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Cranbury

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Cranbury Land Company's

Response to Cranbury Twp.'s
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CRANBURY LAND COMPANY'S
RESPONSE TO CRANBURY TOWNSHIP'S
COMPLIANCE PACKAGE

Prepared for
Cranbury Land Company

June 1985

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I. LONG TERM AGRICULTURAL PRESERVATION AND LAND USE POLICY IN CRANBURY

A. Introduction

In both the compliance program prepared by Cranbury Township and the review and recommendations prepared by the court-appointed master, two factors apparently played an important role in the determination of which sites were considered suitable for Mt. Laurel housing development. The first of these factors was the protection of the existing historic character of the village of Cranbury. The second was the preservation of the undeveloped agricultural lands throughout western Cranbury Township. This section of the report will examine in detail the validity of a long term agricultural preservation and land use planning policy.

This examination will also explore the logic behind another important local planning consideration: the maintenance of a "limited growth area" constituting approximately half of the agricultural lands in western Cranbury Township. How this area of limited growth was established and the future of this area will be reviewed in the course of this examination.

The basic thesis for eliminating Mt. Laurel sites west of Cranbury Village (with the exception of the Zirinsky site adjacent to the Village) is based on the planning theory that the existing type of agricultural activity will remain as a viable land use for the foreseeable future. If this was not the case, then there would be no basis for the judgement that some of the Mt. Laurel sites should not be located in western Cranbury Township. The foundation for this argument has been based, in large measure, on various regional planning agency reports projecting the future of Cranbury's agricultural land in the limited growth area of lower Middlesex and upper Mercer Counties. A critical review of the assumptions and findings of

these reports reveal that the continuation of the present type of agriculture in lower Middlesex County and Cranbury in particular, is directly contrary to the historical trends of local agriculture and does not take into account essential underlying factors of existing land economics. The purpose of this section is to explore historical agricultural trends, and the important land economic trends in the limited growth area. The conclusion reached herein is that the land use policy for western Cranbury Township is not founded on agricultural preservation, but rather a desire on the part of the Township to maintain large areas of natural open space and to preserve a quality of life associated with very low density development for the existing inhabitants of Cranbury Township.

B. A Historical Perspective of Agriculture in Cranbury Township

Between the end of the second World War until the early 1960's, Cranbury had an active mixed agricultural economy. The origin of this agricultural economy was based upon a period of consolidation of many of the small farms which had existed prior to World War II, into larger agricultural operations which maximized the use of mechanical equipment in producing a variety of specialized market crops.

As reported by the State of New Jersey Motor Vehicle data, of the 5,500 acres in farming in the early 1970's, almost one-third of that area was under irrigation. The important crops, in descending order of importance, were wheat, potatoes, spinach and cabbage.

Connected to this type of agriculture was the availability of an adequate supply of farm labor. The field crops in particular relied upon the availability of such labor in order for these operations to be economically viable. Starting in the late 1940's and accelerating in the early 1970's, New Jersey,

especially the north and central areas, experienced a significant decline in the availability of farm labor. That decline was due to a long-term historical trend of people leaving the agricultural sector for better working conditions and higher incomes in the burgeoning non-farm sectors of the economy. These changes are reflected in the following statistics. According to the New Jersey Department of Agriculture, there were 23,000 active farms and 1.7 million acres in farming in 1954. Ten years later, in 1964, the number of farms had declined to 12,000 units (by almost half), and land utilized for farming had dropped to 1.3 million acres. Another ten years later, the number of farms had declined to only 8,100 units and just 1 million acres were devoted to farming purposes. This decline has continued to the present, where now only 7,700 farms exist which utilize a total of 990,000 acres (1980).

The trend of a declining agricultural sector was not unique to New Jersey. As reported in the New York Times of May 28, 1985, the same rates of decline in agriculture were experienced in New York and Connecticut. In New York State alone, in the thirty years from 1950 to 1980, 80,000 New Yorkers left farming as a way of life.

By the early 1970's, a new type of agriculture had emerged in Cranbury Township. This form of agricultural, which still exists today, can be described as an "extensive" agriculture economy. In a broad sense, the term extensive agriculture means a form of farming which has a low dollar yield per acre, requires a minimum labor input and is dependent upon a high degree of mechanization. Such agriculture can only survive where the cost of land per unit of agricultural production is low. This type of agriculture is also found in the midwest United States, where farms are normally 1,000 acres or more in size, where land costs are under \$2,500 per acre, and where modern farm equipment can be utilized to their maximum. It is this

type of farming which produces such field crops as wheat, soybeans, feed corn, and similar products which have a comparative low yield on a per acre basis.

While some forms of more intensive farming (such as greenhouse farming) do exist in Cranbury, the general trend of agriculture in Cranbury, during the last decade, has been and remains extensive agriculture. The extensive type of agriculture, both in the Mercer/Middlesex region and Cranbury itself, continues to undergo changes. The most recent and important change in the last decade has been one of contraction.

According to New Jersey State data, available from the Rutgers University Cook College of Agriculture, active farms have declined since 1974 in Cranbury. In 1974, there were 35 farms operated by 25 farmers. Ten years later, the number of farms had declined to 30, and farm operators to 18. Equally significant, the total acreage devoted to full-time farming had declined by nearly 1,000 acres, from 5,400 in 1974 to 4,500 in 1984. It is important to note that in this same ten year period, the only consumption of land in Cranbury for non-agricultural purposes was related to two residential subdivisions which, together, do not represent more than 150 acres. Therefore, the land lost to farming solely as a result of the declining agricultural economy of Cranbury amounted to nearly 800 acres in this ten-year period.

While it is not possible to establish the precise reason for the elimination of 800 acres from Cranbury's agriculture, in all probability, the decline is attributable to the elimination of smaller parcels from active agriculture which were not suited for the use of modern agricultural equipment.

The changes occurring in Cranbury Township were not unique to the Township. The very same trends, in the same order of

magnitude, were occurring in both Mercer and Middlesex Counties. In Middlesex County, during the period 1974-1984, the number of full-time farmers declined from 297 to 217, a decline of 27%. Full-time farm operations declined from 169 to 132, a reduction of 22%. In Mercer County, the number of farms declined from 250 to 184, a decline of 26%, and full-time farmers declined from 151 to 125, a decline of 18%.

At the same time that the number of farms and farmers was declining, the amount of land devoted to agriculture in these counties was also being diminished. In Middlesex County 4,000 acres, and in Mercer County 3,000 acres, were withdrawn from active agriculture.

The detailed explanation for the decline in farms, farmers and land devoted to farming is the subject of a separate report authored by Jack Hunter, an expert in agricultural economics. Needless to say, in the broadest sense, the forces bringing about this decline were economic in nature. In simple terms, farmers had discovered by the 1960's that they could achieve a greater economic yield from their assets from the sale of land to investors and developers than they could by utilizing their land for farming purposes. This fact is demonstrated by local planning reports, which indicate that by 1983, more than two-thirds of the land once utilized by farming in Cranbury had been transferred from farm operators to investors and, in a few cases, to developers.

From a historical perspective, agriculture in Cranbury has undergone two major changes since World War II. First, the local agricultural economy has shifted from specialized crops to extensive agriculture, and secondly for fundamental economic reasons, the number of farms and farmers has undergone a significant reduction. There is no reason to presume that for the foreseeable future, these trends will not continue.

C. Land Development Trends in Cranbury Township

During the same period of contraction of agriculture in Cranbury, equally significant changes were occurring in respect to the land use pattern and land economics within the Township.

If any one date can be selected as a turning point for land use patterns in Cranbury Township it is the year that the New Jersey Turnpike opened - 1953. Until that year, Cranbury Township was relatively inaccessible from the rest of the developed parts of the State. Prior to 1953, the village of Cranbury and its adjacent farming areas displayed the characteristics of a local agriculture economy somewhat isolated from the development trends taking place throughout the rest of the state.

Three important events followed the opening of the New Jersey Turnpike. Starting in the late 1960's, and in the decade that followed, significant commercial and industrial growth occurred in and around Exit 8A. Corporations such as Natural Lead and BASF made the choice to move beyond the existing industrial core associated with Exit 10 and locate further south on the Turnpike at the next important exit. Since land around Exit 9 was committed to other types of development, they went to Exit 8A. Since then, employment growth both adjacent to Exit 8A and parallel to the Turnpike both north and south of the Exit has continued unabated in the past decade and a half. What followed this trend was an increasing awareness by investors, developers and planners that land would be needed to provide housing for the people who found employment at these new industrial Turnpike-related locations.

The second major event occurring in the 1960's and 70's were the emerging zoning policies of Monroe, East Windsor and South Brunswick Townships. Once Monroe Township had become accessible to the New York metropolitan area, through the development

of the Turnpike, it adopted a zoning policy which emphasized the growth of large scale medium density retirement communities serving the New York metropolitan area. Starting with the Rossmoor development, just east of the Turnpike at Exit 8A, Monroe Township has continued to zone and encourage this type of residential use. Early in the 1970's, East Windsor Township adopted a moderate growth policy. Twin Rivers, the first Planned Unit Development in the State of New Jersey, is an example of that policy. It was built on former agricultural lands in East Windsor in the early 1970's. Other areas of East Windsor Township were also zoned for a wide variety of moderate and middle income housing. Whereas Monroe had elected to cater to those people forty-eight years and over, East Windsor made its land resources available to young families who had moved south in pursuit of the growing employment opportunities of northern Mercer and lower Middlesex Counties.

South Brunswick has had a twofold planning policy for the past two decades. For the area adjacent to exit 8A and Route 1, the plan provided for a wide variety of office, distribution and light industrial uses. That policy has succeeded, to the point where today South Brunswick is a major locus of non-residential growth. To accommodate this economic growth, South Brunswick adopted a fairly liberal residential zoning policy. Moderate sized single-family development, multi-family development, and planned development communities were permitted.

To the west of Cranbury Township, both non-residential and residential development lagged behind the events taking place to the north and along the Jersey Turnpike. However, starting in the early 1970's, the Route 1 corridor began its explosive office research growth, which continues to gather momentum every passing year. In the case of West Windsor, residential development was delayed by the lack of sewer capacity, which recently has been remedied. In ten short years, Plainsboro has

almost tripled in population as a consequence of the Route 1 economic development phenomenon. While all of the communities surrounding Cranbury were providing for a variety of residential development needed by the growing local economy, Cranbury adopted a very different land use policy. From 1969 until the most recent zoning proposals of 1982, Cranbury's zoning provided for residential development at one unit per acre for all of the land west of Cranbury Village. The effect of this large lot zoning policy, along with other exclusionary zoning, almost precluded development in Cranbury Township, with the exception of two subdivisions. The reason for this phenomenon of an isolated island of non-development in a sea of growth is as follows.

As long as there was reasonable residential zoning in all of the communities adjacent to Cranbury Township, there was little reason for developers to challenge Cranbury's no-growth policies. Until recently, the one acre type of development had little market appeal in terms of the growing housing region. What demand there was for the large lot type of single family housing was being met by Princeton, West Windsor and Plainsboro, which were closer to the new sources of employment. The housing which might have been developed in Cranbury Township (had Cranbury provided a variety of housing choices) were simply located in the towns surrounding Cranbury which had the appropriate zoning for that type of development. The housing market and the associated need for land was satisfied elsewhere. The large lot zoning of Cranbury Township was not particularly receptive to development to any great extent.*

In effect, the zoning policy of Cranbury enforced from 1969 to 1982 had effectively created a community immune from typical

* There were some exceptions to this process. Shadow Oaks, a subdivision on Old Trenton Road, a second subdivision on Cranbury Neck Road, and scattered single-family large lot development, did occur in the decade between 1970-1980.

In effect, the zoning policy of Cranbury enforced from 1969 to 1982 had effectively created a community immune from typical local growth during this important decade of the region's economic growth and development. In fact, if Cranbury Township had adopted a reasonable zoning policy similar to that of its neighboring communities, which permitted a level and mix of development appropriate for local growth (such as in East Windsor or Plainsboro), a significant population growth would have occurred within the Township. Based upon the estimates which are provided further on in this section, Cranbury Township would not be a community of 1,800 people, but instead a community with 4,500 to 5,000 people today.

From 1970 to 1980, Cranbury had an actual decrease in population by 14%. In part, this was related to a reduction in the number of people employed in local agriculture. In contrast, during this same period, Monroe Township had a 74% increase in its population. South Brunswick increased by 22% with population expanding from 14,000 to 17,000. Plainsboro, which in 1970 had the same small, rural population and large land area like Cranbury Township, increased in population from 1,600 to 5,600 persons in 1980, a 240% increase. East Windsor Township, with its appropriate zoning, grew from 11,700 persons in 1970 to 21,000 persons in 1980 for a 79% increase.

Fairly simple conclusions can be drawn from these demographic statistics. Every other community adjacent to Cranbury experienced significant population growth during the ten-year period between 1970 and 1980. Cranbury, with its exclusionary one-acre type of zoning, was able to exclude the type of growth that was occurring on all four sides.

It is appropriate and important to estimate the amount of growth that would have taken place in Cranbury Township had it adopted a variety of reasonable residential zones to meet the needs of the growing region.

Cranbury Township's planning policy has relied upon two major factors for its no-growth policies. First, it has argued that the community has a small population base and secondly that most of the land is used for agriculture. It has also been suggested that these conditions are the result of "natural" land use and market forces. In actual fact, these conditions are the direct outcome of local exclusionary zoning policies and not a result of demand for land for agricultural purposes. It is also argued that because of its existing small population base, Cranbury Township cannot accept a rate of growth which involves large numbers of new families. However, if Cranbury Township's 1969 population had doubled or tripled under reasonable growth scenarios as it did in other communities, then the additional population growth required now by the Mt. Laurel II decision would appear far less problematic than it is now portrayed by Cranbury's planners.

Another major argument is associated with the preservation of Cranbury Township's agricultural land. Had normal levels of residential growth occurred as a consequence of reasonable zoning, then an additional 800 to 1,000 housing units would have been created in the last decade. Such an addition to the housing inventory of the Township would have required an additional 300 to 500 acres of land, virtually all of which would have occurred within the existing agricultural land inventory. In addition to a reduction in the agricultural land inventory, this growth would have changed the pattern of development in Cranbury Township. Had zoning provided for growth through a series of subdivisions and projects, these would have developed along the major roads between Cranbury Village and the employment areas in East Windsor, West Windsor and Plainsboro. Arguments as to the preservation of a "pure" agricultural zone would have been made academic by such events.

A reasonable comparative model for estimating the growth that would have occurred in Cranbury Township are the Townships of

East Windsor and Plainsboro. East Windsor is somewhat further removed from the concentric rings of commuter growth extending outwards from the center of the New York area. However, East Windsor (with Hightstown as its historic downtown center) 20 to 30 years ago had the same type of physical landscape and environmental conditions that Cranbury had, as well as the same kind of 19th century agricultural road pattern. In respect to the Route 1 corridor, East Windsor is about equally removed from that source of employment as Cranbury Township is. Nevertheless, East Windsor has had a decade of growth at a rate of 79% and has added about 10,000 persons to its 1970 population.

Plainsboro started the 1970 decade in almost the identical position as Cranbury Township. Plainsboro was a community with 1,600 persons with virtually all of its land resources devoted to agriculture. In fact, except for a difference in local zoning and its proximity to Route 1, Plainsboro and Cranbury Townships are identical in almost respect. Both of these communities were subject to the same conditions affecting agriculture and demand for residential land. Soil conditions and infrastructure were basically similar in 1970. Both communities had the same regional employment base. However, in a period of ten years, with a policy of permissive zoning, Plainsboro increased its population by 4,000 persons and has had an overall growth rate of 240%.

It is reasonable to assume that had Cranbury allowed for growth by permissive zoning, then its population growth from 1970 to 1980 would have been similar to that experienced by Plainsboro. Given Cranbury's location, a reasonable forecast for growth during those ten years would be approximately 3,000 people and an increase in its housing stock by an additional 800 to 1,200 housing units. Also, when compared to the growth and change that occurred in adjacent East Windsor, such a development scenario for Cranbury Township appears reasonable. Under a

zoning policy which would have permitted development, Cranbury Township, particularly in those areas west of Route 1, would have developed a far different pattern than has occurred under the exclusionary practices of the past. Instead of an agricultural district comprising 4,000 acres, western Cranbury would have had 300 to 500 acres of housing established in the midst of the existing agricultural area.

D. Conclusions

Aside from the historical preservation arguments, the principal reason for denying the Cranbury Land Company proposal is related directly to the preservation of agriculture in the undeveloped areas of western Cranbury. An examination of the history and economics in central New Jersey indicates that as a large scale land use, agriculture has been and will continue to decline in Cranbury Township. In fact, one important reason for the existence of an extensive agriculture at the current level of 4,000 acres is due to an absence of an alternate use for that land mass.

While agriculture remains the dominant use of land in the Cranbury landscape, the underlying factors clearly indicate a different future. Most of the land used for agricultural purposes are owned not by active farmers but by investors. The original reasons for the acquisition of farmland was the anticipation of future suburban growth initiated by the Turnpike and later by the Route 1 development corridor. With that investment objective about to be foreclosed by a possible period of Mt. Laurel repose, land owners, farmers and non-farmers alike will have to seek economic alternatives for the use of their land. The only one remaining alternative for this land area is its development for residential estates for large lot type housing under the existing zoning proposals. The demographic, economic and physical conditions for such a development phase are not in place

in respect to Cranbury Township. Therefore, a site for a wide variety of housing types such as proposed by CLC will in all likelihood be used for some form of upper income housing on even larger amounts of land. This is the subject of the next section of this report.

In conclusion, Cranbury's agricultural preservation policies are not based upon a demand for land for agricultural uses but a desire to preserve large tracts of open land and a way of life associated with large lot single family housing developments.

II. PROJECTED LAND ABSORPTION BY LUXURY HOUSING DEVELOPMENT IN CRANBURY TOWNSHIP

A. Introduction

According to the Mount Laurel II Compliance Program for Cranbury Township, New Jersey report, over 22.5 million square feet of major industrial and commercial activity is under construction or planned along the Route 1 corridor in West Windsor, Plainsboro, East Windsor and South Brunswick alone (see Table 1). This includes over 21.8 million square feet of office/research development and 212,000 square feet of light industrial development (see Table 2). As demonstrated in detail below, this development will create a large number of new jobs, and in turn generate a large demand for new housing.

This demand for new housing to meet the requirements of the thousands of new employees will be spread out through all sectors of the housing market. One of those sectors which will realize substantial growth is that which provides land and housing for the families that can only be described as wealthy. This section of the report will focus on the interrelationship between this growing demand for upper income housing and the available land that will remain vacant within the region which is now in the limited growth area of Cranbury Township. It is a conclusion of this study that this upper income type housing, together with its large land requirement, will, for very basic economic and planning reasons, have a dramatic impact on land now being proposed as a reservation for agricultural purposes in the western two-thirds of Cranbury Township.

The following section estimates the demand for luxury housing in Cranbury during the next 15 years, and its effect on the agricultural areas of the Township.

TABLE 1

MAJOR INDUSTRIAL AND COMMERCIAL ACTIVITY
PLAN PROPOSALS/UNDER CONSTRUCTION

West Windsor Township:	5,721,700 sq.ft.
Plainsboro Township:	7,999,222 sq.ft.
East Windsor Township:	3,253,607 sq.ft.
South Brunswick Township:	<u>5,625,028 sq.ft.</u>
Total	22,599,557 sq.ft.

SOURCE: Mount Laurel II Compliance Program for Cranbury Township, New Jersey, prepared by Cranbury Township Committee and Cranbury Township Planning Board, with the technical assistance of Raymond, Parish, Pine & Weiner, Inc., Table 1.

TABLE 2

PLANNED INDUSTRIAL AND COMMERCIAL ACTIVITY
 PLAN PROPOSALS/UNDER CONSTRUCTION
 (in Square Feet)

<u>Municipality</u>	<u>Office/ Research</u>	<u>Manufacturing/ Industrial</u>	<u>Retail</u>	<u>Total</u>
West Windsor Township	5,721,700			5,721,700
Plainsboro Township	7,465,222		534,000	7,999,222
East Windsor Township	3,190,929	7,303	45,375	3,253,607
South Brunswick Township	<u>5,430,108</u>	<u>194,920</u>	<u> </u>	<u>5,625,028</u>
Total	21,807,959	212,223	579,375	22,599,557

SOURCE: Mount Laurel II Compliance Program for Cranbury Township, New Jersey, prepared by Cranbury Township Committee and Cranbury Township Planning Board, with the Technical Assistance of Raymond, Parish, Pine & Weiner, Inc., Table 1.

B. Route 1 Corridor Industrial and Commercial Development & Resulting Luxury Housing Demand in Cranbury Township

Table 2 shows that over 21.8 million square feet of office development and over 212,000 square feet of industrial development activity represents projects under construction, as well as "announced" projects. It should be recognized that some of the announced projects will not be built; conversely, however, it is also reasonable to expect that some projects not yet announced will be undertaken. Consequently, although a precise amount of office/industrial development cannot be projected, 22 million square feet represents a good indicator of the amount of development that will ultimately take place in the next 10 years, or in a time period shorter than this.

Using the 22 million square feet as a reasonable estimate of industrial and commercial activity, Table 3 calculates the number of jobs that will be generated by this development. According to the Urban Land Institute's Office Development Handbook, the national average of square feet per person in office developments is 202.* This, of course, varies depending on the type of office use, and, as such, a more conservative estimate of 1 worker per 250 square feet of office space has been used to calculate the number of new office jobs. Table 3 shows that for the proposed development in the Route 1 corridor, 87,232 new office jobs will be generated.

A separate calculation is required to project the number of new industrial jobs. The Urban Land Institute's Industrial Development Handbook lists a range of between 171 square feet per employee for labor intensive industrial activity to 1,262 square feet per employee for labor extensive industrial activity.** Table 3 uses the most conservative estimate and assumes

* Urban Land Institute, Office Development Handbook, Washington, D.C., 1982, p. 16.

** Urban Land Institute, Industrial Development Handbook, Washington, D.C., 1975, p. 167.

TABLE 3

CALCULATION OF JOBS GENERATED BY INDUSTRIAL & COMMERCIAL
ACTIVITY (PLANNED/UNDER CONSTRUCTION ALONG ROUTE 1)

	<u>Projected Square Footage</u>	<u>Workers Per Square Foot</u>	<u>New Jobs Generated</u>
Office/Research	21,807,959	1/250	87,232
Manufacturing	<u>212,223</u>	<u>1/1,262</u>	<u>168</u>
Total	22,020,182	-	87,400

SOURCE: Projected Square Footage: see Tables 1 and 2, Office Workers per Square Foot: Urban Land Institute, Office Development Handbook, Washington, D.C., 1982, p.16.

Manufacturing Workers per Square Foot: Urban Land Institute, Industrial Development Handbook, Washington, D.C., 1975, p. 167.

that the new industrial development will be primarily labor extensive. Using this highly conservative estimate, 168 new industrial jobs will be created.

The total number of new office and industrial jobs will be approximately 87,400. In addition to these jobs, the office and industrial development along the Route 1 corridor will generate secondary and tertiary employment. These additional jobs will primarily be service and support services for the new developments and their employees. Based on Bureau of Labor Statistics projections, the ratio of sales and service jobs to total jobs is 1:4.25* (see Table 4). The new office and industrial development can, therefore, be expected to generate an additional 20,565 secondary and tertiary jobs in the Route 1 region (see Table 5).

C. Demand for Housing

As a result, the total impact of development activity along the Route 1 corridor can be expected to create a total of nearly 108,000 new jobs. Based on 1980 census data, in Middlesex and Mercer County, of families with one or more workers, 33.7% had one worker and 66.3% had two or more workers (see Table 6). Table 7 calculates the number of new families using these proportions. It shows that there will be approximately 36,336 new 1-worker families and 35,790 new 2-worker families. These 72,126 family units can be expected to seek housing within the Route 1 corridor.

The number of new families that will seek "luxury" housing units has been estimated based on the proportion of total

* This is a conservative estimate because of two factors. First, the ratio is to total jobs, which includes more than just research and industrial jobs, and therefore the ratio can be expected to be higher for just office development. Secondly, the projection is based on the New York-Northeast New Jersey area, and as such, the ratio may be somewhat lower than in the Route 1 corridor, which is primarily office development.

TABLE 4

CALCULATION OF RATIO OF NEW SALES AND SERVICE JOBS
TO TOTAL NEW JOBS

<u>Occupation</u>	<u>Service & Sales Workers</u>		<u>Jobs Resulting From Industrial Change</u>	<u>Ratio to Total</u>
	<u>Employment 1974</u>	<u>Jobs to be Filled 1974-1985</u>		
Total	6,771.1	3,259.5	329.7 (10.1%)	1:1
Sales Workers	474.6	236.1	20.9 (8.9%)	1:15.8
Service Workers	<u>852.1</u>	<u>513.0</u>	<u>56.6 (11.0%)</u>	<u>1:5.8</u>
Total Sales & Service Workers	1,326.7	749.1	77.5	1:4.25

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, The Job Future in New York - Northeastern New Jersey, Regional Report 60, February 1979.

TABLE 5

PROJECTION OF NEW SECONDARY & TERTIARY JOBS

Projected Number of New Office/ Manufacturing Jobs	87,400
Ratio of Service & Sales Jobs To All Jobs	1:4.25
Number of Projected New Service and Sales Jobs	20,565

SOURCE: Tables 3 and 4.

TABLE 6

NUMBER OF WORKERS PER FAMILY (EXCLUDING FAMILIES WITH NO WORKERS)
MIDDLESEX AND MERCER COUNTIES, 1980

<u>County</u>	1-Worker		2 or More Workers		Total	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Mercer	24,288	35.4	44,244	64.6	68,532	100
Middlesex	<u>46,317</u>	<u>32.8</u>	<u>94,938</u>	<u>67.2</u>	<u>141,255</u>	100
	70,605	33.7	139,182	66.3	209,787	100

SOURCE: U.S. Census of Housing and Population, STF 3, 1980.

TABLE 7

PROJECTED NUMBER OF NEW FAMILIES BY THE YEAR 2000

Projected Number of New Jobs	107,965
Proportion of 1-Worker Families	<u>33.7</u>
Number of New 1-Worker Families	36,336
Projected Number of New Jobs	107,965
Proportion of 2-Worker Families	<u>66.3</u>
	71,581
	<u>÷ 2</u>
Number of New 2-Worker Families	35,790
Total Number of New Families	72,126
Proportion of Families Earning >\$75,000*	<u>x 1.8%</u>
Total New Families Earning >\$75,000 (in 1980 dollars)	1,298

* See Table 8.

families earning over \$75,000 in Middlesex and Mercer Counties in 1980 (see Table 8). Unlike the term "low and moderate" (or "least cost"), there is no widely accepted definition for "luxury" or "luxury housing". For the purpose of this report, a reasonable definition is required and it seems appropriate to use as that definition, the uppermost income group reported by the U.S. Census. That income group was for families with an annual income of over \$75,000 per year in 1979. It should be recognized that there are two problems with this definition of the wealthy and the luxury housing that is used by this sector. First, families with incomes in excess of \$75,000 per year (in 1979) will very often have other financial resources which are not included within the definition of income in excess of \$75,000. A classic example is the equity that may well exist in a home owned by a family with this amount of annual income. Secondly, it is apparent that any definition for the population which can afford truly luxury housing, or large lot housing, probably well exceeds the 1.8% of the total population which is that amount reported by the census as having an income in excess of \$75,000 per year. In all probability, the true number of families who can and will require housing on large lots will exceed 1.8% of the total population. Therefore, while this report is based upon the census material as reported, it is quite likely that the actual market demand for large lot housing will be significantly higher than 2% of the population.

In 1980, 1.8% of the total New Jersey families fell within this category. Applying this percentage to the number of total projected demand for new housing, there will be a demand for 1,300 luxury housing units (see Table 7).

In the context of this report, "luxury" housing can be defined as follows. First, it is a type of housing which has the largest quantity of square foot per dwelling unit. In terms of current housing types being produced for this market throughout

TABLE 8

FAMILIES EARNING OVER \$75,000 (1980)
MIDDLESEX AND MERCER COUNTIES

<u>County</u>	<u>Total Number of Families</u>	<u>Families Earning >\$75,000</u>	<u>Proportion of Families with Incomes >\$75,000</u>
Mercer	1,725	78,389	2.2%
Middlesex	<u>2,564</u>	<u>154,631</u>	<u>1.7%</u>
Total	4,289	233,020	1.8%

SOURCE: U.S. Census of Housing and Population, STF 3, 1980.

New Jersey, it is reasonable to assume that such housing types contain well over 3,500 square feet per dwelling unit. Secondly, it is the type of housing normally associated with large lot sizes. In the suburban settings of New Jersey, where new large lot luxury housing has developed, this type of housing is most often associated with lots well in excess of two or three acres. At the other end of the spectrum in respect to lot size, this type of housing becomes known as "estate" type housing. This type of housing traditionally is established on lots of 5, 10 or more acres. The underlying reason for these large lots associated with buildings of high value is that families with these incomes place a high value on privacy and a special setting for their home. In addition to privacy, the amenities of a large lot and the prestige of large amounts of land, landscaped or otherwise undeveloped, are traditional elements contained in the concept of large lot housing.

This demand for luxury housing will need to be met within the next fifteen years. A 15-year time frame is based on the assumption that the non-residential development will be built-out within 10 years. (In reality, this is actually a conservative time frame because most developers do not announce non-residential projects unless they expect to build-out within a five-year period.) In addition to the 10-year build-out assumption, there can be expected to be a 5-year lag before the housing development catches up to the non-residential development. Thus, it is projected that there will be a demand for 1,300 luxury housing units within the next 15 years.

D. Land Absorbed By Luxury Housing in Cranbury

1. Conditions for the Establishment of a Luxury Housing Market

There are a number of very important characteristics associated with the development of large lot luxury or estate

types of housing. These can be identified by examining a few examples in New Jersey.

One such example is the Township of Colts Neck in Monmouth County, in which the luxury housing developed in and around the horse breeding areas of the community. In Somerset County, Bernardsville and in Morris County, Mendham have developed into "estate" types of communities. In Bergen County, Saddle Brook is a similar example. In Burlington County, Moorestown is currently developing into such a community. All of these communities have a combination of fairly unique social, economic, locational and political (i.e. land use planning) factors which have given rise to the luxury type of developments.

First, such housing being so specialized and affordable to only a very small percentage of the population, means that it can only be established in a few locations within a housing region. Second, there seems to be a threshold population in a region that is needed to support a community which develops this type of housing. In all of the above-mentioned examples, the housing regions in which they were established were all spurred by considerable growth of the employment sectors which gave rise to the need for large amounts of new housing - at all income levels - throughout the region. At the same time, the specialized luxury developments occurred only in those communities which provided an especially attractive background (environmental and historical) for such housing, and where agricultural activities were declining in the face of mounting pressures for development and the loss of agricultural markets. The final ingredient seems to be the availability of large amounts of land, which formerly was used for agriculture, now being zoned for large lot types of residential development. This latter element is especially important since

the existence of this type of zoning, and the policies of communities which assured that such zoning would remain in effect for long periods of time (i.e. resistance to rezoning for non-residential, multi-family or smaller lot single family development), not only creates the conditions for large lot development but also assures that a supply of land will be available at a reasonable price for a foreseeable period of time.

In Colts Neck, it was the existing horse farms which provided the backdrop for an especially attractive new housing district. In Moorestown, it is the existence of a preserved historic downtown area surrounded by large amounts of large lot zoned agricultural areas within the Philadelphia metropolitan area that is spurring the growth of luxury housing. The existence of large estate districts in Mendham and Bernardsville and the historic nature of these communities provided the opportunity in the growing Morris County housing market for the establishment of new luxury large lot development.

2. Luxury Housing Characteristics as Applied to Cranbury and her Neighbors

Due to the tremendous growth in the Route 1 corridor, as mentioned, there will be a similar occurrence in regard to the establishment of large lot luxury housing developments. Both Princeton and Cranbury have the characteristics necessary to induce such development. Princeton's existing estate developments, well-preserved historic downtown area, and large supply of vacant land which is zoned for large lot development (and which has resisted rezoning) creates the correct climate for luxury housing. Cranbury, with its preserved historic village, surrounded by vast areas of agricultural lands zoned for large lot development (which

has also resisted rezoning), and located in an area accessible to new employment opportunities, also meets the criteria necessary for the establishment of the large lot luxury housing market. While some of the other communities in the region will absorb small amounts of this type of housing, the absence of some of the conditions necessary for the establishment of such housing, will mean that their share of such a market will be small.

The communities of Plainsboro, South Brunswick, Monroe and East Windsor have established through zoning, a variety of local housing markets ranging from moderate to middle income. As a result, a wide variety of different kinds of neighborhoods, from an economic point of view, are scattered throughout these developing communities.

In addition, in all of these communities, a large amount of non-residential development has occurred and is occurring throughout these townships. In these townships, there are no undeveloped land areas remaining which are adequately isolated from existing development and road patterns at a scale sufficiently large enough to accommodate an exclusive luxury housing district. Furthermore, land values of vacant land throughout these four communities are too high to support large lot zoning. In addition, none of these communities have the prestigious historic center which Cranbury or Princeton have.

East Windsor has created this type of fabric by its progressive zoning policies since the early 1970's. While the southern part of East Windsor presently remains available, and in fact might have become a luxury housing district, an existing settlement with the Centex Corporation may well preclude that type of growth. The settlement provides for large middle income development which creates an unsuitable climate for large lot luxury housing.

While until recently, West Windsor seemed to be on the verge of becoming a township with a substantial commitment to upper middle income and luxury housing, due to recent zoning changes, and the availability of sewer services (which had precluded development for many years), the majority of new growth appears to be middle income single family and multi-family units. This growth is scattered throughout the community and there are no large districts left in which a truly luxury housing market can be established on a large scale.

Cranbury's other neighbor is Monroe Township. From a land use perspective, Monroe Township is unlikely to be a factor in the region's luxury housing market. First, it may well be too far away from the employment center of Route 1 to attract upper income families where the head of household is working in that part of Mercer County. Secondly, the present image of Monroe Township is one of a retirement community. This "image" is unlikely to be an effective stimulus for the development of a true luxury housing district.

The proceeding analysis lays down the foundation for the western part of Cranbury Township to become a district for the development of very large lot single family homes. While this process may well take one to two decades, for fundamental economic reasons it seems that this process is inevitable. It is important to note that along some of the east-west roads in Cranbury Township, this process has already begun (see Table 9). It should also be noted that the process of conversion from agriculture to luxury housing is a process which will make extensive agriculture more difficult as the larger rented farm areas are continually subdivided for housing purposes and the utilization of modern agricultural machinery becomes less efficient.

TABLE 9

LARGE LOT SINGLE FAMILY DEVELOPMENT
WHICH HAS OCCURRED IN THE CRANBURY
AGRICULTURAL DISTRICT SINCE 1980

<u>Block</u>	<u>Lot</u>	<u>Size (s.f.)</u>	<u>Road</u>
24	11	44,100	Petty Road
24	12	41,102	Petty Road
24	74	40,120	Petty Road
24	90	40,120	Petty Road
23	156	40,375	Cranbury Neck Road
23	157	40,375	Cranbury Neck Road
23	150	40,000	Cranbury Neck Road
23	151	40,064	Cranbury Neck Road
23	122	78,000	Cranbury Neck Road
22	18	6.093 acres	Cranbury Neck Road
22	19	40,375	Cranbury Neck Road
22	20	40,375	Cranbury Neck Road
22	65	40,120	Cranbury Neck Road
22	66	40,120	Cranbury Neck Road
23	153	101,050	Plainsboro-Cranbury Road
23	158	72,500	Plainsboro-Cranbury Road
23	159	85,050	Plainsboro-Cranbury Road

Cranbury's historic village provides the kind of setting which is so commonly associated with luxury housing districts.

Currently, about 4,000 acres of land are zoned for 5 acre residential lots in western Cranbury Township. Existing farms and farmers will, through the practice of extensive agriculture, preserve a visually very attractive environment throughout the entire reaches of this district. The quality of the environment which results from the agricultural practice, will further stimulate the development of large lot housing. The fact that there is now and will be an absence of water and sewer services will have no foreseeable impact upon the conversion of agricultural land to luxury large lot development.

3. Land Prices as a Determinant of Luxury Housing Development in Cranbury

At some point in the current Mt. Laurel litigation, Cranbury will be given repose against future Mt. Laurel challenges. Current zoning policy will firmly be reinforced and be perceived by developers to be valid for a long time to come. Based upon the shifting economic forces (as explained below), and the commitment of Cranbury to large lot agricultural zoning, will establish the ideal conditions for reusing agricultural land for luxury large lot development.

According to the New Jersey Agricultural Statistical Bulletin*, sale of agricultural land for agricultural purposes in the period of 1977 to 1980 ranged from \$2,600 to \$2,900

* New Jersey Crop Reporting Service, NJ Dept. of Agriculture, Health and Agricultural Building, CN 330, Trenton, NJ.

per acre.* In most cases, land transfers were from farmer to farmer and occurred within a single farm family, i.e. one member of the family to another. The purpose of these transfers is to avoid estate tax problems upon the death of the elder farmer. Some of the equity in the farm is transferred to a son or daughter who plan continuing the family farm.

In the event that some farmland is not transferred prior to the death of the owner, the taxes imposed on the estate will cause the value of the farmland to rise to a point where future farming operations become impossible.

In the period before 1977, sale of farmland to farmers in Middlesex County were reported in the range of \$1,400 to \$1,800 per acre. The current market rent for agricultural land in Cranbury and in Middlesex County in general ranges from \$100 to \$400 per acre, which when capitalized represents a land value of \$700 to \$2,500. The difference in the price is a function of the quality of land and, more importantly, whether the land has access to water irrigation. On the basis of these rentals and values, farmers who acquired land for farming in the 1970's at the low prices mentioned above can still economically justify their farming operations.

During the same reporting period (1970 to 1980), farmland in Middlesex County sold for investment purposes in a wide range of \$6,500 to \$12,100 per acre.** A fair conclusion from this economic data as to land value is that farmland

* The prices for land transferred where land is used for farming do not reflect current market value for such land. That market value will be described more fully in the text above.

** It is worth noting that farmland, when sold for development purposes (actual construction under current zoning) had a sale value of \$9,000 to \$27,000 per acre in the reporting period of 1977 to 1980.

in Middlesex County had a value of 3 to 5 times more as investment property than when transferred from one owner to another for use as agricultural land.

Currently, two-thirds of the agricultural district is owned by non-farmers. This is a very significant statistic. The economics of such property ownership will, under the terms of the repose which Cranbury will be granted, accelerate the conversion of agricultural land to residential land use. The conversion of land from agriculture to residential use is a function of the purpose for which the last farmland transaction was made (i.e. for farming or investment), and the price paid for land.

In the acquisition of farmland for investment purposes, the investor has to assume an eventual use of the land for some type of development purpose which will justify the capital investment made at the time of purchase. A traditional rule of thumb for land transactions which occurs at the onset of suburbanization, is that the land has to double in value every five or six years in order to justify the investment. Another more scientific approach to understanding the value of farmland when sold for investment purposes is to assume that the purchaser accepts a rate of return for this type of acquisition at a rate somewhat higher than fairly speculative investment in equity or fixed rate instruments. The reason for this assumption is that land ownership does have a greater degree of risk than investment in stock, bonds or other types of standard securities. Thus, an acre of farmland purchased in 1977 to 1980 has to have an assumed future value equal to an annual rate of return of 15% to 17%. Assuming that an acre of land in Cranbury was purchased at the lowest point in the market, at a rate of \$6,600 per acre in 1977, and a ten year holding period is assumed, then the land in 1987 should have a

value for the investment to be justified in the range of \$29,300 to \$35,700 per acre.

For normal suburban development, such future land values would be justified. Given the growth in lower Middlesex and upper Mercer Counties since the early 1970's, land once used for farming when rezoned for traditional suburban residential uses would reach these levels. In other words, the anticipated payoff for an investor in land in the 1970's would normally be realized through the course of development by the 1980's. The economic cost of holding land for future use, together with its interim rental income to farmers, would be justified. However, under current zoning regulation, all of the land in western Cranbury is restricted to two uses: agriculture and residential lots exceeding 6 acres. Obviously, this type of zoning is very different from the normal development pattern found at the edge of a region which is undergoing significant economic growth. As a consequence of these municipal restrictions, a very different development scenario is predictable.

Under the present circumstances, an investor who purchased property in the 1970's in western Cranbury now knows that there is virtually no opportunity for rezoning to change the use of his land and thereby increase its value in the foreseeable future. Under the concept of repose, it is extremely unlikely that the zoning for western Cranbury will be changed from its present A-100 until the 1990's. Given that knowledge, the landowner will be faced with the following economic facts. First, it is a foregone conclusion that the anticipated rates of return for investment land cannot be realized. Holding the land at a minimum value of \$6,000 per acre from the mid-1970's to the early 1990's (assume a 17-year period), will ultimately require a value of \$83,000 to \$110,000 per acre if the normal rate of

return is to be realized. However, if by the early 1990's 4,000 acres of land in one location has remained basically vacant, there is a high degree of certainty that such values for investment property will never be realized. The investor will also know, based upon experience, that the sale of property for agricultural purposes cannot be justified. Using the current highest rental rates for agricultural land, the maximum value of such land presently is between \$3,500 to \$4,000 per acre.* Assuming that farmland increases at a rate of 10% per annum, then by the early 1990's such land would have a value of approximately \$7,000 per acre.

Faced with this set of economic facts, the owners of much of the land in western Cranbury will be forced to look at the remaining development option which is currently available in order to solve the economic circumstances imposed by current zoning and repose. It will become apparent that land held for traditional suburban development must now be marketed for large lot housing as quickly as possible. The economics of land ownership which are tied to compound interest equations require that such land be disposed of in order to minimize losses which increase with every year that the land is held. Furthermore, the economics of large lot luxury housing development offer the best possibility for the Cranbury landowner to reduce his future losses.

Under present circumstances, luxury housing starts at a cost of \$300,000, and proceeds upward. For this housing type, substantial land acquisition costs are acceptable. For such housing, land costs of \$100,000 per site or \$20,000 per acre can be expected. In other areas of New Jersey, where luxury housing has become established, land costs of \$100,000 and up are quite typical.

* This figure is derived by taking the maximum annual rent per acre of \$400 and capitalizing it at a rate of 10%.

It is not unreasonable to assume that the shift from agricultural land use to large lot land use will probably start once it has been firmly established that there will be no other use for the 4,000 acres of western Cranbury. Assuming that sales of such land begin in 1987 at a nominal rate of \$20,000 acre, then the rate of return for a property owner who purchased the land in the mid-1970's at a cost of \$6,000 per acre, will be 9%-10%. While such a return on investment would not normally justify a sale, such sales will occur once it is fully understood that the opportunities for higher rates of return are precluded by current zoning. From the standpoint of a property owner, such action becomes justified since it has the effect of reducing future long term losses.*

In conclusion, the essential elements for conversion of much of Cranbury's agricultural area into a district of large lot expensive homes will be established by the current zoning proposals. Two-thirds of the farmland in Cranbury is currently held by investors. A substantial period of repose which precludes the normal process of increasing value of land through increasingly more intensive zoning will have the effect of forcing much of this land out of its current investment status and into the marketplace for the only use which has some economic justification, i.e. large lot zoning.

4. Amount of Land to be Absorbed by Luxury Housing in Cranbury

We have already discussed how Cranbury and Princeton have other attributes which make such housing desirable. Based on the general market conditions in the area surrounding

* If the current tax reform legislation is realized, the reduction of long-term capital gains to under 20% will have the effect of accelerating these types of transactions. By reducing capital gains taxation, the change in federal tax law will make such sales more attractive in that the after-tax return is increased.

the Route 1 corridor, we have estimated that between 60% and 80% of the total new luxury housing development will take place within Cranbury and Princeton Townships. What this means is that approximately 780 to 1,040 luxury housing units will be built in these two municipalities (see Table 10).

While historically, Princeton has played a major role as a location for housing for the wealthy, its land resources for this use are limited. The development capacity for luxury housing in Cranbury is higher than in Princeton. Therefore, we can assume that a proportionately higher amount of luxury housing will be built in Cranbury (see Table 11). As such, it is estimated that 56% of the luxury units, or between 436 and 581 units, will be built in Cranbury (see Table 12).

Table 12 presents four scenarios of the amount of land that will be absorbed in constructing these luxury income units. In scenarios 1 and 2, a weighted average of the minimum lot sizes in Cranbury's four luxury housing zones (A-100, R-LD, R-L1 and PD-MD) was used. The weighted average yielded an average of the minimum lot size for the vacant developable land in these zones. This was 1 unit per 5.0 acres (see Table 13). Multiplying this by the anticipated number of new units, between 2,100 and 2,900 acres of land for housing would be absorbed in Cranbury. In scenarios 3 and 4, an even distribution throughout the four zones was assumed. This resulted in a range of between 1,400 and 1,900 acres of land projected to be absorbed by luxury housing.

While the range of projected absorption under the four scenarios ranges from 1,400 to 2,900 acres, it is likely that the absorption will fall within the upper range as established by the weighted averages. There are several reasons

TABLE 10

PROJECTED NUMBER OF LUXURY HOUSING UNITS IN CRANBURY

Assuming 80% of Luxury Housing
Development in Cranbury and
Princeton

New Housing Unit Demand	1,298
(-) 20% for Development in Other Towns	- 260
	<u>1,038</u>

Proportion of New Units in Cranbury (see Table 10)	x .56
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New Units in Cranbury	581
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Assuming 60% of Luxury Housing
Development in Cranbury and
Princeton

New Housing Unit Demand	1,298
(-) 40% for Development in Other Towns	- 519
	<u>779</u>

Proportion of New Units in Cranbury (see Table 10)	x 5.6
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New Units in Cranbury	436
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TABLE 11

VACANT DEVELOPABLE LAND ZONED FOR LUXURY HOUSING &
MAXIMUM NUMBER OF UNITS

<u>Municipality</u>	<u>Zone</u>	<u>Number of Acres</u>		<u>Excluding Infrastructure (@ 15%)</u>		<u>Minimum Lot Size</u>	<u>Total Number of Units</u>
Cranbury	A-100	3,620	(-543) =	3,077	÷	6	513
Cranbury	R-LD	370	(- 56) =	314	÷	2	157
Cranbury	R-L1	1,072	(-160) =	912	÷	3	304
Cranbury	PD-MD	191	(- 28) =	163	÷	2	82
	Total						1,056

SOURCE: Cranbury Township Zoning Map (May 11, 1983), planimetered by ASA.

Princeton	R-1	1,403	(-210) =	1,193	÷	2	597
Princeton	R-A	635	(- 95) =	540	÷	4	135
Princeton	R-B	346	(- 52) =	294	÷	3	98
	Total						830

SOURCE: Princeton Township Inventory of Undeveloped Land (March, 1984)

Cranbury	1,056	(56.0%)
Princeton	<u>830</u>	<u>(44.0%)</u>
Total	1,886	(100.0%)

TABLE 12

AMOUNT OF LAND ABSORBED IN CRANBURY BY
LUXURY HOUSING DURING NEXT 15 YEARS

	<u>New Units</u>	<u>Average Minimum Lot Size</u>	<u>Amount of Land Absorbed by Luxury Housing</u>
Scenario 1	581	5.0*	2,905 acres
Scenario 2	436	5.0*	2,181 acres
Scenario 3	581	**	1,885 acres
Scenario 4	436	**	1,417 acres

Notes: Scenarios 1 and 3 assume that 80% of luxury housing development will take place in Princeton and Cranbury. Scenarios 2 and 4 assume that 60% of luxury housing development will take place in Princeton and Cranbury.

* Based on weighted average (see Table 13).

** Based on an even distribution of unit development in all luxury housing zones.

TABLE 13

WEIGHTED AVERAGE OF CRANBURY'S VACANT LAND
ZONED FOR LUXURY HOUSING

<u>Zone</u>	<u># of Acres</u>		<u>Minimum Lot Size</u>		<u>Land Absorbed</u>
A-100	3,620	x	6	=	21,720
R-LD	370	x	2	=	740
R-L1	1,072	x	3	=	3,216
PD-MD	<u>191</u>	x	<u>2</u>	=	<u>382</u>
	5,253		5.0		26,058

for this. Primarily, the higher density luxury zones such as the PD-MD and R-LD zones (both of which have 2 acre minimum lot sizes) are more likely to be developed as upper middle income housing. This is because: (1) these zones are close to existing development; luxury housing is more likely to be constructed in the least developed areas. (In Cranbury, these areas are mainly in the A-100 zones, which have a minimum lot size of 1 unit per 6 acres); and (2) the larger minimum lot sizes and amenities associated with the larger more private areas, are more attractive for luxury housing.

E. Conclusions

In summary, this analysis indicates that between 2,100 and 2,900 acres of land will be absorbed in Cranbury for luxury housing during the next 15 years.

In all likelihood, the growth of luxury large lot housing in western Cranbury will initially proceed without any significant impact upon the use of the remaining land for agricultural purposes. Based upon the early signs of this type of development, the first stage of luxury housing will occur directly off the existing roads in western Cranbury. Until such road frontage has been consumed, there will be little incentive for development to proceed into areas which currently remain in agricultural use. However, once substantial existing road frontages have been used up, housing development will occur in those areas between the existing roads. In this phase of development, the remaining extensive agriculture in western Cranbury will quickly decline. One of the most important aspects for the maintenance of large scale agriculture is the existence of large, uninterrupted fields which are required to maximize the effectiveness of modern-day agricultural equipment. Once fields are reduced in size due to intervening development, the extensive type of agriculture quickly recedes.

While the emphasis of this section of the report has been on land use activities by non-farmers, it would be incorrect to suggest that land owned by present day farmers will also not become involved in the transition from agriculture to large lot residential use. Given the incomes associated with extensive agriculture, the uncertainties of this type of economic activity, and its general decline in central New Jersey, the economic incentive for the remaining farmers will be to convert their fields from soybeans into upper-income housing. The reason for this phenomenon is fundamental to economics. A far greater return can be achieved from conversion both in present and long range terms. As long as demands are made in the housing market by families who desire and can afford homes on extensive acreage, the conversion process of land from farming to housing will continue to occur in western Cranbury.

III. GENERATION OF HOUSING DEMAND THROUGH INDUSTRIAL AND COMMERCIAL DEVELOPMENT IN CRANBURY

Until very recently, Cranbury Township has generated very little demand for new housing within its borders, based upon the Township's indigenous local economy. In terms of present day zoning policy, Cranbury Township can take the position that its land use policies have not been a factor in generating the levels of growth associated with the communities' fair share plan. However, it is likely this situation will change and that land in Cranbury zoned for economic development will significantly contribute to the growth of population and hence housing demand.

Historically, economic development has followed the New Jersey Turnpike south. Prior to 1950, the heartland of the State's employment was centered around Hudson and Essex Counties. With the opening of the Turnpike in 1953, both new jobs and old jobs have followed that highway down the State in the direction of Cranbury. While some of that development that has occurred during the last 30 years was located alongside the Turnpike, most of the economic growth, jobs and demand for housing have occurred at the various interchanges of the Turnpike.

The first major interchange for new growth was exit 10. This was the first important location where large tracts of undeveloped land were available for economic growth. The entire Raritan-Woodbridge industrial complex has developed adjacent to that interchange. The next interchange which had the vacant land suitable for commercial growth was exit 8A in South Brunswick. That growth started about fifteen years ago and proceeds unabated. As that growth continues and land becomes scarce in South Brunswick, it will, for land use reasons, have an impact on the industrial zone provided by Cranbury Township adjacent to the interchange.

During the past 15 years over 703,000 square feet of office, commercial and industrial development has been approved directly north

of Cranbury in South Brunswick in the area along Route 130 and the New Jersey Turnpike.* The development pattern in this area and continuing demand for such uses in the area indicate that this development will extend south into Cranbury. This, in fact, has already begun. (see Table 14). It is, moreover, being encouraged by Cranbury's land use regulations: the Township has zoned approximately 2,316 acres for office, industrial and commercial uses (see Table 15). Based on the development trends over the past 5 years in South Brunswick and the amount of land zoned for such development in Cranbury, a projection of future annual development in Cranbury has been made as well as a projection of the housing demand that will be generated by such development.

During the past 5 years in the area of South Brunswick directly north of Cranbury over 241,000 square feet of commercial development, 373,000 square feet of industrial development and 88,000 square feet of office development were approved (see Table 16). This represents an annual average of 48,000 square feet of commercial development, 74,000 square feet of industrial development and 18,000 square feet of office development. As noted above, this development has already begun to extend into Cranbury and during the next 5 to 10 years can be expected to continue at a similar intensity.

Tables 17 through 19 project the amount of average annual development activity in Cranbury during the next 10 to 15 years based on the development activity from 1980 to 1984 in South Brunswick. These tables contain specific assumptions and adjustments for each type of development, including: (1) an adjustment for available land (line 2: ratio of land in Cranbury relative to South Brunswick for each development category); and (2) average number of workers per square foot for each development category. Using these

* This excludes development in the eastern section of South Brunswick along Route 1. Including this development, over 292,500 sq.ft. were approved during the 1980-1984 period.

TABLE 14

SITE PLAN APPROVALS, CRANBURY
1980 - 1984

	<u>Commercial</u>	<u>Industrial</u>	<u>Office</u>	<u>Total</u>
1984	43,725	24,400	-	68,125
1983	4,250	-	-	4,250
1982	3,295	-	-	3,295
1981	-	-	-	-
1980	-	-	-	-

SOURCE: Middlesex County Planning Board.

TABLE 15

COMMERCIAL, INDUSTRIAL AND OFFICE ZONES
 CRANBURY AND SOUTH BRUNSWICK
 (in Acres)

	<u>Office</u>	<u>Industrial</u>	<u>Commercial</u>	<u>Total</u>
Cranbury	561	1,582	175	2,381
South Brunswick	2,209	3,507	865	6,581
Ratio: Cranbury to South Brunswick	1:3.9	1:3.9	1:4.9	1:2.8

SOURCE: Cranbury and South Brunswick Zoning Maps, planimetered by Abeles Schwartz Associates.

TABLE 16

SITE PLAN APPROVALS IN SOUTH BRUNSWICK
 (AREA DIRECTLY NORTH OF CRANBURY ONLY)
 1980 - 1984
 (in Square Feet)

	<u>Commercial</u>	<u>Industrial</u>	<u>Office</u>	<u>Total</u>
1984	1,454	115,730	88,670	205,854
1983	5,716	35,445	-	41,162
1982	220,300	2,280	-	222,580
1981	8,155	-	-	8,155
1980	<u>5,880</u>	<u>220,000</u>	<u>-</u>	<u>225,880</u>
Total, 1980-1984	241,505	373,455	88,670	703,631
Average Annual Commercial Development, 1980-1984:				48,301
Average Annual Industrial Development, 1980-1984:				74,691
Average Annual Office Development, 1980-1984:				<u>17,734</u>
Average Annual Development, 1980-1984:				140,726

SOURCE: Middlesex County Planning Board

TABLE 17

PROJECTION OF AVERAGE ANNUAL HOUSING DEMAND
GENERATED BY COMMERCIAL DEVELOPMENT IN CRANBURY

1. Average Annual Planned Commercial Development in South Brunswick, 1980-1984:	48,301 sq.ft.
2. Ratio of Land Zoned for Commercial Use in Cranbury Relative to South Brunswick (1:4.9):	\div <u>4.9</u>
3. Average Annual Projected Commercial Development in Cranbury	9,857 sq.ft.
4. Number of Workers per Square Foot (1/350)	\div <u>350</u>
5. Total Projected New Commercial Jobs	28
6. Number of New Commercial Workers	28
7. Proportion of All Families With At Least One Worker That Have Only One Worker	\times <u>33.7%</u>
8. Number of 1-Worker Families	9
9. Number of New Commercial Workers	28
10. Proportion of All Families With At Least One Worker That Have More Than One Worker	\times <u>66.3%</u>
11. Number of Workers That Are Part of 2-Worker Families	18
12. Assumed Number of Workers Per Family	\div <u>2</u>
13. Number of 2-Worker Families	9
14. Total Number of New Families (Line 9 & Line 10)	18
15. Annual New Housing Demand Projected to be Created by Commercial Development in Cranbury:	<u>18</u>

TABLE 18

PROJECTION OF AVERAGE ANNUAL HOUSING DEMAND
GENERATED BY INDUSTRIAL DEVELOPMENT IN CRANBURY

1. Average Annual Planned Industrial Development in South Brunswick, 1980-1984:	74,691 sq.ft.
2. Ratio of Land Zoned for Industrial Use in Cranbury Relative to South Brunswick (1:2.2):	\div <u>2.2</u>
3. Average Annual Projected Industrial Development in Cranbury	33,950 sq.ft.
4. Number of Workers per Square Foot (1/482)	\div <u>482</u>
5. Total Projected New Industrial Jobs	70
6. Number of New Industrial Workers	70
7. Proportion of All Families With At Least One Worker That Have Only One Worker	\times <u>33.7%</u>
8. Number of 1-Worker Families	24
9. Number of New Industrial Workers	70
10. Proportion of All Families With At Least One Worker That Have More Than One Worker	\times <u>66.3%</u>
11. Number of Workers That Are Part of 2-Worker Families	46
12. Assumed Number of Workers Per Family	\div <u>2</u>
13. Number of 2-Worker Families	23
14. Total Number of New Families (Line 9 & Line 10)	47
15. Annual New Housing Demand Projected to be Created by Industrial Development in Cranbury:	<u>47</u>

TABLE 19

PROJECTION OF AVERAGE ANNUAL HOUSING DEMAND
GENERATED BY OFFICE DEVELOPMENT IN CRANBURY

1. Average Annual Planned Office Development in South Brunswick, 1980-1984:	74,691 sq.ft.
2. Ratio of Land Zoned for Office Use in Cranbury Relative to South Brunswick (1:3.9):	\div <u>3.9</u>
3. Average Annual Projected Office Development in Cranbury	22,736 sq.ft.
4. Number of Workers per Square Foot (1/25)	\div <u>25</u>
5. Total Projected New Office Jobs	91
6. Number of New Office Workers	91
7. Proportion of All Families With At Least One Worker That Have Only One Worker	\times <u>33.7%</u>
8. Number of 1-Worker Families	31
9. Number of New Office Workers	91
10. Proportion of All Families With At Least One Worker That Have More Than One Worker	\times <u>66.3%</u>
11. Number of Workers That Are Part of 2-Worker Families	60
12. Assumed Number of Workers Per Family	\div <u>2</u>
13. Number of 2-Worker Families	30
14. Total Number of New Families (Line 9 & Line 10)	61
15. Annual New Housing Demand Projected to be Created by Office Development in Cranbury:	<u>61</u>

assumptions, during the next 5 to 10 years, over 9,800 square feet of commercial development, nearly 34,000 square feet of industrial development, and nearly 23,000 square feet of office development will take place annually in Cranbury. This will generate approximately 28 new commercial jobs, 70 new industrial jobs and 91 new office jobs per year in the Township. These new jobs will create an annual new housing demand of 126 units per year (see Table 20). This pace of demand will result in a need of 630 units to as much as 1,260 units* within the next 10 to 15 years.**

We believe that these estimates for future housing generated within Cranbury Township are conservative. Until now, the major site of Turnpike-related growth just off the interchange has occurred with limited east-west access to this location. While final plans for State Highway S-92 are not firm, the alignment for that important road seems increasingly committed to a terminus at exit 8A. With such an alignment, and new east-west access, the exit 8A growth area will expand at a more rapid rate.

An indicator of this change in the future for exit 8A can be seen by the recently announced plan for a major office and conference complex at the Forsgate Farm. Located in Monroe Township, the proposal is similar in content and scope with the development that has occurred at the Princeton-Forsgate Center on Route 1. Until now, 8A has been the location of distribution and light industrial activity. The advent of office type activity will result in the generation of far more employees and housing demand per acre than has occurred in the past with the lower intensity type of land uses. Northern Cranbury Township, with direct access via Route 535 and State Highway 130, will be directly affected by this new type of economic activity. Therefore, it is very likely that the housing projection set forth above is conservative and will be exceeded in the near future.

* Assuming development continues at the same pace for the next 10 years.

* Assuming a 5-year lag time between the creation of the jobs through economic development and the construction of housing.

TABLE 20

PROJECTED ANNUAL HOUSING DEMAND CREATED BY
ECONOMIC DEVELOPMENT IN CRANBURY

Housing Demand Generated by Commercial Development:	18 units/year
Housing Demand Generated by Office Development:	61 units/year
Housing Demand Generated by Industrial Development:	<u>47 units/year</u>
Total Housing Demand Generated by Economic Development:	126 units/year

SOURCE: Tables 16, 17 and 18.

IV. PENETRATION OF DEVELOPMENT INTO LIMITED GROWTH AREA

In 1980, the development group of the New Jersey Department of Community Affairs adopted the State Development Guide Plan (SDGP). The SDGP is a broad-based policy guide which recommends where future development and conservation efforts in the state should be concentrated. It contains a concept map which shows spatially where growth should be either discouraged, encouraged or delayed and reflects the need to balance conservation areas, agricultural land and water resource imperatives with opportunities for further economic and residential expansion. The concept map divides the land area of New Jersey into four general categories: growth areas, limited growth areas, agricultural areas, and conservation areas. Growth areas designate those regions where continuing development would be appropriate. The SDGP map indicates a growth area extending from Philadelphia northeast to Trenton, New Brunswick and the densely populated northeastern New Jersey area. This growth corridor reflects the existing patterns of urban development in New Jersey and suggests that future growth should follow the same pattern. The growth area designation between New York and Philadelphia is interrupted only by two "islands" of limited growth areas in the vicinity of Cranbury and South Brunswick. Limited growth areas are those areas which should be left to grow at their own pace. Public resources are recommended to be targeted toward other areas where growth can be accommodated more readily. However, the SDGP states that "areas which do not now appear to be necessary to accommodate projected population increases may become critically important resources for the New Jerseyans of the 21st century".

In the case of the limited growth area centered on portions of Mercer and Middlesex Counties, extensive development representing new regional growth is planned or has already occurred. Figure 1 indicates new industrial, commercial and residential development which is located within the vicinity of the limited growth area boundary, i.e. on its border or within it. Most of the developments listed have been constructed within the last 10 years.

While one cannot second-guess the motives or the intentions of the SDGP planners in their choice of a limited growth area designation for this area, it appears that in all other townships other than Cranbury, fairly extensive growth is expected and will be encouraged in the next decade. If this does occur, the viability of this land mass as a "holding area" of limited urban growth must be seriously doubted.

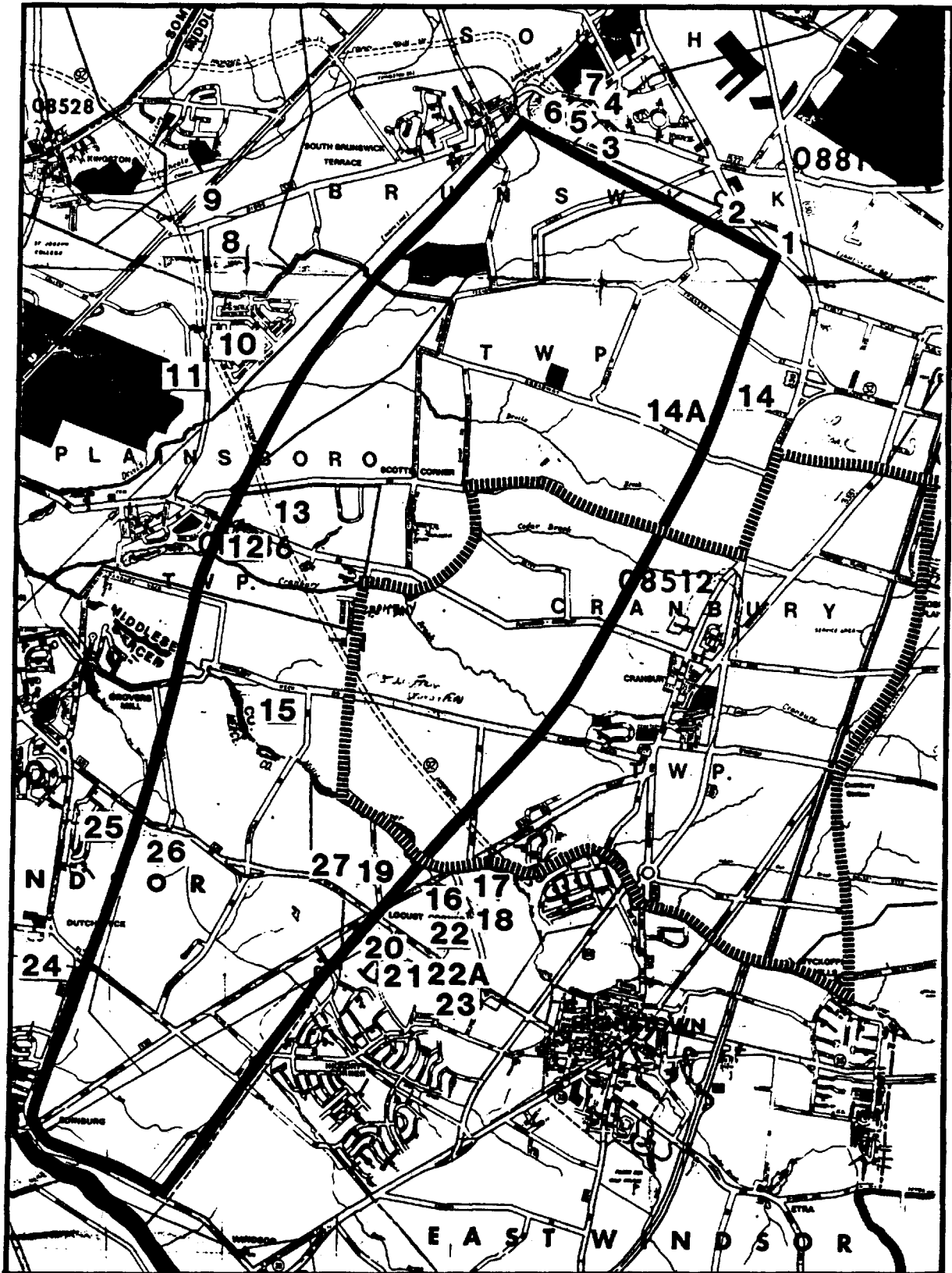
As the table indicates, at least 8 of the developments listed are partially or wholly within this limited growth area. Many of these are extensive new projects such as the Princeton Meadows mixed use development. Included are approximately 940 acres containing over 6,300 single and multi-family residential units as well as new office and retail commercial space. It is important to note that this huge development is situated near the center of the limited growth area and directly adjacent to the border of Cranbury Township.

The planners responsible for the SDGP land use designation clearly did not expect development of this magnitude to occur within the limited growth area. However, market forces have created a demand for new residential and commercial development in the region. When land zoned for such use becomes scarce, developers look to the next available areas for prime developable land. In many instances, as in the case at hand, this search leads to building in areas heretofore untouched by growth. This clearly is what is happening in the communities in which the limited growth area designation was made - East Windsor, South Brunswick, Plainsboro and West Windsor.

The amount of growth which has occurred within this limited growth area (with the exception of Cranbury - due to its exclusionary zoning) has been extensive and will continue to increase in the foreseeable future. Because market forces are currently strong and are likely to increase in the region, it is likely that limited growth area will experience extensive growth over the next 10 years.

It is also important to note that one of the areas which has experienced the most intensive growth within the last 5 years which is adjacent to the limited growth area is the intersection of Route 571 and Old Trenton Road. As the figure indicates, extensive new office and multi-family residential development has occurred and is planned at this location less than a quarter mile south of the CLC Cranbury site.

RECENT DEVELOPMENT IN THE VICINITY OF THE SOUTH BRUNSWICK /CRANBURY LIMITED GROWTH AREA



————— LIMITED GROWTH AREA BOUNDARY

- - - - - CRANBURY BORDER

"23" DEVELOPMENT LOCATION

TABLE 21

DEVELOPMENTS AS SHOWN IN FIGURE 1

1. 138 Georges Road - IBM warehouse, single story, 15 feet high - warehouse distribution.
2. Weatherhill Plantation - single family development by Sam Reider. Small single family homes. Roadwork being done, 2 houses under construction.
3. IBM distribution center/office center - large complex of several buildings.
4. Reider Dayton Center duplex.
5. Amway distribution center - 10 years old.
6. Macmaster Can distribution center/office - 3-5 years old.
7. Ken Reider Duplex Townhouses for Dayton Center.
8. Agerst Laboratory Research building - office/research, 3 stories, over 100,000 square feet of space. 1-2 years old. Directly adjacent to agricultural fields.
9. Wall Street Journal/Barrons office/distribution complex. Fronts off Route 1. 10 years old or less.
10. Single Family subdivision, new large lots, less than 5 years old.
11. 3 office buildings of Princeton Forrestal Center off of College Road East. 2 new buildings, one under construction.
12. Executive Business Center - Linpro, part of Princeton Meadows. 3 office buildings, one built:
 - 63,000 sq.ft. - built 3 story spec office
 - 58,000 sq.ft. - U/C
 - 37,000 sq.ft. - U/C
13. Princeton Meadows:
 - Shopping Center
 - Office Center
 - Deer Creek Apt.
 - Hunters Glen Apt.
 - Brittany T.H.
 - Raven Crest Apt.
 - Gentry Single family
 - Aspen

LINPRO CO. (940 acres) PRINCETON MEADOWS

TABLE 21 (Cont'd.)

RESIDENTIAL

S.F.	350 units)	
T.H.	864 units)	377 acres
Apts.	<u>5,110</u> units)	
	6,324		

COMMERCIAL

Retail	32 acres
Office	56-81 acres

OPEN SPACE 250 acres

14. Scattered light industrial warehouse buildings, part of South Middlesex light industrial park. Single story, some office space.
- 14A. New office/warehouse districts building one mile west of Broadway and Georges Road. Dense woodlands on both sides of Broadway.
15. Small one acre lot subdivision. Three home constructed, one under construction. Directly adjacent to farmland.
16. Windsor Mills) Condo apartments,
17. Windsor Mills II) 1-4 years old
18. Windsor Commons - luxury rental apartments - under construction.
19. RCA - new construction - 3 story office addition.
20. Windsor Center - Under construction - office building.
21. PatCo office building. 1 year old. New.
22. McGraw Hill - Office expansion under construction.
- 22A. McGraw Hill - warehouse distribution.
23. Mettler Instruments.
24. Dutch Neck Estates - Major new single family development. Large lots, luxury homes, 1/2 acre lots - 200-250 acre site. Under construction.
25. Grovers Mill Estate - large lot s.f.
26. Princeton Oaks - within limited growth area. Under construction.
27. Carter Wallace - warehouse distribution and office.

V. THE CLC SITE IN RELATIONSHIP TO THE SDGP "GROWTH AREA"

Less than 25% of the total CLC site is located inside the SDGP "limited growth area". Of that 25%, just over one-half is being proposed for development, the remainder being in the floodplain and proposed to be preserved as open space. The development proposed in the limited growth area are large lot single family homes which will be independent of public water and sewer systems. This is exactly the type of development discussed in the State's SDGP as being suitable for limited growth areas (see pages 91 and 92). The development of large lot housing will in all likelihood occur in and around the CLC site with or without the approval of the CLC proposal due to its current zoning for a "limited growth" form of development.

It is unreasonable to assume that the boundary separating the SDGP "growth area" from the "limited growth area" is a line precision equal to that of a zoning line. A reasonable view of the SDGP designations is that they merely prescribe general areas in which to channel or encourage growth. The reason for this assumption is that no planning program on a statewide scale can, on a consistent basis, precisely distinguish between land masses which should accommodate current growth and areas designated to currently limit growth but later be developed to meet the needs of the 21st century. In the case of Cranbury, there will undoubtedly be areas within the SDGP "growth area" which will not be brought into urban use for the next decade and a half. For example, those areas which are farmed directly west of the village center. Under the present Mt. Laurel plan for Cranbury Township, this area has no proposed use. Another example of land well within the growth area of Cranbury Township which may not be developed in the next 15 years is the large portion south of Station Road between Monroe Township and Route 130. This area is somewhat removed from growth due to a lack of roads crossing the Millstone River. Therefore, it would appear that a substantial amount of land now scheduled for growth will

instead be available for long term growth. Consequently, from a broad perspective, the use of 18 acres of land just inside the limited growth area would not materially impact on the future validity of the state plan for long-term development.

VI. SHADOW OAKS AND CRANBURY'S AGRICULTURAL PRESERVATION POLICY

Cranbury Township adopted a new zoning ordinance on July 28, 1969 which remained in effect until May 11, 1983. During this 14-year period, all land west of Route 130 excluding the town center area was zoned for single family development on minimum 40,000 square foot lots.

On November 15, 1982 Cranbury Township granted preliminary site plan approval for a 24 lot subdivision of a 27.76 acre tract then known as Block 21, lot 7 on the Township tax map. The proposed lots conformed in all respects to the requirements of the local zoning ordinance and the subdivision was an "as of right" development. A variance or rezoning was not necessary.

A number of conditions were imposed by the resolution and included the following:

1. All lots were to be at least 40,000 square feet in size as per zoning requirements.
2. All lots except one were to front on interim roads.
3. All lots were to be serviced with public water supply and on-site sewage disposal. Water supply was to come from an extension of a 12-inch Township water main along Old Trenton Road approximately 3,600 feet to the site. The developer was responsible for costs of installation and was to make written application to the Cranbury Township Committee for an extension agreement to delineate means, methods, costs, rebates and other specific details.

The entire preliminary approval for Shadow Oaks also included an additional 90.26 acres and 69 lots. The original preliminary approval was to expire on November 15, 1982. In the period preceding

the expiration, Cranbury Township was in the process of revising its "Land Use Plan" (i.e. Master Plan). One of the major recommendations in this plan was the preservation of agricultural land in the Township in two main areas: (a) "west of the Village and south of Cedar Brook", and (b) "between Route 130 and the New Jersey Turnpike". Despite the fact that Shadow Oaks was still substantially undeveloped and located in the former area (i.e. "west of the Village and south of Cedar Brook"), the suggested zoning for this area remained at one dwelling unit per acre, while all land west of this was recommended for zoning at one dwelling unit per 15 acres. The Cranbury Township Land Use Plan was adopted on September 9, 1982.

On September 16, 1982, a week after the adoption of the Land Use Plan, the developer of Shadow Oaks was granted a two-year extension for preliminary approval. The same planners responsible for the Township Land Use Plan, Raymond, Parish, Pine and Weiner, Inc. reviewed the application and suggested that the extension be granted. While the zoning for the Shadow Oaks site was for one-acre single family dwelling units, the continuation of the Township's policy towards allowing the whole of Shadow Oaks to be developed in an area which the Land Use Plan (i.e. Master Plan) text suggested should be rezoned for agricultural preservation, is illustrative of the Township's lack of commitment to implementing this policy.

Furthermore, the whole area south of Old Trenton Road, as well as some parcels to the north of it, were recommended for 1-acre single-family development, which again is inconsistent with the stated goals and policies of the Township's "Land Use Plan". The effect of allowing one-acre development to be permitted in this area would be to have residential development directly adjacent to agricultural fields for a perimeter of 6,400 feet and be separated only by a road (Old Trenton Road) for a distance of 6,000 feet. One can also assume that similar to Shadow Oaks, development in this area would be required also to install utilities along Old Trenton Road as far south as the Millstone River.

In summary, the extension of the Shadow Oaks preliminary subdivision approval and the continuation of one acre zoning for land south of Old Trenton Road, is:

- (1) inconsistent with the Cranbury Land Use Plan which recommended that this area be rezoned for agricultural preservation;
- (2) places residential development directly adjacent to agricultural development which the Township has maintained are incompatible neighbors and damaging to agricultural preservation;
- (3) permits the extension of utilities into an area of the Township which supposedly should not encourage growth.

VII. COMPATIBILITY OF EXTENSIVE AGRICULTURE AND MODERATE DENSITY
RESIDENTIAL DEVELOPMENTS

Both the compliance report prepared by Cranbury Township and the review and recommendations of the master seem to accept the premise that extensive agriculture is negatively impacted and irreparably harmed by the existence of moderate density residential developments adjacent to it, such as in the case of the CLC proposal. In fact, throughout the area there are numerous examples of new and old residential developments, some low density and some high, which successfully coexist with agricultural fields adjacent to them. A series of photographs, a map and Table 22 below illustrates both single and multi-family developments in the Cranbury area which are situated directly adjacent to actively cultivated agricultural fields. The oldest of the developments, Twin Rivers and Orchard Condominium Apartments, were constructed as long as 15-20 years ago and have not been adversely impacted by their proximity to actively farmed fields.

Twin Rivers, the first PUD to be constructed in New Jersey, was developed in the late 60's and early 1970's on land previously used for agriculture. Currently, parts of the development which contain multi-family housing at densities of 20 units per acre, directly abut agriculture fields, thus indicating that for a period of approximately 15 years, multi- and single-family residential development have harmoniously existed with agriculture.

The table indicates a total of 13 residential developments in five municipalities where agriculture and housing coexist side by side. The largest and newest of these developments is Princeton Meadows in Plainsboro. When completed in 1986, the project will contain approximately 6,300 multi-family units on nearly 1,000 acres. Also included is commercial office and retail development. In many instances, residential multi-family development is directly adjacent to farm fields.

Perhaps the best example of residential development coexisting with agriculture is visible in Cranbury Village. For over 200 years, residential development fronting along Main Street, Prospect Street and Barclay Street has abutted agricultural fields without any adverse impacts to either agriculture or residences. In some instances, in the vicinity of Barclay Street, single family homes are located less than 25 feet from crops.

In the vicinity of the CLC Cranbury site, the Shadow Oaks single family development provides an excellent example of residential uses coexisting with agriculture. Constructed in the late 1970's, Shadow Oaks contains large single family homes on average one acre lots which typically market in the \$200,000 range. The back yards of homes which front along Handley Drive directly abut active farm fields without a buffer zone. This example vividly illustrates the ability of residential development to exist harmoniously with agriculture in Cranbury.

In summary, these examples provide substantial proof that extensive agriculture can continue to operate without any negative or adverse impacts as a result of adjacent moderate density residential development, as proposed in the CLC proposal.

TABLE 22

RESIDENTIAL DEVELOPMENT LOCATED ADJACENT TO ACTIVE
AGRICULTURE FIELDS IN THE CRANBURY AREA

<u>Development</u>	<u>Location</u>	<u>Township</u>
Princeton Meadows	Plainsboro-Cranbury Road	Plainsboro
Shadow Oaks	Old Trenton Road	Cranbury
Georgetown	Route 130	East Windsor
Windsor Commons	One Mile Road	East Windsor
Single family	Schalks Crossing Road	Plainsboro
Single family	Cranbury Neck Road	Plainsboro
Dutch Neck Estates	Village Road	West Windsor
Grovers Mill Estates	Route 571	West Windsor
County Crossing	Station Road	Cranbury
Concordia	Union Valley Road	Monroe
Twin Rivers	Route 33	East Windsor
Hickory Corner	Route 571	East Windsor
Orchard Condominiums	One Mile Road	East Windsor



PHOTO A-1: SHADOW OAKS, CRANBURY TOWNSHIP



PHOTO A-2: SHADOW OAKS, CRANBURY TOWNSHIP



PHOTO A-3: SHADOW OAKS, CRANBURY, NEW JERSEY

Photos A-1 through A-3 depict active agricultural fields directly adjacent to Shadow Oaks, a new single-family development in Cranbury Township. The development consists of approximately 110 custom homes on one acre lots constructed between 1980 and the present. An additional 24 units are planned or under construction. The subdivision is directly adjacent to the CLC site along Old Trenton Road. Photos A-1 and A-2 clearly show that active agricultural fields are cultivated directly up to the border of adjacent single-family lots without a buffer of any sort. The homes depicted market in the \$185,000 to \$250,000 range. Photo A-3 shows farm fields only partly buffered from adjacent homes by a wooden fence.



PHOTO B-1: CROPS ADJACENT TO MAIN STREET, CRANBURY TOWNSHIP

Photos B-1 depicts a field of corn extending directly up to Main Street in Cranbury Township. Single-family homes, some of which are over 100 years old, surround the field. The photo was taken near the intersection of Main Street and Barclay Street. Main Street is in the center of the photo.



PHOTO B-2: CROPS ADJACENT TO SINGLE-FAMILY HOME
MAIN STREET, CRANBURY

This photo clearly displays the ability of residential uses to coexist with agriculture. The setback between the field and the house is less than 20 feet. The house and field have both coexisted with this arrangement for at least 20-25 years. Main Street, Cranbury is in the foreground.



PHOTO C-1: TWIN RIVERS, EAST WINDSOR TOWNSHIP

Photo C-1 shows a lush field of Alfalfa adjacent to multi-family units in the Twin Rivers development. Note that vegetation, planted 15 years ago when the development was originally constructed, has matured and helps serve as a buffer with the adjacent fields.



PHOTO C-2: TWIN RIVERS, EAST WINDSOR TOWNSHIP

Close-up view of multi-family units in Twin Rivers adjacent to crops.



PHOTO D-1: CROPS ADJACENT TO SINGLE-FAMILY DEVELOPMENT
EAST WINDSOR TOWNSHIP

This photo depicts the proximity of active corn fields to single-family homes along North Main Street in East Windsor Township. The home in the upper left-hand corner is 30-40 years old.



PHOTO E-1: GEORGETOWN, EAST WINDSOR TOWNSHIP

Georgetown is a new multi-family townhouse development that is just nearing completion. The development is located at the intersection of U.S. Route 130 and contains approximately 180 units. The photo shows a corn field adjacent to townhouse units, buffered by a low grassed earth berm (center of photo).



PHOTO F-1: PRINCETON MEADOWS, PLAINSBORO TOWNSHIP

This photo shows a recently-plowed field adjacent to multi-family apartment units of the Princeton Meadows development in Plainsboro. The development is directly adjacent to the Cranbury border and, at a net density of 15-20 units per acre, clearly indicates the compatibility of new multi-family development and agriculture.



PHOTO G-1: CROPS ADJACENT TO ORCHARD CONDOMINIUM APARTMENTS
EAST WINDSOR TOWNSHIP

Photo G-1 is a close-up view of a corn field adjacent to the Orchard Condominium apartments. The complex originally contained rental units and was called the Northgate Apartments. The fact that the development has converted to condominiums attests to the long-term mutual co-existence of agriculture and multi-family uses. The units are approximately 15-20 years old.



PHOTO H-1: DUTCH NECK ESTATES, WEST WINDSOR TOWNSHIP

Photo H-1 depicts recently planted fields adjacent to custom luxury homes in Dutch Neck Estates, a new single-family subdivision in West Windsor Township. The units are separated from the field by a small berm.



PHOTO H-2: DUTCH NECK ESTATES, WEST WINDSOR TOWNSHIP

This photo depicts a farm tractor planting a field adjacent to Dutch Neck Estates in West Windsor Township.

VIII. COMPATIBILITY OF THE CLC SITE WITH SHADOW OAKS

In the master's report, at 33, the following statement is made in regard to the CLC site and Shadow Oaks:

"It would not be compatible with the abutting single family home subdivision, notwithstanding the efforts to mitigate the conflict of densities which are reflected in the plaintiff's conceptual site plan."

Based on planning principles and current zoning proposals for Cranbury Township that objection to the CLC plan is inappropriate. An examination of the site suitability report by CLC dated August 1984 indicates that adequate transition elements have been provided between the CLC proposal and Shadow Oaks. All of the new sections of Shadow Oaks opposite the CLC site have reverse frontages. Therefore the single family development on Old Trenton Road is separated from the CLC project by the Shadow Oaks back lots, and by the back lots of the proposed 8,000 square foot lots of the single family development on the CLC site itself. This provides an adequate transition between the CLC development and the existing Shadow Oaks subdivision.

There is no factual basis to believe that multi-family housing adjacent is in and of itself incompatible with or has adverse impacts on single family development. Conflicts have only occurred in those situations where the life styles and economic status of adjacent developments differ to a radical degree. That is not the case in respect to the proposed CLC development and the Shadow Oaks development. The population who would inhabit that portion of the CLC development closest to Shadow Oaks would be close in economic and social stature to those in Shadow Oaks with the only difference being age, i.e. they would be ten to fifteen years younger.

In the proposed Zirinsky development, a multi-family project would be located adjacent to existing single family housing west of

northern Main Street. To the north of the Zirinsky development will be future single family housing on very large lots (1 to 3 acres in size) in the RLI zone. There is no reason to suppose that these two projects would be any more compatible than the CLC and Shadow Oaks development.

In terms of planning principles and practice there is every indication that adjacent residential units which differ by density and housing type can exist side by side. The relationship between Cranbury Fields (CLC) and Shadow Oaks is no different than many of the instances of such successful coexistence.

IX. IMPACT OF THE S-92 RIGHT-OF-WAY ON THE CLC PROPOSAL

Much has been made of the potential impact of the proposed S-92 Highway on the CLC proposal. At the current time the New Jersey Department of Transportation (NJDOT) has detailed drawings of two proposed rights-of-way and is also evaluating 5 alternative alignments as well.

The NJDOT has drafted engineering drawings of the Route 92 right-of-way in the vicinity of the subject site. There are two variations of the right-of-way, one aligned east of the Windsor Mill condominiums traversing the center of the western tract of the CLC site (Scheme A), and the other running west of the Windsor Mill Condominiums traversing the western area of the CLC site's western tract (Scheme B).

If Scheme A were to be chosen for the S-92 right of way alignment, approximately 53 acres of the CLC site would be rendered undevelopable. However, all but 21 of these acres are located within the 100-year floodplain surrounding the Millstone River. Hence, in this scheme, only 15% of the developable land area of the parcel would be lost for development. In addition, the area of the site traversed by S-92 is indicated in the CLC conceptual site plan as being reserved for luxury townhouse units and large lot single family development. The total number of units for the entire site would be reduced to approximately 564 units from 680 units.

If Scheme B were to be selected for the right-of-way, a total of 12 acres would be rendered undevelopable. However, only 2.8 of these acres are not located in the floodplain and, again, all of the land is located in the extreme western part of the site reserved for low-density, large lot single family development. This area corresponds to the limited growth area designation of the SDGP. Only 8 to 10 units of rural single family development would be lost and the total number of units for the CLC site would be reduced from 680 units to perhaps 670 units.

The above analysis indicates that even considering the worst case scenario (Scheme A) for the alignment of S-92 in relation to the CLC site, at most, only 17% of the total number of units would be lost for development (assuming the same conceptual site plan is used as that initially proposed). Furthermore, if S-92 did actually pass through the site, the fact that the CLC site would be adjacent to a major new highway and an interchange with Old Trenton Road would make it even more suitable for a moderate density residential development.

If S-92 is constructed at least 560 units would have the benefit of now being located directly adjacent to the interchange and have direct access to Route 1, the Princeton area and the New Jersey Turnpike. No other site in Cranbury would have such direct access to major state roads. In addition, the construction of S-92 would direct much of the traffic generated by the CLC development away from the Historic Village Area, thereby reducing its impact on the Village.

As of May 1985, the NJDOT has been evaluating 5 alternative rights-of-way for State Route 92. Two of these alternatives traverse the subject site and 3 do not involve Cranbury Township at all. The following tentative schedule is being used by the NJDOT in the selection process. NJDOT engineers have stated that, if all goes well, the approval of a final right-of-way will not take place until the summer of 1986. As Table 23 indicates, the selection of a right-of-way for S-92 is in the initial stages.

One of the concerns raised in relation to the development of the CLC site is the potential adverse impact that the CLC development could have on the development of S-92. It has been stated that the use of the CLC site for residential use could jeopardize the alignment of S-92 and increase its costs. Both concerns are ill founded.

When development is proposed along an approved right-of-way, the NJDOT is notified. Thereafter, the State can restrain development for one year, during which time it can review its decision and commence "taking" activities. Once condemnation is instituted, the value for the land is based on the highest and best use at the time of taking. The potential development of the CLC site thus neither prevents the development of or increases the costs of Route S-92.

TABLE 23

SCHEDULE FOR NJDOT'S SELECTION OF THE
S-92 RIGHT-OF-WAY ALIGNMENT

Fall 1984	Impact Public Meeting
Summer 1985	Approval of Draft Environmental Impact Statement by Federal Highway Administration
Fall 1985	Official circulation of the Draft Environmental Impact Statement
Fall 1985	Public Hearing
Winter 1985	Selection of Preferred Alternative by Department with concurrence of the Federal Highway Administration
Summer 1986	Approval and circulation of Final Environmental Impact Statement
Fall 1986	Begin Final Design Work and Right of Way Acquisition
1988	Begin construction.

X. SOIL AND FLOODPLAIN CONDITIONS ON THE CLC SITE

The master's report indicated two physical problems related to the suitability of the CLC site: soils not conducive to development and a significant amount of floodplain within the site. The facts in respect to soil condition as reported by the Soil Conservation Service and as can be observed in the field do not support those conclusions. The field facts are that about 80% of the site has been in farming use for centuries. One thing that farmers almost never do is utilize lands either subject to flooding or which have other physical attributes adverse to active agriculture (for example, wet soils, stony soils, steep slopes, etc.). Those areas of the site which are proposed for development purposes are those same fields which have historically been farmed.

Almost half of the CLC site contains soil classified as being in the Sassafras Series. Another 20% of the property contains soils in the Woodstown Series, and a further 20% are in the Downer Series. As noted in the Cranbury Township Land Use Plan, the Sassafras, Woodstown and Downer soil classifications are deep, well-drained soils, considered highly suitable for residential development. The remaining soils, upon which no development has been proposed, are found within the 100-year floodplain of the Millstone River.

Those parts of the total site which contain "wet" soils fall into two categories. A drainage channel divides the eastern parcel into two parts. In the proposed development plan, this intermittent drainage corridor will remain in its current physical location and condition. As an area of open space, it will provide a recreational element running throughout the eastern parcel of the CLC site. In the western parcel, the floodplain or wet area is located on the southern end of the parcel. All of this wet land will remain undeveloped as a floodplain and for recreational purposes for the entire development.

As the CLC development proposal shows, where site soil conditions are poor or fall within the floodplain, the land will be used for open space and recreation. A reexamination of the soils and the development proposals of CLC will clearly demonstrate that the soil conditions of the site are highly suited for the development proposed.

XI. HISTORIC DISTRICT

Throughout the compliance proceedings, one goal of the Township in regard to future planning efforts has been accepted by all of the parties: the preservation of the Township's Historic Village Area. In evaluating various new sites for Mt. Laurel housing, the impacts that the development of housing would have on the Historic Village has always received high priority.

There are, however, two major points which illustrate that the Township may not be as seriously concerned about Historic Preservation as is claimed in their compliance package. The first point regards the lack of action they have taken in regard to historic preservation efforts and the second is the choice of sites for compliance.

The Township has only taken one of a number of steps that can be taken to protect the historic quality of the village: this is the listing of the Cranbury Historic District on the National Register of Historic Places. This step, although seemingly significant, does not afford significant protection of the buildings or district unless public subsidies (i.e. federal or state programs) are involved. Property owners may not tax deduct the cost of demolishing buildings that contribute to the historic quality of the historic district. As demolition usually only amounts to 1% or 2% of the cost of real estate development projects, this penalty is insubstantial. Another penalty is that property owners may not take advantage of the Tax Act credits for renovation of buildings for commercial or rental purposes, unless the renovation is in accordance with the guidelines of the Historic District. However, this penalty (and benefit) is now in jeopardy as a result of the President's tax reform proposals. In short, neither tax penalty represents a significant deterrent for developers from not preserving buildings in National Register historic districts.

Because the designation of a district on the National Register is such a limited tool of preservation, other stronger measures have been developed to preserve historic buildings and places. These measures fall into two categories, as follows:

- (1) the adoption of a local landmark ordinance and/or design guidelines;
- (2) the introduction of local incentives for the renovation or preservation of historic buildings in accordance with their historic value.

Cranbury has failed to employ either of these two measures.

First, Cranbury has not adopted a local landmark ordinance or design guidelines. The current zoning requirements and uses permitted in the Commercial Village Zone is no different than those adopted for typical old small downtown areas. There is nothing inherent in the zoning requirements which distinguishes this zone (or its historic nature) with other zones in which no historic qualities exist. Development which is incompatible with the historic quality of the Village is permitted as-of-right.

Second, the Township has not introduced any incentive programs for owners or developers to renovate or preserve buildings in the historic district. A wide variety of incentive programs have been utilized in other towns and cities. These include local real estate tax deductions for renovation of historic or older buildings; charitable donations of facade easements and/or development rights to municipalities or approved not-for-profits; sale (i.e. "transfer") of development rights to other property owners or a "land bank"; use of Community Development Block Grants or other funds under the control of the municipality to undertake specific renovation or facade improvement programs in the historic district. In brief, Cranbury has not pursued meaningful and local preservation

strategies, which leads one to doubt Cranbuty's commitment to the goal of historic preservation. If sufficient economic incentive exists for redevelopment of certain areas or buildings in the Village, which we believe will exist if the Township's sites are selected for development, then this will occur without the Township's intervention. If the Township is serious about negating the impact of future development on the historic qualities of the village, the choice of sites should take into consideration the distance of the new development from the village, the size of the new development, and the direction of future traffic flows from these new developments.

In regard to the choice of sites, the recommended rezoning of the Township of three large contiguous sites directly adjacent to the village (sites 1, 2 and 3 - Garfield, Danzer and Applegate) is inconsistent with the goal of historic preservation. First, the scale of development, 526 acres, will be larger and more dense than the Village itself. Having all the development located in this area, instead of providing a number of scattered or "satellite" locations for development, will create the effect of a competing "new town" adjacent to existing development. Such a situation could lead to a "newcomers" vs. "oldtimers" confrontation in which the political and historic differences are magnified. Second, it will create serious traffic problems in the village as much of the traffic generated by these sites will be travelling through the village on its way to employment centers on Route 1.* Third, the fact that the three sites are directly adjacent to the village will also mean that in the absence of commercial development on-site, most of the new residents will use the existing Village center for their day-to-day shopping needs. This will increase the pressures for redevelopment of retail uses in the Village itself. Fourth, the visual impact of 526 acres of new development adjacent to the

* Route 130 will not be used to travel westwards because of the necessity of travelling through the Hightstown-East Windsor centers. Most likely Main Street and Old Trenton Road will be used as a bypass to Hightstown and East Windsor.

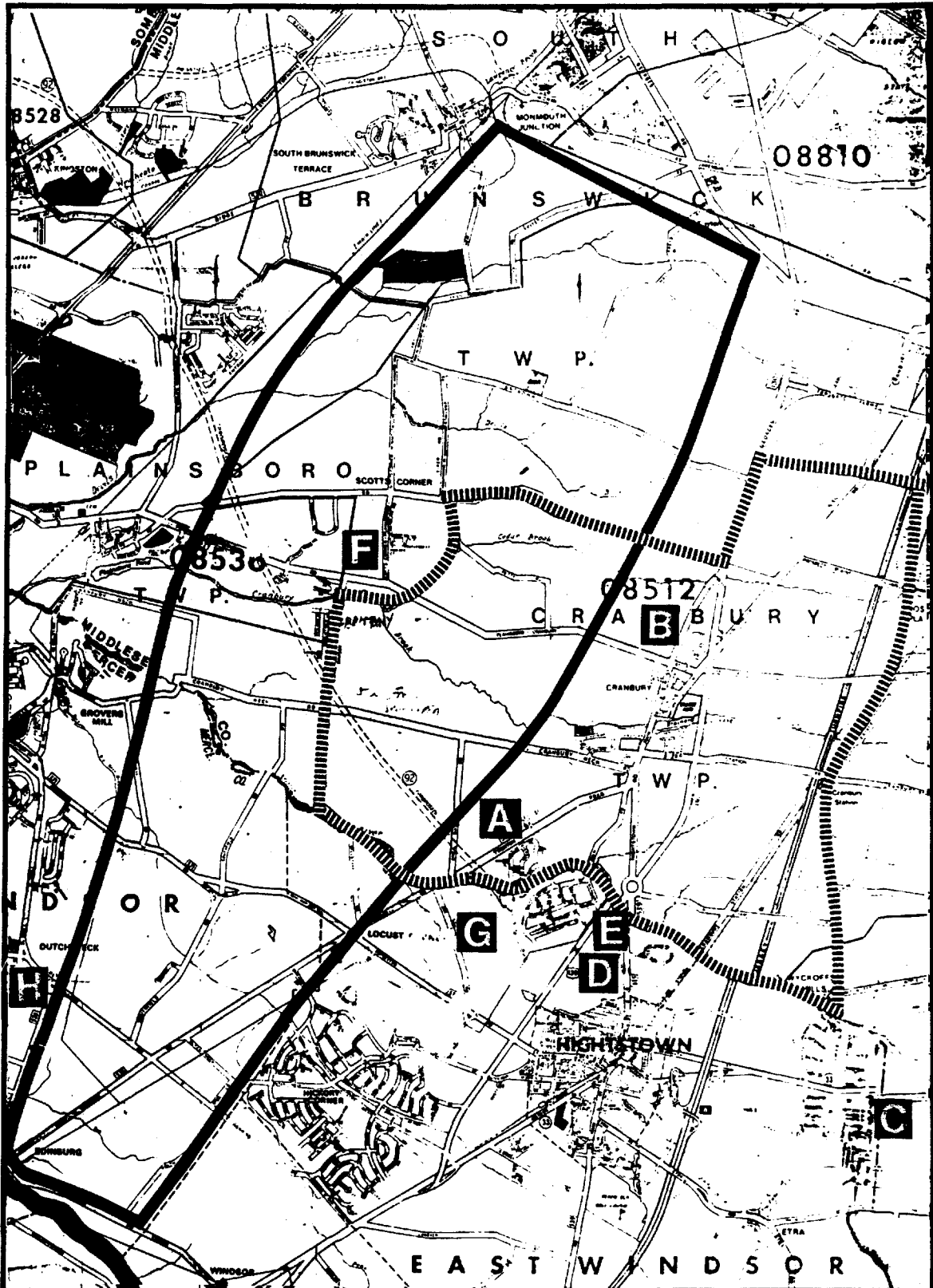
village will be enormous, detracting substantially from the Village's historic nature.

The selection of sites 1 and 6 by the Master for compliance with Mt. Laurel II is to some extent also inconsistent with the goal of historic preservation. Sites 1 and 6 are also close to the Village area - one being directly adjacent (site 6) and the other being somewhat removed from the Village (site 1). The fact that these two sites which are non-contiguous is favorable, leading to the development of "satellites" outside the Village rather than a concentrated "new town" approach by Cranbury Township. However, the choice of site 6 (Zirinsky), which is directly adjacent to the village, is likely to have a much greater impact on the historic village than the CLC site. The Zirinsky parcel has frontage on two roads which lead directly into the Village - Plainsboro Cranbury Road and Main Street. Much of the traffic generated by this development is likely to travel through the Village - the only direct routes eastwards or south from Site 6. In addition, residents of Site 6 are also more likely to utilize the Village for day-to-day shopping exerting the same type of development pressures discussed above.

The CLC site, of all the potential Mt. Laurel sites, is furthest removed from the Village; the traffic generated will be moving south and east (to employment) without travelling through the village; will be able to use Route 130 to travel north rather than going through the Village itself (especially after Old Trenton Road and Route 130 are connected as planned by the Township); and the CLC site both in terms of its size and density does not represent a competitive "new town" but rather a continuation of development along the Township's existing north-south development spine. It is also buffered from the historic village by single family development to its north (i.e. Shadow Oaks). The CLC site, being located far from the village, will also have much less of a visual impact on the historic quality of the village than those sites selected by both the Township and the Master.

RESIDENTIAL DEVELOPMENT ADJACENT TO ACTIVE FARMLAND

KEY MAP TO PHOTOGRAPHS



LIMITED GROWTH AREA BOUNDARY



CRANBURY BORDER



PHOTOGRAPH LOCATION