

Planning
Dept.

Township of Bridgewater Comprehensive Master Plan 1990

Planning Consultants:
Madden/Kummer, Inc.
Carl Lindbloom & Associates

Comprehensive Master Plan

**Township of Bridgewater
Somerset County, New Jersey**

**Township of Bridgewater
Planning Board**

**Planning Consultants:
Madden/Kummer, Inc.
Carl Lindbloom & Associates**

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TABLE OF CONTENTS

1.	PLANNING IN BRIDGEWATER	1
2.	THE LEGAL REQUIREMENTS FOR PLANNING	2
3.	BACKGROUND DATA AND ANALYSIS SUMMARY	3
4.	OVERVIEW OF MASTER PLAN POLICY RECOMMENDATIONS	9
5.	STATEMENT OF OBJECTIVES	10
6.	PLAN ELEMENTS	11
7.	POLICY STATEMENT OF MASTER PLAN RELATIONSHIPS	81

1. PLANNING IN BRIDGEWATER

Municipal planning is a process and one of the primary objectives of that process is the master plan. The master plan itself is generally defined as a comprehensive guide for the future development of a community (or any area or jurisdiction) in terms of its physical, social, economic and aesthetic needs. The key element in defining a master plan is its comprehensive approach. The master plan considers all factors having an impact on community life and their potential for change. Each of the many aspects to be examined are considered with respect to the whole, and in forming final proposals, all planning considerations are adjusted to each other.

The prior Master Plan of Bridgewater Township was adopted on September 22, 1976. It contained eight basic elements - a statement of objectives, a land use plan, a housing plan, a circulation plan, a utility service plan, a community facilities plan, a recreation, park, and open space plan and a conservation plan. These plan elements were developed from studies of existing land uses, physical characteristics, traffic, population, housing and community facilities that were made and reported upon in the Background Analysis Supplement to the 1976 Plan.

Over the past fourteen years the 1976 Plan had been amended a number of times, the most recent amendment being the adoption of a Housing Plan Element on December 16, 1986. As required by the Municipal Land Use Law, a Master Plan Reexamination Report on the 1976 Plan was prepared by Planning Board Staff and adopted in August of 1982; and, in 1988, the 1976 Plan (including all amendments to date) was again reviewed by the Planning Board and a Reexamination Report was adopted on July 20, 1988.

The Township Planning Board has recognized for some time that a comprehensive revision of the 1976 Plan was needed. In 1987 a Master Plan Subcommittee of the Planning Board, appointed by the Mayor, was established and charged with developing a program for a new Master Plan. To that end the Planning Board held a series of four neighborhood meetings in the fall of 1987 to solicit public input. In May of 1988, the planning consultant team of John Madden and Carl

Lindbloom was engaged to assist in the preparation of the new Master Plan. During 1988 and 1989, the planning consultant team worked with the Subcommittee to review changes in the setting for community planning in Bridgewater. These changes were then incorporated in an updated Background Analysis report. Community planning goals were reviewed and reassessed.

Major plan policy revisions were also studied by the Subcommittee and the planning consultants. A series of neighborhood meetings were held in 1989 to gain citizen input on the Master Plan proposals. Based on all of this work, the subcommittee recommended a draft plan for the full Planning Board's consideration and citizen review in formal public hearings. The Planning Board held hearings in February and March 1990 at which time the Master Plan was adopted.

2. THE LEGAL REQUIREMENTS FOR PLANNING

The New Jersey Land Use Law (c.291, N.J. 1975) establishes the legal criteria for a master plan and each community must be certain that its plans measure up to the legal requirements of the law. The following is a summary of these requirements:

Preparation and Adoption

The responsibility for the preparation of a master plan rests with the local planning board. The plan is adopted (or amended) only by the planning board and only after a public hearing. An adopted master plan must be reviewed at least once every six years, and amended where necessary. The local zoning ordinance must be consistent with the land use element of the plan.

Content

The master plan must include a statement of objectives upon which the plan is based; a specific policy statement indicating the relationship of plan proposals to the plans of neighboring communities, the County, and other appropriate jurisdictions; and nine plan elements as follows:

Land Use Plan
Housing Plan
Circulation Plan
Utility Service Plan
Community Facilities Plan
Recreation Plan
Conservation Plan
Economic Plan
Historic Preservation Plan

The Municipal Land Use Law does not limit the number of plan elements in a master plan and a community is free to develop additional plan elements or to combine plan elements, meeting its particular needs. For example, an "intersection improvement plan" might be prepared as a separate element of the circulation plan, and a "visual

improvement plan" might be prepared as a separate element of the Land Use Plan.

Enforcement and Implementation

The master plan, after adoption by the planning board, gives the community the legal basis for control over future development. The major means of implementation are as follows:

- The official map of the community, adopted by local ordinance, must be consistent with the appropriate provisions of the master plan. The official map is deemed conclusive with respect to the location and width of streets and public drainage ways and the location and extent of flood control basins and public areas. (40: 55D-32)
- The location and design of new streets created through the process of land subdivision or site plan approval may be required to conform to the provisions of the circulation plan element of the master plan. (40: 55D-38b (2))
- Where the master plan provides for the reservation of designated streets, public drainageways, flood control basins, or public areas, the planning board may require that such facilities be shown and reserved in subdivisions and site plans in locations and sizes suitable for their intended use. The reservation powers are effective for a period of one year after approval of a final plan. The municipality must compensate the owner for such action (40: 55D-44).
- Whenever the governing body or other public agency proposes to spend public funds, incidental to the location, character or extent of a capital project, such proposal must be referred to the planning board for review and recommendation. No action shall be taken without such recommendation or until 45 days have elapsed (40: 55D-31).
- All of the provisions of a zoning ordinance, or any amendment or revision thereto shall either be substantially consistent with the land use element of the master plan or designed to effectuate such plan element (40: 55D-62).

3. BACKGROUND DATA AND ANALYSIS SUMMARY

Bridgewater Township's prior master plan, adopted in 1976, was in need of comprehensive reexamination for a number of reasons. First, a comprehensive reexamination was stimulated by the need for organizing a twelve year accumulation of master plan amendments and resolutions into one consistent document. Second, dramatic growth in parts of the Township have altered the character and underlying assumptions of the previous plan providing need for a fresh look and clear direction for future growth. Third, greater emphasis on consistency with regional plans such as the Somerset County Master Plan and the preliminary State Development and Redevelopment Plan furnished a new framework for review of the Township Master Plan.

Existing Land Use

Bridgewater's central location and regional accessibility as well as extension of public sewer and water facilities have influenced the changing land use pattern. Routes 22, 202, 206 and Interstate 287 attract commercial/office and some industrial uses which in turn stimulate demand for increased residential growth.

In terms of absolute change in acreage, residential use gained the most from 1976 to 1988 with an increase of approximately 809 acres. Commercial acreage gains were second, increasing 549 acres; largely the result of extensive office development along Routes 22, 202 and 206. In terms of impact on the community the 167% increase in commercial acreage has had greater influence on Bridgewater's character than the 10% gain in residential acreage. Typically, an acre devoted to commercial/office use generates more traffic and related services than an acre of residential use.

Much of the growth in commercial/office use has occurred in two sectors of the Township, the Town Center sector and the Foothills sector, which are dominated by the Bridgewater Commons Mall and major access roads respectively. Growth in commercial/office development suggests a need to be vigilant on controlling development on remaining vacant lands to prevent classic commercial strip

development problems. Problems often associated with such development include reduced highway capacity caused by multiple curb cuts, paved parking lot image in the front yard caused by insufficient frontage landscaping, confused and uncoordinated signage and graphics, and little if any defined edge between the highway and individual parking areas.

Agriculture and undeveloped lands in Bridgewater have paid the price of the Township's dramatic residential, commercial and industrial expansion. Only about 14% of the total land area remains unaccounted for, that is, either presently developed or under preliminary approval. Much of this 14% may be environmentally restricted. Thus, while still unaccounted for, these remaining lands should be evaluated in light of future Township needs.

Population Characteristics

Despite significant increases in residential construction, Bridgewater's population base of 32,000 has remained fairly stable. This seeming anomaly is due to reductions in household size; formation of greater numbers of smaller sized households. Since 1970 the average county household size has taken a downward slide from 3.81 persons to 3.02 persons. The Department of Labor projects a county-wide average household size of 2.45 persons by 1995, indicating further decreases may be forthcoming. These figures reflect a nationwide trend toward smaller households and signal a need for smaller housing units and a more diverse housing stock. Although total population has not increased significantly, the increase in dwelling units and households produces increased traffic volumes and demand for community facilities.

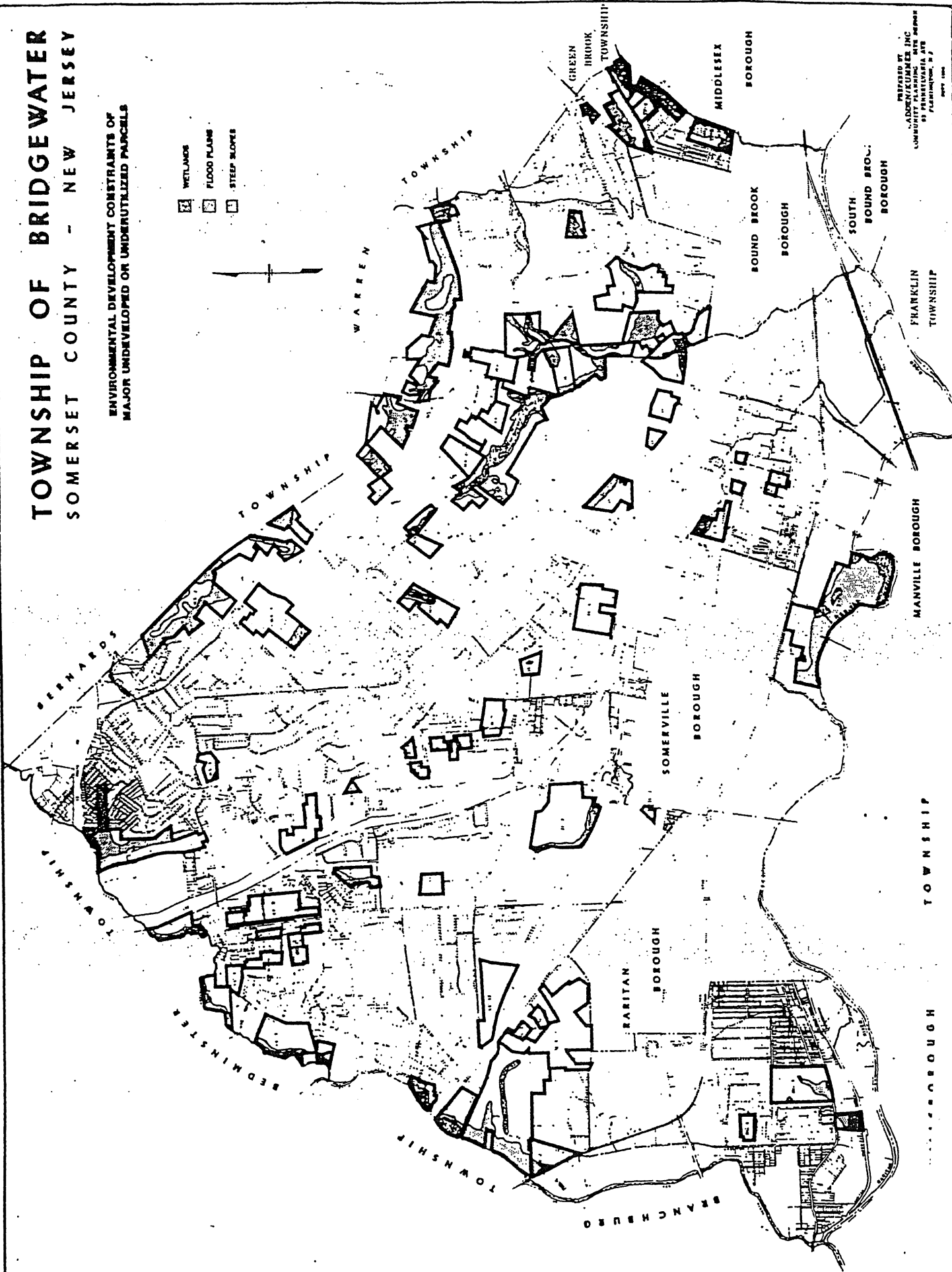
Bridgewater's population is heavily oriented toward the family with relatively few single person and non-family households. Income levels are generally high, being 13% above the Somerset County median. Consistent with a nationwide trend toward a growing senior citizen population and fewer school children, Bridgewater's population is aging. This trend translates into a corresponding shift in community needs, one away from expansion of school facilities and toward provision of facilities for older citizens.

TOWNSHIP OF BRIDGEWATER

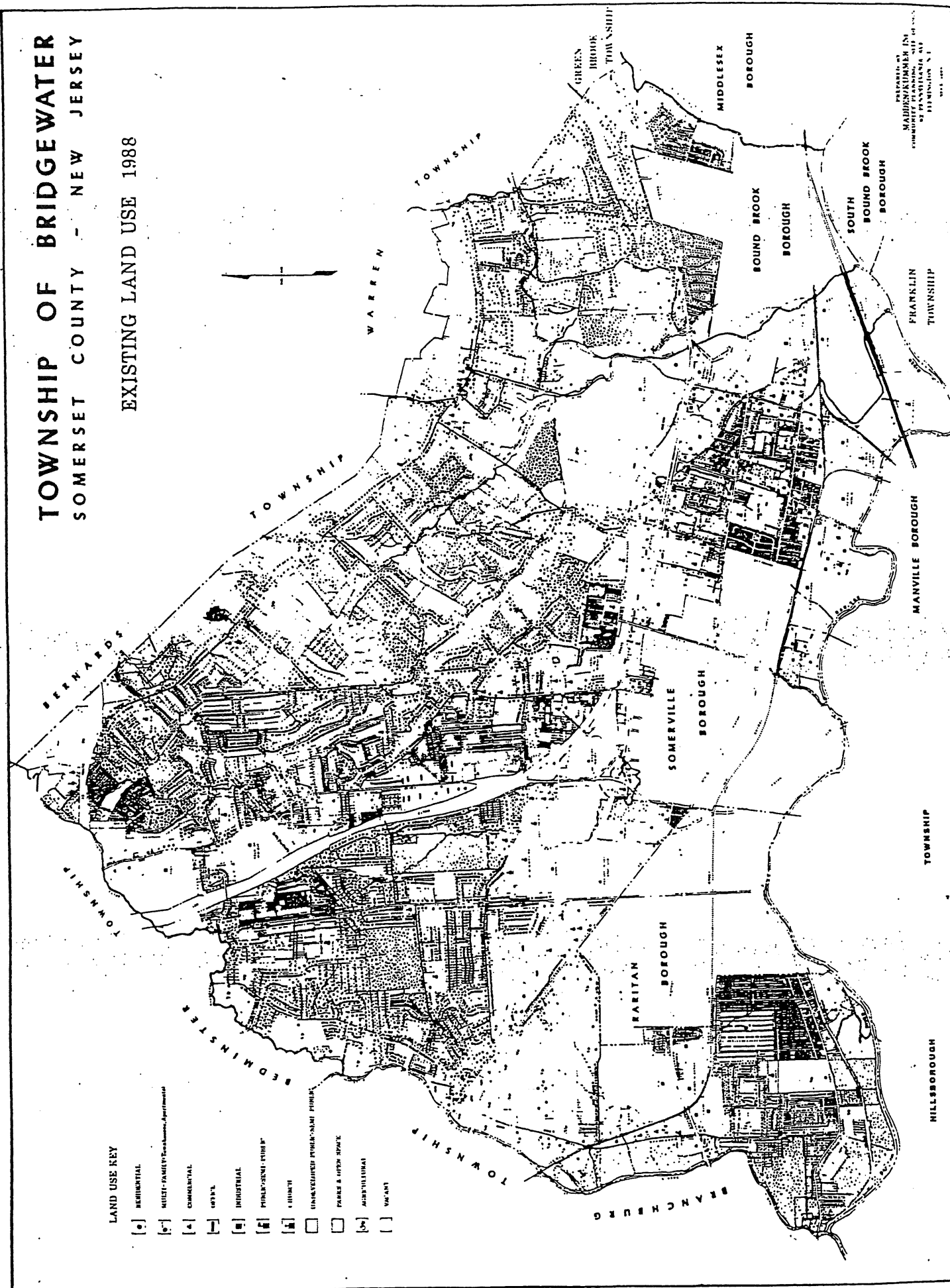
SOMERSET COUNTY - NEW JERSEY

ENVIRONMENTAL DEVELOPMENT CONSTRAINTS OF
MAJOR UNDEVELOPED OR UNDERUTILIZED PARCELS

-  WETLANDS
-  FLOOD PLAINS
-  STEEP SLOPES



EXISTING LAND USE 1988



Bridgewater's population may reach as high as 41,000 if all anticipated construction in the 1990's and recently approved residential construction is completed.

Housing Characteristics

Housing construction activity in Bridgewater has been strong in recent years. If construction continues at a modest pace the current 10,700 units (June, 1988) could reach a maximum of 17,200 units by 1994. The character of recently constructed units has exhibited a shift away from single family detached homes, with apartments and town houses representing a growing share of the local housing inventory. This change indicates that the market has begun to reflect the demographic shift toward smaller household sizes.

The character of Bridgewater's housing stock is defined predominantly by single family homes. There is a high rate of home ownership (89%) and more than half of the housing stock is relatively new, having been added since 1960. Home prices and rent levels are high relative to Somerset County Averages.

Considering the caliber of Bridgewater's housing stock as evidenced in housing data, it is not surprising that only 80 of the Township's 10,700 units have been identified as physically deficient. These units are now being addressed by a housing rehabilitation program.

Community Facilities

Police Department

Police protection in Bridgewater is now provided from the department building behind the municipal building on Garretson Road. The existing staff level is generally good but the department appears slightly understaffed with 55 sworn officers. With the recent opening of the Bridgewater Commons Mall, call levels have increased significantly. Continued substantial growth within the Township may warrant additions to the department both in terms of staff and facilities.

Rescue Squad

Rescue Squad services in the Township are provided by four volunteer organizations that are located in Bradley Gardens, Findeme, Martinsville and Town Center (Green Knoll). Existing squad buildings are in generally acceptable condition and equipment needs are limited to those expected under a normal replacement schedule. Two of the squads, Bradley Gardens and Findeme, have relatively low memberships and all squads would benefit from a daytime training program for existing and future volunteers. The extensive mileage of regional highways traversing the Township places a proportionately greater demand on emergency services than might be the case in other suburban communities. The shortage of volunteers may, in the future, require some full-time staffing.

Fire Department

Fire protection in Bridgewater is provided by 6 volunteer fire companies, and appears to be well above recommended minimum standards. With 170 active members and 15 major pieces of equipment the present level of protection exceeds the National Board of Fire Underwriters standards which call for 5 major pieces of equipment and 75 fire fighters for an estimated population of 32,000. The central needs of the departments include the replacement of several pumps, the acquisition of an aerial ladder and the construction of a new North Branch building and a substation building for Country Hill.

Public Schools

The Bridgewater-Raritan Regional School District for Bridgewater Township and Raritan Borough operates ten public schools serving a student population of 5,046. The School District has experienced a pronounced enrollment decrease for the past decade, but projects a modest increase in enrollment through 1992. This enrollment increase, based on anticipated residential development, will add relatively large numbers of students in grades kindergarten through eight, but will not stop the enrollment decline for the high school grades.

Public Library

Public library services in Bridgewater are now provided through the Bridgewater Branch of the Somerset County Library. By American Library Association standards the present 45,000 square foot facility housing 210,000 volumes is excellent. Physical needs at the facility include increased parking and larger meeting rooms and children areas.

Municipal Building

The Bridgewater Township Municipal Building is located on Garretson Road and handles most local administrative needs. The building is now under examination by a committee exploring the possible expansion or replacement of the facility. The public works facility is constrained by site size for needed expansion and relocation to a larger, less regionally significant site is being considered.

Open Space and Recreation

The Bridgewater Township system of open space and recreation facilities is being continually expanded as evidenced in implementation of the Washington Valley Open Space Plan and recent acquisitions of publicly and privately held open space. As the Township approaches full development the reservation of suitable remaining vacant lands for open space becomes critical.

Comparing Bridgewater's park system with guidelines established by the National Recreation and Park Association (NRPA) reveals that in terms of "developed" open space Bridgewater should have approximately 219 acres. If municipal parks (115 acres) and public school facilities (211 acres) are considered together, Bridgewater meets the national guidelines. In addition, there are approximately 1,331 acres of County open space and parkland and 41.37 acres of State land devoted to open space within Bridgewater's boundaries.

The amount and type of Bridgewater's recreation facilities either meet or exceed most NRPA guidelines. However, increased popularity and participation in soccer and baseball leagues has created greater demand for such facilities. To provide for increasing interest in soccer, 5 soccer

fields are being developed on the 24 acre Tullo tract. Similar interest in baseball and softball has led to the proposal for 4 ball fields on a portion of the 115 acre Darby tract. In terms of the location of park and recreation facilities two areas of Bridgewater are currently underserved, Bradley Gardens and Finnerde. Four possible sites have been proposed as suitable parkland in the Finnerde section.

Circulation and Transportation

The problem of increased traffic and how to deal with it has become a major issue in the Township. A number of studies have been put forth analyzing the Township road network and suggesting ways for improving circulation and accommodating anticipated development. Strategies for reducing traffic impacts include minor highway improvements, ride sharing (including shuttle buses, van pooling, park and ride facilities), staggered work hours, alternate land development patterns, encouragement of bike and walking paths, and development of a master plan for sidewalks.

Adoption of a Traffic Management Ordinance for the Township or participation in Somerset County's Traffic Management program is indicated as a possible means for implementing these strategies. Such an ordinance would require that large scale non-residential development submit a Traffic Reduction Plan employing traffic reduction techniques which will result in a 70% reduction in peak hour traffic generated by the development.

Utilities

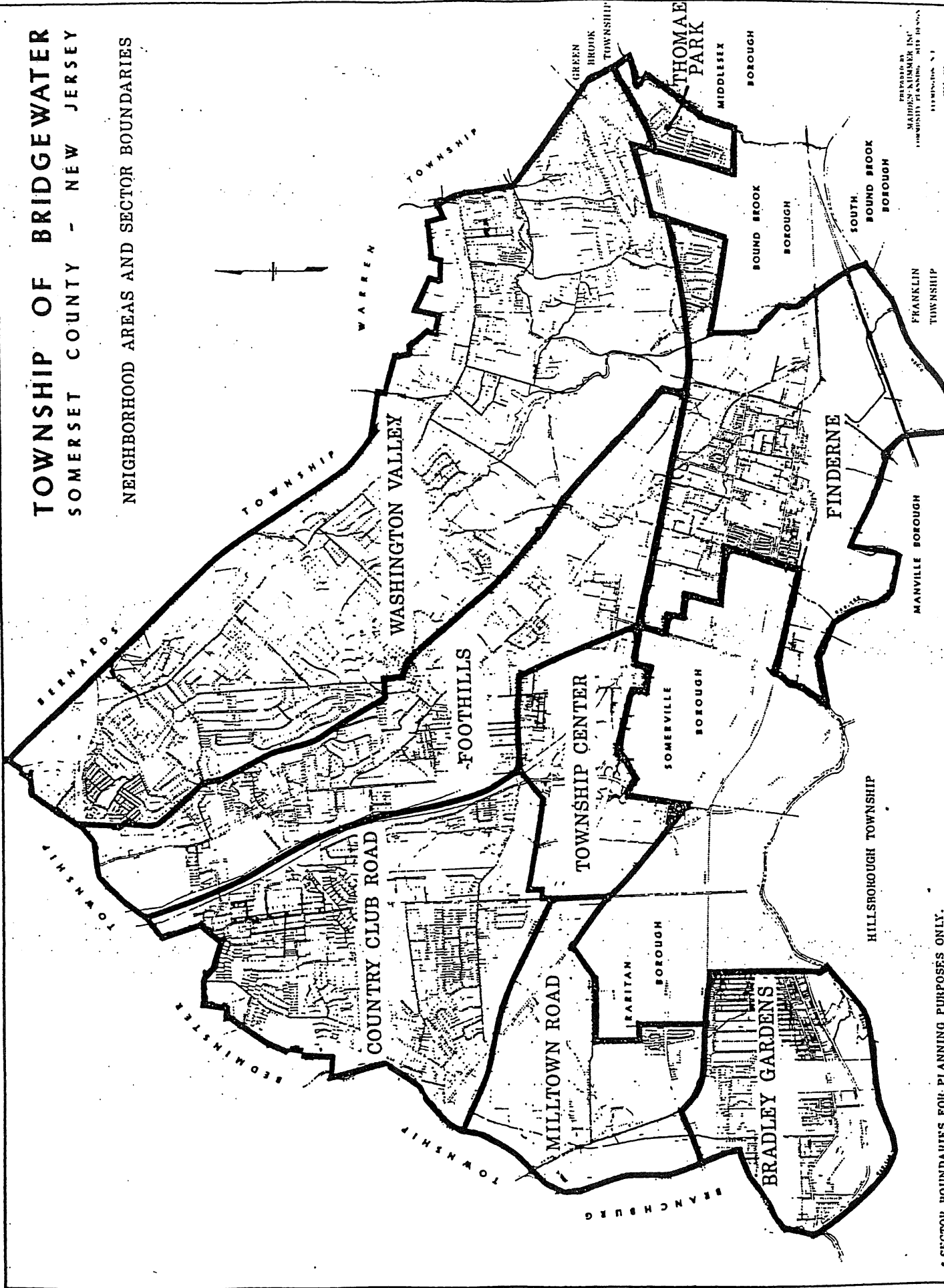
Bridgewater Township is served by public water and sanitary sewers. Although these systems are fairly new they do possess constraints which will inhibit growth beyond that proposed in the Master Plan.

The major sewer project in Bridgewater Township in recent years has been the Middlebrook Trunk and Collector Sewer system serving Washington Valley. The four separate collector line projects which comprise the Middlebrook System are completed and functional. The remaining project is service to 120 homes which could not be economically served by the conventional Middlebrook system. These homes will be put on grinder pumps which will create a slurry which

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SOMERSET COUNTY - NEW JERSEY

NEIGHBORHOOD AREAS AND SECTOR BOUNDARIES



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will be more easily pumped through plastic pipes to the public trunk sewer. The Middlebrook Trunk cannot handle significant rezoning for greater densities in Washington Valley or permission to develop in the 201 non-sewer area. There is also concern over the potential sewerage flow to the Middlebrook system from Warren Township with its active development program.

Optimistically, sewerage of the entire municipality could occur within the next 15 years. The Ethicon Lawns project will be the last major trunk sewer built in Bridgewater Township. It will serve existing and future development in the area bounded by Route 22 and 28 west of Country Club Road and Vandever Road in the Milltown area. It is designed for a capacity of one million gallons per day and is based on the current zoning density of 2 dwelling units per acre. This trunk sewer project should be underway by 1991 with half of the funds for its construction coming from the municipality.

A further expansion of sewer service area is dependent on the Plainfield Joint Meeting Treatment System. Bridgewater is requesting an increase in their use of the Plainfield Joint Meeting sewer system from .48 mgd to .96 mgd. Expansion will allow service to Route 22's commercially-zoned parcels.

A number of smaller sewer projects are also proposed in the Township's Capital Improvements Program. These projects include replacing failed septic systems, relieving overcapacity lines, and allowing infill development to occur. On-going maintenance, i.e. repairing the system's leaks, will be the major future task needed to protect this multi-million dollar system.

The SRVSA treatment plant may soon reach capacity, inhibiting growth despite the fairly recent plant expansion. Under NJDEP rules, when a sewer treatment plant reaches 80% of its capacity, it must upgrade. The SRVSA plant can handle an average flow of 21 mgd (eighty (80) percent capacity would be 16.8 mgd). The current flow is 12 mgd and with the 5 mgd committed to American Cyanamid and 3 mgd proposed for Manville, the treatment plant will have committed itself to a flow of 20 mgd. The lag time in expanding the plant's capacity could slow the pace of development in Bridgewater Township and elsewhere in the SRVSA service area.

Elizabethtown Water Company is the main supplier of potable water in Bridgewater. This major utility with its regional source of supply and extensive distribution network provides a reliable source of water which can accommodate future development. There are, however, areas of the Township which are inadequately served in terms of adequate pressure to fight fires. The cooperation of Elizabethtown is essential to resolve this problem. Elizabethtown must also be prepared to move quickly in providing public water service to areas with contaminated groundwater.

Planning Sector Analysis

Although the Master Plan is a community-wide decision-making document with a comprehensive orientation, the preparation of the Plan evaluated and presented proposals on a planning sector basis to facilitate public participation and input. The four planning sectors include:

1. Finderne - Thomae Park
2. Bradley Gardens - Milltown
3. Country Club - Town Center - Foothills
4. Washington Valley

The following section presents an analysis of the setting for planning in each one of these four sectors. Sector boundaries are identified on the following map.

Finderne

As the oldest and most densely developed section of Bridgewater, Finderne possesses the greatest mix of all land uses in the municipality. A high percentage of the Finderne land area is devoted to heavy industry. This sector is criss-crossed by major County and State roads and includes major regional facilities such as the County garage, the Somerset Raritan Valley sewage treatment plant, Elizabethtown's potable water treatment plant, the County trash transfer station. Finderne is also the location of the proposed County solid waste incinerator.

Heavy traffic volumes, including trucks, generated by these uses are adversely affecting the quality of the residential environment fronting on Finderne's major thoroughfares. Traffic intersections are often congested due to high volumes of cross traffic.

Thomae Park

The Thomae Park section of Bridgewater Township consists of two separate, somewhat isolated neighborhoods bordered by the Borough of Bound Brook and Route 22. This sector contains approximately 203 acres devoted almost exclusively to 228 older single family detached residences.

Bradley Gardens

The Bradley Gardens area comprises about 1600 acres between Route 202, the North Branch and the Raritan River, and Raritan Borough. Bradley Gardens is largely a residential neighborhood, organized in a classic neighborhood pattern with an elementary school located in the center of a homogeneous residential development.

This area is undergoing rehabilitation and upgrading on a lot-by-lot basis. Residential infill is occurring with bulk variances and without building design guidelines. Pressures for residential conversion to 2 and 3 family apartments should be resisted where there is insufficient on-site parking area.

Bradley Gardens began as a summer cottage area of mainly single family homes. There are no multi-family residential or apartment projects. Bradley Gardens has limited community facilities and insufficient neighborhood convenience commercial services. Convenience commercial uses are available on Old York Road in nearby Raritan Borough but residences off Milltown Road could use more conveniently-located retail services. A center of 4-8 acres (5 - 20 stores) can be supported by a neighborhood population of about 4,000. Bradley Gardens presently has an estimated population of about 4,886.

A significant amount of passive open space acreage is found along the periphery of Bradley Gardens but an insufficient amount of active recreation facilities is available. Except for the 69± acre Studdiford Farm, no vacant developable acreage of any significant size remains.

Bradley Gardens will be impacted by the proposed Confluence Reservoir planned for construction where the North and South Branches of the Raritan River meet in Bridgewater, Branchburg and Hillsborough

Finderne is periodically plagued by flooding along Cuckhold's Brook. A variety of flood control methods including regular stream clearing and the purchase of flood plain lands are being employed by the municipality to reduce the damage from flooding.

Finderne needs more public open space for passive and active recreation. The Planning Board and the Park Board have devoted considerable time in recent years investigating opportunities for creating more parkland in Finderne.

Despite being a built-up residential area, Finderne lacks sufficient retail convenience commercial services. The only significant neighborhood shopping center in Finderne is the A & P at Main Street and Finderne Avenue, totalling about 3 acres. According to accepted planning standards, a center of 4 - 8 acres (5 to 20 stores, depending on size) can be supported by a neighborhood population of about 4,000. Finderne presently has an estimated population of about 6,200. It appears that the Finderne area (and eastern Somerville, which does not have any major commercial area) could support additional neighborhood shopping.

The development of the medical park district on Union Avenue and the office parks along Finderne's Route 22 border demonstrate Finderne's locational advantages for region-serving uses.

Because approximately 45% of Finderne's housing stock was built prior to 1960, there is a need to maintain housing quality to avoid potential deterioration of the area. Finderne presents the greatest potential opportunities and challenges in the form of rehabilitation and redevelopment.

The character of the households in Finderne is changing as the population ages. In 1980 over 13% of Finderne's population was 60 years of age or older. Public services to assist the elderly will be a future need for the area. Housing and related medical services specially designed for the elderly could emerge in Finderne in the form of projects like the Arbor Glen continuing care community. Other smaller elderly-oriented housing projects with a service relationship to the nearby regional hospital, the Somerset Medical Center, may be appropriate for Finderne.

Townships. The purpose of this reservoir will be to work in concert with the Spruce Run and Round Valley Reservoirs to maintain sufficient water level in the Raritan River. Around the perimeter of the Confluence Reservoir the State plans to develop a park offering compatible recreation facilities such as boating and fishing.

The future Confluence Reservoir Park may pose pressures for conversion of nearby residences on Old York Road to recreational support uses, such as restaurants. This pressure should be resisted. Flood plains along Old York Road are vulnerable to upstream regional development impacts at least until Confluence Reservoir is built.

Through traffic is limited to two roads: Old York Road and Milltown Road. Older roads in area need resurfacing, curbing, and sidewalks.

Incidents of groundwater contamination from industrial spills has prompted the installation and extension of public water lines.

Milltown

The Milltown area comprises about 1,510 acres between Routes 22, 28 and 202, the North Branch of the Raritan River and Raritan Borough. Currently half of the Milltown area is undeveloped due to the lack of utilities, poor soil conditions for septic disposal and zoning controls which limited development to large lot industrial use during the 1960's and 1970's (when most of the residential growth occurred in Bridgewater Township). Extensive residential development is now underway in the Milltown area as the result of court-ordered zoning for multi-family housing and the extension of sewer service. Two major roads, Milltown and Vanderveer, serve this area and both need upgrading if they are to function as major collector roads. As part of the multi-family development, Vanderveer and Milltown Roads will be improved and the railroad underpass will be widened and relocated. Although the area has extensive areas of flood plains and County parkland in open space, there is a need for active recreational facilities.

Country Club - Town Center - Foothills

This area includes the central and western sections of Bridgewater Township. Approximately 7,100 acres are situated generally between

Routes 22 and 28, the ridgeline of the First Watchung Mountains and the North Branch of the Raritan River. Since 1950 this community has experienced the greatest amount of single family residential, governmental, regional commercial and office development. Since the 1976 Master Plan, this area has been the focus for most of the major office and retail commercial projects with over 3.1 million square feet of new office and retail floor area. In emerging as the regional center of Somerset County, this area has also seen an increase in the traffic friction between residential and non-residential uses, increasing strains on public utilities and services, and pressure for more intense commercial and residential development.

Country Club

The Country Club area, comprising 2,905 acres and located between Interstate 287, Route 22, Chambers Brook and the North Branch of the Raritan River, is almost exclusively devoted to single family detached residences on one acre or larger lots. The 1,730 residences here are served by two grade schools (Van Holten and Eisenhower) and one High School (H.S. West), and community facilities such as the Green Knoll Golf Course, churches and parkland. Along Route 22, large scale, signature office buildings such as the Crescent and the Claremont-Belle Mead project are under construction near smaller, modest office buildings.

Town Center

The Town Center, a two square mile area focused at the confluence of five major highways in the center of Bridgewater Township and Somerset County, consists of a diverse mix of municipal and County governmental offices and services, regional recreational and commercial uses, major corporate and professional offices along with single family and multi-family residential developments. This area has already been designated as part of the County's Regional Center on the County Master Plan and is likely to be targeted as a Corridor Center in the State Plan.

Foothills

The Foothill area comprises the 2,925 acres north of Route 22 contained between Interstate 287 and the First Watchung Mountain including the Route 202-206 North Corridor. This residential area is

slightly older than the Country Club area; it grew out from Somerville along the major collector roads - Route 206, North Bridge Street and Foothill Road. The area is largely single family housing but major office development can be found along Route 202-206 in the form of the corporate offices of American Hoechst Celanese and AT&T along with a cluster of medium-sized quality office buildings. While the Foothills area is conveniently located near community facilities, the area lacks sufficient public open space and parkland, due in part to its early development. There is growing pressure for commercial redevelopment along Route 202-206 as highway traffic increases and affects the quality of residential living. A major concern in this area is also the growing use of Foothill Road for regional through traffic.

Washington Valley

Bounded by the First and Second Watchung Mountains and including a section of Route 22 east of Foothill Road, Washington Valley is a 7,127 acre section of Bridgewater Township characterized by large lot single family residences (with the exception of the older cottage development around Sunset Lake) served by a small commercial village in Martinsville set within unimproved open space. North of Route 22, the Stavola Quarry is the dominant land use. Since the last Master Plan, the Township has installed a sanitary sewer system in Washington Valley to correct contaminated groundwater conditions and to allow greater development design flexibility. The primary planning concern as the Valley experiences considerable residential development activity is preservation of sensitive environmental features such as the steep slopes of the Watchungs, the flood plain of the East and West branches of the Middle Brook and its tributaries, and the aesthetic character of an historically-rich area.

4. OVERVIEW OF MASTER PLAN POLICY RECOMMENDATIONS

One observation underlies this Master Plan revision: Bridgewater Township has reached a *mature development phase* wherein the diminishing amount of vacant, developable land prevents any radical change in the land use character of the community. Yet, at the same time, it is also recognized that Bridgewater Township is located in the center of an important emerging development corridor. The Interstate 78 corridor stretches from New York City to Allentown, and will experience pressures over the coming decades to become a *suburban center* for a diversity of urban activities or as the State Plan puts it, a Corridor Center. Although pressures to redevelop low density areas for a greater intensity of development are likely realities, the decision to make any changes will have to be evaluated in light of existing land use conditions, infrastructure capacities and the planning goals and policies of the community. In looking ahead to the foreseeable future of Bridgewater Township and analyzing the results of planning studies and public opinion, the Planning Board concluded that *no major change should be made to essential Master Plan policies* which have served the community well the past three decades. While there are a few changes proposed to the Land Use Plan, the revised Master Plan sets forth proposals which for the most part represent a *finetuning* of existing plan policies.

It should be emphasized the Master Plan policy perspective of the future is based on the *assumption* that there will be no major adverse environmental or economic events, legislative or judicial actions which would alter the community's predictable transition into the foreseeable future. In that same vein, this Master Plan does not incorporate proposed solid waste or hazardous materials incinerators into the revised Land Use Plan. Either incinerator would have a significant effect on the character of the community which is not reflected in this Master Plan.

Although relatively few in number, there are some proposed changes to the Land Use Plan map. These deal with new community and neighborhood commercial zones, two new office-residential transitional zones, revisions to certain properties fronting on State highways, most notably along Route 202-206 north and Route 22, and expanded affordable housing opportunities in the Milltown sector. These plan

changes are proposed in response to demonstrated community needs caused by new development or a change in the land use character of an area and marketplace realities which no longer support current land use policies.

Viewed from a community standpoint, the revised plan presents a strong emphasis on open space preservation, upgrading community appearance, utility service extensions, road improvements and traffic management and sidewalk and bicycle path policy planning. The plan also presents an array of planning policy and Land Use Code recommendations to guide the Board in dealing with the intensity and character of new development and redevelopment. Such issues include flag lots, and the floor area ratio, impervious coverage and design standards of the C-1 zones.

5. STATEMENT OF OBJECTIVES

The following list of objectives forms the basis for the constituent plans, policy statements and proposals of this Master Plan:

- To preserve the development character and quality of Bridgewater Township.
- To promote a balanced variety of residential, recreational, public, commercial, industrial, and conservation land uses.
- To promote the conservation of natural systems, environmental resources, rural appearance, and the natural amenities which presently characterize the Township.
- Within the latitude afforded by the availability of vacant land, to guide land development and location of community facilities in order to meet the needs of Township residents and to promote the preservation of the natural environment.
- To safeguard the tax base, preserve economic balance, and provide for a continuing source of employment and tax ratables through appropriate use of non-residential land.
- To provide for an appropriate share of the regional need for low and moderate income housing.
- To coordinate future growth with needed expansion of public facilities and services.

Land Use Plan Element

The Land Use Plan for Bridgewater Township has been prepared in accordance with overall policy objectives and the other Master Plan elements and existing conditions in the Township, including natural features, circulation and existing development patterns.

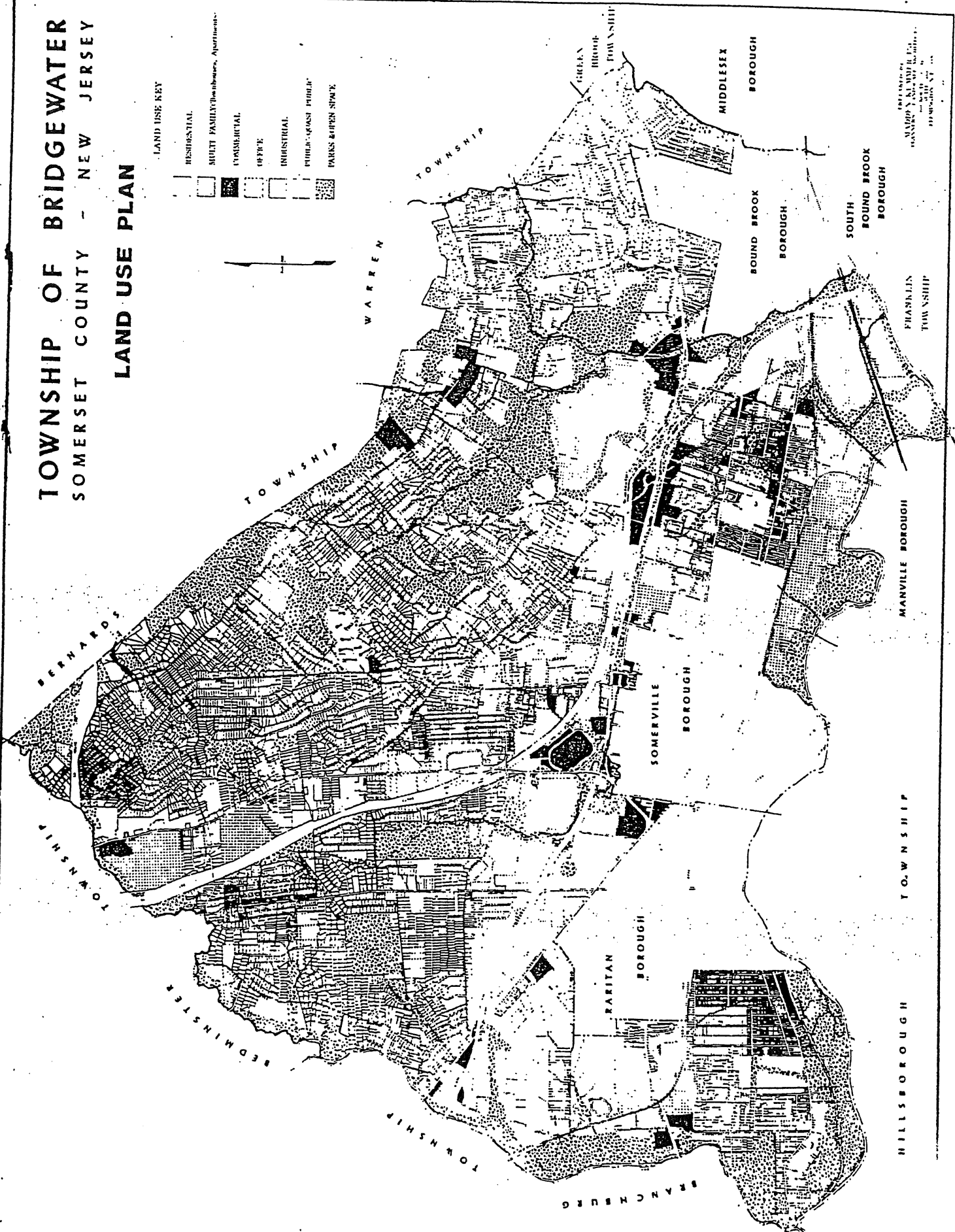
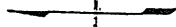
The Land Use Plan Map shows the existing and proposed location of land development by land use type. The Land Use Plan Element includes land use policy statements, plan proposals and implementation recommendations.

TOWNSHIP OF BRIDGEWATER SOMERSET COUNTY - NEW JERSEY

LAND USE PLAN

LAND USE KEY

- RESIDENTIAL
- MULTI-FAMILY (Flats, Houses, Apartments)
- COMMERCIAL
- OFFICE
- INDUSTRIAL
- PUBLIC-OPEN SPACE
- PARKS & OPEN SPACE



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PHILADELPHIA, PA. 19107

Land Use Plan Element

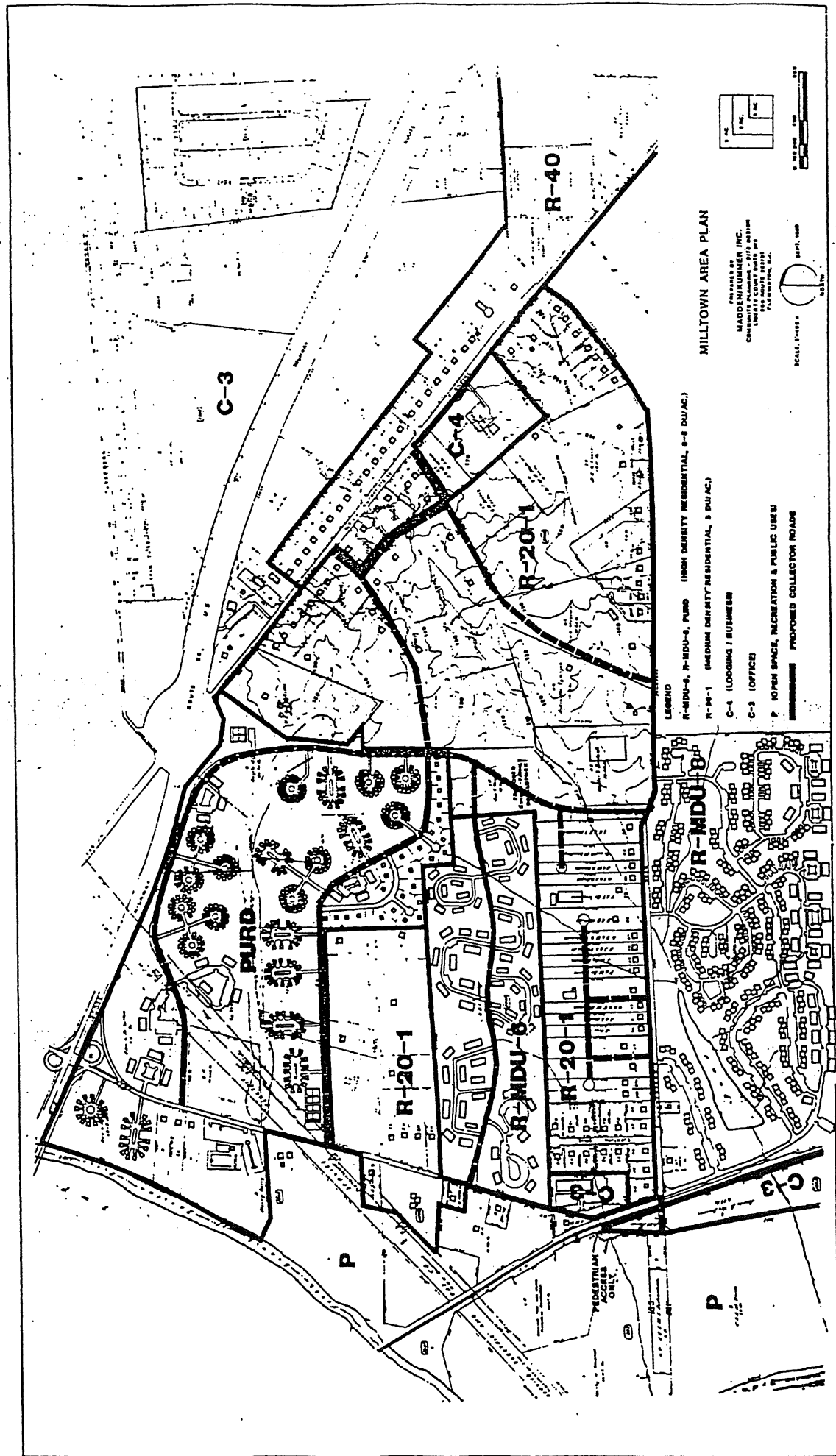
Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
To preserve and maintain the integrity of existing residential areas. - by maintaining a development intensity an population density appropriate to the regional location of the township, the natural constraints of the land area, and the location of public facilities. - by regulating the creation of irregular lots, such as flag lots. - by limiting cluster development to areas in which it truly contributes to open spaces.	Residential densities from 4 dwelling units per acre to less than 1 dwelling unit per acre should be maintained in existing developed residential areas, relating to natural constraints and public service feasibility. Larger lot areas and upgraded development standards should be created for flag lot development on existing vacant or developed but oversized properties with sensitive environmental features. Flag lots should be discouraged in Bradley Gardens and Findeme due to the small size and narrow shape of lots in these sectors. Standards should be provided for lot setbacks on narrow lots to reduce the number of requests for variances for home additions. Recent proposals for solid waste and toxic waste incinerators in the Findeme area are unacceptable. Findeme is a compact high density residential and industrial area already impacted by heavy traffic from industrial and regionally oriented public uses. This set of existing conditions is inappropriate for either a solid waste or a toxic waste incinerator. Heavy traffic volumes on Findeme's main through roads is making the residential environment of homes fronting on these roads less attractive to the traditional family style household. The conversion of these residential structures into two and three dwelling units designed for the one or two person household should be considered on appropriate sites where there is sufficient area for off-street parking and adequate buffering. No changes in Thomae Park's land use character are proposed. Except for the 16 acre site on Thompson Avenue planned for higher density, multi-family housing, Thomae Park should remain a single family housing area.	Residential areas are to be located as shown on the Land Use Map. Appropriate residential density is to be established on a site review basis in critical environmental areas or areas subject to environmental constraints.	Proposed residential locations and densities for future development have been established to preserve the integrity of existing residential areas. Critical environmental conditions having local and regional impact, notably the need to control serious drainage problems, should dictate development design in all sectors of the Township. Designs resulting in proper runoff management and the minimum disturbance of natural cover should be encouraged. Residential densities relate to the development capacity of the Township and are appropriate to County and adjacent municipality plans. As useable land diminishes in Washington Valley and elsewhere in Bridgewater in the face of a continuing demand for residential building lots, the municipality will have to deal with requests for flag lot development on existing developed but oversized properties. It is anticipated that the majority of future flag lot cases will be located in Washington Valley. A flag lot amendment to the Land Use Code would be a useful tool in easing the impacts associated with flag lot development.	It is recommended that: (1) The Zoning Ordinance be revised from time to time to establish specific residential densities in the Township based upon Master Plan studies; (2) The Township utilize Natural Resource Inventory, environmental assessment and environmental evaluation information, including potential local and regional impacts, in establishing the density and reviewing the design character of development in areas having serious environmental constraints; (3) Environmental ordinances be evaluated, revised and enforced to control development in critical environmental areas; (4) The Township give further study to development controls such as transfer of development rights; (5) A further study be made of road access restrictions, traffic volumes and road capacity in the Washington Valley area in order to determine appropriate development density limits. (6) In order to provide reasonable guidelines the community can apply to future flag lot requests, particularly those leftover parcels involving sensitive environmental features, an amendment to the Land Use Code should be adopted requiring for the flag portion of a flag lot a larger area than the minimum lot area for the zone to reduce the extent of critical area disturbance and to prevent the appearance of residences "stacked" behind one another.

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	The remaining vacant properties along Thomae Park's Route 22 frontage, such as the golf driving range, should be left in open space or developed for low intensity uses compatible with the adjoining residential neighborhood. The recommended use is professional offices, either condominium or rental, which do not disturb the flood plains and adjacent buffer areas along the Green Brook. Virtually no change in land uses is contemplated in Bradley Gardens because there are no large vacant parcels of land or any land with the potential for assemblage into a significantly-sized parcel for redevelopment. The continued improvement of area development quality, as the cottage community upgrades itself, should be encouraged. The Township needs to bring visual order (or visual organization) to the streetscape through road improvement, curbs, street trees and sidewalks. The narrowness of most existing developed lots in Bradley Gardens renders many home additions impossible without an appeal to the Zoning Board for a variance from side yard requirements. An amendment to the Land Use Code is recommended to permit, by right, reasonable incursions into a required side yard.			(7) Amend Section 126-328 of the Land Use Code to permit, as of right, reasonable incursions into a required side yard: <i>C. Side yard exceptions:</i> <i>(2) In the case of lots upon which an existing structure is located, the combined total side yard requirements may be reduced by six (6) inches for each foot by which a lot is less than the minimum width requirement for the zone in which located. In any case, the side yard width for either side shall not be reduced to less than fifty percent (50%) of the requirement of said zone and the combined side yard separation between adjacent residential structures shall not be less than fifteen (15) feet.</i>

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	No significant land use policy changes are proposed for the country Club area. The land use plan proposes that most of the vacant parcels be used for residential infill. Except for the Route 202-206 corridor, no significant land use policy changes are proposed in the Foothills area. The land use plan proposes most of the vacant parcels be used for residential infill Washington Valley's development pattern of large lot residential units and public and private open space is largely set and the Master Plan proposes to continue that form of development. There is a considerable amount of vacant land still available in scattered parcels but few large developable tracts remain. As such, the Land Use Plan emphasizes single family residential infill and linked open space.			
by permitting multi-family residential use in accordance with Regional Housing Need Allocation in areas related to major roadways, commercial services and public facilities. by preventing the incursion of incompatible, nonresidential land uses into residential neighborhoods.	Areas suitable for higher density residential development are to be located along central highway corridors, including Route 22, Route 28, and Route 202-206 north and within the Town Center. Multi-family densities may range between 5 and 10 dwelling units per acre with possible exceptions under special circumstances. A planned neighborhood should be established in the Milltown Road sector at a mixed development density. The Township has approved or has under review four multi-family housing projects in the Milltown Road sector planned for a density of six and eight units per acre which include a twenty percent lower income housing component as part of the Township's Mount Laurel housing settlement. These four projects include the	In recognition of the extensive amount of multi-family development in the Milltown area (2,985 units approved or proposed to date, including 575 units in Raritan Borough) the Plan proposes public and private open space and recreation facilities, adequate community facilities and neighborhood retail convenience stores and personal service uses to assure an acceptable quality of life. Some of this need will be met by the retail center portion of the planned unit development at an appropriate location in the vicinity of Route 22 and Milltown Road. Land uses in established residential areas should be limited to residential and related community services.	Higher density residential development locations do not conflict with adjacent municipal plans. Sites are located within the Somerset Regional area of the County Master Plan or immediately to the west in areas broadly designated for more intensive development. The character and quality of existing residential areas will be protected from incompatible land use types. Residential areas will remain compatible with residential uses in adjacent municipalities and with "Residential Neighborhood" designations of the County Master Plan.	It is recommended that: (1) The Zoning Ordinance designate locations and density requirements for higher density residential development as determined by the Housing Plan Element; (2) The Township use Subdivision and Site Plan Ordinance regulations to review the design character of higher density development; (3) The Township prepare and adopt specialized controls to direct Planned Neighborhood development.



Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	Vanderhaven Farms 1105 units Glenbrook 430 units Clover Walk 800 units Milltown River 75 units These four developments total 2410 townhouse and condominium units of which 482 units are earmarked for qualified low and moderate income households. The Land Use Plan recommends the range of housing types and residential densities on existing vacant and underutilized properties in the R-20 and R-40 zones be increased in recognition of the evolving character of the Milltown area and the need to implement local road and sanitary sewer improvement programs and widen future affordable housing opportunities. Specifically, the Land Use Plan proposes in the Milltown area the elimination of the current R-20 and R-40 zones (except for a portion of the R-40 zone consisting of Block 1402, Lot 3 between Milltown Road and the North Branch River) and the replacement with a new medium density residential zone (R-20-1) with increased residential densities appropriate for their particular setting. This new medium density residential zone would permit by right single family detached lots on 20,000 square foot lots. The major change would be to allow as a conditional use village homes on 9,000 square foot lots, twin homes (freestanding single family detached units on their own lot which share one garage wall with another unit) and patio or zero-lot line homes on 6,000 to 7,500 square foot lots with a minimum lot width of 65 to 70 feet. Existing single family residential structures could be converted into two family residences.	In residentially zoned areas where significant changes in traffic and nearby land uses are occurring a new zone allowing a mix of residences and low intensity professional offices should be created to permit the gradual transition of residential areas to appropriate non-residential uses and to serve as a buffer between exclusive residential and non-residential zones.	The Township has provided an appropriate location for higher density housing for Senior Citizens and non-family households in the Town Center. To implement this policy, the Township has proposed and adopted for the Sixth Avenue tract a Redevelopment Plan (1982), an Urban Design Study (1984), Site and Conceptual Architectural Plans for the Bridgewater Shops (1984). The Township assisted Bridgewater Community Services in constructing 113 units of senior citizen housing. In addition, a plan for the Somerville Manor Area (1985, Revised December 13, 1988) was prepared and adopted for the 88.5 acre area north of the Sixth Avenue tract.	The Township should assist the development of additional senior citizen housing in the Sixth Avenue area with planning, grantmanship and detailed design studies and land exchanges.

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	The condition for residential development in the R-20-1 zone on a lot of less than 20,000 square feet would be the creation of a certain percentage of affordable housing either through construction or a financial contribution. An applicant would have the option of setting aside a minimum of 5 percent of all the units in a R-20-1 project for low and moderate income housing or contributing \$1,000 for each of the market-priced housing units in the project. These funds will be used for the rehabilitation of existing deteriorated residential units and to assist in residential conversions (See the Milltown Plan Map). The Sixth Avenue Redevelopment Area should be redesigned to better accommodate affordable senior citizen housing and limited neighborhood commercial uses. A companion to Centerbridge, the 113 unit senior citizen housing project on Sixth Avenue, is proposed on adjacent Township-owned lands. The alignment of the collector road connecting Prince Rodgers Road and Woodlawn Avenue is revised to discourage a through traffic situation which would destructively split a future residential neighborhood. The area north of Prince Rodgers Road is proposed to be redesigned to accommodate more senior citizen apartments in a higher density compact village arrangement. In the absence of Federal funding programs used to construct Centerbridge, the Township should pursue a public-private partnership coupled with State financial assistance to create lower cost senior citizen housing. The Sixth Avenue Redevelopment Area is under consideration for a municipal-private office complex provided Mt. Laurel-mandated housing proposed for			

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	The Sixth Avenue Redevelopment Plan should be reviewed to consider the use of properties with frontage on North Bridge Street adjacent to the post office for limited service commercial use such as a financial institution or similar non-retail use. Additional curb cuts should be discouraged on North Bridge Street with access restricted to existing side streets. The single family residential use of the existing Today's Lounge Tavern property should be reviewed to consider the benefits and drawbacks of encouraging renovation of this business as an upgraded local restaurant or the conversion of the site to another more appropriate neighborhood commercial use.	Permitted land uses adjacent to existing residential areas, as shown on the Land Use Plan Map, are to be limited to uses compatible with residential development. Nonconforming commercial uses in existing residential zones should be permitted reasonable variance relief for modest expansions and improvements. Design guidelines should be created for new or redevelopment infill projects (new development within an existing built-up area). Given the lack of large parcels of vacant developable land, future residential development in Findeme will likely occur as small lot infill and redevelopment. Underdeveloped lots may be combined, structures removed and new, more densely developed housing erected. It is proposed that criteria be established for infill and redevelopment, providing standards for building design, landscaping, screening and parking, to ensure that such projects will enhance, and not detract from the area character.		
by assuring the compatibility of adjacent land uses.	No major changes in the land use character of Findeme are proposed. Reorganization and adjustment of land use activities and controls is suggested to meet specific in-place situations. For example, some existing pockets of residential uses in non-residential use zones may be legitimized as residential use areas and protected from encroachment. In the immediate area north of the shopping center between the A & P building, the Grandview Apartments and Harry Ally Park, currently zoned R-10 and consisting of several detached residential structures on small lots and three acres of vacant land, the Land Use Plan should be revised to allow the transition of this area from residential use to low intensity professional office and personal service uses serving the Findeme area. A new zone, R-10C, is proposed which would allow: 1) single family detached homes on small lots;	Permitted land uses adjacent to existing residential areas, as shown on the Land Use Plan Map, are to be limited to uses compatible with residential development. Nonconforming commercial uses in existing residential zones should be permitted reasonable variance relief for modest expansions and improvements. Design guidelines should be created for new or redevelopment infill projects (new development within an existing built-up area). Given the lack of large parcels of vacant developable land, future residential development in Findeme will likely occur as small lot infill and redevelopment. Underdeveloped lots may be combined, structures removed and new, more densely developed housing erected. It is proposed that criteria be established for infill and redevelopment, providing standards for building design, landscaping, screening and parking, to ensure that such projects will enhance, and not detract from the area character.	It is recommended that: (1) The Zoning and Site Plan Ordinances require extensive buffering techniques, such as landscaping and screening, where intensive uses abut less intensive uses and where no transition in use is feasible; (2) Site plan review be used to evaluate design techniques to retain the sense and appearance of the semi-rural, natural scenic quality of the Township; (3) Municipal ordinances be adopted to permit clustering, ample setbacks from main roads, retention of existing vegetation and narrow minor road widths to retain the natural character and environmental amenities of the Township.	

Land Use Plan Element

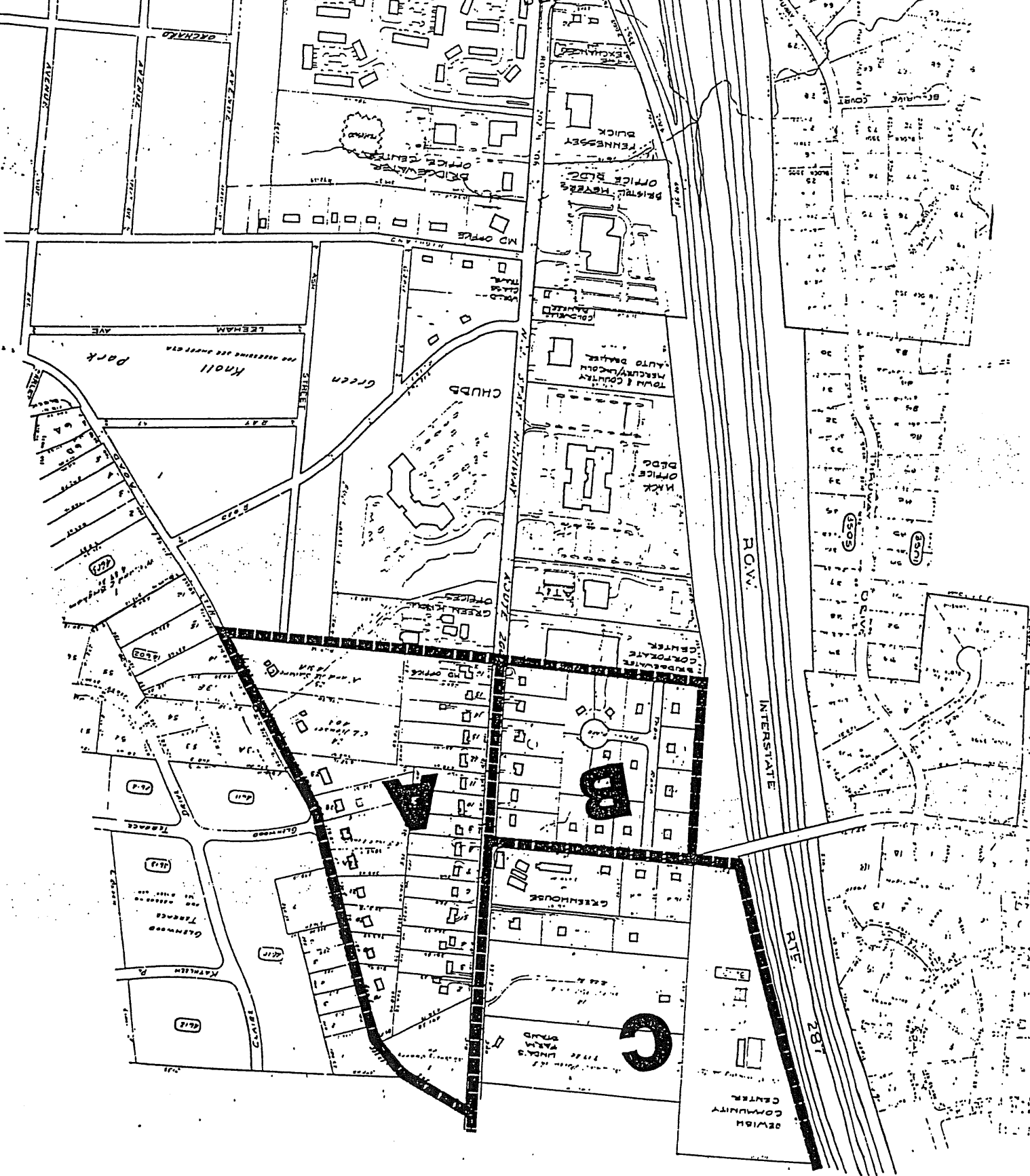
Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
by providing for the orderly transition of residential areas to non-residential areas due to changing market and environmental conditions.	2) the conversion of existing residential structures to office and personal service uses (with the condition of providing sufficient off-street parking, be it on-site or through an off-site lease arrangement); and 3) the development of new professional offices and personal service businesses in a planned development at a floor area ratio of 10% to 15%. (Ranging to an FAR of 10% for 2 acres or less and up to 15% FAR in parcels of 4 acres or more). The Plan proposes vacant properties and existing residences fronting on Thompson Avenue be placed in a new professional office - residential zone to permit the gradual transition of this residential area to appropriate non-residential uses. The existing Chimney Rock Inn and Office restaurants should be treated as existing permitted uses with the ability to modestly expand or improve.		The character and quality of existing residential areas along the Route 202-206 corridor would be periodically monitored to evaluate the effect traffic growth, and to determine if the proposed I-287/Rt 202-206 interchange will have the effect of relieving traffic congestion on the State highway.	The Land Use Plan identifies existing commercial uses located within residential districts throughout Bridgewater Township. For example, in Washington Valley, two such isolated commercial restaurant establishments are the Redwood Inn and The Martinsville Inn. The Plan does not envision a zone change for these nonconforming commercial uses from the existing residential zoning designation but recognizes that reasonable variance relief may be granted to permit minor expansions and improvements.
	Traffic from new office and retail commercial development and large residential projects in and adjacent to Bridgewater Township and the anticipated effect of proposed road improvements to Route 202-206 from Downey Road to the Bedminster Township border caused the Planning Board to prepare and adopt on October 4, 1988 a plan for the Route 202-206 corridor. This plan to permit medium density residential and low intensity office uses in some areas of the Route 202-206 corridor was reaffirmed by the Planning Board with minor modifications in this updated Master Plan. The following land use changes are proposed for five of the seven study areas which constitute the Route 202-		It is recommended that: (1) The Zoning Ordinance be revised to permit the proposed land use changes in the Route 202-206 corridor study areas.	

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BRIDGE WATER TOWNSHIP, N.J.
ROUTE 202/206 CORRIDOR
ZONING STUDY

STUDY AREA BOUNDARIES

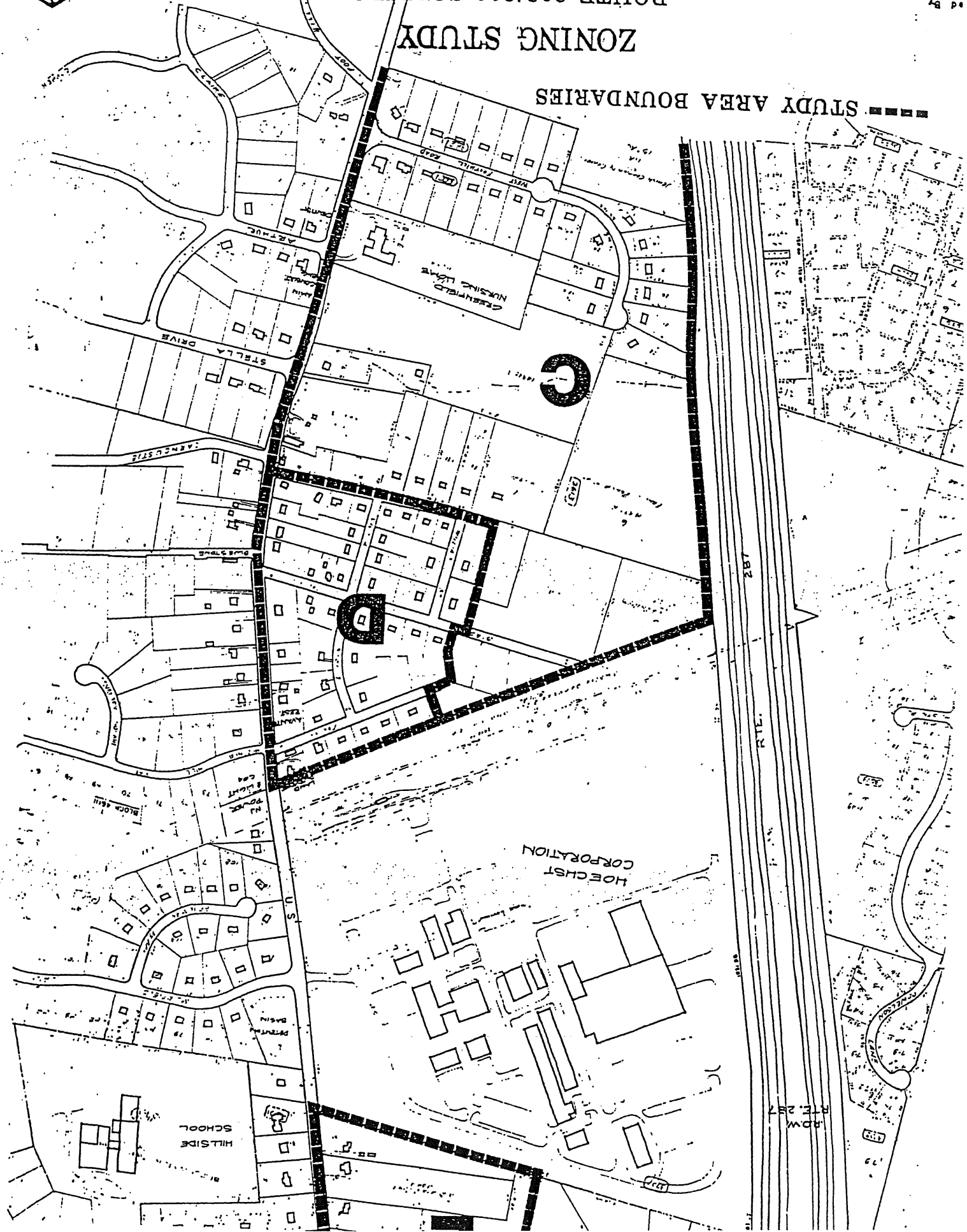
NEW JERSEY
1980-2000 ASSOCIATES



BRIDGEWATER TOWNSHIP, N.J.
ROUTE 202/206 CORRIDOR

ZONING STUDY

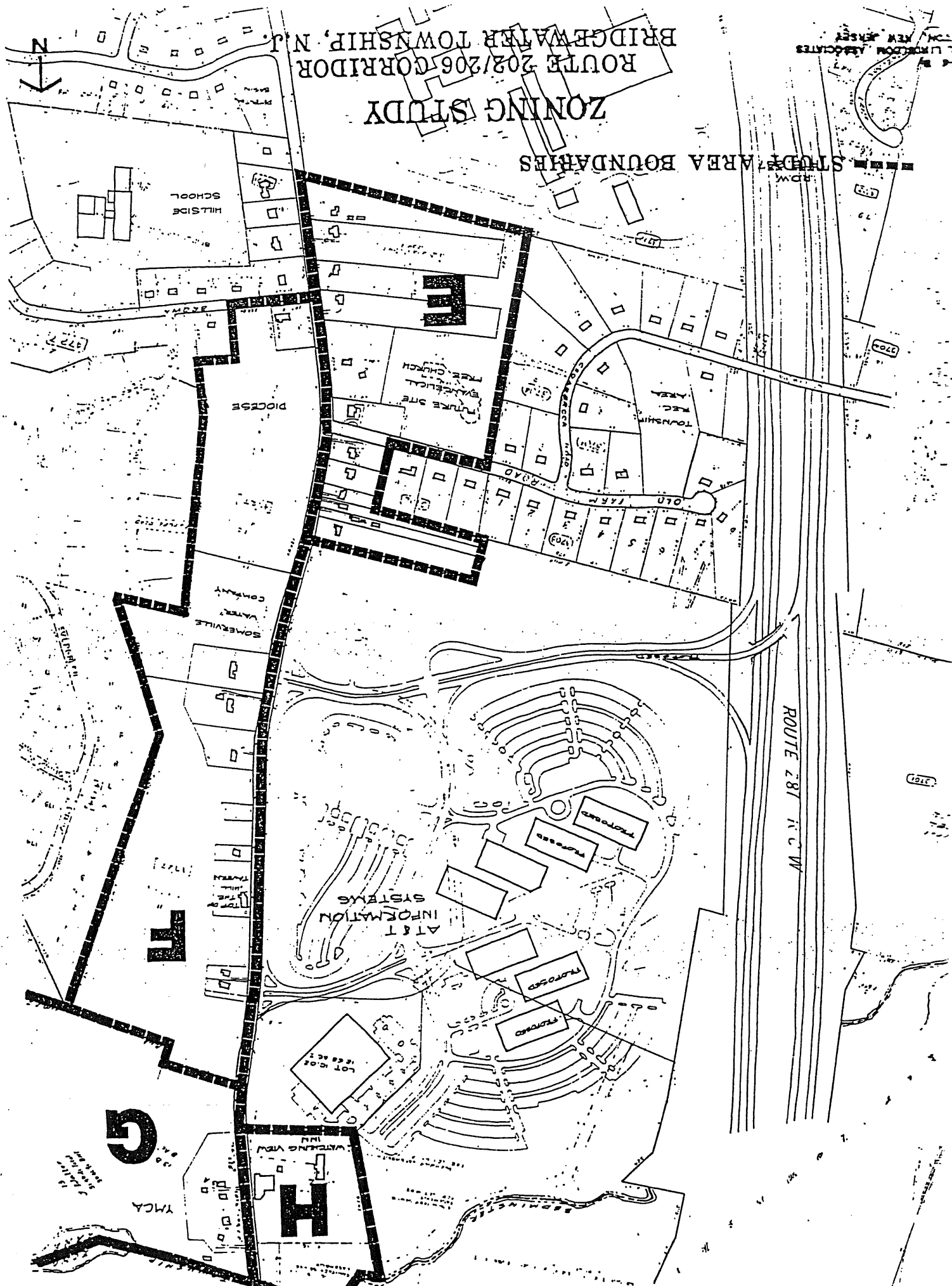
STUDY AREA BOUNDARIES



ZONING STUDY

ROUTE 202/206 CORRIDOR BRIDGEWATER TOWNSHIP, N.J.

STUDY AREA BOUNDARIES



Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	Study Area "A" (35± acres) Boundary North- Intersection of Route 202-206 and Foothill Road South- GCM zone line East- Foothill Road West- Route 202-206 Master Plan Change: Change from Low Density Residential (R-40) to Residential/Low Intensity Office. Retain the existing low density residential zoning but add, as a permitted use by right, for this area only, the development of low intensity business and professional office use subject to the following requirements: 1) Maximum 15% FAR; 2 story height limitation. 2) Three (3) acre minimum lot size for business office use with two (2) acre minimum allowable for professional office use. 3) Route. 202/206 frontage area development only. 4) Access limited to Route 202/206. 5) Building and site design controls to provide site and building design compatibility with adjacent residential uses. 6) Rear buffer area controls for Foothill Road homes. Study Area "B" (18 acres) Boundary North- Tolomini Road South- GCM Zone line East- Route 202/206 West- I-287 R.O.W. Master Plan Change: Change from Low Density Residential (R-40) to Residential/Low Intensity Office			

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	Retain the existing low density residential zoning but add, as a permitted use by right, for this area only, the development of low intensity office use subject to the following requirements: 1) Maximum 7% FAR; 2 story height limitation. 2) Minimum tract size to be the assemblage of three (3) contiguous lots. 3) No more than two (2) access points from Route 202-206 will now be permitted. 4) No FAR credit for flood plain area. Study Area "C" (104 acres) Boundary North- PSE&G Transmission lines South- Tolonini Road East- Route 202-206 West- I-287 R.O.W. Master Plan Change: none proposed. Retain existing low density residential zoning. Study Area "D" (17± acres) Boundary North- Utility R.O.W. South- Harding Road East- Route 202-206 West- Rear lot lines of properties fronting on William Street Master Plan Change: Change from Low Density Residential (R-40) to Medium Density Residential (R-20) Study Area "E" (29± acres) Boundary North- AT&T property line South- Hoechst-Celanese property line East- Route 202-206			

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	West- Rear lot lines of those properties fronting on Cedarbrook Road Master Plan Change: Change from Low Density Residential R-50 to Residential/Low Intensity Office Study Area "F" (48 acres) Boundary North- Study Area "G" South- Brown Road East- Rear lot lines of properties West- Route 202-206 Master Plan Change: none proposed Study Area "G" Boundary North- Bedminster Township line South- Study area "F" East- Rear lot line of YMCA property West- Route 202-206 Master Plan Change: Change from Parks and Open Space to Low Intensity Office Retain existing zoning in eastern (Zimmerman) tract. Revise zoning in balance of area to permit, as of right, for this area only, the development of low intensity office use subject to the following requirements: 1) Maximum FAR 15%; 2 story height limitation. 2) Minimum tract size to be study area balance (14± acres). 3) No FAR credit for environmentally sensitive land area.			

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
Commercial To encourage regional commercial development. by permitting regional commercial and office development in areas related to major highways.	A Highway Interchange Commercial (HIC) District is proposed encompassing a 68 acre area on Route 22, exclusive of roadways, generally located between the right-of-way of southbound Interstate Route 287 and the rear lot lines of properties fronting on eastbound Route 22 east of Adamsville Road to two through lots between Route 22 and Foothill Road adjacent to Interstate Route 287. The interchange area is one which deserves special attention in community land use planning. Because of the locational needs of certain economic activities, the high accessibility and land values created by interchanges make these locations attractive to a range of commercial enterprises and provide opportunities for entrepreneurs as well as municipalities. They are special areas which must be viewed as regional and community resources. The demand for services at interchanges is created because travelers need and expect certain facilities along interstate highways. This can be an economic stimulus for the area near the interchange and by providing for the appropriate land uses in the interchange area, a municipality can minimize the flow of intraregional traffic through the community and can reap the tax and other economic benefits of the demand for interchange access. For example, hotels and motels have proven to be important ratables for communities like Bridgewater, creating land values of between \$5,000 and \$10,000 per room and high tax yields.	Regional commercial and office development is to be located along Route 22, as shown on the Land Use Plan Map. The area between Route 22 and Interstate 287 is especially suitable for regional development. General commercial uses are to be located along major highways, including Route 22, Route 202-206 at Somerville Circle, and Route 202-206 north. Small lot commercial uses with multiple access points should be discouraged. Commercial categories are to be as shown on the Land Use Plan Map. The purpose of the regional, general and neighborhood commercial categories is to establish development type and intended commercial use intensities in designated commercial areas. All of the acres devoted to current municipal uses and the State Transportation Maintenance Facility could be redeveloped by the private sector for a major office or possibly mixed use complex taking full advantage of this superior regional location. The intention of the State Plan is to encourage the creation of corridor centers at such locations. The Township Center area of Bridgewater is identified in the County Master Plan as part of the Somerset Regional Center and meets the criteria of the State Plan for a potential Corridor Center. It will increasingly become the focal point of large scale projects.	Commercial development will increase the tax base of the Township and will provide greater opportunity for shopping. The format and design of development proposals should be studied in relation to possible traffic congestion problems. Regional commercial development along Route 22 is recommended in the County Master Plan and would not have any conflict with adjacent municipality plans.	

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	Highway services appropriate for the Route 22/Interstate 287 interchange include the following land uses. 1. Gasoline and repair services - These include facilities for the sale of fuel, automobile accessories, and repair services. It is desirable for these services to be located at an interchange so that travelers unfamiliar with the area may get necessary fuel and services without driving through residential communities in search of a service station. 2. Restaurants - Food and drink should be available for travelers on interstate highways, and interchange locations are logical places for restaurants so travel through adjacent communities is minimized. 3. Hotels, motels, and inns - Facilities offering transient lodging facilities to the general public, they may also provide additional services such as restaurants, meeting rooms, and recreation facilities. Other locational factors which are of primary importance to highway services are: • proximity to markets for their services or goods • visibility from the highway • heavy daily traffic • interchange access with a major highway. These factors are all present at the Route 22/Interstate 287 interchange area in Bridgewater and create a demand for highway services. In fact, the current existence of such services at this location is evidence of this demand. The proposed HIC zone already has the character of a highway interchange commercial area since 44 percent of the uses found here are oriented to services for motorists and			

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	restaurants, and motels. The predominant land use is motels with 35 percent of the land area within the proposed district boundaries devoted to three motels (Kings, Holiday Inn, and Red Bull Inn). Future major office projects on Route 22 should be required to include retail activities such as restaurants, convenience goods and banks to serve their internal employment and reduce vehicular traffic off the site. The north side of the Route 22 corridor from I-287 west to Route 206 is nearly fully developed with office buildings largely built since the 1976 Master Plan. The strip commercial development appearance plaguing Route 22 east of Bridgewater has been avoided as part of a deliberate Township planning policy stretching back thirty years, which sought to concentrate retail commercial activities in a planned center. The Land Use Plan proposes the strip of land between North Bridge Street and the Bridgewater Commons site, which is likely to be redeveloped, be placed in an office category. The Township should continue its policy of preventing strip commercial shopping centers and freestanding retail stores, each with its own access, which complicates traffic circulation. Office uses near the regional mall maximizes land development values since it can permit potentially more floor area than retail. It also takes advantage of a land use situation unique in a suburban setting wherein offices, usually isolated as freestanding entities, can be integrated within walking distance of the Bridgewater Commons. The Plan proposes the rezoning of two properties of approximately 70 acres on Route 22 off Thompson Avenue and Chimney Rock Road, currently occupied by GAF and Stavola Construction Company, to permit the development of retail commercial			

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	These sites offer the potential for a conveniently located, easily accessible development with an appropriate mixture of retail, personal service, office, bank, restaurant, hotel, and public and open space uses which, in its use mix and design, can create a needed community center within an attractive suburban setting. A primary intent of this new commercial zone is avoidance of the typical highway strip commercial appearance and building configuration. Instead, architectural features such as gable roofs and neotraditional site design elements would be required to create a coordinated village look grouped around an open-air gathering place reminiscent of the Main Street of a small town. The inclusion of public park areas and indoor community services along with a mix of retail, office, financial institutions, recreational and hotel accommodations would make the development function as a focal point in this area of Bridgewater Township and not merely as a transient retail shopping center. The Commercial Zone on Route 202-206 adjacent to AT&T Technologies should be amended to permit office, conference centers and hotels.			

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
To permit neighborhood commercial uses in residential growth areas. - by designating new neighborhood business areas and reducing the current development potential in all neighborhood business areas. To control commercial development. - by placing limits on building size.	Existing neighborhood commercial areas shown on the Land Use Plan Map in Bradley Gardens, Findeme and Martinsville should be maintained but not significantly expanded. Isolated strip commercial and retail development should be discouraged along Route 22 and Route 202-206. In all of the Township's neighborhood business zones the quality of development should be upgraded and the intensity of building and parking be reduced. The neighborhood business zone (C-1) on the north side of Union Avenue west of Pearl Street should be slightly expanded to include an adjacent property, Block 6202, Lots 28, 29 which is an existing service station. The Master Plan is proposing a new zone on 16.5 acres on Route 28 including the existing Villa Restaurant and adjacent vacant land between it and Vista Road. This new zone would feature a compatible mix of restaurant facilities, extended stay lodging and professional and business office uses. It would be designed in a village center form which would be residential in scale and character. This zone is intended to provide extended stay lodging in a low-rise setting catering to the corporate and business traveler who is staying for more than one week. It would also allow for convenient temporary accommodations for relocating executives and their families. Business and professional office uses would provide the small office facilities for those firms serving the large corporate clients found elsewhere in Bridgewater Township.	Additional neighborhood commercial services should be considered in conjunction with higher density residential development. The existing mixed use area along Milltown Road south of Vandever Road between the railroad and the river is accommodated in the proposed Land Use Plan. Professional offices should be permitted here in place of light industrial uses.	Existing convenience commercial uses are generally well-located. Additional higher density residential developments may provide suitable locations for a limited amount of further development.	It is recommended that : (1) Commercial development be regulated by individual design review and Site Plan and Zoning Ordinance restrictions on location, lot size and design. (2) The design and location of additional neighborhood commercial services be controlled by site plan review of higher density residential and Planned Neighborhood development. The Land Use Code should be amended to implement this policy. 1. Design guidelines for building design and facade treatment, signs, landscaping, lighting and street furniture in all of the Township's neighborhood business zones should be adopted in the Site Plan Ordinance. 2. In all C-1 districts, the current floor area ratio of 25 percent should be reduced to 15 percent and the current maximum impervious coverage of 70 percent should be reduced to 50 percent. The minimum lot area should be increased from 10,000 square feet to 40,000 square feet. 3. The C-1 Zone should be modified to permit as a conditional use a car wash on a minimum site of 40,000 square feet. It is recognized that car washes can have adverse impacts on adjacent residences. To mitigate those impacts, the Master Plan recommends the adoption of strict performance standards dealing with such issues as sufficient stacking, noise abatement, buffer characteristics, water recycling, hours of operation, the setback of building and on-site activities from off-site residential uses, utilities, etc.

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	The Plan recognizes the existing non-residential character of properties in Block 8201 fronting on Route 22 between Thompson Avenue and the Donahue Road/Route 22 intersection. The Plan recommends a new commercial zone allowing office, nursing homes and continuing care residential uses.			

Land Use Plan Element			
Policy	Short Term Proposals	Long Term Proposals	Implementation
- by encouraging future development of a centralized medical offices and service district near the Somerset Medical Center	Vacant land between Union Avenue, Jackson Street, George Street and the Somerville municipal boundary should be used for medical offices and services within two blocks of the regional hospital.		
- To control future industrial development: - by reserving land suitable for industrial use in relation to flat topography, good drainage, access to arterial and primary roadways, and rail access. - by permitting a range of industrial lot sizes within industrial districts. - by retaining the location of solid or toxic waste incinerators anywhere within the Township.	Areas suitable for industrial development are to be located along Routes 202, 22, and 202-206 north, and in the Findeme area south of Main Street and along Chimney Rock Road, as shown on the Land Use Plan Map. The M-1 and M-2 industrial use areas should be revised to permit by right warehousing of all types including mini-storage, warehousing for residential and commercial users. Warehousing would be an appropriate land use activity for much of the remaining M-2 acreage. It is compatible with existing industrial and residential uses in Findeme because it does not create the traffic volume industrial and office uses generate. Township-wide laws and procedures should be adopted to control the storage of flammable and toxic materials prior to this zone change. An industrial registration ordinance or similar law to permit monitoring and on-site inspection is suggested.	Industrial categories are to be as shown on the Land Use Plan Map. The purpose of the categories is to establish development intensity in designated industrial areas. Lot coverage in General Industrial areas is not to exceed sixty-five percent, and in Research and Light Industrial areas lot coverage is not to exceed sixty per cent. Land between Adamsville Road and Mack Truck should be made available for industrial or office park development providing small plant sites.	It is recommended that: (1) Zoning regulations be used to reserve industrial land for future development. (2) The zoning of the Somerset Gardens be evaluated from time to time to determine the most appropriate land use policies and site design.
			The Township has implemented the trading of municipally-owned land in this zone with private property owners to create conforming building lots. An overall plan has been prepared to provide for centralized storm water control system, uniform architectural and site design treatment and an off-tract improvement fund for the development of planned site amenities and drainage controls. Evaluate the zoning regulations currently in place for this special district as well as the Somerset Gardens design plan and implementation strategy to determine if adjustments are needed to accommodate unforeseen uses. Reservation of land for industrial development is essential to the long-term economic soundness of the Township. These areas are suitable for industrial development in terms of: - access to major highways, - separation from conflicting residential uses, - level topography and adequate drainage. The Township has implemented the trading of municipally owned land in the area between Adamsville Road and Mack Truck with private property owners to create conforming building lots. The Township has adopted a detailed land use design plan to guide the development of this area entitled: Urban Design Study - Somerset Gardens Area revised April, 1983.

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
Planned Corporate Office Park Enable the development of a Planned Corporate Office Park which permits corporate offices, high technology, research, light manufacturing and essential services supportive of an office park community.	The Land Use Plan indicates the changes made with regards to the Stavola Quarry since the last Master Plan. As a result of adopting a quarry reclamation ordinance, Stavola Quarry has submitted a quarry reclamation plan which must be reviewed periodically by the Planning Board as part of an annual licensing procedure. The boundaries of the M-3 (Quarry) zone have been revised on the Land Use Plan map to reflect the area of the property which the quarry owner is legally allowed by case law to excavate. As the result of a compromise agreement reached with the Planning Board, Stavola Quarry's owners have agreed to provide a 300 foot wide buffer around the quarry measured from adjacent property lines which will be bermed and landscaped to reduce noise and visual impacts. Consideration should be given to allowing a broader range of industrial lot sizes in larger, vacant industrial areas in the Findeme and Township Center sectors.		There are only two tracts in the township where a Planned Corporate Office Park applies. These are the current SED districts. One encompasses the American Hoechst facility which is partially developed and the other is the AT&T Technologies tract containing some 167 acres. The uniqueness of the 167 acre tract in terms of its size, regional location, adjacency to two major interstate routes and a State highway coupled with its interesting topography and natural features deserves special consideration in its future development. The overall site master plan provides for a staged development of coordinated site access and circulation, quality architectural	A Planned Corporate Office Park should be permitted in the SED zoning district as a conditional use subject to design criteria and control mechanisms that encourage flexibility in site development subject to proper standards. Conditional use standards should include, but not be limited to the following: - Establish a minimum tract size to encompass the majority of available land to be developed in a planned park. - Develop appropriate mechanisms to control the intensity of development in relation to the capacity of circulation and utility systems to absorb such intensity.
	A conditional use option, the "Planned Corporate Office Park" is designated for the two tracts on Route 202-206 North currently zoned SED. The ability to develop multi-tenanted office facilities within a Planned Corporate Office Park needs to be established. Also, the inclusion of essential support and accessory uses to service an office park should be permitted as such uses would help minimize off-site traffic trips during the workday and allow for a better working environment. The future development of the 167 acre tract as a Planned Corporate Office Park should recognize the following planning issues in the preparation of any concept master plans:			

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	- The Chambers Brook flood plain and stream corridor and conservation area should be preserved. - The site should be served by one major loop collector road connecting Route 202-206 to a proposed access road to I-287. Without an I-287 access road, only two points of access to Route 202-206 should be permitted. Design of such access and loop collector road should be subject to proper traffic engineering, design and safety standards and should mitigate impact to the natural topography and environmental conditions of the site. An appropriate buffer from the existing residential neighborhood to the south is required as well as appropriate building setback standards from all adjacent roads.		and site design treatment, conservation of natural features, centralized stormwater control systems and utility services to accommodate a planned development.	- Allow flexibility in individual building site design and layout by establishing tract perimeter buffers and/or building and parking setbacks from major interstate, state and park collector roadways; allow varying building heights exceeding three stories/45 feet tied to increased setback and proportionally reduced impervious coverage and sight line considerations to maintain selected vistas to the west; and establish a minimum building size and protection of natural areas. - Establish an ongoing monitoring mechanism through a "Developer's Agreement" to control timing of site infrastructure, including the level of off-tract circulation and utility improvements by the developer necessary to support site development. Such an agreement should also establish standards for uniform site design, signage, landscaping and architectural treatment, and provide for a mechanism allowing the maintenance by the developer of open space and other common site facilities. - Allow essential support and accessory uses related to an office park. An application procedure for processing a Planned Corporate Office Park should be developed which is outlined as follows: Step 1: a) Preparation of a Conceptual Master Site Plan to include: establishment of basic development areas; major circulation pattern; utility and drainage schemes; designated conservation/open space areas;

Land Use Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
				landscaping areas; lighting and other site amenity themes; and, development staging program tied to necessary off-tract improvement scheduled. b) Environmental Impact Statement. c) Developer's Agreement <u>Step 2:</u> Planning Board Public Hearings to determine compliance with conditional use standards and findings for a planned development resulting in approval or denial of Concept Master Site Plan. <u>Step 3:</u> If approved, individual sections of Plan may be submitted for preliminary and final site plan and subdivision approvals according to conditions and agreements of the Concept Master Site Plan approval and standard Township procedures. For consistency, a zoning map change with regard to realigning the C-2 line should encompass the Inn's property and include lands between the Inn and the township's northern municipal boundary. Also reference changes in the C-2 and SED/MDU districts will be required to enable the consolidated use of the 167 acre parcel as a Planned Office Park.

Housing Plan Element

The Housing Plan Element was adopted by the Planning Board on December 16, 1986 in compliance with the requirements of the Fair Housing Act of 1985 and the Township's Mount Laurel settlement agreement of September 5, 1985. The Land Use Plan has designated areas for high density housing which satisfy the Township Fair Share Housing need.

6. HOUSING PLAN ELEMENT

The Planning Board adopted its Housing Plan Element on December 16, 1986 in compliance with the requirements of the Fair Housing Act of 1985 and its Mount Laurel settlement agreement of September 5, 1985.

Introduction

The Fair Housing Act of 1985 requires that by August 1, 1988 every municipality must have adopted a master plan housing element. The housing element is to "be designed to achieve the goal of access to affordable housing to meet present and prospective housing needs, with particular attention to low and moderate income housing." The Fair Housing Act requires that inclusion of the following items in the master plan housing element:

- A. An inventory of the municipality's housing stock;
- B. A projection of the municipality's housing stock for the next six years;
- C. An analysis of the municipality's demographic characteristics;
- D. An analysis of the existing and probable future employment characteristics of the municipality;
- E. A determination of the municipality's present and prospective fair share for low and moderate income housing and its capacity to accommodate its present and prospective housing needs, including its fair share for low and moderate income housing; and
- F. A consideration of the lands that are most appropriate for construction of low and moderate income housing and of the existing structures most appropriate for conversion to, or rehabilitation for, low and moderate income housing.

The purpose of this master plan revision report is to satisfy the housing element requirement of the Fair Housing Act of 1985.

A. Inventory of Bridgewater Township's Housing Stock

Data from the 1980 Census was utilized to form the basis for an evaluation of the Township's Housing Stock. In particular, information concerning age, condition, purchase or rental value, ownership, occupancy status and housing type was analyzed and used to determine the availability of housing opportunities for low and moderate income households. An important aspect of this examination is the determination of substandard units which are suitable for rehabilitation.

1. Age of Housing Stock

Total Year-round Housing Units
(Note: Does not include Rental Units)

YEARS CONSTRUCTED	NUMBER	PERCENT
1980 - 1985	713	9.3%
1970 - 1979	1337	17.4%
1960 - 1969	1787	23.3%
1950 - 1959	2017	26.2%
1940 - 1949	729	9.5%
Prior to 1939	1103	14.4%

Sources: U.S. Census of Population and Housing, 1980
Survey of building Permits Issued, 1980-1985

For comparison purposes, data from the 1980 Census was used to compare the age of the Township's Housing Stock to that of the County's. As of 1980, 15.8% of the Township's housing was constructed prior to 1939. This compares to over 25% for the County. The Second World War is typically used to differentiate between "old" and "new" housing.

Although over 50% of the Township's Housing Stock is over 25 years old, the units are typically well maintained with high resale value. As a result, housing age is not considered to be a good indicator of building condition.

2. Condition of Housing Stock

Total Year-round Housing Units	8,804
- Lack of complete plumbing facilities	28 Units
- Lack of complete kitchen facilities	47 Units
- Lack of central heating facilities	70 Units
- 1.01 or more persons per room (overcrowding)	97 Units
- Buildings of 4 or more stories lacking elevator.	
- Lack of private access	

These noted factors are used to signal substandard and inadequate housing facilities, potentially capable of rehabilitation. Typically on a community level, non-exclusive use of complete plumbing, the non-presence of central heating and overcrowding determine deficient housing units. Each of these deficiency characteristics taken as individual units represent less than 2% of the total housing stock. Some overlap within housing units themselves as to deficiencies modify this percentage. Also typically the presence of two of these deficiency indicators are used to signal deficient housing. Field survey verification would have to be conducted to portray a more accurate picture. Under previous studies¹ a figure of 80 units was used to establish units capable of rehabilitation. This represented 98 units lacking complete plumbing or inadequate heating facilities. Overcrowding was ruled out as a factor due to the availability of larger units within the community. 82% of these 98 households were determined to be income qualified, yielding 80 units available to low and moderate income households, which are classified as substandard.

	UNITS	PERCENT
STANDARD UNITS	8,724	89.9
SUBSTANDARD UNITS	98	1.1

3. Purchase or Rental Value

A review of 1980 housing values and rentals was completed to assist in evaluating the availability of affordable housing. Additional information regarding recent sales and rentals were included as a reference to the changing housing market.

Total Year-round Housing Units (owner occupied) 7,098

1980 Median Value of Owner Occupied Non-Condominium Housing. \$91,100

VALUE	UNITS	PERCENT
Less than \$10,000	4	0.06
\$10,000 - \$14,999	2	0.03
\$15,000 - \$19,999	14	0.2
\$20,000 - \$24,999	28	0.3
\$25,000 - \$29,999	40	0.6
\$30,000 - \$34,999	76	1.1
\$35,000 - \$39,999	89	1.3
\$40,000 - \$49,999	340	4.8
\$50,000 - \$79,999	2,077	29.3
\$80,000 - \$99,999	1,591	22.4
\$100,000 - \$149,999	2,205	31.1
\$150,000 - \$199,999	507	7.1
\$200,000 - or more	135	1.9

¹Bridgewater Township's Mt. Laurel II Compliance Program.
Dr. Harvey S. Moskowitz, March 20, 1985.

1980 Median Contract Rent
Total Year-round Rental Units

RENT	UNITS	PERCENT
No Cash Rent	71	7.6
Less than \$50.00	3	0.3
\$50.00 - \$90.00	4	0.4
\$100.00 - \$119.00	8	0.9
\$120.00 - \$139.00	8	0.9
\$140.00 - \$149.00	1	0.1
\$150.00 - \$159.00	21	2.2
\$160.00 - \$169.00	1	0.1
\$170.00 - \$199.00	23	2.5
\$200.00 - \$249.00	73	7.8
\$250.00 - \$299.00	180	19.2
\$300.00 - \$399.00	401	42.8
\$400.00 - \$499.00	83	8.8
\$500.00 or more	61	6.5

Source: U.S. Census of Population and Housing, 1980

Median housing value in the County is only \$77,800 compared to Bridgewater's \$91,100. Also rents in the Township were higher: \$328.00 compared with \$281.00. Although the data above is from 1980 it is expected that a similar relationship of values still exists between the Township and County. As housing values and rents have dramatically increased from 1980 it is appropriate to review recent values within the Township for both new housing and resale properties.

A review of recent real estate transactions in the Township indicate the following range of sale prices.

Less Than \$99,999	2
\$100,000 - \$119,999	3
\$120,000 - \$129,999	1
\$130,000 - \$149,999	1
\$150,000 - \$169,999	3
\$170,000 - \$199,999	2
\$200,000 - \$239,999	2
\$240,000 - \$279,999	3
More than \$300,000	1

Mean Sale Price \$163,800
Median Sale Price \$174,900

A similar review of advertised rental offers reveal the following values:

\$575.00 - \$599.00	1
\$600.00 - \$649.00	0
\$650.00 - \$699.00	4
\$700.00 - \$749.00	1
\$750.00 and up	1

Mean Rent \$681.00
Median Rent \$695.00

Source: The Courier News, October 9-11, 1986

Asking prices for new homes range from \$139,000 to over \$400,000. This includes condominium units, as well as single family detached units.

A comparison of the 1980 values to the recent market conditions indicate that both median value and rent have approximately doubled in five years.

4. Ownership

Total Year-round units	8,804	
	NUMBER	PERCENT
Owner Occupied	7,816	88.8
Renter Occupied	988	11.2

Source: U.S. Census of Population and Housing, 1980

When compared to the County, the Township exhibits a greater percent of owner occupied units, 88.8 compared to 72.8. It can be expected that the gap between owner and rental units will continue to expand. This is substantiated by the limited number of new rental projects and the continuing propensity to convert rental units to a condominium form of ownership.

5. Occupancy Status

Total Year-round Housing Units	8,977	
	NUMBER	PERCENT
Owner Occupied	8,804	98.1
Vacant Units	173	1.9

Source: U.S. Census of Population and Housing, 1980

The Township contains a low rate of vacant units. This is the result of the increased demand for housing and the ability of home owners to maintain their units. The County vacancy rate in 1980 was 3.3%. The number of vacant units includes those which may be on the market for sale with the owner having already moved.

6. Housing Type

Total Year-round Housing Units	8,977	
	NUMBER	PERCENT
Single Family	8,285	92.3
2 - 9 Units	674	7.5
10 or more Units	16	.2
Mobile Homes	2	.01
Median rooms per unit	5.6	

Source: U.S. Census of Population and Housing, 1980

Development in the Township had primarily consisted of single family subdivision. However, more recent developments have consisted of a greater variety including office, retail and higher density residential projects. Regarding housing type, there has been a dramatic increase in attached housing developments. This housing has resulted from the rezoning of certain parcels to provide for lower income units and the changes in the housing market which have escalated prices. In 1980, 92.3% of the Township's housing stock were single family units, compared with only 72.6% for the County.

7. Units Affordable to Low and Moderate Income Households

Using the data from the 1980 census, an analysis of the opportunity for low and moderate income households to participate in the Township's housing market was completed. A moderate income household is defined as having a gross income equal to or greater than 50 percent but less than 80 percent of the median gross household income for the Township. Low income households could earn up to 50 percent of the median income.

The median income for a household in Bridgewater in 1980 was \$31,237. Applying the above income definitions establishes \$24,989 as the maximum income for a moderate income household and \$15,619 as the maximum income for a low income household. The council on Affordable Housing has established 28% of gross

monthly income* as the appropriate housing allowance. Such percent does not include expenditure for utilities. For the purposes of estimating available housing expenditure, an interest rate of 11% for a 30 year mortgage was used.

Applying the 28% to the maximum incomes for low and moderate households yields yearly housing expenditures of \$4,373 and \$6,997 or monthly expenditures of \$364 and \$583 respectively. Applying the interest rates and monthly carrying costs associated with the above, established \$38,000. and \$60,000 as the maximum housing values available to low and moderate households.

A second method of determining values of affordable housing that is commonly used is to multiply gross income by 2.5 times. Applying this method to the previously determined maximum incomes of \$15,619 and \$24,989, yield similar values of \$39,050. and \$62,500. Referring back to the data on 1980 median housing values indicate that a maximum of 1,200 units would have been available to moderate income households and 130 units to low income households. These numbers represent 17.6% and 1.8% of the total non-rental units in the Township.

For rental properties, the COAH has established 30% of gross income as the maximum to be used for rent. Applying this percent to previously established yearly maximum incomes for low and moderate households yields \$4,685 and \$7,496 as the yearly expenditures for rent. Reducing these numbers to a monthly expenditure results in rents of \$390 and \$624 per month respectively. Referring to the census information for 1980 rents reveal that 422 units were affordable to a low income household of four and practically all of the rental units were affordable for a moderate income household.

8. Substandard Units Capable of Rehabilitation

Section 2 of this report identifies the Township's prior determination of substandard units, including an evaluation of those units which were occupied by families that were income qualified. As other data in this report substantiate, housing age should not be used to determine substandard conditions. Additionally, overcrowding in a suburban location typically does not correspond to a substandard condition, but is rather the result of a mismatch between family size and unit size. The result is that the Township has determined that 80 units would be capable of rehabilitation.

B. Projection of Municipal Housing, 1986 - 1991

The Township's future housing stock is expected to increase greatly during the next six (6) years. The 1980 census reported 8,804 units within the Township. Adding the 713 units constructed between 1980-1985 brings the total number to 9,517. Projections within the Planning Department's 1985 study of development and school enrollment expect an additional 5,695 new units by 1990. Development in 1991 would probably be at a lesser pace than the preceding years due to the reduction of available parcels. Assuming a reduction to 500 units for 1991, the six year projection 1986-1991, would reach 6,195 units.

The majority of the new units will be contained within multi-family developments. The 1985 planning report expects that 80% of the new projects will be multi-family units and only 20% developed as single family detached units.

The following is a list of those residential developments which have been approved by the Township. Of this number, 410 new units are set aside as Mt. Laurel low and moderate income units.

* Household of four

APPROVED RESIDENTIAL DEVELOPMENTS (1985-1986)

	TOTAL UNITS	MT. LAUREL UNITS
Meadowbrook Village	401	80
Vandervan Farms	1,105	221
Crossroads	400	81
Bridgewater Oaks	188	28
Eastfields	44	
Gilbride	19	
Countryside	21	
Palomar	11	
London Farms	22	
Patullo	5	
Fairways	68	
Mountainview I	55	
Wauchung Woods	12	
Glass	6	
North	12	
Washington Cedars	19	
Washington Pass	12	
Logan Farms	72	
Collins	35	
Running Brook	73	
Kunz/Gudron	14	
Stoney Hill	14	
	2,600	410

Projected number of housing units in 1992
Existing Units + Projects Units
9,517 6,195 = 15,712

Of the 6,195 projected units, 2,600 have already received approval. The remaining 3,531 units would be located throughout the Township in various developments. The current Township ordinance permits densities which range from less than 1 unit per acre to 10.5 units per acre. Those parcels rezoned to accommodate additional low and moderate income households would yield another +2,000 units. This includes the following projects:

TOTAL UNITS MT. LAUREL UNITS

Sixth Avenue	200	100
Hodge Tract	420	84
PURD	960	192
Loft Tract	200	40
Thompson Avenue	145	29
Somerville Manor	137	41
	2,062	486

The remaining 1,450 units would be constructed at scattered sites throughout the Township. Many would be smaller subdivisions. Additional units would also be available through the implementing of another senior citizen project, projected at 127 units. Adding the approved 410 units to the proposed 486 together with the addition of another senior citizen development indicates that the new construction of low and moderate income housing would total 1,023 units. This does not include the other units which would benefit from rehabilitation or subsidy programs or credit for those already existing lower income units constructed after 1980.

C. Demographic Characteristics

The following is a summary of the Township's demographic characteristics. An evaluation of the household size, income, age, and sex of the population was completed using data furnished by the 1980 census.

1. Household Size

Total Population	29,175
Total Households	8,804
Total Families	7,873

Married Couple Families	7,033
Single Person Households	769
Female Headed Households	666
Male Headed Households	174
Non-Family	162
Persons per household	3.28

Source: U.S. Census of Population and Housing, 1980

Nearly 80% of the Township's households are married couple families. This compares with only 62% for the County and is a good indicator of the Township's attraction to family oriented persons.

A review of the household size data for Bridgewater Township, which in 1980 averaged 3.28 persons, indicates there is a primary demand for 2 and 3 bedroom units. As household sizes have decreased over the years there is also a greater demand for studio and 1 bedroom units. Typically this need is met by the multi-family condominium developments which are currently a very popular housing option. In Somerset County household size had declined from 3.4 persons per household in 1970 to 2.95 in 1980. Similarly, in Bridgewater Township the decline was from 3.81 in 1970 to 3.28 in 1980. This decline may result in a mismatch between the existing units, some with 3 and 4 bedrooms and the current demand which is typically for units with fewer bedrooms.

2. Income

Median Household Income	\$31,237
Median Family Income	\$32,861
Per Capita Income	\$10,693
Poverty Rate Persons	2.23%
Poverty Rate Families	1.45%

Income Distribution

	NUMBER	PERCENT
Less than \$2500.	91	1.0
\$2500 - \$4900	112	1.2
\$5000 - \$7499	222	2.5
\$7500 - \$9999	258	2.9
\$10,000 - \$12,499	261	2.9
\$12,500 - \$14,999	229	2.6
\$15,000 - \$17,499	389	4.4
\$17,500 - \$19,999	441	4.9
\$20,000 - \$22,499	535	6.0
\$22,500 - \$24,999	488	5.5
\$25,000 - \$27,499	650	7.3
\$27,500 - \$29,999	464	5.2
\$30,000 - \$34,999	1,001	11.3
\$35,000 - \$39,999	962	10.9
\$40,000 - \$49,999	1,158	13.1
\$50,000 - \$74,999	1,141	12.9
\$75,000 and up	450	5.1
	8,852	

Source: U.S. Census of Population and Housing, 1980

The median family income for the County is \$29,172. which indicates that the Township's standard of living is above the overall County average. The poverty rate of families within the County is nearly twice as great as that for the Township.

3. Age

Median Age	Male	33.3
	Female	31.9
		34.6
Persons over 65 years of age		1982
		6.8%

Persons by Sex by Age

	<u>TOTAL</u>	<u>FEMALE</u>
Under 1 year	279	141
1 and 2 years	541	276
3 and 4 years	552	265
5 years	304	153
6 years	315	154
7 to 9 years	1,305	634
10 to 13 years	2,383	1,138
14 years	665	322
15 years	777	364
16 years	746	379
17 years	770	370
18 years	560	248
19 years	505	230
20 years	460	229
21 years	391	181
22 to 24 years	1,139	510
25 to 29 years	1,594	845
30 to 34 years	1,947	1,032
35 to 44 years	4,535	2,404
45 to 54 years	4,440	2,249
55 to 59 years	1,769	868
60 and 61 years	578	260
62 to 64 years	638	301
65 to 74 years	1,152	519
75 to 84 years	589	397
85 years and over	241	200

Source: U.S. Census of Population and Housing, 1980

Summary of Population Distribution

	<u>TOTAL</u>	<u>PERCENT</u>
Males under 5	841	
Females under 5	835	
	1,676	5.7
Males 5-13	2,077	
Females 5-13	1,926	
	4,003	13.7
Males 14-17	1,523	
Females 14-17	1,435	
	2,958	10.1
Males 18-21	1,028	
Females 18-21	888	
	1,916	6.6
Males 22-29	1,378	
Females 22-29	1,355	
	2,733	9.4
Males 30-44	3,046	
Females 30-44	3,436	
	6,482	22.2
Males 45-64	3,747	
Females 45-64	3,678	
	7,425	25.4
Males 65 and over	866	
Females 65 and over	1,116	
	1,982	6.8

It is anticipated that the percentages of older persons will continue to rise. This is consistent with the national trend. Therefore, the 7% of the population over 65 years old will constitute a larger percent of the overall population in upcoming years. The median age of County residents is 32.2 which is almost a year less than that of the Township. The growing senior citizen population

requires new sources of affordable housing and health care facilities. A recent innovation is the development of life care centers which combine living space and health care services.

4. Sex

Persons 15 years and older

	TOTAL	SINGLE	MARRIED	SEPARATED	WIDOWED	DIVORCED
Male	11,145	3,366	7,225	88	215	251
Female	11,686	2,822	7,221	158	1,039	446

Source: U.S. Census of Population and Housing, 1980

D. Existing and Probable Future Employment

Current and projected employment within the Township was analyzed using available data in combination with a review of approved developments and anticipated projects.

1. Existing Employment

Total Employment (private sector) 11,065

Source: N.J. Dept. of Labor, Covered Employment Trends

A review of those developments which have been completed and occupied during the past five (5) years indicate that approximately 2,200 employees have been added to the work force. The majority of these jobs are in service fields and are white collar positions. Between 1980 and 1984 employment increased by 16% in the County as a whole. The increase in Bridgewater represents a 20% growth and represents 900,000 square feet of new space.

Total employment within the Township currently stands as approximately 13,250 persons.

The following represents some of the Township's largest employers.

Ethicon	2,300
American Hoechst	2,150
RCA	1,800
National Starch & Chem	850
American Cyanamid	450

Since 1980 the Planning Board has approved over 5 million square feet of non-residential floor space, 3.3 million square feet since 1983. This represents nearly 30 development projects. Of the 5 million square feet, over 3 million is currently under construction or completed. Approximately one fourth of the 3 million square feet is occupied.

2. Projected Employment 1986 - 1991

Approved Office Developments 1983 - 1986

NAME	LOCATION	SQ.FT.	PROJ.EMP
O-AT&T (Data Center)	Route 202-206	190,000	100
U-AT&T	Route 202-206	690,000	2,796
O-Bridgewater Corp. Cen	Route 202-206	140,000	560
O-Bridgewater Plaza	Route 22	61,400	245
U-Bridgewater Hills	Route 202-206	113,500	454
O-Bridgewater Off. Cen	Route 202-206	72,000	288
U-Greymark	Route 22	336,000	1,344
U-First Nat Bank	Route 22	62,000	248
O-658 Rt. 202-206	Route 202-206	147,000	588
Mack at Bridgewater	Route 202-206	191,000	764
Crescent	Route 22	324,000	1,456
O-1170 Route 22	Route 22	39,000	156
O-Commerce Center	Foothill Rd.	20,000	80
U-Cali Corp Center	Frontier Rd.	212,000	848
Custom Commercial	Route 22	240,000	960
O-Donahue Off.Center	Route 22	27,000	108
U-Hocroft	Route 22	24,000	96
Coteco Office	Route 22	16,700	67
Sciaretta Enterprises	Route 22	320,000	1,280
U-Americal Hoechst	Route 202-206	30,000	120
U-Bridgewater Place	Route 22	32,000	128
O-OCCUPIED U-UNDER CONSTRUCTION		3,287,600	11,250

Approved Other Non-Residential Developments

U-Bridgewater Commons	Rt.22,202-206	900,000 mall	2,250
U-Bridgewater Shops	Prince Rogers Rd.	33,000 retail	82
U-American Hoechst	Rt. 202-206	68,000 Warehouse	68
Gibson Tube	Chimney Rock Rd.	23,445 Industrial	20
			2,420

Total employment projected from approved development is 13,670
Proposed office developments (expected occupancy before 1992)

NAME	LOCATION	SQ.FT.	PROJ.EMP
Somerset Office Park	Route 28	800,000	3,200
Bridgewater			
Bridgewater Commons	Rt. 22,202-206	500,000	2,000
AT&T Future Phases	Route 202-206	200,000	800
Cali Corp Center	Frontier Road	400,000	1,600
Ethicon	Route 22	500,000	2,000
		2,400,000	9,600

Proposed other Non-Residential Developments

NAME	LOCATION	SQ.FT.	PROJ.EMP
Somerset Office Park	Route 28	250,000	175
	Hi-Tech Space		
Somerset Office Park	Route 28	400 Room Hotel	100
Bridgewater Commons	Rt 22,202-206	300 Room Hotel	75
			350

Total employment within the Township during the next six (6) years could increase by over 23,000 workers. This projection is based on a review of the approved and proposed developments listed on the previous page. These projections were generated using 1 employee per 250 sq. ft. of office space, 1 per 1000 sq. ft. for warehouse space, and 1 per 400 sq. ft. for other developments. This would increase the total employment within the Township to +36,500 workers.

E. Present and Prospective Fair Share for Low and Moderate Income Housing; Capacity to Accommodate Present and Prospective Housing Needs.

1. Background Summary

Prior to the Mount Laurel II decision, the Township had taken affirmative steps to implement a lower cost housing program. In 1976, the Township Master Plan designated six sites for multi-family housing. Five of those sites were to comprise upwards of 40 percent lower cost housing units. In 1980, the Planning Board

worked with consultant Carl Lindbloom, Board Attorney Joe Stonaker and the Township Planning Director.

approved a concept plan for Millbridge Village (Route 22 and Milltown Road), a 475 unit Planned Unit Development, containing 190 units of lower cost housing. The project has not gone forward due to the lack of housing subsidies.

The Township had also taken steps to develop lower cost housing through its Sixth Avenue redevelopment area project. The redevelopment tract is a 65-acre area in the center of Bridgewater Township bounded by I-287, North Bridge Street and Winchester Avenue, excluding the existing residences along Shasta Drive and Third and Fourth Avenues. This area was declared blighted by the Township Council on March 15, 1982 and a Redevelopment Plan was adopted on May 27, 1982. Efforts were then taken to implement this plan.

On September 22, 1982, a H.U.D. Loan of \$6.4 million was approved for the construction of 113 senior citizen and handicapped housing units in a five story mid-rise apartment building. The loan was the largest of 14 projects in New Jersey receiving funds in 1982. The project is owned by Bridgewater Community Services, Inc., a non-profit organization active in the community since the early 1970's. This apartment complex is sponsored and managed by the Martinsville United Methodist Church and supported by the Somerville Senior Citizens Organization.

Bridgewater Township was also awarded a Small Cities Block Grant to construct a major new 1,765-foot collector road to create access for other lower cost unit residential development and the construction of an 18-store, 35,000 square foot neighborhood retail commercial center which will provide needed convenience services to redevelopment area residents.

The Township has also obtained Community Development Block Grant funds to rehabilitate housing and infrastructure in the Somerville Manor and Bradley Gardens areas.

2. Bridgewater Township's Initial Response to Mount Laurel II

Following the Mount Laurel II decision, the Planning Board established a Mount Laurel II Subcommittee. This Subcommittee

a. The Subcommittee examined the decision and evaluated alternate ways of calculating the Township's fair share. It decided the Township's current Mount Laurel I response was acceptable stressing the need for implementation of actual units versus "numerical" compliance.

b. Changes in the multi-family zoning requirements were recommended and adopted to reduce the mandatory set aside or inclusionary requirement from 40 to 20 percent to comply with Mount Laurel II guidelines.

c. The Planning Board granted final site approval in 1984 to Calton Homes for the Foothills at Bridgewater project on a 67-acre tract on Route 206 North consisting of 392 townhouses and 8 single-family residences. Twenty percent of the units were set aside for lower cost housing.

d. The Sixth Avenue Redevelopment Plan was detailed in an urban design plan and then codified in a zoning amendment establishing a requirement that 50 percent of all new residential development in this publicly-owned area be set aside for moderate cost senior citizen housing. This means that the 65-acre Redevelopment Area will generate a total of 213 new low and moderate cost units (exclusive of the 113 unit mid-rise senior citizen building).

3. Zuckerman, et al. v. Bridgewater Township Lawsuit

On July 25, 1984, a complaint was filed in the Superior Court of New Jersey alleging that the Township's Land Use Ordinance did not provide a realistic opportunity for the construction of low and moderate income housing pursuant to Mount Laurel II.

The Zuckerman complaint alleged that the Township's fair share of low and moderate income housing units was 2,058; and that the current Township Ordinance did not provide a realistic opportunity for that number to be constructed. Plaintiff's estimate of

Bridgewater's fair share was based on a computation using the formula for determining a municipality's fair share as set forth in AMG Realty Company v. Township of Warren, a decision handed down in July, 1984, and the first Mt. Laurel II case to be fully tried since the Supreme Court decision some eighteen months earlier.

The Zuckerman complaint sought a "builder's remedy" on the so-called "Pope Tract", a 38-acre property near the intersection of Findeme and Main Streets, permitting Plaintiffs to construct a total of 304 garden apartment residential units, 17 detached single-family houses and 80 subsidized low and moderate income townhouse units. The proposed density would equal 10.5 dwelling units per acre.

Although proposed for a future Township park, the "Pope Tract" represented the type of "builder's remedy" site Mt. Laurel II asserted would be found presumptively valid for lower cost housing as it had public water and sewer, access to major collector roads and no major environmental problems. Township officials were anxious to avoid the multiple builder law suit situation which had become epidemic to Central Jersey. (At this time, the nearby community of Franklin Township was under the siege of eleven separate "builder's remedy" suits.) The Plaintiffs' expert's calculation of a Township obligation for 2,058 units of low and moderate cost housing was found by the Planning Board and the Township Council to be beyond the capacity of the Township to implement by 1990, particularly if such obligation were to be met solely through mandatory set aside rezoning.

Overall, existing and forecasted and infrastructural and budgetary constraints throughout the community posed great difficulties to accommodating the Plaintiffs' proposed fair share obligation. Township officials felt that a Mount Laurel II housing obligation of approximately 1,200 units might be implementable by 1990. All things considered, Township officials requested a settlement conference with Judge Serpentelli in order to resolve the Mount Laurel challenges facing Bridgewater.

4. Court Actions

On September 14, 1984, Judge Serpentelli ordered the following:

- a. Bridgewater Township's fair share obligation of low and moderate cost housing was set at 1,656 units.
- b. Bridgewater Township has until December 14, 1984 to revise its zoning and planning to accommodate its fair share. (The Township obtained an extension of time to February 13, 1985.)
- c. Harvey Moskowitz was appointed court expert or Master to review the Township's compliance proposals.
- d. The Plaintiffs were awarded the "builder's remedy" on the "Pope Tract" for 401 units, of which 80 would be set aside for lower income households.

On February 13, 1985 the Township submitted its Mount Laurel II compliance program, prepared by the Planning Board, to Judge Serpentelli. The program was then reviewed by the Court appointed Master and a trial was held in May. During this time, two citizen groups were permitted to intervene. On May 20, 1985 the Court reduced the fair share to 1,613 units.

On June 13, 1985 Judge Serpentelli approved the Township compliance package, subject to a number of conditions and on September 5, 1985 the Township was granted a Judgment of Repose for six years. The final Housing Strategy Plan provided for 1,468 units (a number of credits the Township was seeking were not allowed by the Court), but a 10 percent bonus provision was added to the zoning ordinance to make up the difference.

5. Housing Strategy Plan

The present status of the Housing Strategy Plan is as follows:

Total Units

<u>Credits for Existing Supply</u>	72
Rehabilitated Units	34
Existing Rent Subsidies	38

Credits for Approved Projects

(Occupied, Under Construction or Approved)	523
Senior Citizen Mid-Rise (Centerbridge)	113
Downey Tract (Crossroads at Bridgewater)	81
Shopping Center Tract (Bridgewater Oaks)	28
Pope Tract (Meadowbrook Estates)	80
Vanderveer Tract (Vanderhaven Farms)	221

Credits for Proposed Projects (Zoning in-place)

Hodge Tract	486
PURD Tract	84
Loft Tract	192
Thompson Avenue	40
Somerville Manor	29
Sixth Avenue Redevelopment	41
	100

Credits for Other Proposed Programs

Future Senior Citizen Housing	327
Housing Rehabilitation	127
Accessory Apartments	80
	120

TOTAL

1,408

6. Council on Affordable Housing Fair Share Determination

Earlier this year the Council on Affordable Housing undertook an analysis of state-wide housing need and allocated fair share housing numbers to all municipalities in the State. Bridgewater Township was assigned a need of 605 low and moderate income units for the six year period of 1987 to 1992.

On June 2, 1986 the Township adopted a resolution of intent to submit to the Council, a fair share housing plan, including a Housing Element, based on the Council's criteria and guidelines.

TOWNSHIP OF BRIDGEWATER SOMERSET COUNTY - NEW JERSEY

HOUSING STRATEGY PLAN

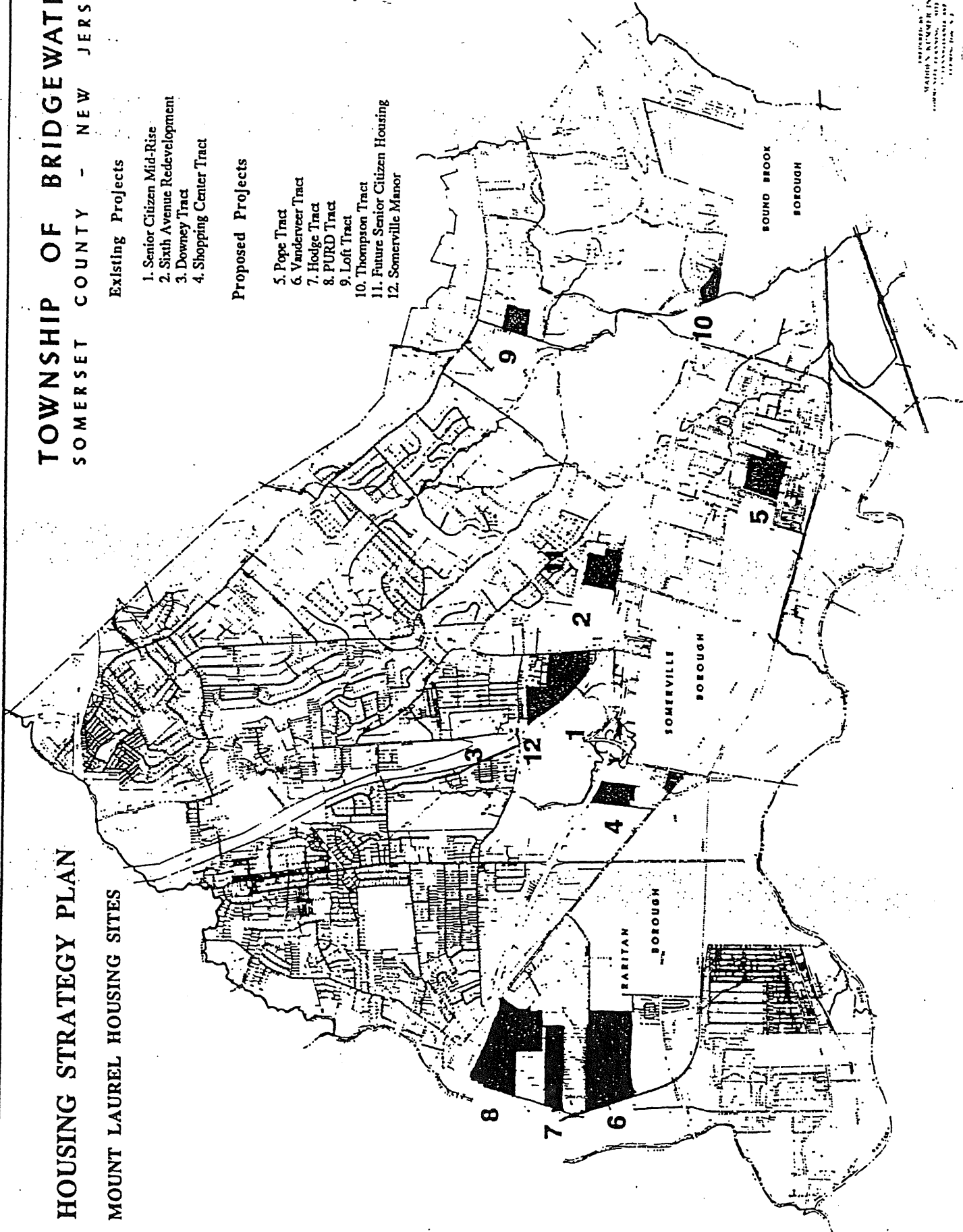
MOUNT LAUREL HOUSING SITES

Existing Projects

1. Senior Citizen Mid-Rise
2. Sixth Avenue Redevelopment
3. Downey Tract
4. Shopping Center Tract

Proposed Projects

5. Pope Tract
6. Vanderveer Tract
7. Hodge Tract
8. PURD Tract
9. Loft Tract
10. Thompson Tract
11. Future Senior Citizen Housing
12. Somerville Manor



F. Consideration of Lands Most Appropriate for Construction of Low and Moderate Income Housing

In the year since the September 5, 1985 Judgement of Repose, the Township has made good progress in implementation of its Housing Strategy Plan. However, the Township considers that Plan to be a dynamic, rather than a fixed, element in its overall planning and development program. During implementation it is anticipated that adjustments will be necessary; some programs will provide more housing than anticipated, others will provide less. The experience of implementation may suggest additional modifications.

The Township is presently very close to implementation of its assigned need (pre-credited) of 605 units. As indicated in the table below, a total of 595 units are either in place, under construction, or approved (site plan approval).

<u>Credits</u>	
Rehabilitated Units	34
Existing Rent Subsidies	38
Senior Citizen Mid-Rise	113
<u>New Developments</u>	
Downey Tract (Crossroads at Bwt.)	81
Shopping Center Tract (Bwt Oaks)	28
Pope Tract (Meadowbrook Estates)	80
Vanderveer Tract (Vanderhaven Farms)	221
TOTAL	595

Except for the future senior citizens housing (127 units)*, the revised zoning ordinance to permit implementation of all proposed projects and programs is in place. This zoning can accommodate 1,281 of the units listed in the Housing Strategy Plan (see Section

* The Affordable Housing Council regulations permit only 20 percent of a municipality's fair share to be designated for senior citizen housing. This limits the Township to 121 such units and credit has already been taken for 113 units.

E-5), leaving a potential surplus of 676 units (excluding the future senior citizen housing).

As a result of this surplus housing situation, the Township proposes that it become a receiving municipality as part of a Regional Contribution Agreement under the established Housing Council guidelines.

Township objectives in participating in a Regional Contribution Agreement(s) are the following:

1. Bring All Units On-Line Earlier.

Funds from sending municipalities can help subsidize the 127-unit senior citizen housing project. This project will be built on Township-owned land, but additional funding is required for implementation.

2. Reduce Future Project Density.

Funds from sending municipalities could permit the Township to subsidize some of the scheduled lower cost units in private projects. For example, the developer could be relieved of his obligation for an internal subsidy by having the Township purchase the units at full cost and, in return, the developer would eliminate some market units and thus reduce project density.

3. Implement Township Redevelopment Plan.

Funds from sending municipalities can help subsidize proposed lower cost units in the Township's Sixth Avenue Redevelopment Project, freeing Township funds for additional site improvements.

The Township will consult with all regional municipalities concerning the willingness of Bridgewater Township to enter into Regional Contribution Agreements as a receiving municipality.

G. Housing Policies

1. To provide for a variety of housing densities and types.
 - 1.1 -- by permitting development of a range of residential densities and building types appropriate to local needs and the life cycle of Township residents.
 - 1.2 -- by designating land areas appropriate to the characteristics of each residential land use type.
 - 1.3 -- by encouraging municipal action to sponsor needed housing programs, with emphasis upon measures to induce the provision of such housing by private developers.

The construction of moderate income single family and twin housing should be encouraged on Township-owned lots on Monmouth and Sussex Avenues.

2. To maintain the quality of existing housing.
 - 2.1 -- by maintaining the quality of municipal services to residential areas.
 - 2.2 -- by continuing programs of inspection and code enforcement.
- A property maintenance code should be enacted to forestall blight, stimulate reinvestment and promote retention of the quality of older developed areas of Bridgewater Township.
- Future affordable housing efforts should emphasize rehabilitation of existing deteriorated housing stock.
- A property maintenance code would be most beneficial to an area like Finderne and Bradley Gardens in order to retain the value of older homes and to assure residents that their rehabilitation efforts are a sound investment.
3. To meet affordable housing obligations and the need for senior citizen housing.

Circulation Plan Element

This Circulation Plan Element shows the types and locations of existing and proposed roads in the Township, and intersection and interchange improvements.

In addition to roads, the Circulation Plan considers other modes of transportation in the Township and establishes policy for their development. These modes include bus transit, mass transit, bicycles and pedestrians. A diversity of transportation modes will be needed in the future for safe and effective movement and preservation of the existing qualities of the Township.

TOWNSHIP OF BRIDGEWATER

SOMERSET COUNTY - NEW JERSEY

CIRCULATION PLAN

EXISTING

PROPOSED

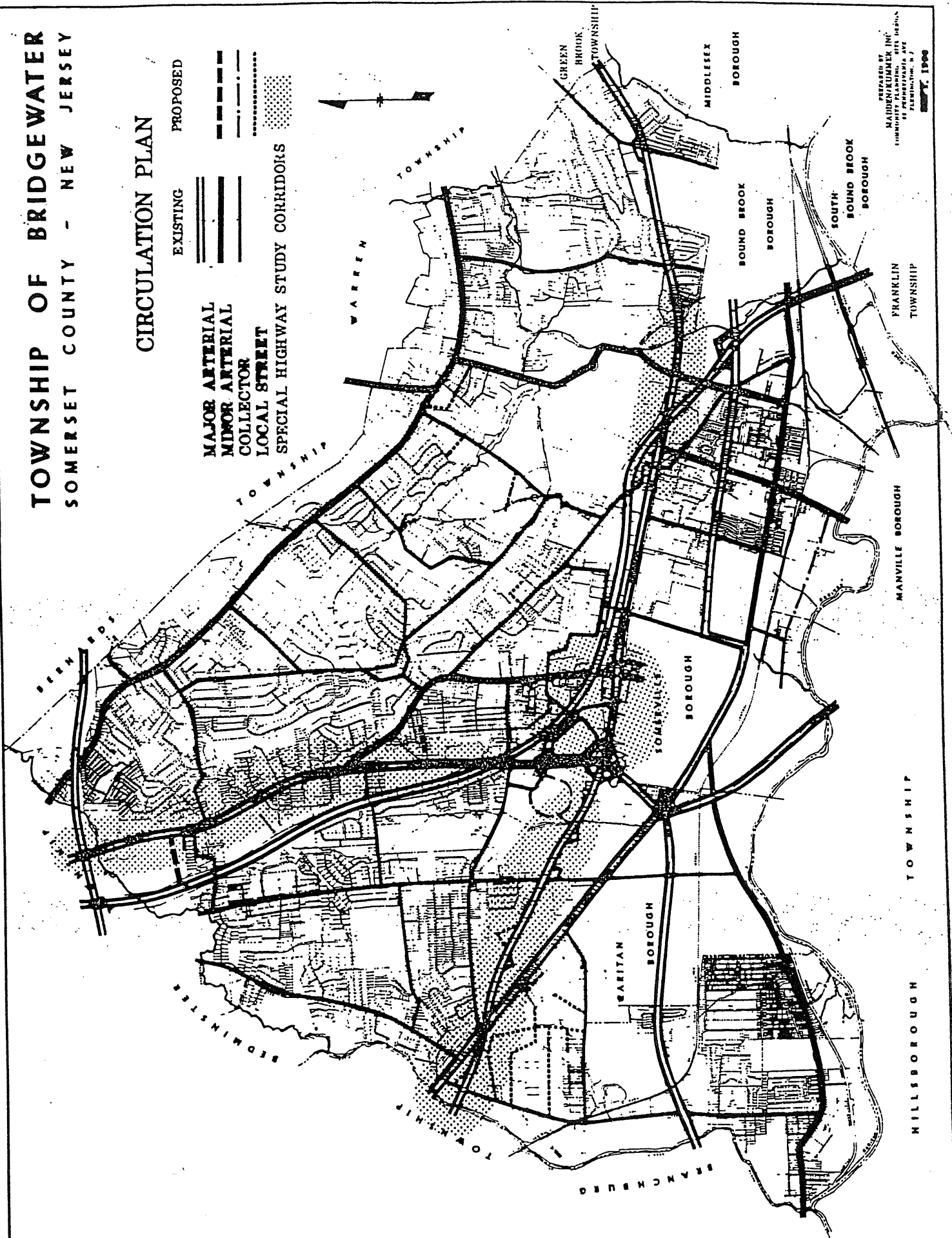
MAJOR ARTERIAL

MINOR ARTERIAL

COLLECTOR

LOCAL STREET

SPECIAL HIGHWAY STUDY CORRIDORS



PREPARED BY
MAIDENKUMMER INC.
COMMUNITY PLANNING, SITE DESIGN
AND ENGINEERING, INC.
PO BOX 100
BRIDGEWATER, NJ 08810
AUGUST, 1990

FRANKLIN
TOWNSHIP

MANVILLE BOROUGH

TOWNSHIP

HILLSBOROUGH

SOMERVILLE
BOROUGH

BRITAIN
BOROUGH

BRANCHBURG
TOWNSHIP

WARREN
TOWNSHIP

GREEN
BROOK
TOWNSHIP

MIDDLESEX
BOROUGH

BOUND BROOK
BOROUGH

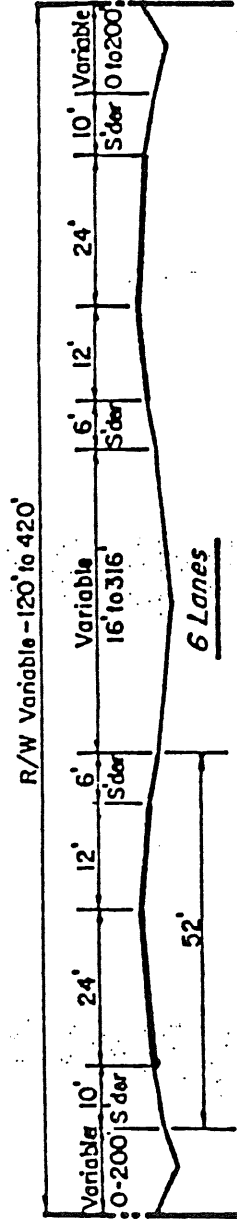
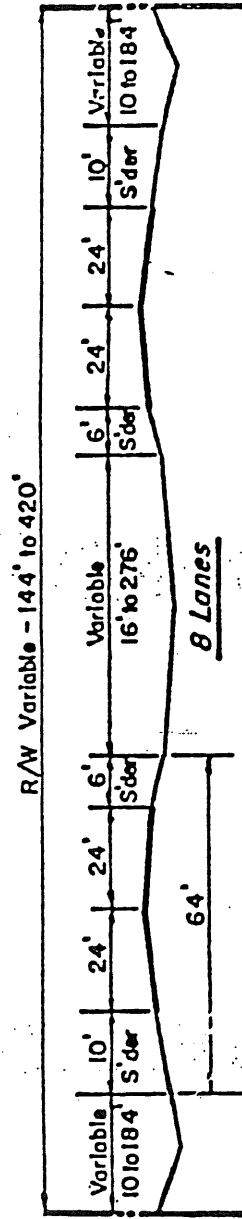
BOROUGH

SOUTH
BOUND BROOK
BOROUGH

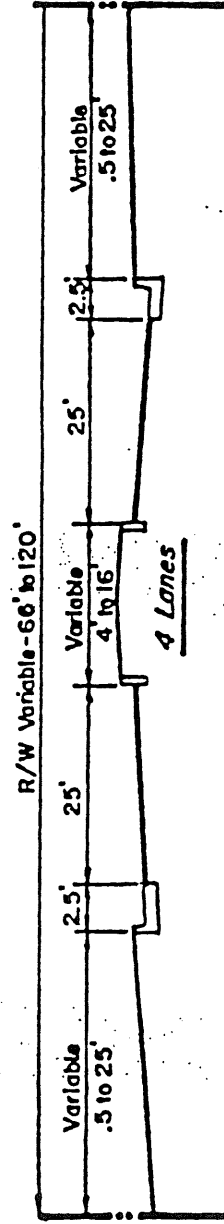
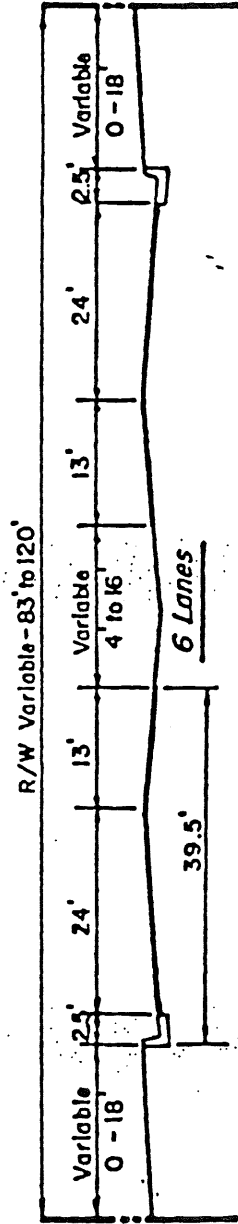
Circulation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation																				
To improve the efficiency of the Township road network. - by improving local circulation in residential areas. - by continuing and coordinated capital improvement program for road improvements, construction, and reconstruction.	The Township should encourage minor road connections to safeguard the continuity of neighborhood road systems. Unless a direct access connection can be made from I-287, in order to avoid further traffic impact on this Sector, a solid waste incinerator should not be located in Findeme. To safely accommodate development of new residences on the rear portion of the deep lots fronting on Vandever Road the Circulation Plan recommends an internal loop road system which minimizes the number of street and driveway intersections with Vandever Road. The minor residential streets in the proposed R-20-1 zone should be required to have a pavement width of 30 to 36 feet to accommodate on-street parking. The Plan proposes minor road linkages to logically complete the street network in Washington Valley. A program of road improvement planning should be developed for the Township.	Roadways are to be classified in five categories: arterial, primary, secondary, area collector and minor. Specifications of right-of-way and pavement widths are as follows: <table><tr><td>Arterial</td><td>right-of-way 66'-120'</td></tr><tr><td></td><td>pavement width 46'-76'</td></tr><tr><td>Primary</td><td>right-of-way 66'-120'</td></tr><tr><td></td><td>pavement width 46'-76'</td></tr><tr><td>Secondary</td><td>right-of-way 66'-72'</td></tr><tr><td></td><td>pavement width 46'-50'</td></tr><tr><td>Area Collector</td><td>right-of-way 50'-60'</td></tr><tr><td></td><td>pavement width 30'-36'</td></tr><tr><td>Minor</td><td>right-of-way 40'-50'</td></tr><tr><td></td><td>pavement width 18'-30'</td></tr></table> A Collector road should be constructed between Country Club Road and Meadow Road north of Eisenhower School. Vandever Road is to be improved as an area collector road to serve this higher density residential area. Other road and intersection improvements should be planned in conjunction with residential development in the area.	Arterial	right-of-way 66'-120'		pavement width 46'-76'	Primary	right-of-way 66'-120'		pavement width 46'-76'	Secondary	right-of-way 66'-72'		pavement width 46'-50'	Area Collector	right-of-way 50'-60'		pavement width 30'-36'	Minor	right-of-way 40'-50'		pavement width 18'-30'	Circulation policies and the Circulation Plan Map are in accordance with County plans and objectives and do not conflict with adjacent municipality plans. Action to review and improve local roads is essential to the maintenance of a sound circulation system. A collector road between Country Club and Meadow Roads will permit better access to Eisenhower School and would improve east-west circulation and fire access.	It is recommended that: (1) The Township continue to review subdivision plans and require minor road connections where possible; (2) Collector road construction be scheduled by Capital Improvements programming. (3) The Township institute a program of inventory, evaluation, improvement plans, priority ordering and detailed budgeting for road improvements. The Planning Board may require, as provided in N.J.S.A. 40:55D-44, the reservation of streets, bicycle or pedestrian paths or any public areas designated for future transportation need in the Circulation Plan element.
Arterial	right-of-way 66'-120'																							
	pavement width 46'-76'																							
Primary	right-of-way 66'-120'																							
	pavement width 46'-76'																							
Secondary	right-of-way 66'-72'																							
	pavement width 46'-50'																							
Area Collector	right-of-way 50'-60'																							
	pavement width 30'-36'																							
Minor	right-of-way 40'-50'																							
	pavement width 18'-30'																							
- by improving intersections which are unsafe or congested. - by encouraging major roadway and interchange improvements or construction. - by including the 202-206/287 interchange and the Somerville Circle.	Appropriate improvements should be undertaken at the following intersections, as shown on the Circulation Plan Map. - Washington Valley Road and Chimney Rock Road - Washington Valley Road and Vosseller Avenue - Main Street and Findeme Avenue - North Bridge Street and Foothill	Relieve traffic congestion by providing additional road connections in Findeme. South Bridge Street and Findeme Avenue should be connected by a roadway running along the Southside Avenue right-of-way. Interchange improvements should be made at the Somerville Circle.	Improvements are necessary at the intersections which have identified present congestion or safety problems. A roadway connecting Bridge Street and Findeme Avenue may be used to limit flooding problems and increase the suitability of land south of the railroad for industrial use. This road is in accordance with County plans.	It is recommended that: (1) The Township analyze and prepare intersection and road segment improvement plans and schedule improvements through Capital Improvements Programming.																				

Arterial R/W 120'-420' P'vmt. 46'-100'



SUGGESTED CONCEPTUAL
TYPICAL ROADWAY CROSS-SECTIONS

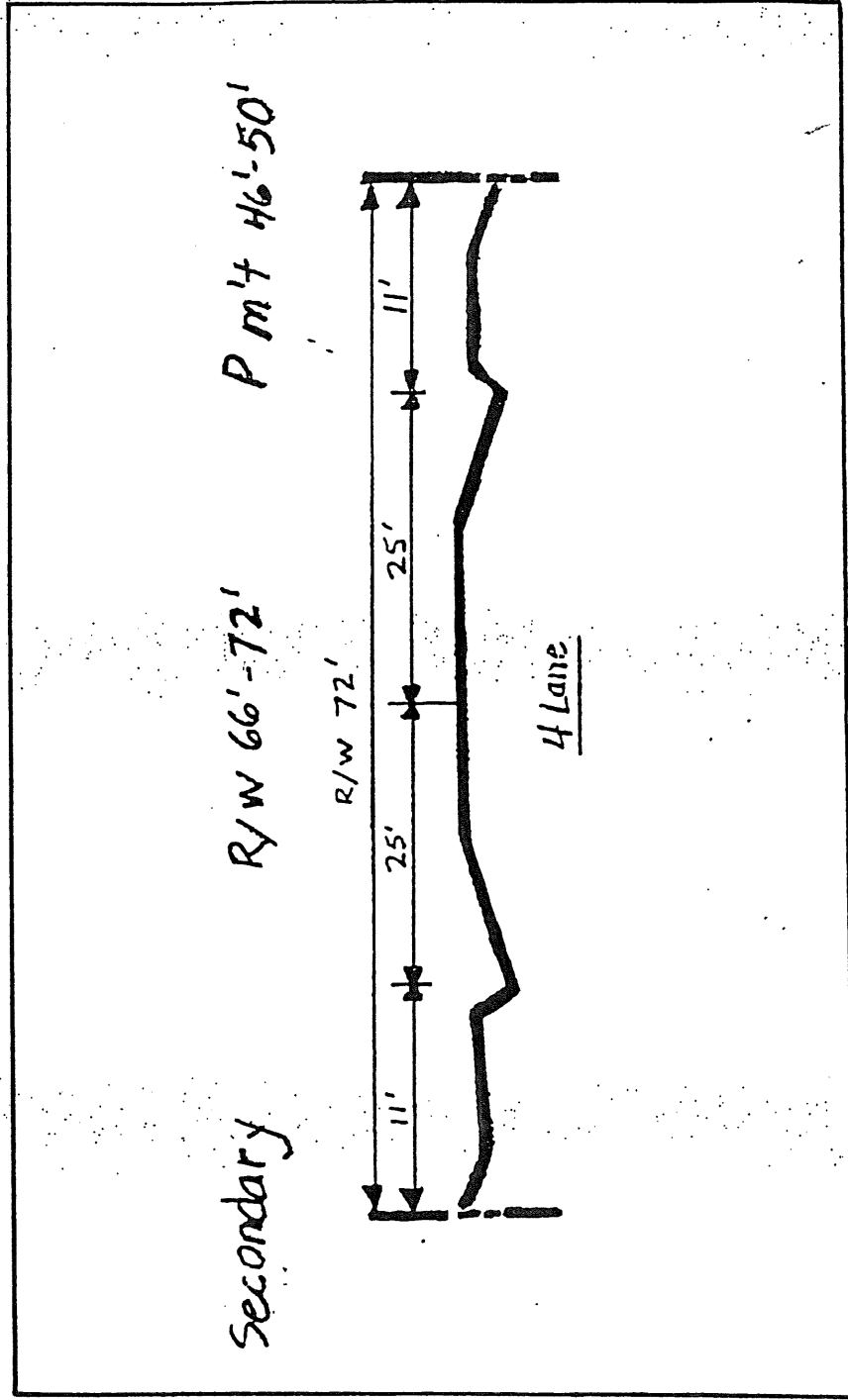


Primary

R/W 66'-120'

P'vmt. 46'-76'

SUGGESTED CONCEPTUAL TYPICAL ROADWAY CROSS-SECTIONS



SUGGESTED CONCEPTUAL
TYPICAL ROADWAY CROSS-SECTION

Circulation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
- by regulating the quality of roadside environment.	- Woodlawn Avenue and Downey Road - Route 28 and Country Club Road - Old York Road and Milltown Road - Old York Road and Maple Street - Papen Road and Mount Vernon Road - Mountaintop Road and Crim Road - Garretson Road and U.S. 202-206 - Mountaintop Road and Steele Gap Road - Union and Main Street The Township should review roadside quality with respect to signs, landscaping, slopes and drainage, and visual quality.	A new interchange of Route 202-206 with Interstate 287 should be constructed.	An interchange with I-287 will serve increased regional traffic and permit better access for the Township.	(2) Construction of an I-287 interchange and a secondary roadway between Bridge Street and Finnerme Avenue be coordinated by the County and State, and that the Township Zoning Ordinance and critical environmental area ordinances be used to control land use development in these areas. (3) The Zoning and Site Plan Ordinances be used to regulate the quality of roadside development.
- by limiting access to critical environmental areas.	Truck traffic should be kept out of residential areas.	Development in critical environmental areas is to be discouraged by limiting road access to these areas, as shown in the Circulation Plan Map.	It is recommended that: (1) Site plan review procedures be used to discourage major access improvements in critical environmental areas;	(1) The Township designate truck routes to serve major commercial and industrial locations and restrict truck traffic on other roads;
- by discouraging non-local and commercial truck traffic in residential neighborhoods.		Traffic related to regional commercial and industrial uses should be limited to arterial and primary roadways. To get the growing amount of through traffic off Country Club Road the Township should support early implementation of road improvement programs for region-serving highways I-287 and Routes 202-206 which parallel Country Club Road.		

Circulation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
- by encouraging bus service serving major commercial and suitably dense residential areas of the Township. - by providing for regional mass transit and encouraging ride sharing programs, staggered work hours and other traffic management programs.	A bus stop consisting of a shelter and bus turnout space should be provided at a convenient, protected location easily accessible to the residents of the Milltown Sector. One example of an appropriate site for a bus stop would be within the future retail area of the Planned Unit Development Zone on Route 22 and Milltown Road. The specific siting of the bus stop should be based on more detailed studies of the Milltown area circulation system. The concentration of regional commercial and office uses at the center of the Township and along its highway corridors as well as the regional bus service provided by New Jersey Transit and the County Scoot system creates the potential for a loop bus system focused on the Commons. The municipality should organize the diverse corporate and smaller businesses in Bridgewater to create an effective and coordinated traffic management program (ride sharing, flexible work hours, staggered leaving time, etc.) to reduce peak hour vehicular trips. Exploration of an operation similar to Morris County's McRides program is recommended.	It is recommended that the municipality explore ways of reducing the attractiveness of Foothill Road to through traffic. One possible proposal worth a more thorough traffic engineering study would be to make Foothill Road one way eastbound from the Steel Gap Road intersection and to prohibit left turns from Route 202-206 on to Foothill Road. While these simple restrictions would not eliminate all through traffic movement, they would reduce the convenience of existing Foothill Road to much of the regional traffic now using this connection between Routes 22 and 202-206. Development in central areas of the Township should be designed to accommodate future bus transit service. A park and ride station should be created on Main Street in the vicinity of the Cyanamid property to support future rail transit service. A park and ride station serving the commuter rail should be explored with New Jersey Transit for a site off Milltown Road west of the underpass. This location has merits for regional use due to the excellent accessibility provided by two State highways and for local use due to the concentration of higher density housing within walking distance. Approval of a park and ride facility could lead to State financial assistance toward improving the costly underpass widening.	Feasibility of long-term bus service to central areas of the Township requires that initial designs provide adequate site access.	The Township review development proposals in the Commons and central higher density residential areas as to site access for long-term bus transit service; The Township participate in regional transit studies to assess the feasibility of future rail and bus transit service; The Township create a Traffic Management Ordinance or join with Somerset County in a traffic management district aimed at fostering car and van pooling, ride sharing, staggered work hours and public transportation.

Circulation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
- by encouraging development of a bikeway system. - by providing pathways and sidewalks in relation to schools, public uses, parks and play areas.	Bikeways should be encouraged in relation to park development, schools, and major residential development. Road, sidewalk, and bike linkages of both areas of Bradley Gardens should be provided across the Suddiford Farm project as part of its development plan. A bike path system, linking the Commons to the two high schools should be created.	Existing bikeway paths should be joined in a comprehensive system serving major residential areas and connecting to systems of adjacent municipalities where possible.	Separation of bicycle traffic from roadways will remove safety hazards and enhance recreational bicycle use.	It is recommended that: (1) Site plan and subdivision review procedures be used to determine and reserve potential bikeway locations; (2) Bikeway construction be coordinated through park development programming; (3) The Township investigate possible new funding sources for bikeway construction.
Future development should be required to provide safe, adequate pathways for pedestrians. The Township program of sidewalk construction should be continued.	SIDEWALKS It is proposed that sidewalk policy be performance standard oriented, based on road classification in accordance with the table are on the next page. That table uses the road classifications contained in the 1988 Traffic Safety Study, prepared by Orth-Rodgers for the Township Planning Board. On local streets, sidewalks should have a four foot width and should be located at least three feet from the curb line. On collector or higher road classifications, sidewalks should have a five foot width in order to double as bikeways. In addition to the sidewalk requirement policy standards indicated in Table One, existing roads which do not conform to the sidewalk standard should be prioritized for sidewalk installation by the Townships as follows: 1. Through roads with no sidewalks and which provide pedestrian access routes to schools and public use areas. 2. Through roads with sidewalks on only one side, but which carry high traffic volumes and where local access and pedestrian activity is high.	The municipality should actively pursue State and Federal funding for the installation of a pedestrian overpass of Route 22 to permit safe access from Somerville to the Commons in keeping with the State Plan's recommendation for higher priority funding for Corridor Centers.	Provision of sidewalks will remove safety hazards of pedestrians forced to use roadways, particularly around schools, and will improve the convenience of access in neighborhood areas. The question of whether to require sidewalks, and under what conditions, is usually a problem in communities which are experiencing development. The argument against sidewalks is that they are not appropriate or necessary in a rural or low density suburban area. In fact, opponents argue, sidewalks are reminders of the urban environment from which they moved. Planners argue that sidewalks are an integral and necessary part of a total circulation system and should always be required in major developments. They also recommend that sidewalks be located on both sides of through streets. There are several reasons for this position. From an historical point of view, the very same argument (against sidewalks) was used in opposing wide or even paved streets - it was too urban and reminded people of the city. We are still living with this problem.	It is recommended that: (1) Provision of sidewalks be regulated by the Site Plan and subdivision Ordinances; (2) Sidewalk construction be scheduled by Capital Improvement Programming. (3) The existing Township Code should be revised as follows: 126-241 Street Design Standards. (add the following): 1. Sidewalks. Sidewalks shall be provided in accordance with the current Township Master Plan Policy for Sidewalks.

TABLE ONE
SIDEWALK STANDARDS

ROAD CLASSIFICATION	DESCRIPTION	SIDEWALK STANDARD
MAJOR ARTERIAL	State highways, interstates and major high-speed highways (i.e. Routes 202/206 Route 22, and I-287 and 78)	none permitted pedestrian use discouraged
MINOR ARTERIAL	County highways: rural areas/<400 vph (peak hr.) developed areas/>400 vph (peak hr.)	one side both sides
COLLECTOR ROADS	Township roads	both sides
LOCAL ROADS	Township roads: cul-de-sacs (under 150 ADT) cul-de-sacs/loops (150-400 ADT) cul-de-sacs/loops (over 400 ADT) sub-collectors	none one side both sides one or both sides

Circulation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
	3. Through roads with no sidewalks and which have low traffic-volumes but, if sidewalks were added, would provide the missing linkage in a neighborhood walkway system. In the case of streets with sidewalks required on one side only, the preferred side is the north or west. This orientation will experience more hours of sunlight, an important factor in clearing light snowfalls and avoiding icy conditions. <u>Planning Standards</u> 1. <u>Density (lot size) Standard</u> (Residential Areas) High density (4 units/acre) (10,000 s.f. lots or smaller) - both sides. Medium density (2-3 units/acre) (15,000-30,000 s.f. lots) - one side. Low density (1 or fewer units/acre) - no sidewalks Exceptions to the above might include major streets (pavement widths in excess of 30 feet or along primary walking routes to school). Sidewalks should be required on both sides in these situations. 2. <u>Business and Industrial Areas</u> Sidewalks should always be required in business zones along street frontages and from parking areas to entrances and exits. In industrial zones, there is some question as to whether sidewalks are necessary due to the infrequent vehicle trips generated and somewhat private nature of the use. Each case probably should be decided on its own		People still walk and will continue to walk despite the admittedly heavy reliance on cars. Sidewalks are places for people to walk. Forcing them onto streets discourages walking and poses a danger to both drivers and pedestrians alike. This is particularly true in inclement weather. Sidewalks are a vital necessity if children walk to school or if a system of neighborhood schools is contemplated. Without sidewalks children almost have to be bussed. Even if a neighborhood system is not contemplated, sidewalks permit children to walk to convenient assembly points for pick-up and drop-off. Finally, sidewalks are recreation areas for children, particularly those under five. They skate, cycle, run and play all sorts of games requiring hard surfaces. Without sidewalks, they are forced to use the streets.	

Circulation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
Establish an overall traffic improvement program to accommodate a Planned Office Park and other developments in Route 202-206 Corridor.	In office zones, particularly those in close proximity to business areas and similar lunch hour attractions, sidewalks along one side of all street frontages is recommended. 3. <u>Road Classification</u> This standard locates sidewalks in accordance with road type. Roads designed for or intended to carry high volumes of traffic would require sidewalks on both sides; roads designed for a very low volume of traffic might not require any sidewalks. Exceptions to this standard would be those major highways where pedestrian traffic is to be discouraged, or a very low volume road in a business area that has high pedestrian activity. 4. <u>State Model Ordinance</u> The State Model Ordinance provides guidelines for residential areas only, and uses road classification and intensity of development as the standard. Where sidewalks are not required, or required on only one side, a graded area is required to permit future sidewalk installation.	With respect to a Planned Corporate Office Park, establish an on-going traffic monitoring system to evaluate the effects that changes in directional distribution, van pooling, public transportation, declining dependency on the automobile due to high technology office usage, release time or other traffic management techniques might have on the Route 202-206 corridor's ability to accommodate peak hour traffic flows within acceptable levels of service as set forth in the Orth-Rodgers Route 202-206 Corridor Study. Such a monitoring system would be instrumental in arriving at the ultimate development intensity possible on the 167 acre tract.	Development in the Route 202-206 corridor is contingent on significant upgrading of this traffic artery. A traffic evaluation of the development potential of vacant lands available for development within this corridor indicates the need for major widening, intersection and signalization improvements. The preferred improvement plan would provide regional benefits for overall traffic flow and augment missing access movements from the I-287/78 interstate system. This plan requires a new road access linking I-287 to Routes 202-206 north and	It is recommended that: (1) The Orth-Rodgers "U.S. Route 202-206 Corridor Study - Bridgewater Township" - December 1982 is the basic plan for traffic improvements needed in the corridor and the mechanism for assuring payment for such improvements. (2) The Township's Circulation Plan Map reflects a new major interstate road access to I-287. All future development in the Route 202-206 corridor shall be required to comply with the
	With respect to a Planned Office Park in the Route 202-206 corridor, access to it from 202-206 should be limited to two access points. The ability to achieve maximum development potential of the Park is contingent on the construction of a new access road to I-287. Without this road access, studies have indicated the need to examine techniques for reducing development densities through the corridor to a lower level. Even with a lower development level in the corridor, a variety of improvements to Route 202-206 as well as specific access improvements directly in front of the 167 acre tract will be required.			

Circulation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
by limiting the number of traffic conflicts on major thoroughfares resulting from abutting land uses.	The Township should continue detail discussions with the County and the State DOT on techniques and procedures necessary to assure the approval and construction of this new Route I-287 access road.	Many shopping trips should be combined within a retail commercial area. It is a good planning practice to facilitate linkages between the separate parking areas for retail uses so that a vehicle does not have to use the public road when visiting several stores in a commercial strip. The Board encourages applicants of retail and office uses to provide driveway linkages in their development plans. The Board intends from time to time to formally adopt a policy of service drive linkages for specific areas as the need arises. The Board is proposing the formal requirement of a 20 foot wide service drive along the rear of lots in the C-1 zone on Main Street between Pearl Street and Powers Avenue. The Board has previously required a 40-foot drive across Block 6213, Lots 47 and 48 as a condition of (Mattei) site plan approval. It is anticipated that the completion of service drives would evolve over time as applicants come before the Board with development applications.	southbound. The 167 acre tract is identified as the most logical location to place this new interstate access in the northerly section of the Township.	Traffic Improvements Plan adopted in the Orth-Rodgers Route 202-206 corridor study. (3) Submission of a Concept Master Site Plan for the 167 acre tract shall be required. This will include circulation access plans, incorporating a new access road to I-287. Appropriate off-tract improvements in front of the site should be outlined with this submission. Similarly, based on the Orth-Rodgers Study, a pro rata share for other off-tract improvements should be determined. It is recommended that: the revision of service drives be coordinated through site plan review.

Circulation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
To improve the efficiency and safety of the state highway system through Bridgewater Township	Develop a Transportation Systems Management Plan designed to prevent the deterioration of the State highway system from congestion and safety problems for the highway study corridors of: Route 22 between Routes 202-206; the North Branch bridge and Route 202-206 north from Route 22 to the Bedminster municipal boundary; traffic improvements associated with the Bridgewater Commons Mall in the vicinity of the Route 22 - 202/206 interchange; Route 22 from Foothill Road to Vosseller Avenue and Route 28 in the vicinity of the I-287 interchange. The Township and the State Department of Transportation (NJDOT) should review all access permits on State highways to assess cumulative impacts of existing and new development proposals. The Township should inform NJDOT of all planned and projected development projects in order to facilitate the coordination of all permit conditions and to anticipate road improvement needs and their participation by applicants. The Township should encourage NJDOT to prepare a transportation plan for the State highways through Bridgewater to ascertain future capital project needs and traffic operational improvements. The Township, NJDOT, prospective applicants and tenants of office buildings should work together to develop transportation system management strategies to reduce air pollution and vehicular trips through such techniques as ride sharing, van pooling, staggered hours, preferential parking for car poolers.	Continue the implementation of the highway improvement program on Routes 22 and 202-206 north. The Township and NJDOT should assess all development for highway capital improvements and transportation management programs aimed at maintaining an accepted level of service. The NJDOT requires for improvement of Route 202-206 north a minimum 102 foot right-of-way with two 12-foot wide lanes in each direction, a 14-foot wide center left turn lane, and 10-foot wide outside shoulders.	Joint efforts by NJDOT and the Township will prevent the deterioration of the State highway system from congestion and safety problems. The NJDOT prepared a Route 206 Corridor Study in 1982 evaluating traffic improvement needs from Bridgewater to Roxbury Township. The Township Planning Board has adopted and is implementing the following highway corridor plans: 1. Traffic Master Plan and Engineering Study, US Route 22 Corridor prepared by Orth-Rodgers Associates, Inc. January, 1983. 2. Traffic Master Plan and Engineering Study, US Route 202-206 Corridor, prepared by Orth-Rodgers Associates, Inc. January, 1983 amended January 1986. 3. Various highway improvement studies and plans prepared by BKI Associates and Goodkind and O'Dea Associates for The Bridgewater Commons project, 1986. 4. Route 22 and Foothill Road Highway Improvements Conditions for Cali office park on Frontier Road, 1982.	It is recommended that: (1) Highway corridor plans be updated periodically to specify right-of-way geometric design, traffic operations, capital improvements and traffic reduction management techniques and their phasing and that developers of properties abutting the highways be allocated their proportional share of the costs for highway improvements. (2) A review of the Township Land Use Code should be conducted to determine ways that revised standards and requirements could be used to reduce vehicular trips. (3) A State Statute be developed to permit municipalities and counties clear authority to require applicants for new development to dedicate right-of-way and contribute their proportional share of highway capital improvements and transportation system management programs. (4) Right-of-way dedication for State highways given in accordance with these plans will not adversely affect a site's permitted development intensity. In other words, allowable floor area ratio, coverage, etc. will remain the same after right-of-way dedication and setbacks will be calculated from the present right-of-way. (5) Improvement cost allocations be adjusted annually by the Township Engineer using the Engineering-News Record cost index. Adjusted costs will be reviewed and approved each year by the Planning Board.

Circulation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
				(6) Monies collected for highway improvements be placed into two separate escrow accounts, one for each corridor, encumbered for the sole purpose of making the improvements recommended in the aforesaid plans as may be amended from time to time by State or Municipal Officials, with interest going back into the account to cover inflationary and other standard costs. (7) Land use development could occur beyond what is projected in these studies due to expansion of existing uses beyond current projections or new developments resulting from rezoning or use variance approvals. If such a situation occurs, it is the Planning Board policy to revise the improvement cost allocations, at the applicant's expense, to determine the new project's proportionate share and to readjust other development's share of total costs. (8) The Planning Board send a letter to request that the New Jersey Department of Transportation place both highway corridors on the State's priority list for State and Federal funding.

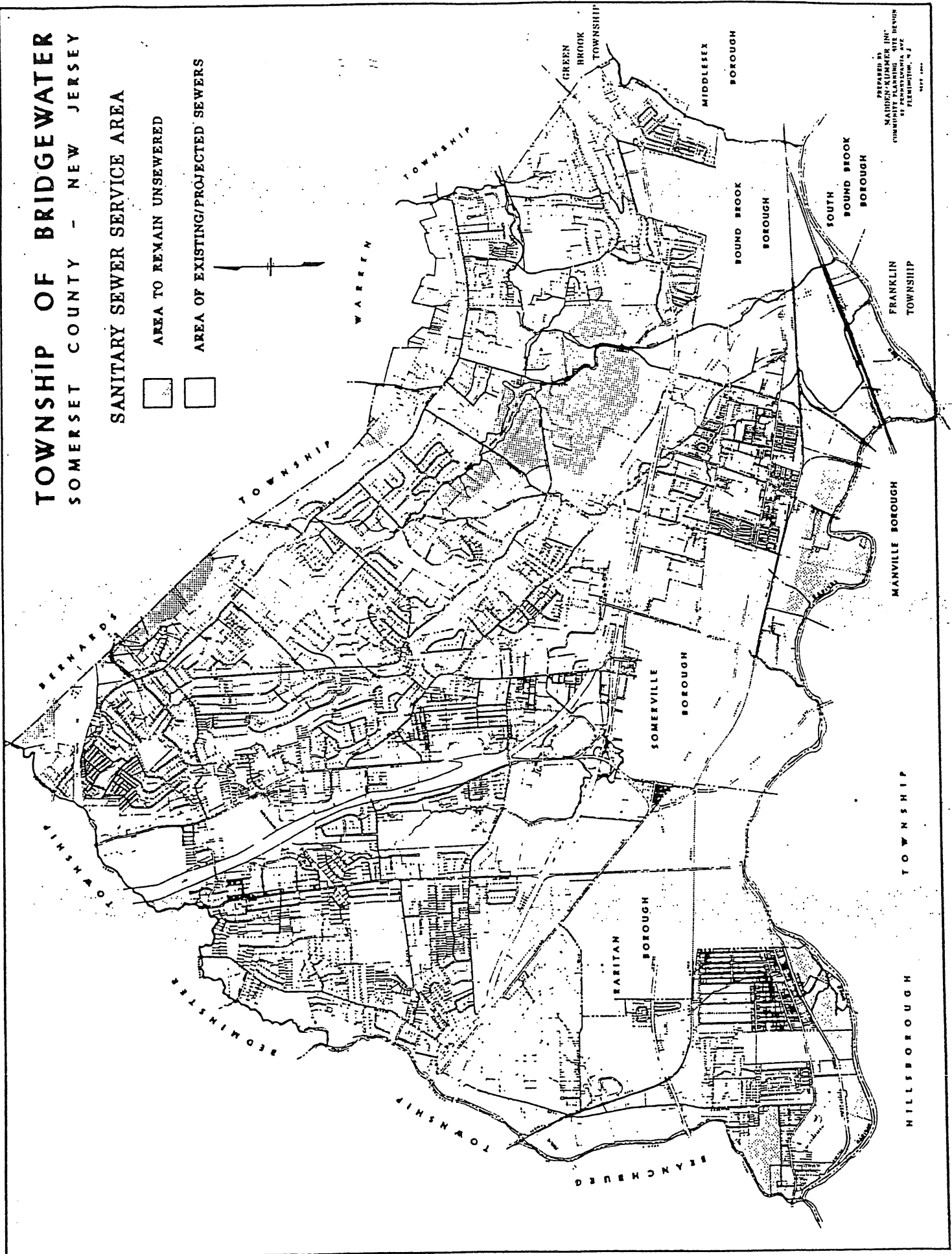
Utility Service Plan Element

The Utility Service Plan for Bridgewater Township has been prepared following a review of existing facilities, present use level, existing problems and projected future needs. One map, Sanitary Sewer Service Areas, show the general locations of areas to be served and areas to be excluded from sanitary sewer service.

TOWNSHIP OF BRIDGEWATER SOMERSET COUNTY - NEW JERSEY

SANITARY SEWER SERVICE AREA

- AREA TO REMAIN UNSEWERED
- AREA OF EXISTING/PROJECTED SEWERS



Utility Service Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
To monitor potable water supply and encourage programs to provide adequate supply of potable water for future needs in accordance with the principles of the Safe Drinking Water Act. - by requiring all new major development to connect to public water systems. - by regular testing of wells to ensure potability. - by extension of public water to areas of ground water contamination. - by eliminating gaps in the water distribution and storage system to correct low water pressures.	The Township should make a study of groundwater pollution problems, possible corrective measures and the long-term reliability of ground-water supply in various sectors of the Township.	Water supply and distribution facilities should be provided in existing and planned developed areas. The Township should review the feasibility of long-term service in the Sunset Lake area and encourage replacement if necessary. Extend water lines where needed in Finnerme due to the threat of groundwater contamination.	Provision of water supply and distribution facilities will provide adequate water supply to Township residents and will serve major future development.	It is recommended that: (1) The Township initiate a coordinated study of subsurface geology, hydrology, and groundwater supply in the Township; (2) The Township continue a program of water quality testing of public and private water supply.
To provide adequate sanitary sewer service to all residents. - by providing service to Township residents through staged facility construction. - by supporting needed expansion and upgrading of SRVSA treatment plant and trunk lines. To extend water and sanitary sewer lines where these services are needed to permit planned development or safeguard public health. - by limiting service in sparsely populated areas or where infeasible due to natural constraints.	The extension of sanitary sewers to the remaining unsewered areas of the Milltown area is proposed as part of the Eihicon Lawns project permitting more flexible and creative development design. Except for areas of critical environmental character as designated on the Sanitary Sewer Service Map, all future development is to be required to connect to the Township sewerage system and should be staged in accordance with sewerage facility construction.	Collector service should not be provided in the undeveloped areas east and west of Chimney Rock Road where utility construction is economically infeasible and development is not appropriate.	Proposed sewerage programs meet the highest priority needs of residential areas having contaminated wells and associated health problems. Complete service must be staged due to financial limitations and regional facility capacity limitations.	It is recommended that: (1) The Township continue sanitary sewer project planning and financing activities and that capital expenditures be coordinated through Capital Improvements programming; (2) The Township continue to participate in regional sewerage facility planning activities.

Utility Service Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
To regulate storm drainage effectively and alleviate flooding damage in the Township and in downstream areas. - by encouraging preparation of a comprehensive drainage plan for the Township in accordance with regional drainage planning. - by preserving natural stream corridors.	The Township should encourage a comprehensive State or County drainage plan for the Raritan River Basin. The Township should also encourage a comprehensive approach to surface water management compatible with regional and local policies. Acquisition of easements for utilities or stream protection are to be coordinated to provide multi-purpose use where feasible.	A comprehensive system of storm sewer facilities should be planned to correct existing flood problems. Future storm drainage facilities in the Township are to be planned in accordance with regional and Township drainage plans.	Development restrictions and facility planning will reduce flooding damages to property and the natural environment will reduce downstream impacts in Somerville, Bound Brook and other areas impacted by regional drainage. Effective storm water management will improve the quality of surface waters and reduce environmental damages, in accordance with State water quality objectives.	The Planning Board may require as provided in N.J.S.A. 40:55D-44, the reservation of any public area designated for future utility service need in the Utility Service Plan element. It is recommended that: (1) The Township encourage and participate in a regional drainage management program; (2) The Township carry out detailed studies of Township storm sewer facilities and establish a program for adequately sizing new lines; (3) The Township identify existing easements and establish a central depository of drainage information. (4) Natural stream corridors be protected by environmental ordinance restrictions, development clustering, easement purchases or property acquisition.
- by regulating further development in flood hazard areas. - by requiring conservation easements for flood zones, wetlands and their buffers.	The Township should support implementation of the Green Brook Flood Control project in Thomae Park. This is consistent with the Master Plan proposal for retaining the Green Brook flood plain corridor in open space.	Development in flood ways is to be prohibited and development in flood fringe areas is to be restricted to appropriate uses consistent with State regulations Prevent buildings or filling of the flood plain of Cuckholds Brook through a range of controls on development and public actions such as clustering development, purchase of conservation easements and parks and removal of flood-causing barriers in the basin.		

Utility Service Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
Within a Planned Corporate Office Park development require a comprehensive utility service and storm water management plan.	On-site water and sewer systems shall be tied into public systems. Storm water management shall be devised as a combination of natural and man-made facilities and environmentally sensitive to a development tract's natural conditions and topography. With respect to the 167 acre tract, the following drainage concepts shall be incorporated within a Planned Corporate Office Park: - The tract contains two natural drainage basins generally servicing its northern and southern sections. A natural drainage corridor serving each basin should be developed containing a system of swales, channels and man-made facilities collecting storm water from adjacent development areas and transmitting such runoff to detention/retention facilities at the low points of the respective basins where such water can be released at controlled rates into existing drainage facilities.		Consistent with the principle of developing a significant tract of land as a planned entity is the recognition that on-site utility and storm water drainage systems need to be similarly designed.	It is recommended that as part of a Concept Master Site Plan application submittal for a Planned Corporate Office Park, a conceptual utility service plan and storm water management plan shall be provided together with confirmation from the appropriate servicing utility agency as to the availability of service capacity to accommodate the development level proposed.

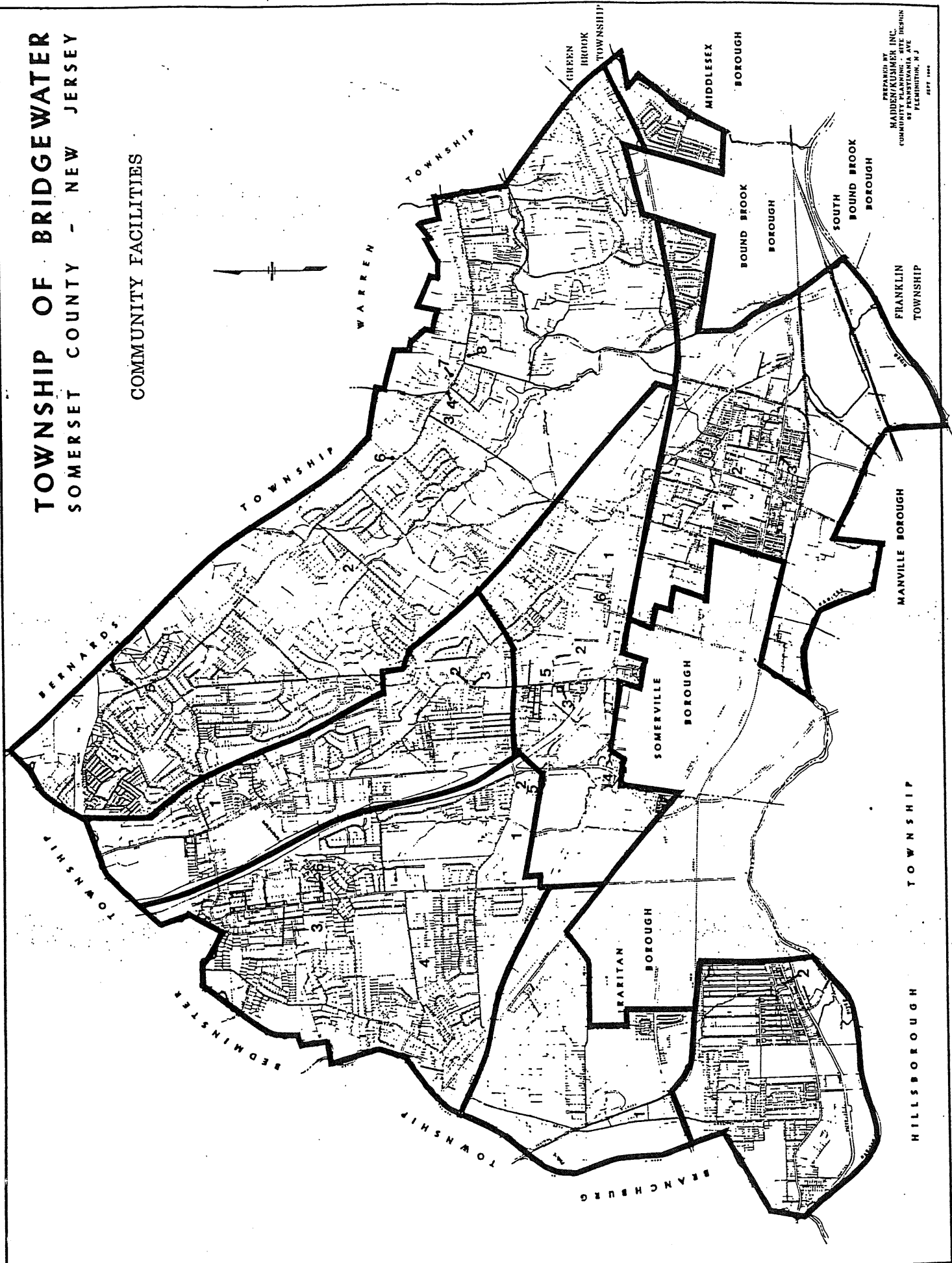
Community Facilities Plan Element

The Community Plan Facilities Plan shows the location of existing and proposed facilities, including schools, fire stations, rescue squads, police, libraries and other public facilities.

TOWNSHIP OF BRIDGEWATER

SOMERSET COUNTY - NEW JERSEY

COMMUNITY FACILITIES



Community Facilities Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
To promote a superior level of educational services with school facilities well located in regard to population and accessibility and built with due consideration to site amenities, needed facilities and adjacent land uses. -- by providing information to the School District regarding population growth and educational facility needs.	Existing locations of elementary, middle and senior high schools are to be retained. The type and facilities of existing school buildings are described in the Background Analysis Report. These facilities are adequate for the short-term planning period and are to be retained. No additional school facilities are proposed for the short-term planning period, due to projected short-term needs.	A periodic review should be made of condition and adequacy of facilities, changes in school population needs, and the need for increasing or decreasing facilities in reference to this evaluation. Because of the extent of higher density multi-family and small lot single family housing planned in the Milltown area, the Planning Board foresees the possibility the that Bradley Gardens School, the neighborhood school serving this area of Bridgewater Township, may in the future exceed its current enrollment capacity. This would force the shifting of students to other schools with excess capacity within the Bridgewater-Raritan system. While excess enrollment capacity may continue to exist in the entire school system, the Planning Board recommends the School District continue to pursue its policy of serving the elementary students of an area through a neighborhood school, if financially feasible. To accomplish that objective, the Master Plan suggests the School District consider the acquisition of additional land to permit the future expansion of the Bradley Gardens School or a new elementary school site in the Milltown area should future elementary school enrollment in the Milltown-Bradley Gardens area exceed the current capacity of the Bradley Gardens School. As Bridgewater matures and if current demographic trends persist, sometime in the future the Planning Board projects that the community will need only one high school. At that time, the community will face the planning issue of the most appropriate reuse for the high school the Board of Education decides to sell as surplus property. Both high schools lie in single family residential zones (R-40). It is apparent both high schools are not single family residential structures and would require zoning approval to allow a use appropriate for the structure. The	School sites as proposed are compatible with surrounding land uses. Sidewalk construction and other improvements are planned where student pedestrian access is presently unsafe or hazardous.	It is recommended that: (1) The School District carry out a periodic review of facilities, population growth and school needs, supplemented by planning information as provided by the Township.

Community Facilities Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
To provide adequate fire protection and emergency services for Township residents especially during the day. - by locating facilities such that the Township is efficiently and adequately served. - by encouraging the coordination of emergency services with surrounding municipalities.	A periodic evaluation of the Township by a qualified Fire Association Rating Organization should be made to prepare detailed service plans to correct deficient areas and to improve overall community fire protection.	setting for each high school will influence the type of reuse appropriate for the site and building. High School East is surrounded on three sides by single family residences and is served by a somewhat indirect access. While landscape buffers and access modifications could be made, it appears the reuse of High School East would be more suitable for residential or governmental uses. High School West has direct access to a major road, is close to Bridgewater's emerging Town Center and directly affects fewer single family residences than the High School East site. Therefore, High School West would have a broader range of reuse options including both residential and non-residential uses i.e. offices. The decision about the future of each High School should be the subject of a thorough study which is beyond the scope of a general community master plan. It is the recommendation of the Master Plan that the Board of Education and the Planning Board work cooperatively to evaluate all of the community planning issues when and if a decision to close a high school has to be made. Existing fire station and rescue squad locations are shown on the Community Facilities Plan Map and are to be retained. The Township should evaluate emergency services periodically as continued growth occurs.	Fire stations and rescue squads are properly located on major streets and roads and are not hazardous to surrounding residential areas.	The Township continue to review subdivision plans to determine adequacy of water supply and fire equipment access.

Community Facilities Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
To provide facilities for community groups and cultural activities. To provide facilities necessary for efficient operation of municipal administrative functions.	A central community facility should be located and maintained in the Bridgewater Commons. Design of the facility should maintain a human scale and permit it to serve as a focal point for the community.	There is a need for community facilities in the Milltown area such as day care and community centers, private clubs, houses of worship, etc. These types of public or semi-public uses are not currently available since this neighborhood has only recently and rapidly been built up. The plan suggests an area on Milltown Road next to the railroad would be suited for community service uses.	Central locations for a branch library and additional community facilities provide efficient service to all sectors of the Township.	It is recommended that: (1) Detailed programming and locational studies be undertaken for community facilities; (2) Design and construction of community facilities be scheduled through Capital Improvements programming. The Planning Board may require as provided in N.J.S.A. 40:55D-44, the reservation of any public area designated for future community facilities or service need in the Community Facilities Plan element. Reference should be made to the Bridgewater Environmental Commission Historic Sites map in planning and controlling the character of development adjacent to recorded historic sites in the Township.
		The municipality also has the option of expanding the current municipal building on Garretton Road to accommodate future governmental space needs projected to require 21,000 additional square feet in the next decade and to incorporate police headquarters, courtroom and additional meeting rooms. This would free the current police building site along with the public works area for a smaller town center project of 10 acres. Facilities of the existing municipal building and public works garage may be relocated after a thorough study of available sites and a municipal decision to use the current site for mixed use development. Decentralized locations for equipment storage should be acquired as necessary.	Administrative functions will be centrally located and expansion will provide needed office, conference and public meeting space.	

Recreation, Park and Open Space Plan Element

The Recreation, Park and Open Space Plan Element sets forth policy statements, plan proposals and recommended implementation techniques for existing and proposed recreation, park and open space sites. The map shows the location of all existing recreation, park and open space sites. Future recreation, park and open space sites are shown on the Land Use Plan Map and the Recreation, Park and Open Space Plan Element text describes specific proposals.

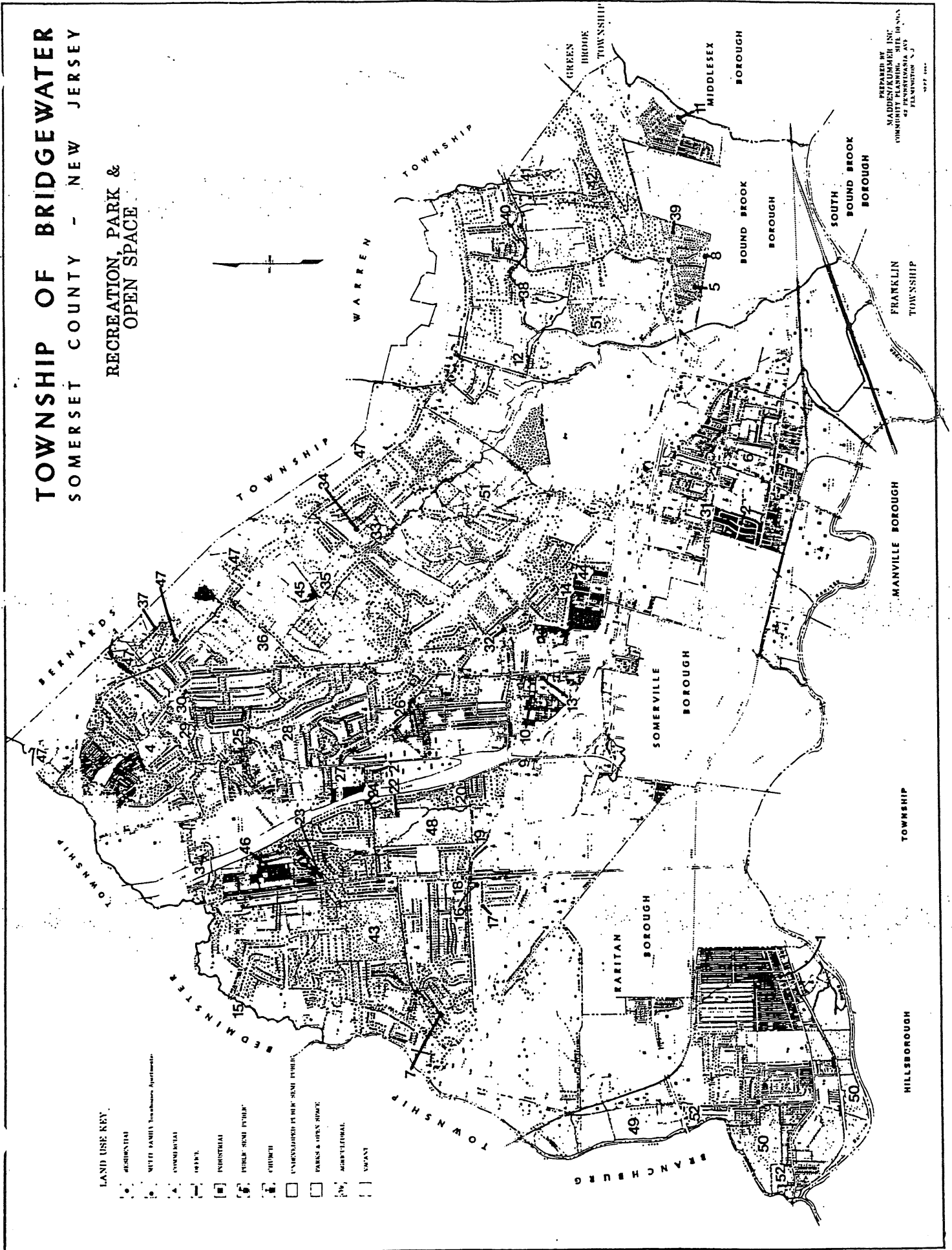
TOWNSHIP OF BRIDGEWATER

SOMERSET COUNTY - NEW JERSEY

RECREATION, PARK & OPEN SPACE

LAND USE KEY

- RESIDENTIAL
- MULTIFAMILY (Townhouses, Apartments)
- COMMERCIAL
- INDUSTRIAL
- PUBLIC SEMI-PUBLIC
- CHURCH
- UNDEVELOPED PUBLIC SEMI-PUBLIC
- PARKS & OPEN SPACE
- AGRICULTURAL
- WASTELAND



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BOUND BROOK BOROUGH

SOMERVILLE BOROUGH

BRIDGEWATER TOWNSHIP

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BRIDGEWATER TOWNSHIP

Recreation, Park and Open Space Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
To provide a network of publicly owned and other park areas and permanently preserved open space: - of appropriate type and location to support a full range of active and passive recreational activities; - of sufficient size and quality to maintain an ecologically balanced community; - located within walking or bicycling distance to serve residential, school and employment locations. - active recreational facilities should be placed so as to not disturb residences. - by preserving in the Town Center, the current recreation areas of Bridgewater-Raritan High School West for Bridgewater's open space and recreation needs.	A park should be created on the former Diocese of Metuchen site at Union and Adamsville as part of a joint use for the public and the relocated Elks building.	Encourage the Somerset County Park Commission to build more ballfields in the upland areas of Duke Island Park. Encourage Somerset County Park Commission to create recreation uses on the Power Canal such as canoe rentals, jogging, fishing and biking similar to those found on the D & R Canal in Mercer County. Parking and linkage to the future Confluence Park should also be addressed by the Park Commission. The vacant Township-owned parcels adjacent to Eisenhower School should be retained by the municipality and joined with privately-owned vacant lots which should be acquired to create a future joint Township park-school playground.	Provision of park and open space areas will promote a more relaxed community atmosphere by taking people out of intensively developed areas and by providing inviting, refreshing meeting places to recreate. Acquisition of park and open space areas as shown on the Land Use Plan Map will provide space for a range of active and passive park and open space opportunities and facilities. The proposed locations of open space will break up monotonous development patterns, provide buffer areas, protect the natural environment and provide wildlife habitat.	It is recommended that: (1) The Township continue the phased acquisition program of park and open space lands utilizing wherever possible matching funds from available sources; (2) The Township continue to apply for Green Acres funding and investigate means to coordinate park acquisition with other expenditures, such as utility easement purchases; (3) The Township initiate a program of limited park development following acquisition;
- by priority acquisition of major park sites most vulnerable to development.	Areas recommended for immediate acquisition include: - Washington Valley area, Middlebrook linkage and along the First and Second Ridges. - open field areas north of Middlebrook, near Martinsville, Findernie - Bradley Gardens	Continued implementation of the programs to acquire open space along the Second Watchung Mountains and the East and West Branch of the Middle Brook. The Washington Valley Open Space Plan is the major conservation, open space and recreation plan proposal for Washington Valley. The Washington Valley Open Space Plan proposes a continuous open space and park system of 1,146 acres, 5 1/2 miles in length along the East and West branches of the Middle Brook and its tributaries. As organized in this plan, the open space system will consist of 427 acres of municipally-held lands, 549 acres of County Parkland and 169 acres in homeowners associations and permanent private conservation arrangements. It should be noted the Washington Valley Open Space		

Recreation, Park and Open Space Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
		incorporates private open space within the overall connected open space system but this plan does not recommend public purchase or use of private lands such as the Spruce Run Associates recreational facilities as long as they remain in private open space and recreation use. The primary recreational focus of the park is a trail network which will enable public access to the open space corridors running alongside and perpendicular to the Middle Brook. South of the Middle Brook, the lands are, for the most part, environmentally sensitive and are therefore planned for low intensity recreational pursuits such as hiking trails, conservation and wildlife habitat protection. Active recreational facilities are proposed to be dispersed evenly north along the Middle Brook. It is recommended active recreation uses be concentrated at major park sites in the system so maintenance, parking and public control can best be handled. The Washington Valley Open Space area was officially designated the Vietnam Veterans Memorial Park in 1988. It is anticipated the Vietnam Veterans Memorial Park will be developed in stages over several decades. The first phase in the development of active recreational facilities is underway in the form of soccer and playfields off Tullo Road. The Master Plan embraces the concept of a linked open space system focusing on the East and West Branches of the Middle Brook. The Plan recognizes certain specifications of the Washington Valley Open Space Plan such as potential recreation uses and programming and suggested land use alternatives will require further study and refinement by various Township agencies before adoption.		(4) The Township coordinate park acquisition expenditures with other municipal capital expenditures through Capital Improvement programming. (5) The Planning Board may require as provided in N.J.S.A. 40:55D-44, the reservation of any public area designated for recreation, park or open space in the Land Use Plan.

Recreation, Park and Open Space Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
- by acquisition of supplemental park sites in each residential area of the Township - by encouraging the long-term preservation of private and semi-public park and open space areas. - by encouraging County acquisition of park lands. - by protecting valuable conservation areas and preserving them for limited recreational use. - by requiring future higher density development to provide usable open space and recreational area for its residents and by requiring proper development and continuing maintenance of on-site recreational facilities.	Conservation areas which are to be protected are shown on the Land Use Plan Map. Preservation measures are presented in further detail in the Conservation Plan Element. In the Milltown area the need for active recreation facilities should be met largely by the multi-family developments.	Open land south of the Bradley Gardens Elementary School should be acquired and developed for neighborhood recreational use. The area of Northover Camp in Washington Valley should be reserved as permanent open space. The Township should retain the recreation facilities presented by Basitone Field and the open space along the Peter's Brook corridor stretching from Garretson Road to the highway frontage along Route 22. With no vacant land suitable for active recreation available in the Country Club-Foothill-Town Center area, the municipality should preserve this valuable recreation resource conveniently located in the center of the Township. Raritan Valley Country Club should be retained as private open space with inducements in the form of detached residential uses on small lots to permit economic support for and permanent retention of the golf course use. The Township should urge the County to create an active recreation facility south of Vocational Technical Institute near Interstate 287 and preserve the wetland corridor east of Vogt Drive as conservation lands. A major park should be created by the municipality or the County Park Commission along the flood plain and waterfront of the Raritan River in Findeme. A major recreation facilities complex in the form of playing fields and a marina would be appropriate here, served by a new road from Findeme Avenue west to Somerville. Flood plains along the North Branch of the Raritan River should be left in open space or be developed for appropriate recreation facilities.	Acquisition of land adjacent to the Bradley Gardens Elementary School will provide accessible active recreation facilities for the surrounding neighborhood. Preservation of private lands is necessary to promote the general welfare where those lands contribute to the environmental soundness of the area, the general open quality, or the recreational needs of Township residents.	It is recommended that: (1) The Township initiate a program to identify additional non-public lands which are valuable as permanent open space; (2) The Township investigate and use methods such as tax reductions, purchase of development rights or easements to guarantee the preservation of non-public park and open space areas. (3) The Site Plan Ordinance establish open space requirements for higher density residential developments.

Recreation, Park and Open Space Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
- by establishing high development standards and criteria for parks and open space areas. - by developing park facilities with an emphasis on broadening the outdoor recreation opportunities within each neighborhood area, and with an emphasis on good ecology and sound development and maintenance practices.	Design and development guidelines for park and open space development should be adopted by the Township, placing greater emphasis on developing and maintaining the natural beauty of park areas. Development of park sites should emphasize a broad range of outdoor recreation opportunities. Active recreation facilities are to be provided in suitable neighborhood park areas, as shown on the Land Use Plan Map. Existing facilities as surveyed in the Background Analysis are to be retained. Additional facilities should be provided at sites which include the following: - land south of Bradley Gardens School. - Darby tract, Country Club Road sector. - North Bridge Park, Township Center sector. - open park sites near Martinsville. - Harry Alley Park, Finderne.	Open space in the form of flood plains and wetlands along the North Branch and Chambers Brook should be reserved for future public park use and wildlife habitat and acquired through the use of clustered single family development. Areas for nurseries, greenhouses and expansion of the composting program should be provided. The School District parcel on Washington Valley Road should be developed on an interim or permanent basis for active recreation. Neighborhood recreation facilities should be planned as part of the Planned Neighborhood development high density residential projects in the Milltown Road sector.	Adoption of park development guidelines is necessary to evaluate and control intrusions such as excessive lighting or traffic into park areas. Guidelines will also assist the Township in reviewing plans in order to promote good site development practices, avoid costly errors and reduce maintenance costs. A broader range of recreational opportunities will improve the recreational choice for Township residents. Less intensive uses will also permit park designs which properly preserve the natural characteristics of individual park areas. Park area nurseries, greenhouses and composting facilities will lower the cost of development and maintenance by increasing the capability of the Division of Parks. Greenhouses will provide meeting places for garden clubs, senior citizens and educational groups as well as supply a cheap source of plant material.	It is recommended that: (1) Park and other public site development be subject to Site Plan review; (2) The Township develop and adopt specific park development criteria with regard to prohibiting excessive internal traffic, establishing parking and lighting standards, and other site development considerations. It is recommended that: (1) The Township coordinate park development with other municipal expenditures through Capital Improvements programming. (2) The Township coordinate park development with the facility needs of the Division of Recreation and with other Township agencies and bodies.

Recreation, Park and Open Space Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
- by developing non-motorized pathway systems connecting major residential areas, schools and parks. - by periodic review and update of park acquisition and development planning in order to insure an ecologically balanced community and provide for a sufficient amount and quality of parks and open space land to insure a healthy environment in the Township.	A hiking trail system should be developed using conservation parklands, undeveloped areas, and the Watchung Mountain Second Ridge and the Middlebrook as funding is available. Riding trails should be developed related to existing stable locations and suitable trail areas. Bikeways should be developed in major residential areas and in relation to schools and recreation sites. Bikeways should be planned as part of the developments in the Milltown Road Sector and should connect with park areas along the North Branch.	Hiking, riding and bicycling trails should be connected as complete networks where possible.	Trail systems would provide greater mobility for Township residents and increase the range of recreational opportunities. Hiking, riding and bicycling trails would meet County planning objectives and could be connected to similar pathway systems of adjacent municipalities.	It is recommended that: (1) The Township review with the County the possibility of joint or separate funding of bikeway development through the New Jersey Department of Transportation; (2) The Township prepare detailed plans for hiking and riding trail development, apply for Green Acres funding assistance, and schedule development through Capital Improvements programming; (3) The Somerset County Planning Board and the Somerset County Park Commission be encouraged to plan for bridle/trails and stables with boarding facilities in the Township. (4) The Master Plan be reviewed periodically to insure that sufficient areas are being provided for recreation and protection of natural resources.

Conservation Plan Element

The Conservation Plan is guided primarily by the findings and recommendations of the Natural Resource Inventory. The policy statements and plan proposals call for the preservation and proper use of the natural resources present in the Township. Recommended open space acquisitions to protect environmentally sensitive sites are shown on the Land Use Plan Map and the Conservation Plan Element text describes specific proposals.

Conservation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
To preserve the ecological, historic, visual, agricultural and scenic resources of the Township. - by providing a continuous network of open space along streams, slopes, scenic areas and critical environmental areas. - by acquiring land through fee-simple acquisition and clustering for a linked open space system, along the Middle Brook, the North Branch, the Raritan River, and the Second Watchung Mountain.	Consideration should be given to conservation measures other than full acquisition to protect and preserve scenic, visual, ecologic and historic resources and prime agricultural land. In the face of continuing development pressures, the community's highest priority should be given to retaining and preserving of remaining open space parcels, particularly environmental sensitive areas such as steep slopes and flood plains, through a variety of techniques. A conservation/passive recreation area should be created in the Pearl Street area.	Limited development of conservation parklands will protect natural resources and allow perpetual use by Township residents.		It is recommended that the Township investigate and utilize available means of land preservation, including Green Acres acquisition, easement purchases, transfer of development rights, and protection of a variety of prime agricultural land in appropriate areas.
- by limiting or prohibiting development in critical environmental areas and areas subject to environmental constraints. - by limiting environmental degradation and adverse impacts such as noise and air pollution due to improper use of land and inadequate road system.	The Washington Valley area and the two mountain ridges are to be treated as sensitive environmental areas. This land area includes: (1) known critical environmental areas, and (2) evidence that serious problems are present, where more factual data should be acquired before development densities and locations can be set.	The area north of Washington Valley Road is to be developed for very low density residential use in order to conserve the extensive steep slope area of the Second Ridge. Development densities in low density areas are to be established based upon site environmental conditions. Special building restrictions are to be imposed where necessary to protect conservation areas. Environmental resources in all parts of the Township are to be protected by review of development impacts.	Conservation of flood hazard and steep slope areas is in accordance with County land use plans. The policy is consistent with adjacent municipality land use plans unless development plans in adjacent municipalities do not protect shared conservation areas, such as streams or mountain ridges. Protection of flood hazard areas will permit improved flood control for the Township and downstream areas, natural resource preservation and passive recreational use.	It is recommended that: (1) The Zoning Ordinance establish maximum density limitation in critical environmental areas and areas subject to environmental constraints. (2) The Zoning Ordinance provide for Township review of development proposals in critical environmental areas in order to establish appropriate development densities. (3) The Township continue to investigate and adopt development controls for conservation areas such as clustering and density limits established on a district basis. (4) The Township supplement the Natural Resource Inventory prepared by the Environmental Commission with studies of the Washington Valley and ridge areas to determine the relationships of ground water contamination, subsurface geology and drainage, and the environmental constraints on further development.

Conservation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
by encouraging land development which preserves natural amenities and does not aggravate drainage problems affecting the Township and downstream communities.	The area between Steele Gap Road, Newman's Lane and Vosseller Avenue should be reviewed to determine long-term conservation and development controls.			(5) The Planning Board may require as provided in N.J.S.A. 40:55D-44, the reservation of any public area designated on the Land Use Plan element. (6) An environmental ordinance be prepared and adopted requiring environmental impact evaluation of major developments. It is recommended that: (1) The Township prepare and enact a new Site Plan Ordinance having more specific environmental controls. (2) The Township prepare and enact environmental ordinances which promote the conservation of site amenities and require adequate water run-off management. (3) The Township prepare and enact regulations to preserve valuable vegetation resources and to encourage desirable aesthetic and ecological use of landscaping materials in future development. (5) The Township seek a more active role in regional decisions regarding resource conservation and regional environmental problems. (6) The Township monitor programs to assure the long-term reclamation of quarried areas.

Conservation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
- by prohibiting stream channel relocation and development and by providing for suitable wildlife habitat. - by protecting historical and cultural resources. - by developing special design districts in historic areas of the Township. - by limiting tree removal along both Watchung Mountain Ridges. To encourage recycling and alternatives to the incineration of toxic and solid wastes.	Important historical sites are shown on the Environmental Commission Historic Sites Map. Additional historical, cultural, scenic and resources in the Township should be identified and planned for.	Stream corridors are to be protected as conservation areas and no stream course changes are to be permitted. An uninterrupted conservation area is to be preserved along the east and west branches of the Middlebrook. Wildlife is to be preserved by designation of major conservation areas and management of wildlife habitat throughout the Township. The Middlebrook Encampment is to be established as a historic district. The historic Van Veghten house should be protected from industrial encroachment and made a focus of the proposed Raritan River flood plain park.	Preservation of stream corridors and a continuous area in the Middlebrook are necessary for wildlife and will promote improved flood management. Establishment of design districts will preserve the traditional architectural and historic character of Township areas.	It is recommended that: (1) The Township review development proposals to evaluate disturbance of wetlands, stream corridors and related wildlife habitat. (2) The Township develop further procedures for preserving and improving dedicated wildlife management open space. (3) The Township develop an overall wildlife management plan for existing developed areas and the Township in conjunction with adjacent municipalities. It is recommended that the Township continue a program to identify historic or cultural landmarks, prepare a registry, and determine appropriate steps to preserve historic resources. It is recommended that the Township review the architectural and historic qualities of historic areas, designated special design districts, and establish design and development regulations and criteria.
Within a Planned Corporate Office Park encourage such development to be clustered thereby preserving open space and the natural environment in concentrated locations. This allows the integration of existing forested areas, natural streams, flood plains, and water bodies with the future manmade environment.	A coordinated on-site storm water control system that maximizes use of existing natural features and topography of the site is required. An effective approach to achieving this is discussed in the Utility Service Plan Element of this Master Plan.		Through the planned development technique, treatment of the Chambers Brook and its associated flood plain, the gently sloping topography and vegetation can be handled in a sensitive manner such that future development will be harmoniously integrated within the existing environment. Protection of stream and associated flood plains will improve flood control in Bridgewater Township and downstream areas. Topography and forested areas are protected to maintain the natural character of existing sites. Incorporation and extension of adjacent designated conservation areas shall thereby preserve wildlife habitat.	It is recommended that: (1) As part of a Concept Master Plan submitted to gain an approved Planned Corporate Office Park, a conceptual open space and conservation plan shall be provided. An objective of maintaining a minimum of twenty-five (25%) percent of the total development tract in natural open space corridors, incorporating the site's vegetation and drainage ways in undisturbed natural green space should be encouraged. Any internal site access crossings of these corridors should be done in an environmentally sensitive manner.

Conservation Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
				(2) Chambers Brook flood plain shall be protected and undisturbed as part of the Office Park's open space plan. (3) Techniques for incorporating the existing southerly drainage channel as part of the site's overall future drainage system shall be explored, with concern toward mitigation of environmental impact on such system, while insuring that road safety design principals are maintained.

Visual Plan Element

The Visual Plan Element sets forth policies and proposals to guide the appearance of the public and private development.

Visual Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
To preserve and enhance the visual environment, both natural and manmade.	The visual design plan element is concerned with policies aimed at maintaining the community's current desirable visual features and in guiding the accumulation of new individual development projects toward a cohesive and attractive community appearance. - by directing the private sector through design studies and development standards on how new projects or renovations should be designed to respect their existing development context. - by using public sector fiscal resources, laws and enforcement to create a stable climate for reinvestment and upgrading of private properties.	It is recommended that the Martinsville business zone be designated as a Special Design District and specific district development design guidelines for building design and facade treatment, signs, lighting, and street furniture listed below be incorporated into Part 8, Site Plan Review, of the Township Land Use Code. 1. <i>Building Massing and Scale</i> a) <i>Buildings with expansive blank walls, and all curtain wall structures are discouraged.</i> b) <i>Flat, shed and mansard roofs are not recommended; gable roof designs are encouraged.</i> c) <i>A human scale should be achieved through the use of such scale elements as windows, doors, columns, and canopies.</i> 2. <i>Building Materials</i> a) <i>Building materials should be compatible with the predominant materials of adjacent structures. The recommended standard is brick with white wood trim.</i> b) <i>Aluminum siding, metal panels, and mirrored glass surfaces are discouraged.</i> c) <i>Metal awnings are discouraged. Awnings should be solid or striped canvas in recommended colors.</i> 3. <i>Building Details</i> a) <i>If several storefronts are located in one building they should be unified in design treatment; e.g. the design of windows and door openings, the use of materials and color.</i> b) <i>All storefronts should include display windows with a sill height not more than two feet from grade.</i> c) <i>Surface detailing should be integral with the structure rather than applied for</i>		It is recommended that the following activities be initiated as the first step in implementing a Township visual design program. (1) Establish a street tree planting and maintenance program. First priority should be for all major streets in Findeme. (2) Enact design guidelines for building architecture and site development, particularly for infill development. (3) Encourage cleanup, fix up and property upgrading efforts beginning with gateway properties, i.e. prominent intersections or focal points which could signal the beginning of neighborhood-wide improvement efforts. (4) Upgrade the appearance of the commercial uses at the intersection at the Findeme and Main Street. Suggested approaches include reorganization of the parking area of the shopping center to introduce landscaping and a cooperative arrangement between the property owners here to revise driveway access to reduce traffic conflicts with the busy adjacent roadways. (5) Upgrade the visual character of Chimney Rock Road. (6) Place electrical, cable TV, and telephone utility lines underground in highly visible commercial areas. (7) Adopt guidelines for building design for Old York Road commercial properties, as conversion and redevelopment occurs, to encourage visual upgrading.

Visual Plan Element

Policy	Short Term Proposals	Long Term Proposals	Evaluation	Implementation
		d) Exterior mounted mechanical and electrical equipment should be architecturally screened. 4. <u>Signs</u> a) Recommended sign material is wood. Recommended sign design is illustrated herewith. b) Recommended store signage is black capital letters applied to a white fascia wood trim over display window area. Letter size should be subordinate to the background. Sign lighting should be indirect or external to the sign. c) The design of a sign should be subservient to, and consistent with, the building it serves. d) Where a building requires several different signs, they should be similar in size, materials, color and lighting. 5. <u>Color</u> a) The painting of buildings in bold colors, patterns, checks, or using buildings as signs, is discouraged. b) Only earth tones should be used for exterior surfaces (browns, beiges, grays, soft greens). Accent, or complementary colors, harmonizing with the main color, may be used for trim or awnings. 6. <u>Street Furniture and Lighting</u> a) Recommended street furniture designs and preferred lighting standard type should be selected by the Planning Board. b) The design of all street furniture (benches, phone booths, trash receptacles, etc.) should be consistent with overall building design concept.		

7. POLICY STATEMENT OF MASTER PLAN RELATIONSHIPS

The New Jersey Municipal Land Use Law requires that the Master Plan for Bridgewater Township include a specific policy statement indicating the relationship of proposed development, as presented in the Master Plan, to the Master Plans of contiguous municipalities, and the Master Plan of Somerset County.

Master Plans of Adjacent Municipalities

The Plan Elements of the Master Plan for Bridgewater Township have been prepared to be compatible to and in harmony with Master Plans of adjacent municipalities. As such, the Bridgewater Master Plan will not cause any substantial incompatibility with these Master Plans in terms of types of land use, density or intensity of use.

Master Plan for Somerset County

The Plan Elements of the Master Plan for Bridgewater Township have been prepared in accordance with the Master Plan for Somerset County where feasible. The Somerset County Planning Board adopted an updated County Master Plan on June 29, 1987 replacing the previous County Plan which had served since 1970 as the guide to County planning decisions. The Somerset County Land Use Management Plan Map indicates land use categories planned for Bridgewater Township.

The County Master Plan proposes Bridgewater Township in the area surrounding Somerville Borough as part of the Regional Center of Somerset County where the concentration of the County's public facilities and services, regional shopping, major employment centers and higher density housing set in mixed use projects should be located. The Regional Center area consists of approximately 1,900 acres in Bridgewater along the Route 22 and 287 corridors generally between Country Club, Garretson, and Foothill Roads and Main Street. The residential density here is currently around 3 dwelling units per acre. The County Plan proposes in the Regional Center an average residential density to 3 to 10 units per acre anticipating future development of a denser nature in this core area of the County. The County Plan also envisions the possibility of even greater intensities of retail,

commercial, office and industrial development. The planning criteria for the Regional Center proposes floor area ratios in the range of .30 to .60. The upper limit of the county's suggested FAR is twice that currently permitted within Bridgewater's nonresidential districts found in the Regional Center area. To support more intensive development in the Regional Center the County would promote an expanded public transit system and improved pedestrian movement systems. Mixed use projects combining higher density residences and commercial activities are foreseen as a way of accommodating a higher level of development while at the same time reducing vehicular traffic.

The Route 22 and 287 travel corridors through Bridgewater are foreseen over a long range period as the setting for further development although with an intention of minimizing strip development. The concentration of access, utilities, public services and existing businesses along these corridors is the reason for attracting further development rather than see land use activities spread more finely over the entire County. The County Plan proposes development in the corridors residential densities in the range of 2 to 5 units/acre and floor area ratios for commercial and industrial uses of .25 to .35. Only a very small portion of the corridor areas through Bridgewater are zoned or developed residentially. Current residential densities are predominantly one unit per acre with affordable multi-family housing projects permitted at eight dwelling units per acre.

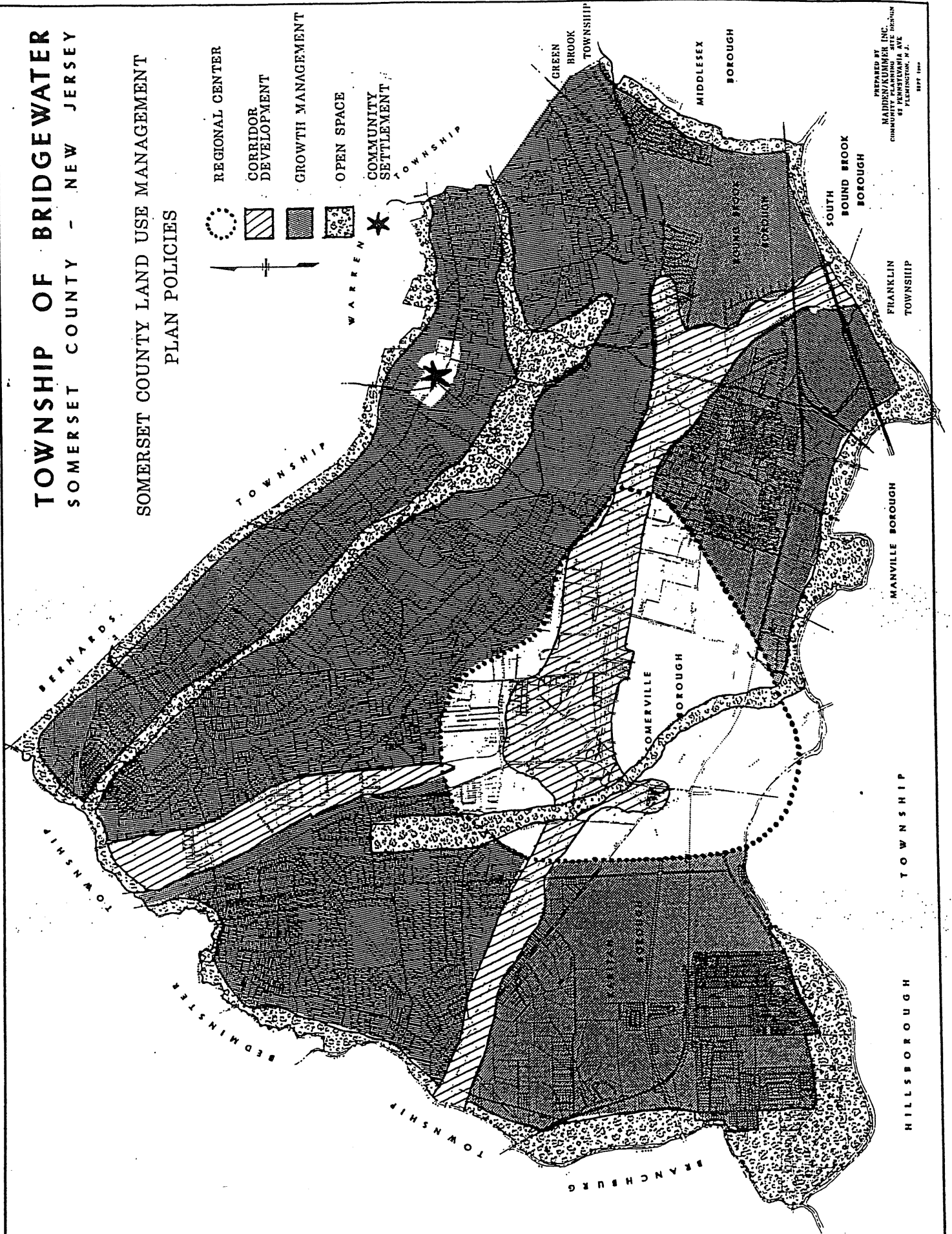
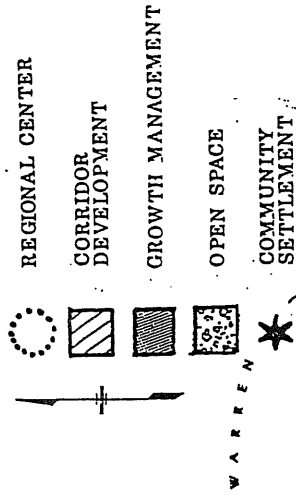
Outside the influence of the regional travel corridors, the majority of Bridgewater Township is proposed in the County Plan for Growth Management, a lower suburban scale of balanced development with residential densities of .3 to 1 unit per acre which is a slightly lower development density than that set forth in Bridgewater's zoning ordinance.

The final County Plan policy for Bridgewater are the proposals to retain in open space the flood plain along the South Branch of the Raritan River and Peter's Brook, the stream corridor of the East and West branches of the Middle Brook and the Second Watchung Mountain ridgeline.

TOWNSHIP OF BRIDGEWATER

SOMERSET COUNTY - NEW JERSEY

SOMERSET COUNTY LAND USE MANAGEMENT PLAN POLICIES



Preliminary State Development and Redevelopment Plan

Background

The State Planning Act of 1985 directs the Planning Commission to adopt a State Development and Redevelopment Plan "which shall provide a coordinated, integrated and comprehensive plan for the growth, development, renewal, and conservation of the state and its regions..." It further directs the Commission to produce a plan which encourages "development, redevelopment and economic growth in locations that are well situated with respect to present or anticipated public services and facilities, giving appropriate priority to the redevelopment, repair, rehabilitation or replacement of existing facilities and to discourage development where it may impair or destroy natural resources or environmental qualities that are vital to the health and well-being of the present and future citizens of this State."

Strategy

The general approach taken by the Planning Commission was to identify a strategy to guide growth in ways that make the most efficient use of existing public services, meet the demand for future services and protect the environment. The system adopted is referred to as the Tier concept and is the underlying foundation of the Plan. The Draft Plan is designed to accommodate the current population and employment forecast to the year 2010, while at the same time produce less need for public services than unplanned (trend) growth. The Tier system would promote timed and sequenced public services extensions such that services would be extended outward from a first tier of already intensely developed area to the least developed outlying tier to accommodate growth. The classification of land areas into tiers was intended to demonstrate 1) where there are existing facilities and services capable of serving new growth, 2) where facilities are operating overcapacity and need to be expanded, 3) where there are facilities which have deteriorated and need to be repaired, and 4) where facilities and services do not now exist. The Tier approach also allows for designation of areas that must be protected to preserve the environmental quality and economic vitality of the future of the State.

Cross-Acceptance

Bridgewater Township has worked with The Somerset County Planning Board in development of a cross-acceptance report which has been submitted to The Office of State Planning. Cross-acceptance is the process through which comparison is made of the planning policies permitted in local, county and State Plans.

It is the purpose of the cross-acceptance report to state areas of agreement and disagreement with the planning policies of the Preliminary State Development and Redevelopment Plan and to suggest map changes in Tier delineations where appropriate.

In the next stage in the cross-acceptance process, the State Planning Commission will review reports and mapping revisions and negotiate required changes to the Preliminary Plan where there are areas of disagreement. The negotiation phase of cross-acceptance is currently under way.

APPENDIX

Village House Definition

A village house is a single-family detached dwelling on a separate lot. It differs from other forms of single-family detached housing in its lot size and its placement on the lot, which are similar to houses found in the historic villages and towns. The house is placed very close to the street and is additionally distinguished from other single-family houses by planting or architectural treatments.

1. Each unit shall require a minimum of one (1) of the following characteristics:
 - a. One (1) canopy tree per lot, or two (2) flowering trees per lot.
 - b. An unenclosed porch, running across at least three-quarters (3/4) of the house front and being at least seven (7) feet in width.
 - c. A front yard raised above sidewalk grade by at least eighteen (18) inches with a retaining wall of at least eighteen (18) inches at the sidewalk line.
 - d. A front yard enclosed by a permanent wall or fence of wood or masonry construction at least thirty (30) inches in height.
 - e. Hedge Yard: One (1) of the following or similar species per eighteen (18) inches:

(1) Azalea species	15-18"
(2) Berberis species	15-18"
(3) Buxus species	12-18"
(4) Ligustrum	2-3'
(5) Taxus species	18-24"
(6) Viburnum species	18-24"

