

MASTER PLAN

ADOPTED OCTOBER 4, 1993

BY THE EAST WINDSOR PLANNING BOARD

**TOWNSHIP OF EAST WINDSOR
MERCER COUNTY, NEW JERSEY**

MASTER PLAN

Township of East Windsor
Mercer County, New Jersey

October 1993

ADOPTED BY THE EAST WINDSOR PLANNING BOARD
MARCH 11, 1991
DECEMBER 16, 1991
DECEMBER 7, 1992
OCTOBER 4, 1993

Prepared by:

QUEALE & LYNCH, INC.
2210 Yardley Road
Yardley, PA 19067



John J. Lynch, PP #19, AICP

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MASTER PLAN UPDATE

Township of East Windsor
Mercer County, New Jersey

As Adopted and Updated through October 4, 1993

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INTRODUCTION

The Township of East Windsor authorized the update of the 1985 Master Plan in June 1990. Periodic reexaminations of the Master Plan and ordinances regulating land development are required under the New Jersey Municipal Land Use Law. The last update occurred in 1985, with Master Plan amendments in 1987, 1991 and 1992.

This update is intended to supercede the 1985 report, which in turn updated the 1979 Master Plan of the township.

In this update, a series of background studies was prepared in order to provide current information on the characteristics of the township. The lot line base map was updated by the Township Engineer, Bergman Engineering. A regional analysis was undertaken to establish the setting in which local planning decisions can be made. A field survey of existing land uses was prepared to establish the 1991 pattern of development, updating the last survey undertaken in 1985. Demographic and housing trends were analyzed to provide an understanding of the changing characteristics of the population of the township and county. Information on environmental conditions was brought up to date from earlier plans, correlating the findings of a separate mapping analysis of environmental constraints prepared for the township with the assistance of the Environmental Commission in order to make certain that decisions were being made in consideration of the natural constraints the environment can place on development. Traffic circulation was analyzed in a detailed report prepared by T&M Associates which served as the basis for the adopted Traffic Circulation Plan in March 1991. Community facilities in the township were analyzed to provide another component of background information to assist in making critical land use decisions, and recreation and open space facilities were identified and related to the need for additional open space based on published standards. Historic sites were reviewed and included based on information received from the Historic Preservation Commission.

Following the background studies section of this Master Plan update is the Master Plan itself. It establishes the goals and objectives and sets forth the rationale for the various decisions made as a part of this update. The Master Plan Elements include a Land Use Plan, Housing Plan, Traffic Circulation Plan, Community Facilities Plan, Utility Services Plan, Conservation and Recreation Plan, Historic Preservation Plan, Recycling Plan and considerations of regional impacts. A separate but related part of this update is a Reexamination Report, which provides an analysis of the essential elements of the update in accordance with the requirements of the Municipal Land Use Law.

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BACKGROUND STUDIES

REGIONAL ANALYSIS

The purpose of this report is to place the planning of East Windsor Township in its regional setting. The Municipal Land Use Law requires municipalities to consider plans made by the state, county and adjoining municipalities in undertaking their own planning efforts. At the background study stage of the Master Plan update, this analysis considers the regional setting to provide a part of the planning framework.

State Development and Redevelopment Plan

The New Jersey Department of Community Affairs advanced a guide plan for the development of the state in 1980. It was given considerable weight when it was recognized by the New Jersey Supreme Court as a major part of the allocation of low and moderate income housing to municipalities located in the designated Growth Areas in the guide plan.

In 1985, in partial response to the Supreme Court's Mount Laurel II decision, the legislature created the State Planning Commission and authorized it to undertake the preparation of a statewide plan which would identify growth and nongrowth areas, and which would supercede the 1980 State Development Guide Plan.

As a part of the state planning process, three volumes were released for review and comment by municipalities and counties. This process, called "cross-acceptance" began with the release of the state plan documents in preliminary form in December, 1988. The process called for the county planning boards to work with individual municipalities in a coordinating role which would culminate in the submission of a county report to the State Planning Commission on the 1988 Preliminary Plan. Once the county reports were submitted to the state, municipalities were afforded the opportunity of submitting dissenting reports if they took issue with any aspects of the county report.

The State Plan was adopted in the Spring of 1992. A copy of the State Plan mapping designations for the township is included on Plate 37 at the end of the Master Plan in the section on Regional Considerations.

Mercer County

The County Planning Board has been focusing its planning efforts in recent years on matters related to the State Plan. Their most recently released planning documents include the Growth Management Plan (1985), and the Growth Management Plan for highways (1989). They have recently updated the Open Space and Recreation Plan, which calls for the preservation of stream corridors in East Windsor, but identifies no major county open space or recreation areas in the township.

In the 1985 Growth Management Plan, the County proposed a Year 2000 development scenario which shows the northerly part of the township as a Regional Growth Area based on the anticipated construction of the Hightstown By-Pass. It also shows the southeasterly part of the township as a limited growth/agricultural area, coordinating those boundaries with the limits of the sanitary sewer service areas of both Hightstown and East Windsor.

The 1989 Highway Plan showed several road proposals in East Windsor. Hankins Road was proposed for upgrading to a Secondary Arterial, and this was objected to by the township in correspondence with the County based on the potential negative impact on numerous homes along Hankins Road. Other recommendations included turning Monmouth Street over to the township and borough as a local street, and deleting the

county controlled portions of Windsor-Perrineville Road and Imlaystown Road from the county system, turning them over to the township for maintenance. Some of these roadway issues are addressed in more detail in the Traffic Circulation Plan.

Plans of Adjoining Municipalities

The municipalities surrounding East Windsor have established land use controls, as shown on Plate 1.

West Windsor has a variety of zone designations along the border. South of Bear Brook the zoning ordinance calls for low and rural density residential. South of Dorchester Drive land is zoned for professional offices, while on the north side of Dorchester, the zoning provides for business uses, with professional offices behind. From Route 535 to Route 571 and beyond the land is designated for nonresidential research-office uses, while a small remaining area near Plainsboro is designated low density residential. Zoning along this border by West Windsor has been carried out in recognition of the zoning and land use pattern in East Windsor, and no major conflicts are seen.

Only a small portion of Plainsboro Township adjoins East Windsor, and that is separated from the township by the flood plain and vegetation along the Millstone River. It is zoned for rural residential use.

The longest common boundary with any municipality is that along the north adjoining Cranbury Township. However, compatibility is not a major problem because of the fact that the entire border is the flood plain and established vegetation in the Millstone River stream corridor. Several roads cross the floodplain, providing land use contact at various points, with the major crossings at Route 130, Old Cranbury Road, and Route 535. The area between Plainsboro and Route 130 is shown by Cranbury as agricultural and low density residential. East of Route 130 the land is zoned for highway commercial, which blends into a light impact residence zone, with light industrial zoning lying along both sides of the Turnpike and extending to the Monroe Township border to the east. No significant land use conflicts are found between Cranbury and East Windsor.

Monroe Township's zoning presents more of a compatibility problem than any of the other adjoining municipalities. Monroe lies next to residential portions of the Twin Rivers development on both sides of Route 33. The zoning in Monroe Township is general commercial along Route 33, while the lands to the south of Route 33 behind the general commercial zone are shown for industrial use. Since there are no natural features separating Monroe and East Windsor Townships, it is important to coordinate future land use in Monroe with the Twin Rivers development. With the East Windsor land along the border fully developed, the burden seems to lie with Monroe Township to either amend its zoning to achieve a more compatible land use relationship, or to provide assurances to East Windsor that significant buffers will be established as a part of the approval of any commercial or industrial developments in order to minimize adverse effects on residential properties.

Millstone shows only rural and low density residential uses along the East Windsor border.

Zoning in Hightstown reflects the actual development pattern. The land use relationships have been established for a long time. The burden is largely on East Windsor to assure compatible land use relationships with the borough on those properties which have not yet developed. One area of conflict potential lies between Cranbury Station Road and North Main Street where East Windsor shows R-O zoning and Hightstown has a townhouse development, although these uses would be separated from each other by a proposed

PLATE 1

ADJOINING ZONING

1990

EAST WINDSOR ZONING MAP

1993

- RA RURAL AGRICULTURAL
- R-E RURAL ESTATE
- R-1 RESIDENTIAL LOW DENSITY
- R-2 RESIDENTIAL LOW DENSITY
- R-3 RESIDENTIAL MEDIUM DENSITY
- RM RESIDENTIAL MULTI-FAMILY
- SL RESIDENTIAL SMALL LOT
- PRC PLANNED RETIREMENT COMMUNITIES
- PUD PLANNED UNIT DEVELOPMENT
- MH MANUFACTURED HOUSING
- NC NEIGHBORHOOD COMMERCIAL
- HC HIGHWAY COMMERCIAL
- TC TURNPIKE COMMERCIAL
- R-O RESEARCH OFFICE
- I-O INDUSTRIAL OFFICE

R-150

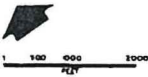
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RURAL AGRICULTURE

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EAST
WINDSOR
TOWNSHIP

BY BERGMAN HATTON ASSOC.

MAP UPDATED BY BERGMAN HATTON ASSOC.
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extension of Town Center Road from North Main Street to Wyckoff Mills Road. This conflict has been addressed in the adopted Land Use Plan for the township.

Along the southernmost border of East Windsor is Washington Township, which is primarily zoned rural residential and office uses. From Millstone Township almost to Route 130 is a rural residential designation with an office option. A small section east of Route 130 is office research and office commercial. West of Route 130 is an office warehousing-light manufacturing zone and then a rural residential-office option zone which continues until the West Windsor border. Many of these land use designations in Washington Township offer the prospect of significant conflicts with the existing and proposed development pattern, with those along Hankins Road presenting the most direct conflict, particularly if the roadway is upgraded to a Secondary Arterial as proposed in the County Highway Plan.

EXISTING LAND USE

This study provides an update of the information on existing land use contained in the 1985 Master Plan. It focuses on land use changes which have occurred since 1985, and the characteristics of major vacant parcels in the township. The pattern of existing land use is shown in mapped form on Plate 2.

The method used to update the earlier land use information was a combination of field investigation in 1991 and a review of current assessment records. The acreage information provided in this report is based on the assessment records in order to properly account for properties which may be only partially developed.

Since the detail of existing land use information is difficult to convey in small scale maps, this report divides the township into four quadrants for discussion and analysis purposes. The quadrants are shown on Plate 3. Major changes in existing land use from 1985 to 1991 are shown on Plate 4. Also included as a part of this report is a breakdown of the acreage devoted to each land use, as measured from the map of existing land use.

Field Survey

The field survey in 1985 involved driving all the major streets in the township in order to become familiar with the land use pattern and the nature of major developments. During the field survey, note was made of major developments under construction since they would not be reflected on the assessment records. The update of the field survey in 1991 followed a detailed review of the assessment records and a specific check of those locations which indicated a change from 1985.

The assessments records were reviewed lot-by-lot, with land use information recorded on a set of tax maps. This information was, in turn, recorded on a display map to be used for work sessions on the Master Plan and for reference purposes in public hearings. As indicated earlier, the existing land use map is shown on Plate 2.

Existing Land Use Pattern

Plate 3 shows the township divided into four quadrants. Quadrant I is in the northwest part of the township and is bounded by Cranbury Station Road and Princeton-Hightstown Road. Quadrant II is in the southwest and is bounded by Princeton-Hightstown Road and Route 33. Quadrant III is in the southeast and is bounded by Route 33 and Etra Road, while Quadrant IV is in the northeast and is bounded by Etra Road and Cranbury Station Road.

By way of general comment on the tabulation of land uses, as shown on the following table, it is very difficult to compare the land use tabulation of 1991 with that set forth in the

1985 Master Plan. Two problems arise in attempting a comparison. First, the property tax revaluation did not provide a mechanism for arriving at the total amount of land in each tax assessment category, which was the source of the breakdown in 1985. Second, the land area of the township, as reflected in the 1990 Census, shows a total of 10,016 acres as compared with 9,984 acres in 1985. Therefore, no comparison of tabulations has been provided in this update.

EXISTING LAND USE TABLE 1991		
Land Use	Acres	%
Agriculture	4,385	43.9
Single Family Residential	1,204	12.0
Two Family Residential	50	0.5
Multifamily Residential	612	6.1
Commercial	512	5.1
Industrial	371	3.7
Public, Quasi-Public	1,034	10.3
Vacant	935	9.3
Streets	913	9.1
Total	10,016	100.0

The land use table shows that the largest land use category is agriculture, reflecting the fact that farmland assessment applies to 43.9 percent of all the land in the township. Residential land uses, including single family, two family and multifamily, account for 18.7 percent of the township, while public and quasi-public uses account for over 10 percent of the land area. Commercial and industrial uses combined make up almost 9 percent of the township. Vacant land and streets each account for about 9 percent of the township as well.

Quadrant Analysis

The following sections provide a review of the general land use characteristics of the four quadrants identified earlier in this report and shown on Plate 3. For the most part, there have been few changes in the pattern of existing development because of the moratorium on sanitary sewer connections. The locations of approved developments are covered in the following analyses of the quadrants.

Quadrant I: This quadrant lies northwest of Hightstown, extending from Route 571 to Cranbury Station Road. There have been no major changes in the land use pattern in this area since the 1985 Master Plan was prepared.

The proposed alignment of the Hightstown By-Pass runs through this area. There is only one major area of single family residential development in this quadrant, and it is found west of Route 130 north of the proposed By-Pass. Research and office development is found along Route 571.

There are several large undeveloped tracts in this quadrant, almost all of which are under farmland assessment. The undeveloped areas lying west of Route 130 are not heavily constrained by flood plains or excessively wet soils. However, a relatively high percentage of the land lying between Route 130 and Cranbury Station Road is subject to flooding or has a seasonally high water table, which should be taken into consideration in establishing appropriate land uses for that area.

West of Route 535 and north of Route 571, expansion of the Martin Marietta facility is anticipated, and the vacant parcel between Route 571 and Millstone Road has been presented to the Planning Board as a potential development site light industrial uses. Along the easterly side of One Mile Road, development approvals have been granted for two multifamily complexes which should be in a position to proceed once the sewer moratorium is lifted. A single family development application has recently received approval on the site adjoining the By-Pass alignment, also on the easterly side of One Mile Road. Along the easterly side of Route 535 there is an approved office development adjoining the Martin Marietta site. A small expansion of the Jamesway shopping center on Route 130 has been approved, including a new signalized intersection with Route 130. Just south of Old Cranbury Road there is an approved development of semi-detached houses which has recently started construction.

The vacant land lying between Route 130 and North Main Street includes an approved development of single family homes and a proposed shopping center. The large remaining vacant parcel has not been approved for development.

Quadrant II: This southwesterly part of the township is the most extensively developed of the four quadrants. Oak Creek Estates and Dutch Neck Village are the two major land use changes which have occurred in this area since 1985. These developments are both semi-detached housing, which means that the housing consists of two dwelling units which are joined by a common wall.

There are two major development approvals in this quadrant, one of which is a nonresidential development along Windsor Center Drive adjoining Oak Creek Estates and the other is a single family development north of Dutch Neck Road east of One Mile Road. A small office building has been approved on the east side of One Mile Road north of Dutch Neck Road, and single family homes have been approved just north of Hankins Road at Route 130.

The remaining vacant lands in this area are not extensive. Most of the vacant parcels along Route 571 are held by light industrial or office development interests. In the residential portions of this quadrant, there are a few remaining undeveloped parcels. At least three of the four remaining undeveloped tracts lying south of Dutch Neck Road have fairly high proportions of excessively wet land, which should be taken into consideration in establishing densities and appropriate approaches to land use types.

Quadrant III: This could be called the Twin Rivers quadrant, but that may lead to the conclusion that the area is essentially developed, which is far from the case. The major land use changes in this quadrant since 1985 relate to construction of the Conair Distribution Center and two other nonresidential facilities.

The development approvals in this area include a nonresidential development on Milford Road across from Conair, and on Monmouth Street adjoining the Turnpike there is an approval for a motel-restaurant. In addition, there is an approved office development accessible from Avon Drive on the northerly side of Route 33 between Probasco Road and Twin Rivers Drive North. There is an approved industrial-office development on Wykoffs Mills Road as well as an approved small office development at Route 33 and Twin Rivers Drive North. A small single family development has been approved on Woodside Road south of Route 33.

The major undeveloped parcels lie east of Hightstown extending to Lake Drive and Probasco Road. Much of this area is impacted by wet soils, and this should be

considered in the review of development applications. Additional large areas of vacant land lie along Wyckoffs Mills Road, which is also zoned for nonresidential development and has a fairly high incidence of wetlands.

Quadrant IV: This is the largest and the least developed of the four quadrants. It is generally rural in character, except for the areas lying closest to Hightstown Borough, including the school grounds, the Peddie Golf Course, and the Meadow Lakes development.

The largest pending development in this quadrant is proposed by Centex and includes a mix of residential and industrial uses. Other development applications in the area propose large lot single family homes, particularly along Windsor-Perrineville Road and the southerly portion of Old York Road.

Much of the area is under farmland assessment, although some parts of this quadrant are excessively wet and not particularly well suited to crop production. The largest assemblage of Class I and II farmlands, as estimated by the U.S. Soil Conservation Service, lies east of the Turnpike in this quadrant. The portions of this area which are excessively wet and unsuited for crop production lie generally along the stream corridors. Most of the remaining land which is outside the stream corridors and not in the Class I or II soils falls in the Class III soils, which are also suitable for agriculture but require greater management to yield suitable production. The largest area of excessively wet soil lying west of the Turnpike in this quadrant is located south of Conover Road in an area which drains toward Washington Township.

Conclusions

In relating the land use pattern and the characteristics of undeveloped lands to recommendations for future development, the information contained in this report has been considered along with the information on utilities, roads and demographic characteristics to provide a comprehensive land use plan.

ENVIRONMENTAL CHARACTERISTICS

During 1991, the township received a grant to assist in the preparation of a series of environmental maps which would serve both as a foundation for long range planning and as a working tool for the Planning Board and Environmental Commission in their review of development applications. The grant was secured under a matching funds program of the New Jersey Department of Environmental Protection and Energy (DEPE), Office of Environmental Services.

Plate 5 is a map showing a composite picture of environmental constraints in the township. The most serious development constraints affecting vacant lands in the township appear to be wetlands or soils which have a shallow depth to seasonally high water. The largest concentrations of these characteristics, as portrayed in published wetlands maps released by DEPE, are east of the New Jersey Turnpike north of Rocky Brook, and south of Conover Road between Route 130 and Old York Road.

The environmental characteristics shown on the composite map on Plate 5 are wetlands, flood prone areas, and soils which have a seasonally high water table at or near the surface. The composite map was prepared after a number of different environmental characteristics were mapped. The following paragraphs describe the maps which were prepared, the sources of information, and the general findings and conclusions which can be drawn on each of the mapped characteristics. The maps are available for review at the municipal building at a scale of 1" = 2000' and at 11"x17" page size.

1. **Wetlands Areas:** DEPE has a statewide mapping program underway for wetlands areas. Mercer County was one of the first areas of the state for which wetlands maps were available. They are published at a scale of 1" = 1000' on 1990 air photos. A variety of wetlands categories are shown on the maps, which are based primarily on photo interpretation with some field verification. As indicated in the discussion above on the composite map, large areas of apparent wetlands are found east of the Turnpike and north of Rocky Brook as well as south of Conover Road. However, it should be noted that a comparison of the wetlands areas shown on the recently published maps with sites which have recently been approved through the issuance of DEPE letters of interpretation, suggest that the areas which are mapped as wetlands are more extensive than field surveys would confirm, particularly in agricultural areas.
2. **Flood Prone Areas:** Areas which are subject to flooding are mapped from three sources. The Flood Insurance Maps provide an indication of areas which are eligible to insure for flood damage; the township tax maps provide a more detailed depiction of the areas which are subject to flooding; and the third source is the Soil Conservation Service maps, which show soils which are subject to flooding. In resolving discrepancies among the three sources, any area shown from any of the sources which indicates that the area is subject to flooding has been included in the mapping of flood prone areas.
3. **Depth to Seasonally High Water Table:** The Soil Conservation Service provides characteristics of various soil types, including the depth to seasonally high water table. This is a critical feature which affects development outside of sewer service areas. It also influences storm water management and provides guidance on those areas where construction with basements may present problems. Depending on the soil characteristics, seasonally high water tables can also affect the approach used to construct roads. The three mapped categories include those situations where the seasonally high water table is at or near the surface. As indicated on the composite map, this has been shown along with wetlands and flood prone areas as a critical environmental feature. The mapping of this feature, as with the others mapped in this series, requires field verification, but if the water table is at or near the surface, development should be avoided. It is expected that in most cases where this condition is found, the area would be interpreted as a wetlands area. The second mapped category is where the water table is expected to be found within 1.5 feet of the surface. This condition is pervasive throughout the township. The third mapped category is where the depth is greater than four feet. None of the soils found in the township are expected to have a seasonally high water table falling between 1.5 and 4 feet below the surface, according to the Soil Conservation Service maps.
4. **Topography and Steep Slopes:** With the exception of a few locations along the Millstone River stream corridor, and a small area on Bear Brook at Dorchester Drive, no steep slope areas are found in the township. Steep slopes are considered in this analysis to include areas which have a grade of greater than 15 percent as measured from the United States Geological Survey maps, which for the East Windsor area have a contour interval of 20 feet. While it is expected that the mapping of steep slopes would be slightly more extensive if the contours were mapped at ten foot intervals, it is clear that the only areas impacted would continue to be the stream corridors, which are recognized as environmentally sensitive areas based on a number of different characteristics, including flooding, wetlands and the presence of established woodlands.

5. **Septic Suitability:** The Soil Conservation Service maps include an interpretation of soil characteristics which indicate the suitability of soils for septic systems. These characteristics are based on water table, soil composition and other factors, with conclusions drawn as to whether there are severe, moderate, variable or slight limitations for septic systems. The only areas mapped for these characteristics are in the southeasterly part of the township where sewer services will not be provided. The mapping shows that large areas are expected to present limitations for septic systems, suggesting that densities should be lowered to assure proper functioning of septic systems and sufficient site area to expand systems over time.
6. **Agricultural Suitability:** The Soil Conservation Service identifies soils based on their basic suitability for agricultural crop production. The prime soils are mapped in Categories I and II. Extensive areas of the township fall in these categories, and among the undeveloped lands, large portions of the southeasterly part of the township, particularly east of the Turnpike, are mapped as Category I or II. The third category of soils which is considered suitable for agriculture is Category III, which requires more extensive management practices but is nevertheless suitable. Most of the land in the township falls in this category, and in the non-sewered areas in the southeasterly part of the township, Category III accounts for most of the land which lies between Old York Road and Route 130.
7. **Woodlands:** The identification of woodlands was included in the mapping project to assist in finding those parts of the township which are undeveloped, not otherwise considered environmentally sensitive, but nevertheless possess this woodlands resource, which can serve as a vital part of the wildlife habitat in the township. The sources for the mapping of woodlands are the United States Geological Survey maps and air photos. As individual development applications are submitted, the precise location of woodlands should be determined and efforts made to avoid woodlands destruction. To the extent feasible, woodlands which are part of a continuous vegetated system extending to stream corridors and other similar open space areas should be given a high priority for protection and preservation in order to provide greenways which are not only aesthetically pleasing but are important elements of wildlife habitat, providing cover and protection.
8. **Development Suitability:** This map was prepared to show the general development constraints which may affect the remaining vacant parcels in the township. In preparing the map, areas which have been developed and those which have received approval by either the Planning Board or Zoning Board of Adjustment are shown in a single category labeled "Developed and Approved Land". All areas of the township which are not developed or approved for development were then compared with the Composite of Environmental Constraints Map, and the land was shown as either suitable for development or suitable for open space or conservation. This map should be used as a reference map in conjunction with the Conservation and Recreation Plan to assist the Planning Board in reviewing development applications and reserving land through clustering and other design techniques to carry out the objectives of the Master Plan.

POPULATION AND HOUSING

This study provides an analysis of the population and housing characteristics of East Windsor. It covers areas of planning interest from the U.S. Census, including portions of the 1990 Census, and relates those findings to other data gathered from sources within the State of New Jersey.

The population section of this study provides an initial overview of the characteristics of the township compared with the county and the state. This is followed by an analysis of age group characteristics and trends accompanied by insight into migration patterns and natural growth in the township and county. Employment data round out this part of the study.

Housing characteristics reviewed include vacancies; ownership and rental occupancy; and housing unit types.

Population

General population characteristics are shown on Plate 6. At the top of the table, trends in population growth since 1950 are shown. The rapid development which occurred in the township shows clearly in the very high percentage change in growth from 1950 to 1980. Growth has slowed during the 1980's to a pace which is about the same as that occurring in the county as a whole, largely due to a sewer moratorium which has been in effect for about half of the decade. The growth in the township from 1970 to 1990 represents about one-half of the net absolute increase in population experienced for the entire county.

The age group breakdowns shown on Plate 6 indicate that the township still has a population distribution which is younger than that of the county and the state. However, the disparity is decreasing. In 1980, about one-third of the township's population was less than 18 years old compared with about one-fourth for the county. The percentage of people aged 65 and older was only about half that of the county and state. In 1990, as shown in Plate 6, the township's proportion of the population which is under 18 years old has fallen to about 25 percent. The older population is still a considerably lower percentage of the East Windsor population than the percentages found in the county and the state.

Population density is also shown on Plate 6 over the last five U.S. Census counts. The substantial increases which have occurred in the township have brought its density up to a level virtually the same as that of the county, and considerably higher than that of the state.

Finally, for reference purposes the average household size and total households are shown at the bottom of Plate 6. East Windsor's average household size is about the same as that of the county and state. Based on age distribution alone, one would expect that the township's average household size would be higher than the county and the state because of the higher ratio of young people. However, this is apparently more than offset by the smaller household sizes found in the townhouses and multifamily dwellings, which make up a high percentage of the township's housing stock.

Plate 7 shows age group trends for the last three census years for the township. The changing percentages in each age group present some interesting patterns. For comparison purposes, both the absolute and percentage relationships should be examined. As an example, the Under 5 population in 1970, 1980 and 1990 was about the same in absolute numbers, but because of the population increase, there was a significant percentage decline reflected in this age group.

All other age groups in the township showed major gains between 1970 and 1980, with the greatest absolute increases occurring in the 5-14 and 35-44 age groups. The highest percentage increases were in the 65 & over and 35-44 groups. Between 1980 and 1990,

GENERAL POPULATION CHARACTERISTICS

	<u>East Windsor</u>	<u>Mercer</u>	<u>New Jersey</u>
1950 Population	1,284	229,781	4,835,329
1960 Population	2,298	266,392	6,066,782
% Change 1950-1960	79.0%	15.9%	25.5%
1970 Population	11,736	303,968	7,171,112
% Change 1960-1970	410.7%	14.1%	18.2%
1980 Population	21,041	307,863	7,364,823
% Change 1970-1980	79.3%	1.3%	2.7%
1990 Population	22,353	325,824	7,730,188
% Change 1980-1990	6.2%	5.8%	5.0%
Increase 1950-1990	21,069	96,043	2,894,859
% Change 1950-1990	1,640.9%	41.8%	59.9%
Increase 1970-1990	10,617	21,856	1,663,406
% Change 1970-1990	90.5%	7.2%	27.4%
<u>Age Groups-1990</u>			
Under 5	7.4%	6.7%	6.9%
5-17	17.9%	15.8%	16.4%
18-64	67.3%	64.5%	63.4%
65 & Over	7.4%	13.0%	13.4%
<u>Persons Per Square Mile</u>			
1950	82	1,017	652
1960	147	1,179	818
1970	750	1,346	967
1980	1,344	1,363	993
1990	1,428	1,442	1,042
Land Area - Sq.Miles	15.65	225.90	7,416.91
<u>1990 Characteristics</u>			
Average Household Size	2.66	2.65	2.70
Total Households	8,564	116,941	2,794,711

Source: U.S. Census
 Calculations and estimates by Queale & Lynch, Inc.

Plate 7

AGE GROUP TRENDS
Township of East Windsor

1970-1990

	<u>1970</u>		<u>1980</u>		<u>1990</u>	
	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>
Under 5	1,719	14.6	1,789	8.5	1,658	7.4
5-14	2,018	17.2	4,165	19.8	2,917	13.0
15-24	1,867	15.9	2,826	13.4	2,966	13.3
25-34	3,151	26.8	4,747	22.6	4,402	19.7
35-44	1,309	11.2	3,568	17.0	4,512	20.2
45-54	850	7.2	1,631	7.8	2,852	12.8
55-64	502	4.3	1,069	5.1	1,393	6.2
65 & over	320	<u>2.7</u>	1,246	<u>5.9</u>	1,653	<u>7.4</u>
Total	11,736	99.9	21,041	100.1	22,353	100.0
Median Age	25.7		29.0		33.4	

Source: U.S. Census
Calculations and estimates by Queale & Lynch, Inc.
Totals may not add due to rounding.

there was a significant decline in the 5-14 age group, reflecting lower birth rates during the late 1970's and early 1980's. The largest increase was in the 45-54 age group, which almost doubled in size during the 1980's in spite of a relatively low increase in the total population in the township.

As pointed out in the Master Plan update adopted by the Planning Board in 1985, during the 1970's, births outnumbered deaths in the township by 3,918 to 745, for a net natural gain in population of 3,173. The rest of the growth in population took place through in-migration. The age groups least impacted by migration included those born during the 1970's. The highest rates of in-migration to the township were felt in the age group born between the end of World War II and 1955, as well as those born before 1905. Significant absolute gains due to in-migration were evident for those born between 1955 and 1965.

During the 1980's, births outnumbered deaths by only 2,713 to 964, for a net natural gain of 1,749, as shown on Plates 8 and 9. With this natural gain exceeding population growth in the township, it means that there was a net out-migration during the 1980's. The 1990 age groups of Under 5 and 25-34 were most impacted by in-migration. These age groups were apparently attracted to the township by the significant quantity of multifamily housing, which is not only affordable to younger households but is generally appropriately sized to meet the needs of these households.

Out-migration was most apparent in the 15-24 age group, with the 45-54 age group also showing significant out-migration. Out-migration is also seen in the 5-14 age group, which may reflect a pattern of younger households with school age children moving from multifamily housing to single family detached homes in other communities. The decline in the number of school age children is shown toward the bottom of Plate 8 where it indicates that the average number of children aged 5-17 dropped from 0.68 per household in 1980 to 0.47 in 1990, a decline of over 31 percent.

Also shown on Plate 8, at the bottom, are trends in household sizes for the township. The average household size declined from 1980 to 1990, and this was reflected in the large increase in the number of households made up of one or two persons. During the period 1980 to 1990, the number of households in the township increased by 1,048, and during the same period the number of one and two person households increased by 1,003. This is largely a reflection of the housing stock which was added during the 1980's, much of which was multifamily.

Plate 9 shows births, deaths, natural growth, migration, birth and death rates for the township, by year, during the 1980's. Births and deaths are taken from records of the New Jersey Department of Health. They are recorded based on the municipality of residence of the mother, not based on where the child was born.

Natural growth is the excess of births over deaths. In many built up parts of the state, there is no natural growth; deaths actually exceed births, resulting in a natural decline in population.

In and out migration by year was estimated based on the pace of development in the township as reflected in the building permit records. While the township experienced a net in-migration during the 1970's, only two years during the 1980's appeared to reflect net in-migration, with out-migration occurring in the other years. Much of this out-migration is based on the aging of school-age children who would leave home to attend college or pursue work in another locale. Some of the out-migration is reflected in somewhat higher housing vacancy rates in 1990 than were found in 1980, a trend experienced throughout the state.

Plate 8
AGE COHORT TRENDS 1980-1990
Township of East Windsor

1980 Age Group	1990 Age Group	1980 Population	1980-1990 Births Deaths (-)	1990 Survived Population	1990 Actual Population	1980-1990 Migration (Actual minus Survived)	1980-1990 Migration Factor*
	Under 5		1,227	1,220	1,658	438	36%
	5 to 9		-7				
			1,486	1,474	1,334	-140	-9%
			-12				
Under 5	10 to 14	1,789	-6	1,783	1,583	-200	-11%
5 to 14	15 to 24	4,165	-22	4,143	2,966	-1,177	-28%
15 to 24	25 to 34	2,826	-26	2,800	4,402	1,602	57%
25 to 34	35 to 44	4,747	-62	4,685	4,512	-173	-4%
35 to 44	45 to 54	3,568	-108	3,460	2,852	-608	-18%
45 to 54	55 to 64	1,631	-114	1,517	1,393	-124	-8%
55 to 64	65 to 74	1,069	-165	904	888	-16	-2%
65 & over	75 & over	1,246	-442	804	765	-39	-5%
Totals		21,041	1,749	22,790	22,353	-437	-2%

Births	2,713
Deaths	-964

Household Characteristic	1980 Number	1980 Percent	1990 Number	1990 Percent	1980-1990 Change-No.	1980-1990 Change-%
Children aged 5 to 17	5,090	24.2%	3,992	17.9%	-1,098	-21.6%
Average per Household	0.68		0.47		-0.21	-31.2%
Household Size						
1 & 2 Persons	3,624	48.2%	4,627	54.0%	1,003	27.7%
3 & 4 Persons	3,067	40.8%	3,219	37.6%	152	5.0%
5 or More Persons	825	11.0%	718	8.4%	-107	-13.0%
Total Households	7,516	100.0%	8,564	100.0%	1,048	13.9%

Population in Households	20,968	22,801	1,833	8.7%
Persons per Household	2.79	2.66	-0.13	-4.6%

*Migration Factor = % change in Survived Population due to migration 1980 to 1990

Sources: 1980 and 1990 data from U.S. Census
Births and deaths from N.J. Department of Health
Deaths by age group estimated by Queale & Lynch, Inc. from published U.S. Census survival rates adjusted to match total deaths for the decade.

Plate 9

COMPONENTS OF POPULATION CHANGE: 1980-1989
Township of East Windsor

<u>Year</u>	<u>Births</u>	<u>Deaths</u>	<u>Natural Growth</u>	<u>In/out Migration</u>	<u>12/31 Estimated Population</u>	<u>Est. No. Females 15-44</u>	<u>Births/ 1000 Females 15-44</u>	<u>Deaths/ 1000 Population</u>
1980	318	89	+ 229	- 115	21,098	5,912	53.8	4.2
1981	276	83	+ 193	- 100	21,191	5,910	46.7	3.9
1982	318	95	+ 223	- 134	21,280	5,907	53.8	4.5
1983	289	100	+ 189	+ 255	21,724	6,005	48.1	4.6
1984	285	91	+ 194	- 66	21,852	6,011	47.4	4.2
1985	270	71	+ 199	- 70	21,981	6,018	44.9	3.2
1986	221	102	+ 119	+ 244	22,344	6,088	36.3	4.6
1987	221	116	+ 105	- 102	22,347	6,059	36.5	5.2
1988	287	116	+ 171	- 164	22,354	6,035	47.6	5.2
1989	228	101	+ 127	- 161	22,320	6,006	38.0	4.5
Totals	2,713	964	+ 1,749	- 413				

Average Birth and Death Rates

<u>Period</u>	<u>Birth</u>	<u>Death</u>
1970-75	96.8	4.3
1976-80	59.0	3.8
1981-84	49.0	4.3
1985-89	40.7	4.5

12/31 estimated population based on 1980 & 1990 Census data and building permits issued.

Sources:

N.J. Department of Health

U.S. Census

Calculations and estimates by Queale & Lynch, Inc.

The estimate of the number of females aged 15-44 was based on taking counts from the 1980 and 1990 Census, determining what percentage they were of the total population, and adjusting for the intervening years.

The number of births per year for each 1,000 females aged 15-44 was calculated for the township. By relating births to women of child-bearing age, it provides a more significant ratio than if the number of births were simply related to the population as a whole. Declines in the birth rate were dramatic during the 1970's, falling from a high of 130.2 births per 1,000 to an average of less than 50 in the early 1980's and into the low 40's from 1985 through 1989.

Deaths per 1,000 total population are considerably lower than would be expected for a community of this size which had an average ratio of elderly persons. The township's death rate is about half that which is experienced in Mercer County largely due to its lower percentage of elderly.

Plate 10 shows covered employment trends, reflecting the total number of jobs actually found in the township according to records of the New Jersey Department of Labor. Also shown are the covered employment figures for the county, with a percentage relationship drawn between the township and the county.

Covered employment in East Windsor has accounted for about six percent of the covered employment in the county over the past eight years. Growth in covered employment has been increasing at a somewhat faster rate in the county than in the township, with the average annual gain in jobs in East Windsor accounting for just under five percent of the gain in the county. In the last four years shown on Plate 10, however, there have been declines in the county covered employment while East Windsor has generally shown gains. Based on the trend lines represented by job growth from 1984 through 1991, the township could expect to have close to 8,800 jobs in the year 2000, and over 9,100 jobs by the year 2005. If job growth occurs at the rates experienced from 1988 through 1991, the township could have over 11,200 jobs by the year 2005. With the lifting of the sewer moratorium, and with the amount of land available for economic development in the township, jobs could increase far beyond these levels depending on the strength of the overall economy in the region.

Housing

General housing characteristics for the township, county and state are set forth on Plate 11. Occupancy and vacancy characteristics are shown, as well as changes in the number of units between 1970 and 1990.

Information for East Windsor shows there was about a doubling in the housing stock between 1970 and 1980. However, a review of housing units authorized by the issuance of building permits during the 1970's reveals some major discrepancies between census figures and permit records. Often, there are discrepancies between the two sources of information if there was a large number of units authorized by building permits in the late 1960's, if there were many illegal conversions of single family detached homes to two or more dwellings, or if there was an error either in the 1970 or 1980 count. The difference between the two counts is 1,359 units higher based on Census information than if housing units authorized by building permits are added to the 1970 Census. From 1980 to 1990, the Census continued to show more of an increase in the housing unit count in the township than is reflected in building permit records. The combined difference in total housing units reflected in the 1970 and 1990 Census counts shows the Census to be some 1,688 units higher than can be accounted for through the issuance of building permits.

Plate 10

COVERED EMPLOYMENT TRENDS*

1984 to 1990

<u>Year</u>	<u>East Windsor</u>		<u>Mercer Co.</u>
	<u>Total</u>	<u>% of County</u>	
1984	8,055	6.74	119,568
1985	7,258	5.94	122,183
1986	7,392	5.74	128,716
1987	7,591	5.78	131,445
1988	7,408	5.53	133,876
1989	7,919	5.94	133,311
1990	8,516	6.40	133,135
1991	7,919	6.08	130,242
<u>Average Annual Gain</u>			
1984-1991	80	4.61	1,734
1988-1991	213	NA	-1,108

Projections

Based on 1984-91 Trends

1995	8,359	5.74	142,067
2000	8,759	5.61	150,740
2005	9,160	5.75	159,412

Based on 1988-91 Trends

1995	9,112	7.20	126,548
2000	10,177	8.41	121,009
2005	11,242	9.74	115,470

* Number of jobs covered under N.J. Unemployment Compensation Law.

Source: Covered Employment Trends in New Jersey, N.J. Dept. of Labor & Industry
Calculations and projections by Queale & Lynch, Inc.

Projections based on linear regression.

HOUSING CHARACTERISTICS**Number of Units and Vacancy Rate**

	<u>East Windsor</u>	<u>Mercer</u>	<u>New Jersey</u>
1970 Housing Units	4,038	96,430	2,388,689
1980 Housing Units	7,919	111,610	2,772,149
1990 Housing Units	9,069	123,666	3,075,310
Net Gain 1970-90	5,031	27,236	686,621
% Gain 1970-90	124.6%	28.2%	28.7%
<hr/>			
1970-1989 Units Authorized by Building Permits	3,401	30,577	783,889
Demolitions & Other Losses	58	1,801	92,839
Net Gain	3,343	28,776	691,050
Difference Between Census and Building Permit Data	1,688	1,540	4,429
<hr/>			
1990 Census Total Housing Units	9,069	123,666	3,075,310
Occupied	8,564	116,941	2,794,711
Owner-Occupied	5,417	77,816	1,813,381
Renter-Occupied	3,147	39,125	981,330
Vacant	505	6,725	280,599
For Sale	243	2,034	46,271
For Rent	202	2,411	78,771
Other	60	2,280	155,557
Vacancy Rates	4.9%	3.7%	4.3%
Sales	4.3%	2.5%	2.5%
Rental	6.0%	5.8%	7.4%

Sources: U.S. Census
N.J. Dept. of Labor for Building Permit Data

Building permit records indicate that there were 739 units authorized in 1969. Some of these may have still been under construction at the time of the 1970 Census, which took place in April 1970. Evidence does not point to illegal conversions as a major source of the difference, since this is generally more prevalent in older communities where the residents live in large single family homes, and their children have moved out and they convert to add a unit in order to provide extra income. The more likely situation is that there was an error in the 1970 Census. It is troubling, however, that the discrepancy continued into the 1980's during which time the Census shows a net gain of 1,150 units while the building permit records show that only a net of 821 units were authorized for construction during that period, as shown on Plate 12. A review of Plate 13 reveals that many more single family attached and detached units were reflected in the Census gains from 1980 to 1990 than can be accounted for through building permit records. These units combined showed a gain in the Census of 896 units while building permit records showed only a total of 675 units authorized during that period. Compounding this discrepancy is the net increase in mobile homes of 77 during the 1980's, which is probably attributable in part to an error in the 1980 Census and to the conversion of recreation vehicles as permanent residences at one mobile home park, and an apparent increase in pad sites at another. The category of "other" was added in 1990, and it is not clear what this might include in 1990 that was not reflected in the 1980 Census in the township (see Plate 13).

At the bottom of Plate 11, information is provided on owner and renter occupied units. Of all the occupied units in the township, 36.7% are renter-occupied, down from 46.1% in 1980. This compares with the county experience which shows 33.5% in 1990 compared with 35.6% renter-occupancy in 1980. The state had a similar decline in rental occupancy dropping from 38.0% in 1980 to 35.1% in 1990. The high ratio of rental units in the township in 1980 provided a substantial opportunity for housing choice. However, with the rental ratio higher than the statewide average, and with the generally accepted concept that 60 to 70 percent of the households would prefer ownership versus rental, the broad market pressures were toward ownership and away from rentals. This became evident through the conversion of rental complexes to ownership, and could shape the direction of new construction toward sales housing.

Vacancy rate information, also shown at the bottom of Plate 11, indicates a very high percentage of sales units which are vacant and for sale. Ideal vacancy rates are considered to be one to two percent for sales housing and four to five percent for rental housing. At 4.3% for sales housing, the township is much higher than these optimum rates. Rental vacancy rates are higher than the optimum levels in the township, county and state, reflecting a general trend during the 1980's to higher vacancy rates in both sales and rental housing throughout the state.

Plate 12 itemizes housing units authorized by the issuance of building permits for the period 1980 through 1989. It shows that housing starts dropped dramatically in the latter part of the decade, reflecting the sewer moratorium and perhaps the weakening housing market. The strongest years were 1983 and 1986, with most of the construction authorized consisting of townhouses or semi-detached dwellings, which are counted as one family dwellings in the building permit records.

Plate 13 provides additional information on the changes in the housing stock between 1980 and 1990 for the township and the county. Building permit records reveal that most of the units built in the township during the 1980's were single family. However, those records group single family attached (townhouses) and single family detached together in one category. The census counts separate the two housing types. This indicates that only 17.4% of the units added during the 1970's were single family detached, with the balance

Plate 12

HOUSING UNITS AUTHORIZED BY BUILDING PERMITS

1980-1990

	<u>East Windsor</u>			<u>Demolitions</u>
	<u>1E</u>	<u>ME</u>	<u>Total</u>	
1980	50	0	50	4
1981	56	0	56	1
1982	4	60	64	1
1983	173	110	283	0
1984	77	0	77	1
1985	76	0	76	0
1986	219	0	219	4
1987	10	0	10	9
1988	5	0	5	0
1989	4	0	4	3
1990	1	0	1	1
Sub-totals	675	170	845	24
Demolitions			24	
Net Gain 1980-90			821	

Source: New Jersey Department of Labor

Plate 13

HOUSING UNIT TYPE

By Units in Structure

1980 & 1990

	<u>1980</u>		<u>1990</u>		<u>1980-1990</u>	
	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>
<u>East Windsor</u>						
1 Family Detached	2,183	27.6	2,383	26.3	200	17.4
1 Family Attached	1,689	21.3	2,385	26.3	696	60.5
2 Family	86	1.1	141	1.6	55	4.8
3 & 4 Family	287	3.6	383	4.2	96	8.3
5 or More Family	3,523	44.5	3,468	38.2	-55	-4.8
Mobile Home	151	1.9	228	2.5	77	6.7
Other			81	0.9	81	7.0
Total	7,919	100.0	9,069	100.0	1,150	99.9
 <u>Mercer Co.</u>						
1 Family Detached	53,326	47.8	58,558	47.4	5,232	43.5
1 Family Attached	22,645	20.3	26,483	21.4	3,838	31.9
2 Family	8,231	7.4	7,333	5.9	-898	-7.5
3 & 4 Family	5,397	4.8	5,283	4.3	-114	-0.9
5 or More Family	21,693	19.4	23,861	19.3	2,168	18.0
Mobile Home	354	0.3	499	0.4	145	1.2
Other			1,649	1.3	1649	13.7
Total	111646	100.0	123,666	100.0	12,020	99.9

Source: U.S. Census

Calculations by Queale & Lynch, Inc.

Totals may not add due to rounding

some form of multifamily housing. The 1980 count of mobile homes appears to be an error in the Census. License information on file in the township indicates that there were 213 mobile home units, confirming the relative accuracy of the 1990 Census counts on mobile homes.

TRAFFIC CIRCULATION

The 1985 Master Plan identifies road jurisdiction. It remains unchanged in this update and is shown herein as Plate 14.

Recent traffic accident information has not been provided as a part of this Master Plan update. In 1985, accident data were used to assist in identifying problem areas. This type of information was not needed to allow conclusions to be drawn on traffic improvements because of the detailed Traffic Infrastructure Impact Analysis prepared by T&M Associates in cooperation with the Township of East Windsor, Mercer County, and the East Windsor Municipal Utilities Authority.

The purpose of the Traffic Infrastructure Analysis was to conduct a detailed inventory of existing and projected conditions in order to coordinate road improvements with the amount of development which could be anticipated upon the completion of the improvements to the sewage treatment system. The study incorporates within it an explanation of the findings and conclusions drawn, and they are specifically set forth as background data in the Introduction and Methodology sections of the study, and in Chapters 1, 2 and 3. Additional background studies were prepared by T & M Associates as a part of the Traffic Infrastructure Study. They were published as: Technical Memorandum 1 - Background Traffic, January, 1990; Technical Memorandum 2 - Land Development, March, 1990; and Technical Memorandum 3 - Traffic Assignments, March, 1990. All of these sections, chapters and technical memoranda are incorporated herein by reference as a part of the background studies in the Master Plan update.

COMMUNITY FACILITIES

This report is prepared to provide a review of existing community facilities. It covers schools, police, fire, first aid, library, administration, public works, and utilities.

Schools

Schools are administered through the East Windsor Regional School District, which includes not only East Windsor, but Hightstown as well. Long range school facility planning is undertaken on a regular basis by the District in response to guidelines published by the New Jersey Department of Education.

There are six schools in the District. The District also maintains an extensive community education program, an adult high school program, and operates the Senior Center program from the Howard H. Scarborough Senior Citizen Center. The Center is the property of East Windsor Township. The Community Education offices are housed in the former township municipal building on Ward Street which the district uses under contract with the township.

The district also operates the Environmental Center at Etra Lake Park. This building is the property of East Windsor Township, and its use by the district is under contract with the township.

The sharing of facilities and responsibilities between the township and the school district has been the pattern for many years.

The following paragraphs indicate the enrollments of the schools, the grades served, and the number of students enrolled as of October 15, 1993, including special education students.

1. The Walter C. Black School is located in Hightstown and serves grades K-5. There are 561 students in the school.
2. The Perry L. Drew School serves grades K-5. This school is located in Twin Rivers. Total enrollment in the school is 499 students.
3. The Ethel McKnight School also serves grades K-5 and is located in Twin Rivers. It has a total enrollment of 360 students.
4. The Melvin H. Kreps School is located in the westerly part of the township and serves grades 6-8. The total enrollment for the school is 857 students.
5. The Grace Norton Rogers School serves grades K-5 and is located in the Borough across from the Walter C. Black School. It has a total enrollment of 388 students.
6. The High School serves grades 9-12. It has a total enrollment of 1,186 students.

A review of enrollment trends from 1975 through 1993 reveals that enrollments peaked in 1977 at 5,651 students, and declined to a level of 3,671 students in 1993. This is an average decline of 132 students per year for the entire system. Forecasts of student enrollments are set forth on Plates 28A through 28C in the Community Facilities Plan of this Master Plan and they reflect various anticipated levels of construction which may occur now that the sewer moratorium is no longer in effect.

Police

The Police Headquarters is located at 80 One Mile Road in a facility containing about 30,000 square feet. It has nine detention cells, six of which are for males. There are seven showers, two locker rooms, one matron's office, one prosecutor's office, one workout room, one firing range, and a conference room.

The force consists of 42 full-time police officers, with six full-time and three part-time radio officers, five civilians in Records & File, two civilians in administration, and ten regular and three substitute crossing guards.

The Police Department has personnel trained for special purposes. Two of the officers are assigned to traffic, one to the Identification Bureau, five to criminal investigation, and five to criminal prevention dealing with juveniles.

The township is set up in three patrol zones. The easterly zone consists of the area lying east of the New Jersey Turnpike and Hightstown. The size of this zone warrants two patrol vehicles with specific emphasis placed on Twin Rivers, manpower permitting. The southwestern zone includes the area west of the Turnpike and south of Route 571, but excludes the portion lying east of One Mile Road to Dutch Neck Road and extends to Hightstown. The remaining zone covers the balance of the township lying north and west of Hightstown.

The Department has fifteen patrol vehicles, nine unmarked cars, one emergency vehicle and one crime prevention/PAL vehicle. There is a mutual aid system with Hightstown, Allentown and Washington Township.

Fire

There are two fire companies operating in the township, one in the Twin Rivers area and the other serving the westerly part of the township from a location on One Mile Road near Dutch Neck Road.

Fire Company #1 was founded in 1969. The Company is located at 51 One Mile Road. Company #1 serves approximately 15,000 residents. This figure is estimated by the Fire Company by multiplying the 5,000 households sent fund drive requests by three residents per household. The Company also protects 75 percent of the commercial ratables in the township as well as the traffic on Route 130.

The Company #1 fire house was built in July, 1974 and has a total floor area of 6,300 square feet. Equipment at the station includes: three pumper trucks, including a 1957 model 750 gpm pump, a 1976 model with 1,250 gpm pump, and a 1983 model with 1,750 gpm pump; one 1980 3,500 gallon tanker with a 500 gpm pump; one 1989 model 110 foot aerial ladder truck; one 1974 model brush truck with a 250 gpm pump; and one Chief's car, a 1982 Dodge Diplomat.

Improvements and replacements proposed by Company #1 include the acquisition of a new pumper in 1993, refurbishment of the 1976 pumper in 1991, replacement of the 1974 brush truck, refurbishment of the tanker in 1992, replacement of hoses and communication equipment in 1994 and 1995, expansion of the bay area, and refurbishment of another pumper in 1996.

In addition to these specific improvements, Company #1 feels it is crucial to establish a fire substation due to approved and pending development in the southeast quadrant of the township.

Fire Company #2 is located in Twin Rivers on Twin Rivers Drive. The fire station has a floor area of 3,600 square feet. Equipment at the station includes two 1,250 gallons per minute pumpers built in 1974 and 1977, and a 1979 aerial ladder truck with a 75 foot boom. In addition, there is a 1974 Chevrolet step van/utility truck, and a 1987 Chevrolet Suburban Chief's vehicle.

The equipment replacement and refurbishment program proposed by Company #2 calls for a new telesquirt pumper, relegating the 1974 Mack pumper to second response. Once the new pumper is acquired, the 1977 Mack would be sent out for refurbishment, and following that, the 1974 Mack would be retrofitted to serve a dual role as a reserve engine and a utility vehicle. A minor refurbishment and overhaul of the aerial ladder is proposed for 1993.

Company #2 projects that volunteer levels will continue to decline in the next decade. This follows a trend found throughout the state and nation. Company #2 suggests the addition of one or two paid firefighters who would serve during the poorly staffed daytime hours. They feel that the addition of paid personnel could actually increase volunteer levels because of the reduced time commitment for each volunteer.

Company #2 feels its response times are generally good, with the exception of the southeasterly part of the township and with some problems during daytime hours. As is

Public Works

The Public Works Department is located on Ward Street where the municipal building was located many years ago.

An extensive list of major equipment repair and replacement is set forth in the capital improvements program.

The location of the public works facility is relatively central. While the trucks have to travel through Hightstown to service the westerly part of the township, there does not appear to be a great need to look for an alternate location with better access to the westerly section. Any alternate location which would provide better access to the west would then have to pass through Hightstown to service the easterly section unless or until the by-pass is completed around Hightstown.

Sanitary Sewers

Sanitary sewers are provided through the East Windsor Municipal Utilities Authority. The sewage treatment plant is located on Millstone Road on the Millstone River. Until recently, it had a capacity of 2.75 million gallons per day (mgd), and was operating at capacity. There was a recent expansion of the main treatment plant which brought its capacity to 3.35 mgd. A second expansion of the system is planned which calls for the construction of a satellite treatment plant which will have the capacity to treat 1.15 mgd, bringing the total capacity of the system to 4.5 mgd. Based on studies conducted to date on the assimilative capacity of the Millstone River, it is projected that no additional plant expansions should be considered, and that the total treatment capacity of 4.5 mgd should be the ultimate treatment capacity available to accommodate existing and new development in the township.

Almost the entire township is located in the watershed of the Millstone River, with the upper reaches of the watershed located in the southeasterly part of the township. It is in this area that a small portion of the township falls in the Assunpink watershed, but much of this area south of Windsor-Perrineville Road is owned by the New Jersey Department of Environmental Protection.

The southeasterly part of the township is not served by sanitary sewers and there are no plans to extend service into this entire area, although minor modifications to the service area boundary are anticipated.

Water

Water service is also provided through the East Windsor Municipal Utilities Authority. The system includes six wells and three water treatment plants.

There are 220 fire hydrants located throughout the township, and they have a sustained pressure of 45-50 psi, which is considered adequate for fire-fighting purposes.

Water for the township is drawn from the Raritan-Magothy aquifer, which is the major supplier of water for the areas lying to the east of the township extending to the shore area. There is increasing concern about the amount of water being drawn from this aquifer, and it is expected that major restrictions will be imposed on new wells in the future.

RECREATION AND OPEN SPACE

The purpose of this report is to identify the locations in the township which are either in active recreational or park use and those which are in public ownership and proposed for recreational or park use, but not yet developed. In the Conservation and Recreation Plan

MASTER PLAN UPDATE

Adopted by the East Windsor Planning Board
October 4, 1993

INTRODUCTION

The Planning Board of the Township of East Windsor last adopted a Master Plan in December 1985, with amendments in 1987 to adopt a Housing Plan Element, in March 1991 to adopt a Traffic Circulation Plan Element, in December 1991 and December 1992 to adopt most of the other Master Plan Elements, and in October 1993 to amend the Land Use Plan and Traffic Circulation Plan Elements and to adopt and Historic Preservation Plan Element and a Greenways Plan. In accordance with the requirements of the New Jersey Municipal Land Use Law (MLUL), this document provides an update and reexamination of the entire Master Plan. According to the MLUL, this is to be carried out at least once every six years.

A series of background studies was prepared for the board which served as the basis for the reexamination of the Master Plan. They are set forth in the preceding sections of this document. The focus of the background studies was to determine whether there were any changes in the basis for planning in the township.

GOALS AND OBJECTIVES

As a part of the 1985 update, a review was made of the goals and objectives set forth in the 1979 Master Plan, and they were updated and carried forward as a statement of goals and objectives 1985 Plan and updated again and set forth herein. The objectives are set forth below:

A. General Goals

1. To recognize the land as a prime community resource that is both finite and irreplaceable, to provide steps to protect the land from poor development practices, conserve appropriate quantities as permanent open space and actively seek practical methods for preserving farmland.
2. To establish the township as a socially balanced and viable community by offering a full variety of housing types and a full range of job opportunities.
3. To recognize Hightstown as an integral part of the East Windsor community although politically independent.
4. To unify the township through coordinated open space, facilities and service needs by channeling new growth to infill areas containing infrastructure capacity, so that it functions physically, socially and economically as a homogeneous community rather than as a random assemblage of large-scale developments.
5. To encourage the township's development as a sub-center of commercial trade serving local needs and areawide needs as well.
6. To encourage the improvement and expansion of job opportunities for local and areawide residents.

2. Encourage development of a township wide open space network which connects local parks and portions of environmentally sensitive areas with walkways or bicycle paths within easy access to local residents, or through the preservation of open space providing habitat for wildlife without pedestrian or bicycle access.
3. Develop a convenient park and recreation network to accommodate existing and future leisure time needs of township residents.
4. Continue adequate fire and police service with appropriate facilities, personnel, and equipment distributed according to need and in a cost effective manner.
5. Preserve, to the extent practical and feasible, environmentally sensitive areas, major vistas and other aesthetic attributes of the township and ensure adherence to strict performance standards for those developments which incorporate such areas.
6. Ensure that future low intensity development in areas not served by public utilities is adequately controlled through sound septic management techniques to assure maintenance of a high level of surface and ground water quality.

E. Circulation Goals and Objectives

Provide for an effective circulation system for the movement of people and goods with maximum convenience and minimum adverse effect on land traversed.

1. Encourage completion of coordinated regional highways and the development of a public transit network that will best service township needs and its immediate environs.
2. Continue the development of a system of roadways to expedite regional, subregional and local traffic with minimum interference between such traffic movements.

LAND USE PLAN

The Land Use Plan considers the full range of uses in the township, including residential and nonresidential land uses. While the Plan focuses on those uses which are customarily controlled through zoning regulations, it also recognizes the importance of public facilities and services in the overall planning process. However, the public uses are reflected in both the Community Facilities and Conservation/Recreation Plans in some detail, with only a passing reference in this Plan.

A map showing the proposed Land Use Plan is set forth on Plate 15. A second map, Plate 16, is included which shows those areas of the township which require zoning changes in order to implement the Land use Plan. The changes shown on Plate 16 refer only to the additional zoning modifications which are based on the October 1993 Land Use Plan amendment since the zoning changes associated with the December 1991 Land Use Plan had been adopted by Township Council. Within the text of each of the described areas of land use, changes in zoning which would be required in order to implement this Land Use Plan are identified along with the rationale for each of the changes.

RA - Rural Agricultural

This use is found in the southeast quadrant of the township. The intent of this district is to provide an area where farming can continue, but to broaden the concept of the zone to include residential development at a density level of no greater than one house for every four acres. This modification in density was proposed in the December 1991 Land Use Plan and incorporated in the ordinance by Township Council. This compares with the prior ordinance, which allowed one house for every two acres. The rationale for the decrease in density is that a review of soil and water table conditions in the RA area reveals a high incidence of potential problem areas for septic systems. In addition, there is continuing concern about providing this area with fire and emergency services because of limited accessibility. Also, many existing homes in this area rely on shallow wells, which are more subject to groundwater pollution if there are septic system failures or an excessive number of septic systems in a concentrated area.

The land shown in the RA category is generally well suited to farming. This is reflected in positions and policies set forth by the County Planning Board and in documents released by the State Planning Commission in its development of the State Development and Redevelopment Plan. The land is also in the headwaters area of the Millstone River, making it an important part of the overall drainage basin.

Much of the RA land which lies between the New Jersey Turnpike and Route 130 is in a designated agricultural preserve, thus dictating to a large extent the future of agriculture in that area.

Road access to much of the RA area is quite difficult if higher density development were to be considered. Only Etra Road and Old York Road have crossings over the Turnpike, while Rocky Brook to the north limits access from the Twin Rivers area. If this area were to be properly serviced as an area of higher density development, not only would sewer and water utilities have to be provided, but the number and quality of access points would have to be improved. All things considered, it is felt that the plans of the county and the state for agricultural preservation, along with the practical access problems and the desire to minimize adverse development impacts in the headwaters area of the Millstone River, all point to either farmland or rural development densities in this southeasterly section of the township.

Efforts should continue throughout the RA area to take advantage of programs designed to preserve agriculture over the long term. Programs such as the acquisition of development rights within agricultural preserves, or consideration of a program of transferable development rights if approved by the State legislature, would be the types of approaches which may have the effect of encouraging long-term agricultural uses in the township.

If effective methods can be developed for treating effluent, consideration should be given to using cluster development at a gross density of 0.25 units per acre with the objective of allowing development on land which is less suited for agriculture, or in village clusters, while retaining farming. In applying this cluster concept, at least 60 percent of the land in the district should remain in agricultural use, and the resulting development areas should not exceed the densities described herein for the R-2 district.

With respect to individual lot development in the RA area, the concept of one house for every four acres could be applied by allowing the construction of a house on 1.5 acres, simultaneously preserving the remaining portion of the site for farming or open space. This can be accomplished through a form of clustering or lot size averaging where the soil conditions are suitable for such a reduction in lot size. Actual development sites of less than 1.5 acres are not recommended.

One area of change was considered and adopted in December 1991 which affects land zoned for RA. In the area located east of Routes 130 and 33, and generally lying between Airport Road and Conover Road, the highway frontage has been rezoned Highway Commercial and the lands to the rear, as shown on the Land Use Plan, are now zoned R-1. These zoning changes reflect in part the results of litigation which reinstated Highway Commercial zoning along the highway, and further provides a transition area of R-1 zoning extending to other R-1 lands and to the RA lands. Further descriptions of these changes are set forth in the HC and R-1 sections of this Land Use Plan. It should be noted that this area of change lies outside the sewer service area of the East Windsor Municipal Utilities Authority. It is not the intention of the Planning Board to either encourage or discourage the extension of sewer services into this area, but simply to allow for highway commercial and R-1 development to the extent that it can be supported by septic systems. However, it may be desirable to extend public water services to this area for domestic consumption as well as fire protection.

Subsequent to the adoption of the Land Use Plan in December 1991, additional modifications in the vicinity of Conover Road were included in the October 1993 Land Use Plan, as shown on Plates 15 and 16 and described herein. In the Centex development, lands which now lie in the RM Residential Multifamily and RA Rural Agricultural zones should be placed in the R-2 and R-1 districts as shown on Plate 16. While this rezoning would increase the amount of land which would be subjected to development in this area, and require the extension of the 208 Sewer Service Area, it would not result in an increase in the total effluent discharge from this section of the township. The uses would be more compatible with the existing single family developments in the immediate area and those under development by Centex. Much of this land lies in Rural Planning Area 4 in the State Development and Redevelopment Plan, but it also adjoins existing areas which have similar zoning designations and which lie in Suburban Planning Area 2. Based on the configuration of the zoning districts and the State Plan designations, the proposed zoning amendments provide an effective in-fill and do not adversely affect the purpose of the State Plan by extending development into areas which are not projected for that purpose. The boundary lines of the State Plan Planning Areas are intended to be functional rather than specific, and the nature of the deviation from the published boundary lines is a matter of fine tuning rather than a departure from the principles of the Plan.

Along Old York Road and Conover Road, the zoning district proposals are brought to a reasonable boundary by extending them beyond the immediate holdings of Centex to include various out-parcels along the road frontages, which is consistent with the approach used in the zoning ordinance for the lands lying south of Conover Road along Old York Road. For the most part these frontage parcels are changed from R-1 to R-2, but they are small enough that they do not encourage extensive resubdivision and the potential for the creation of a significant number of new lots.

RE - Rural Estate

This land use category is shown in the southeasterly part of the township along Windsor-Perrineville Road. Its purpose is to establish an area where estate-sized homes can be built on lots a minimum of two acres in size, but with an average lot size of three acres. This is a change from the prior zoning density which called for a straight minimum lot area of two acres. The increase in lot area is based on a review of the environmental and soil characteristics of the property in the RE area, including consideration of the recently released wetlands maps prepared by the New Jersey Department of Environmental Protection and Energy, and in consideration of concerns expressed over the past several years by residents of that area who rely on relatively shallow wells for domestic water, with their concerns focusing on the potential for groundwater pollution. The reduction in

density called for in the Land Use Plan would reduce development potential on future sites by about 50 percent. This ordinance amendment has been adopted by Township Council as part of the implementation of the December 1991 Land Use Plan.

The overall intent of the RE zone is to establish an area where estate-sized homes can be built on larger lots, providing an opportunity for the development of a greater diversity of housing types within the township.

R-1 - Residential Low Density

The R-1 designation is found in several locations on the Land Use Plan map. This category of land use is for single family dwellings at a maximum gross density of 1.5 units per acre. Cluster development should be permitted, with the resulting development pattern still limited to detached single family dwellings, but on lots smaller than 20,000 square feet, which is the minimum lot size for conventional developments in the district.

The largest R-1 area is in the southwest part of the township, and it contains not only the highest number of single family detached dwellings in the township, but the four largest areas of vacant land in the district. Two of these four tracts are constrained to a large extent by wetlands, affecting the overall potential development of these sites. To a lesser extent, the other parcels are constrained as well, but offer the potential for full development under the terms of R-1 zoning.

In the 1985 Master Plan, as well as in the existing zoning ordinance, adjustments in developable land area are provided based on the presence of critical environmental features. Based on some court cases interpreting the Municipal Land Use Law, these kinds of adjustments are no longer recommended. The environmental features will, however, continue to affect site yields even if clustering is used. It is recommended as a part of this Master Plan to continue the R-1 zone at the same density as in the existing zoning ordinance, but to require as a part of clustering that any reservation of land for open space purposes include a certain proportion of upland which can be used for active or passive recreation, avoiding the problem of having only environmentally constrained land dedicated for open space.

In the Conservation and Recreation Plan of this Master Plan, the shortage of active recreation space in this southwesterly section of the township is noted. In the review of development plans on the Hickory Corner Road and Dutch Neck Road sites, clustering techniques should be considered as a way of providing for some neighborhood scale recreation areas.

The following changes were proposed for the R-1 district in the December 1991 Plan and have been implemented by ordinance:

1. Lands lying along the westerly side of Route 130 north of Hankins Road were proposed for R-1 zoning, a change from the R-2 designation in the prior zoning ordinance. The basis for this change is that the new wetlands maps indicate that a large portion of this area is impacted by wetlands, warranting the lower density of R-1. Also, R-1 zoning is more consistent with the pattern of existing single family development in the immediate adjoining areas to the west, which are linked to this area by streets which could be extended to serve new single family development.
2. Along the southerly side of Dutch Neck Road just west of the HC zone, a change was implemented from R-2 to R-1 to reflect existing environmental

conditions on the site, as more fully explained in the R-2 section of this Land Use Plan.

3. East of Route 130 and 33, in a portion of the area lying between Airport Road and Conover Road, an RA area has been changed to R-1 to provide a transition from the Highway Commercial zone to other proposed R-1 areas and to the RA zone. As indicated in this Land Use Plan, this zoning modification does not necessarily support the expansion of sanitary sewer services to this area. Development could be limited by the ability of individual sites to meet state requirements for septic systems.

In addition to the above changes, the October 1993 Land Use Plan called for further zoning modifications involving R-1 lands as described in the latter section of the description of the RA Rural Agricultural zone, and as shown on Plate 16.

R-2 - Residential Medium Density

This is a single family residential area which provides for a maximum gross density of three dwelling units per acre, but retains a single family character. Within the range of single family dwellings, patio homes and zero lot line housing would be permitted. One of the major objectives in limiting development in this district to single family dwellings is to restore the opportunity for a more balanced housing stock since most of the residential development in the township was multifamily prior to the sewer moratorium, which occurred in 1984 because of a lack of adequate sewage treatment capacity.

The base lot size of 10,000 square feet per single family home should be continued in the ordinance along with allowing for cluster developments, provided the overall site yield is no higher than would be permitted under conventional development.

The largest R-2 zone is found in the vicinity of Conover Road and Old York Road. Another R-2 zone is located along the northerly side of Dutch Neck Road east of One Mile Road. The remaining two R-2 districts are relatively small, with one located just southwest of the intersection of Route 130 and Old Cranbury Road and the other on Route 33 just east of the Turnpike.

The following changes in R-2 zoning were adopted in order to implement the December 1991 Land Use Plan:

1. The townhouse development on Old Cranbury Road east of Route 130 was changed from R-2 to R-3 to reflect the fact that it is developed as a townhouse development, which is permitted in R-3 but not in R-2.
2. Similarly, the townhouse development at Hickory Corner Road and Route 130 was changed from R-2 to R-3.
3. The R-2 area lying west of Route 130 and north of Hankins Road was changed to R-1, as described in this Land Use Plan in the section on R-1.
4. The R-2 area lying south of Dutch Neck Road and adjacent to the HC zone along Route 130 was changed to R-1 to provide a single zoning district for the entire parcel and to reflect the fact that the parcel is constrained by environmentally sensitive lands, warranting a lower overall site density.

In the October 1993 Land Use Plan, additional zoning changes were recommended involving R-2 zones, as shown on Plate 16 and described herein. Just north of

Hightstown Borough along both sides of North Main Street, the land is proposed to be changed from Research Office (R-O) to R-2. The rationale for this change is that the parcels to the immediate south are either zoned or developed in residential uses, the development density permitted by R-2 zoning results in approximately the same effluent discharge per acre as the R-O zone, and the potential for successful R-O development is considered to be slight since full access to the Hightstown By-Pass cannot be provided at North Main Street. This change results in minimizing potential adverse effects on the Borough of Hightstown which could occur if R-O development were to take place prior to completion of either the Town Center Road connection to Wyckoff's Mills Road or prior to completion of the Hightstown By-Pass.

Additional lands north of the By-Pass from Cranbury Station Road to North Main Street, and running along the Millstone River, are in common ownership with the parcels proposed herein for R-2. Those parcels are zoned R-3 (4 units per acre) and no change in zoning is recommended. However, there are significant environmental constraints on portions of this land, and in the estimates of development potential calculated as a part of the Utility Services Plan Element of the Master Plan, it was determined that full development at four units per acre was unlikely and that it was more likely that the site could only accommodate three units per gross acre. It is recommended that consideration be given to allowing the site development potential for all three parcels (the two lying south of the By-Pass and the parcel wrapping behind St. James Village) to be aggregated so that in the event the parcel near St. James Village cannot accommodate development at three units per gross acre, that any shortfall be allocated to either or both of the two sites south of the By-Pass. In this way, full development of these parcels can be accommodated without placing any unanticipated additional flows through the sewage treatment plant.

R-3 - Residential Medium Density

Development in this area would consist of single family detached housing, with a development option on tracts of 50 acres or more to include multi-family housing to add development flexibility. One of the objectives of this district is to provide transitions between existing multifamily uses and new developments, which may include single family detached dwellings. In order to encourage the development of single family homes on lots larger than could be designed in a development consisting entirely of single family homes, a mix of other housing at a higher net density should be allowed, retaining the concept of an overall density control of four units per acre. Semi-detached housing would continue to be a permitted housing type in this district.

The developed portions of the R-3 district include townhouses and two family semi-detached dwellings. The undeveloped portions of this zoning district include an approved development of single family homes known as Stonegate, which is located between Route 130 and North Main Street, and an area along One Mile Road and the Hightstown By-Pass which is a single family development proposal known as Nob Hill. The combined housing count for the Nob Hill and Stonegate developments is about 480 units. The remaining undeveloped portion of the R-3 zone lies around St. James Village, and it consists of a site of about 80 acres, some of which is constrained by wetlands and flood prone areas associated with the Millstone River.

The following changes in R-3 zoning were recommended as a part of the December 1991 Plan and adopted by ordinance amendment through Township Council:

1. Include the townhouses on Old Cranbury Road in R-3 for the reasons set forth in the explanation of changes in the R-2 district.

2. Similarly, the townhouses located south of Hickory Corner Road became R-3 for the reasons set forth in the R-2 section of this Plan.
3. At St. James Village and the adjoining apartment development off North Main Street, a change to RM reflects the character of existing development and is consistent with the zoning of other established multifamily developments in the township.

The rationale for a four units per acre density in this district is that it not only allows for development on a single family basis if desired by the developer, but it offers a realistic opportunity for a mix of housing types if needed for effective site development. Development densities which are somewhat higher than four units per acre preclude the opportunity for a significant mix of detached single family dwellings, forcing development into either a townhouse or other multifamily housing type.

RM - Multifamily Residential

This use category is shown as the highest density category in the township. Only those areas for which developments have been built or approved for construction are included in this category. Two parcels in the RM designation on One Mile Road near Route 535 are undeveloped but have development approvals for multiple dwellings. The remaining RM areas are developed.

The development density for any applications for development in this district should be limited to 10 units per acre.

Based on the large quantity of multifamily housing permitted and built in the township, and the relatively low percentage of single family detached dwellings, and based further on the limitations imposed on new development by the planned expansion of the sewage treatment plant, no additional high density multifamily zoning is recommended in this Plan beyond that which has received approvals or has been built.

The only change in RM zoning reflected in the December 1991 Land Use Plan was in the vicinity of St. James Village, as described in the R-3 section of this Land Use Plan. An additional change was incorporated in the October 1993 Plan involving the Centex development at Old York Road and Conover Road, as described in detail in the concluding paragraphs of the Rural Agricultural section of this Land Use Plan.

MH - Manufactured Housing

The purpose of this zone, which was recommended in the December 1991 Plan and adopted by ordinance, is to reflect an existing development of manufactured housing located west of Route 130 and north of Rocky Brook. It has been functioning as a pre-existing nonconforming use for many years. Much of this area is impacted by wetlands and areas which are subject to flooding.

The rationale for recommending rezoning of this area was not only to reflect the existing use, but to encourage a modest expansion of manufactured housing sites in an attempt to assist in relocating some of the families living in mobile homes located on a site between Route 130 and Route 33 just north of Hickory Corner Road.

PUD - Planned Unit Development

This area includes the Twin Rivers area as originally approved by the township. There are no changes in the boundaries of this area proposed as a part of this update. All residential uses have been developed in this area, with the only remaining uses to be developed falling in the nonresidential category.

PRC - Planned Retirement Community

This applies to the Meadow Lakes community on Etra Road west of the Turnpike. This is an established area with a wide range of services provided for its residents. No expansion of the boundaries of the tract is proposed or contemplated as a part of this Master Plan.

PAC - Planned Adult Community

In the vicinity of the municipal building north of Lanning Boulevard, a new zoning district is proposed which reflects some locational features which are compatible with age-restricted housing. This concept was incorporated in the October 1993 Land Use Plan. An area of approximately 20 acres lying behind The Orchard and adjoining the rear of the Jamesway shopping center is designated herein for age-restricted housing (55 & over or 62 & over). It is now zoned RO, Research Office. The allowable density, in order to avoid a net increase in projected sewage flows, would be 4 to 5 units per acre. Without an age restriction, the density would only be permitted up to three units per acre, but with the smaller household sizes typical of age-restricted developments, lower effluent discharge rates can be anticipated. In the event additional capacity becomes available which can be applied to this site, the allowable density could be increased beyond the five units per acre since the parcel is not adjoined by any single family areas and its development is strongly influenced by the intensive activities at the shopping centers and in the multifamily development at The Orchard. If funding could be secured, a portion on this land would lend itself to an age-restricted higher density development such as St. James Village. This type of development typically has effluent discharges per unit of about one-third of that experienced for single family homes. Proximity to shopping would be a major convenience for the elderly. The area of change is shown on Plate 16.

SL - Small Lot Single Family Residential

These are areas of established single family homes which in some instances have vacant lands which can be developed. Any new development should be based on the established development pattern. No significant changes in the extent of the SL district are proposed, although the district between Airport Road and Hightstown was recommended for some modification in the December 1991 Plan to slightly increase the depth of the Highway Commercial zone to reflect the depth of existing commercial development. This amendment to the ordinance has been adopted.

The SL district has some potential for additional development, particularly in the vicinity of Airport Road. For appropriate development, these areas should be served by public sewer and water systems.

NC - Neighborhood Commercial

In much of the township, these convenience commercial services are being provided either along Route 130 or in portions of the Highway Commercial area which are served by roads which intersect with Route 130, such as Hickory Corner Road. At Route 130 and Old Cranbury Road, a district is shown for neighborhood commercial. Access to this area should be from Old Cranbury Road rather than Route 130 to avoid driveway conflicts with the proposed interchange of the Hightstown By-Pass located just south of the intersection.

An area which may need neighborhood commercial services is along Old York Road to service the new development planned for that area. It may be appropriate to provide a site in the vicinity of Conover Road and Old York Road when residential development warrants such a commercial facility.

The existing zoning ordinance provides a floor area ratio of 30%, which was the reduction recommended in the December 1991 Plan from the former ratio of 40%. This reduction

conforms with the requirements of the Highway Commercial zone and provides effluent flows more in keeping with the limitations of the sewage treatment system in the township.

HC - Highway Commercial

The Highway Commercial area is found in the Route 130 corridor and along Route 33 west of Hightstown. It provides opportunities for the development of commercial services not only for residents of the township and nearby communities, but for the traveling public using Route 130.

The December 1991 update suggested some modification in the mapping of HC in the vicinity of Airport Road on Route 33, where some additional depth in the HC zone was suggested to reflect the actual depth of commercial development in that area. It also called for the continuation of HC zoning along the highway frontage between Airport Road and Conover Road, although at a somewhat greater depth than that which has existed to date. This greater depth was called for to provide improved siting flexibility for potential development, to allow for the location of a parallel access road separating the HC zone from the R-1 zone, and to accommodate the access restrictions and right-of-way configuration at the intersection of Routes 130 and 33.

In order to avoid problems related to a strip commercial development pattern along the highway, it is recommended that adequate frontage requirements be maintained in the zoning regulations, that buildings be sufficiently set back from the highway so traffic can enter and exit without affecting traffic flows to any great extent on Route 130, and that, wherever possible, interconnections between parking areas of adjoining businesses be encouraged as a part of the site plan approval process to allow for the effective interrelating of commercial activities.

In order to enhance the viability of commercial services along Route 130, median breaks with left-turn lanes should continue to be provided to assure appropriate accessibility. Continued attention should also be given along Route 130 to providing sidewalks along the highway, particularly between Rocky Brook and Hickory Corner Road, and to provide effective landscaping to improve the overall appearance of this commercial center of the township.

No change in the existing floor area ratio of 30% is recommended as a part of this Land Use Plan. The floor area ratio is reflective of existing development characteristics, the Highway Commercial area is not subject to great quantities of additional development because there is not much vacant land, and there are several outstanding approvals which reflect the existing floor area ratio standard.

In the October 1993 Land Use Plan, the Highway Commercial zone was proposed for an expansion along Route 571, as shown on Plate 16 and described herein. In the vicinity of the Municipal Building, the lands shown on Plate 16 should be changed from R-O to Highway Commercial. In order to preserve the campus-like streetscape along Route 571, particularly west of Lanning Boulevard, it is recommended that the ordinance require a significant landscaped setback such as that called for under existing R-O zoning for that area. It should be noted that the H-C zone continues to permit office development, as is allowed under the R-O zone. The advantage to a change which encourages retail development is that it has different peak traffic hours than office development and other employment centers, which should have the effect of minimizing the impacts of additional nonresidential development on the congested portions of Route 571 which pass by the site. With the completion of the By-Pass, access to and from the retail center could be accomplished without the need to use Route 571, and it is strongly urged that access to Route 571 be restricted to the greatest extent possible, relying on access from Lanning

Boulevard and One Mile Road. The commercial land affected lies west of the drainage ditch which extends from the end of Lanning Boulevard to the southeast corner of the RM development known as The Orchard. Within the overall context of planning for the development of this section of the township, it is recommended that access between the Municipal Building and the adjoining shopping center to the east be restudied and, if possible, that a new interconnection be developed. There should be a comprehensive reassessment of the pedestrian and vehicular interconnections throughout this area lying between the By-Pass, One Mile Road, Princeton-Hightstown Road, and Route 130 in order to assure the orderly development of this important location in the township.

TC - Turnpike Commercial

This is a limited commercial area which has as its focus the New Jersey Turnpike interchange. This update suggests retaining the essential character of this district, which provides for motel, hotel and traveling services for the region. Effective integration of the site plans in this area with proposals for the Hightstown By-Pass and the resulting changed traffic flows on Route 33 is essential.

No changes in the mapping of the Turnpike Commercial area are recommended as a part of this Land Use Plan. In keeping with the overall effort to conform floor area ratios to existing development patterns while retaining a desirable development potential, and in response to concerns about the potential for development which could overburden the anticipated upgrading of the sewage treatment system, it was recommended in December 1991 and adopted by ordinance amendment that the Turnpike Commercial floor area ratio be reduced from 60% to 30%, which is the ratio used in the Highway Commercial zones.

R-O - Research Office, and I-O - Industrial Office

Employment centers in the township are designated as either R-O, Research-Office, or I-O, Industrial-Office. The range of uses permitted in each of these two districts differs somewhat in order to encourage those uses with lower anticipated truck traffic to locate in the R-O district, allowing a wider range of uses in the I-O district. Both districts should retain a use restriction against truck terminals, but large-scale warehousing and distribution centers would be permitted in the I-O zone but not in the R-O zone. In the development of a listing of permitted uses in the zoning ordinance, consideration should be given to the types of traffic typically generated by certain uses, and limiting those which would be expected to generate significant amounts of truck traffic to the I-O zone. In all other respects, the listing of uses would be consistent between the two districts.

It is expected that truck-related activities would be more attracted to the Turnpike corridor than the vicinity of Route 571 west of Route 130, particularly with the modification in traffic flows which would result from the construction of the Hightstown By-Pass and the improvement of Milford Road to Route 33. The Milford Road improvements would provide access for commercial traffic intending to use the Turnpike, a much more desirable situation than exists at present where all westbound traffic on Route 33 from the nonresidential developments in Twin Rivers must travel through the intersection of Lake Drive and Route 33, contributing to congestion at the intersection and adversely affecting the quality of life of residents along Lake Drive.

It is suggested as a part of this update that the character of the existing R-O area along Route 571 be continued. This means providing an effective campus-like setting for the uses, retaining the setbacks required along the major roads in the existing ordinance.

Considerable attention had been given as a part of the December 1991 Master Plan update to the floor area ratios in the prior zoning ordinance for both the R-O and I-O zones, which were 40% and 60% respectively. The December 1991 update of the Land Use Plan

recommended a reduction in floor area ratio for several reasons. In the first instance, the pattern of existing development and development applications submitted for review by the Planning Board indicates that the higher floor area ratios are essentially unachievable. Second, the floor area ratios in the prior ordinance were applied to a "net site area", which was calculated by removing certain environmentally sensitive areas prior to arriving at the permitted gross floor area on a parcel. The update suggested continued use of a floor area ratio standard, but applying it to total site area, in response to several court decisions. Since many of the sites which are shown in both the R-O and I-O districts are constrained by environmentally sensitive lands, a reduction in floor area ratio is warranted as a reflection of land characteristics.

It was recommended and adopted by Township Council to incorporate a floor area ratio of 25% in the zoning ordinance for both the R-O and the I-O district. This floor area ratio, as applied to total site area rather than net site area, provides development opportunities which are consistent with both the Traffic Circulation Plan of this Master Plan and the sewage treatment plant upgrades reflected in the Utilities Services Element of this Master Plan, as proposed by the Municipal Utilities Authority. Along with this modification in the method of calculating floor area ratio, the December 1991 Plan also called for applying the maximum improvement coverage standards against total site area, retaining the standards which are set forth in the existing ordinance of 65 percent in the R-O zone and 75 percent in the I-O zone. As a further zoning modification related to the I-O district only, Township Council adopted a higher floor area ratio for storage space, warehouses, distribution centers, and similar uses which have very low effluent discharge rates per square foot along with low parking requirements. This was accomplished through a conditional use procedure which established a certain category of uses which would qualify for a higher floor area ratio without compromising other aspects of this Master Plan with respect to anticipated effluent flows and traffic volumes. It was recommended that the floor area ratio for these conditional uses not exceed 35 to 40 percent, and that the ordinance clearly distinguish between office and other employee-intensive space and the storage and warehousing space to be accommodated by these modified standards. In any event, this class of conditional uses should not be allowed to exceed the improvement coverage standards for all other uses permitted in the I-O district. Adequate safeguards should be built into the ordinance to make it clear that a building constructed for a low intensity use may not be converted to a higher intensity use.

HOUSING PLAN

This document is prepared and submitted to comply with the requirements of the Fair Housing Act as well as the regulations of the Council on Affordable Housing (COAH). It was originally prepared and acted upon in 1987, with revisions in 1988. Only minor modifications are included herein to the 1988 document in order to reflect existing COAH regulations. COAH is expected to adopt new allocation numbers in 1994, at which time this document should be reevaluated against the new allocations. Please note that all the tables and calculations are reflective of the 1980 Census and the methodologies used by COAH at that time. More up to date data are provided in the background section of this Master Plan in the Population and Housing Study.

In summary, it is the intent of this plan to identify the township's obligations to provide additional low and moderate income housing and to upgrade existing deteriorated housing occupied by lower income households. Where additional housing opportunities for low or moderate income households are to be addressed, this plan outlines the method to be used to address the needs in a sound and fiscally responsible manner.

The net indigenous need of 81 units is to be met through continuing attention to the rehabilitation of the housing stock in the township. This has been an ongoing effort. The

remaining 183 units of reallocated present and prospective need have been largely met to date through the construction of St. James Village and the commitment by Centex to build 50 moderate income units as a part of its development. The balance of the units will be provided as outlined later in this housing element.

Inventory of the Housing Stock

Age: Of the total housing units reflected in the 1980 Census, almost all were built since 1960. Plate 17 shows that all but 6.8% of the 1980 housing stock had been built since 1960. After 1980, building permit records indicate that almost 600 units were added in the township.

Condition: The condition of the housing stock has been estimated from a collection of data prepared by COAH. All told, COAH has indicated the township has 92 deteriorated units occupied by low or moderate income households. Since the percentage of deteriorated units in the township is below the regional percentage, this unit count also represents the township's base Indigenous Need. According to guidelines of COAH, the base Indigenous Need number is to be according to COAH. Spontaneous rehabilitation is projected at 11 units, which means the net Indigenous Need number is 81 units.

Plate 17 shows several characteristics of housing condition based on information available at the township level. However, COAH's estimate of deteriorated units has been on seven surrogates. As stated in COAH's Regional and Statewide Summary of Pre-Credited Need, May 1, 1986, p. 2, "Surrogates do not themselves confirm that a unit is deficient." Rather, the surrogates "...indicate that if a unit has these characteristics, it most likely would be independently found via a field survey as deficient."

The following surrogates were used. The criteria assumed that a unit built before 1940, and having at least one other deficiency, was deteriorated. Units built after 1940 were considered deficient if they had two or more of the characteristics other than age.

1. **Age, or Year Structure Built:** This distinguishes among units built before and after 1940 as the significant age consideration.
2. **Overcrowding, or Persons per Room:** More than 1.0 persons per room was the overcrowding index.
3. **Access to Unit:** As a measure of privacy, a unit was considered unacceptable if it required passage through another dwelling unit to gain access to it.
4. **Plumbing Facilities:** A unit lacking complete plumbing for exclusive use was considered deficient.
5. **Kitchen Facilities:** A unit lacking a sink with piped water, and stove and a refrigerator was considered deficient.
6. **Heating Facilities:** A unit was required to have central heat in order to be counted as a standard unit.
7. **Elevator:** Units in buildings having four or more stories were considered deficient if the building has no elevator.

In making its estimates, COAH used data on these seven surrogates from portions of the 1980 Census not available at the municipal level. Rather, the data existed for each of 52

HOUSING VALUES
Township of East Windsor

Owner-Occupied		
<u>Non-Condominium Units</u>	<u>Number</u>	<u>%</u>
Less than \$10,000	8	.2
\$ 10,000 - \$ 14,999	8	.2
\$ 15,000 - \$ 19,999	6	.2
\$ 20,000 - \$ 24,999	8	.2
\$ 25,000 - \$ 29,999	11	.3
\$ 30,000 - \$ 34,999	13	.4
\$ 35,000 - \$ 39,999	28	.9
\$ 40,000 - \$ 49,999	161	5.0
\$ 50,000 - \$ 79,999	1,981	61.8
\$ 80,000 - \$ 99,999	787	24.6
\$100,000 - \$149,999	190	5.9
\$150,000 - \$199,999	3	.1
\$200,000 or more	1	-
Totals	3,205	99.8
Median Value		\$70,600

Contract Rent		
<u>Renter Occupied Units</u>		
Less than \$50	2	.1
\$ 50 - \$ 99	8	.2
\$100 - \$119	17	.5
\$120 - \$139	12	.4
\$140 - \$149	3	.1
\$150 - \$159	13	.4
\$160 - \$169	7	.2
\$170 - \$199	37	1.1
\$200 - \$249	235	7.1
\$250 - \$299	1,477	44.7
\$300 - \$399	1,166	35.3
\$400 - \$499	83	2.5
\$500 or more	247	7.5
Totals	3,307	100.1
Median Contract Rent	\$295	

Source: 1980 Census

Totals may not add due to rounding

OCCUPANCY CHARACTERISTICS & TYPES

Township of East Windsor

<u>Year-Round Housing Units:</u>	<u>Number</u>	<u>%</u>
Total	7,915	100.0
<u>Occupied</u>	7,516	95.0
Owner-Occupied	4,053	51.2
Renter-Occupied	3,463	43.8
<u>Vacant</u>		
for sale	145	
vacancy rate-sales		3.5%
for rent	186	
vacancy rate-rentals		5.1%
for occasional use	11	
other	57	
 Year-Round Units:		
<u>Number of Rooms</u>		
# Units w/ 1 Room	119	1.5
# Units w/ 2 Room	294	3.7
# Units w/ 3 Room	1,093	13.8
# Units w/ 4 Room	1,624	20.5
# Units w/ 5 Room	1,425	18.0
# Units w/ 6+ Room	3,360	42.5
 Year-Round Units		
<u>Number of Bedrooms</u>		
# Units w/ 0 Bedroom	205	2.6
# Units w/ 1 Bedroom	1,851	23.4
# Units w/ 2 Bedrooms	2,574	32.5
# Units w/ 3 Bedrooms	2,006	25.3
# Units w/ 4 Bedrooms	1,116	14.1
# Units w/ 5+ Bedrooms	167	2.1
 <u>Year-Round Housing Units</u>		
1 Detached	2,183	27.6
1 Attached	1,689	21.3
2	86	1.1
3 and 4	287	3.6
5 or more	3,523	44.5
Mobile Home	151	1.9

Source: 1980 Census

1980 INCOME LEVELS

Township of East Windsor

<u>Household Income Levels</u>	<u>Number</u>	<u>%</u>
Less than \$ 2,500	111	1.5
\$ 2,500 - \$ 4,999	222	3.0
\$ 5,000 - \$ 7,499	277	3.7
\$ 7,500 - \$ 9,999	348	4.6
\$10,000 - \$12,499	383	5.1
\$12,500 - \$14,999	506	6.7
\$15,000 - \$17,499	548	7.3
\$17,500 - \$19,999	472	6.3
\$20,000 - \$22,499	672	8.9
\$22,500 - \$24,999	621	8.3
\$25,000 - \$27,499	501	6.7
\$27,500 - \$29,999	477	6.3
\$30,000 - \$34,999	801	10.7
\$35,000 - \$39,999	546	7.3
\$40,000 - \$49,999	594	7.9
\$50,000 - \$74,999	364	4.8
\$75,000 or more	71	.9
Totals	7,514	100.0
Median \$23,378		

Poverty Status of Persons

Income:

below 75% of Poverty Level	566	2.7
75% to 124%	667	3.2
125% to 149%	478	2.3
150% to 199%	1,217	5.8
200% or more	18,016	86.0

Source: 1980 Census

Totals may not add due to rounding.

EMPLOYMENT CHARACTERISTICS(Persons Age 16+)
Township of East Windsor

	<u>Published Number</u>	<u>RCUPR Adjustment</u>
<u>Covered Employment</u>		
1977	5,344	5,118
1978	5,381	5,153
1979	5,863	5,615
1980	6,366	6,097
1981	7,241	6,935
1982	7,113	6,812
1983	7,034	6,737
1984	7,330	7,020
Avg. Annual Change	+319	+305
Employed Persons <u>by Industry</u>	<u>Number</u>	<u>%</u>
Agriculture	70	.7
Construction	315	3.0
Manufacturing	3,258	31.4
Transportation	312	3.0
Communications	160	1.5
Wholesale Trade	486	4.7
Retail Trade	1,255	12.1
Finance/Insurance/Real Estate	788	7.6
Business & Repair Services	796	7.7
Personal/Entertain't/Recreation	192	1.8
Professional Services:		
Health	456	4.4
Education	1,238	11.9
Other	578	5.6
Public Administration	486	4.7
Employed Persons <u>by Class</u>		
Private Wage & Salary	8,518	82.0
Government	1,488	14.3
Self-Employed	361	3.5
Unpaid Family Worker	23	.2

Sources: N.J. Department of Labor
1980 Census
RCUPR = Rutgers Center for Urban Policy Research

HOUSING CONDITIONS

Township of East Windsor

1980

<u>Year Structure Built</u>	<u>Number</u>	<u>%</u>
1939 or Earlier	201	2.5
1940 - 1949	83	1.0
1950 - 1959	265	3.3
1960 - 1969	3,667	46.3
1970 - thru 3/80	<u>3,703</u>	<u>46.8</u>
Subtotal 4/1/80	7,919	99.9
<u>New Units Authorized by Building Permits, less Demolitions Auth.</u>		
1980	46	
1981	55	
1982	63	
1983	283	
1984	76	
1985	76	
1986 Estimated Total Units	8,518	
<u>Year-Round Housing Units by Plumbing Facilities</u>		
Complete Plumbing for Exclusive Use	7,880	99.6
Lacking Comp. Plumbing for Exclusive Use	35	.4
<u>Sewage Disposal:</u>		
Public Sewers	7,470	94.3
Septic, Cesspool, Other	449	5.7
<u>Source of Water:</u>		
Public System	7,508	94.8
Well, Other	411	5.2
<u>Year-Round Housing Units by Kitchen Facilities</u>		
Complete Kitchen	7876	99.5
Lacking Complete Kitchen	43	.5
<u>Year-Round Housing Units by Heating Facilities</u>		
Steam or Hot Water	1,855	23.4
Central Warm Air	5,274	66.6
Electric Heat Pump	94	1.2
Other Built-in Electric	431	5.4
Floor, Wall, Pipeless Furnace	52	.7
Room Heaters w/Flue	98	1.2
Room Heaters, No Flue	96	1.2
Fireplace, Stove, Portable Room	19	.2
None	0	-
<u>Units Lacking Central Heating:</u>		
1939 or earlier:		
Less than 1.1 persons	37	.5
1.1 or more persons	0	-
1940 - 1980:		
Less than 1.1 persons	153	1.9
1.1 or more persons	7	.1

Sources: 1980 Census

Post 1980 Data from N.J. Dept of Labor

sub-regions delineated in the state. Once the calculations were made for each of the 52 sub-regions, estimates were made for each municipality within each sub-region by using the more limited data available at the municipal level, e.g. plumbing, heating and overcrowding, and related that data to the sub-regional totals.

As shown on Plate 17, the Census indicates the township had the following surrogate measurements of deterioration:

- 35 units lacking complete plumbing
- 37 units lacking central heating that were not overcrowded
- 124 units with more than 1.0 persons per room (see Plate 21)

Through a statistical analysis, COAH eliminated overlapping counts involving the three categories, and further estimated the number of deficient units which were occupied by low or moderate income households, resulting in a total estimated deteriorated unit count occupied by low or moderate income households of 92 units, which is the previously identified base Indigenous Need.

Housing Value: Plate 18 shows housing values for owner and renter occupied units, as reported in the 1980 Census. The median value of owner occupied units was \$70,600 and the median contract rent was \$295 per month. As shown on Plate 18, almost the entire stock of owner-occupied housing fell in the value range of \$50,000 to \$100,000, and only 6% of the housing stock had a value of over \$100,000. Among the rental units, 10% had contract rents above \$400, with 80% of the rental housing stock falling in the range of \$250 to \$400 per month.

Occupancy Characteristics: Plate 19 shows occupancy characteristics. About 5% of the units in the township in 1980 were unoccupied. The mix of owner and renter occupied units in the township was about even. Within the category of sales housing, the vacancy rate was 3.5%, which is well above the optimum range for market flexibility purposes of 1% to 1.5%. In the rental housing stock, the vacancy rate was 5.1%, which is near the optimum range of 4% to 5%. The remaining 68 vacant units in the township were not identified as being either for sale or rent, which means that they were either held for occasional use or may have been sold or rented and were awaiting occupancy.

Of all the units in the township, only about one-fourth were detached single family dwellings. Over 85% of all the housing in the township consisted of units which were three bedrooms or smaller in size.

Units Affordable to Lower Income Households: In order to estimate the number of units which were affordable to lower income households in 1980, an estimate was made of the median income of the region at that time. Plate 20 shows the regional totals for the Mercer/ Burlington/ Camden/ Gloucester Region, with appropriate adjustments made for the removal of Non-Growth and Urban Aid municipalities. The regional estimated median income in 1980 was \$21,167. Based on that median income, the maximum income for a low income household would have been \$10,584, at 50% of median, and moderate income would range up to \$16,934 at 80% of median.

For sales housing, assuming the sale price of a home would be two times the household income to be affordable, homes selling for less than \$21,167 would be affordable to low income households and those selling for \$21,167 to \$33,868 would be affordable to moderate income households.

WEIGHTED MEDIAN HOUSEHOLD INCOME

Mercer/ Burlington/ Camden/ Gloucester Region

	<u># Households*</u>	<u>Median Household Income*</u>	<u>Aggregate Household Income (000)</u>
Mercer County	71,839	\$ 22,918	\$ 1,646,421
Burlington County	92,281	\$ 21,927	\$ 2,023,436
Camden County	125,346	\$ 19,931	\$ 2,498,226
Gloucester County	55,571	\$ 20,428	\$ 1,135,230
Regional Totals	345,037	\$ 21,167 (weighted)	\$ 7,303,313

* After deducting Urban Aid and Non-Growth municipalities.

Source: 1980 Census

For rental housing, assuming the rent level can be 30% of the household income to be affordable, a monthly rent under \$265 would be affordable to low income households while those of moderate income could afford rents ranging from \$265 to \$423 per month.

Relating these sale and rent level calculations to Housing Values on Plate 18, the following units were considered to be affordable in 1980:

<u>Low Income</u>		
Sales housing	24	units
Rental housing	<u>777</u>	units
Total	801	

<u>Moderate Income</u>		
Sales housing	27	units
Rental housing	<u>2,220</u>	units
Total	2,247	

Based on the above calculations, a total of 3,048 housing units were affordable to low and moderate income households in the township in 1980, most of which were rental units. This amounted to 90.6% of the occupied rental housing stock and 1.6% of the owner-occupied noncondominium housing stock. All totaled, the 3,048 units affordable to low and moderate income households represented 38.5% of the township's housing stock.

A specific survey has not been undertaken of the housing stock which is substandard in order to determine whether it is capable of being rehabilitated. However, land use surveys conducted as a part of the regular Master Plan updates indicate that the housing in need of rehabilitation will probably be found in only a few locations within the township. A concentration of deteriorated housing is found off Airport Road near Route 33 and off Milford Road. It is anticipated that most if not all of the identified deteriorated housing units can be rehabilitated rather than requiring removal due to an advanced stage of deterioration.

Projection of the Housing Stock

Plate 17 shows the volume of housing production in the township through 1985. In recent years, there has been a considerable slowing in construction due to limitations in sewage treatment capacity. A sewage treatment plant upgrade has recently been completed which will accommodate some additional development as of the middle of 1992. There are a number of approved developments awaiting construction, but it is anticipated that much of the new construction will be in large lot developments which do not need sanitary sewers.

There is a pending development of 50 units of moderate income housing in the Centex development, which is required as a result of litigation with the township.

Demographic Characteristics

Household Size: Plate 21 shows household size characteristics for 1980. Almost half of the households in the township were one or two persons in size. The median size is 2.60 persons per household. The household size distribution further shows that the larger families of five or six persons account for less than 11% of the households in the township.

Overcrowding is generally related to those situations where the occupancy is greater than one person per room. There were 124 households which had that level of occupancy in 1980, as shown on Plate 21. That represented 1.6% of the occupied housing stock, a somewhat surprisingly low figure considering the fact that so much of the housing stock is

AGE AND HOUSEHOLD SIZE CHARACTERISTICS

Township of East Windsor

<u>AGE</u>	<u>1960</u>		<u>1970</u>		<u>1980</u>	
	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>	<u>Number</u>	<u>%</u>
Under 5	282	12.3	1,719	14.6	1,789	8.5
5 - 14	486	21.1	2,018	17.2	4,165	19.8
15 - 24	287	12.5	1,867	15.9	2,826	13.4
25 - 34	310	13.5	3,151	26.8	4,747	22.6
35 - 44	362	15.8	1,309	11.2	3,568	17.0
45 - 54	266	11.6	850	7.2	1,631	7.8
55 - 64	164	7.1	502	4.3	1,609	5.1
65 and over	141	6.1	320	2.7	1,246	5.9
Total	2,298	100.0	11,736	99.9	21,041	100.1
Median Age	-		25.7		29.0	
Under 18	(est) 825	35.9	4,106	35.0	6,879	32.7
Over 65	141	6.1	320	2.7	1,246	5.9

1980

<u>PERSONS/UNIT</u>	<u># People</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6+</u>
Median = 2.60	<u># Units</u>	1,652	1,972	1,355	1,712	582	243
	<u>% of Units</u>	22.0	26.2	18.0	22.8	7.7	3.2

1980

<u>PERSONS/ROOM</u>	<u># People</u>	<u>1.00 or less</u>	<u>1.01 - 1.50</u>	<u>1.51 or more</u>
	<u># Units</u>	7,392	85	39

Source: 1960, 1970 and 1980 Census

relatively small in size. It would not have been surprising if the small, modestly priced housing in the township had attracted a higher percentage of large families in need of affordable housing, but were unable to find it because of a lack of available larger housing units for their needs. However, this was not the case.

Household Income: Plate 22 shows the household income levels for the township. It indicates that the median household income in 1980 was \$23,378 compared to a regional median of \$21,167.

Within the township, approximately 1,224 households fell in the moderate income category of about \$10,584 to \$16,934. This represented about 16.3% of the total households in the township. Low income households, those falling below \$10,584 in annual income in 1980, accounted for a total of about 1,047 households, or 13.9% of the households.

Age: Plate 21 shows the age group distribution within the township for the last three Census counts. It indicates an increasing elderly population, particularly between 1970 and 1980. As with the state as a whole, the population under 5 represented a much smaller percentage of the total population in 1980 than in 1970.

Employment

Plate 23 shows trends in covered employment within the township, and the published characteristics of the resident labor force within the township. The labor force characteristics are taken from the 1980 Census and reflect a profile of the residents of the township while the covered employment information simply shows the number of jobs which are located within the boundaries of the township regardless of where the employees reside.

Trends in covered employment from 1977 to 1984 show a generally steady increase in employment, with the exception of the recessionary period of 1982-83, which saw successive declines in employment. Based on a linear regression analysis, the number of jobs in the township has increased at the average rate of 305 per year. This average rate of increase in covered employment has been calculated by the Rutgers Center for Urban Policy Research based on adjusted employment counts as shown on Plate 23.

It is expected that the future employment picture in the township will not follow the pattern shown from 1977 to 1984. While there has been an increase in employment through 1991, it was not as significant an increase as was seen over the period 1977-84, averaging only 80 new jobs per year based on linear regression. The constraints on housing growth and nonresidential development can be related to the lack of capacity in the sewage treatment plant during that period of time.

It is expected that the labor force profile in the township in future years will be similar to that which is shown in the 1980 Census.

Fair Share Determination and Capacity Analysis

According to the published fair share figures by COAH, East Windsor has an indigenous need of 92 units which is offset by an anticipated 11 units of spontaneous rehabilitation, yielding a net indigenous need of 81 units.

COAH has adjusted its reallocated present and prospective need numbers based on revised calculations of Growth Area and employment as agreed to by the Rutgers Center for Urban Policy Research in a December 14, 1987 letter from the Center explaining in detail the adjustments made. The adjusted COAH figures for reallocated present need indicate 84 units for the township and the prospective need total is 419 units. These are offset by

secondary supply and demand adjustments of 320 units yielding a total reallocated present and prospective need of 183 units.

Credits are requested for a 110 unit senior citizen housing project built in the township and occupied after 1980. It is called St. James Village and it was financed through the New Jersey Housing and Mortgage Finance Agency and carries with it Section 8 Rental Assistance Payments through HUD. Documentation has been provided to COAH indicating the acceptability of these units under COAH regulations. The Fair Share Plan also includes 50 units of moderate income housing which is committed to by Centex as a part of a Court-approved settlement. A recent development approval on One Mile Road carries with it an obligation to provide 17 units of low and moderate income housing as a part of a development of approximately 84 units. With the St. James Village credit of 110 units, and the anticipated production of 50 units at Centex and 17 units on One Mile Road, the township's remaining share of reallocated present and prospective need is only six units. This has the potential to be satisfied through developer set-asides, as required by the zoning ordinance for higher density developments, by developer contributions, or through the use of a regional contribution agreement.

Consideration of Potential Sites

With most of the township's fair share of new housing addressed through the Centex development and an additional multifamily development on One Mile Road, and with the remainder consisting of rehabilitation, no other sites are needed to satisfy the total fair share. For rehabilitation purposes, it is expected that the deteriorated housing will be found off Airport Road, off Milford Road, along Etra Road, and possibly in the Monmouth Road area.

For the rehabilitation of 81 units, a budget goal would be about \$10,000 per unit in total rehabilitation costs. This would call for the raising of about \$810,000 over a six year period. The rehabilitation program will rely on funding from the Community Development Program and the New Jersey Balanced Housing Program. In the past, funds were committed to the township under the Community Development Program for the purpose of carrying out housing rehabilitation but through reluctance on the part of homeowners to participate in the program, the program was not carried out. Increased efforts have been undertaken to interest qualifying property owners in the program.

The housing rehabilitated under this program will include controls on affordability to assure their continued availability to households of low and moderate income for the terms prescribed by COAH. For the rehabilitation of owner-occupied single family units, the affordability controls will run for six years. Rehabilitated renter-occupied units are subject to affordability controls for ten years. All rehabilitated units will be improved to meet code standards.

TRAFFIC CIRCULATION PLAN

The Traffic Circulation Plan map, Plate 24, provides for three categories of road function, it identifies road improvements based on Chapter 4 of the Traffic Infrastructure Impact Analysis prepared by T&M Associates, and it sets forth a phasing plan which will be described herein, repeating the phasing schedule recommended in the Traffic report.

The Traffic Circulation Plan map no longer specifically assigns a category of road function to the Turnpike since it is outside local jurisdiction, it would not have any widenings procured through the process of development application review, and as a limited access highway it presents no review issues with respect to access points for adjoining development. It is recommended, however, that to the extent the Turnpike Authority

proposes any modifications to the roadway or the interchange, that the township be informed and given the opportunity to evaluate impacts on the local development pattern.

Arterial roads include the proposed Hightstown By-Pass, Route 571 west of Route 130, Route 130 along its entire length, and Route 33 along its entire length. Major changes affecting this system since the 1985 Master Plan include the removal of the overpass bridge which was a part of the Route 130/33 intersection, a widening of Route 130 both north and south of the reconstruction of the intersection of Route 130 and 33 to appropriately accommodate traffic flows, and the determination by the Department of Transportation that Route 92 would be directed toward Turnpike Interchange 8A, and that the earlier recommendation for constructing Route 92 in East Windsor would be replaced by the construction of the Hightstown By-Pass.

With the relocation of Route 92 and the substitution of a by-pass of Hightstown, as shown on the Traffic Circulation Plan, certain important intersection improvements are recommended as a part of this Traffic Circulation Plan. While specific intersection and design improvements are still under consideration by NJDOT, the Master Plan recommends that the size and scale of the By-Pass be carefully evaluated by NJDOT in order to assure that it has sufficient design capacity to fulfill its function, but that it not be designed in such a way that it includes unnecessary grade separations and unduly wide center medians. In addition, design plans should include adequate visual buffers and noise barriers as necessary where the By-Pass abuts existing residential development. It is further recommended that the following features be incorporated within the plans:

1. The westerly terminus with Route 571 should be opposite Windsor Center Drive, the intersection should be signalized and at-grade, with jughandles and acceleration lanes designed to assure a smooth flow of traffic and to encourage use of the By-Pass by eastbound traffic on Route 571.
2. To the extent feasible, the By-Pass improvements should incorporate improvements to the intersection of Routes 571 and 535, which will be further burdened by traffic flows related to the By-Pass.
3. The intersection with One Mile Road is proposed by NJDOT to be grade-separated and to accommodate entering eastbound and exiting westbound traffic. In the interest of modest design, consideration should be given to an at-grade signalized intersection which would provide access from all directions.
4. The interchange with Route 130 should accommodate all turns in a full clover-leaf intersection, and it should be sensitive to turning movements associated with the proposed Town Center Road signalized intersection with Route 130. To the extent feasible, traffic should be physically separated by as much distance as possible from the nearby residential developments.
5. At North Main Street, preliminary NJDOT plans recommend an exit ramp for eastbound traffic from an overpass for southbound traffic destined for Hightstown. This exiting traffic will be in close proximity to the intersection of proposed Town Center Road with North Main Street, and it is recommended that this proposal be given careful scrutiny by NJDOT to ascertain whether this exit ramp is needed, and to assure adequate coordination with the Town Center Road intersection if the ramp is needed. If this North Main Street intersection can be at-grade and signalized, based on anticipated traffic volumes, it is recommended that this be incorporated in the plans with full access from all directions.

6. The only other ingress or egress point to the By-Pass will be at its easterly terminus, and at that location it is recommended that the roadway enter Route 33 opposite an improved Milford Road, with an at-grade signalized intersection allowing for all turning movements. With this improvement, existing and future industrial development lying between Twin Rivers and the Turnpike, south of Route 33, can either proceed directly from Milford Road to the By-Pass, or it can go westerly on Route 33 to the Turnpike. In the absence of this type of improvement, truck and employee traffic associated with nonresidential development in this portion of the township will have to continue to use the intersection of Lake Drive at Route 33, and this would place significant constraints on this intersection, requiring upgrading and redesign. The result of upgrading the capacity of this intersection would be to encourage even more nonresidential traffic to pass by developed residential areas in Twin Rivers.
7. To the extent practical, it is recommended that the By-Pass be constructed at existing ground level and as close to the center of the reserved right-of-way as possible. The center median should be reduced to a minimum, and where residential development exists along only one side of the right-of-way, consideration should be given to shifting the alignment of the roadway to provide as great a physical separation of traffic from residences as is possible without sacrificing effective road design.

Other improvements to the Arterial road system, as shown on the map, include intersection upgrades along Route 130 at the following locations: Cranbury Road, Town Center Road, the Jamesway Shopping Center, Route 571, Dutch Neck Road, and at Maple Stream Road/Airport Road Extension, and at the combined intersection of Conover Road and Hankins Road. The nature of the improvements is either described in the Traffic Infrastructure Study in Chapter 4 or incorporated in development approvals by the Planning Board.

On Route 33, additional intersection improvements are called for at Hickory Corner Road, Airport Road and at a point along Route 33 where Monmouth Street traffic would be redirected to Route 33. It is anticipated that the existing signalized intersection of Monmouth Street with Route 33 would be terminated as a part of the By-Pass improvement program. Since the relocation of this intersection is directly related to the By-Pass, its full cost should be borne by NJDOT.

The remaining identified Arterial is Route 571 west of Route 130, and in addition to the previously referenced intersection upgrades with Route 535, the By-Pass and Route 130, an additional intersection improvement will be needed at One Mile Road. Based on the significant amount of traffic on Route 571, it is recommended that the entire roadway between Route 130 and West Windsor have four travel lanes with paved shoulders.

The Collector street system is shown on the Traffic Circulation Plan map. Many of these roads are under County jurisdiction, and their pavement width and lane configurations will be based on County standards. Those under township jurisdiction would be designed to provide two travel lanes with paved shoulders. For the major collectors, all intersections with other major collectors and arterials should be traffic-light controlled. The right-of-way should be expanded in the vicinity of intersections to provide turning lanes. On major collectors, on-street parking should be prohibited unless the pavement width exceeds 44 feet. Because of the high traffic volumes anticipated along the major collectors, bikeways should not be included within the paved width of the street unless parking is prohibited. In those areas where on-street parking is allowed along major collectors, bikeway locations

should be separated from automobile traffic. Wherever possible, site development along major collectors should have controlled access points.

Hankins Road is shown as a collector because of its importance in serving as an access to Route 130 for the adjoining residential neighborhood. Mercer County has shown a proposed secondary arterial in this area as an extension of Village Road in West Windsor. This plan does not support an arterial designation for Hankins Road based on the presence of numerous single family homes along the frontage near Route 130, based further on the improvements which would be needed with increased traffic flows to the intersections of both Hankins Road and Conover Road at Route 130, and based further on the costs which would be associated with crossing the Bear Brook stream corridor to connect Village Road with Hankins Road. If this regional road function is to be accommodated, it is recommended that an alignment in Washington Township south of the Bear Brook stream corridor be considered, which would intersect with Route 130 a sufficient distance south of the Hankins Road intersection to assure that NJDOT would retain the traffic signal at Hankins Road and allow for the upgrading and coordination of the signalized intersection with Conover Road. Without a fully accessible Hankins Road/ Conover Road signalized intersection, the southwesterly part of the township would be required to rely on the Hickory Corner Road intersection, seriously limiting regional accessibility.

Minor collectors should also provide for the free flow of two moving lanes of traffic and two paved shoulders. Because of lower traffic volumes, bikeways could be shown on the pavement, but care should be exercised in those areas where on-street parking makes bicycle movement hazardous.

Pavement widths for county and state roads will be determined by those jurisdictions. For township roads, collectors should have a minimum right-of-way of 60 feet, expanding to 66 feet or wider if needed to accommodate major collectors with integrated bicycle paths. Pavement widths for collectors should be a minimum of 36 feet. Local streets should have a minimum paved width of 30 feet within a right-of-way of 50 feet. In more densely developed single family subdivisions, consideration could be given to requiring a pavement width of 34 feet to more adequately accommodate on-street parking.

The proposed traffic improvement phasing sequence is set forth on Plate 25. It follows the phasing sequence set forth in Chapter 5 of the Traffic Infrastructure Study. The following sections describe the improvements incorporated within each phase. For the purposes of this Master Plan, the phasing is to be considered sequential and does not necessarily reflect the calendar years suggested in the Traffic Infrastructure Study. As with other aspects of Chapter 5 of the Traffic Infrastructure Study, including capital costs, years of construction, and specific cost-sharing scenarios, they are not incorporated in this Traffic Circulation Plan element of the Master Plan but are considered to be a basis for the implementation phase of the Traffic Infrastructure Study.

1. **Phase 1:**
 - a. Intersection of Route 130 and Route 571
 - b. Intersection of Route 130 and Dutch Neck Road
 - c. Upgrading of Milford Road from Twin Rivers Drive to Route 33
 - d. Extension of One Mile Road from Dutch Neck Road to Maple Stream Road
 - e. Intersection of Dutch Neck Road and One Mile Road
2. **Phase 2:**
 - a. Hightstown By-Pass and all its related intersection improvements
 - b. Intersection of Route 571 and 535

the stream corridor. Passive open space which is not accessible to the public should also be encouraged, particularly where stream corridor protection can be provided in areas where public access would be invasive to the use and enjoyment of nearby residential properties. This Plan should not be construed to encourage public access throughout the entire open space or greenway system, but only that it be considered and permitted where appropriate. The overriding concern is to provide for the protection and preservation of desirable natural features which are not only important visually but are protective of wildlife habitat as well.

On the following pages are Plates 30 and 32 through 34, which are summary tables providing an inventory and needs assessment for recreation and open space, organized by Census Tract. It shows that for the township as a whole, there is a sufficient supply of open space. However, when viewed at a neighborhood scale, additional active recreation facilities should be provided in the southwesterly part of the township (Hickory Acres), in the One Mile Road corridor north of Route 571, and in the Old Cranbury Road area.

In the southwesterly part of the township, a need exists for about 40 more acres of land in addition to the improvement of Hickory Acres Park as a small recreation facility. Athletic fields should be provided as a part of this additional acreage. Consideration can be given to using land owned by McGraw-Hill in the vicinity of the Police Department. This could be secured either through direct acquisition or, in the alternative, consideration could be given to the dedication, by easement, of an area which would be devoted to public recreation without the loss of development potential at the site, allowing for the full expansion and growth of the McGraw-Hill facility. If this is not feasible, then land could be secured from the remaining large tracts in that area. Up to 20 percent of the land in each of the remaining large tracts could be dedicated to recreation use under a clustering plan. In this way, the township could secure the land without a cash outlay, and the facilities would be located conveniently to serve the needs of neighborhood residents without having to cross either Route 571 or Route 130.

Residents in the vicinity of One Mile Road north of Route 571 should have facilities provided as a part of the development of each parcel. In addition, lower intensity recreation facilities could be provided along the flood plains of Rocky Brook and the Millstone River.

In the Old Cranbury Road area there is a need for perhaps three acres of recreation space to serve the needs of existing residents. This could be secured through dedication as a part of private development of some remaining vacant parcels in that area. This would be in addition to any open space provided as a part of a linear park system along the Millstone River.

Improvement of the township-owned land known as Turnpike Park, located between Woods Road and Old York Road west of the Turnpike should be deferred until a determination can be made of the most appropriate use of this land. Sufficient land exists at the high school and in the adjoining township park along Airport Road to service the needs of existing and future residents of this area of the township. Consideration could be given to a local par three golf course, or if additional land can be secured from the agricultural preserve, which may not prove to be particularly well-suited to agriculture, perhaps a championship golf course could be provided. Proposals for this type of facility require a long lead time and a determination of the need for such facilities. The county has recently developed and opened a new county golf course in West Windsor, and it is probably premature to consider the need for additional county golf facilities in this area until some experience can be gained on the interest shown in that new county facility.

TOWNSHIP TOTAL
Township of East Windsor

Recreation and Open Space Inventory & Needs Assessment
October 1993

Total Land Area	<u>10,016</u>	acres
1990 Population	<u>22,353</u>	

<u>Recreation and Open Space Requirements</u>		<u>Acres</u>
a.	3% of Land Area	301
b.	10 acres/1,000 population	223

<u>Recreation and Open Space Inventory</u>		<u>Acres</u>
a.	Tract 44.01	46.2
b.	Tract 44.04	173.3
c.	Tract 44.05	144.9
Total		364.4

Needs Assessment:

Overall, the township is providing a sufficiency of recreation and open space. However, there are some localized needs which should be addressed, as set forth in the Needs Assessment for Census Tract 44.01 located west of Route 130.

Prepared by: Queale & Lynch, Inc.

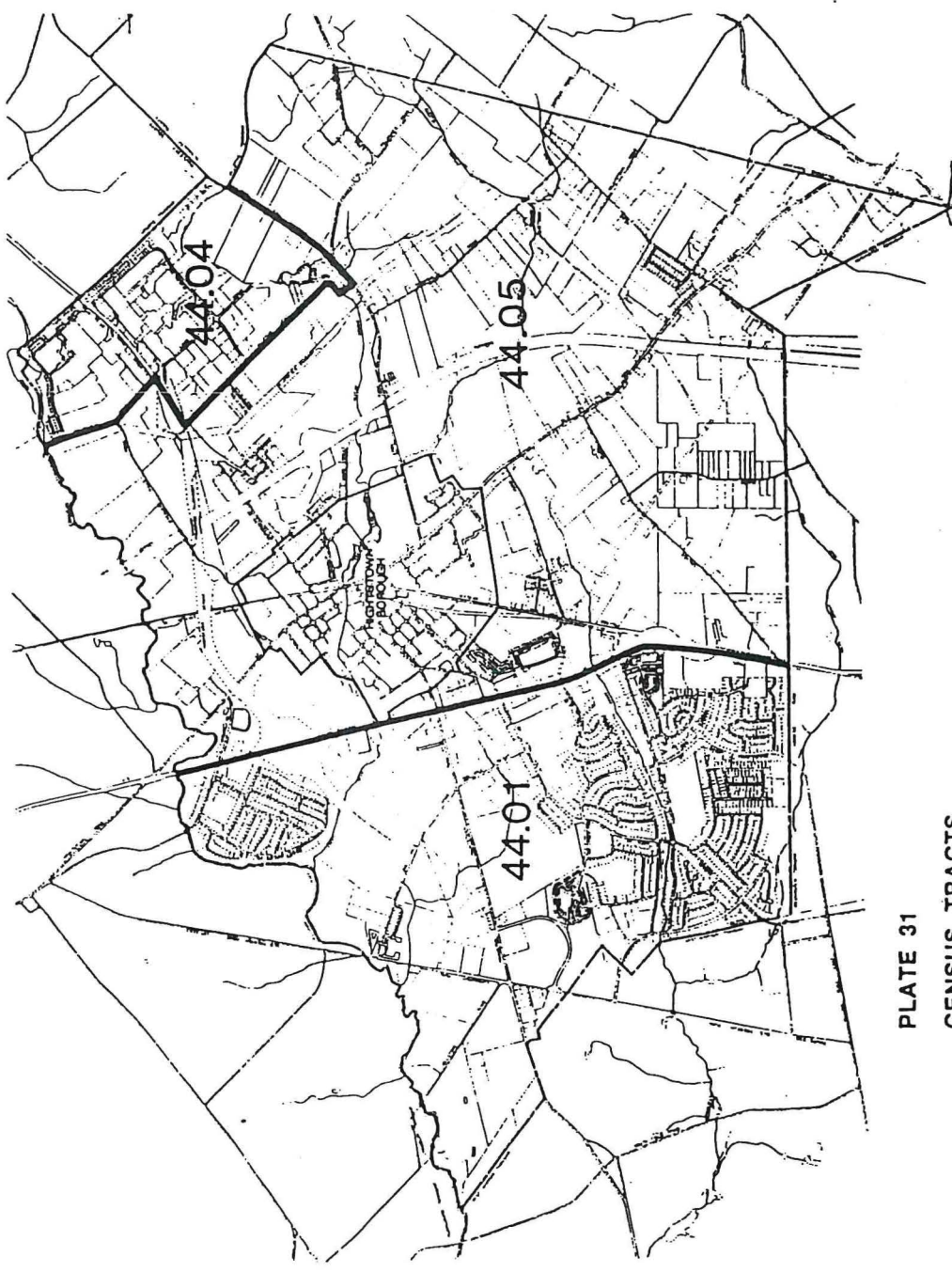


PLATE 31
CENSUS TRACTS

**EAST
WINDSOR
TOWNSHIP**



NEW MAP BY BERGMAN HUTTON ASSOC.

2000 U.S. CENSUS

SOURCE: 1990 U.S. CENSUS

TRACT 44.01
Township of East Windsor

Recreation and Open Space Inventory & Needs Assessment
October 1993

Total Land Area 3.158 acres
 1990 Population 10,981

<u>Recreation and Open Space Requirements</u>		<u>Acres</u>
a.	3% of Land Area	95
b.	10 acres/1,000 population	110

<u>Recreation and Open Space Inventory</u>		<u>Acres</u>
a.	Veterans Park	9.3
b.	Anker Park	12.3
c.	Wiltshire Park	4.0
d.	Hickory Acres	8.8
e.	Kreps School x 50%	11.8
Total		46.2

Needs Assessment:

Some additional recreation and open space land will become available as a part of the development of housing along Rocky Brook. Additional recreation space should be provided in the vicinity of One Mile Road north of Route 571, and in the Hickory Acres area there is an additional shortfall. In the vicinity of Old Cranbury Road, there is a need for additional recreation land.

Prepared by: Queale & Lynch, Inc.

Plate 33

TRACT 44.04

Township of East Windsor

Recreation and Open Space Inventory & Needs Assessment
October 1993

Total Land Area 821 acres
1990 Population 7,715

<u>Recreation and Open Space Requirements</u>		<u>Acres</u>
a.	3% of Land Area	25
b.	10 acres/1,000 population	77

<u>Recreation and Open Space Inventory</u>		<u>Acres</u>
a.	Etra Park	147.6
b.	McKnight School x 50%	7.5
c.	Drew School x 50%	11.0
d.	Milford Road EWT site	7.2
Total		173.3

Needs Assessment:

The Twin Rivers Homeowners Association provides some recreation land for use of Twin Rivers residents, offsetting any additional needs. Etra Park should not be considered to be a local facility serving only the Twin Rivers neighborhood, but a township-wide facility serving all the residents.

Prepared by: Queale & Lynch, Inc.

Plate 34

TRACT 44.05

Township of East Windsor

Recreation and Open Space Inventory & Needs Assessment
October 1993

Total Land Area 6.037 acres
1990 Population 3.639

<u>Recreation and Open Space Requirements</u>		<u>Acres</u>
a.	3% of Land Area	181
b.	10 acres/1,000 population	36

<u>Recreation and Open Space Inventory</u>		<u>Acres</u>
a.	Westfield Road Park	2.1
b.	Airport Road	28.4
c.	Turnpike Park	79.0
d.	Mach Memorial Park	7.4
e.	High School x 50%	28.0
Total		144.9

Needs Assessment:

This low density portion of the township should have more consideration given to the population-based ratio than that which is based on land area, and using that ratio there is a sufficiency of recreation and open space. As new residential development occurs, land should be set aside in environmentally sensitive areas for conservation and open space, and in buildable areas, active recreation should be provided.

Prepared by: Queale & Lynch, Inc.

The Conservation and Recreation Plan incorporates open space recommendations which provide for an overall greenway system made up primarily of stream corridors, wetlands and upland woodlands, as described in the following section. Interconnections should be provided between these natural features through the use of existing hedgerows, or through the creation of vegetated open space connectors as a part of the review of development applications. The locations shown on the map of these greenways should be considered to be functional rather than specific alignments since the data which serve as the basis for the natural feature delineations are not fully confirmed in the field. As development takes place, steps should be taken to clearly delineate wetlands, flood plains and woodlands, and to identify those areas which should become part of the contiguous greenway system considering not only the features of the site under review, but the characteristics of nearby areas and the need for interconnections to assure a continuous greenway system.

To the extent feasible, all existing upland and wetland woodlands, including isolated hedgerows, should be preserved because of their role in providing habitat for wildlife and because of the aesthetic and other benefits associated with established woodlands. In addition, consideration should be given in the review of development applications to the treatment of retention and detention basins. Plant materials should be considered which would not only lessen maintenance requirements, but which would allow the basins to function as a part of the greenway system, where appropriate.

Greenways Plan

The East Windsor Master Plan has included the general concept of a greenway system since at least 1985. Implementation of this plan has now become possible through the preparation of a set of environmental maps indicating wetlands, flood-prone areas, depth to seasonally high water table, woodlands, topography, and other features. This report has been based on the recommendations of the Environmental Commission, and the map which is adopted as a part of this Plan is based on a map prepared by the Commission.

Definition and Rationale: Greenways are tracts of undeveloped land that run through developed areas. They serve as a way of protecting wetlands, forests, historic areas, and other natural assets of a town. Preservation of open space also brings economic benefits. It has been found that undeveloped land increases the value of adjacent properties up to 30%. Studies have also found that certain types of development very often cost more in services than they produce in tax revenues. This is especially true of residential development but can be true of industrial properties as well. Development requires roads, schools, sewers, police, fire fighting, and other services that must be paid for through tax revenues. Open space as a part of a balanced community is to be encouraged. It generally requires no services, although certain types of open space may require periodic maintenance.

A system of greenways adds to the quality of life in a town by preserving a mosaic of natural color and pattern as visual relief from buildings and pavement. Increased open space will make our community more appealing both to potential residents and to business.

Greenways protect streams and floodplains by preserving natural vegetation. Vegetation and leaf litter along stream banks help prevent flooding by holding back rain water runoff and giving it time to soak into the soil. Undeveloped flood plains act as natural retention basins that store flood water. These processes replenish ground water and filter out pollutants from roads, parking lots, and agricultural land. The roots of trees, shrubs, and other plants along stream banks hold soil in place, preventing erosion. Trees and other plants also act as a natural purifying system by taking up carbon dioxide and other pollutants. Wooded areas also act as wind breaks and noise barriers. The multiple layers

of leaves in woodlands take up much more carbon dioxide (a greenhouse gas) than do mowed areas.

Greenways provide food, shelter, nesting sites, and natural corridors for birds and other animals. The fruits of many native shrubs that grow in wetlands and along streams are important sources of food for birds such as American robins, mockingbirds and thrushes. The seeds of grasses, asters, goldenrods and other "weeds" are vital to the survival of small birds such as chickadees and juncos, that overwinter in our area. Most species of native plants are lost when vegetation is mowed or removed, and birds and other wildlife that depend upon these plants for food and shelter then also disappear.

East Windsor has very little wooded land left, and most of that is wetland. Wooded areas provide habitats for birds that do not live in open areas. Two native birds with especially beautiful songs, wood thrushes and hermit thrushes, live only in woodlands. Some of our most beautiful native plants grow only in undisturbed woodlands. These plants include American beech trees, mountain laurel, two species of azaleas, winterberry holly, a magnolia, lady slipper orchids, princess pine, and many others. The plant communities of upland woods differ from those found in wetland woods and include many uncommon plants native to New Jersey that are rapidly disappearing under pressures of development. Approximately 215 acres of upland woodland remains in East Windsor (only about 2% of the Township's land). The largest area is roughly 73 acres lying between the New Jersey Turnpike and Cedarville Road, but it is bisected by a stream corridor and wooded wetlands. The second largest area is roughly 42 acres of mature woods lying between Princeton-Hightstown Road and One Mile Road. It is currently slated to be significantly reduced in size by the Hightstown Bypass. To the extent feasible and within the context of the important Bypass, these woodlands should be preserved as part of a greenway system.

It is very important to maintain the integrity of woodlands to minimize edge habitats. Many species adapted to forest interiors cannot compete with birds and plants that live in more open, sunny habitats along the borders. A large number of plants along the edges of woodlands are weedy, invasive, nonnative species such as ailanthus, white mulberry, Norway maple trees, Japanese honeysuckle, multiflora rose, and others that crowd out and displace native plants. Non-native birds such as European starlings that live along the edges of woodlands outcompete interior woodland species for nesting sites in dead trees. Destruction of woodland breeding habitats is one of the greatest threats to our native song birds such as wood thrushes.

Projected Use and Access: In planning for the East Windsor Greenways System, consideration has been given to the West Windsor Greenbelt. The Greenway is meant to preserve stream corridors, floodplains, wetlands and woodlands. Parts of it that include land owned by the Township, including Mach, Turnpike, Anker, parts of Etra and wooded parts of the Airport Road Parks, will be used for passive recreational activities such as walking or bird watching. Areas not owned by the Township will not be open to public access except where specifically agreed to by the owner(s). It is hoped that some land may be donated to the Township as part of the system. Donated land should be open to the public for passive recreational activities.

Implementation: The Greenway map designates the land to be reserved for the Greenway and as such it is incorporated into the East Windsor Township Master Plan. Upon adoption of the Master Plan, the Land Use Ordinances of the Township should be changed to reflect the presence of the Greenway. The requirements would include a provision that all site plans show designated Greenway areas and that boundary markers be put in place. A buffer zone of open space is desirable between developed areas and the Greenway boundary. Developers would leave the designated Greenway areas vacant in the

site design and would concentrate development outside those areas. As a part of the development approval process, the Planning Board would be in a position to reconfirm the boundaries of wetlands, woodlands, and other features which should be integrated into the Greenway, and to secure conservation easements or donations of land to the Township. In those situations where the impact of preserving a Greenway reduces development potential, and full development cannot be accommodated through clustering or some form of relief from bulk provisions of the ordinance, then the Township has one year to obtain a conservation easement or donation of land by the developer, or to purchase the land (N.J.S.A. 40:55D-44).

When land is developed, boundaries of the Greenway should be marked along the borders of wetlands, wooded areas, and 200 feet on either side of stream corridors. Portions of unwooded land should be included and allowed to naturalize where this land connects to other parts of the Greenway. This naturalization provision would not apply to land under cultivation unless an agreement is negotiated with the property owner.

Where streams run through currently developed areas, or where houses were built on wetlands (e.g. Bear Brook and Woods Road) it will be necessary to negotiate easement boundaries with each owner. Conservation easements should be sought from the owners in return for nominal taxation of deed restricted land. Owners may also be able to take a charitable deduction on their federal income tax. Legal fees could be kept to a minimum by using a generic form of easement. Deed restrictions can be used where the Greenway will run through individual lots in a development, although it may be preferable to arrange lots so that they do not include Greenway land.

Oversight: It will necessary to monitor property that has become part of the Greenway. When a conservation easement is negotiated, the property owner must agree, in writing, that the property in question cannot be built on, filled, dumped on, mowed or have vegetation removed. The owner must agree to periodic inspections (usually yearly) to see that no violations of the agreement have occurred. Documentation of the state of the property at the time that the easement is granted will be necessary. This should include photographs wherever possible. The Environmental Commission or the Township of East Windsor may hold the easements and carry out inspection. Alternatively, easements on large parcels of land may be held by an outside agency such as Delaware & Raritan Greenway or the Stonybrook-Millstone Watershed Association. Such an alternative arrangement will guarantee continued protection of easements if the Environmental Commission is unable to carry out yearly inspections or is disbanded. However, outside organizations would not be able to hold and monitor easements on small, individual lots. Enforcement of violations, such as dumping, on large easements can be prosecuted if the offender is found. Where the offender cannot be found, the Township would need to correct the violation by cleaning up the site. Some of the oversight and care for Greenway sites may also be carried out by "Adopt-a-Spot" groups. In some areas, homeowners associations may be able to carry some responsibility for monitoring parts of the Greenway. Where easements are on individual lots, it is essential to maintain open communications and good relationships with land owners. The restrictions imposed upon easement holders are covered by N.J.S.A. 13:8B-1 et seq. Easements and State Law Conservation and Historic Preservation Restriction Act. Some arrangement may be made by the Environmental Commission for planting trees or removal of aggressive alien species such as multiflora rose, or ailanthus where it is felt to be necessary.

Boundaries of the Greenway should be marked with permanent, clearly visible markers. Consideration could be given to using six foot concrete posts that project 30 inches above ground and are set at every change in the metes and bounds along the Greenway. Boundaries can be set and markers put in place at the time that a conservation easement or

land dedication is negotiated. Boundary markers are paid for by the developer of a property. Smaller markers may be necessary for easements on small, previously developed, individual lots.

HISTORIC PRESERVATION PLAN ELEMENT

In 1990, the East Windsor Township Council adopted an ordinance (1990-6) establishing an Historic Preservation Commission (hereafter the Commission), authorizing the Planning Board to identify historic properties as municipal landmarks after nomination by the Commission, and calling for the inclusion of an historic preservation plan element in the Township Master Plan. This action was taken to officially recognize that preservation and continued use of the historic properties in the township is, and in the future will continue to be, an important part of the quality of life in East Windsor, but that existing means were inadequate to prevent their loss. The purpose of the Historic Preservation Plan Element is to ensure that through the identification of historic sites in the Master Plan, and subsequently through amendments to the Land Use Ordinances which designate sites and establish standards for their protection, the historic properties of East Windsor are preserved as a living part of the community for future generations.

Buildings, structures, improvements, sites, objects or districts in East Windsor are considered historic if they have been associated with events or persons significant in township or state history, or if they embody a significant house type or architectural style. These criteria for landmark designation are more fully expressed in the ordinance establishing the Commission. The Commission carefully considers the history of local properties, and only nominates those that meet the criteria.

The Historic Preservation Commission was appointed in August 1990, and has nominated several historic properties for township landmark designation. Other properties will be considered in the future. In 1988, an architectural survey was conducted in East Windsor to compile information about the significance of old and potentially historic properties.

Historical Background

The territory that now comprises the Township of East Windsor was settled during the second and third quarters of the eighteenth century, chiefly by families from previously settled portions of Middlesex and Monmouth Counties. Throughout most of the eighteenth century, this land was the eastern end of what was known as the Township of Windsor. As a result, when the state legislature divided Windsor in 1797, the resulting townships were named East Windsor and West Windsor. The township of today is the remaining portion of the East Windsor of 1797, which was reduced by the incorporation and expansion of the Borough of Hightstown, by the secession of Washington Township in 1860, and by a boundary adjustment when Mercer County was created in 1838.

In the eighteenth century, the land that now comprises East Windsor formed the neighborhood that centered upon the fledgling village of Hightstown, where a Baptist church, stores, taverns, and a gristmill served the farm families of eastern Windsor. During the generation prior to the American Revolution, about forty to seventy farms were settled within the current bounds of the township, a number that probably doubled by the Civil War. The main artery for traffic at that time was the stagecoach highway that is now known as the Old York Road south of Hightstown and as the Old Cranbury Road north of Hightstown. At Hightstown, roads led westward to Princeton (now Route 571, the Princeton-Hightstown Road), and toward Trenton (Dutch Neck Road), while other roads led eastward toward Spotswood (Wyckoff Mills Road) and toward Monmouth County (Etra Road). All of these roads were established before the Revolution.

The village of Etra had its beginnings just before the Revolution, when Etra Lake was formed to be the battery pond for a gristmill in 1773, and Etra Road was established to provide access to the mill. During the late 1780's, a Methodist church and cemetery were established near the gristmill, and during the nineteenth century other houses and shops were built along the road as the village gradually took shape. A post office was added during the 1870's, and an East Windsor municipal building was added in 1915. Throughout most of the century the village was known as Milford, but in the 1890's it was renamed, using the initials of its most prominent resident, Edward T. R. Applegate.

The generation that followed the Revolution was marked in East Windsor by slow growth, and the local population actually showed a small decline between 1810 and 1820. But the township was incorporated in 1797, and several new roads were added, including Cedarville and Windsor-Perrineville Roads, Old Trenton Road, Conover Road, and Mercer Street (Route 33) leading into Hightstown. The latter became the route of the Bordentown & South Amboy Turnpike in 1816, which rejuvenated the stagecoach business through East Windsor and Hightstown. One-room schoolhouses became a commonplace sight after the Revolution, and East Windsor gradually evolved a system in which schools were located at Hickory Corner (now Hickory Corner Road at Dutch Neck Road), Locust Corner (where Route 571 and Old Trenton Road intersect), Windsor-Perrineville Road, and Cedarville Road.

Renewed prosperity, however, awaited the arrival of the railroad in the 1830's, which brought new opportunities to local farmers and landowners. Peaches and other fruits could be grown on a scale not hitherto possible, and several local farmers soon began to specialize in fruit crops. Isaac Pullen began his commercial nursery along the Old York Road to supply fruit trees to these farmers. The first commercial brickmaking operation also began, exploiting local clays as raw material, and using the railroad to ship the finished product. The new opportunities brought a wave of new construction to the township, which transformed East Windsor's housing stock. Many houses were built, and nearly all of the existing eighteenth-century homes were enlarged or remodeled. Monmouth Street (Route 33) was constructed as a turnpike to Freehold in the 1850's. The Pemberton & Hightstown Railroad completed its track and began operations in 1868.

Temporary economic downturns aside, prosperity lasted probably until the 1870's, when farming in East Windsor reached its peak. Thereafter, few new farms were established, and consolidation of existing farms accelerated. Village Nurseries on Old York Road reached its peak of operations and acreage during this period. Few new houses were built in the township for well over a generation. When local families wanted to build a new house, they usually built in Hightstown during this period, leaving the farmhouse behind. Here and there a new house was built to replace existing farmhouses, though barns and other farm outbuildings probably increased. The township population held fairly steady during this period at less than a thousand people, though it declined in 1915 when Hightstown Borough annexed a half-square mile of adjoining township land.

The early twentieth century was also a period when several immigrant families from eastern Europe bought some of the farms in the township. The Conovers and Deckers Dairies were founded, and the one-room schoolhouses were closed when the township schools consolidated with Hightstown. The Old Bordentown & South Amboy Turnpike Company right-of-way through the township became a new model highway in 1920 (briefly designated State Highway #1) when the construction of the state highway system began.

Route 130 was constructed through East Windsor as a Depression-era public works project. Designated as an artery to lure through traffic away from congested downtown areas, it became the first route across the township that did not also pass through

Hightstown. The portion of the highway nearest Hightstown became a commercial strip after the Second World War.

The modern era of suburbanization was ushered in by the New Jersey Turnpike, which was completed about 1951, and opened Exit 8 in the township along Route 33 east of Hightstown. Early economic development campaigns that urged companies to "Locate at 8" eventually resulted in extensive residential, commercial, and light industrial development in the township, which have transformed the township, ending farming as the primary economic activity, and creating the face of the township as it appears today.

Architecture and Landmarks of East Windsor Township

The architecture and buildings of East Windsor Township reflect its history. A few 18th-century houses still survive to recall the first and second generations of local life here. Although additional 18th century houses may be identified in the future, at least three are known: the John Chamberlin house at 112 Whitcomb Road, the John Ely (or Ely-Norton) house at 75 Imlaystown Road, and the Adam Shaw house on Cedarville Road. All three of these houses reflect the house design and preferences that prevailed in Middlesex and Monmouth Counties, where the families that settled East Windsor came from. Unfortunately, no barns and almost no other outbuildings have survived from this early period.

Several houses were built during the Federal era, from approximately the 1780's until about 1830. Few new houses were built in the township during this period of slow growth, but among those that were constructed are the Rescarrick Moore house at 440 Hightstown-Princeton Road and the Abijah Applegate house at 333 Etra Road. The earliest brick house in the township, at 108 One Mile Road, is another of these houses. They were as large or larger than the earlier houses of the township. and they were designed with a desire for symmetry across the front and a more delicate sense of detail.

The largest number of houses that survive from a single period before World War I are those from the middle of the nineteenth century, the houses that were built or remodeled during the early railroad era which began in East Windsor in 1831. These houses include those at 550 Etra Road and 173 Old Cranbury Road, among many others. Typically, the houses of this era adopted features of the prevailing Greek Revival style, which remained popular in East Windsor from the 1830's until the 1850's. Together they express how the citizenry of East Windsor lived when the township was at its peak as a farming region.

The relative decline in wealth in East Windsor during the fourth quarter of the nineteenth century and the first quarter of the twentieth can be seen most dramatically in its buildings. While some houses in the Italianate style were built, including the Cotteral house at 441 Dutch Neck Road, after about 1880 few new houses at all were built in the township. The architectural styles that were in favor elsewhere are almost completely unrepresented in East Windsor. Only in the 1920's and 1930's, with the era of the bungalow, did house construction increase, and bungalows remained the popular form for new houses until the suburbanization movement began after World War II.

Nominated Properties

The following properties have been officially nominated by the Commission and have been forwarded to the Planning Board for identification in the Master Plan:

<u>Nomination</u>	<u>Address</u>	<u>Block</u>	<u>Lot</u>
A	108 One Mile Road (Ely-Mount House)	6	5
B	440 Princeton-Hightstown Road (Rescarrick Moore House)	1	5
C	428 Edinburg Road (Ayres-Wilson House)	2	3.01
D	356 Etra Road (EWT Municipal Hall of 1915)	31	5
E	129 Cedarville Road (William & Anne Hutchinson Burial Ground)	31	23
F	107 Old Cranbury Road (Anderson-Holland House)	9	1
G	150 One Mile Road (Windsor Hollow Prehistoric Site & Windsor Mill Prehistoric Site)	6	1
H	333 Etra Road (Abijah Applegate House)	22	8

Surveyed Properties

The following properties were identified in the East Windsor section of the Mercer County Architectural Survey, conducted in 1988 by the Mercer County Cultural & Heritage Commission, and the map numbers correspond with the site identifications set forth in the Survey. The resulting list is printed below because it includes those properties most likely to be considered by the Commission for future nomination. Please note that the missing numbers in the list reflect properties which have been nominated by the Commission and are shown in the preceding Nominated Properties section.

<u>Map #</u>	<u>Address</u>	<u>Block</u>	<u>Lot</u>
1	168 Airport Road	49	5
3	60 Cedarville Road	30	16.01
4	80 Cedarville Road	30	16
5	99 Cedarville Road	31	24
6	160 Cedarville Road	30	20
7	170 Cedarville Road	30	20
8	180 Cedarville Road	30	21
9	181 Cedarville Road	31	22
10	185 Cedarville Road	31	22
11	138 Conover Road	46	11
12	159 Conover Road	50	10
13	240 Conover Road	46	19.01
14	257 Conover Road	47	11.01
15	317 Conover Road	47	8.04
16	43 Disbrow Hill Road	21	3
17	4 Drew Lane	66	6
18	261 Dutch Neck Road	58	10
19	345 Dutch Neck Road	58	7
20	441 Dutch Neck Road	60	8
21	140 Edinburg Road	4	2
22	416 Edinburg Road	2	4
24	Etra Historic District (see map and separate listing)		
26	550 Etra Road	31	17
27	50 Feldsher Road	33	2
28	201 Hickory Corner Road	68.02	82

29	39 Imlaystown Road	34	1
30	50 Imlaystown Road	35	5.04
31	75 Imlaystown Road	35	5.01
32	608 Route 33 West	53.03	101
33	614 Route 33 West	53.03	99
34	619 Route 33 West	48	21
35	620 Route 33 West	53.03	96
36	405 Morrison Avenue	54	5
38	173 Old Cranbury Road	7.01	32.01
39	638 Old York Road	48	3
40	656 Old York Road	48	10
41	664 Old York Road	48	12
42	678 Old York Road	47	1.01
43	706 Old York Road	47	6.01
44	740 Old York Road	47	7.01
45	780 Old York Road	47	8.01, 8.02
46	785 Old York Road	29	7
47	790 Old York Road	45	1
48	818 Old York Road	45	5
49	823 Old York Road	29	15
50	866 Old York Road	45	6.03
51	873 Old York Road	29	16.01
52	919 Old York Road	36	19
53	950 Old York Road	43	3
54	1056 Old York Road	42	8
55	1121 Old York Road	41	2
56	1156 Old York Road	42	10.01
57	1400 Old York Road	42	17
60	260 Ward Street	28	2.01
61	112 Whitcomb Road	35	2.01
62	282 Wilson Lane	9.01	8
63	513 Windsor-Perrineville Road	44	7
64	539 Windsor-Perrineville Road	44	6
65	639 Windsor-Perrineville Road	43	6.01
66	676 Windsor-Perrineville Road	42	2.03
67	790 Windsor-Perrineville Road	35	3
68	875 Windsor-Perrineville Road	30	30
69	923 Windsor-Perrineville Road	31	20
70	54 Woods Road	46	20.01
71	74 Woods Road	46	23.01
72	1 Hidden Springs Lane	21	8.02

Note: This list is not complete and may be supplemented by future amendments.

Eligible Historic District Resources in the Etra Historic District*

<u>Address</u>	<u>Block</u>	<u>Lot</u>
260 Milford Road	22	1
379 Etra Road	22	2
377 Etra Road	22	2
371 Etra Road	22	2
369 Etra Road	22	2
359 Etra Road	22	3
349 Etra Road	22	5
347 Etra Road	22	5
345 Etra Road	22	6
341 Etra Road	22	7
334 Etra Road	30	12.01
342 Etra Road	30	13
346 Etra Road	31	1
350 Etra road	31	2,3
354 Etra Road	31	4
362 Etra road	31	8
374 Etra Road	31	10
382 Etra Road	31	9
400 Etra Road	31	11
426 Etra Road	31	13
434 Etra Road	31	14
433 Etra Road	32	1
353 Etra Road	22	4
385 Etra Road	20.06	1
9 Disbrow Hill Road	21	1

* - This list is not complete.

Goals and Objectives

The following goals and objectives outline the major undertakings that the Commission has determined are needed to place historic preservation in East Windsor on a sound footing. Achievement of the following objectives, which address needed changes in planning and zoning, will permit landmarks in the Township to keep the qualities that make them historic, will improve the character of new construction, and will help to preserve open space.

- A. Identify and nominate historic properties for municipal Historic Landmark designation. Historic properties are identified through research and visual inspection and it is the role of the Commission to carry out such activities, to encourage others to do so, and to use the results to find properties that meet the criteria for landmark designation.
- B. Utilization of sites. To ensure that landmark properties are used for purposes that are suited to their preservation, the Commission will evaluate current laws and ordinances to suggest appropriate uses of landmark properties.
- C. Protect landmarks and preserve their physical fabric and their settings. This objective includes preserving the physical and esthetic qualities that make landmarks eligible for designation. Such protection includes maintaining the "public view" of landmarks with respect to sight lines and the preservation of natural and man-made features significant to the specific site or structure.

- D. Coordinate the appropriate use of township-owned landmarks. The Commission will review the current uses of township-owned landmarks and suggest appropriate alternative uses.
- E. Promote public awareness of the importance of historic preservation in East Windsor. The Commission will continue its efforts to instill in Township residents a clear understanding of preservation and its impact on the community, as well as the effect of public and private actions on the ability of the township to effectively preserve landmark properties.

Zoning for Preservation

Zoning amendments are needed in East Windsor if historic preservation is to be effective. Upon initial review of current zoning law, the Commission has identified several conflicts which require resolution, and it will be submitting specific recommendations for consideration by the Planning Board and Township Council.

The conversion of existing buildings to new uses will probably be necessary to preserve some township landmarks. A frequent problem in this context is parking requirements with their associated access drives and cartways.

Uses of Historic Properties

Because zoning strongly influences property values, the permitted uses of historic properties must be carefully evaluated for their suitability. One of the most widely acknowledged principles of historic preservation is that landmarks are best preserved when they are accorded a suitable use. Usually, but not always, the most suitable use is the one for which the building or property was originally designed. Most of the properties likely to be designated in the future as township landmarks are houses. The most suitable use of such a property would most likely be a residential use. However, outbuildings that served a commercial purpose, such as barns that were used in farming, may require a different use in order to ensure their preservation. Zoning with respect to historic properties should be flexible enough to respond to such situations.

Conflicts Between Zoning of Historic and Adjacent Properties

Historic properties can easily be harmed if unsuitable zoning inflates the land value to the point that suitable uses of the property cannot support the property value created by the zoning. This can happen if the intensity of the permitted uses, the allowable bulk, and the side yard and setback rules are not comparable to the existing buildings. In such cases, a strong incentive to neglect or demolish historic buildings is created, and a corresponding disincentive occurs to discourage their rehabilitation.

Historic Overlay Zoning

1. Proximity of new structures to designated sites or within site boundaries. As a relative term proximity can be modified by the context and relationships of existing historic patterns. Current zoning laws do not take into consideration the pattern of higher densities in village or urban frameworks which are based on "non-conforming" but historic, lot sizes. Also, proximity is relative when confronted with "view sheds" required for farmhouses which are affected directly by setbacks and frontages.
2. Densities based on open space or village planning are affected by but not limited to: lot sizes, setbacks, cartways and speed limits, building heights, sidewalks, on street and off street parking, buffers and infill.

Districts of Special Concern

Historic properties are found throughout the township, but some areas are of special concern. These areas include, but are not necessarily limited to, the following:

1. The village of Etra, which includes Etra Lake and extends along Etra Road from west of Cedarville Road to southeast of Disbrow Hill Road, was an eighteenth-century millseat that grew into a nineteenth-century village. It is characterized by two-story frame houses on small lots, set closely to both sides of Etra Road. The village character of Etra should be maintained, both throughout the maintenance and rehabilitation of existing old buildings and the addition, where needed, of sympathetic new houses that are of similar design, construction, and setting. Long-term challenges will be to ensure adequate infrastructure, prevent deterioration or loss of existing buildings, and to develop solutions to potential traffic problems.
2. Old York Road from north of Airport Road to the New Jersey Turnpike bridge. This district originated at the end of the eighteenth century in an abortive attempt to create a hamlet called "New Hightstown." For the past 140 years it has been characterized by the presence of Village Nurseries, an important local business and a Century Farm. Several houses, nearly all of which predate World War II (some are more than a century old) form a distinctive residential cluster that deserves sensitive treatment. Long-term challenges will be to keep new development that may occur on adjacent open lands visually inconspicuous and distinct from this Old York Road streetscape. Another challenge will keep traffic from becoming excessive on Old York Road if the southern end of East Windsor, the eastern end of Washington, and the western end of Upper Freehold Township develop more intensively.
3. Archaeologically-sensitive areas of the township. The Commission evaluates archaeological landmarks for their potential to yield important findings for history or prehistory. The Commission will inform the Planning Board and the Board of Adjustment of proposed construction that threatens archaeological properties so that they may be preserved.

Conservation of Traditional Alignments of Historic Roads

Several of the principal roads in East Windsor are historic highways that originated in the seventeenth or eighteenth centuries. Their traditional alignments are important to historians as evidence of the physical and cultural development of this region and should be preserved where possible. Transportation history is embodied, for example, in the divergence of Old Cranbury Road (18th-Century stagecoach highway) from Route 539 (19th-century turnpike road). Old York Road, Perrineville Road, Cedarville Road, Conover Road, Dutch Neck Road, Etra Road, Milford Road, Princeton-Hightstown Road, Mercer Street, Old Trenton Road, and part of Wyckoff Mills Road all occupy their 18th-century or early 19th-century alignments and are significant to the transportation history of the township, the region, or the state.

Impact of other Elements of the Master Plan on Landmark Properties

Within the Land Use Plan, consideration should be given to providing some specific zoning measures for addressing the needs of historic sites and districts identified in the Master Plan. This could include modified zoning standards and/or additional opportunities for adaptive re-use of the properties.

For the most part, protection and preservation of identified historic sites and districts will be implemented through the development application process, although all aspects of the Master Plan should reflect a sensitivity to the need for historic preservation.

RECYCLING PLAN

In 1989, the Township Council adopted ordinances to implement the objectives of the Statewide Mandatory Source Separation and Recycling Act and the County Recycling System, as more fully set forth in the amendments to the Mercer County Solid Waste Management Plan detailing its Recycling Plan.

The Recycling Plan calls for the collection of leaves, for the recycling of tires and batteries, and for the curbside collection of recyclable materials generated by residents, including glass and metal containers. Nonresidential establishments are required to recycle paper, glass and metal containers, tires, white goods, and batteries.

In the review of development applications, provisions shall be made for the collection, disposition and recycling of recyclable materials within any development proposed for the construction of 50 or more units of single family residential housing, or 25 or more units of multifamily housing, and for any nonresidential development proposal calling for the utilization of 1,000 square feet or more of land.

REGIONAL CONSIDERATIONS

In the background section, a review is provided of planning in the region. It notes that the recently adopted State Development and Redevelopment Plan calls for preservation of an agricultural and rural area in the southeasterly part of the township. This agricultural preservation area is reflected in county plans, as also described in the background section of this Master Plan.

The relationship between the township's plans and those of adjoining municipalities is clearly spelled out in the background studies, and there is no substantial change in the land use and zoning relationships at the municipal boundaries as a result of this Master Plan update.

REEXAMINATION REPORT

The Municipal Land Use Law (MLUL) requires municipalities to reexamine their master plans at least every six years. The purpose of this requirement is to have regular reviews of current information and changing conditions in the interest of keeping long-range planning as up to date as possible.

In C.40:55D-89 of the MLUL, the following language is set forth:

"The governing body shall, at least every 6 years, provide for a general reexamination of its master plan and development regulations by the planning board, which shall prepare and adopt by resolution a report on the findings of such reexamination, a copy of which report and resolution shall be sent to the county planning board and the municipal clerk of each adjoining municipality. The first such reexamination shall have been completed by August 1, 1982. The next reexamination shall be completed by August 1, 1988. Thereafter, a reexamination shall be completed at least once every six years from the previous reexamination."

East Windsor prepared a Master Plan update which was adopted by the Planning Board in December, 1985 and updated through October 1993. The statute requires consideration of five topics within the reexamination report. Those areas are identified below along with the response statements.

C.40:55D-89a.

This provision of the MLUL reads as follows:

"a. The major problems and objectives relating to land development in the municipality at the time of the adoption of the last reexamination report."

Detailed information on the problems and objectives facing the township at the time of the adoption of the Master Plan update is available in the 1985 Master Plan.

C.40:55D-89b.

This provision of the MLUL reads as follows:

"b. The extent to which such problems and objectives have been reduced or have increased subsequent to such date."

The problems identified in the 1985 Master Plan update continue to be similar to the problems identified and addressed as a part of this update.

C.40:55D-89c.

This provision of the MLUL reads as follows:

"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, collection, disposition, and recycling of designated recyclable materials, and changes in State, county and municipal policies and objectives."

Since the adoption of the Master Plan in 1985, the legislature has created the State Planning Commission and its administrative arm, the Office of State Planning. The Commission is charged with generating a State Development and Redevelopment Plan, which would essentially be an update of the State Development Guide Plan referenced in the 1985 Master Plan. The Commission adopted and released the State Development and Redevelopment Plan in 1993. The Commission is to update the plan at least every three years.

Traffic flows throughout the township continue to be a matter of concern. Traffic circulation improvements needed to support new development have been identified, and development fees have been enacted by ordinance which will be used to fund the improvements.

The sewer moratorium, which had been in place since the adoption of the last Master Plan in the mid-1980's, was lifted in 1992 with the completion of the upgrading of the sewage treatment plant. Additional sewage treatment facilities will be needed and are anticipated to be provided through the construction of a satellite plant, but construction on the satellite plant has not started.

The township has adopted ordinances regarding recycling, and it is continuing to address the spirit and requirements of handling recyclable materials.

C.40:55D-89d.

This provision of the MLUL reads as follows:

"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."

The Master Plan, adopted in October 1993, identifies the specific zoning changes recommended in the Plan, as required by statute. The underlying policies and standards are clearly set forth.

Amendments to the development regulations ordinances will be needed not only to incorporate the changes included in the updated Master Plan, but to provide a general update to the ordinance as well.

C.40:55D-89e.

This provision of the MLUL reads as follows:

"e. The recommendations of the planning board concerning the incorporation of redevelopment plans adopted pursuant to the 'Local Redevelopment and Housing Law,' P.L.1992, c.79 (C.40A:A-1 et seq.) into the land use plan element of the municipal master plan, and recommended changes if any, in the local development regulations necessary to effectuate the redevelopment plans of the municipality."

This most recent amendment to the requirements of a reexamination report does not apply in East Windsor since there are no existing or recommended redevelopment plans for the township.

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