uses, offices, and parking, well back from the shoreline.

-Provide maximum access along the shoreline and screen the shoreline from incompatible uses.

-Require improvements, such as landscaping, benches and paving, that are appropriate for the anticipated demand, size and location of the project.

(e) Development Adjacent to Wetlands

-Develop or provide public access to wetlands, if appropriate, only in a way that respects the natural values such as passive wetlands parks.

-Provide point access such as spur trails or view areas in places where wildlife is sensitive to human intrusion rather than continuous shoreline paths.

-Provide controls to protect wildlife resources or other features from any access into these areas.

-Provide minimal improvements such as signs which identify the area and interpret the resources.

-Encourage supervised interpretive use of sensitive resource areas. Provide signs to inform and educate the public regarding the importance of wetlands preservation.

Development of the waterfront in Cinnaminson will occur over years. Phased development does not preclude unified waterfront design. A comprehensive approach to waterfront development with common design elements and themes for waterfront development can be introduced. To unify the design of waterfront land uses over years and also unify diverse waterfront activities which may occur, attention to detail should be a characteristic embodied in comprehensive design guidelines for the Cinnaminson waterfront ensuring an integrated waterfront design.

Many areas in the country in recent years have undertaken waterfront development. A review of lessons learned from other towns provides the following guidelines applicable to waterfront development in Cinnaminson:

- (1) Municipalities must require high quality of design and high standards for the unique and sensitive lands along the waterfront.

- (2) Preparing and sticking to a comprehensive waterfront development plan reduces risks and helps to achieve a comprehensive waterfront design.
- (3) Planning for waterfront development requires time and patience. Thorough homework developing a base of knowledge is required.
- (4) Environmental protection can be compatible with economic development of the waterfront with the provision of standards for protection.
- (5) Mixed land uses at the waterfront can be compatible if suitable standards for design are implemented.
- (6) Activity along the waterfront increases safety with the activity helping to balance the concern with public access adjacent to private property.
- (7) The waterfront planning process must be people-oriented; everyone must have an opportunity to speak before decisions are made or community spirit and pride will not surface.

Design guidelines to achieve goals of environmental protection and physical, visual and interpretive access from which specific design standards for a waterfront plan will evolve include:

- (1) Utilize the shoreline of the Cinnaminson waterfront for water-related uses and activities, uses that do not orient to the waterfront should be set well back from and not impact on the shoreline.
- (2) Locate buildings, structures, parking lots and landscaping of waterfront land uses so as not to obstruct or detract from views of the river from nearby public thoroughfares.
- (3) Control landscaping to preserve and dramatize views of the Delaware River especially in side yards, at street-ends and along public thoroughfares.
- (4) Concentrate and cluster waterfront land use to ensure protection of sensitive lands. Clustering of land use also allows physical and visual access to the waterfront.

- (5) Locate service areas such as utilities and refuge containers away from the shoreline of the river or screen them from public view and with suitable fencing and landscaping.
- (6) Where possible, link public access to the Cinnaminson waterfront with the municipal park and open space system, school and municipal buildings and other public spaces.
- (7) Relate water dependent commercial land use to the waterfront. Take advantage of the special setting of the Delaware River waterfront by orienting to river views and providing physical and spatial connectors to the waterfront at every opportunity.
- (8) Periodically provide elevated places for viewing the waterfront.
- (9) Provide appropriate controls for access to or into sensitive wildlife areas with observation and interpretation of wildlife where appropriate.
- (10) Maintain, enhance or re-establish indigenous marsh or other natural shoreline vegetation wherever possible.
- (11) Maintain, enhance or complement the waterfront's natural contours, features and indigenous plant materials.
- (12) Remove debris from waterfront access sites.
- (13) To unify the waterfront and diverse activities which may occur, a common design concept should be introduced. An architectural theme cognizant of the history of the Delaware River waterfront in Burlington County can be established to unify the waterfront.
- (14) Use forms, materials, colors and textures that are compatible with the history of the Cinnaminson waterfront area and representative of historic land use found in adjacent communities.
- (15) Locate and design land use and public access so as to be consistent with the protection of fish and wildlife habitat.

- (16) Clearly delineate the public use areas from private areas by the use of signs, plantings, fences, berms or elevation changes where private or conflicting uses may exist as part of the project.
- (17) Identify public access sites with a standard public waterfront sign both on site and at the nearest public thoroughfare.
- (18) Take advantage of intrinsic recreational capabilities of the waterfront, such as fishing, viewing or picnicking, that are consistent with the waterfront shoreline and adjacent lands.
- (19) Ensure provision of basic public amenities, such as benches, paths, trash containers, drinking fountains, lighting and restrooms, where appropriate.
- (20) Require design and placement of buildings and other structures to provide useable access areas and maintenance of environmentally sensitive lands.
- (21) Provide public parking where appropriate to serve the various land uses along the waterfront, but keep parking areas small, away from the waterfront shoreline, and adequately screened.
- (22) Provide some small waterfront parking and viewing areas for limited in-car waterfront viewing where compatible with existing roads and adjacent uses.
- (23) Provide attractive screen planting or devices to shield users from incompatible uses, excessive winds or undesirable views. Similarly, these devices can be used to direct views to specific features.
- (24) Provide facilities for the physically handicapped to the maximum extent possible.
- (25) Where appropriate, provide educational and interpretive opportunities for the user through identification of unique natural features and historical information.

Regardless of the scale and complexity of waterfront development in Cinnaminson, good design standards and aesthetic considerations with awareness of environmental features are essential for the success.

f. RECOMMENDED WATERFRONT CONCEPT PLAN FOR THE 1989 MASTER PLAN LAND USE UPDATE

A concept plan illustrates a general land use plan. A concept plan is developed from the system of data and existing conditions, probable constraints, both physical and jurisdictional and perceived needs and desires of public officials and Township residents.

A concept plan for the Delaware River waterfront study area in Cinnaminson has evolved after a natural course of study and considerable public input. The concept plan is the finished product of a sequence of mapping information that first illustrates the environmental feasibility and existing land use constraints as shown on the Environmental Constraints Map. The analysis of these constraints and existing land uses leads to a schematic designation of appropriate land uses, which then evokes a concept plan illustrating logical land use and development expectations for the waterfront.

It is the intention of Cinnaminson Township to utilize this concept plan in conjunction with design guidelines as discussed in Section (e) above to lead or direct the growth and development along the waterfront. It must be emphasized, unlike a site plan, which is a definitive description of exact future features, a concept plan is flexible and can be modified to reflect changes in public policy or to accommodate environmental and fiscal constraints.

(1) LAND USE DESIGNATIONS

Based upon the environmental and land use analysis and inventory of Cinnaminson's waterfront and, along with input from public officials and citizens, it is recommended that the IND. and EX.IND. designations be eliminated along the waterfront. As shown on the 1989 Land Use Map for Cinnaminson Township, six land use designations are proposed for the waterfront. The following are the designations and land use proposed to be permitted in each district.

- (a) LT IND - Light Industrial. In recognition of existing land use along Broad Street and also neighboring industrial land use on the south side of Broad Street, a light industrial district is proposed as shown on the 1989 Land Use Map. Permitted uses in the LT IND district include business

and professional offices, product assembly, product packaging, warehousing, production distribution center, wholesale center, municipal uses and buildings, public utilities, and parks and preserves. Also permitted in the LT IND district are uses permitted in the C district as discussed in Section B2 of this report. The purpose of including the neighborhood commercial use in the LT IND district in the waterfront area is to ensure that convenience services are available in accessible locations to residential land use proposed for the waterfront in Cinnaminson, without travel through the Township. As shown on the 1989 Land Use Map, the LT IND district in the waterfront study area is proposed along Broad Street, in recognition of the need for accessibility and visibility of the land use permitted in the LT IND district. Location of non-residential land use along Broad Street also provides a buffer and transition between residential land use proposed to the north closer to the river and the busy road and heavy industrial land use across Broad Street from the study area. Permitting midrise development in the LT IND district reinforces the buffer provided by the designated land uses. An internal auto circulation system is encouraged parallel to Broad Street, connecting existing streets in the waterfront study area and limiting traffic onto Broad Street as it moves between land uses at the waterfront. Extensive buffers with provision of access are recommended between uses in the LT IND district and adjacent proposed residential land use.

- (b) MC - Marine Commercial. In recognition of existing water dependent land use such as the Lippincott Boat Yard, and in consideration of encouraging waterfront use and activity along the Delaware Waterfront, the MC district is proposed as shown on the 1989 Land Use Map for areas along the riverfront and adjacent to the Pompeston Creek and Dredge Harbor to Taylor's Lane. The location of the MC district at the end of North Read and

North Randolph Avenues encourages use of street ends, one owned by the Township and the other available for purchase from the Bureau of Tidelands, as a possible municipal boat launch. Permitted uses proposed for the MC district include boat building and the repair, rental, sales and storage of boats, marine related wholesaling and processing, boat club, marina, fishing piers, boat docks, warehousing and storage uses including storage of products and materials which storage may be open only if it is determined to be compatible with and, where necessary, sufficiently screened from adjoining properties, uses permitted in the C district and public parks. A restaurant could be permitted in the MC district as an accessory use to a water dependent use.

MC district- Housing as a Conditional Use.

In addition to the permitted water dependent uses, housing is to be permitted as a conditional use in the MC district. In recognition of the State policy requiring all municipalities provide the opportunity for affordable housing to meet present and prospective housing needs with particular attention to low and moderate income housing, it is recommended that residential land use be permitted as a conditional use in the MC district. Residential land use in the MC district shall only be permitted in accordance with the rules and regulations of the New Jersey Council on Affordable Housing (COAH). Permitted residential land use in the MC district is varied, including detached dwellings and semi-detached dwellings such as duplexes, triplexes and quadraplexes, and attached condominium flats and townhouses. Housing should be in clusters. Creative design is encouraged with varied roof lines and heights considerate of views to the river, harbor and adjacent wildlife preserve. Density of residential land use in the MC district is based upon net density after subtraction of environmentally constrained wetlands. Base net density of residential land use proposed for the MC district is

six units per acre with a mandatory requirement of provision of a 20 percent set-aside of dwelling units for low and moderate income households. It is proposed that development in the MC district be permitted a bonus density credit for critical wetland areas. The bonus density credit is available at the Board's discretion through the provision of open space public access amenities acceptable to the Planning Board in accordance with a Township open space waterfront public access plan. Maximum height of residential land use in the MC district should not exceed three stories and 35 feet. Sufficient buffers should be provided between housing and Broad Street. A marina may, be permitted as an accessory use to the residential land use with the boat slips available to the market units. For every boat slip available to the residential use, an equal number should be available to the public.

To comply with the substantive rules and regulations of COAH, the requirements for housing permitted as a conditional use in the MC district shall reflect the requirements established by COAH as follows:

- (1) Bedroom distribution. Developers shall devise and provide for, within their development, a method which establishes the following distribution of the number of bedrooms contained within in inclusionary development:
 - (a) At a minimum, thirty-five percent (35%) of all low- and moderate-income units shall be two (bedroom units:
 - (b) At a minimum, fifteen percent (15%) of all low- and moderate-income units shall be three-bedroom units; and
 - (c) No more than twenty percent (20%) of all low- and moderate income units may be efficiency units.
- (2) Range of affordability for purchased housing.
 - (a) Developers must provide housing within the average price of low- and moderate-income units within an inclusionary development which will be, as best as practicable, affordable to households at fifty-seven and five-tenths percent (57.5%) of median income as

contained in N.J.A.C. 5:92-12.4.

- (b) In devising a range of affordability for purchased housing, as required in Subsection (2)(a) above, developers shall provide as best as practicable for the following distribution of prices for every twenty (20) low- and moderate-income units:

PRICE STRATIFICATION

Income Unit	Number of Units	Distribution of Price (percent)
Low	1	40 to 42.5
	3	42.6 to 47.5
	6	47.6 to 50
Moderate	1	50.1 to 57.5
	1	57.6 to 64.5
	1	64.6 to 68.5
	1	68.6 to 72.5
	2	72.6 to 77.5
	4	77.6 to 80

- (c) For initial occupants, priority shall be given to households within a particular income category with flexibility based on New Jersey Housing and Mortgage Finance Agency affordability controls criteria.

(3) Affirmative marketing within inclusionary developments.

- (a) Occupancy preference. For all low- and moderate-income housing units provided in inclusionary developments, developers and/or sponsors shall establish occupancy such that, initially, no more than fifty percent (50%) of the units are made available to income-eligible households that reside in the Township or work in the Township and reside elsewhere.
- (b) Affirmative marketing program. Developers shall have primary responsibility for developing and implementing an affirmative marketing program that addresses the occupancy preference requirements in N.J.A.C. 5:92-15.1 et seq. Developers and/or sponsors of low- and moderate-income housing are required to market, screen, offer occupancy and select income-eligible households accordingly.
- (c) Maximum density per adjusted gross acres: six (6)

dwelling units per acre.

(d) Minimum buildable lot size: not applicable.

- (4) Schedule of completion for inclusionary housing. Developers of inclusionary developments shall be entitled to final approval of at least four (4) market housing units per each low- and moderate-income housing unit. Within inclusionary developments, low- and moderate-income housing units shall be built in accordance with the following schedule:

Minimum Percentage of Low- and Moderate-Income Units Completed	Percentage of Market Housing Units Completed
0	25
10	25 plus 1 unit
50	75
75	90
100	100

- (5) Affordability controls.

- (a) Units which shall be offered for sale shall be sold at maximum price of eighty percent (80%) of the median income families and fifty percent (50%) of the median income of the region for low-income families, each figure to be multiplied by two and five-tenths (2.5)
- (b) Rental units shall have a maximum annual rent of eighty percent (80%) of the median income of the region for moderate-income families and fifty percent (50%) of the median income for low-income families, such figure to be multiplied by thirty percent (30%).
- (c) "Moderate-income families" are those whose incomes are no greater than eighty percent (80%) and no less than fifty percent (50%) of the median income of the area, with adjustments for smaller and larger families. "Low-income families" are those whose incomes do not exceed fifty percent (50%) of the median income of the area, with adjustments for smaller and larger families. "Area" is defined as the Standard Metropolitan Statistical Area by the regional office of the Office of the United States Census Bureau. The income level, identity and family size of the occupants proposed as qualifying occupants must be submitted by the developer or owner, prior to occupancy, and be recertified every

year by the owner of the unit.

- (d) A certificate of occupancy shall be required for all low- and moderate-income housing units, whether owner-occupied or rented. The certificate of occupancy shall not be issued by the Construction Official until he receives a written statement which confirms that the occupants of the unit meet the income requirements and affordability controls of this section. The developer is responsible for providing to the municipality the identification of each modest-prices unit and the purchaser or tenant of said units. A new certificate of occupancy will be required upon each resale or reletting.
 - (e) Units sold must be owner-occupied by qualifying a owner as set forth above. If said qualifying owner seeks to let or rent the premises, the unit shall be subject to the income requirement and affordability controls for rental units as set forth above.
 - (f) All such units, whether for sale or rent, shall be deed restricted to occupancy by qualifying low- or moderate-income persons, and said deed restrictions shall survive passage of title and conveyance, whether by sale, gift, inheritance, equitable distribution in a divorce proceeding, foreclosure, etc. and shall apply to the resale or reletting of the premises for a period of twenty (20) years.
 - (g) If a designated low- or moderate-income housing unit is offered for resale, the maximum price shall not exceed the limits set forth above in Subsection B(5)(a).
 - (h) At least half of the low- and moderate-income units built must be affordable by moderate- and low-income households, with the remainder being affordable by moderate- and low-income households.
- (6) Dwelling units shall be constructed with a minimum square footage of living area as follows:
- (a) One-bedroom dwelling units; four hundred eighty (480) square feet.
 - (b) Two-bedroom dwelling units: six hundred sixty (660) square feet.
 - (c) Three-bedroom dwelling units: eight hundred (800) square feet.

- (d) Four-bedroom dwelling units: eight hundred fifty (850) square feet.

(7) Design Requirements

- (a) The facade and type of unit of the low- and moderate-income units shall in no way be distinguishable from the facades of the other units in the development.

- (b) The low- and moderate-income units shall be dispersed throughout the project to the greatest extent feasible.

- (c) WP - Wildlife Preserve. In recognition of the deed restricted environmentally sensitive lands on a 90 acre portion of the land area in the waterfront study area, a Wildlife Preserve district is proposed as shown on the 1989 Land Use Map. Land use permitted in the WP district is as permitted in accordance with the deed restriction. Included are buildings for agricultural, educational museum or passive recreation purposes such as an Environmental Studies Center. The Wildlife Preserve should primarily serve as open space, valued for its unique character in a developed suburb. Opportunities should be explored for including interpretive trails through the wildlife preserve, funded with the Public Use of Private Open Space grant program with NJDEP as discussed in section 2 below. Interpretive trails through the wildlife preserve can become an important component in a waterfront pathway/park network in the waterfront study area.

- (d) P - Parkland. Land designated Parkland, as shown on the 1989 Land Use Map, includes the approximately 30 acres of State tidelands property. It is recommended, as part of the waterfront study, that the Township make application with the Bureau of Tidelands for a grant or conveyance of the tidelands property to provide the residents of Cinnaminson with passive parkland at the water's edge. The parklands created from the tideland properties are important links in a

waterfront pathway/park public access network.

- (e) R-4 - Residence District. The R-4 designation recognizes residential land use in the existing R-4 district along Zeisner, Kern and Inman Streets. In recognition of other existing residential land use in the waterfront study area, the R-4 district is proposed, as shown on the 1989 Land Use Map adjacent to Broad Street between North Read and Pompess Avenues.
- (f) R2-CL - Residence District, Cluster. As shown on the 1989 Land Use Map, the R2-CL district is proposed for the western portion of the waterfront study area and the existing residential land use at the waterfront. Land use proposed for the R2-CL district is single family detached. Low rise detached housing is recommended for the lands closer to the water's edge to ensure visual access to the river. Creative site design is encouraged with careful consideration of orienting housing to the water and ensuring views. Detached housing types appropriate in the R2-CL district includes zero lot line homes, patio homes and atrium homes. Density proposed for the R2-CL district is based upon net developable acreage after subtraction of critical wetland areas with a maximum net density of two units per acre. At the Board's discretion, a bonus density of one unit per acre for critical wetlands on site is recommended to be permitted in the R2-CL district for provision of open space public access amenities acceptable to the Planning Board in accordance with a Township open space waterfront public access plan. Maximum height in the R2-CL district should not exceed two stories and 25 feet. In recognition of the need to satisfy the Township's affordable housing obligation, multi-family development is permitted in the R2-CL district as a conditional use. Multi-family housing should be permitted at six units per net developable acre with a twenty percent (20%) set-aside for low and moderate income qualified households. The multi-family housing in the R2-CL

district shall be developed in accordance with the regulations of COAH as listed in (b) above. A bonus density credit of up to fifty percent (50%) of undevelopable wetlands on the site may be permitted at the Board's discretion for public access amenities in accordance with a waterfront pathway park public access network.

2. FUNDING GUIDELINES

A waterfront land use policy is an integral part of the Master Plan. Several mechanisms exist to assist in its implementation.

As previously discussed, the Cinnaminson waterfront plan will be both aided and guided by its zoning designations and subsequent design standards to which a developer must adhere.

A consistent theme throughout the lengthy waterfront study process has been the concern for providing community open space and public amenities at the waters edge. Residents and officials in Cinnaminson have expressed their desire that this most precious natural resource be protected and enhanced for the good of all the people.

An open space waterfront public access plan could identify pathways linking nodes of interest, direct contact with the waters edge where practical, and site view areas for interpretive studies (such as wildlife areas). Additionally, an open space waterfront public access plan could identify the most feasible locations, design and call for the provisions of boat launches, public bathrooms, fishing piers, and interpretive trails.

As a requirement for development approvals in New Jersey, the Department of Environmental Protection, Division of Coastal Resources, which has jurisdiction over development in the Cinnaminson waterfront, mandates public access as part of the development approval process. In the absence of a specific Township policy as expressed in a concept and open space waterfront public access plan, developers will negotiate their public open space requirements with the Department of Environmental Protection.

It could, however, be beneficial to both developers and the municipality to adhere to an open space waterfront public access plan. The open space waterfront public access plan could be completed to allow a developer an incentive to participate and provide public amenities as called for in the plan. For instance, if a developer's section of the plan calls for a boat launch, public gazebo/restroom, benches and walkways, the developer may achieve credit for a portion of wetlands on the site toward computing his allowable density by voluntarily contributing to the open space plan (if there is a municipal plan in effect, DEP may

defer to it anyway without incentive to the developer).

Therefore, it is recommended an open space public access plan be prepared. Funding to the Township for this study could be through a planning grant from the Division of Coastal Resources which receives money from the National Coastal Zone Management Program N.O.A.H. for this purpose.

In addition, and simultaneous to the development of this open space waterfront park plan, it is recommended the Township authorize the acquisition of the State riparian tidelands described in the inventory section of the waterfront focus area.

Officials with DEP have suggested Green Acres Funding could be made available and that the 1989 Master Plan Update waterfront focus section could be used as the application and justification for the acquisition. This opportunity needs to be pursued as it is unlikely the riparian tidelands will be acquired by an upland owner and the only feasible use of the property is for the continued public good, such as part of a designated open space waterfront public access system.

Additionally, other opportunities to achieve open space as well as provide interpretive access to critical areas exists through the Open Lands Management Program through the Office of the New Jersey Natural Lands Management Division of Parks and Forestry. An innovative program, it is an experiment in public/private partnership. First funded in 1984, this State program provides grants up to \$10,000 to the property owner for access covenants. The grants may provide such things as trails, wildlife habitats, wildlife observation decks, picnic areas and other projects for passive recreation.

The need for funding sources to stimulate economic development is not required in conjunction with this plan. Historically there have been federal and State funds (UDAGs, EDA, CDBG), that have acted as the catalyst for economic recovery of an urban waterfront area through public or private participation. However, Cinnaminson does not qualify by their definitions at this time and it is unlikely that even the newly designated commercial areas would qualify to benefit from direct government funding sources.

IV. SOLID WASTE/RECYCLING ELEMENT

N.J.S.A. 40:55D-28, requires a Municipal Master Plan include a recycling plan element which incorporates the State Recycling Plan goals, including provisions for the collection, disposition and recycling of recyclable materials designated in the municipal recycling ordinance. N.J.S.A. 40:55D-28 also requires provisions be made for the collection, disposition and recycling of recyclable materials within development proposals for the construction of 50 or more units of single-family residential housing or 25 more units of multi-family residential housing and any commercial or industrial development proposals for the utilization of 1,000 square feet or more of land.

To implement the requirements of the State Recycling Plan and the Burlington County Recycling Plan, Cinnaminson Township has adopted an ordinance establishing a program for the collection and recycling or recyclables. Recyclables designated to be source separated by the Cinnaminson Township Recycling Ordinance, adopted pursuant to the State Recycling Plan and the County Recycling Plan, include glass, paper, cardboard, cans and vegetative yard waste. The Township's recycling program provides a curbside program for separate collection of recyclables, including from commercial and institutional establishments, within the area of the Township where solid waste is collected by or on behalf of the Township. The curbside recycling program does not apply to any apartment or condominium complex in the Township.

The Township's recycling program requires the owner of every apartment or condominium complex within the Township provide and maintain recycling dropoffs to receive all designated recyclables generated by residents of the complex. The Township's municipal recycling ordinance requires the owner of every apartment or condominium complex arrange for the collection of all designated recyclables from dropoffs. In cases where a condominium association exists, the condominium association shall be responsible for provision and maintenance of the recycling drop-off in accordance with the current Township Recycling Ordinance. If there are changes in the municipal ordinance, they can be reflected in the subdivision/site plan recycling ordinance.

As part of the Master Plan Update, the importance of recycling is recognized. Based upon the goals of the State Recycling Plan, the reduction of the amount of solid waste and conservation of recyclable materials is recognized as an important environmental concern for the public health, safety and general welfare of the residents of Cinnaminson Township. The recycling of recyclable materials will achieve the following:

1. Reduce the quantity and volume of solid waste for disposal at landfills.

2. Prolong and extend the capacities and life of landfills;
3. Reduce the cost and expense of solid waste disposal at landfills; and
4. Promote the protection of the environment and contribute to the conservation of its natural resources.

It is recommended, in support of the Township's recycling ordinance and in conformance with N.J.S.A. 40:55D-28, Cinnaminson Township include a recycling ordinance within the Land Development Ordinance. In conformance with the State Recycling Plan, the Cinnaminson Township development regulations regarding recycling should be reviewed at least every 36 months.

The site plan/subdivision recycling ordinance should provide for the recycling of those materials collected by the Township in conformance with the State Recycling Plan and pursuant to the County Recycling Plan. The provision for collection of recyclables within the site plan/subdivision ordinance can be the same as those instituted by the Township recycling ordinance with curbside collection for developments within the areas served by or on behalf of the Township and private collection for apartment or condominium complexes.

It is recommended the site plan/subdivision recycling ordinance and site plan/subdivision reviews address the following regarding recyclables:

1. What materials will be collected?
2. Where will materials be stored?
3. Where will materials be picked up?
4. Who will pick-up the materials?
5. How often will the materials be picked-up?
6. How much material will be generated?
7. How much storage area is required for each material?

V. COMPATIBILITY WITH ADJACENT MUNICIPALITIES AND THE STATE DEVELOPMENT PLAN

In order to facilitate the concept of regional planning, it is the intent of this Land Use Element to be compatible with the adjacent land uses, where possible and feasible, of the contiguous municipalities.

The northwest portion of Cinnaminson where residential land use is permitted is compatible with the adjacent portion of Palmyra where residential land use is also permitted. The northwest portion of Cinnaminson is also compatible with the adjacent portion of Riverton where single family residential is permitted south of Broad Street and manufacturing is permitted north of Broad Street adjacent to where the Marina/Commercial district is proposed in Cinnaminson.

The eastern portion of Cinnaminson is compatible with the western portion of Delran where from south of Broad Street to Route 130 the permitted land use is manufacturing. Along the Route 130 corridor in Delran, retail commercial and multi-family land uses are permitted similar in land use intensity proposed to be permitted in the BD district in Cinnaminson. South of Route 130 in Delran, single-family is permitted on a minimum lot size of 10,000 to 15,000 square feet, similar to the single family residential permitted in Cinnaminson on a minimum lot size of 11,250 to 11,475 square feet.

The southern portion of Cinnaminson, zoned for residential land use, is compatible with the residential land use permitted in Moorestown.

The southern portion of Cinnaminson, west of the North Branch of the Pennsauken Creek, is compatible with the adjacent portion of Maple Shade where commercial land use is permitted between the creek and Route 73. Residential land use is permitted west of Route 73 in Maple Shade, similar to the residential land use permitted west of Route 73 in Cinnaminson.

While Pennsauken Township permits commercial and industrial land use along the border with Cinnaminson, the Pennsauken Creek buffers adjacent residential land use in Cinnaminson.

Cinnaminson is generally compatible with the Preliminary State Development and Redevelopment Plan for New Jersey which designates the Township a stable suburb. Stable suburbs are described by the State Plan as almost developed municipalities where future development will be infill. Critical concern for the Stable Suburbs is with preservation of open space and compatible infill development and redevelopment.

The Cinnaminson 1989 Master Plan Land Use Element Update addresses the concerns of the State Development and Redevelopment Plan through recommendations for preservation of environmentally sensitive lands along the Delaware River waterfront and the Pennsauken Creek and proposing a land use redevelopment strategy for the Route 130 highway commercial corridor.

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VI. CONCLUSION

The Municipal Land Use Law requires that a Municipality's Master Plan and regulatory ordinances be reviewed by the Planning Board at least every six years to determine whether the Land Use Element and the Land Development Ordinance for the Master Plan are achieving their intended purposes. This document incorporates the 1983 document into a comprehensive re-examination of land use policies for the municipality on a whole and describes a revised set of goals and objectives. This document also includes two land use areas where extensive study was focused.

Cinnaminson is a waterfront community, located along the Delaware River. In recognition of this unique and valuable resource, a waterfront plan has been included in the 1989 Master Plan Update. This focus area plan provides a land use concept and design guidelines to maximize the potential use of this resource with an emphasis on environmental preservation and maximizing opportunities for public access.

Also presented as part of the Master Plan is a redevelopment scheme for the Township's commercial district along the Route 130 highway corridor. The scheme presents land use strategies and design guidelines to stimulate redevelopment of the Township's Commercial district. A Housing Element and Fair Share Plan have been adopted separate to the 1989 Master Plan Update as required by the Fair Housing Act.

The following is a review of revisions to the Land Use Plan for Cinnaminson as shown on the 1989 Land Use Map of the Township of Cinnaminson based upon the results of the completed land use studies.

1. Change the SRC and C designation along the Route 130 highway commercial corridor to BD, Business Development. Expand the boundaries of the BD district to more closely follow lot lines of commercial land use along Route 130, and also expand the district to include all commercial land use fronting the highway.
2. Create the R-6 residential district in the Parry section of Cinnaminson in recognition of existing development patterns in this portion of the Township.
3. Expand the R-4 designation boundary adjacent to Broad Street, now designated IND, in recognition of existing residential land use and compatible with neighboring land use developed in accordance with the R-4 zone. The remainder of the existing residential district's boundaries and uses permitted in the districts, are recommended to remain the same with the addition of a residential land use category at the waterfront and the

creation of the R-6 district as noted above.

4. Eliminate the IND and EX IND designation along the Delaware River waterfront permitting commercial, light industrial and residential land use along the waterfront in support of the Waterfront Plan section of the 1989 Master Plan Update. Specific land use designations proposed for the waterfront include LT IND, Light Industrial, WP, Wildlife Preserve, P, Parklands, R2-CL, Residential District Cluster which permits the opportunity for affordable housing, MC, Marine Commercial which permits the opportunity for affordable housing, and R-4, Residence District.

The policies and development philosophies of Cinnaminson Township are expressed in this 1989 Master Plan Update and supportive planning documents. These ideas become implemented through incorporation of standards and provisions into the Land Development Ordinance. The process of planning for the growth, the protection, and the quality of the Township is a dynamic process involving the active participation of the citizenry, the elected and appointed officials, as well as knowledgeable professionals. Through this planning process, the citizens of the Township will continue to enjoy the quality of life inherent to Cinnaminson.

VII. RESOURCES

Cinnaminson Master Plan, February, 1983

Cinnaminson Township Tax Maps, 1988

Cinnaminson Township Tax Records, 1988

Cinnaminson Township Land Development Ordinance

Burlington County Soil Conservation Service Soil Survey

U.S.G.S. Topographic Quadrangles

Department of Interior U.S. Fish and Wildlife Wetlands Map

New Jersey Department of Environmental Protection (NJDEP) Natural Heritage Program, Office of Natural Lands Management

NJDEP, Division of Fish, Game and Wildlife

NJDEP, Division of Coastal Resources, Bureau of Tidelands, Riparian Maps

NJDEP, Bureau of Freshwater Fisheries

- NJDEP, Division of Solid Waste Management

NJ Department of Transportation

Rules of Practice and Procedure, Delaware River Basin Commission

N.J. Anadremous Fish Inventory, NJDEP, Division of Fish, Game and Shellfisheries

Dredge Harbor Draft Detailed Project Report and Environmental Assessment Small Navigator Report, US Army Corps of Engineers, June, 1982

The Cinnaminson Waterfront Today and Yesterday, Joseph H. Taylor, 1988

Flood Insurance Study, Township of Cinnaminson, US Department of Housing and Urban Development, Federal Insurance Administration, November 1977

Nautical Chart, Delaware River, Philadelphia to Trenton, U.S. Department of Commerce, National Oceanic and Atmospheric Administration, 1984

Riverfront Development Summary, Burlington County Chamber of Commerce, January, 1986

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