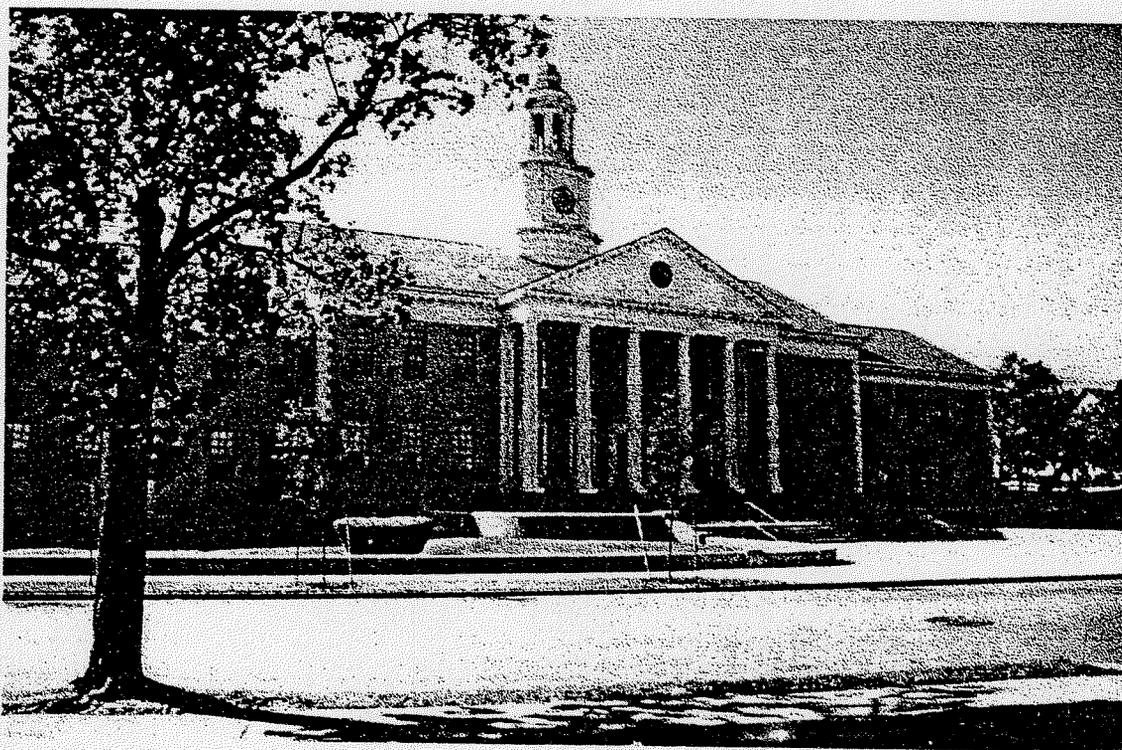


MASTER PLAN

Borough of Madison
Morris County, New Jersey



October, 1992

BOROUGH OF MADISON, MORRIS COUNTY

1992 MASTER PLAN

Prepared for:

The Borough of Madison Planning Board

October 1992

Prepared by

Moskowitz, Heyer & Gruel, PA

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**RESOLUTION OF THE MADISON BOROUGH
PLANNING BOARD ADOPTING
A REVISED AND UPDATED MASTER PLAN**

WHEREAS, the Madison Borough Planning Board (the "Board") is authorized to prepare, adopt and amend a Master Plan to guide the use of lands within the Borough of Madison in a manner designed to protect public health and safety and promote the general welfare; and

WHEREAS, Moskowitz, Heyer & Gruel, PA, Borough Planners, have at the request of the Board prepared the following Master Plan documents:

1. Draft Master Plan, Borough of Madison, Morris County, New Jersey, dated January 1992;
2. ERRATA Sheet - Madison Master Plan (Draft, April 1992, consisting of two pages;
3. Addendum to Draft Master Plan, Borough of Madison, dated September 28, 1992, consisting of two (2) pages;
4. Addendum to Draft Master Plan, dated October 13, 1992; and

WHEREAS, the Board has duly considered the draft Master Plan and addenda thereto at public hearings held on May 26, July 7, September 8, October 6, and October 13, 1992, respectively; and

WHEREAS, public notice of all such hearings has been given in accordance with the requirements of N.J.S.A. 40:55D-13; and

WHEREAS, the draft Master Plan and addenda thereto have been prepared in accordance with the requirements and provisions of N.J.S.A. 40:55d-28; and

WHEREAS, the Board has determined that the draft Master Plan and addenda thereto will appropriately guide the use of lands within the Borough of Madison in a manner which protects the public health and safety and promotes the general welfare.

NOW THEREFORE, BE IT RESOLVED that the document entitled "Draft Master Plan, Borough of Madison, Morris County, New Jersey," prepared by Moskowitz, Heyer & Gruel, P.A., and dated January 1992, and all addenda thereto as referred to in this resolution be and hereby are adopted as the official Master Plan of the Borough of Madison.

IT IS FURTHER RESOLVED that the Master Plan adopted and approved herein shall supersede in all respects the previous Master Plan for the Borough of Madison and all subsequent amendments thereto.

ADOPTED AND APPROVED
October 13, 1992
MADISON BOROUGH PLANNING BOARD

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SUMMARY OF RECOMMENDATIONS

MADISON DRAFT MASTER PLAN SUMMARY OF RECOMMENDATIONS

The Master Plan is driven by several goals and objectives which establish a framework for Madison to meet the challenges of the 1990's. These challenges include the preservation of open space and environmentally sensitive areas, the maintenance of a diverse housing stock, the preservation of residential neighborhoods; and, the maintenance of attractive, thriving commercial and professional districts.

The following briefly summarizes the major recommendations of each element of the Borough Master Plan.

LAND USE PLAN

Major recommendations strive to maintain open space and guide the appropriate development and redevelopment of the few remaining large developable parcels in the Borough. In commercial areas, the continued viability of the central business district and the future development of East Main Street were the primary concerns. Finally, smaller areas appropriate for development and redevelopment for multi-family residential uses have been designated to provide a variety of housing types.

Residential Areas

**Madison Golf Course:* The golf course is located in the area of the Borough that has been designated by the New Jersey Geological Survey as critical to the recharge of the Buried Valley Aquifer, the source of Madison's water supply. In addition, this parcel is one of the few remaining large open space parcels. To preserve the current use of the property, which has been a golf course since the late 1800's, a private outdoor recreation zone is proposed.

**Bayley Ellard:* The land use proposal for Bayley Ellard provides for comprehensive and appropriate adaptive reuse of the existing school facilities should Bayley Ellard cease to operate as a school in the future. Cluster residential zoning with a gross density based on 25,000 square foot lots and a 50 percent open space requirement would be the principal permitted use. The development of a comprehensive senior housing facility or CCRC (continuing care retirement center), is recommended to be conditionally permitted as an alternate use. Since there is a total of 100,000 square feet of building area on the site presently, adequate space is available for a senior housing complex with a combination of existing and new structures. Should Bayley Ellard continue to operate as a school, it is recommended that a facilities master plan be prepared to guide the appropriate development and redevelopment of the site for the school.

**Loantaka Moraine:* Cluster zoning with specific standards to preserve the unique and sensitive environmental features of the site is recommended for this 25 acre site at the corner of Woodland Road and Loantaka Way. The proposed gross density is one unit per two acres consistent with the adjacent zoning in Chatham which permits single-family residences on 100,000 square foot lots or one unit per 2.3 acres. The cluster designation requires a set aside of 50 percent for open space or approximately 11 acres. The site is also recommended for acquisition by the County and State as part of the Loantaka Brook Reservation system.

**Elm Street:* Rezoning lots with frontage on Elm Street from Park Avenue to the railroad and contiguous lots along the south side of Park Avenue from Elm Street to near Loveland Street to permit multi-family uses is recommended. Presently, this area contains a mix of apartments and two, three and four family residences, some of which are deteriorating.

**Transition "T" Zone South of East Main Street:* The "T" Zone was originally intended to provide areas for residential development and parking accessory to uses on East Main Street. With few exceptions, however, no changes have occurred in this area. The majority of the "T" Zone divides single-family residences into two zones, placing the backyards in the Transition designation. It is recommended that the majority of the residences in the area be

redesignated as single-family residential to reflect existing land patterns of neighborhoods. Two specific areas have been pinpointed for single-family attached residential development. These areas are located on both sides of Cross Street and on both sides of Bruns Street.

**Accessory Buildings and Structures:* Regulations that govern the size of accessory buildings and structures in residential zones are proposed which relate the size of the accessory structure to a proportion of the lot size, rather than the size of the principal structure as currently regulated.

**Home Offices:* It is recommended that the Borough ordinance be revised to permit home offices as permitted accessory uses in all residential zones provided that no nonresident employees use the premises and that visits by clients are not a customary part of the office use.

Nonresidential Areas

**East Main Street:* Planning issues on East Main Street include the prevalence of auto related uses, the traffic impact of scattered retail uses, the potential for additional retail sprawl, the location of parking areas in the front yards and the future development pattern in terms of appropriate uses and densities. Recommendations include the following:

Auto sales display is no longer designated as a permitted use. The nonconforming status would permit all those currently operating to remain and transfer ownership, but a new facility could not be constructed without seeking a use variance.

Retail uses be restricted to four retail nodes. Those nodes are the Madison Plaza Shopping Center, the lots on the south side of Main Street between Bruns Street and Samson Avenue (which include the Quick Check strip center and Dunkin' Donuts), the A&P, and the Bottle Hill Shopping Center. The remaining areas on East Main Street are proposed to be restricted to small scale office and multi-family development. These uses are proposed to complement the designated retail nodes and to ensure the continued viability of the downtown as the

Borough's retail core. Throughout East Main Street, offices in residences are proposed to be permitted uses. Parking areas are required to be located in rear yards with more emphasis on landscaping in the front of buildings.

**Central Business District (CBD) Zones:* It is recommended that the uses on the east side of Greenwood Avenue at the Main Street intersection and the uses with frontage on both sides of Main Street (excluding Bottle Hill Shopping Center) from the cemetery westward be redesignated as CBD. Specifically, the uses included in this area located on the north side of Main Street are proposed for CBD-2 zoning with the exception of the Exxon station at the corner of Main Street and Greenwood Avenue, which is recommended to be zoned CBD-1. This results in a slight enlargement of the CBD-2 along its eastern edge. The uses south of Main Street in this area are recommended to be combined with the adjacent CBD-1 Zone to the west.

**Samson Avenue:* There are three industrial uses located north of the railroad by the Kings Road and Samson Avenue overpass. These uses, once zoned for industry, are currently in the R-3 zone. It is recommended that this area be designated for attached single-family development as a long term land use and that industrial uses be conditionally permitted with appropriate standards for landscaping and buffering to protect adjacent residences fronting on Kings Road.

**Municipal building, train station and Borough parking lots:* A government use and open space designation is proposed to encompass the Borough parking lots, municipal building, train station, rescue squad and senior citizen building. This zone would also apply to major public open space lands in the Borough. It is recommended that conditional use standards that relate to the reuse of the train station for limited commercial uses be incorporated into this district.

**Green Avenue Professional Area:* Bound by Green Village Road, Garfield Road, Green Avenue and Shunpike Road, this area contains nine lots. Areas with future development

potential include the vacant sections of the church property. The lots that front on Shunpike are proposed for office development but the lots fronting on Garfield are proposed for single-family attached residential development.

**University Standards:* Additional standards are recommended for the University Zone which include setbacks, perimeter buffers, floor area ratio, height and impervious coverage. It is also recommended that the universities prepare facility master plans for submission to the Borough.

Other Land Use Issues

**Child Care Centers in Nonresidential Zones:* A bill recently adopted by the State Legislature makes child care centers for which a license is required permitted uses in all nonresidential zones. It is recommended that Madison's zoning be revised to reflect this statute. Similarly, it is also recommended that the Borough revise its ordinances to reflect the adoption of the Family Day Care Zoning Act which prohibits local zoning that does not permit the operation of family day care homes or that imposes more stringent requirements than those for single-family residences.

**Receive-Only Satellite Dish Regulations:* It is recommended that regulations governing these antennas be revised to make them conditional uses in all zones, with amended standards to reflect recent legal precedent and federal regulations.

**Accessory Uses in Auto Service Stations:* It is recommended that the Borough Ordinance be revised to clearly indicate that retail uses are not acceptable as accessory uses for service stations. Exceptions would be for the sale of auto parts and for a limited number of vending machines.

CIRCULATION PLAN

This element proposes some changes in roadway classifications from the 1975 Master Plan. The revisions, with few exception, place the street classifications into conformance with County and State designations. No road widening is proposed in conjunction with the reclassification of any street. With the exception of Green Village Road, no streets in Madison are proposed to be redesignated into a higher street classification. The Plan also recommends that the Borough consider the installation of sidewalks along Woodland Avenue from Noe Avenue to the Chatham Township border.

COMMUNITY FACILITIES PLAN

Overall, Madison is served by extensive and well maintained community services, including municipal programs and services, emergency services, parks and schools. The Borough's population is generally stable. As a result, no major facility expansion is anticipated at the time. The health department's space and facility needs will require either renovation of facilities or new construction. With that exception, the focus of the Borough's facility planning should be on facility maintenance and improvement rather than expansion.

PARKS, RECREATION AND OPEN SPACE PLAN

Four additional parcels are recommended to be designated Borough open space. These include: a wooded tract that runs parallel to the railroad right-of-way between Samson and Union avenues; a parcel located at the Gibbons Place/Loantaka Way intersection, the Loantaka Moraine parcel; and part of the library tract. The addition of these parcels to the Borough's open space system would increase the Borough's open space inventory to approximately 245 acres.

CONSERVATION PLAN

This element analyzes the physical characteristics of Madison, including topography, soils, wetlands, flood hazard areas and aquifer recharge areas. Recommendations are proposed to ensure the protection of the Buried Valley Aquifer. Aquifer protection is critical for providing adequate quantities of water free from contamination. Land use controls and strategies proposed to mitigate the impacts of development on the aquifer include the following:

**Preservation of open space*, especially in an area of deltaic and lacustrine fan sediment located in the southern end of the Borough which has been designated critically important as a recharge area;

**Low density cluster zoning*, as proposed for Bayley Ellard and the Loantaka Moraine/Gibbons Place tracts; and,

**Best Management Practices (BMP's)* aimed at preventing and reducing groundwater and surface water pollution.

UTILITY PLAN

The Utility Plan analyzes the water supply, sewerage and waste treatment, solid waste disposal system and electric supply serving Madison. Plans are underway to extend the Borough's sewer service to a small corner of southwestern Madison presently serviced by on-site disposal facilities. The Borough's drinking water is obtained from Borough wells. Contaminants have been present in some of the Borough's wells. Treatment techniques are under examination by the Borough to address this situation.

ECONOMIC PLAN

This element includes an analysis of the present and future economic development trends for Madison and Morris County. Madison has a well established job base fueled by the central business district, Drew University and Giralda Farms. With the proposed construction of American Home Products' corporate headquarters at Giralda Farms, employment in Madison is expected to increase.

HISTORIC PRESERVATION PLAN

This element recommends the consideration of an historic preservation ordinance for the Borough of Madison. The objectives of such an ordinance for Madison should include review by the historic commission of all applications involving or impacting a government owned historic site and the potential for relocating privately held historic sites through the establishment of a relocation program.

RECYCLING PLAN

Madison's recycling program meets the requirements of the 1987 Recycling Act. The Borough's ordinance meets State regulations with the exception of the requirements set forth in N.J.S.A. 40:55D-28(12) which relate to disposal of recyclables in all developments of 50 or more single-family residences, 25 or more multi-family units, and commercial and industrial developments using 1,000 square feet or more land. It is recommended that the Borough's site plan ordinance be amended to specifically include these requirements.

COMPATIBILITY WITH OTHER PLANNING EFFORTS

The master plans and zoning ordinances of adjacent municipalities, the Morris County Master Plan, the State Development and Redevelopment Plan and the District Solid Waste Management Plan were reviewed to determine compatibility with Madison's planning

policies. With minor exceptions, the land use policies of the various jurisdictions are consistent with those of the Borough of Madison.

INTRODUCTION

INTRODUCTION

The Borough of Madison is a small, suburban community in east central Morris County as shown on the Regional Location Map. It borders on five other municipalities: the boroughs of Florham Park and Chatham are to the north and east, the townships of Chatham, Harding and Morris are to the south and west.

Madison is located on a ridge of land extending toward the northwest from near Summit to Morristown. This ridge is made up of the remains of the terminal moraine left by the Wisconsin Glacier more than 10,000 years ago. Low-lying wetlands lie on either side of this ridge; the Great Swamp to the west and the Black Meadows/Troy Meadows area to the east. These lowlands are the remains of Lake Passaic, which was formed as the glacier receded. Until the lake was drained, after the ice had uncovered the Little Falls gap, portions of Madison were islands in the lake.

This ridge provides a natural route from the Short Hills gap in the Watchung Mountains to the higher country north and west of Morristown. The Minnisink Trail, used by the Lenape Indians, passed along what is now Kings Road in Madison. In 1804, the Morris Turnpike was established along the route of present Main Street. In 1837 the Morris and Essex railroad was completed, following this natural ridge through Madison. As a result of being on the "Main Road" Madison developed earlier than many neighboring towns and was heavily influenced by its access to good transportation.

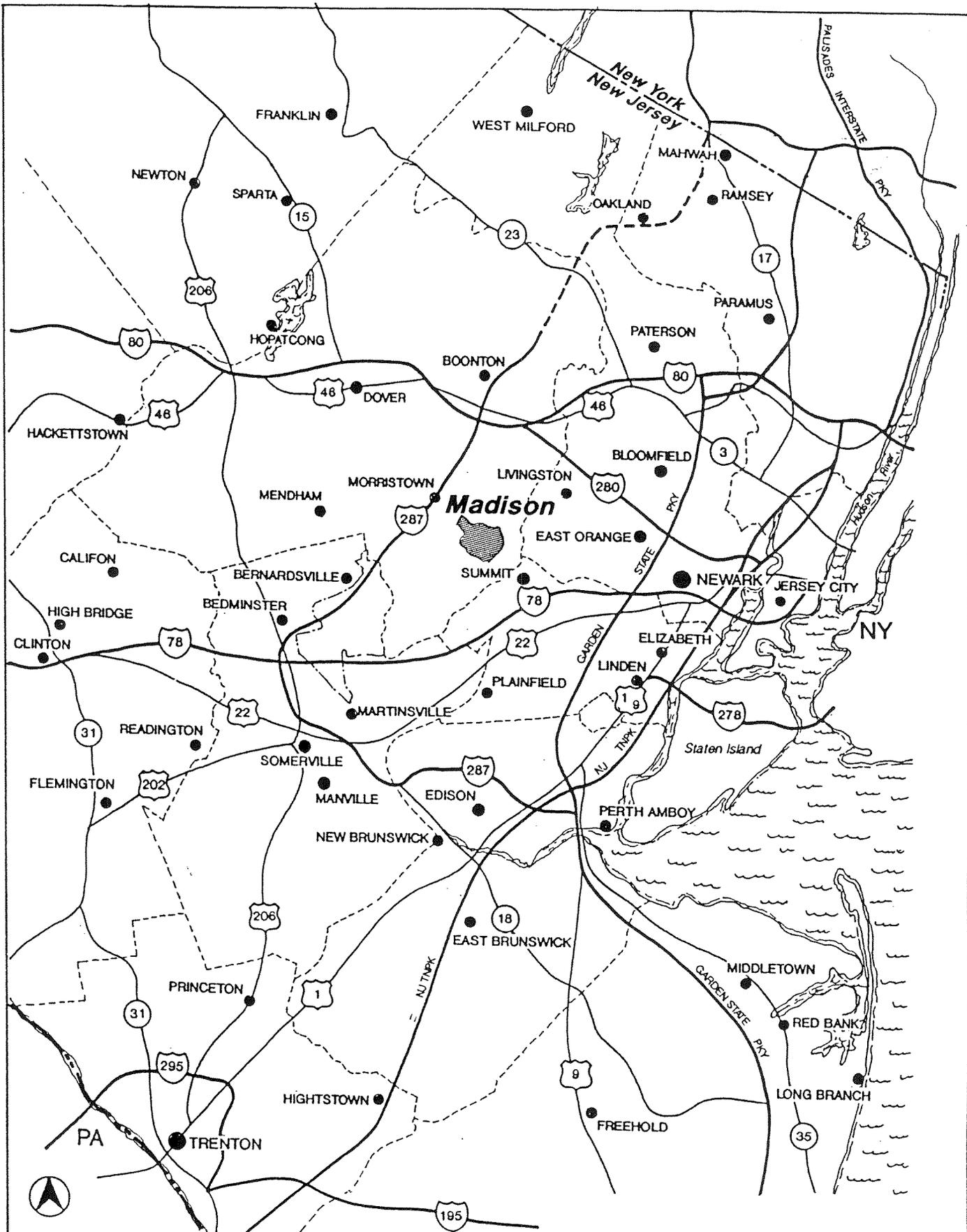
The earliest settlers of European descent arrived about 1715 and established "Bottle Hill" at the crossroads of Ridgedale Avenue and Kings Road. The Luke Miller house at 105 Ridgedale Avenue is thought to be the oldest home in the Borough, built around 1730. Morris County, created in 1739, was divided into three townships which placed the area in Madison north of Kings Road in Hanover Township and the area to the south in Morris Township. A meeting house for the Presbyterian Church of South Hanover, as Madison was

then called, was started in 1747 where the Presbyterian Cemetery still exists between Kings Road and Madison Avenue. Later, in 1806, Chatham Township was formed, comprising the present Madison, Chatham Borough, Florham Park, and Chatham Township, and thus the political division of the village was ended. In 1834, the name of the village was changed to "Madison," and in 1889, with a population of 3,250 persons, it seceded from Chatham Township and became a borough in order to develop a local water supply system.

Madison's growth accelerated after the Civil War. The railroad provided good transportation for its farm produce and made possible the establishment of a flourishing rose growing industry, still commemorated in Madison's nick-name, "The Rose City." The Morris and Essex Line became one of America's first commuter railroads, attracting well-to-do families and contributing to the development of "Millionaire's Row," which stretched from downtown Madison to Morristown.

The rose industry and the large estates in the area attracted working class people of all kinds. As a result, Madison very early developed a varied population, both in terms of socio-economic status and ethnic background. The original settlers were of British stock, French settlers came after the Revolution, Blacks have been members of the community from early in the 19th century, Irish came in mid century and then Germans and Italians around the turn of the century. To this day there is a substantial community of Italian descent in Madison.

Rapid population growth in the 20th century, especially in the 1920's and following World War II, has created an almost fully developed municipality. Madison, with an area of four square miles, has a population of approximately 15,000. The dominant land use is for single-family housing, 52 percent of the developed land (excluding that used for streets and the railroad), largely on lots well under one acre. Public and quasi-public uses occupy 25 percent of the developed land and commercial uses 13 percent. Most of the remaining land is used for multi-family housing with 2 percent vacant. Industrial uses are minimal.



Regional Location
Borough of Madison
 MORRIS COUNTY, NEW JERSEY
 Prepared by: Moskowitz, Heyer & Gruel, PA

Madison's Borough Government provides a high level of services to the community including: efficient police and fire services; comprehensive refuse collection and recycling programs; a public water supply system and an electric power distribution utility. A sewage disposal plant, located in Chatham Borough, is operated jointly by Madison and Chatham. Its capacity is adequate to meet local needs and it has recently been substantially upgraded to meet revised federal and state standards of performance. The Borough is well endowed with parklands and has a strong recreation program and Seniors program. The Health Department provides comprehensive services, not only to Madison but to a number of other communities on a contract basis.

Though Madison today could be characterized as a "bedroom community", since most of its citizens work out of town, it has a special character generated by an ethnically diverse population, wide range of housing types and unique historical development.

Madison is known as a community with strong educational, cultural and historical amenities. The home of Drew University and the Fairleigh Dickinson Madison-Florham Park Campus, Madison has a strong school system, which maintains relatively small class sizes and a broad curriculum, and an exceptional public library.

Madison's downtown is one of the few thriving central business districts in the State. The Madison Civic Commercial Historic District, which includes much of "downtown" as well as Borough Hall and the train station, is on the State Register of Historic Places. "Giralda Farms", a planned office development on 175 acres with a requirement of 85 percent open space, has three of a possible eight projects completed.

A wide range of housing opportunities, from garden apartments, affordable housing and starter homes to large residences, exist within the Borough. Residential areas exhibit many positive attributes, with neighborhood parks and tree lined streets which reflect the historical development of neighborhoods. Madison has been very successful in providing federally subsidized low and moderate income housing on scattered sites throughout the Borough. A

nationally recognized Housing Authority, established in 1981, has been responsible for the construction of a senior citizen housing complex and 42 townhouse units. Funding is available for 40 additional family units on scattered sites.

Madison is approaching a state of full development and continues to encourage selective redevelopment. At the same time, neighboring communities are developing intensively. As a result, there are several challenges of the 1990's including: the preservation of open space and historically valuable properties; the control of vehicular traffic in residential neighborhoods; the maintenance of a diverse housing stock; and the maintenance of attractive, thriving commercial and professional districts.

This master plan strives to maintain the positive characteristics of Madison and provide a framework to meet the challenges of the 1990's without sacrificing the diversity and amenities which are essential to the Borough's viability.

Part I

STATEMENT OF GOALS AND OBJECTIVES

Part I

STATEMENT OF GOALS AND OBJECTIVES

INTRODUCTION

The New Jersey Municipal Land Use Law requires that all municipal Master Plans contain a statement of objectives, principles, assumptions, policies and standards upon which the comprehensive plan is to be based. This requirement recognizes the necessity of having clearly defined municipal goals and objectives. These goals and objectives guide the development of the Borough. The stated Borough planning goals are of a more general and qualitative nature providing an overall framework for development and preservation. The objectives section provides more specific means to realize these Borough goals.

GOALS

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

1. To promote a balanced variety of residential, commercial, recreational, public, and conservation land uses.
2. To preserve the existing single-family residential character of the Borough while providing a mix of housing types and uses.
3. To promote the preservation of natural systems and environmentally sensitive areas, particularly wetlands, flood hazard and aquifer recharge areas.
4. To maintain and improve the downtown business district.
5. To guide the proper development of the remaining large parcels and scattered vacant sites within neighborhoods.

6. To provide adequate community facilities and services in order to maintain the quality of life for existing and future Borough residents.
7. To encourage preservation of historic buildings and the downtown historic district.
8. To provide for additional parkland and preserve existing open spaces.
9. To insure that the Borough's Land Use Plan is compatible with those of adjacent municipalities, the County, and State.

OBJECTIVES

The following planning objectives have been broken down into categories generally related to the Master Plan Elements. These objectives provide specific means to insure that future development will be compatible with the Borough's planning goals.

Land Use Plan Element

Residential

1. To preserve the integrity of existing residential areas: by preventing intrusion of nonresidential uses into residential neighborhoods; and by maintaining existing development intensity and population density consistent with residential neighborhood patterns.
2. To permit multi-family residential use at appropriate densities in locations accessible to major roadways, commercial services, and public facilities.
3. To encourage the preservation of open space within future multi-family and single-family residential developments.
4. To provide for single-family cluster housing on large developable parcels where appropriate.

Commercial

1. To enhance existing commercial areas through rehabilitation programs for curbing, landscaping, front facade, rear facade, parking, signage, and buffering.

2. To improve the existing commercial areas on East Main Street and limited commercial areas of Park Avenue.
3. To strengthen the downtown shopping area.
4. To insure that signage enhances commercial and adjacent residential areas.

Housing Plan Element

1. To provide a variety of housing opportunities for all income levels in appropriate locations consistent with environmental constraints.
2. To meet the Borough's affordable housing obligation.
3. To maintain the quality of existing housing by updating maintenance codes and enforcement regulations.
4. To continue the rehabilitation program of existing housing within the Borough.
5. To develop senior citizen housing at appropriate locations to meet future needs of an aging Borough population.

Circulation Plan Element

1. Develop strategies for reducing traffic demand through carpooling, "flextime" and staggered work hours.
2. Develop techniques for reducing through traffic on residential streets.
3. Encourage the use of mass transportation.
4. Encourage pedestrian circulation facilities (sidewalks and bikeways) serving as connections between community facilities, commercial areas and employment sites.

Utility Service Plan Element

1. To monitor potable water supply and encourage programs to provide adequate supply of potable water for future needs in accordance with the principles of federal and state law.

2. To provide adequate sanitary sewer service to all residents and in accordance with principles of federal and state law.
3. To regulate storm drainage effectively and alleviate flooding damage in the Borough and in downstream areas.

Community Facilities Plan Element

1. To encourage the establishment of convenient well-located community facilities for all residents of the Borough.
2. To coordinate construction and installation of improvements with the Borough's Capital Improvement Program to insure that community facilities are available when needed.

Historic Preservation

1. To preserve and enhance historic places, buildings and districts.

Park, Recreation and Open Space Plan Element

1. To provide a network of publicly owned park areas and permanently preserved open space.
2. To provide, maintain and upgrade the recreation facilities, both active and passive, to meet the needs of all Borough age groups.
3. To acquire and retain passive open space as development occurs by encouraging cluster development, conservation easements and other preservation methods.

Conservation Plan Element

1. To identify and preserve environmentally sensitive areas within the Borough.
2. To encourage cluster development to protect environmentally sensitive areas and to maintain open space.

3. To promote conservation easements on environmentally sensitive lands in private ownership to prevent future disturbance.
4. To encourage the preservation of existing vegetation.
5. To protect streams, waterways, wetlands, and aquifer recharge areas through careful stormwater and wastewater management practices.

Compatibility with Other Planning Efforts

1. To provide for compatibility between the zoning of Madison Borough and of adjoining municipalities.
2. To be consistent with the Morris County Master Plan and County planning policies.

General

In addition to the Borough goals and objectives discussed above, the legislated purposes of the Municipal Land Use Law are adopted as general Borough planning objectives.

1. To encourage municipal action to guide the appropriate use or development of all lands in this State, in a manner which will promote the public health, safety, morals, and general welfare;
2. To secure safety from fire, flood, panic and other natural and manmade disasters;
3. To provide adequate light, air and open space;
4. To ensure that the development of individual municipalities does not conflict with the development and general welfare of neighboring municipalities, the county and the State as a whole;
5. To promote the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons, neighborhoods, communities and regions and preservation of the environment;
6. To encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies;

7. To provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens;
8. To encourage the location and design of transportation routes which will promote the free flow of traffic while discouraging location of such facilities and routes which result in congestion or blight;
9. To promote a desirable visual environment through creative development techniques and good civic design and arrangements;
10. To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land;
11. To encourage planned unit developments which incorporate the best features of design and relate the type, design and layout of residential, commercial, industrial and recreational development of the particular site;
12. To encourage senior citizen community housing construction;
13. To encourage coordination of the various public and private procedures and activities shaping land development with a view of lessening the cost of such development and to the more efficient use of land;
14. To promote utilization of renewable energy sources; and
15. To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan Goals and to compliment municipal recycling programs.

Part II

LAND USE PLAN ELEMENT

Part II

LAND USE PLAN ELEMENT

INTRODUCTION

The Land Use Plan Element is intended to act as a guide towards the future development of Madison Borough, consistent with the goals and objectives of this Master Plan. The Land Use Element divides the lands of the Borough into categories based upon both type and intensity of use and establishes a pattern of development for the Borough considering such factors as: environmental characteristics; the availability and capacity of infrastructure and roads; the existing land use pattern; compatibility with the planning efforts in adjacent municipalities; and the current and future land use needs of the Borough.

The major land use issues addressed in this plan are as follows:

- ◆ Preservation of residential neighborhoods.
- ◆ Designation of areas for a variety of housing types.
- ◆ Conservation of open space and environmentally sensitive areas through cluster residential zoning on large developable parcels and the acquisition of the Loantaka Moraine parcel for parkland.
- ◆ Strengthening the pattern of development along East Main Street by concentrating retail uses in designated nodes.
- ◆ Promoting the continued viability of the central business district.

Recommendations for each of these issues are provided in the Land Use Study Areas section. The following existing land use section provides a brief discussion of the breakdown of land uses within the Borough. Finally, the Land Use Plan presents

proposed land uses and highlights major changes in land use designations for specific areas.

EXISTING LAND USE

The Existing Land Use Map and Madison Downtown Business District Map illustrate the existing land use pattern in the Borough.

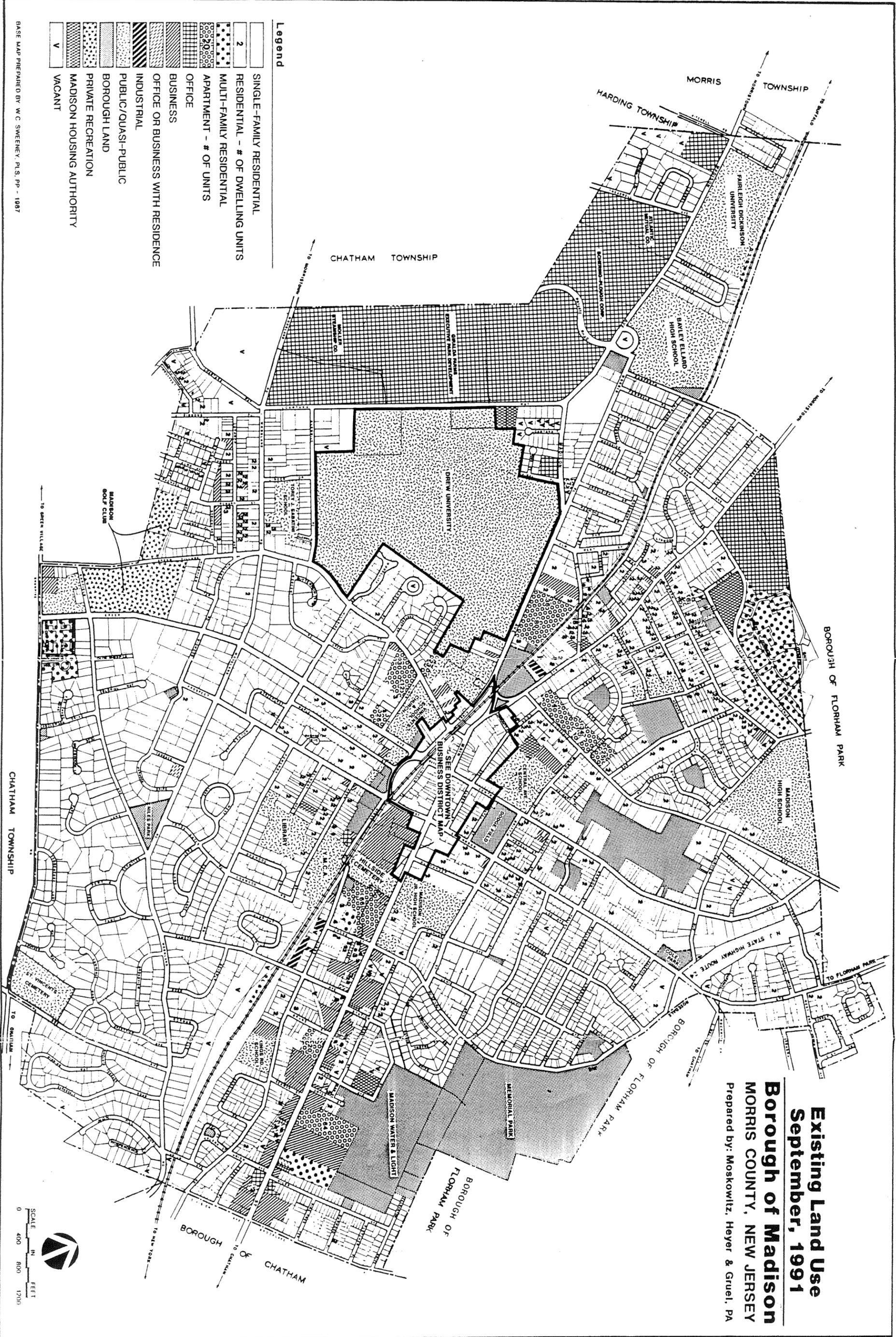
The largest proportion of Madison's land use is comprised of single-family residential development. Single-family residences comprise over 1,110 acres or 44 percent of the Borough's land area. Public and quasi-public uses account for the next largest land use category with 560 acres or 21 percent of Madison's area. This is primarily due to the Borough's public park and school system, the two universities located in Madison and the parochial high school, Bayley Ellard. About 12 percent of the Borough, or 313 acres are occupied by streets. Commercial uses account for almost 11 percent of the Borough with 285 acres used commercially. Two to four-family residences and multi-family residences each comprise about 3.3 percent, or 88 acres of the Borough's land. The remaining area is divided among mixed uses, industrial, railroad and vacant lands.

As indicated on the following table, the most significant changes in land use from 1974 to 1991 were increases in multi-family residential and commercial uses. During the seventeen year span analyzed, Madison's proportion of vacant land also decreased considerably -- from 411 to 48 acres, or approximately 88 percent. This is comparable to surrounding communities which also experienced an increase in development activity over the past decade.

Existing Land Use September, 1991

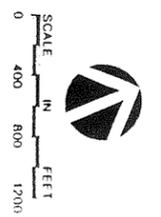
Borough of Madison
MORRIS COUNTY, NEW JERSEY

Prepared by: Moskowitz, Heyer & Gruel, PA



Legend

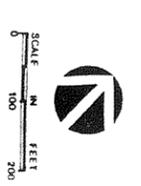
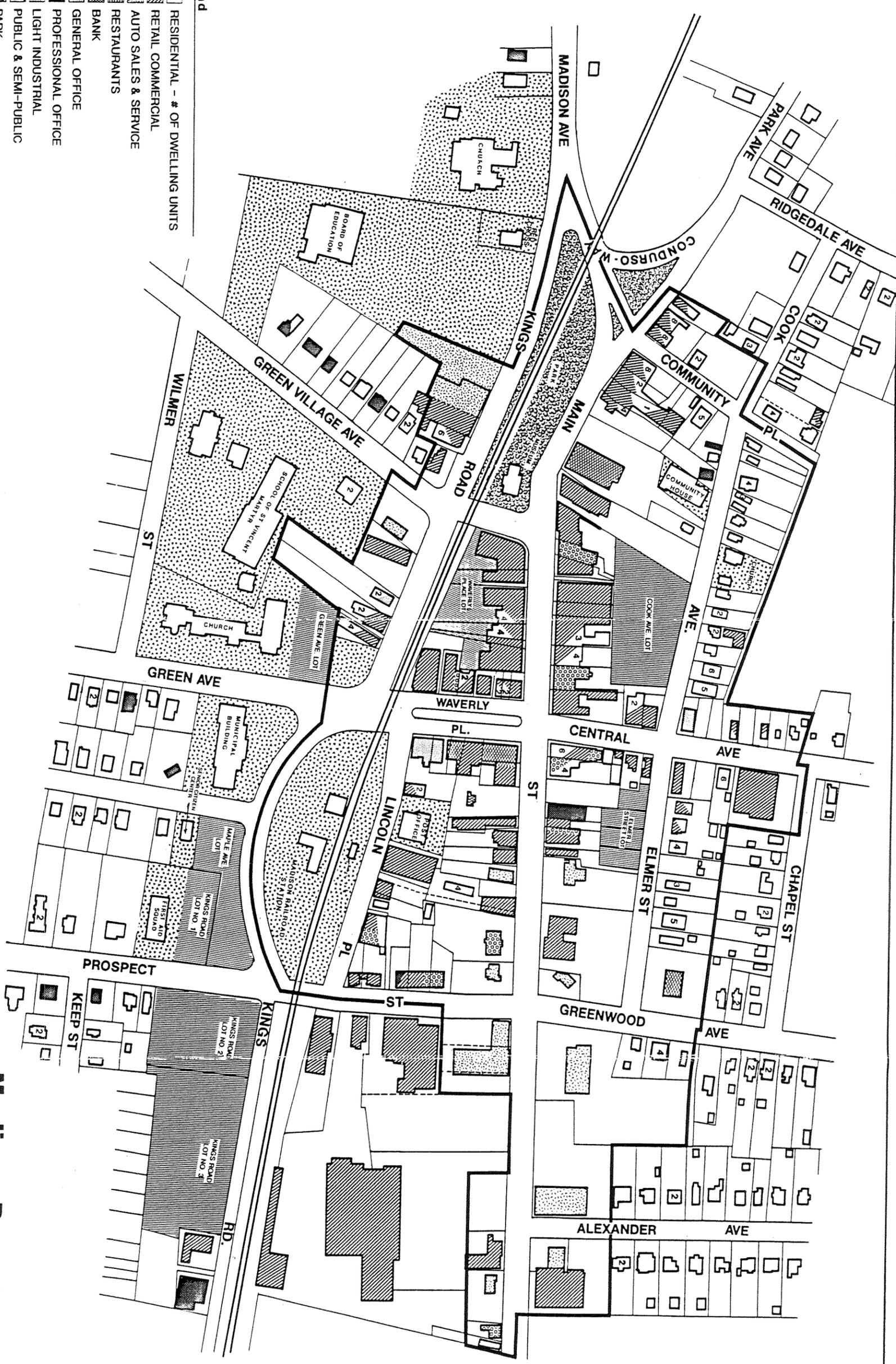
[Single-line pattern]	SINGLE-FAMILY RESIDENTIAL
[Double-line pattern]	RESIDENTIAL - # OF DWELLING UNITS
[Dotted pattern]	MULTI-FAMILY RESIDENTIAL
[Cross-hatch pattern]	APARTMENT - # OF UNITS
[Vertical line pattern]	OFFICE
[Horizontal line pattern]	BUSINESS
[Diagonal line pattern]	OFFICE OR BUSINESS WITH RESIDENCE
[Stippled pattern]	INDUSTRIAL
[Dense stippled pattern]	PUBLIC/QUASI-PUBLIC
[Sparse stippled pattern]	BOROUGH LAND
[Wavy line pattern]	PRIVATE RECREATION
[Dotted pattern]	MADISON HOUSING AUTHORITY
[Empty space]	VACANT



BASE MAP PREPARED BY W. C. SWEENEY, P.L.S., PP. - 1987

- Legend**
- 4 RESIDENTIAL - # OF DWELLING UNITS
 - RETAIL COMMERCIAL
 - AUTO SALES & SERVICE
 - RESTAURANTS
 - BANK
 - GENERAL OFFICE
 - PROFESSIONAL OFFICE
 - LIGHT INDUSTRIAL
 - PUBLIC & SEMI-PUBLIC
 - PARK
 - BOROUGH PARKING LOTS

CENTRAL BUSINESS DISTRICT



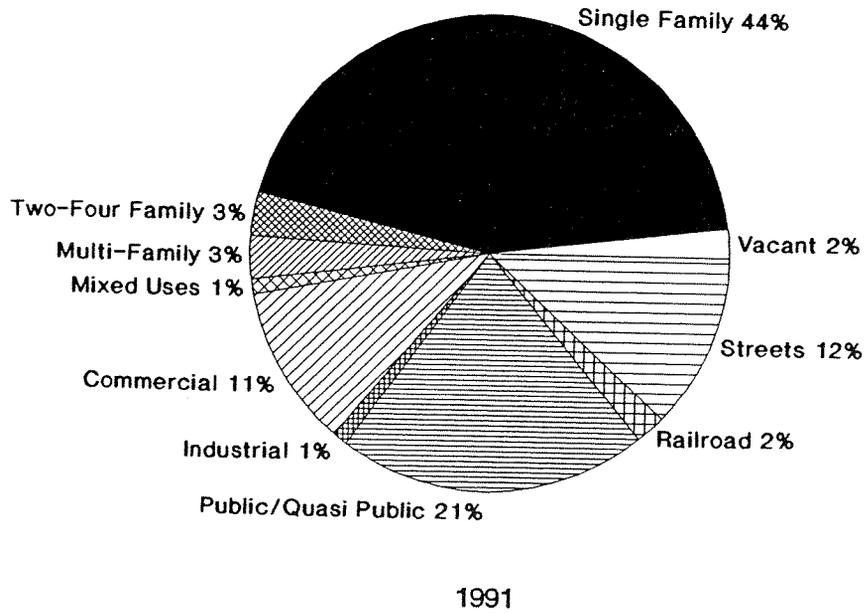
**Madison Downtown
Business District**

**Borough of Madison
MORRIS COUNTY, NEW JERSEY**

Prepared by: Moskowitz, Heyer & Gruel, PA

Land Use Breakdown

Borough of Madison



EXISTING LAND USE BY ACREAGE 1974 and 1991

Use	1974		1991		Change 1974 - 1991	
	Acres	% of Total	Acres	% of Total	Number	%
Single Family Residential	1,114.9	42.2	1,171.9	44.3	57.0	5.1
Two - Four Family Residential	80.7	3.1	87.9	3.3	7.2	8.9
Multi-Family Residential	45.8	1.7	87.8	3.3	42.0	91.7
Mixed Uses	18.1	0.7	23.5	0.9	5.4	29.8
Commercial	74.6	2.8	285.2	10.8	210.6	282.3
Industrial	16.0	0.6	17.1	0.6	1.1	6.9
Public and Quasi-Public	522.2	19.8	561.7	21.2	39.5	7.6
Railroad	50.2	1.9	50.2	1.9	0.0	0.0
Streets	309.8	11.7	313.5	11.8	3.7	1.2
Vacant	411.5	15.6	48.2	1.8	-363.3	-88.3
TOTAL	2,643.8	100.0	2,647.0	100.0		

LAND USE PLAN

General Description by Use

The Land Use Plan Map shows the basic elements of the Master Plan recommendations with respect to land use. Specifically, the land use plan and map together indicate the location, extent and intensity of development of land to be used for residential, commercial, industrial, public and other land uses. It is intended to serve as a general guide to the community for developing more detailed land use proposals and regulations.

It should be noted that the actual regulation of land use districts, as shown in the land use plan map, will be implemented through revisions to the Borough Zoning Ordinance.

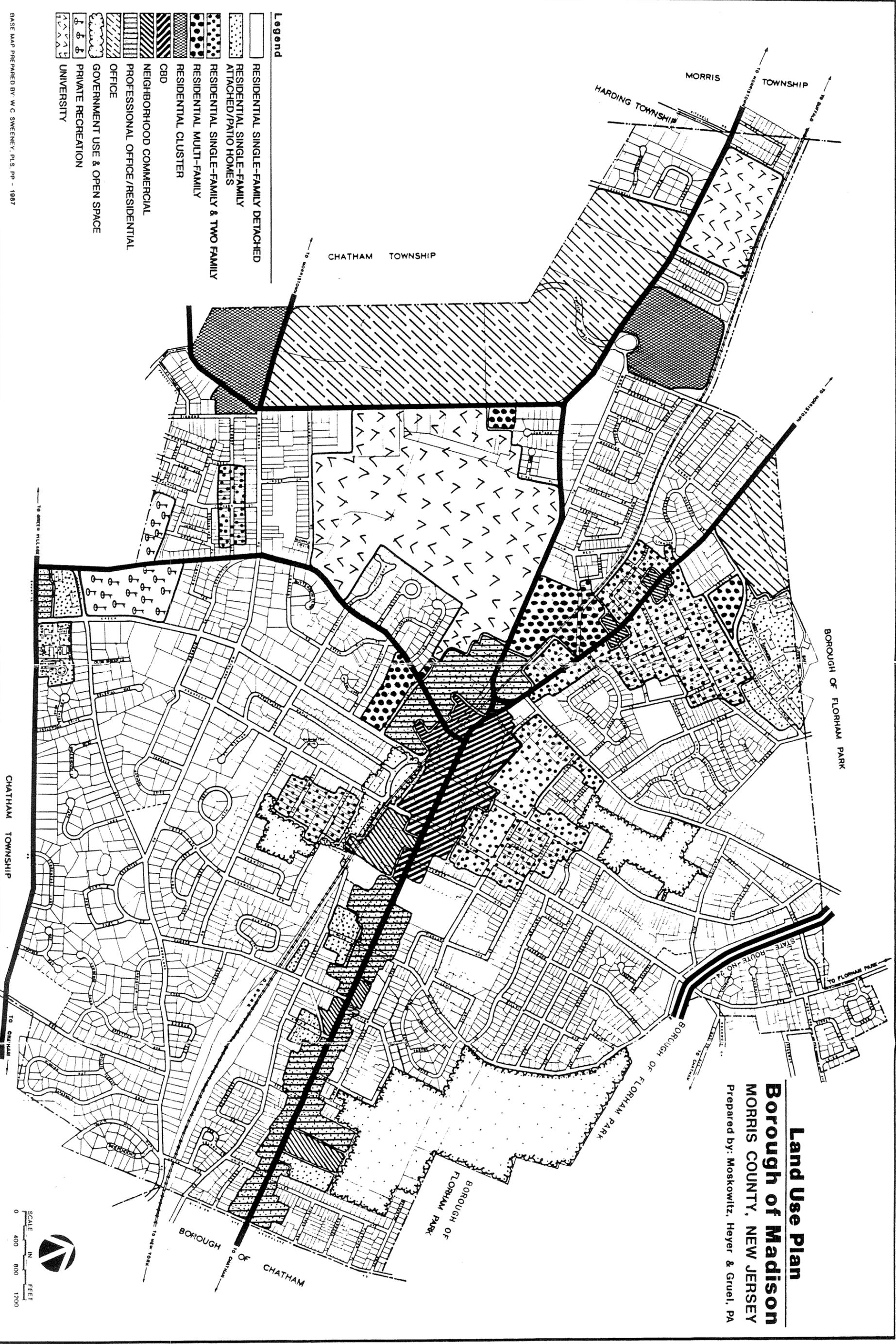
Residential: There are five residential classifications on the land use plan.

Residential Single-Family Detached: These areas include neighborhoods developed primarily with single-family residences. These neighborhoods were developed as early as the 1920's with development occurring over several decades. As a result a variety of architectural styles are evident throughout the Borough. The density of these residential areas range from approximately 1.7 to 4.6 units per acre. These areas are well maintained and as indicated in the land use breakdown, cover almost half of the land area in Madison.

Residential Cluster: This designation is a new land use category which highlights special land use considerations for two of the largest developable tracts of land in the Borough. This new designation is intended to preserve the natural beauty and environmentally sensitive features of these parcels and maintain open space. Clustering development also promotes more efficient design by reducing the length of required roadways and infrastructure systems. As a result, impervious coverage can be minimized with more open space and vegetation maintained on cluster sites. Parcels recommended for residential cluster are Bayley Ellard and Loantaka Moraine/Gibbons Place. The 1978 Master Plan had recognized the Bayley Ellard site as an existing private high school with

Land Use Plan

Borough of Madison
MORRIS COUNTY, NEW JERSEY
Prepared by: Moskowitz, Heyer & Gruel, PA



no designated alternative use. This plan acknowledges the redevelopment potential of the site. The Loantaka Moraine/Gibbons Place parcels were previously designated as conventional low density single-family residential development. These tracts are discussed in greater detail under the specific Study Area section.

Residential Single-Family and Two-Family: These areas are shown in a separate designation on the Land Use Plan. There are four areas within the Borough which are located in the single-family and two-family category. These include the Park Avenue/North Street area in the northwestern corner of the Borough, the Central Avenue/Brittin Street neighborhood north of the Central Business District, a several block area adjacent to the Borough Library and a small area along Lathrop Avenue in the southwestern section of the Borough. There are no changes proposed for this category.

Residential Single-Family Attached/Patio Homes: There are seven areas in the Borough which are located in the single-family attached/patio homes category. Three of these areas reflect existing attached single-family development. Existing developments include the area on Shunpike Road and Green Avenue at the municipal boundary with Chatham Township, a small townhouse development fronting along East Main Street and the attached single-family area along both sides of Chateau Thierry adjacent to the Florham Park border. The Chateau Thierry development had previously been placed in the IP Industrial Park zone which has subsequently been eliminated. The single-family attached patio homes designation has been expanded to include four additional areas: a small pocket of existing industrial uses on Samson Avenue, two areas on the south side of East Main Street previously designated Transition areas, and the area along Garfield and Green Avenues. The single-family attached/patio home designation on the Land Use Plan includes areas for townhouse and patio home development at densities ranging from four to six dwelling units per acre. There is no proposed change in density.

Residential Multi-Family: The two existing multi-family areas along Ridgedale Avenue and Wilmer Street remain unchanged. The multi-family designation between

Madison Avenue and Elm Street has been extended along both sides of Elm Street to the east side of the railroad. The intent of this addition is to spur redevelopment of this area. The existing senior citizen housing complex on Belleau Avenue and the public housing on Loantaka Way are also located in this land use category.

Office: Office development is concentrated in two areas in Madison, Giralda Farms and the New Jersey Bell facility on Park Avenue. No changes are proposed for this designation.

Resident College & Universities: Drew University and Fairleigh Dickinson campuses have been designated University on the Land Use Plan. While no major changes in terms of land use classification are proposed for the universities, additional development standards are recommended.

Central Business District: The central business core of Madison, divided into two CBD zones, is mapped as one downtown area for land use designation purposes. The area has been extended to include lots on Greenwood Avenue just north of Elmer Street, as well as lots fronting on Main Street generally located between the cross streets of Greenwood and Alexander. Madison Middle School and the cemetery on Main Street generally form the eastern boundaries of the Central Business District designation.

Neighborhood Commercial: These areas, formerly classified as general business, are located in two nodes on Park Avenue and three nodes along East Main Street. These areas have been designated as neighborhood commercial to discourage the sprawl of retail uses on Madison's primary arterial roads. By creating nodal areas for retail uses, the continued strength and viability of the downtown as a retail core is promoted, as well as providing neighborhood retail services. The recently constructed Foodtown Shopping Center on Main Street adjacent to the Central Business District is identified as one of the commercial nodes. The previous land use plan had designated this area for mixed business, professional, residential uses.

Professional Office/Residential: Areas designated for office and residential development include East Main Street from Brooklake Road to the cemetery (with the exception of the three Neighborhood Commercial nodes) and two areas previously designated as Professional, one on Green Village Road just outside the CBD and one at the intersection of Green Village and Shunpike Roads. Multi-family residential development in these areas would conform to the existing R-5 Multi-Family Residential standards.

Government Use and Open Space: This new designation includes major Borough facilities and public open space/parks which exceed ten acres in size. Three areas are shown in this land use category: the Borough water and light facilities (including adjacent Memorial Park), Summerhill Park and the Borough municipal facilities, parking lots, train station, and public library. Proposed uses for this designation include public uses, parks, and Borough parking lots. Conditional uses would include limited commercial in the existing train station.

Private Recreation: The Madison Golf Course, located on both sides of Green Village Road in the southern part of the Borough is proposed to be designated as Private Recreation which is a new land use designation. The area comprises approximately 26 acres and has been operated as a private golf course since the late 1800's. No change in use is proposed for the golf course.

LAND USE STUDY AREAS AND RECOMMENDATIONS

The following section details specific land use recommendations as reflected in the Land Use Plan.

I. Golf Course Parcel.

This parcel, located at Green Village Road and Garfield Avenue comprises approximately 26 acres in two separate lots and has been used as a 9-hole golf course

since the late 1800's and is one of the oldest in the country. It is currently zoned R-1 and R-3, single family detached residential with 25,000 and 9,375 square foot minimum lot sizes respectively. The golf course is surrounded by single family residences, located in R-1 and R-3 zones.

This parcel is in the area of the Borough that has been designated by the New Jersey Geological Survey as critical to the recharge of the Buried Valley Aquifer, the source of Madison's water supply, and that of neighboring towns. This factor, and the parcel's status as one of the few relatively large areas of undeveloped open space remaining in Madison, suggests that the current use is the most appropriate for this land. It is therefore recommended that the golf course be zoned for private outdoor recreation, with golf courses as the only principally permitted use. Permitted accessory uses would include club houses, golf driving ranges, tennis courts and swimming pools. Because of the residential character of the surrounding area, all uses would be required to meet stringent standards with respect to noise and lighting. The impervious coverage requirement is recommended to be minimal, in the 5 to 10 percent range.

To ensure preservation of the course as open space, it is also recommended that negotiations occur with the property owners to explore the possibility of a conservation easement.

II. Bayley Ellard.

Bayley Ellard is currently operating a parochial school on Madison Avenue (Route 24). The purpose of this land use proposal is to provide for comprehensive and appropriate adaptive reuse of the existing school facilities should Bayley Ellard cease to operate as a school. Piecemeal redevelopment of the 33 acre tract is discouraged. Existing buildings on the site contain approximately 100,000 square feet of floor area. At least two buildings on the site, the mansion and the carriage house, have historical significance as indicated by the Morris County Historic Survey. At present, the site is zoned R-3, single family detached residences on 9,375 square foot lots. The 1975 Land

Use Plan identified the site as the existing high school facility, while the 1975 proposed zoning map designated this site as R-2, single-family residences on 15,000 square foot lots.

Recommendations for this parcel are residential cluster development with a gross density based on 25,000 square foot lots as a permitted use (See Table 2) and a 50 percent open space requirement. The development of senior housing is proposed as a conditional use, provided existing structures with historical significance are reused.

As illustrated in the following table, clustering development on 12,700 square foot lots with 50 percent common open space yields approximately 48 units at a gross density of approximately 1.5 units per acre. This land use recommendation reflects the tract's environmental features, including aquifer recharge potential (particularly of two "kettles" on the southwestern corner of the site) and mature vegetation. It also addresses the need to encourage common open space areas which enhances the existing developed nature of the Borough.

**RESIDENTIAL CLUSTER (RC) PROVISIONS
BAYLEY ELLARD PARCEL**

Parcel Size	33 acres
Less 15% Roads	5 acres
Net Acreage	28 acres
No. of 25,000 sq.ft. Lots	48 lots
50% Open Space	14 acres
Cluster Lot Size	12,700 square feet

The conditional use proposed involves a number of options to address community-based housing for the elderly. A minimum of 32 acres would be required to develop elderly housing. A combination of congregate care facilities, senior citizen housing, shared housing and nursing homes could be provided, while utilizing and preserving existing structures on the site that have historical significance. Since there is a

total of approximately 100,000 square feet of building area on the site, adequate space is available for a senior housing complex with a combination of existing and new structures as conditionally permitted. Standards for the conditional use, including FAR, building setback, buffers and coverage should ensure that the development of the site is sensitive to the surrounding neighborhood and natural features of the tract. New structures should be clustered to the rear of the existing buildings on the site and vegetation should be maintained along the site's perimeter.

If Bayley Ellard continues to operate as a school, it is recommended that a facilities master plan be prepared to guide the appropriate development and redevelopment of the site for the school.

III. Loantaka Moraine.

This parcel consists of approximately 25 acres of undeveloped land and is one of the few remaining significant vacant and undeveloped lands within the Borough. It is located at Woodland Road and Loantaka Way and is currently zoned R-1A which permits single family detached dwellings on 40,000 square foot lots. While the following discussion proposes a change in the tract's land use designation to residential cluster, the site is recommended for acquisition by the County and State as part of the Loantaka Brook Reservation park system. The parcel is one of exceptional natural beauty, but is at the same time environmentally fragile, due to steep slopes and the nature of the soil, which is prone to erosion.

It is recommended that this parcel be redesignated as RC, Residential Cluster with specific standards designed to preserve the unique and sensitive environmental features of the site in their natural state. Specifically, this tract (including the vacant 3 acre parcel on Gibbons Place) is also in the prime aquifer recharge area as identified by the New Jersey Geological Survey. Due to the unique setting and environmental features of this parcel, the proposed gross density is one unit per 2 acres. This is generally consistent with the adjacent zoning in Chatham which permits single-family residences on 100,000

square foot lots or one unit per 2.3 acres. The cluster designation also requires a mandatory set aside of 50 percent common open space or approximately 11 acres. The area designated as open space should provide a continuous link with the adjacent County park facility and the open space planned for the Prudential site in Chatham Township. A three acre vacant parcel on Gibbons Place, separated from Loantaka Moraine by Loantaka Road, would be included in the Residential Cluster zone. The cluster provisions presented in the table below recommend that the two parcels under common ownership be treated as one tract. For example, the Gibbons Place parcel could be preserved as open space, with the 11 lots permitted built on the Moraine parcel.

The following table presents the general cluster development standards for the tract:

**RESIDENTIAL CLUSTER (RC) PROVISIONS
LOANTAKA MORAINES/GIBBONS PLACE**

Parcel Size	26.5 acres
Less 15% Roads	4.0 acres
Net Acreage	22.5 acres
No. of 2 Acre Lots	11 lots
50% Open Space	11 acres
Cluster Lot Size	1 acre

IV. Loantaka Way - R-1 Zone.

The remaining 9 lots on Loantaka Way and Shunpike Road currently in the R-1 zone are proposed to be rezoned R-2 since only 3 of the nine lots conform to R-1 standards.

V. Park Avenue.

Park Avenue is an arterial road which has seen steady increases in traffic volumes over the past several years. Nonetheless, it has maintained its residential character, except for two isolated commercial areas in the GBA zone. Park Avenue, from Main Street to Crestwood Drive is located in R-4 zones with two small GBA zones. The two small GBA zones contain a combination of commercial and accessory multi-family uses. Uses

in the two GBA zones include a gas station, a welding company, a grocery/liquor store and small retail uses. Land use options include maintaining these GBA zones or discouraging further nonresidential and multi-family development by rezoning these areas to R-4. It is recommended that the Park Avenue GBA zones remain and continue to serve neighborhood business and service needs and that the residential zoning of the remaining areas on Park Avenue should be maintained.

VI. Elm Street.

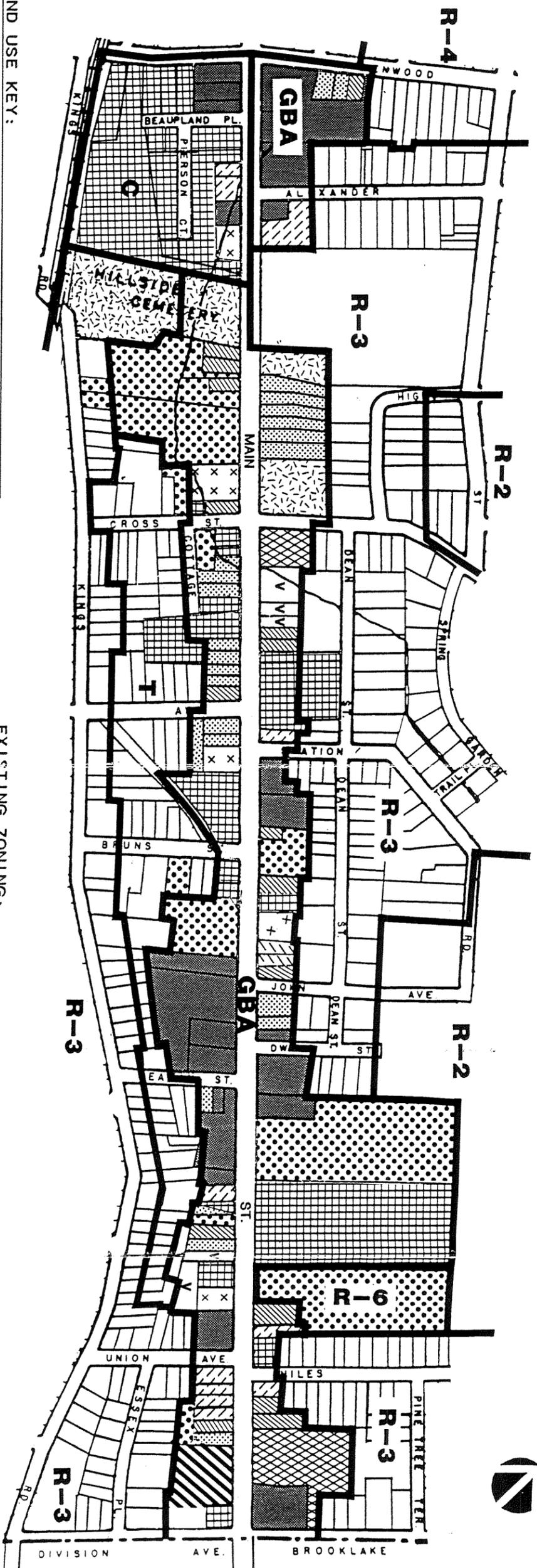
A number of multi-family uses are located in the R-4 two-family residential zone off of Park Avenue on both sides of Elm Street. From Park Avenue to the railroad, Elm Street contains apartments and a mix of two, three and four family residences, some of which are deteriorating. Rezoning this area as R-5 to permit multi-family uses is recommended. It is proposed that the existing R-5 zone to the south of Elm Street be expanded northward over the railroad to include lots with frontage on Elm Street.

VII. East Main Street.

The existing land uses in the GBA zone include a mix of auto related uses, office uses in residential structures; retail/commercial use, residences (one- to four-family), multi-family uses; office buildings, banks, restaurants, and scattered vacant lots. The East Main Street Existing Land Use and Zoning Map illustrates the pattern of development along this segment of Route 24.

The planning issues on East Main Street include the following:

1. Prevalence of auto-related uses, including auto sales, display and service facilities, repair facilities and gas stations.
2. The impact on traffic of scattered retail uses and the potential for additional retail sprawl along East Main Street.



LAND USE KEY:

- RESIDENTIAL
- MULTI-FAMILY RESIDENTIAL/APARTMENTS
- RETAIL COMMERCIAL
- AUTO SALES AND SERVICE
- BANK
- RESTAURANT
- GENERAL OFFICE
- OFFICE (within a residential structure)
- PUBLIC/QUASI-PUBLIC
- VACANT
- WAREHOUSE

EXISTING ZONING:

- R-2 SINGLE-FAMILY DETACHED
- R-3 SINGLE-FAMILY DETACHED
- R-4 SINGLE-FAMILY DETACHED
- R-6 SINGLE-FAMILY ATTACHED, SINGLE-FAMILY AND TWO-FAMILY DETACHED AND PATIO HOMES
- GBA GENERAL BUSINESS AREA
- C MULTI-USE COMMERCIAL
- T TRANSITIONAL

— ZONE BOUNDARY

**East Main Street
Existing Land Use & Zoning**

**Borough of Madison
MORRIS COUNTY, NEW JERSEY**

Prepared by: Moskowitz, Heyer & Gruel, PA

October 1, 1991

3. The location of parking areas in the front yards of buildings which interrupts the streetscape, results in uncoordinated and unsafe access and undermines the aesthetic quality of the corridor.
4. The future development pattern of East Main Street in terms of the type and intensity of uses most appropriate for the area.

Auto-Related Uses

It is recommended that auto sales and display facilities along East Main Street not remain as a permitted use in the zone. Expansion of these uses which require large areas for storage is not compatible with the character of East Main Street. The existing auto sales facilities can remain as nonconforming uses with modernization permitted, particularly in conjunction with site improvements such as setbacks, landscaping, buffering, improved site circulation and appropriate mechanisms for on-site vehicle storage. No increase in the intensity of the uses should be permitted or encouraged. The storage of vehicles, both on and off-site, remains a concern. Stacking vehicles is not considered an appropriate means for storage. Display of vehicles above grade should not be permitted. Ordinance standards to specifically address the current problem of vehicle storage on-site and off-site are recommended.

Service stations and gas stations which serve a more local clientele are recommended to remain along East Main Street as conditional uses. Conditions related to access, parking, landscaping and buffering are critical for these uses to ensure compatibility with adjacent uses and the overall character of the corridor.

Proposed Land Use Pattern

It is recommended that retail uses be restricted to designated nodes along East Main Street rather than permitted throughout the existing GBA zone. The retail nodes would include the Madison Plaza Shopping Center, the lots on the south side of Main Street between Bruns Street and Samson Avenue (which include the Quick Check strip center and Dunkin Donuts), the A&P, and the Bottle Hill Shopping Center. Throughout East

Main Street, offices in residences are recommended as a permitted use. Throughout the retail nodes in general, it is recommended that commercial uses be required to have direct access from Main Street. Restaurants would be permitted within the neighborhood commercial (retail) nodes.

Areas outside the recommended retail nodes on East Main Street are proposed for small scale office and residential (multi-family) development. These uses are proposed to complement the retail nodes and, in conjunction with a slight expansion of the central business district, to ensure the continued viability of the downtown retail core. The proposed retail nodes and the existing retail areas provide sufficient areas for retail development and redevelopment in the Borough. It is not the intent of the Planning Board to discourage the continuation or improvement of existing retail uses in these areas provided that the use is not intensified or expanded. It is recommended that the conversion of an existing retail use to another similar retail use (without an increase in intensity of use) should be considered in a positive manner, assuming all planning and zoning issues are adequately addressed.

East Main Street Setbacks and Landscaping

The GBA zone bulk requirements include two sets of yard standards, one for residential and one for commercial uses. Current minimum yard requirements are as follows:

GBA Zone	Minimum Yards		
	Front	Ea.Side	Rear
Commercial	25	55a	155a
Residential	60	25	40

- a. If abutting a residential use, setback shall be increased to 25 feet and a suitable screen erected (Schedule I, Part 2).

Other than the reference to a "suitable screen," there are no landscaping requirements. Given the minimum lot size of 10,000 square feet for a commercial use, the side yard

setback could not be increased to much more than ten feet on each side. Particular emphasis should be placed on a landscaped buffer within the rear yard setbacks, where commercial uses abut residential uses. In addition, parking areas are encouraged to be located in the rear yards, with revised standards for minimum setbacks for parking areas. The front yard setback is recommended to be reduced to a minimum of 15 feet for commercial uses and 25 feet for residential uses. This will help bring the buildings on East Main Street up to the setback line, creating more of a streetscape and more room for parking in the rear yard. Another recommendation is to prohibit parking between the building line and street right-of-way and to require this area to be fully landscaped. Parking located beneath buildings should be fully screened and physically enclosed facing the front yard. In general, the scale and height of existing buildings along East Main Street should be maintained.

VIII. Industrial uses, Samson Avenue.

There are three industrial uses located north of the railroad by the Kings Road and Samson Avenue overpass. These uses, while once zoned for industry, are currently in the R-3 zone. It is recommended that this area be designated for attached single-family development as a long-term land use and that industrial uses be conditionally permitted with appropriate standards for landscaping and buffering intended to protect the adjacent houses which front on Kings Road. Considerations are noise impacts, the proximity of the industrial buildings to the residences and the topography of the area.

IX. Drew University.

A small lot on the northwestern corner of Drew University off of Vinal Place is zoned R-3. This lot should be rezoned U, consistent with the remaining area of the University.

X. Municipal building, train station and Borough parking lots

A government use and open space designation is proposed to encompass the Borough parking lots, municipal building, train station, rescue squad and senior citizen building.

This zone would permit Borough parking lots, public uses and open space and recognize the major open space lands in the Borough in addition to cluster of government uses surrounding the municipal building. It is recommended that conditional use standards be included to address the reuse of the existing train station for limited commercial uses.

XI. Green Avenue Professional Area.

This area is located in the southwestern corner of Madison bounded by Green Village Road, Garfield Road, Green Avenue and Shunpike Road. It contains nine lots with a combined area of approximately 7.5 acres currently in the "P" professional zone district. Those properties fronting Green Village and Shunpike roads face Chatham Township. Existing uses within the district are single family residences, professional office buildings and the Madison Baptist Church. There are also some areas of vacant property within the district.

The areas which possess future development potential are the vacant sections of the church property (Block 4501, Block 3). The vacant section of Lot 3 fronting on Shunpike Road has the potential for professional office development. The parcel is well buffered from the surrounding residential uses and abuts existing office uses. An adequate buffer between any development and the church using existing and supplementary vegetation would be important. It is recommended that this vacant area be maintained for office uses.

The vacant portion of Lot 3 fronting Garfield Road would not be suitable for professional office development because of potential impacts on abutting single-family residential properties. It is recommended that this area, in addition to the remaining areas of the "P" district (other than those lots fronting Shunpike Road and the portion of Lot 3 discussed above), be rezoned to R-6 for single-family attached and patio home development. Attached residential development would serve as an appropriate transitional use between the existing office and single-family residential developments.

XII. Green Village Road Professional Area.

This "P" professional office district is located near the center of Madison adjacent to the central business district. The southernmost section of this area (bounded by Green Avenue and Green Village Road) contains exclusively religious uses. There exists a variety of institutional uses, single and two-family residences, professional offices and home businesses between Green Village Road and Madison Avenue/Kings Road. East of Madison Avenue/Kings Road, the area contains Borough parkland which is bisected by the Morristown Branch of New Jersey Transit.

There is little undeveloped land within this area. Future development will consist mainly of continued professional office conversions of residences along Green Village Road, and possible additional development or redevelopment of the institutional uses. Since the existing patterns of development do not reveal significant problems, no change in land use designation is recommended. However, the standards for development of the institutional uses may require some modification to assure proper development in the future.

XIII. CBD Zones.

It is recommended that the downtown be expanded slightly to include the uses on Greenwood Avenue just north of Elmer Street, as well as lots fronting on Main Street generally located between the cross streets of Greenwood and Alexander. The Bottle Hill Shopping Center is excluded from this recommendation. Specifically, the uses included in this area located on the north side of Main Street are proposed for CBD-2 zoning, with the exception of the Exxon station at the corner of Main Street and Greenwood Avenue, which is recommended to be zoned CBD-1. This results in a slight enlargement of the CBD-2 along its eastern edge. The uses south of Main Street in this area are recommended to be combined with the adjacent CBD-1 Zone to the west. Currently, these uses are zoned for general business but serve as the "gateway" to the downtown area. In addition, they are generally located closer to the right-of-way of Main Street, similar to downtown structures. For these reasons, the CBD designation is appropriate.

Auto-Related Uses in the CBD

Similar to the recommendation for East Main Street, gas stations are proposed to remain as conditional uses in the CBD with improved standards related to landscaping and buffering. Repair garages are proposed to be deleted as a conditional use in the CBD, but conditionally permitted along East Main Street.

Parking Requirement in the CBD

There are several Borough parking lots in the CBD, as well as private parking areas. There appears to be an adequate supply of parking to meet the overall demand generated in the downtown area. As a result, the following provision is recommended for consideration:

The Board responsible for site plan review may count parking spaces not located on the same lot as the principal use in the CBD provided that a convenient alternate location exists. In making this determination, the Board may consider the availability of off-street public parking areas within 1,000 feet of the lot and/or proof that the applicant owns, leases or has off-street parking facilities of sufficient duration consistent with the expected existence of the proposed use.

XIV. University standards.

The adjacent Madison PCD-O zoning standards were reviewed to determine standards that would be effective in regulating the University zones. Applicable standards for the U zone include the following:

- 200 feet setback from Loantaka and Madison Avenues
- 250 feet setback from adjacent residential zones
- 200 feet minimum buffer maintained along perimeter
- 0.3 FAR
- 60 feet maximum height or 50 feet above center line of Loantaka Way or Madison Avenue
- 15 percent maximum impervious surface

It is recommended that these standards also be applied to the U zones. In addition, it is recommended that the universities prepare facility master plans for submission to the

Borough in conjunction with any applications. These plans should be periodically updated to reflect existing conditions and proposed projects.

XV. Fairleigh Dickinson University (FDU).

The 30 acre parcel owned by FDU is located along Madison Avenue (Route 24). The site is located north of the Giralda Farms office development. Surrounding land uses consist of a mixture of single-family, university and office uses. The site abuts R-3 (single family residential on 9,375 square foot lots), R-1 (single family residential on 25,000 square foot lots) and PCD-O (planned office development) zones. The FDU parcel is currently zoned U - Resident College and University which permits colleges and universities, institutional uses, public utility and service facilities, and private recreational facilities.

This site is included in the Borough Housing Plan. It is recommended that this site be considered for rezoning to permit faculty housing similar to the zoning relating to the Drew University faculty housing in addition to permitting use by the Housing Authority on approximately four acres.

XVI. Child care centers in nonresidential zones.

A bill was recently adopted by the New Jersey Legislature which affects day care centers in nonresidential zones. Essentially, child care centers operated as accessory uses by employers for the benefit of employees for which a license is required must be permitted in all nonresidential zones of a municipality. According to the Act, these child care centers "shall not be subject to any other zoning regulation or site plan approval." In addition, the act states that the floor area of nonresidential development shall be calculated excluding the child care facility for the following purposes:

1. parking requirements otherwise applicable to that number of units or amount of floor space as appropriate under State or local laws; and

2. the permitted density allowable for that building or structure under the local zoning ordinance.

As a result of the adoption of the Family Day Care Zoning Act in September 1991, local zoning that prohibits the operation of family day care homes or that imposes more stringent requirements than those for single-family dwelling will be pre-empted, provided the family day care homes are registered with the Division of Youth and Family Services (DYFS). The Act defines a family day care home as a private residence in which child care services are provided for a fee to no less than three and no more than five children at any one time for no less than 15 hours per week.

XVII. Accessory buildings and structures in residential zones.

The existing standards for accessory buildings (e.g., garages) in residential zones restrict the size of the accessory structure in relation to the size of the principal structure. It is recommended that the governing relationship for permitted size of accessory buildings and structures be changed to lot size, which is a more appropriate measure. However, an accessory building or structure shall not be larger than the existing principal building.

XVIII. Transition (T) Zone -- Area on south side of East Main Street, generally north of Kings Road.

The "T" zone was originally intended to provide areas for residential development and parking accessory to uses on East Main Street. However, with few exceptions, no changes have occurred in this area. The majority of the "T" zone divides single-family residences into two zones, placing the backyards in the transitional designation. It is recommended that the majority of the residences in this area be redesignated as single-family residential to reflect the existing land use pattern of the neighborhood. Two specific areas are proposed for single-family attached residential development. These areas are located on both sides of Cross Street and on both sides of Bruns Street as shown on the Land Use Plan.

XIX. Receive-only satellite dish antennae regulations.

Presently, satellite dish antennae are accessory uses in all nonresidential zones and conditional uses in all residential zones in the Borough. It is recommended that the regulations governing these antennae be revised to make them conditional uses in all zones, with amended standards to reflect recent legal precedent and federal regulations.

XX. Accessory uses for auto service stations.

In many parts of the country, in recent years, there has been a trend to combine auto service uses with retail uses. This practice is more appropriate for a highway environment than for a compact small town, and it is recommended that the Borough Zoning Ordinance be amended to clearly indicate that retail uses are not acceptable accessory uses for auto service stations. Exceptions would be for sale of auto parts and for a limited number of vending machines.

XXI. Home Offices as accessory uses in residential zones.

The use of homes as offices is becoming increasingly common. The Borough Zoning Ordinance should be revised to permit home offices as an accessory use in all residential zones provided that no non-resident employees use the premises and that visits by clients or customers are not a customary part of the office use.

XXII. Institution Use or structure standards.

Institutional uses or structures are a conditional use in all zones in the Borough. There are presently six conditions which relate to institutional uses. Several of the existing institutional uses within the Borough do not meet all of the conditions. These uses therefore must meet the more stringent standards for a "d" variance even for minor improvements. It is recommended that the conditions governing institutional uses be revised to recognize the characteristics of existing uses or structures. In addition, different conditions may be more appropriate for various types of institutional uses. For instance, mausoleums have unique characteristics. Applicable conditions should reflect

such distinctions and should be implemented through revisions to institutional use standards in the zoning ordinance.

CIRCULATION PLAN

INTRODUCTION

Madison Borough is well-served by a variety of transportation facilities. State Highway 24 (Main Street) traverses the Borough, while Interstate Highways I-287 and I-78 are several miles away. The Morristown Branch of New Jersey Transit's Morris and Essex rail line provides frequent service throughout the day with connections to Newark, Hoboken and New York City. Local and express bus service is provided from Madison to Morristown, New York City and other points both east and west. Air transportation to a variety of national and international destinations is available from Newark International Airport, 15 miles east of Madison. General aviation and corporate businesses utilize Morristown Airport just north of Madison in Hanover Township.

This report contains a review of previous circulation plans, an inventory of existing Borough roads, Borough roadway classifications, programmed road improvements, a discussion of current circulation issues, a public transportation inventory, and a discussion of bicycle and pedestrian facilities.

ROUTE 24

The new alignment of the Route 24 Freeway around Madison will have a favorable impact on traffic flow. The final Environmental Impact Statement for Route 24, prepared in 1982, estimated that, with the completion of the new highway, trip time from Chatham to Morristown on the current Route 24 (Main street) will be reduced by 11 minutes. Average Daily Total (ADT) traffic volumes for the year 2005 were projected to

decline from approximately 25,000 vehicles to 11,500 vehicles per day between Brooklake Road and Morristown, a 55 percent reduction.

Planning for the realignment of Route 24 began as early as 1950. Route location studies, however, were not undertaken until 1959. The new alignment was planned to run from Mendham to Springfield and was designed to help meet the anticipated traffic demands in the area. As originally proposed, there was to be a full interchange near Brooklake Road in Florham Park Borough that would provide access to the highway for local residents by a connection to Brooklake Road. The Route 24 Freeway was constructed from Millburn to Springfield in the 1970's. Construction on the highway west of Millburn to Interstate I-287 however, did not begin until 1988. The estimated completion date of the highway is November, 1992. Due to public opposition and funding constraints, the extension of Route 24 from I-287 to Mendham is no longer under consideration.

As presently approved, there are only two interchanges which will be constructed on the new route 24 alignment, one at Columbia Turnpike (Route 510) in Hanover Township and the other at I-287. Access to the highway in an easterly direction from Madison will continue to be through the existing interchange at the east end of Chatham. The New Jersey Department of Transportation is currently studying the utility and practicality of additional interchanges based on updated traffic usage data gathered in 1991. No such projects will be completed with the opening of the highway in 1992; the design and construction of any additional interchanges require increased funding and approvals. For practical reasons, it seems likely that two additional interchanges will receive primary attention in that study, the "Chatham Connector" and the "East Madison Connector".

The Chatham Connector would utilize the cloverleaf interchange which was constructed in the 1970's and is located in Florham Park Borough east of Brooklake Road. A connector roadway would be constructed linking the interchange south to Brooklake Road. An additional link which would extend north from the interchange to connect with

Eisenhower Parkway in Livingston Township is no longer under consideration because of the problems involved in constructing such a roadway through wetlands.

The East Madison Connector is another interchange being discussed. The original proposal called for the interchange to be located just north of the Exxon Research facility in Florham Park Borough west of Ridgedale Avenue and north of Park Avenue. A connector road would link the cloverleaf to Park Avenue at or near Danforth Road.

Any proposal to construct one or two additional interchanges is likely to receive strong opposition from many local citizens and will not be restricted to residents immediately impacted by new connector roads. No recommendation with respect to such interchanges is appropriate until the current NJDOT study is completed. That study will use computer modelling techniques to evaluate the impact of additional interchanges, based on the traffic survey conducted in 1991. The results of such modelling studies would achieve greater public confidence if additional input data were gathered after the completion of the highway.

STREET HIERARCHY

The streets in Madison are classified according to their function. The 1963 and 1975 Circulation Plans contained classifications of Borough roads.

The Borough's Circulation Plan was last revised in 1975. The Plan included a street inventory, road classification system and a discussion of proposed street improvements. All streets in the Borough were placed into three categories: arterial roads, collector roads and minor roads.

Recognizing that the traffic volumes and character of many of Madison's streets has changed, a revised hierarchy of street classifications is proposed to more clearly define

the function of the roadway network. This system better reflects existing and future conditions and allows for greater flexibility. The functional classifications of roadways with their respective definitions are summarized in Table 1.

Table 1

PROPOSED FUNCTIONAL CLASSIFICATION OF ROADS

Freeway/Expressway	Limited or no access to abutting land uses. Access only from major streets at interchanges. Freeways supplement the capacity of the arterial street system and provide high speed mobility.
Primary Arterial	An inter-regional road that conveys traffic between centers. Should be excluded from residential areas.
Secondary Arterial	Conducts and distributes traffic between lower-order residential streets and arterials and expressways. Designed to promote free-flow of traffic. Secondary arterials form the backbone of the street system.
Collector	Provides frontage for access to lots and carries traffic of adjoining residential access streets. Is not intended to interconnect adjoining neighborhoods or subdivisions. Should not carry regional through traffic.
Local Access (Minor)	Provides frontage for access to lots and carries traffic having destination or origin on the street itself. Carries least amount of traffic.

Source: Managing Transportation in Your Community-A Municipal Handbook; New Jersey Department of Transportation (Trenton NJ; 1989).

Each class of roadway has a desirable traffic volume which is tied to the effect on adjoining residential uses. Arterial streets generally have average daily traffic volumes of 5,000 vehicles or greater. Desirable traffic volumes for collector streets are in the range of 2,000-5,000 vehicles per day. Local or minor streets have average daily traffic volumes of up to 2,000 vehicles.

The method whereby Borough streets are classified is primarily based upon two factors: (1) function of the roadway (type of traffic served) and (2) physical roadway characteristics. Development along many of Madison's major thoroughfares has existed for years while the character and function of the roadways has changed. The result is that in some cases the desirable roadway geometry, spacing of adjacent streets, degree of driveway access, and/or the type of adjacent land use may not be absolutely consistent with the definition of the particular roadway class. However, a roadway hierarchy should recognize existing conditions while concurrently defining function.

Traffic volumes for Borough roads are available from Morris County, the Madison Police Department and the New Jersey Department of Transportation. Table 2 contains average daily traffic (ADT) volumes for Madison roads. These traffic volumes are also shown on the Average Daily Traffic Volumes and Road Jurisdiction Map.

Table 2
AVERAGE DAILY TRAFFIC (ADT) VOLUMES

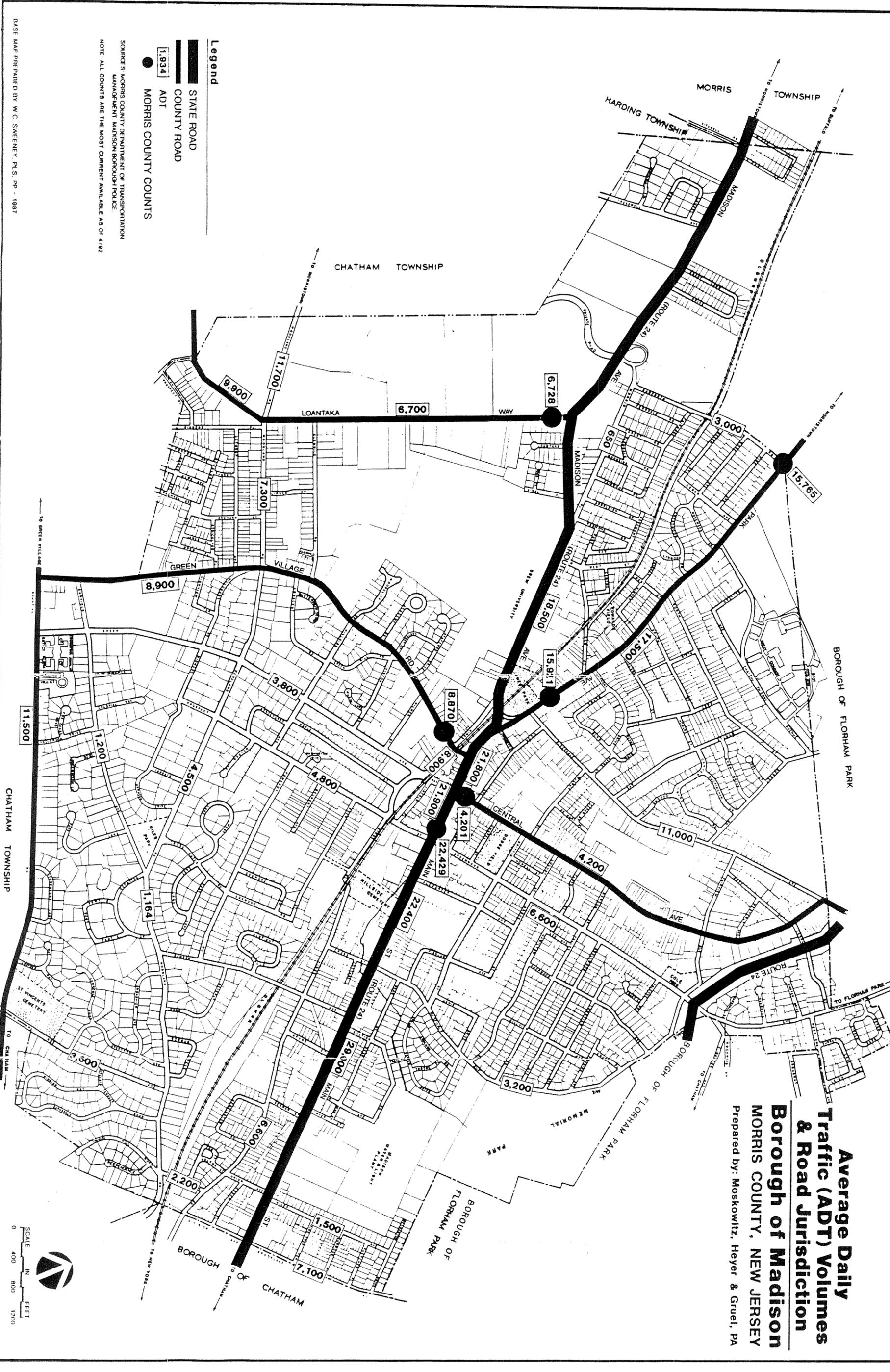
Road	ADT Volume (1991)
Main Street (east of Rosedale)	29,000
Main Street (between Greenwood and Rosedale)	22,400
Main Street (between Park and Central)	21,800
Madison Avenue	18,400*
Park Avenue	17,500
Shunpike Road (Green Village to Loantaka)	16,700
Woodland Avenue (west of Loantaka Way)	11,700
Shunpike Road (east of Green Village)	11,500*
Ridgedale Avenue	11,000*
Loantaka Way (south of Woodland Rd.)	9,900*
Kings Road (west of Green Avenue)	8,900
Green Village Road	8,900
Woodland Road (between Loantaka and Green Village)	7,300
Brooklake Road	7,100
Loantaka Way (north of Woodland Rd.)	6,700
Greenwood Avenue	6,600
Kings Road (east of Prospect Street)	6,600
Prospect Street	4,800
Woodland Road (east of Prospect)	4,500
Central Avenue	4,200
Green Avenue	3,800
Noe Avenue	3,600
Rosedale Avenue	3,200
Danforth Road	3,000
Union Hill Road (between Woodland and Kings)	2,200*
Niles Avenue	1,500
Garfield Avenue	1,200
Morris Place	650*

*1988 Data

Sources: New Jersey Department of Transportation, Morris County Department of Transportation Management, and Madison Borough Police Department.

Average Daily Traffic (ADT) Volumes & Road Jurisdiction

Borough of Madison
MORRIS COUNTY, NEW JERSEY
 Prepared by: Moskowitz, Heyer & Gruel, PA



PROPOSED BOROUGH STREET CLASSIFICATIONS

The following section contains roadway classifications for streets in Madison Borough. A brief description of the function and present traffic conditions for each major roadway is also included. The roadway classifications are illustrated on the Street Plan Map.

Freeways/Expressways

To date, there are no freeways in Madison Borough. However, the Route 24 Expressway, which crosses the northeast corner of the Borough, is scheduled for completion in the Fall of 1992.

Primary Arterial

There are no primary arterials in Madison Borough. Primary arterials serve intercommunity and intrametro traffic. Access is generally limited to major traffic generators and parking is generally prohibited.

Secondary Arterial

There are a number of streets in Madison Borough which are classified as secondary arterial roads. They are:

Green Village Road: Green Village Road connects Shunpike Road with Main Street (Route 24). Adjacent land uses are primarily residential. Pavement width is generally between 30 and 40 feet within a 50 to 66 foot right-of-way. The speed limit is 35 mph. Green Village Road was classified as a collector roadway in the 1975 Plan. However, given the present roadway function, Green Village Road should be classified as an arterial.

Loantaka Way: Loantaka Way links Route 24 (Main Street) with Spring Valley Road (Harding Township). The roadway functions as an arterial and

generally has a 25 foot cartway within a 50 foot right-of-way. The speed limit is 40 mph.

Park Avenue: Park Avenue provides an important link between Columbia Turnpike and Main Street (Route 24). Park Avenue is a two-lane roadway through Madison which widens to four travel lanes in Florham Park. Significant office development in Florham Park has taken place adjacent to the roadway within the past decade. In Madison, the roadway has a cartway width between 34 and 43 feet within a 40 to 60 foot right-of-way. The speed limit on Park Avenue is 35 mph (40 mph north of Chateau Thierry Ave.) and on-street parking is restricted in certain areas. The Morris County Circulation Plan categorizes Park Avenue as a primary urban arterial. This classification reflects the link the four-lane Park Avenue provides north of Madison from major office developments to regional highways. It is recommended due to its character and the function in Madison that the roadway remain classified as a secondary arterial.

Route 24 (Main Street/Madison Avenue): Route 24 is the primary east/west roadway through Madison carrying both local trips and regional through traffic connecting a number of downtowns including Summit, Chatham and Morristown. Route 24 is also the most congested road in Madison. Peak average daily traffic volumes are approaching 30,000 vehicles. The speed limit on Main Street/Madison Avenue varies between 30 and 35 mph.

Shunpike Road: Shunpike Road is a four-lane County roadway which connects Chatham Borough with Harding Township. Shunpike Road carries both locally generated traffic and regional through traffic between Summit and Morristown. Pavement width is 45.5 feet within a 50 foot right-of-way.

Woodland Road: Woodland Road is a two lane roadway linking Madison and Morristown. West of Loantaka Way, the road serves primarily through-traffic and should be classified as an arterial. East of Loantaka Way Woodland Road functions as a collector. The speed limit west of Loantaka Way is 45 mph and parking is unrestricted. The roadway has a 27 to 37 foot cartway within a 50 to 60 foot right-of-way.

Collector

There are a number of Borough roads which function as collectors. As mentioned previously, collector roadways provide frontage for access to lots and carry traffic of adjoining residential access streets. Collector streets generally have average daily traffic (ADT) volumes between 2000 and 5000 vehicles. Collector roadways should not carry regional through-traffic.

Table 3 contains details of collector roadways in Madison including cartway and ROW width, speed limit, parking restrictions and availability of sidewalks.

There are a number of proposed changes in roadway classifications from the 1975 Master Plan which are discussed below:

Brooklake Road: Brooklake Road links Madison with Florham Park. Brooklake was classified as a minor street in the 1975 Plan. The roadway presently serves local thru-traffic. The existing function of the roadway warrants a collector classification.

Central Avenue: Central Avenue is a two-lane roadway linking Ridgedale Avenue and Route 24 (Main Street). The road was classified as an arterial in the 1975 Plan. Adjoining land uses are primarily residential. Although the

roadway does serve some through-traffic, it still functions primarily as a collector street.

Chateau Thierry Avenue: Chateau Thierry Avenue was classified as an arterial in the 1975 Plan. However, the roadway primarily carries local traffic from adjoining residential developments, therefore, the road is proposed for a collector classification.

Cook Avenue: Cook Avenue was classified as an arterial roadway in the 1975 Plan. However, Cook Avenue functions as a collector roadway by distributing local traffic from commercial uses and parking to higher-order roadways.

Danforth Road: Danforth was classified as an arterial road in the 1975 Plan. While Danforth Road does carry local commuter traffic, especially during the peak hours, the roadway primarily functions as a collector by distributing local traffic to higher-order roadways.

Elmer Street: While Elmer Street was classified as an arterial in the 1975 Plan, it functions primarily as a collector roadway.

Green Avenue: Green Avenue links Main Street with Shunpike Road. The roadway was classified as an arterial in the 1975 Plan. Land uses adjoining Green Avenue are primarily residential. Green Avenue does serve some regional through-traffic but functions primarily as a collector roadway.

Greenwood Avenue: Greenwood Avenue connects Ridgedale Avenue in Florham Park with Main Street in Madison. The roadway was classified as an arterial road in the 1975 Plan. However, based on existing traffic volumes,

and physical roadway characteristics, the road functions primarily as a collector.

Prospect Street: Prospect Street was also classified as an arterial in the 1975 Plan. Connecting Main Street with Woodland Road, Prospect Street today functions as a collector street by carrying primarily local traffic.

Ridgedale Avenue: Ridgedale is an important arterial running from Route 24 in Madison northward to Route 280 in Parsippany. The 1975 Plan classified Ridgedale Avenue as a collector. Given present traffic volumes, and function, the roadway functions as an arterial, however, the physical characteristics and adjoining land uses are such that the road should maintain its collector classification.

Table 3
CHARACTERISTICS OF COLLECTOR ROADWAYS
 February, 1992

Roadway	Cartway Width (ft)	ROW Width (ft)	Speed Limit (mph)	Parking Restrictions	Sidewalks
Brittin Street	29-40	60-66	25	NO	Y
Brooklake Road	25-26	40	25	NO	Y
Burnet Road	26-32	50-60	25	NO	P
Central Avenue	36-39	60	35	YES (one)	P
Chateau Thierry Ave.	39	60	25	NO	Y
Cook Avenue	29	50	25	NO	Y
Cross Street	32-33	50	25	NO	P
Danforth Road	25-30	50	25	YES (both)	P
Division Avenue	N/A	N/A	25	NO	N
Elm Street	27-34	44-66	25	YES (one)	Y
Elmer Street	29	50	25	YES (one)	Y
Fairview Avenue	25-36	44-50	25	NO	Y
Garfield Avenue	22-33	50	25	NO	N
Green Avenue	42-45	70	25	NO	Y
Greenwood Avenue	36-42	50-66	25	NO	Y
Kings Road	27-43	33-60	30/35	YES (one/both)	Y
Noe Avenue	25-27	60	25	NO	N
Prospect Place	32-41	60	25	NO	Y
Ridgedale Avenue	25-39	50-60	25	YES (one)	Y
Rosedale Avenue	36	50	25	YES (one)	Y
Samson Avenue	24-36	50-60	25	YES (bridge)	P
Union Hill Road	36-31	50	25	YES (bridge)	P
Walnut Street	29-31	50	25	YES	Y
Woodland Rd. (Note 1)	27-38	50-60	25	NO	P

NOTES: Parking: (one): restricted on one side of street
 (both): restricted on both sides of street
 (bridge): restricted on railroad bridge

Sidewalks: P = partial length of roadways

N/A: Not available

(1) east of Loantaka Way

Sources: Madison Police Department; Madison Department of Land Use Services

Local Access (Minor)

The remaining Borough roads are classified as local access streets and generally carry low traffic volumes. Average daily traffic volumes should not exceed 2000 vehicles.

Through traffic should be discouraged on local access streets. There are a number of techniques available to reduce through traffic. Streets with significant through traffic can be designated one-way or speed limits may be lowered. While there exist a number of strategies to discourage through traffic, these must be balanced with the inconvenience imposed on local residents.

The 1975 Master Plan classifications of selected roadways and the proposed 1992 roadway classifications are presented in Table 4. For comparison, Madison Police Department roadway classifications and roadway classifications based on traffic volumes are also listed.

Table 4
STREET CLASSIFICATIONS

Road Name	County Road	Classification (A)			Proposed 1992 Master Plan Classification (D)
		1975 Plan	Police	Volume Class	
Brittin Street	No	Collector	Collector	--	Collector
Brooklake Road	No	Minor	--	Arterial	Collector
Burnet Road	No	Collector	Collector	--	Collector
Central Avenue	Yes	Arterial	Arterial	Collector	Collector
Chateau Thierry Avenue	No	Arterial	Collector	--	Collector
Cook Avenue	No	Coll/Arter	--	--	Collector
Cross Street	No	Collector	Collector	--	Collector
Danforth Road	No	Arterial	--	Collector	Collector
Division Avenue	No	Collector	Collector	--	Collector
Elm Street	No	Collector	Collector	--	Collector
Elmer Street	No	Arterial	--	--	Collector
Fairview Avenue	No	Collector	Collector	--	Collector
Garfield Avenue	No	Collector	Collector	Local Access	Collector
Green Avenue	No	Arterial	Arterial	Collector	Collector
Green Village Road	Yes	Collector	Collector	Arterial	Secondary Arterial
Greenwood Avenue	No	Arterial	Arterial	Arterial	Collector
Kings Road	No	Collector	Collector	Arterial	Collector
Loantaka Way	Yes	Arterial	Arterial	Arterial	Secondary Arterial
Madison Avenue	No	Arterial	Arterial	Arterial	Secondary Arterial
Main Street	No	Arterial	Arterial	Arterial	Secondary Arterial
Morris Place	No	Collector	Collector	Minor	Local Access
Niles Avenue	No	Minor	--	Minor	Local Access
Noe Avenue	No	Collector	Collector	Collector	Collector
North Street	No	Collector	Collector	--	Local Access
Park Avenue	Yes	Arterial	--	Arterial	Secondary Arterial
Prospect Street	No	Arterial	--	Collector	Collector
Ridgedale Avenue	No	Collector	Collector	Arterial	Collector
Rosedale Avenue	No	Collector	Collector	Arterial	Collector
Samson Avenue	No	Collector	Collector	--	Collector
Shunpike Road	Yes	Arterial	Arterial	Arterial	Secondary Arterial

Road Name	County Road	Classification (A)			Volume Class	Proposed 1992 Master Plan Classification (D)
		1975 Plan	Police			
Union Hill Road	No	Collector	Collector	Collector	Collector	
Walnut Street	No	Collector	Collector	--	Collector	
Woodland Road (Note B)	No	Collector	--	Arterial	Secondary Arterial	
Woodland Road (Note C)	No	Collector	Collector	Arterial	Collector	

Notes: (A) Volume Class based on the following ADT's:

0-2000 ADT -- Minor; 2000-5000 ADT -- Collector; > 5000 ADT -- Arterial
 --Police Classification based on data supplied by the Madison Police Department
 --Volume Class classification based on traffic volume data supplied by Morris County Department of Transportation and the Madison Police Department.

(B) Chatham Township line east to Loantaka Way

(C) Loantaka Way east to Chatham Borough line

(D) See text for definitions

STATUS OF ROADWAY IMPROVEMENTS

Programmed County Road Improvements

There are only two road improvements presently planned by Morris County in Madison Borough. One is the resurfacing of Green Village Road between Route 24 and Shunpike Road which is scheduled for 1993. Shunpike Road is scheduled for resurfacing between Green Village Road and Noe Avenue in 1995.

CIRCULATION ISSUES

Truck Routes

Both Morris County and Madison Borough have been actively studying the issue of truck routes. To date Morris County has had no official truck route designation program. However, in 1990 the County's truck route study committee recommended designating all County roads as truck routes, except where there are bridge height or weight restrictions.

As indicated in Table 1, the County roads in Madison are Central Avenue, Green Village Road, Loantaka Way, Park Avenue, Ridgedale Avenue and Shunpike Road.

The Borough adopted a truck route ordinance in 1991. Section 185-33 of the Borough Ordinance prescribes the streets on which trucks over four tons are permitted. These are:

Name of Street	Length
Central Avenue	Entire length
Green Village Road	Entire length
Greenwood Avenue	Entire length
Kings Road	Madison Ave. to Prospect St.
Loantaka Way	Entire length
Park Avenue	Entire length
Prospect Street	Route 24 to Kings Road
Route 24 (Main Street)	Entire length

Trucks are prohibited on the remainder of the streets in the Borough, except when engaged in the pickup and delivery of materials.

The Central Business District

The Madison Central Business District (CBD) extends along Route 24 from Park Avenue to Greenwood Avenue. Circulation issues in the CBD include parking (both on- and off-street), vehicular circulation, and pedestrian circulation.

Both on- and off-street parking is provided for shoppers in the CBD. The largest off-street parking lots in the CBD are located adjacent to Cook Avenue and south of Main Street between Waverly Place and Green Village Road. On-street parking is provided on the major roads in the CBD including Waverly Place, Central Avenue, Cook Avenue, Kings Road, Lincoln Place and Main Street. On-street parking provides

convenient access to CBD uses and prevents streets such as Main Street from taking on the character of a "speedway". The advantages of on-street parking must be balanced against safety hazards from vehicles entering and exiting stalls. Low speed limits enhance safety and minimize the hazards.

Vehicular circulation in the CBD is generally good. Peak weekday morning and evening hour congestion exists on roads in the CBD. Local roadway improvements within the CBD are detailed in an earlier section. The impact of the opening of the Route 24 freeway on Main Street traffic is also addressed in an earlier section.

Pedestrian circulation in the CBD is also generally good. Wide sidewalks, marked crosswalks and signalized pedestrian crossings are essential to efficient and safe pedestrian flows. The "green" time for pedestrians at traffic signals should be closely monitored to ensure that adequate time is provided for the elderly and handicapped. A safe pedestrian atmosphere is a key component to insuring the continued success of the CBD.

State Highway Access Management Code

The purpose of the State Highway Access Code is to better coordinate transportation and land use planning. The Access Code is a set of uniform standards to manage vehicular access to and from all State highways. The New Jersey Department of Transportation (NJDOT) expects the regulations to become effective in April 1992.

The NJDOT has assigned an "access level" and a "desirable typical section (DTS)" to each State highway. The access level refers to the allowable turning movements to and from access points on a State highway segment. The DTS reflects the NJDOT's long range plan for State highway configurations showing the number of through lanes.

Route 24 (Main Street/Madison Avenue) in Madison has been designated an access level 5 with a DTS classification of 2A. Access level "5" allows vehicles accessing

nonresidential uses both left and right turn access limited only by spacing and safety considerations. A DTS classification of 2A calls for a two (2) lane cross section, with shoulders.

The above levels indicate the type of access available to properties along Route 24. The number of access points permitted for properties along the roadway is governed by the spacing distances between lot centerlines, which in turn varies depending on the speed limit. Lots which do not conform to the spacing distances in the proposed Access Code must comply with additional regulations.

The Borough should closely monitor the proposed classifications and regulations affecting Route 24 (Main Street). The regulations should not interfere with the Borough's objective to maintain the character of the downtown and the present configuration of Main Street. In particular, this will require that on-street parking be retained in the Central Business District.

PUBLIC TRANSPORTATION

Public transportation in Madison Borough consists of bus and rail services westward to Morristown and eastward to Manhattan. This section contains an inventory of public transportation including service availability, frequency of operation and ridership.

Passenger Rail

New Jersey Transit (NJT) provides rail service to Newark and Hoboken (with connections to New York City) from the Madison Train Station, located on Kings Road across from Borough Hall.

The Madison Station is located on the Morristown Branch of NJ Transit's Morris and Essex Line. Thirty-three (33) trains per weekday are provided to Newark and Hoboken. Frequent service is provided during the peak morning and evening hours while off-peak

service is hourly. Service on weekends is generally provided hourly, with 20 trains to Newark and Hoboken serving Madison on Saturdays and 18 trains on Sundays (see Table 5).

The latest ridership report was prepared in June 1990 by New Jersey Transit. The data is summarized in Table 6.

Parking for commuters is provided in close proximity to the train station in three Borough-owned lots. Kings Road Lot #1 contains 98 resident commuter spaces; Kings Road Lot #2 has 151 commuter spaces while Kings Road #3 has 53 nonresident commuter spaces. In total there are 302 commuter spaces. The capacity of the lot presently appears sufficient to meet commuter demand. In addition to commuter parking, these lots provide merchant parking for both shoppers and employees.

While adequate parking facilities exist for the rail commuter arriving by automobile, no storage area exists for transit patrons using bicycles to commute to the station. It is recommended that a bicycle storage area be provided at the train station, preferably secure bicycle storage lockers, to encourage transit patrons to use alternative modes of transportation.

Table 5

SUMMARY OF TRANSIT SERVICES
Madison Borough

Type of Service	Weekday Span of Service	Average Headway (minutes)			Weekend Span of Service	Average Headway (minutes)
		Morning Peak	Midday	Evening Peak		
Rail: NJ Transit	5:30 am-1:00 am	10-15	30	10-15	6:00 am-1:00 am (1)	60
Bus: Morris County Metro	6:30 am-5:30 pm	60	60	60	10:30 am-5:30 pm (2)	60
Lakeland Bus Lines	5:30 am-10:00 pm	30	60	30	7:00 am-10:00 pm (1)	60

NOTES:

Headway: amount of time between buses or trains

(1) Service starts at 8:00 am Sundays

(2) No Sunday Service

ALL TRANSIT SERVICE TIMES ARE APPROXIMATE

Source: Transit timetables valid December, 1991.

Table 6

RAIL RIDERSHIP LEVELS
Madison Borough

AVERAGE DAY (January-June 1990)

	ON	OFF
Eastbound	751	128
Westbound	162	783

MORNING PEAK HOURS (6:45 AM-9:15 AM)

	ON	OFF
Eastbound	511	38

EVENING PEAK HOURS (4:15 PM-7:00 PM)

	ON	OFF
Westbound	39	397

NOTE: Eastbound is to Hoboken
Westbound is from Hoboken

Source: New Jersey Transit

Weekday and weekend ridership data for 1986-1990 is summarized in Tables 7 and 8, respectively. Total rail ridership peaked in 1987 and has declined almost 16% since to 751 passengers per day in 1990. In general, a weakening of the regional economy and rising transit fares coupled with service cuts are primarily responsible for the ridership declines.

Table 7
WEEKDAY AVERAGE TRIPS
EASTBOUND TRAINS (To Hoboken)
 Madison Borough

Year	Total On	Total Off	Peak On	Peak Off	Other On	Other Off
1986	832	159	469 (700-900am)	36 (700-900am)	363	124
1987	896	146	604 (630-930am)	40 (630-930am)	292	106
1988	888	138	592 (630-930am)	38 (630-930am)	294	100
1989	854	119	576 (645-915am)	33 (645-915am)	277	86
1990	751	128	511 (645-915am)	38 (645-915am)	240	89

Source: New Jersey Transit

Table 8
WEEKEND AVERAGE TRIPS
EASTBOUND TRAINS (To Hoboken)

SATURDAY

Year	Total On	Total Off
1986	261	110
1987	232	90
1988	258	82
1989	242	64

SUNDAY

Year	Total On	Total Off
1986	162	47
1987	151	60
1988	146	48
1989	160	46

Source: New Jersey Transit

The Morris and Essex Line was substantially renovated in the early 1980's. A new power supply was installed which permitted NJ Transit to utilize the modern "Arrow" cars which replaced the old Erie Lackawanna cars dating from the early 20th century. Many stations along the line have also been renovated and signage has also been improved. While there are no major improvements planned on the Morristown Branch, a planned rail link near the Meadowlands will improve access to New York for Madison rail riders. The Kearny Connection is a planned rail link near Secaucus which will enable trains now bound for Hoboken to connect to the Northeast Corridor Line which terminates at Penn Station in Manhattan. The connections result in significant time savings for commuters bound for Midtown Manhattan. The Kearny Connection will make rail travel more attractive and should help to increase rail ridership.

The Madison train station is on the State and National Registers of Historic Places. Other than the use as a passenger rail station, the building is vacant. There have been several proposals to utilize the station for commercial uses; however, none have been implemented. An effort should be made to negotiate with New Jersey Transit to allow limited commercial uses in the building. In addition, the land use element of this Master Plan recommends a rezoning of the train station from the present residential district to a Government Use and Open Space zone, which would include conditional use standards to permit limited commercial uses in the train station.

Local and Express Bus Service

Bus transportation in Madison is provided by Lakeland Bus Lines and Morris County Metro. Lakeland provides express and local bus service to Manhattan and Morristown. Bus routes run along both Route 24 (Main Street) and Green Village/Shunpike Roads. Service along Main Street is provided hourly on weekdays with frequent rush hour service and limited weekend service. A bus stop and shelter is located on Kings Road adjacent to the commuter parking lots. Service on Green Village/Shunpike Roads is provided only during the peak hours. (See Table 5)

Morris County Metro provides local bus service from Madison to Morris Plains and the Short Hills and Livingston malls. Service is hourly on weekdays and Saturday. There is no Sunday bus service.

Aviation

No general aviation airports or heliports are located in Madison Borough. General aviation facilities are provided at Morristown Municipal Airport in neighboring Hanover Township, which serves as a base for numerous corporate and private aircraft. Scheduled passenger service to domestic and international destinations is provided at Newark International Airport, 15 miles east of Madison.

Bikeways

Morris County does not have a current bikeway master plan. At present, Madison Borough has no designated bikeway network. A bicycle path does exist adjacent to the Giralda Farms development which is linked to a more extensive bicycle path network within the Loantaka Reservation in Harding and Chatham townships. Travel by bicycle is primarily accomplished using the municipal road network. However, heavy traffic volumes and vehicle/bicycle conflicts discourage bicycle use. It is recommended that bikeways be established on the remaining large developable parcels of land.

Pedestrian Paths

Pedestrian circulation is an important component of the circulation network of any suburban or urban municipality. A well-planned and maintained system facilitates movement between neighborhoods, between residential neighborhoods and a downtown and within a downtown area. An attractive and safe pedestrian network offers residents an alternative to the automobile and may reduce vehicular trips.

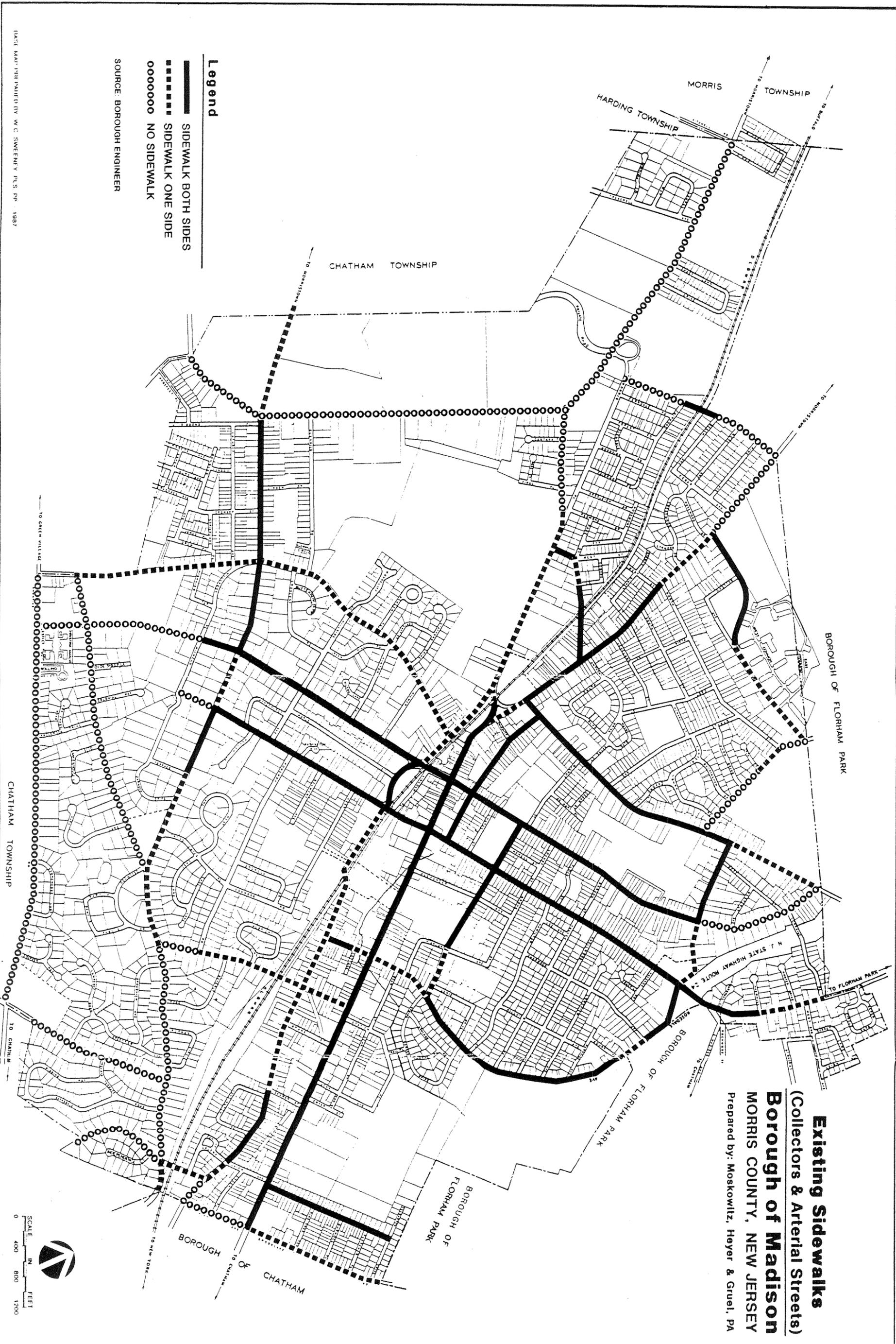
Important pedestrian planning goals include safety, security, convenience, continuity, comfort, and attractiveness.¹ The primary concern of pedestrian safety is the reduction of

¹ Pedestrian Planning and Design, by John J. Friun; Metropolitan Association of Urban Designers and Environmental Planners, 1971.

Existing Sidewalks
(Collectors & Arterial Streets)

Borough of Madison
MORRIS COUNTY, NEW JERSEY

Prepared by: Moskowitz, Heyer & Gruel, PA



Legend

- SIDEWALK BOTH SIDES
- - - - - SIDEWALK ONE SIDE
- NO SIDEWALK

SOURCE: BOROUGH ENGINEER

MAP PREPARED BY W.C. SWEENEY P.L.S. PP. 1987

the pedestrian-vehicle conflict. Pedestrian security is a factor of streetscape design. Sidewalk obstructions are the biggest obstacles to pedestrian convenience. Pedestrian attractiveness encompasses the aesthetic design and "vitality" of a given urban space and can be improved with streetscape materials and the creation of plazas or vistas.

Pedestrian circulation in Madison is primarily via a network of sidewalks available on most major and minor streets (see Existing Sidewalks Map). This network links most of the Borough's residential neighborhoods with recreational facilities, schools, and the downtown. One recommendation to improve pedestrian circulation is the installation of sidewalks along Woodland Avenue from Noe Avenue to the Chatham Township border.

The pedestrian environment in the downtown area is enhanced by textured sidewalks, street trees and decorative street furniture and lamps.

Primary pedestrian concerns in Madison Borough are related to pedestrian-vehicle conflicts. Heavy traffic volumes inhibit pedestrian movements across busy roadways (if no traffic signals are present) and pose a safety problem. The noise and pollution associated with heavy traffic also detracts from the pedestrian environment. Presently these conditions exist on Main Street in the Madison Central Business District (CBD) and East Main Street. If traffic volumes reductions associated with the opening of the Route 24 freeway are indeed realized, then the pedestrian environment in the CBD and East Main Street should improve.

THE CLEAN AIR ACT

The Federal Clean Air Act Amendments of 1990 set new goals and requirements aimed at bringing New Jersey's air quality into compliance with federal health standards. State officials are currently developing the State Implementation Plan (SIP) which will identify the measures New Jersey will implement. The Clean Air Act Amendments dictate several penalties that may be imposed on states which fail to develop an adequate SIP or

meet air quality goals. The types of measures which the State will choose from when developing the SIP include: vehicle and fuel controls; employer-employee measures (e.g. mandatory employer trip reduction); traffic flow improvements; transit and travel demand measures; pricing measures; or growth management controls. The Borough should monitor the development and implementation of the SIP closely. SIP measures mandated by the State will likely impact the Borough and may require modifications to the Circulation Plan in the future.

REDUCING TRAFFIC CONGESTION

There are a number of planning strategies available to communities to reduce roadway congestion, especially in the peak weekday morning and evening hours. Today, less emphasis is being placed on increasing roadway capacity in response to increased demand on the system. Rather, strategies are focused on maximizing existing roadway capacity or actually changing the characteristics of the demand.

Ridesharing

Ridesharing is a term denoting the act of sharing vehicles for the trip to work. Carpooling, vanpooling and buspooling are more specific terms which refer to the vehicular mode used in ridesharing. Successful vanpooling organizations such as McRides of Morris County contribute to reduced traffic congestion. Employer sponsored or voluntary carpooling also has potential to reduce the number of vehicles on the roads during peak hours. Ridesharing also has the benefit to an employer of a reduced need for parking spaces, which for new development can mean cost savings.

Alternative Work Hours

Alternative work hours is another demand management strategy which spreads the demand for travel over a wider band of time. The three methods of spreading commuter travel demands are staggered hours, flex-time, and a compressed work week. With staggered hours, different work groups are assigned to begin work at different times.

Flexitime allows employees to choose their own schedules within employer-set guidelines. A compressed work week allows employees to complete a 40-hour work week within four days.

Trip Reduction Ordinances

Trip reduction ordinances use a community's regulatory authority to limit trip generation from new and/or existing development. Some of the advantages of trip reduction ordinances include:

1. coverage of an entire political subdivision or area rather than an individual project;
2. the regulatory burden is spread more equitably between existing and future development.

One or all of the following techniques may be used in a trip reduction ordinance to achieve a reduction in trips:²

1. encouraging large employers to establish either flexible or staggered work hours;
2. requiring major new residential developers to construct park and ride facilities.
3. establishing shuttle bus service from major employment centers to transit facilities.
4. encouraging large corporations to establish "third party" vanpool programs.

Trip reduction ordinances typically require large-scale new residential and nonresidential development to submit a Traffic Reduction Plan to the Planning Board as part of the site plan approval process. Existing business with large numbers of employees are also subject to Ordinance requirements. The Ordinance also provides for an enforcement mechanism.

² Vigna, Thomas A., "New Jersey's First Traffic Management Ordinance - the North Brunswick Experience," New Jersey Federation of Planning Officials, Summer 1988.

Congestion Reduction in Madison

Because of a lack of vacant land, Madison will see little large-scale development in the future with the exception of Giralda Farms. Trip reduction strategies or regulations which are applied only to new development will have a minimal beneficial impact. The Borough needs to evaluate the feasibility of trip reduction measures applied to both existing and future large employers. Trip reduction measures in Madison will ultimately involve either public/private cooperation or public sector regulation using one or more of the strategies outlined in the last section.

Mass transportation in Madison is controlled by outside agencies. The Borough should encourage the use of mass transit and support expansion of service or upgrading of facilities. The land use proposal which would permit commercial uses in the Madison train station and the proposed provision of bicycle racks at the station will provide additional amenities. Providing amenities and improved facilities may also increase transit usage.

Congestion reduction in Madison can be accomplished using a number of available strategies. The use of mass transportation can be encouraged and enhanced by providing amenities and improved facilities. The provision and maintenance of pedestrian and bicycle facilities for residents decreases the need for the automobile to access retail and recreation.

Finally, reducing the number of automobile trips, especially in the peak hour, can be accomplished using trip reduction strategies and/or regulations. The Borough should also support regional measures aimed at reducing automobile congestion.

Part V

COMMUNITY FACILITIES PLAN

Part V

COMMUNITY FACILITIES PLAN

INTRODUCTION

The Community Facilities Plan provides an evaluation of the public services and facilities needs of the Borough of Madison such as schools, fire protection, police, first aid, and library. This plan first discusses current municipal resources, existing service levels and potential deficiencies. The plan also considers future community facilities and service needs based upon demographic considerations such as age composition.

COMMUNITY FACILITIES NEEDS

The location of current community facilities are listed on Table 1 and graphically shown on the Community Facilities Inventory Map. The following sections review both the status of existing facilities and future service needs.

As noted, there is a total of 524 acres of public and quasi-public lands in the Borough. Of the total, the Borough currently owns 212 acres which includes municipal parks, the Hartley Dodge Memorial building, public library, parking lots, and other municipal facilities. Of the total amount of Borough land, 4.53 acres are undeveloped vacant land which is scattered throughout the Borough.

Lands owned by the Madison Board of Education total 64 acres.

The Madison Housing Authority currently owns slightly over 10 acres of land which has been developed for 122 units of scattered site and senior citizen public housing. Quasi public and other lands total 211 acres. This category includes the 100 acre Drew

University campus, 30.4 acres of the Florham Park-Madison Fairleigh Dickinson University campus and the 33.5 acre Bayley Ellard High school facility.

Community Facilities Inventory

Table 1

COMMUNITY FACILITIES INVENTORY

Borough Properties - Parkland

Key No.	Block	Lot	Acres	Location
1	504	23	1.26	Ridgedale Park
2	903	3	1.8	Parkside
3	1001	73	24.8	Summerhill Park - Green Acres
4	1004	19	3.4	Cole Park
5	1102	24	1.93	Madison Park
6	1104	26	6.66	Utility bldg/Lucy D. Anthony Park
7	1203	7	0.81	Edwards Field
8	1401	3	2.88	James Park
	1402	9	2.11	James Park
	1504	1	1.01	James Park
9	1504	2	0.3	Crafts Museum
10	1701	2	4.78	Dodge Field - renovated w/ Green Acres
11	2208	28	4.5	Rosedale Ballfield
12	2208	28	1.5	Delbarton Park
13	3903	1	0.25	Fen Court
14	4103	17	3.8	Niles Park
15	5001	1	20.2	Developed Memorial Park
	5001	1	44	Wooded Area Memorial Park
16	1002/1003	8/15	2.4	Central Green
17	2208	19,28	51.5	Wetlands, Storage/Utilities
		Total:	179.90 Acres	

Borough Properties - Miscellaneous

Key No.	Block	Lot	Acres	Location
18	209	1	1.93	Water Tank
19	404	20	0.25	Water & Sewer Pump Station
20	1101	37	0.03	Storm Sewer - Park Avenue
21	1105	15	0.92	Water Well
22	1502	25	1.38	Borough Parking Lot
23	1601	9	0.09	Health Clinic
24	1802	14	0.46	Borough Parking Lot
25	2207	1	0.21	Water Pump Station
26	2301	1	5.79	Wellhouse
27	2601	26	0.34	Electric Sub-Station
28	2701	17	0.37	Borough Parking Lot
29	2801	6	0.6	Borough Parking Lot
30	2802	1	1.36	Hartley Dodge Memorial
31	2803	1	0.87	Borough Parking Lot
32	2803	2	0.15	Senior Citizen Center
33	3802	1	3.4	Borough Parking Lot
34	3803	21	8.54	Madison Public Library
35	4402	6	0.47	Water Tank
36	4503	7	0.46	Sewer Pump Station
		Total:	27.62 Acres	

Undeveloped Borough Land

Key No.	Block	Lot	Acres	Location
37	201	2	0.93	Danforth Rd.
38	208	1	0.23	Fairwood Rd./Danforth Rd.
39	208	18	0.17	Fairwood Rd.
40	209	21	0.35	Madison Ave.
41	404	47	0.18	Belleau Ave.
42	404	46	0.57	Belleau Ave.
43	404	48	0.34	Belleau Ave.
44	404	50	0.34	Belleau Ave.
45	903	3.01	0.14	Rosedale Ave.
46	1302	1	0.17	Elm St.
47	1901	20	0.29	Grove St.
48	2901	3	0.06	Green Village Rd./Vinton Rd.
49	3404	56	0.59	Linden Dr.
50	3801	1	0.17	Kings Rd./Railroad
		Total:	4.53 Acres	

Madison Housing Authority

Key No.	Block	Lot	Acres	Location
51	402	1	3.61	Senior Citizen Housing
52	1203	24	0.33	Park Ave/Elm St.
53	1601	23	1.53	Cook Ave
54	2207	15	1.94	John Ave.
55	3001	1.47	1.87	Loantaka Way
56	3803	61	1	Belmont Ave.
		Total:	10.28 Acres	

Board of Education Properties

Key No.	Block	Lot	Acres	Location
57	601	1	24.04	Madison High School
58	1601	1	13.48	Central Avenue School
59	2001	16	9.80	Madison Jr. High School
60	3001	8	5.36	Green Village Rd. School
61	3404	33	6.85	Torey Sabatini School
62	3901	12	4.70	Kings Road School
		Total:	64.23 Acres	

Quasi-Public/Other Public Lands

Key No.	Block	Lot	Acres	Location
63	101	6	30.4	Fairleigh Dickinson University
64	104	1	1.92	Railroad Station
65	201	1	33.5	Bayley Ellard High School
66	1502	11	0.28	Community House
67	1601	16	0.31	First Baptist Church
68	1701	1	0.09	A.M.E. Church
69	2001	17	0.74	F & A.M. Lodge #93
70	2601	19	5.2	Hillside Cemetery
71	2702	25	0.41	Post Office
72	2801	7	1.93	Presbyterian Church and Chapel
73	2801	8	5.4	St. Vincent's Catholic Church
74	2803	3	0.48	Borough Volunteer Ambulance
75	3001	7	0.31	Red Cross
76	3001	1	100	Drew University
77	3001	2	1	Methodist Church
78	3001	3	0.64	Storage Garage - Methodist Church
79	3001	6	4.13	Episcopal Church
80	3802	23	6.3	Y.M.C.A.
81	4501	3	5.53	Baptist Church
82	1107	8	2.1	Y.M.C.A.
83	1107	9	0.45	Y.M.C.A.
84	4701	24	9.94	St. Vincent's Cemetery
		Total:	211.06 Acres	

Private Recreation

Key No.	Block	Lot	Acres	Location
85	4401	14	20	Madison Golf Club
86	4315	12	6.4	Madison Golf Club

Summary

179.9	Borough Parks
27.62	Miscellaneous Borough Land
4.53	Undeveloped Borough Land
10.28	Madison Housing Authority
64.13	School Properties
211.06	Quasi-Public/Other Public Lands
26.40	Private Recreation
<hr/>	
Total:	524.02 Acres

Municipal Services

All administrative offices are located in the Hartley Dodge Memorial municipal building. At the present time there is a total of 76 employees located in the municipal building of which 73 are full time. The building houses the following municipal functions:

Administration	Tax Collection
Municipal Court	Finance
Land Use Services	Water and Light Billing
Health*	Police
Fire	

*The Health Department also has offices at 22 Central Avenue.

Police Services

Police headquarters occupies approximately 15,000 square feet in Borough Hall.

The Police Department currently consists of 3 divisions. The current force contains thirty-five (35) members, including a chief, a captain, four (4) lieutenants, six (6) sergeants and twenty-three (23) patrolmen. The department's patrol division operates on three (3) eight-hour shifts, providing for twenty-four (24) hour coverage.

Supporting staff includes four (4) secretary-clerks, twenty-three (23) school crossing guards, two (2) special police, sixteen (16) emergency management auxiliary police and two (2) community service (parking enforcement) officers. Since 1975, the staff has increased by three (3) patrol officers, two (2) clerical personnel and one (1) community service (parking enforcement) officer.

The 1990 ratio of police officers to the Borough population is almost 2.2 per 1000 people. This is comparable to the 1990 State and Morris County ratios of 2.4 and 2.3, respectively.¹ According to the Police Department, there may be a need to expand the traffic safety and drug enforcement division which would require increasing the number of sworn officers to 40. Police headquarters may require interior renovations and additional space.

Municipal Court

The Municipal Court is staffed by a full-time court administrator, part-time deputy court clerk, full-time violations clerk and a part-time judge. The municipal prosecutor, who represents the police department, is part-time. There is also a part-time public defender employed for one court session a month.

¹ 1989-90 Uniform Crime Reports.

Future increases in the number of traffic, parking, and criminal citations will necessitate increasing the clerical staff by one full-time position and increasing court time for trials, remanded charges from the county, and motions to suppress hearings.

The court facilities appear to be inadequate based on the June 1991 ATS (Automated Traffic System) study, documented by the Administrative Office of the Court, Trenton, New Jersey.

Fire Department

The Borough of Madison is currently served by the Madison Fire Department which operates out of one station located in the Hartley Dodge Memorial Building. The department consists of 11 paid and approximately 38 volunteer personnel. Of the paid staff, the department includes the chief, two captains and eight firefighters. One lieutenant acts as the fire official responsible for the Bureau of Fire Prevention while the other is the fire subcode official responsible for new construction fire inspections in the Borough.

Mobile equipment utilized by the department consists of three pumpers with a combined pumping capacity of 3,500 gallons per minute (GPM), a mini pumper with a 250 GPM capacity, one aerial truck, a utility van, a pick-up truck which is used for inspections, and a chief's car.

The facility and equipment are both considered adequate for current and future needs. The number of volunteer personnel, however, has been declining in recent years from a previous total of eighty. A continued downward trend may necessitate additional paid employees in the future.

Public Works

The Borough Public Works Department, which includes the Parks Department, is located on John Avenue and employs twenty-seven (27) full-time and two (2) temporary

(summer) persons. The crew is responsible for the maintenance of all Borough-owned buildings, local streets borough parks, and storm and sanitary sewers. The department also coordinates the collection of garbage and recyclables, both of which are contracted to private haulers. The Water Department is under the direction of the superintendent of public works.

The Borough has an active recycling program through collection of aluminum cans, glass and newspapers. Curb-side pickup is provided by private contractors twice a month. Yard waste and leaves are collected separately. The Department of Public Works also accepts recyclables at its headquarters in addition to accepting cardboard from local businesses.

Health Department

The Board of Health, an autonomous department, is located at 22 Central Avenue in a converted fire station building. The health facility operates as a regional health department for Madison residents and twenty-one surrounding communities which contract with the Department for services. The administrative offices of the Board of Health are located in the Hartley Dodge Memorial Building on Kings Road.

The Department provides State mandated health services and educational programs including well-care facilities for babies. In addition, the Health Center is responsible for environmental inspections and water testing.

Although some cosmetic improvements have been done on the structure since the 1950's, no major renovations have been made. The current facility is inadequate in terms of condition and space needs for labs.

The Board of Health is currently studying alternatives for both a new lab, as well as the existing and future space needs of the Health Department as a whole. Among alternatives under consideration for the lab are a new facility at the water and light plant

and a temporary lease in the short term. Both renovating the existing building and studying alternative sites are under consideration for the Health Department as a whole.

Ambulance Services

The Madison Volunteer Ambulance Corps was founded in 1954 and moved into its present headquarters on Prospect Street in 1968. There are 58 current members who operate two Basic Life Support ambulances. An average of 5 to 10 members are on leave at any one time.

The ambulances are supplemented by Mobile Intensive Care Units (MICUs) from local hospitals staffed by paramedics. All Ambulance Corps members are required to be qualified as First Responders which requires 40 hours of training. One-third of the members also hold Emergency Medical Technician Ambulance (EMTA) qualifications (110 hours of training required).

Presently, the Ambulance Corps is organized in fourteen 12-hour shifts covering seven days, with four people optimally per shift. As a result of declining membership, the crews are typically made up of only three members. This may require the hiring of full-time paid drivers in the future.

Library

The Madison Free Public Library is located at 39 Keep Street and is open 7 days a week and 3 evenings. During the summer months of July and August, the library is open 6 days a week, 2 evenings and closed on Sundays. The current facility, which opened in 1969, is approximately 24,000 square feet in size and is staffed by eleven (11) full-time and twenty (20) part-time employees.

The library contains approximately 120,000 books and media. In books alone, the adult collection houses 84,000 books while the children's collection contains 28,000 books. There are over 10,900 registered patrons. Residents from surrounding communities also

use the Madison Library through reciprocal arrangements. Total circulation for the year 1990 was approximately 153,000 volumes. There is a computerized circulation system tied to the Morris County Library, other public libraries and the County College of Morris. The library also contains an auditorium with seating for 100 persons which is used for meetings of local organizations, concerts and art exhibits.

A 4,200 square foot addition to the library is currently being constructed which will include expansion of the stacks and current periodical area as well as provide a new local History Center. The expansion is being funded by contributions from the public. The library also expects to computerize the catalogue file in the near future thereby eliminating the present card catalogue system.

Parking at the library is considered adequate except for less than ten times a year when a large event is taking place in the auditorium during normal patron hours.

Senior Citizen Center

The Madison Senior Citizens Center was established in 1980 and is located at 10 Maple Street. The existing building was donated to the Borough by the Geraldine R. Dodge Foundation and was remodeled with funding from Community Development monies.

The Center serves as a focal point for activities and services of older people in the Madison area. The Center is used on average by approximately 15 to 20 persons per day. Currently, the Center is staffed by one full time and one part time person.

Services provided by the Center include a meeting place for senior citizens, information referral to other agencies, trips, crafts, income tax services, medicare, insurance counseling, and van transportation. The local "Meals on Wheels" program is also administered from the facility. The Center works in cooperation with the Madison YMCA, Madison Library and the Madison Community House.

According to the Center's Director, the current facility is inadequate to serve the current and future needs of the senior citizen population. In order to improve services, the Borough has requested a grant from Community Development to fund an alteration to the existing Senior Citizen building. Although the funding was not approved, the Borough continues to apply for grants. The alteration would provide for an additional office on the ground floor which is expected to increase efficiency. Additional improvements may be necessary in the future.

A Dial-A-Ride Transportation Service is available 3 days a week for senior trips for shopping, doctor appointments, and visiting within the Madison area. The van is also used for a monthly mall visit, visits to a nursing home and other excursions.

Borough of Madison School System

Existing Facilities

The Madison Borough school district consists of a total of seven (7) schools, including five elementary (two of which have been closed for district classroom purposes), one junior high school, and one senior high school. The total enrollment in the school system as of May 1991 was 1,693, including 27 special education students, 32 learning handicapped students, and 5 individual instruction students. This figure also includes high school students received from Harding Township on a tuition basis.

The Madison Borough school system operates on a kindergarten through grade 6, grades 7 and 8, and grades 9 through 12 basis. There have been no major additions to the existing school structures since the previous Master Plan. Current enrollment and functional capacity of the Borough's schools are presented in Table 2. As indicated, there is excess capacity within each school as compared with 1990-91 enrollment levels.

Table 2

**COMPARISON OF BUILDING FUNCTIONAL CAPACITY
TO ENROLLMENT***

Building	Functional Capacity	Enrollment As of May 1991	Surplus or (Deficit)
Central Avenue (K-6)	500	392	108
Kings Road School (K-6)	275	196	79
Torey J. Sabatini (K-6)	325	248	77
Madison Junior (7-8)	400	259	141
Madison High (9-12)	900	561	339
Total:*	2,400	1,656	744

*Includes in-house special education students.

Source: Madison Board of Education.

Recent District Enrollment Trends

Tables 3 and 4 detail enrollment by grade and by grade groupings for the current year and previous years. These enrollment figures represent the enrollments by September of each year. All enrollment information was obtained from the Madison Borough Board of Education.

As Table 4 indicates, total enrollment declined significantly since September of 1980. Enrollment trends, however, have been different among the various grade groupings. In the elementary schools, enrollment decreased from 1980 through the 1985-86 school year, but has increased since 1986. The greatest increases in enrollment in elementary schools during the period covered occurred between the 1986-87 and 1987-88 school year. May 1991 elementary enrollment of 814 students represents an 85 student or 11.7 percent increase over the 1985-86 school year elementary enrollment of 729 students. These figures do not include special education students.

At the junior high school level, enrollment had decreased each year since 1980 until the current school year when enrollment rose by 18 students to 561. Enrollment in the high

school had also decreased each year since the 1980-81 school year until the current school year when it rose by 8 students.

Total district enrollment has experienced a decreasing trend since the 1980 enrollment of 2,373 students. Current (1990-91) enrollment is 1,693 students, including special education and learning handicapped students. Between the 1980-81 and 1990-91 school years, total district enrollment decreased by 680 students, or 29 percent. The annual average decrease in the enrollment between the 1980-81 and 1990-91 school years is 2.9 percent.

Comparing the current school year's enrollment with the 1980-81 enrollment, the enrollment change for the elementary schools is an absolute decrease of 198 students, or about 20 percent. However, elementary enrollment has increased each year for the past five school years. For the junior high school, current enrollment represents a decline of 88 students, or 26 percent from its 1980-81 level. Junior high school enrollment had remained stable during the 1988-89 and 1989-90 school years and has increased slightly during the 1990-91 school year. May 1991 enrollment in the high school represents a 45 percent decrease since the 1980-81 enrollment level.

Table 3

ENROLLMENTS AT MADISON BOROUGH PUBLIC SCHOOLS (1974-1991)(a)

School Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
1974/75	174	184	192	212	231	221	248	242	254	324	335	305	259	3,181
1975/76	185	180	174	196	211	235	228	247	243	292	316	319	305	3,131
1976/77	185	182	171	170	188	201	234	229	242	286	280	297	311	2,976
1977/78	123	183	173	181	175	179	204	222	223	275	284	283	298	2,803
1978/79	134	132	185	170	176	174	179	201	227	261	269	288	272	2,668
1979/80	119	133	140	173	173	168	175	178	200	270	250	284	280	2,543
1980/81	111	127	124	136	165	177	172	165	177	242	263	257	257	2,373
1981/82	104	114	118	125	135	165	172	172	173	232	243	271	238	2,262
1982/83	117	102	110	110	130	143	172	168	167	210	231	247	264	2,171
1983/84	99	126	103	112	122	130	138	173	182	203	211	232	243	2,074
1984/85	76	105	121	105	114	118	134	156	179	211	198	229	223	2,018*
1985/86	86	89	104	114	110	109	117	128	153	119	213	208	220	1,892*
1986/87	93	101	90	112	114	109	113	128	139	166	201	212	213	1,830*
1987/88	108	114	106	102	121	114	109	123	128	160	163	198	216	1,807*
1988/89	118	127	109	107	102	122	113	114	122	137	167	162	201	1,753*
1989/90	100	126	118	113	107	102	127	114	122	139	132	171	157	1,685*
1990/91(b)	130	120	116	121	114	114	99	127	127	130	139	132	160	1,693*

(a) Figures include tuition students from Harding Township.

(b) Figures are from May 31, 1991, year ending enrollment.

*Special education students and learning handicapped students not included in grade breakdown, but are included in final total.

Note: Above figures represent enrollment as of September for each school year.

Table 4

**ENROLLMENT CHANGE
1980 THROUGH 1991(a)**

	Change			Change			Change			Sp. Ed.	Lrn. Hand.	Total	Change	
	K-6	No.	%	7-8	No.	%	9-12	No.	%				No.	%
1980/81	1,012			342			1,019			*	*	2,373		
1981/82	933	-79	-7.81	345	3	0.88	984	-35	-3.43	*	*	2,262	-111	-4.68
1982/83	884	-49	-5.25	335	-10	-2.90	952	-32	-3.25	*	*	2,171	-91	-4.02
1983/84	830	-54	-6.11	355	20	5.97	889	-63	-6.62	*	*	2,074	-97	-4.42
1984/85	773	-57	-6.87	335	-20	-5.63	861	-28	-3.15	24	25	2,018	-56	-2.70
1985/86	729	-44	-5.69	281	-54	-16.12	840	-21	-2.44	18	24	1,892	-126	-6.24
1986/87	732	3	0.41	267	-14	-4.98	792	-48	-5.71	16	23	1,830	-62	-3.28
1987/88	774	42	5.74	251	-16	-5.99	737	-55	-6.94	20	25	1,807	-23	-1.26
1988/89	798	24	3.10	236	-15	-5.98	667	-70	-9.50	20	32	1,753	-54	-2.99
1989/90	793	-5	.62	236	0	0	599	-68	-10.19	23	31	1,685	-68	-3.87
1990/91	814	21	2.65	254	18	7.63	561	-38	-6.34	27	37	1,693	8	47
Total Change:		-198	-19.57		-88	-25.73		-458	-44.95				-680	-28.66

(a) Figures include students from Harding Township.

*Denotes breakdown of special education and learning handicapped students not available.

Source: Board of Education, Borough of Madison.

Survival Ratio Enrollment Projections

The cohort survival method, a commonly accepted method used to project future enrollment, relies upon the increase or decrease in enrollment or survival rates from grade to grade in previous years to project enrollment into the future. It assumes past trends can be utilized as a basis for estimating future enrollments. In addition, this method considers changes in household characteristics, including the trend of turnover of single-family and multi-family homes from older families to younger families with school-age children.

In order to project enrollment by applying the cohort survival ratios, the actual survival ratios have been calculated by grade for each of the past five years and averaged for the five year period.

As Table 5 indicates, survival ratios were above 1.00 for 11 of the grade categories and below 1.00 for the remaining grade. Survival ratios over 1.00 represent increases from one grade to the next while ratios under 1.00 indicate decreases. The increasing trend of elementary school enrollment is visible as five of the six survival ratios exceed 1.0. The highest survival ratio is between kindergarten and first grades. This reflects the increase in births that occurred between 1984 and 1987, as illustrated in Table 6.

Table 5

AVERAGE SURVIVAL RATIOS, BY GRADE
Borough of Madison

From Grade	To Grade	Ratio
K	1	1.15
1	2	1
2	3	1.04
3	4	1.03
4	5	.98
5	6	1.01
6	7	1.04
7	8	1.02
8	9	1.12
9	10	1.03
10	11	1.04
11	12	1.01

Source: Enrollment by grade, Madison Borough, Board of Education.

Kindergarten Enrollment

In order to complete the analysis, it is necessary to establish kindergarten enrollment for each year. Kindergarten enrollment is projected by determining the relationship between the number of births in the Borough to kindergarten enrollment five years later. To estimate future kindergarten enrollments, an average ratio was derived from the 1983 to 1990. This average was .78 students in kindergarten for each child born five years earlier.

Table 6

**RATIO OF KINDERGARTEN ENROLLMENT TO BIRTHS
FIVE YEARS EARLIER, 1983-1989**
Borough of Madison

Year	Births	Year	K Enrollment*	Ratio K Enrollment:Births
1978	111	1983	99	0.89
1979	118	1984	76	0.64
1980	120	1985	86	0.72
1981	141	1986	93	0.66
1982	125	1987	108	0.86
1983	120	1988	118	0.98
1984	150	1989	100	0.67
1985	156	1990	130	0.83
Average Ratio:		0.78		

*By September of each school year.

Source: Madison Board of Education.

In Table 7, the .78 ratio is applied to births between 1984 and 1988, resulting in projected kindergarten enrollments for 1990 through 1993. The application of the .78 ratio to the number of births from 1986 to 1990 yields kindergarten projections for the next four school years.

Table 7

PROJECTED KINDERGARTEN ENROLLMENT, 1991-1996
 Borough of Madison

Year	Births	Year	K Enrollment*
1986	140	1991-92	109
1987	174	1992-93	136
1988	126	1993-94	98
1989	100	1994-95	78
1990	116	1995-96	90

*Based on ratio of .78; kindergarten enrollment to births.

Source: Madison Borough Board of Education.

Survival Ratio Enrollment Projections - 1991-92 Through 1995-96

A total enrollment projection by grade was derived by using the five (5) year average survival ratio for each grade, applied to the 1989-1990 enrollment level and carried through year by year to the 1995-96 school year. The Board of Education performed this cohort analysis.

Kindergarten enrollments for each year are based on the projections shown in Table 7.

The resulting enrollment projections detailed in Table 8 indicate that total enrollment in the school system will increase over the next three school years and then stabilize. This increase is projected to occur gradually with 1995-96 enrollment projected at 1,715 students. This represents an increase of 67 students, including in-house special education pupils over the current (1990-91) enrollment level.

Table 8

**PROJECTED ENROLLMENTS, 1990-1995
MADISON PUBLIC SCHOOLS**

Grade	Actual 1989 1990		1990 1991	1991 1992	1992 1993	1993 1994	1994 1995	1995 1996
			*LB 156	LB 140	LB 174	LB 126	LB 100	LB 116
K	106		130	118	136	98	78	90
1	126	P	120	146	125	156	113	90
2	123	R	116	124	140	125	156	115
3	111	O	121	123	120	146	130	162
4	110	J	114	117	135	124	150	134
5	99	E	114	115	124	132	122	151
6	125	C	99	109	115	125	133	123
7	120	T	124	105	110	120	130	138
8	121	I	129	128	110	112	122	133
9	140	O	130	152	151	122	125	137
10	130	N	139	126	134	156	126	129
11	169	S	131	140	147	139	162	131
12	150		163	127	150	148	140	164
Elem In-House Special Ed.	11		14	16	18	18	18	18
Totals	1,641		1,644	1,646	1,715	1,721	1,705	1,715

Source: Madison Board of Education.

Note: Includes students from Harding Township.

*LB = Live Births

SUMMARY OF FINDINGS

Overall, Madison's residents are well served by the Borough's extensive and well maintained community facilities. The Borough's population is generally stable and no major expansion of capital facilities is anticipated at this time. The existing health facility is currently inadequate both in terms of space and condition. This need should be addressed. In addition, review of the municipal court facilities may be appropriate. As such, the efficient usage of existing resources to meet the Borough's needs into the 1990's is recommended as the major focus of future facility planning.

Part VI

PARKS, RECREATION AND OPEN SPACE PLAN

Part VI

PARKS, RECREATION AND OPEN SPACE PLAN

INTRODUCTION

Although Madison is one of the smallest municipalities in Morris County, its 180 acres of open space constitute about 7 percent of the Borough's land area. The size of the parks range from a quarter acre (Fen Court), to over 64 acres (Memorial Park). Existing public parks and recreation facilities are detailed in Table 1 and are shown on the Open Space/Recreation Plan Map.

Table 1

GREEN ACRES INVENTORY

Borough of Madison

Developed Parks

Block	Lot	Park Name	Acres
2208	28	Delbarton	1.50
2208	28	Rosedale Ballfield	4.50
1701	2	Dodge Field	4.78
1104	26	Lucy D. Anthony	6.66
5001	1	Memorial Park	64.2
			81.64 Total Acres

Undeveloped Parkland

Block	Lot	Park Name	Acres
4103	17	Niles Park	3.80
3903	1	Fen Court	.25
1004	19	Cole Park	3.40
1401	3	James Park	6.20 (Total)
1402	9	James Park	
1504	1,2	James Park	
1203	7	Edwards Field	0.81
1102	24	Madison Park	1.93
504	23	Ridgedale Park	1.26
903	3	Parkside	1.8
1001	73	Green Acres (Summerhill)	24.8
1002	8	Central Green	2.40 (Total)
1003	15	Central Green	
2208	19,28	Waterlands (Water & Light)	51.5
			98.15 Total Acres
GRAND TOTAL:			180 Acres (rounded)

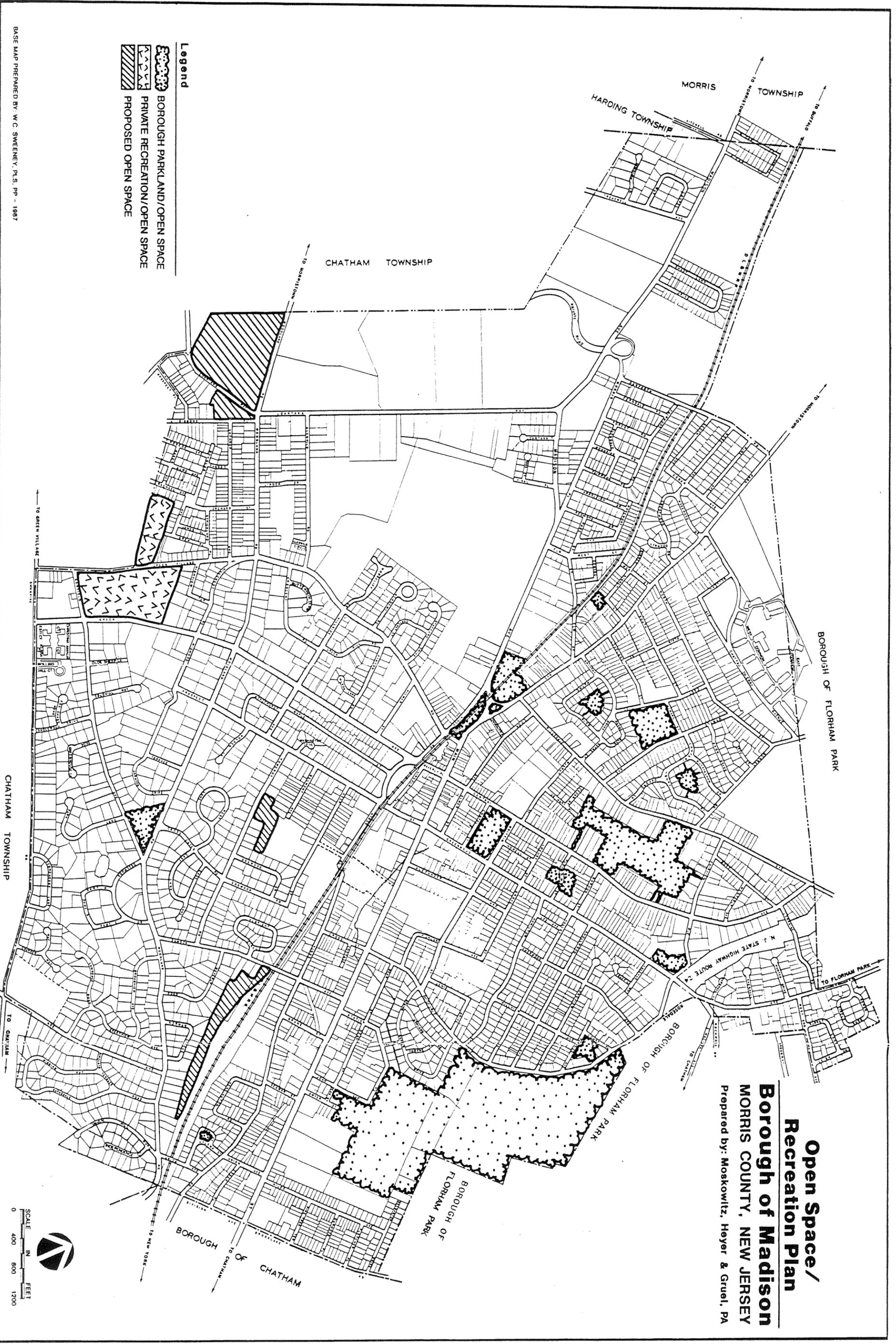
Source: Borough of Madison, Green Acres Grant Submission, 1988.

Memorial Park was purchased by the Borough in 1953 and has been developed with a pool area, an ice skating area, two baseball diamonds, a picnic area, trails, a lighted soccer field, and two recreation buildings (containing restrooms, storage areas, and a concession stand in one building). The soccer field was constructed through the aid of a Green Acres development grant.

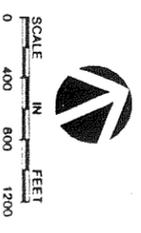
Dodge Field, located two blocks north of Main Street contains football and baseball fields, a track, basketball courts, and a playground. Upgraded field lighting, two recreation buildings (containing restrooms, storage areas, and a concession stand in one building), and an automated sprinkler system for the playing field area have recently been constructed. Improvements to Dodge Field's ballfields were also undertaken with the aid of a Green Acres grant, while a Community Development grant was used to upgrade the playground area.

Open Space/ Recreation Plan

Borough of Madison
MORRIS COUNTY, NEW JERSEY
Prepared by: Moskowitz, Heyer & Gruel, PA



- Legend**
- BOROUGH PARKLAND/OPEN SPACE
 - PRIVATE RECREATION/OPEN SPACE
 - PROPOSED OPEN SPACE



BASE MAP PREPARED BY: W. C. SWEENEY, P.L.S. PP - 1987

Green Acres Park has been renamed Summerhill Park and has been developed with passive recreation facilities (walking trails and picnic tables). This park contains almost 25 acres and was acquired through a Green Acres acquisition grant. Other Borough parks remain essentially the same and are developed with either passive or active recreation facilities.

The 1976 Master Plan contained recommendations for the expansion of the Borough's parkland holdings. A new Morris Place Park consisting of 7.31 acres at the intersection of Loantaka Way and Madison Avenue was proposed to be acquired. A new park was also proposed on 4.2 acres along Belleau Avenue.

The proposed Morris Place park site has received approval for the development of single-family homes which are currently under construction. As a result, the park designation has been eliminated. The 4.2 acre Belleau Avenue site has been conveyed to the Madison Housing Authority and developed for the 80-unit senior citizen housing project. The park designation is no longer appropriate and has been deleted.

PRIVATE OPEN SPACE

The following represents an inventory of the largest tracts of privately owned open space in Madison.

1. *Giralda Farms:*

Approximately 180 acres have been preserved in this office park development. Natural features and buffers are used to lessen the impact of buildings and roadways. The ordinance limits impervious coverage to 15% of total site area.

2. *Drew University Forest Preserve and Arboretum:*

Contains approximately 50 acres of mature mixed oak forest. Both the Arboretum and Forest Preserve serve as outdoor laboratories for the life sciences departments of the University.

3. *Madison Golf Course:*
Covers 26 acres of land that contains prime aquifer recharge soils. Established in 1896, it is one of the oldest private golf courses in New Jersey and the nation. A conservation easement is recommended to preserve the golf course as open space.

4. *Loantaka Moraine:*
Located south of the intersection of Woodland Road and Loantaka Way, this tract of land covers 25 acres which was the edge of a delta of glacial Lake Passaic. The 1988 Morris County Open Space Element identified the property as land with open space potential. The tract is presently adjacent to the Loantaka Brook Reservation, part of the Morris County Park System. It is recommended that this tract be publicly acquired and preserved as open space.

METHODS OF PRESERVING OPEN SPACE

The benefits of open space extends far beyond its recreational value. Open space protects resources, whether natural, cultural or historic; open space provides visual relief in populated areas. The Morris County 1988 Open Space Element presents a thorough discussion of methods of open space acquisition. The following is based on the County Plan and represents a summary of the most appropriate options available to Madison Borough for acquiring open space.

Direct Acquisition

Direct acquisition involves the transfer of property without restrictions or special conditions on the use of the land. Purchase, donation, bequest and eminent domain are forms of direct acquisition. There are also several types of purchase arrangements including fee simple, fee simple installment, less than fair market value and lease back agreements. The Loantaka Moraine parcel is most appropriate for purchase by the County as part of the Loantaka Brook Reservation open space system.

Other Means of Acquiring Open Space

While landowners have a wide range of rights associated with their property, a number of restrictions are available to meet limited open space goals of either private citizens or

public agencies. The private mechanism most applicable in Madison is the use of conservation easements.

EASEMENTS: An easement is a limited right to use another's property. The right extends to use for a specific purpose. An affirmative easement is an agreement which gives the holder of the easement a limited right to use land. For example, a municipality might obtain an easement for a hiking or biking trail. The landowner would be permitted to maintain control over access to the restricted area by limiting the time and degree of use by the public. This type of agreement would be most appropriately applied to the Madison Golf Course.

Easements are also classified as appurtenant or gross easements. An appurtenant easement runs with the land and involves at least two parcels. An example of this type of arrangement involves the granting of an easement to permit a right-of-way across another's property. This easement is permanent, even if the owners of the properties change over time.

A gross easement does not run with the land. The easement is granted only to an individual. In the event that the property is sold, the gross easement would have to be renegotiated. Several versions of the above categories of easements are used in the preservation of open space. A scenic easement, for example, limits development in order to preserve a view or scenic area. A conservation easement, as proposed for the golf course parcels, precludes the additional development of an area in order to preserve existing conditions. Easements provide an economic approach to open space acquisition. They cost less than direct purchase and are advantageous to landowners since the land is still owned and may be used by them. The flexibility of an easement is also a benefit since they can be designed to conform to a variety of situations.

STREAM ENCROACHMENT: The New Jersey Department of Environmental Protection has a stream encroachment process which serves to control the impact of development on a stream. A thorough and consistent effort to enforce compliance with the DEP's permitting process aids a municipality in preserving open space along streams.

This can be achieved through a municipal ordinance requiring stream corridor buffers along municipal waterways. Municipalities can require at least a fifty foot buffer from either side of a stream channel. Where steep slopes are also involved or the stream is located in a ravine, the corridor can be extended to the top of the steep slope plus twenty feet of moderate or lesser slope. Buffers are also required to protect wetlands adjacent to streams.

CLUSTER ZONING: Cluster zoning is a technique which allows the same gross density on a tract of land as conventional zoning, but reduces the minimum required lot size and bulk requirements so that undeveloped areas can be dedicated as open space. As a result, the impervious coverage of a site is kept to a minimum. This technique is appropriate for the larger developable parcels in the Borough including Bayley Ellard and the Loantaka Moraine parcel should acquisition by the County or preservation through conservation easements be infeasible. Open space should be provided in a contiguous parcel whenever possible. This technique provides an incentive to developers since it reduces the cost of construction and infrastructure and allows for the preservation of open space at no cost to the municipality. Cluster zoning promotes design flexibility and can also be used to protect the environmentally sensitive areas of a tract. It permits development to occur away from substantially wooded areas, preserving the vegetative character of an area. As indicated in the Land Use Plan, this technique has been recommended for several parcels in the Borough.

TRANSFER OF DEVELOPMENT RIGHTS (TDR): Transfer of development rights refers to the conveyance of development potential or the rights to development from one site to another designated site by deed, easement or other means as authorized by municipal ordinance. This mechanism has the potential to preserve designated areas in open space by permitting the development rights to be transferred to another tract.

PROPOSED PARKS AND OPEN SPACE

Five additional parcels are recommended to be designated as Borough open space. Because of development pressures in the Borough and the scarcity of vacant land, preserving existing open space areas is critical. These parcels are shown on the Open Space/Recreation Plan and include:

- A wooded tract that runs parallel to the railroad right-of-way between Samson and Union avenues.
- A vacant parcel located at the Gibbons Place/Loantaka Way intersection.
- The Loantaka Moraine parcel.
- Part of the public library tract.

These parcels are presented in the following table:

<u>Proposed Open Space</u>				
Key No.	Block	Lot	Acres	Location
89	3,904	36,39,40,41	9.75	Samson Avenue; adjacent to RR
90	4,303	1	3.03	Gibbons Place
91	3,201	1	25.71	Loantaka Moraine
93	3803 (part)	21	2.75	Madison Public Library
Total			41.24 Acres	

A portion of Block 3803, Lot 21 (the library) that fronts on Pomeroy and includes an area of steep slopes is proposed to be included on the Borough's Green Acres Inventory. It is unclear whether part of James Park (Block 1505, Lot 1 and Block 1503, Lot 1) is formally on the Borough's Green Acres inventory. To ensure preservation as a park, these lots should be added to the inventory.

The undeveloped strip of land that runs adjacent to the railroad between Samson and Union Avenue was examined for its open space potential. This parcel consists of Block

3904, lots 39, 36, 40 and 41 and contains approximately 9.75 acres. The area is wooded with steep slopes descending to the railroad right-of-way on its northwestern border. Access is possible through lot 39 from Samson Avenue. The parcel has potential as undeveloped open space or possibly passive recreation limited to pedestrian access. The tract is bordered on one side by the railroad and all other sides by residences along Woodland Avenue, Samson Avenue, Beverly Road and Norman Circle. The addition of these parcels to the Borough's open space inventory would increase the Borough's open space to approximately 245 acres.

Part VII

CONSERVATION PLAN

Part VII

CONSERVATION PLAN

The purpose of the conservation plan is to provide for the preservation, conservation and utilization of natural resources. This section analyzes the physical characteristics of Madison Borough, including topography, soils, wetlands, flood hazard and aquifer recharge. Issues surrounding the preservation of the Borough's remaining natural resources are also examined. The final part of the section contains a discussion of methods for groundwater supply protection. A detailed inventory of environmental resources was prepared by the Madison Environmental Commission in 1982 and contains an examination of the history, geology, hydrology, climate, soils, vegetation, wildlife and open space of the Borough.

TOPOGRAPHY

Madison's topography is characterized by generally gentle to moderate slopes with few areas that have slopes exceeding 15 percent as shown on the Topography Map. Elevations range from approximately 190 feet above sea level in the Memorial Park area to a height of 380 feet on the Drew University and The Giralda Farms properties. Much of its topography is the result of past glacial activity.

SOILS

Soil characteristics within Madison rely upon the underlying geologic formation and the topography of the Borough. The soil types were divided into two categories, those which are considered critical (i.e. prime aquifer recharge soils, frequently flooded soils, water retention soils) and those which are generally noncritical. Soils types are illustrated on

the Soils Map. The soils can be further classified as belonging to certain soil series. Critical soils include:

- the Riverhead Series (RmB and RmC).
- the Urban-Riverhead Complex (Up).
- the Parsippany Series (Ph and Pk).
- the Preakness Series (PvA).
- the Urban Land Whippany Complex (Uw).

The remaining soil series are noncritical based on information in the County Soil Survey. Below is a general description of the characteristics of each soil series in Madison, also based on the Morris County Soil Survey:

Haledon Series (includes HaB and HaC)

The Haledon series consists of deep, gently sloping to sloping, somewhat poorly drained soils found on undulating and rolling low hills within the former Lake Passaic basin. This is a noncritical soil.

Minoa Series (includes MIB)

The Minoa series consists of deep, nearly level to gently sloping, somewhat poorly drained soils generally found in slightly elevated areas. This is a noncritical soil.

Parsippany Series (includes Ph and Pk)

The Parsippany series consists of deep, nearly level, poorly drained soils that have a moderately fine textured subsoil. This is a critical soil due to frequent flooding.

Pompton Series (includes PtB)

The Pompton series consists of deep, nearly level to gently sloping, somewhat poorly drained soils. The soils are found on terraces and outwash plains and in gently sloping waterways or swales that cross the terraces and extend into uplands. This is a prime aquifer recharge soil.

Preakness Variant (includes PvA)

The Preakness Variant consists of deep, nearly level, poorly drained, moderately coarse textured soils. Preakness soils are generally found in low isolated kettles, other undrained depressions on terraces, and on pitted outwash plains. This is a critical soil due to frequent flooding.

Reaville Variant (includes ReB)

The Reaville Variant consists of deep, nearly level to gently sloping, moderately well-drained and somewhat poorly drained shaly soils. These soils can be found in waterways, on gently sloping hillsides, and in seep spots at the base of steeper slopes. This is a noncritical soil.

Riverhead Series (includes RmB and RmC)

The Riverhead series consists of well-drained, nearly level to strongly sloping gravelly soils. Riverhead soils can be found on small isolated moraines, on undulating outwash terraces and plains, and in valleys and basins within and near granitic highlands. This is a prime aquifer recharge soil.

Urban Land (includes Up, Uw, Uh1, and UI2)

Urban Land is the most dominant soil series in Madison. Urban Land consists primarily of areas that are either paved or built upon, and have often been reworked to the extent that the original profile cannot be recognized. This is a critical soil due to water retention.

WETLANDS

Wetlands are an important aspect of the hydrologic and hydrolic characteristics of the Borough and serve several purposes. They support wildlife and distinct species of plant life. They also act as a retention basin for floodwaters and control various types of water pollution.

The exact location and delineation of the identified wetlands is dependent upon field verification. Regulations concerning freshwater wetlands exist on both the federal and state levels. The New Jersey Freshwater Wetlands Protection Act categorizes wetlands into three groups: exceptional value, intermediate value, and ordinary value. Buffers of 50 to 150 feet are required, depending on the resource value of the wetlands. These regulations are imposed on a site specific basis based on wetlands delineation that are reviewed by the Department of Environmental Protection and Energy (DEPE).

The wetlands areas in Madison are illustrated on the Environmental Constraints, Wetlands and Flood Hazard Areas Map, as obtained from the National Wetlands

Inventory maps prepared by the Fish and Wildlife Service. There are two types of wetlands found in Madison Borough:

PFO1: a wetland belonging to the Palustrine system (P), forested (FO), with broad-leaved deciduous vegetation (1)

POW: a wetland belonging to the Palustrine system (P), with open water (OW)

FLOOD HAZARD

The 100 year flood hazard areas in Madison are identified on the Environmental Constraints, Wetlands and Flood Hazard Areas Map, as mapped by the Federal Emergency Management Agency (FEMA) in 1984. Flood hazard areas in the Borough are found along three streams: the Black Brook, Spring Garden Brook, and an unnamed tributary to Spring Garden Brook.

AQUIFER PROTECTION

While many municipalities in Morris County depend on both ground and surface water sources, Madison Borough relies solely on groundwater. The aquifers which underlie the Borough continue to provide ample supplies of potable water, however, contamination of the aquifer is an ever present threat. Pesticides, oil and road salts from surface runoff, and leaks from underground storage tanks are just a few of the many potential aquifer contaminants. Once an aquifer is contaminated, clean-up can be costly, require significant amounts of time, and the entire water supply may be lost.

Aquifer protection is of critical importance to ensure that the aquifer can continue to yield adequate quantities of water and remain free of contamination. There exist a number of land use controls and strategies that can help mitigate the negative impacts of development on an aquifer.

The following section (1) details the type, location and hydrogeologic character of the aquifer system; and (2) discusses the zoning and subdivision controls available to mitigate the impacts of development on the aquifer system, particularly aquifer recharge areas.

The Aquifer System

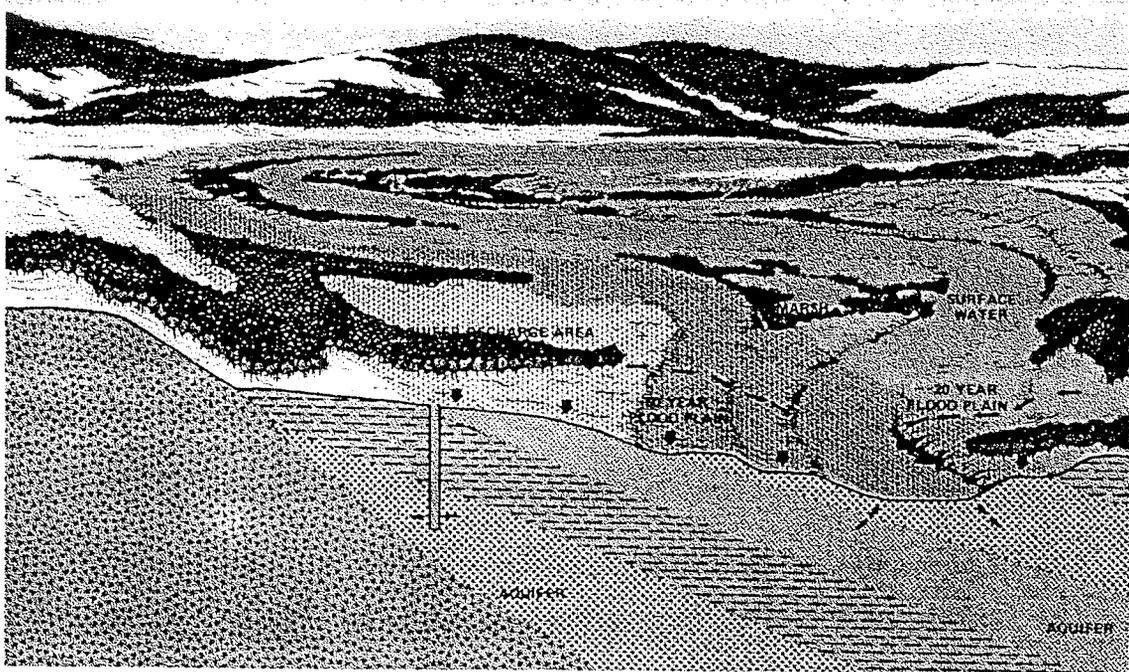
Aquifers are geological formations that contain significant quantities of saturated permeable materials and yield water to springs and wells. Aquifer recharge areas are porous soil or rock formations where water can percolate from the surface into the aquifer.

The following illustration indicates the relationship of the surface to the ground water. The aquifer recharge area serves as the point of interchange between the surface and ground water.

Madison Borough is located in the Central Passaic River Basin. Two aquifer systems supply the ground water within the Basin: (1) the bedrock aquifer system; and (2) the buried valley aquifer system.

The bedrock aquifer system underlies the entire Basin but is generally overlain by sediments. According to a 1989 New Jersey Geological Survey study, the bedrock aquifer system produces significant volumes of ground water but is very variable in yield.

The buried valley aquifer system is made up of unconsolidated sediments deposited during and after the last glacial period. The sand and gravel deposits are most productive where they are thickest. The thickest deposits are generally in the valleys. These deposits constitute the buried valley aquifers. The aquifer system is very productive but is confined to the major preglacial valleys.



The Hydrogeologic Character of Glacial Sediment Maps illustrate the thickness and extent of hydrogeologically significant glacial sediment in Madison. The maps are derived from a map compiled by the New Jersey Geological survey in 1990 entitled Hydrogeologic Character and Thickness of Glacial Sediment of New Jersey. They offer insight into the groundwater recharge potential of different areas in Madison.

The following table provides a description of the map units present in Madison. Glacial sediment found in Madison includes deltaic and lacustrine fan sediment (map unit "d"); moranic deposits (m); continuous till (ct); and lake bottom sediment (l).

Topography

Borough of Madison MORRIS COUNTY, NEW JERSEY

Prepared by: Moskowitz, Heyer & Gruel, PA

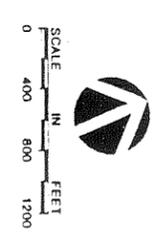


Legend

- SLOPES 15%-24%
- SLOPES 25% OR MORE

SOURCE: BOROUGH ENGINEER, 1974
NOTE: FOR ILLUSTRATIVE PURPOSES ONLY. SPECIFIC SITE TOPOGRAPHY REQUIRES VERIFICATION

BASE MAP PREPARED BY: W. C. SWEENEY, PLS., PP. - 1987



Soils

Borough of Madison MORRIS COUNTY, NEW JERSEY

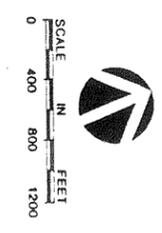
Prepared by: Moskowitz, Heyer & Gruel, PA



- Legend**
- Critical Soils**
- RmB & RmC RIVERHEAD SANDY LOAM
 - Up URBAN-RIVERHEAD COMPLEX } Prime Aquifer
 - PtB POMPTON SANDY LOAM } Recharge Soils
 - Ph & Pk PARSIPPANY SILT LOAM } Frequently
 - PVA PRAKNNESS SANDY LOAM } Flooded Soils
 - Uw URBAN LAND-WHIPPIANY } Water
 - Complex } Retention Soils
- Other Soils**
- Uh1 URBAN-HALEDON COMPLEX
 - Uh2 URBAN-HALEDON COMPLEX
 - Hab & Hac HALEDON SILT LOAM
 - Rab REAVILLE SHALY SILT LOAM
 - MIB MINOA SILT LOAM
 - Ps SAND PIT
 - Us URBAN LAND

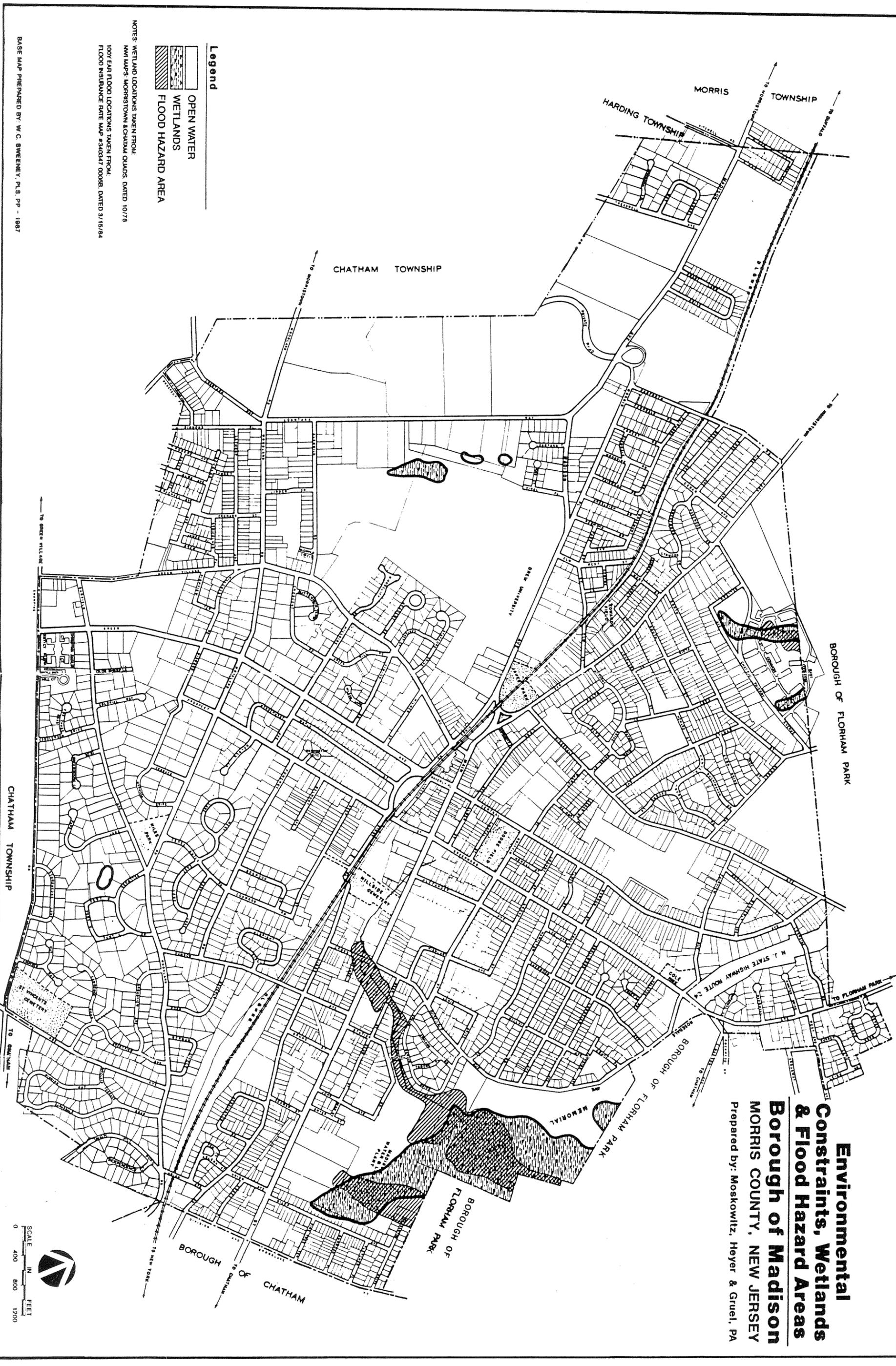
SOURCE: SOIL SURVEY OF MORRIS COUNTY, NEW JERSEY, ISSUED AUGUST 1976

BASE MAP PREPARED BY W C SWEENEY, P.L.S., PP - 1987



Environmental Constraints, Wetlands & Flood Hazard Areas

Borough of Madison
MORRIS COUNTY, NEW JERSEY
 Prepared by: Moskowitz, Hayer & Gruel, PA



Legend

- OPEN WATER
- WETLANDS
- FLOOD HAZARD AREA

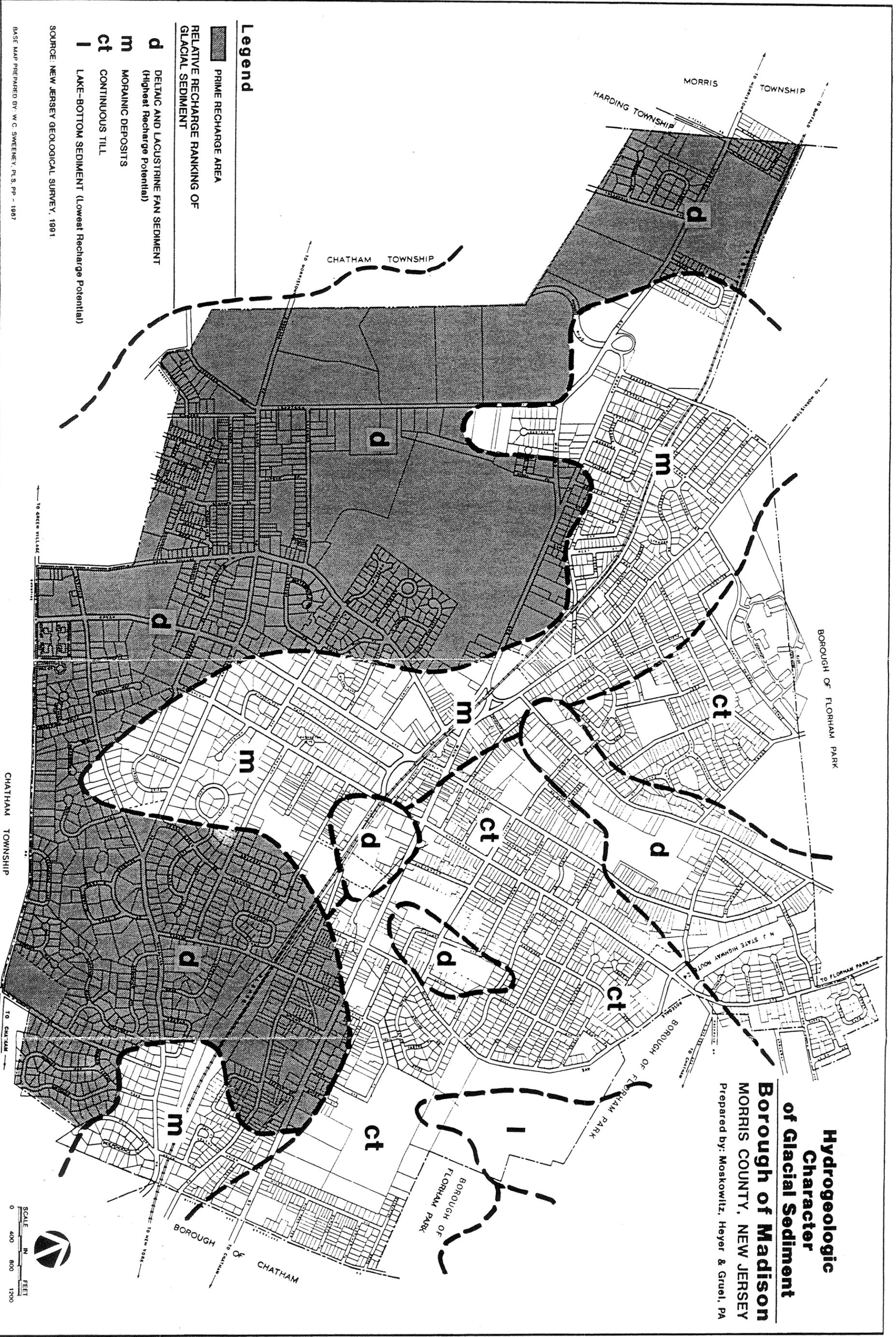
NOTES: WETLAND LOCATIONS TAKEN FROM:
 NMI MAPS - MORRIS TOWN & CHATHAM QUADS, DATED 10/76
 100Y EAR FLOOD LOCATIONS TAKEN FROM:
 FLOOD INSURANCE RATE MAP #240047 0008B, DATED 3/15/84

BASE MAP PREPARED BY: W.C. SWEENEY, P.L.S., PP - 1987

SCALE
 0 400 800 1200
 IN FEET

**Hydrogeologic
Character
of Glacial Sediment**

**Borough of Madison
MORRIS COUNTY, NEW JERSEY**
Prepared by: Moskowitz, Heyer & Gruel, PA



Legend

PRIME RECHARGE AREA

RELATIVE RECHARGE RANKING OF
GLACIAL SEDIMENT

d DELTAIC AND LACUSTRINE FAN SEDIMENT
(Highest Recharge Potential)

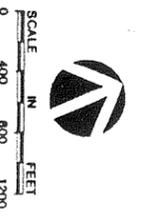
m MORAINIC DEPOSITS

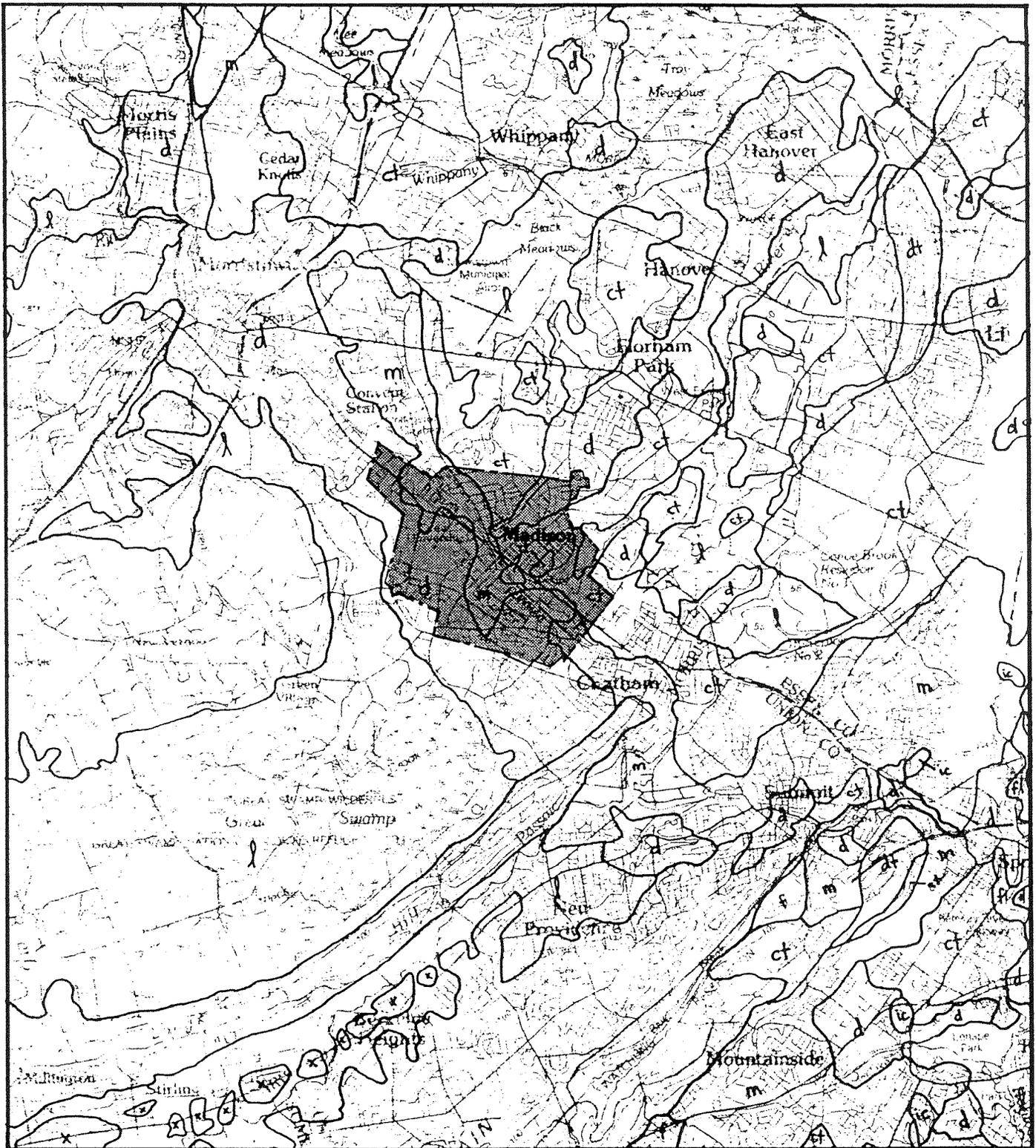
ct CONTINUOUS TILL

l LAKE-BOTTOM SEDIMENT (Lowest Recharge Potential)

SOURCE: NEW JERSEY GEOLOGICAL SURVEY, 1991

BASE MAP PREPARED BY: W. C. SWEENEY, P. S. PP. - 1987





Legend

- ct: continuous fill
- dt: discontinuous fill
- m: moranic deposits
- l: lake bottom sediment
- d: deltaic and lacustrine fan sediment
- fl: fluvial over lacustrine sediment
- f: fluvial sediment
- lc: ice-contact sediment
- x: non-glacial sediment

**Hydrogeologic Character
of Glacial Sediment**

**Borough of Madison
MORRIS COUNTY, NEW JERSEY**

Prepared by: Moskowitz, Heyer & Gruel, PA

Source: New Jersey Geological Survey, 1990.

HYDROGEOLOGIC CHARACTER OF GLACIAL SEDIMENT
Madison Borough, New Jersey

Symbol	Unit	Description	Hydrogeologic Character
d	deltaic and lacustrine fan sediment	Sand and gravel deposited as deltas and fans in glacial lakes. May locally overlie lake-bottom sediment. As much as 200 feet thick.	Unconfined aquifer where sufficiently thick. Lacustrine fan sand and gravel is a productive confined or semi-confined aquifer in places in the subsurface, where it is overlain by lake-bottom sediment. Surface outcrops of deltas and fans may be recharge areas for these lacustrine fan aquifers.
m	morainic deposits	Till, sandy diamict, and minor sand and gravel deposited as ridges and knolls along former ice margins. May interbed with and overlie fluvial, deltaic, lacustrine fan, and lake-bottom sediment where moraines traverse valleys and glacial lake basins. May be as much as 200 feet thick.	May be a local unconfined aquifer where thick; productive confined and semi-confined aquifers may occur beneath morainic deposits in glacial lake basins.
ct	continuous till	Continuous till generally greater than 20 feet thick. May be as much as 200 feet thick. Grain size of matrix generally reflects underlying bedrock. Silty sand to sandy till forms on gneiss, sandstone, quartzite, and conglomerates; silty fill forms on shale, carbonate, basalt, and diabase; silty clay till forms locally on shale and on Cretaceous clay.	May be a local unconfined aquifer where thick and sandy. In the Passaic basin between Summit and Morristown till overlies productive, confined lacustrine fan and fluvial sand and gravel aquifers in places.
l	lake-bottom sediment	Silt, clay and fine sand deposited on the bottoms of glacial lakes. As much as 250 feet thick.	Generally a confining or semi-confining layer. Underlain by productive confined and semi-confined lacustrine fan and fluvial aquifers in places.

Source: Hydrogeologic Character and Thickness of the Glacial Sediment of New Jersey; Department of Environmental Protection, Division of Water Resources, New Jersey Geological Survey, 1990.

Recharge to glacial aquifers occurs in at least three ways:

- (1) infiltration of surface water from streams, lakes and wetlands,
- (2) infiltration of rainfall and snowfall on outcrop areas of the aquifers, and
- (3) flow of groundwater from adjacent glacial sediment and bedrock.

The exact location of recharge areas can not be inferred from the mapping. However, based on the hydrogeologic character of the map units, a relative ranking according to recharge potential can be made. The sediment with the best recharge potential is the deltaic and lacustrine fan sediment. The permeability of this material is due to its sandy nature. The remaining sediments contain progressively more rocky and clayey materials which reduce their permeability and thus their recharge potential.

While the sediments underlying all of Madison Borough serve to recharge the aquifer system, one area of glacial sediments in Madison has been identified by the New Jersey Geological Survey as possessing significant value. A large deposit of deltaic and lacustrine fan sediment ("d") oriented northwest-southeast and located in the southern end of the Borough has been found to be an important recharge area. The NJGS estimates that about one-half of the pumpage of the aquifer in the Madison area is supplied through recharge in that area. The remaining water comes from slower recharge through other sediments in the remainder of the aquifer recharge area.

Methods for Groundwater Supply Protection¹

A number of zoning and subdivision controls exist to protect groundwater supplies. Preservation of open space, low density cluster zoning, and limiting impervious surfaces permit surface water to better recharge an aquifer. Best Management Practices are also available to mitigate the threat of groundwater contamination from certain land uses.

¹ Compiled from United States Environmental Protection Agency, Guide to Contamination Sources for Wellhead Protection, 1988.

1. Preservation of open space is the most beneficial method of aquifer recharge area protection. Maintaining an area as open space permits the recharge process to continue without disturbance. An example of this is to ensure the continued preservation of the Madison Golf Course. This 26 acre golf course is located in the area designated by the Geological Survey as having significant value.

2. Low density cluster zoning describes the concentration of development on specific areas of a site in order to allow the remainder of the land to be preserved for open space, recreation, or the preservation of environmentally sensitive features. This method permits the preservation of significant contiguous areas of open space which can serve as aquifer recharge areas. Cluster development lowers development costs by reducing needed infrastructure and subsequently lowering housing costs. It conserves land, promotes design flexibility, protects environmentally critical areas and can provide open space at no cost to the Borough. Clustering also permits development to occur away from substantially wooded areas, preserving the wooded character of an area. Cluster development has been recommended on two of the large remaining parcels in the Borough, Bayley Ellard and the Loantaka Moraine/Gibbons Place area. Areas on a specific site should be identified and considered in the development of a conceptual design plan.

Cluster development has the additional benefit of minimizing impervious surfaces by reducing the need for extensive street networks. The reduction of impervious surfaces permits surface water to recharge into an aquifer. Alternatives to asphalt or concrete surfaces such as porous pavers, should be encouraged wherever possible to minimize impervious coverage.

3. Best Management Practices (BMPs) describe the methods, measures, or practices to prevent or reduce groundwater and surface water pollution, including, but not limited to, structural and nonstructural controls and operation and maintenance procedures. BMPs may be applied before, during or after pollution-producing activities to reduce or eliminate the introduction of pollutants into groundwater. BMPs can be applied to a

diverse group of uses including car washes, dry cleaners, machine shops, printers, road deicing, and golf courses.

In the case of golf courses, BMPs would include careful fertilizer use. BMPs would apply to fertilizer storage areas, application of fertilizers, and disposal of fertilizer wastes. The use of BMPs for uses within prime aquifer recharge areas should be encouraged and can be written into permits or site plan review.

The above techniques all have relevance to Madison Borough and are reflected within the Land Use Plan recommendations.

Part VIII

UTILITY PLAN

Part VIII

UTILITY PLAN

INTRODUCTION

The Utilities Plan analyzes the water supply, sewerage and waste treatment, solid waste and electric service facilities serving Madison Borough.

Wastewater Treatment

Sewage is treated at the Molitor Water Pollution Control Facility in Chatham Borough, which is owned and operated by Chatham and Madison as the Madison-Chatham Joint Meeting (MCJM), and serves both municipalities, as well as sections of Chatham Township. The plant was first constructed in 1910 and an activated sludge plant was added in 1929. The plant was further improved and enlarged in 1950 and in the early 1970's tertiary treatment facilities were added.

The Madison/Chatham Joint Meeting sewer treatment facility was under a sewer moratorium until February 1991 because the plant did not meet the Clean Waters Act requirements for Stage IV treatment. The Borough of Madison signed a consent order with the NJDEPE and upgraded the Treatment Plant to comply with the requirements. Currently, the plant is operating at over 80 percent capacity which may require a mitigation plan to be prepared in the future in compliance with DEPE regulations.

The operations and finances of the MCJM are the responsibility of the Madison and Chatham Borough Councils. The number of hook-ups to the system by each town determines its financial contribution to the operation of the MCJM. The sanitary sewer gathering systems and trunk facilities are the responsibility of each borough.

The Utility and Services Task Force of the Madison Committee on the 1990's reported that if development continues at its present rate, the MCJM is capable of handling the foreseeable sanitary sewer volumes. This is based upon an upgraded facility capable of handling 3.5 million gallons/day. The primary challenge of the MCJM in the future will be to address ever-stricter effluent quality regulations, possibly necessitating additional facility upgrades.

On-Site Disposal

Only a small corner of South-western Madison is presently served by on-site disposal facilities. This area is bound by Loantaka Way, Prospect Place, and Gibbons Place. Plans are currently underway to extend the Borough's service to this area.

Solid Waste

Currently, solid waste collection in Madison is contracted to a private carting firm. The fees are set by the Department of Environmental Protection and Energy and the Board of Public Utilities which approve the rates for private carriers. Madison has an active recycling program which is detailed in the Recycling Plan Element.

Electric Service

Madison is one of only five communities in New Jersey which operates its own electrical system. The system is maintained and operated by Borough personnel and utilizes power purchased wholesale from Jersey Central Power and Light Company. Over the years Madison has received a significant return on capital investments, resulting in system revenues helping to offset other Borough expenses.

Water Service

Drinking water for Madison residents is obtained from wells operated by the Borough's Water and Light Department. There are five wells in the Borough of which two are presently inactive and one is used intermittently. Any excess water drawn from the wells is pumped into storage tanks that have a combined storage capacity of 1,250,000 gallons.

Presently, two of Madison's wells meet State and Federal water quality standards. Certain contaminants have been present in some of the Borough's other wells. The Borough is examining options to address this situation.

Since mid-1986, Madison has analyzed the water from each well monthly and selectively uses water from the least contaminated wells. In 1987, the Borough commissioned a study which evaluated, among other things, the possibilities of alternative groundwater supplies and water treatment options.

The primary recommendation of the consultant's report is that Madison consider treating its current water supply. Two treatment technologies, air stripping (also known as aeration) and granulated activated carbon (GAC) absorption are recommended. The Borough is currently examining the installation of an air stripping tower. The Borough Water Task Force has recommended that a centralized treatment system be constructed in two phases. Phase one would be a treatment unit near the public works garage which could treat water from three of Madison's wells. A treatment facility for the remaining two wells would be constructed as required and could utilize the GAC system or some other technology.

Part IX

ECONOMIC PLAN ELEMENT

ECONOMIC PLAN ELEMENT

INTRODUCTION

The Economic Plan Element, as outlined by the Municipal Land Use Law, should consider all aspects of economic development and sustained economic vitality, including (a)"a comparison of the types of employment expected to be provided by the economic development to be promoted with the characteristics of the labor pool resident in the municipality and nearby areas" and (b)"an analysis of the stability and diversity of the economic development to be promoted".

This element contains an analysis of present and future economic development trends for both Madison and Morris County.

Morris County

Morris County's sustained commercial and residential growth is the result of several factors including regional location, proximity to New York City, extensive highway network, and the availability of a skilled workforce.

Covered employment in private sector jobs increased significantly between 1978 and 1988, rising by over 55 percent, or 76,861 jobs. The State of New Jersey experienced a gain of 30 percent during the same period. Since 1988, private sector employment has declined both Statewide and in Morris County, but continued to increase in Madison Borough.

In 1980, 71,402 or 37.4 percent of the County's labor force traveled to work outside of Morris County. In New Jersey, Essex, Passaic and Union counties had the greatest number of Morris County workers. Over 9,600 Morris County residents worked in New York City in 1980. Over 60 percent of county residents worked within Morris County.

The mean travel time of workers in Morris County in 1980 was 25.5 minutes. Over 89 percent of county residents traveled to work by motor vehicle, while the remainder used mass transportation or walked to work.

Estimates of occupational employment in 1986 and employment projections for the year 2000 were developed by the New Jersey Department of Labor for Morris County. The estimates and projections are detailed in Table 1.

Employment in the county is expected to increase by over 26 percent between 1986 and 2000. This increase is greater than the 21 percent increase projected for the State during that period. White-collar occupations are expected to have the largest gains. Blue-collar employment will only rise modestly during the period. Given the slow pace of economic growth in the past year on the national, state, and regional levels, these employment projections may not be accurate in the short run but may still approach anticipated levels over the long run.

Job openings for the 1986 to 2000 period are forecast to average over 16,000 jobs annually, with 23 percent of these openings for blue-collar workers, 21.5 percent in professional/technical jobs, 17 percent in service occupations, 14 percent in sales, and 18.6 percent for clerical and administrative personnel.

Table 1

**ESTIMATED OCCUPATIONAL EMPLOYMENT, PROJECTIONS AND JOB
OPENINGS**
Morris County

Occupational Category	Employment		Employment	Average Annual		
	1986	2000	Change 1986-2000	Job Openings		
			Percent	Total	Growth	Separations
Total	249,950	316,250	26.5	6,445	4,740	11,705
Managerial and Administrative	13,300	17,750	33.5	840	320	520
Professional, Para-professional and Technical Workers	49,900	68,550	37.4	3,535	1,330	2,205
Sales and Related Occupations	29,700	39,750	33.8	2,270	720	1,550
Clerical and Administrative Support Occupations	61,000	72,250	18.4	3,070	800	2,270
Service Occupations	31,550	43,850	39	2,830	880	1,950
Agricultural, Forestry, Fishing and Related Workers	1,650	1,850	12.1	105	20	85
Production, Construction, Operating, Main Occupations	62,800	72,200	15	3,795	670	3,125

Source: New Jersey Department of Labor, Division of Labor Market and Demographic Research, EMPLOYMENT PROJECTIONS VOLUME IV: Occupational Outlook for Counties of New Jersey, December 1989.

Madison Borough

Although the number of persons employed in Madison Borough represents only 2 percent of the jobs in Morris County, the Borough is nonetheless the location of several major corporations and a significant retail center.

Jobs in the Borough of Madison

Covered employment in the Borough of Madison increased by 1,784 jobs, doubling between 1978 and 1990. As indicated in Table 2, there were 3,535 jobs in 1978 and by 1990 this number had increased to 5,319 jobs. While 1990 was the peak year in terms of the number of jobs in Madison, the percentage growth of 1.1 percent from 1989 to 1990 was minimal,

reflecting the current recession. Madison's modest employment gain from 1989 to 1990 was counter to Morris County's decline of three percent.

Table 2

PRIVATE SECTOR COVERED EMPLOYMENT
Borough of Madison and Morris County

Year	Borough of Madison Difference			Morris County Difference		
	No. of Jobs*	Number	Percent	No. of Jobs*	Number	Percent
1978	3,535			137,764		
1979	4,876	1,341	37.9	145,759	7,995	5.8
1980	4,258	(618)	(12.7)	149,902	4,143	2.8
1981	4,070	(188)	(4.4)	161,189	11,287	7.5
1982	4,596	526	12.9	163,240	2,051	1.3
1983	4,716	120	2.6	173,141	9,901	6.1
1984	5,137	421	8.9	187,697	14,556	8.4
1985	5,063	(74)	(1.4)	196,813	9,116	4.9
1986	4,786	(277)	(5.5)	205,299	8,486	4.3
1987	4,842	56	1.2	210,861	5,562	2.7
1988	4,685	(157)	(3.2)	214,625	3,746	1.8
1989	5,261	576	12.3	215,171	546	0.3
1990	5,319	58	1.1	208,442	(6,729)	(3.1)
1978-90		1,784	50.5		70,678	51.3

The Northwest Housing Region contains Morris, Sussex, Essex, and Union Counties. As shown in Table 3, the persons to job ratio in 1990 ranged from 2.28 to 5.38 to 1 in the latter three counties. These ratios compare to 2.02 to 1 in Morris County (the lowest of the four counties presented), and 2.98 to 1 in Madison.

These ratios indicate that Madison is a residential community with a well established job base. The employment base in Madison consists of the central retail and business district in addition to Drew University and the office development which has occurred at Giralda Farms, a planned office project.

Table 3

POPULATION TO JOB RATIO

Area	1990 Population	1990 Covered Employment	Population to Jobs
Borough of Madison	15,850	5,319	2.98 to 1
Morris County	421,353	208,442	2.02 to 1
Union County	493,819	216,851	2.28 to 1
Sussex County	130,943	24,344	5.38 to 1
Essex County	778,206	312,440	2.49 to 1

Source: NJ Department of Labor, COVERED EMPLOYMENT TRENDS, 1978-1990
U.S. Bureau of the Census, 1990.

Comparative Employment Data

Table 4 indicates how residents in the Borough of Madison and Morris County earn their living and their place of employment. The largest category by jobs in the Borough is managerial and professional which represented 36.9 percent of the labor force. The County's percentage is 33.7 in the same category. The largest category by jobs in the County is technical, sales and administrative support, which represented 34.5 percent of the labor force. The Borough has 34.8 percent of jobs in the same category.

The County has 11.5 percent of the workforce in the operators, fabricators and laborers group while Madison had only 7.5 percent in the same category. As expected, farming, forestry and fishing represent less than 1 percent of the jobs in both the Borough and the County.

Place of Work

Table 4 also identifies reported employment by place of work for the Borough and the County. About 25.8 percent of workers in the Borough of Madison reside in the Borough. About 75 percent of the labor force is working outside the Borough and experience a mean

travel time to work of 23.2 minutes. This travel time is slightly less than the mean travel time of workers in Morris County of 25.5 minutes.

Projected Employment

From 1978 through 1990, the number of jobs increased by 1,784, from 3,535 to 5,319 respectively. The employment base in Madison is expected to increase in the future as a result of the continued development of Giralda Farms, a 200 acre planned office project. During the initial planning of Giralda Farms in the late 1970's, it was projected that the development could accommodate approximately 2 million square feet of office space in Madison. To date, development includes the 151,000 square foot Schering-Plough building and the 145,000 square foot Moeller Steamship Company complex and the 141,000 square foot Atlantic Mutual Companies Administrative Center. The 202,000 square feet Seven Giralda Farms building has received site plan approval. American Home Products is currently constructing its corporate headquarters in Giralda Farms. Based upon the current office development trends of Giralda Farms, the ultimate build-out will most likely be substantially less than the projected build-out of 2 million square feet. Other than Giralda Farms, any increase in employment will occur through the redevelopment of small scattered parcels in the business area of Madison, and is not expected to be substantial.

Table 4

COMPARATIVE EMPLOYMENT DATA, 1980
Borough of Madison

	Borough of Madison		Morris County	
	Number	Percentage	Number	Percentage
<u>Employment by Occupation</u>				
Managerial and Professional	2,730	36.9	67,741	33.7
Technical, Sales and Administrative Support	2,578	34.8	69,334	34.5
Service	937	12.7	18,057	9.0
Farming, Forestry and Fishing	56	0.8	1,355	0.7
Precision Production, Craft and Repair	541	7.3	21,587	10.7
Operators, Fabricators and Laborers	556	7.5	23,173	11.5
Totals:	7,398	100.0	201,247	100.0
<u>Employment by Place of Work (Reported)</u>				
Worked in Area of Residence	1,843	25.8		
Worked Outside Area of Residence	5,300	74.2		
Worked in County			112,057	61
Worked Outside County			71,596	39
Percent Reported:		74.2		39
Mean Travel Time:	23.2 min.		25.5 min.	

U.S. Bureau of the Census, 1980

Part X

HISTORIC PRESERVATION PLAN

HISTORIC PRESERVATION PLAN

The Historic Preservation Plan, as outlined by the Municipal Land Use Law, indicates the location, significance, proposed utilization and means for preservation of historic districts in Madison Borough. The Plan also identifies the standards used to assess worthiness for historic sites or district designations.

This section contains an inventory of historic sites in Madison, a description of the Madison Civic Commercial Historic District, and recommends the consideration of a historic preservation ordinance.

HISTORIC SITES INVENTORY

A survey of historic sites in Madison Borough was prepared for the Morris County Heritage Commission in 1987. The survey is comprised of specific data, field observations, photographs, maps and National Register listings covering sites dating from 1700 to 1940. While this inventory is too lengthy to include as an Appendix, it is incorporated into this plan by reference. The historic structures were classified as either individual sites, streetscapes or historic districts. A streetscape is a portion or all of a roadway which contains structures that are similar in design from a specific period. All existing structures in the designated area may not be part of a streetscape. An historic district is generally a larger geographical area in which the majority of structures are of historical significance and which may require protective regulations to preserve the historic character.

The appendix contains a listing of all structures within Madison which were identified by the Morris County Historic Sites Survey as possessing historical value. The sites are keyed to

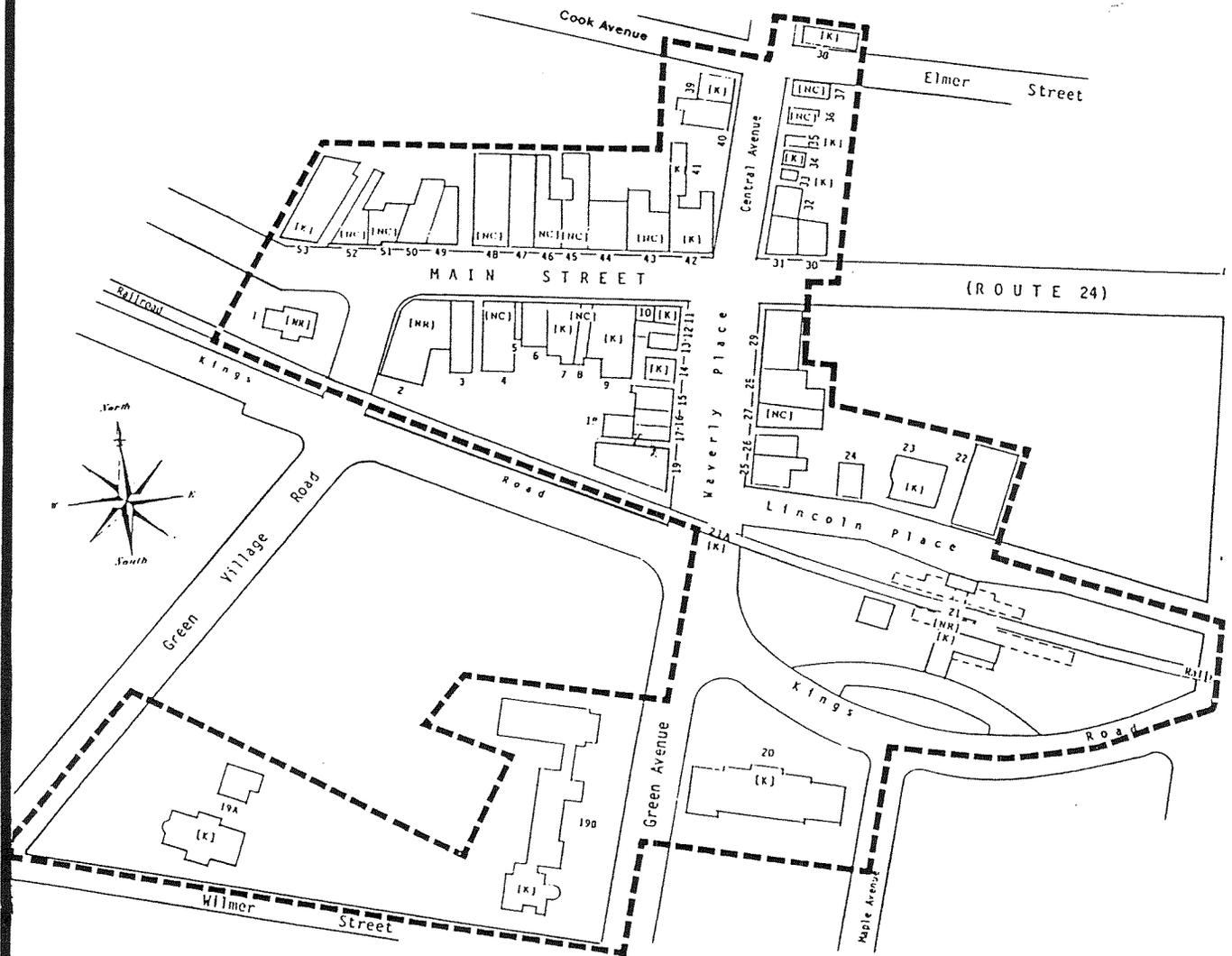
the Historic Sites Map. There are four sites and one district which are on the National or State Register of Historic Places and are detailed in Table 1.

THE MADISON CIVIC COMMERCIAL HISTORIC DISTRICT

The Madison Civic Commercial Historic District, as indicated in Table 2, is the most recent addition to the State Register of Historic Places. The nomination for the inclusion of the district on the National Register of Historic Places was approved in October 1991. The following is a brief review of the extent of the district, the building categories, and the predominant architectural style. This information was obtained from the National Register registration form.

The historic district encompasses the area shown on the Historic District Map and contains 59 buildings and one structure. The district is bisected by Main Street. Most of the properties in the district have addresses on either Main Street, Waverly Place or Central Avenue. The predominant building material is brick, although there are a lesser number of stone and frame structures. "Commercial Vernacular," which was most popular in the 1870's and 1880's, is the term used to describe the predominant style of architecture in the district. Since few structures in the district were constructed after 1940, the appearance of downtown has remained largely unchanged in the last half century.

As illustrated in Table 2, the buildings within the district have been grouped into a number of categories to indicate their architectural significance. Nineteen buildings and one structure are classed as "key" because of their special architectural significance. "Non-contributing" buildings, of which there are eleven, are classified as detracting from the district because of alterations or recent construction dates that render them 'visually incompatible' with the contributing buildings. Most of the 49 buildings classed as "contributing" were built between 1870 and 1930 and define the prevailing character of the district. The buildings included in the historic district are listed by category in Table 2.



- HISTORIC DISTRICT BOUNDARY
- CONTRIBUTING
- (K) KEY
- (NC) NON-CONTRIBUTING
- (NR) NATIONAL REGISTER

**Madison Civic
Commercial Historic District**

**Borough of Madison
MORRIS COUNTY, NEW JERSEY**

Prepared by: Moskowitz, Heyer & Gruel, PA

SOURCE: NATIONAL REGISTER OF
HISTORIC PLACES REGISTRATION FORM.

HISTORIC PRESERVATION METHODS AND RECOMMENDATIONS

Probably the most common technique used by municipalities to protect historically significant structures is to nominate them to the State and/or National Historic Registers. However, the protection offered by these programs is limited. A more effective and comprehensive tool for historic preservation is a municipally enacted historic preservation ordinance. Since the inventory of historically significant structures in Madison is extensive, it is recommended that the Borough enact an historic preservation ordinance. The following paragraphs briefly review the content of a typical historic preservation ordinance:

1. A listing of goals and purposes of the ordinance;
2. The inclusion of definitions of key ordinance terms;
3. Procedures and standards which define and name the historic districts and landmarks;
4. Provisions for the creation of a historic preservation commission, including a specific number of members, the length of terms and the extent of the commission's powers. The commission may advise the planning board and zoning board of adjustment on applications for development in historic districts and sites in the form of written reports and/or testimony by a designated representative. The commission may be empowered to review all construction, demolition and other permits for historic properties. The commission may be given direct binding authority over the administrative officer in the granting of permits. The commission may also advise the planning board on the inclusion of historic sites in the recommended capital improvement program;
5. Specify powers of the Commission and define the application procedure;
6. Specify design criteria and guidelines to be used by the commission in reviewing applications;
7. Provide preventive maintenance standards for historic sites; and
8. Provisions for fines and penalties for violations of the ordinance.

The intent of a historic preservation ordinance for Madison should be driven by the following four objectives:

1. Review by the Historic Commission of all applications involving or impacting a government-owned historic site or district.
2. For private sites, the preservation and relocation of historic sites should be encouraged with a potential funding mechanism established to finance a relocation program.
3. The historic structures, landscapes and street settings that especially contribute to the character of Madison should be utilized, maintained, and enhanced in such a manner that the architectural and cultural heritage which they reflect is preserved. New construction or reconstruction should be compatible in scale and design with existing structures having historical significance.
4. The Historic Commission shall encourage and promote public awareness and education regarding the historic preservation within the Borough of Madison.

Table 1

HISTORIC SITES ON STATE AND NATIONAL REGISTERS

(as of January 1992)

Borough of Madison

1. Mead Hall (Gibbons Mansion), 36 Madison Avenue, 1833, SR 12/1/76, NR 8/10/77.
2. Madison Public Library and James Building, (1889, 1900) corner Main Street/Green Village Road, SR 10/9/79, NR 2/8/90.
3. Madison Railroad Station, Kings Road, Thematic Nomination of Operating Passenger Railroad Stations, (1916), SR 3/17/84, NR 6/22/84.
4. Sayre House, 31 Ridgedale Avenue, circa 1745, SR 12/12/79, NR 2/12/80.
5. Madison Civic Commercial Historic District, includes Main Street and some side streets, SR 10/24/89, NR 10/91.

SR: State Register

NR: National Register

Table 2

**LISTING OF SITES IN MADISON CIVIC COMMERCIAL
HISTORIC DISTRICT**

1. Madison Public Library; 9 Main Street; (K) SR,NR
2. James Building; 2 Green Village Rd.; (K)
3. Tiger Building; 29 Main Street; (C)
4. 33 Main Street; (NC)
5. 39 Main Street; (C)
6. 41-45 Main Street; (C)
7. 47 Main Street; (K)
8. 47 Main Street; (NC)
9. Britten Building; 55 Main Street; (K)
10. 57 Main Street; (C)
11. Van Wagner Building; 1 Waverly Place; (K)
12. Miller Building; 3 Waverly Place; (C)
13. Dunning Building; 5 Waverly Place; (C)
14. Old Methodist Church; 7 Waverly Place; (K)
15. Allen Building; 11-13 Waverly Place (C)
16. Cook Building; 15 Waverly Place; (C)
17. Lathrop Building; 17 Waverly Place; (C)
18. Waverly Lane Building; (C)
19. 19-25 Waverly Place; (C)
- 19A. St. Vincent's Church; Green Village Road; (K)
St. Vincent's Rectory; Green Village Road; (C)
- 19B. Webb Memorial Chapel; Green Avenue; (K)
Presbyterian Parish House and Church; Green Ave.; (C)
20. Hartley Dodge Memorial; Kings Road; (K)
21. Delaware, Lackawanna and Western Station; Kings Rd.; (K) NR,SR
- 21A. Elevated D. L. & W. Railroad Track; (K)
22. Lyons Madison Theatre; 14 Lincoln Place; (C)
23. United States Post Office; Lincoln Place; (K)
24. American House Hotel; 4 Lincoln Place; (C)
25. O'Brien Lot; 24-28 Waverly Place; (C)
26. Madison Trust Company; 20 Waverly Place; (C)
27. Crestmont Federal Savings; 16 Waverly Place; (NC)
28. Anderson Building; 10-14 Waverly Place; (C)
29. First National Bank; 2 Waverly Place; (C)
30. Neis Building; 72 Main Street; (C)
31. Gee Building; 66-68 Main Street; (C)
32. 3-7 Central Avenue; (C)
33. Alex's Barber Shop; 9 Central Avenue; (K)
34. 11 Central Avenue; (K)
35. Madison Diner; 13 Central Avenue; (K)

MADISON CIVIC COMMERCIAL HISTORIC DISTRICT SITES (Cont'd.)

36. 15 Central Avenue; (NC)
37. Madison Hook & Ladder Company; (NC)
38. Savoy Theatre; 21 Central Avenue; (K)
39. Valgenti Building; 14 Central Avenue; (K)
40. 10-12 Central Avenue; (C)
41. D. L. & W. Freight Depot; Central Ave.; (K)
42. Burnet Building; 60-64 Main Street; (K)
43. Geo. Bardon House and Store; 54 Main Street; (NC)
44. Ratti Building; 48-52 Main Street; (C)
45. 46-48 Main Street; (NC)
46. 42 Main Street; (NC)
47. Luciano Building; 40 Main Street; (C)
48. Britten Homestead Site; 34-36 Main Street; (NC)
49. 30-32 Main Street; (C)
50. 26 Main Street; (C)
51. 28 Main Street; (NC)
52. Sayre House; 18 Main Street; (NC)
53. Madison YMCA; 12 Main Street; (K)

NOTE: Site numbers key to Historic Sites Map.

KEY: (K) = key site
(NC) = non-contributing site
(C) = contributing site
NR: site is listed on the National Register of Historic Places
SR: site is listed on the State Register of Historic Places

SOURCE: Madison Civic Commercial District National Register Registration Form

APPENDIX

Historically Significant Sites - Borough of Madison

The primary source for this table is the Madison Historic Site Survey prepared for the Morris County Heritage Commission in 1987. Data for many of the sites was incomplete and an effort was made to add addresses, or block/lot designations where available. However, the unavailability of data for certain sites prevented them from being located on the Historic Sites Map.

HISTORIC SITES, BOROUGH OF MADISON

Key No.	Block/Lot	Address-Location/Historic Name (if applicable)
A		
Streetscape(s):		
037		Academy Rd. (cross street: Green Village Rd.)
032		Alma Ave. (east side) between Douglas Ave. and Baker St. (6 homes)
B		
099	2302/19	12 Booklake Rd.
Streetscape(s):		
104		Bruns St. and two houses on Kings St. between Route 24 and Kings Rd. (6 homes, 5 of which are aligned on north side of street).
075		Bardon St. between Greenwood and Central Ave. (5 homes)
Historic District(s):		
089		Baker/Thebaud District
C		
069	1601/16	36 Cook Ave.: First Baptist Church
071	1601/1	Central Ave.: Central Ave. Public School
072		Central Ave.:
106	2501/5	13 Cross St.:
113	4701/45	Crestview Rd.: Hentz Carriage House
Streetscape(s):		
081		Central Ave. (between Lorraine Rd. and Ridgedale Ave.)
080		Central Ave. between Lorraine Rd. and Fairview Ave. (7 homes)
077		Central Ave. between Fairview Ave. and Bardon St.
070		Cook Ave. between Central Ave. and Community Pl.
049		Crescent Rd. between Green Village Rd. and Hillside Ave.

Key No.	Block/Lot	Address-Location/Historic Name (if applicable)
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Historic District(s):

073 Central Ave. District (boundaries: Dodge Field in center; Central Ave. public school (north); small park (east))

D

111 4903/16 Dellwood Dr. (opposite Samson Ave.): E.V. Houghmont Gate Lodge

Streetscape(s):

095 Dean St. between Rosedale Ave. and Station Rd.

Historic District(s):

023 Drew University Historic District

E

015 1105/15 East St. (between Loveland and South Sts.): Lucy D. Anthony School

Streetscape(s):

068 Elmer St. between Central and Greenwood Aves.

Historic District(s):

Elm St. Railroad District (neighborhood is clustered around the point where the railroad viaduct crosses Elm St.)

F

010 208/24 1 Fairwood Rd.

Historic District(s):

011 Fairwoods at Madison includes #21, 24, 25, 18, 9 and 6 Forest Rd., 8 Fairwood Rd., 18 Glendale Rd., Woodside Rd.

Streetscape(s):

069 Fairview Ave. between Ridgedale Ave. and Greenwood Ave. (2 blocks)

G

028 3404/1 136 Glenwild Rd.

036 3501/11 86 Green Village Rd.: J. O'Brien House

Key No.	Block/Lot	Address-Location/Historic Name (if applicable)
039	3002/9	55 Green Village Rd.: Henry G. Pilch House
041	2801/8	Green Village Rd.: St. Vincent's Roman Catholic Church
042	2801/7	Green Ave.: The Presbyterian Church of Madison
052	4401/14	Green Ave.: Madison Golf Club
053	4501/4	2 Garfield Ave.
054		Garfield Ave.
056	4402/35	Green Ave.
057		114 Green Ave.: D.B. Oliver House
074	1004/38	92 Greenwood Ave.
082	707/45	216 Greenwood Ave.: R. DeForest House
083	707/28	196 Greenwood Ave.
085		Greenwood and Fairview Aves.
110	4601/2	125 Garfield Ave.

Streetscape(s):

- 088 Grove St. between Alexander Ave. and Highland Ave. (including #2, 5, 6 & 16 Highland Ave.)
- 076 Greenwood Ave. between Valley Rd. and Valevue Rd.
- 055 Garfield Ave. between Green Ave. and Candlewood Dr. (4 homes)
- 046 Green Ave. between Hillside Ave. and Vinton Rd.
- 044 Green Ave. between Borough Hall and Vinton Rd. (9 homes)
- 040 Green Village Rd. between Wilmer St. and Kings Rd. (6 homes)
- 035 Green Village Rd. between Glenwild Rd. and Woodland (5 homes)
- 033 Green Village Rd. between Strickland Pl. and Lathrop Pl. (3 homes)
- 038 Green Village Rd. between Wilmer St. and Carteret Pl.

Historic District(s):

- 048 The Green Tract (Green Hill Rd.)

H

Streetscape(s):

- 047 Hillside Ave. (north side) between Green Ave. and Green Hill Rd. (3 homes)

Historic District(s):

- 051 Highview District (includes all of Highview Terr. and the two-block long Hillcrest Rd.)

Key No.	Block/Lot	Address-Location/Historic Name (if applicable)
I		
J		
084	707/8	3 John Marshall Ln.: Genung House
K		
100	5201/11	286 Kings Rd.
102	5101/12	242 Kings Rd.: E.R. Bruen House
103	2402/10	198 Kings Rd.
L		
027	3502/2	114 Loantaka Way: "The Chalet"
029	3404/54	146 Loantaka Way: George Wilder House
030	4303/5	192 Loantaka Way: John Russell House
M		
006	209/05	153 Madison Ave.: "Wisteria Lodge"*
007	209/06	123 Madison Ave.: Mushmore House
009		95 Madison Ave. 100 Madison Ave.
020	1301/13	47 Madison Ave.: David Howell House
021	1301/8	57 Madison Ave.: George G. Saxe House
022		67 Madison Ave.
065	2601/13	117 Main St.: Bottle Hill Tavern*
066		106 Main St.: Caleb Borroughs House
090	2001/16	Main St.: Madison Junior High School
091		170 Madison Ave.: First Presbyterian Church of Chatham Township
094		192 Madison Ave.: Hugo M. Thomasen House
097	2206/5	250 Main St.: Brittin/Bruen House

Streetscape(s):

- 008 Madison Ave. includes:
120 Madison Ave.
16 Madison Ave.
"Tilghman House" - no address
- 093 Madison Ave. between Masonic Hall and Rosedale Ave. (#174, 176, 178, 180, 182)

Key No.	Block/Lot	Address-Location/Historic Name (if applicable)
063		Maple Ave. (northwest) including Kings Rd. #37 and 42
061		Maple Ave. (southeast) between Hillside Ave. and #41 and 44 Maple
025		Madison Ave. between the Methodist and Episcopal Church (4 houses)

N

001	102/11	2 North Oak Court: Theodore Macknet House
112		Noe Ave. and Shunpike

Streetscape(s):

014A		North St. between Park Ave. and Burnet Rd.
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O

Historic District(s):

031		The Orchard (district includes Woodland Ave. from Loantaka Way to Orchard St. and parts of Lathrop, Gibbons and Prospect)
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P Q

017	1101/7	49 Park Ave.: Force Houses and Iron Works
018	1101/8	57 Park Ave.: Davis House
059	4001/61	82 Prospect St.: "Edgewood"
064		Prospect St. (corner of Lincoln Pl.): Perrine House
108		Pomeroy Rd. and 6 Dogwood Dr.
109	4404/2	83 Pomeroy Rd.

Streetscape(s):

107		Pomeroy Rd. (south side) between Prospect and #20 Pomeroy Rd. except #12 (4 homes total)
062		Prospect St. between Kings Rd. and Belmont Ave.
060		Prospect St. between Belmont Ave. and Hillside Ave.
019		Park Ave. (west side) between James Park and Elm St. (8 houses)

R

003		Route 24 (south side of Morris Twp. border): Enos Wilder House
004		Route 24 (north side between S. Oak Ct. and Shady Lawn Dr.): "Florham"
005		Route 24 (north side, east of Shady Lawn Dr.): "Cecilhurst"
024	3001/2	Route 24 (opposite James Park): Methodist Episcopal Church

Key No.	Block/Lot	Address-Location/Historic Name (if applicable)
026	3001/6	Route 24 (opposite James Park): Grace Episcopal Church
078	1001/72	139 Ridgedale Ave.: A.E. Kitchell House
086		183 Rosedale Ave.
087		Rosedale Ave. & Longview Ave.: Burnet Farmhouse
092	2601/3	Route 24 and Kings Rd.: Presbyterian Church burying ground
098		268 Route 24: C.A. Bruen House

Streetscape(s):

012	3 Rose Ave. 6 Rose Ave. 23 Rose Ave.
016	Ridgedale Ave. between Main St. and Central Ave.

S

002	10 South Oak Court
096	2208/9 Station Rd.: Madison Water & Light Plant

Streetscape(s):

105	Samson Ave. (both sides) between Route 24 and Kings Rd.
-----	---

T

U V

045	3601/16	35 Vinton Rd.: C. Anderson Carriage House
101		299 Union Hill Rd. and Kings Rd.
116		12 Union Hill Rd.: Aaron Carter House

W

013	306/40	36 West St.
043	2901/16	23 Wilmer St.: Barlow House*
114		92 Woodland Rd.: Joseph Wingate House
115	3904/1	19 Woodland Rd.: J.D. Marsh House

Streetscape(s):

050	Woodland Ave. between Green Village Rd. and Green Ave. (4 homes)
034	Woodland Ave. (north side) between Orchard St. and Green Village Rd.

Key No.	Block/Lot	Address-Location/Historic Name (if applicable)
---------	-----------	---

Historic District(s):

051

Webb Tract Historic District (boundaries: Midwood Terr. and Woodland Rd. between Green Ave. (North) and Harwood Dr. (south). Includes 44 buildings, all homes.

*Note: Has been demolished since survey.

Part XI

RECYCLING PLAN

Part XI

RECYCLING PLAN

The Mandatory Statewide Source Separation and Recycling Act of 1987 requires the establishment of a recycling component to municipal master plans. In addition, specific tasks were delegated both to the county and municipalities to achieve State Recycling Plan goals. Morris County's responsibilities include:

1. Designate a district recycling coordinator.
2. Identify leaves and at least three other recyclable materials as the designated recyclables in the district.
3. Designate a strategy for the collection, marketing and disposition of source separated recyclable materials in each municipality.
4. Recycle at least 15% of the prior year's total municipal solid waste stream by the end of the first full year.
5. Recycle at least 25% of the second preceding year's total municipal solid waste stream by the end of the second full year.

Madison Borough's recycling responsibilities include:

1. Designate a recycling coordinator.
2. Provide a collection system within six months of the adaptation of the county plan.

Both Morris County and Madison have designated recycling coordinators and the County has prepared a recycling plan.

Madison began a curbside pick-up program of glass, aluminum cans, and newsprint in the fall of 1987. In 1988 Madison recycled a total of 2,697.5 tons of materials (which also includes materials such as motor oil, wood chips and tires recycled by private

sources). This amount represents about 15 percent of the Borough's total solid waste stream, which met State recycling goals.

In 1989 Madison's recycling program was expanded. There are now two separate material collections per month. One collection, operated by Morris County, picks up newspapers, magazines and high-grade office paper. A private outside contractor handles the collection of glass, aluminum and four recently added materials, tin cans, bimetal cans, PET (#1) plastic bottles, and HDPE (#2) plastic bottles. The Borough collects yard waste and leaves separately. These materials are collected in the fall from the curbside and are included in the Borough's recyclable tonnage.

In 1989, about 36 percent of the total solid waste stream was recycled. This is more than the 25 percent goal set forth in the State Recycling Act and County Recycling Plan. Madison's efforts to increase public awareness and participation in the program have been met with success. Penalties for noncompliance have been adopted as a further means to increase resident participation.

Madison has a recycling ordinance pursuant to State regulations with the exception of the Municipal Land Use Law requirements. These requirements are detailed in N.J.S.A. 40:55D-28(12) and relate to disposal of recyclables in all development proposals of 50 or more single-family residences, 25 or more multi-family units, and commercial and industrial developments using 1,000 square feet or more of land.

RECOMMENDATION

The Borough should amend the ordinance as required by the Municipal Land Use Law and continue to amend it as additional materials are added to the list of collectibles.

Part XII

COMPATIBILITY WITH OTHER PLANNING EFFORTS

COMPATIBILITY WITH OTHER PLANNING EFFORTS

ZONING OF ADJACENT MUNICIPALITIES AND COUNTY

The master plans and zoning ordinances of all municipalities bordering Madison Borough were examined to determine compatibility with Madison's planning policies. The current zoning of surrounding municipalities is illustrated in Adjacent Zoning Map. With minor exceptions, the land uses are compatible.

Florham Park

The Florham Park boundary runs from Brooklake Road in the east to just north of Oak Court on the Morris Township border. The land from Brooklake Road to Memorial Park is zoned R-15 single family residential with a minimum lot size of 15,000 square feet. Proceeding north the land is zoned for open space and municipal use, and the R-15/ and R-25D single-family residential zones. The R-25D single-family residence zone permits residences on lot sizes of 15,000 square feet as long as the overall density remains at the 25,000 square foot lot size level permitted in the R-25 district. The Professional and Business Office (P&B3) and Office and Manufacturing zones (C-1), are located west of the R-15 zone. A small area of R-15 is located adjacent to Burnet Road in the middle of the (C-1) zone. The professional Business and Office district requires a minimum lot size of 15,000 square feet 4 while the Office and Manufacturing zone requires a 5 acre minimum lot size. The land from the C-1 district to the Morris Township border is zoned R-44 with a permitted density of one unit per acre.

Overall, the Madison Master Plan is compatible with Florham Park's current zoning. Three areas of conflict which exist are where Florham Park's P&B3 zone abuts Madison's R-3 residential zone, where the C-1 zone in Florham Park borders Madison's R-6 and R-3

residential districts, and where Florham Park's R-44 district abuts Madison's university zone. The latter is adequately buffered by the Conrail rail line. The C-1 zone, too, has buffers and a compatible R-15 residential zone between it and Madison's residential zones. Adequate buffers should prevent any conflict between the P&B3 and R-3 zones on Ridgedale Avenue adjacent to the Madison/Florham Park boundary.

Chatham Borough

Chatham Borough lies along Madison's eastern boundary. North of Main Street (Route 24) is presently zoned R-2 permitting primarily single family detached homes with a minimum lot size requirement of 9,200 square feet. South of Main Street to Woodland Road is also zoned R-2. Extending on either side of Main Street to approximately one lot in depth is Chatham's B-1 business district. Principal permitted uses include retail sales, office, banks and public uses. The permitted FAR is 0.225.

The Madison Master Plan is compatible with that of Chatham Borough. Madison's R-3 residential zones abut Chatham's R-2 zones with both having similar densities. Madison's General Business Zone (GBA) borders Chatham's B-1 zone. Chatham Borough's last Master Plan Reexamination did not propose any changes to the existing zoning in this area.

Chatham Township

The boundary of Chatham Township and Madison stretches from Woodland Road in the east to just west of Treadwell Avenue at the Harding Township border. The R-3 and R-4 zones are located between Woodland Avenue and Green Avenue. The R-3 single family residential district requires a minimum lot area of 20,000 square feet while the R-4 district requires 10,000 square feet. The land from Green Avenue to Garfield Avenue is zoned for business uses. The R-3C and R-4 districts with minimum lot sizes of 20,000 square feet and 10,000 square feet, respectively are located to the north. The R-3C district has an apartment option. Along the western border of Madison and Chatham the Chatham lands are zoned R-1A with a required minimum lot size of 100,000 square feet.

The zoning in Chatham Township is generally consistent with that of Madison.

Morris Township

The small section of Morris Township abutting Madison is zoned RA-11 residential. The primary permitted use in this district is for single-family detached residences with a minimum lot size of 11,250 square feet.

The Morris Township land use plan and zoning is at present compatible with that of Madison.

Harding

Zoning in the small area of Harding Township bordering Madison is for R-1 single family residential. Minimum lot size is 3.0 acres or .3 units per acre.

The Madison Borough Master Plan is generally compatible with Harding Township's zoning. Madison's R-1 single-family residential zone presently borders Harding.

Morris County Master Plan

The Land Use Element of the Morris County Master Plan was last revised in 1975. At that time a primary objective of the County Planning Board was the cluster concept, i.e., that new economic activity be located within existing economic concentrations, that more intensive use be made of lands that are developed and that new growth show some coordination, particularly with respect to transportation systems and utility networks. Madison was designated as a 'traditional' center. The planning goals for a 'traditional' center include preserving and revitalizing the downtown area and encouraging both retail and office uses in the Borough center. Residential densities should be highest near the town center and decrease as one radiates outward.

These guidelines are generally consistent with the land use plan for Madison Borough.

District Solid Waste Management Plan

There are no sites in Madison designated in the County Solid Waste Management Plan. It is not recommended that the Borough seek designation of any sites in the District Plan.

New Jersey State Development and Redevelopment Plan

The New Jersey State Development and Redevelopment Plan (SDRP) places Madison in the Metropolitan Planning Area (PA 1). Communities in this Planning Area have mature settlement patterns with little vacant land for new development, and recognize that redevelopment will be the predominant form of growth in the future. Madison has expressed concern that the Metropolitan Planning Area designation is too broad and all inclusive. Difficulties are created in applying the goals and policies for densely populated urban municipalities to developed suburban municipalities such as Madison.

The most appropriate center designation for Madison is that of a Town. Two sites have been identified by Madison as Critical Environmental Sites based on the Interim SDRP criteria. These sites are: the Loantaka Moraine property and the Madison Golf Course lands.

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MASTER PLAN REEXAMINATION REPORT

**Borough of Madison
Morris County, New Jersey**

Adopted by the
Madison Borough Planning Board
on May 4, 1999

Prepared by

Heyer, Gruel & Associates, PA
Community Planning Consultants
732-828-2200

INTRODUCTION

This report constitutes the Master Plan Reexamination Report for the Borough of Madison as defined by the New Jersey Municipal Land Use Law (N.J.S.A. 40:55D-89). The purpose of the reexamination report is to review and evaluate the local master plan and development regulations on a periodic basis in order to determine the need for update and revisions. The Borough of Madison adopted its last Master Plan in October of 1992. This report also serves as an amendment to the 1992 Master Plan.

Section A of this report identifies the goals and objectives which were established in the 1992 Master Plan. Sections B and C describe what changes have occurred in the Borough and the State since the adoption of the 1992 Master Plan. Finally, Sections D and E discuss recommended actions to be addressed by the Borough in the future.

PERIODIC REEXAMINATION

The Statute requires that the Reexamination Report contain the following:

- a. The major problems and objectives relating to land development in the municipality at the time of the adoption of the last reexamination report.
- b. The extent to which such problems and objectives have been reduced or have increased subsequent to such date.
- c. The extent to which there have been significant changes in assumptions, policies and objectives forming the basis for the master plan or development regulations as last revised, with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition, and recycling of designated recyclable materials, and changes in State, county and municipal policies and objectives.
- d. The specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulations should be prepared.
- e. The recommendations of the planning board concerning the incorporation of redevelopment plans adopted pursuant to the "Local Redevelopment and Housing Law," P.L.1992, c. 79 (C.40A:12A-1 et seq.) into the land use plan element of the municipal master plan, and recommended changes, if any, in the local development regulations necessary to effectuate the redevelopment plans of the municipality.

THE MAJOR PROBLEMS AND OBJECTIVES RELATED TO LAND DEVELOPMENT IN THE BOROUGH OF MADISON AT THE TIME OF THE ADOPTION OF THE LAST MASTER PLAN.

The 1992 Master Plan of the Borough of Madison identified the following goals which formed the basis for the plans, policies, statements and proposals of the Master Plan:

1. To promote a balanced variety of residential, commercial, recreational, public and conservation land uses.
2. To preserve the existing single-family residential character of the Borough while providing a mix of housing types and uses.
3. To promote the preservation of natural systems and environmentally sensitive areas, particularly wetlands, flood hazard and aquifer recharge areas.
4. To maintain and improve the downtown business district.
5. To guide the proper development of the remaining large parcels and scattered vacant sites within neighborhoods.
6. To provide adequate community facilities and services in order to maintain the quality of life for existing and future Borough residents.
7. To encourage preservation of historic buildings and the downtown historic district.
8. To provide for additional parkland and preserve existing open spaces.
9. To ensure that the Borough's Land Use Plan is compatible with those of adjacent municipalities, the County and State.

The following objectives were established based upon the above referenced goals:

Land Use Plan Element

Residential

1. To preserve the integrity of existing residential areas: by preventing intrusion of nonresidential uses into residential neighborhoods; and by maintaining existing development intensity and population density consistent with residential neighborhood patterns.
2. To permit multi-family residential use at appropriate densities in locations accessible to major roadways, commercial services, and public facilities.
3. To encourage the preservation of open space within future multi-family and single-family residential developments.
4. To provide for single-family cluster housing on large developable parcels where appropriate.

Commercial

1. To enhance existing commercial areas through rehabilitation programs for curbing, landscaping, front facade, rear facade, parking, signage, and buffering.
2. To improve the existing commercial areas on East Main Street and limited commercial areas of Park Avenue.
3. To strengthen the downtown shopping area.
4. To insure that signage enhances commercial and adjacent residential areas.

Housing Plan Element

1. To provide a variety of housing opportunities for all income levels in appropriate locations consistent with environmental constraints.
2. To meet the Borough's affordable housing obligation.
3. To maintain the quality of existing housing by updating maintenance codes and enforcement regulations.
4. To continue the rehabilitation program of existing housing within the Borough.
5. To develop senior citizen housing at appropriate locations to meet future needs of an aging Borough population.

Circulation Plan Element

1. Develop strategies for reducing traffic demand through carpooling, "flextime" and staggered work hours.
2. Develop techniques for reducing through traffic on residential streets.
3. Encourage the use of mass transportation.
4. Encourage pedestrian circulation facilities (sidewalks and bikeways) serving as connections between community facilities, commercial areas and employment sites.

Utility Service Plan Element

1. To monitor potable water supply and encourage programs to provide adequate supply of potable water for future needs in accordance with the principles of federal and state law.
2. To provide adequate sanitary sewer service to all residents and in accordance with principles of federal and state law.
3. To regulate storm drainage effectively and alleviate flooding damage in the Borough and in downstream areas.

Community Facilities Plan Element

1. To encourage the establishment of convenient well-located community facilities for all residents of the Borough.
2. To coordinate construction and installation of improvements with the Borough's Capital Improvement Program to insure that community facilities are available when needed.

Historic Preservation

1. To preserve and enhance historic places, buildings and districts.

Park, Recreation and Open Space Plan Element

1. To provide a network of publicly owned park areas and permanently preserved open space.
2. To provide, maintain and upgrade the recreation facilities, both active and passive, to meet the needs of all Borough age groups.
3. To acquire and retain passive open space as development occurs by encouraging cluster development, conservation easements and other preservation methods.

Conservation Plan Element

1. To identify and preserve environmentally sensitive areas within the Borough.
2. To encourage cluster development to protect environmentally sensitive areas and to maintain open space.
3. To promote conservation easements on environmentally sensitive lands in private ownership to prevent future disturbance.
4. To encourage the preservation of existing vegetation.
5. To protect streams, waterways, wetlands and aquifer recharge areas through careful stormwater and wastewater management practices.

Compatibility with Other Planning Efforts

1. To provide for compatibility between the zoning of Madison Borough and of adjoining municipalities.
2. To be consistent with the Morris County Master Plan and County planning policies.

General

In addition to the Borough goals and objectives discussed above, the legislated purposes of the Municipal Land Use Law are adopted as general Borough planning objectives.

1. To encourage municipal action to guide the appropriate use or development of all lands in this State, in a manner which will promote the public health, safety, morals, and general welfare;

2. To secure safety from fire, flood, panic and other natural and manmade disasters;
3. To provide adequate light, air and open space;
4. To ensure that the development of individual municipalities does not conflict with the development and general welfare of neighboring municipalities, the county and the State as a whole;
5. To promote the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons, neighborhoods, communities and regions and preservation of the environment;
6. To encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies;
7. To provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens;
8. To encourage the location and design of transportation routes which will promote the free flow of traffic while discouraging location of such facilities and routes which result in congestion or blight;
9. To promote a desirable visual environment through creative development techniques and good civic design and arrangements;
10. To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land;
11. To encourage planned unit developments which incorporate the best features of design and relate the type, design and layout of residential, commercial, industrial and recreational development of the particular site;
12. To encourage senior citizen community housing construction;
13. To encourage coordination of the various public and private procedures and activities shaping land development with a view of lessening the cost of such development and to the more efficient use of land;
14. To promote utilization of renewable energy sources; and
15. To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan Goals and to compliment municipal recycling programs.

B. THE EXTENT TO WHICH SUCH PROBLEMS AND OBJECTIVES HAVE BEEN REDUCED OR HAVE INCREASED.

All of the goals and planning objectives detailed in the 1992 Master Plan continue to remain valid. Several of the objectives have been reduced, although continue to remain as planning issues.

Land Use Plan Element Progress Report (1992 - 1999)

The 1992 Master Plan noted that the Borough has “a special character generated by an ethnically diverse population, wide range of housing types, unique historic development and strong educational, cultural and historic amenities.” Further, its downtown was described as one of the few thriving central business districts in the State. Finally, the Plan concluded that the Borough is approaching “a state of full development and continues to encourage selective redevelopment.” Several basic challenges were identified, including:

- the preservation of open space and historically valuable properties
- the control of vehicular traffic in residential neighborhoods
- the maintenance of a diverse housing stock
- the maintenance of attractive, thriving commercial and professional districts

The description contained in the 1992 Master Plan and the above referenced challenges still remain valid. There has been increasing emphasis on quality of life issues as they relate to land use. Since 1992, the pressure to subdivide residentially zoned properties in established neighborhoods has increased. In fact, there has also been a trend in the Borough of demolishing older homes and constructing much larger houses. These trends are due to the desirability of Madison as a stable residential neighborhood. Further, there has been concern expressed that the scale and bulk of new single-family housing although in compliance with the ordinance standards is often out of character with the existing neighborhood. It is recommended that specific emphasis be placed on preserving existing residential neighborhoods from such incompatible development. As such, the Borough should continue to review standards which may address the scale of infill development such as increased setbacks, increased lot sizes and elevation standards. Imposition of a Floor Area Ratio (F.A.R.) requirement or reducing the maximum permitted building height is not recommended.

The Borough of Madison, and most other communities throughout New Jersey, have experienced growth in the 65 years old and over population. Since 1992, there has been increasing demand for assisted living facilities (ALF) which target the “frail” elderly. These facilities provide a much needed service and create unique challenges to the Borough from a land use perspective. Two assisted living development applications have been filed with the Zoning Board of Adjustment during the past several years. One

application proposed to construct a 75-unit ALF on a portion of the 300 Madison Avenue site. After the Board denied the application, the applicant litigated. The Superior Court upheld the Board's denial. In 1996, Sunrise Corporation proposed to construct a 77-unit ALF on a portion of the Bayley Ellard High School site. The Zoning Board denied the application, the applicant litigated and the Superior Court upheld the Board's denial. As a result of the need for such housing, however, the Borough amended the Land Development Ordinance in 1997 to permit assisted living facilities as conditional uses, subject to compliance with certain conditions. Sunrise Corporation, however, has recently filed a complaint in Federal Court alleging the ordinance is in violation of the Fair Housing Act. It should be noted that several assisted living facilities have been recently constructed in adjacent municipalities. Since 1992, Sunrise has developed an ALF in Morris Plains, Marriott has constructed a facility in Florham Park and Chelsea Management Corp. has also recently completed an ALF in Florham Park. Further, Kessler has received development approvals for an ALF in Chatham Township.

The strong office market in Morris County has resulted in several development applications and approvals at Giralda Farms, one of the premiere planned office parks in the State. In 1998, Reckson Associates received development approvals to construct 435,000 square feet of office space on the 40 acre site at the corner of Dodge Drive, Madison Avenue and Loantaka Way. Seven Giralda Farms recently received amended site plan approval to construct a 202,000 square foot multi-tenanted office building at the corner of Loantaka Way and Woodland Road. Finally, a child care facility located at American Home Products Corporate Headquarters was approved in 1994 to serve the tenants of Giralda Farms. The build-out of the Madison portion of Giralda Farms through development approvals is complete with the Reckson approval. The original projected build-out was 2,250,000 square feet of office space. Based on existing and approved development within Giralda Farms, approximately 1.65 million square feet will be constructed.

There continues to be increasing emphasis on the maintenance and enhancement of the Borough's Central Business District (CBD). One of the key considerations in assessing the viability of any CBD is the amount and location of parking which is available to all groups using the CBD. These groups include customers, merchants and commuters. In response to concern that parking in the CBD may not be adequate, a Parking Study was completed in 1997. The Study concluded that existing public and private parking spaces are fully utilized throughout the weekday. However, commuter lots are underutilized on weekends and weekday evenings. Further, certain properties owned by the Borough could be developed as merchant and/or customer parking lots. Both marketing and signage efforts were recommended. Subsequent to completion of the Study, the Planning Board, Mayor and Borough Council have addressed parking issues through short term and long term strategies. Short term approaches include new signage and development of a merchants lot on Central Avenue adjacent to the Health Center. Sixteen parking

spaces have been created. Long term strategies include additional signage and reconstruction of the merchants lot on Green Avenue which will add 15 parking spaces. Discussion of additional action strategies is ongoing.

Another aspect of the Borough efforts regarding CBD enhancement is signage. The entire sign ordinance has been revised. The revisions were intended to improve signage, particularly within the CBD, and coordinate efforts of the Planning Board, the Sign and Facade Committee and the Historic Preservation Committee. The revised sign ordinance was adopted in March 1998 after extensive public involvement, including merchants.

During 1994, 16 lots in the southwest section of the Borough adjacent to the Madison golf course were annexed from Chatham Township to Madison Borough. The majority of the area has been developed. Alma Avenue, Rachael Avenue and Peach Tree Lane were paper streets, which have subsequently been improved. The area was zoned R-3 Single-Family Residential.

Since 1992 the Borough Land Development Ordinance has been revised to implement a number of the 1992 land use recommendations. The following details the status of the 1992 recommendations:

- *Madison Golf Course:* The golf course is located in the area of the Borough that has been designated by the New Jersey Geological Survey as critical to the recharge of the Buried Valley Aquifer, the source of Madison's water supply. In addition, this parcel is one of the few remaining large open space parcels in the Borough. To preserve the current use of the property which has been a golf course since the late 1800's, a private outdoor recreation zone was proposed with golf courses as the only principally permitted use. This recommendation was not implemented but continues to be an appropriate land use proposal.
- *Bayley Ellard:* The land use proposal for Bayley Ellard provided for comprehensive and appropriate adaptive reuse of the existing school facilities, should Bayley Ellard cease to operated as a school in the future. Cluster residential zoning with a gross density based on 25,000 square foot lots and a 50 percent open space requirement was proposed to be the principal permitted use. The development of a comprehensive senior housing facility or CCRC (continuing care retirement center), was recommended to be conditionally permitted. This land use recommendation continues to remain valid and should be implemented through rezoning.
- *Loantaka Moraine and Gibbons Place:* The 1992 Land Use Plan recommended cluster zoning for the sites to preserve their unique and sensitive environmental features. The sites were also recommended for acquisition by the County as part of the Loantaka Brook Reservation system.

The Loantaka Moraine was acquired in 1994 by the County with Green Acres funds and has become part of the Loantaka Brook Reservation system. Gibbons Place has been acquired by the Borough. The Borough has been awarded Green acres funds to offset the cost of acquisition.

- *Loantaka Way:* The remaining nine lots on Loantaka Way and Shunpike Road currently in the R-1 zone were proposed to be rezoned R-2 since only three of the nine lots conform to the R-1 standards. This recommendation has not been implemented but continues to be a valid proposal.
- *Park Avenue:* Park Avenue was characterized in the 1992 Master Plan as continuing to maintain its residential character, except for two isolated commercial areas, although it is an arterial road and has seen steady increases in traffic volumes. As such, it was recommended that the existing residential and commercial zones remain. This recommendation continues to remain valid.
- *Elm Street:* The Elm Street area contained and continues to contain a mix of apartments and two, three and four family residences, some of which are deteriorating. As a result, the 1992 Master Plan recommended rezoning lots with frontage on Elm Street from Park Avenue to the railroad and contiguous lots along the south side of Park Avenue from Elm Street to near Loveland Street to permit multi-family uses. This land use recommendation continues to remain valid.
- *Transition "T" Zone South of East Main Street:* The "T" zone was originally intended to provide areas for residential development and parking accessory to uses on East Main Street. The majority of the "T" zone divided single-family residences into two zones, placing the backyards in the Transition designation. It was recommended in the 1992 Plan that the transition zone be eliminated and redesignated as single-family residential. This rezoning has not occurred, however, it should be implemented.
- *East Main Street:* East Main Street planning issues in 1992 included the prevalence of auto-related uses, the traffic impact of scattered retail uses, the potential for additional retail sprawl, the location of parking areas in the front yards and the future development pattern in terms of appropriate uses and densities. The Plan proposed retail uses be restricted to four retail nodes and that the remaining area be developed for small scale office and multi-family development. Bulk and design standards were recommended which would address the identified planning issues along East Main Street. The East Main Street area was rezoned in 1994 to permit a mix of retail, office and multi-family residential along the entire length. In addition, a number of bulk and design standards were included in the zoning amendment. It was determined that the concern regarding permitting retail uses along the entire length of East Main Street could be addressed through design standards.
- *Samson Avenue:* There are three industrial uses located north of the railroad by the Kings Road and Samson Avenue overpass. These uses are currently in the R-3 zone. The 1992 Plan

recommended the area be designated for attached single-family development as a long term land use and that industrial uses be conditionally permitted with appropriate standards to protect adjacent residences. This land use recommendation was discussed at Borough Council. There was significant opposition from the property owners to any rezoning. It is recommended that the existing residential zoning remain in place.

- *Drew University:* A small lot on the northwestern corner of Drew University off of Vinal Place is zoned R-3; however, the lot is owned by the University and has been merged with the adjacent University owned lot. It was recommended this lot be rezoned University consistent with the remaining area of the University. This recommendation continues to remain valid.
- *Open Space/Government Use:* A government use and open space designation was proposed to encompass the Borough parking lots, municipal building, train station, rescue squad and senior citizen building. This zone was also intended to apply to major public open space lands and recreation areas in the Borough. Finally, conditional use standards were recommended to permit limited commercial uses through reuse of the train station. This land use recommendation has not been implemented but continues to remain an appropriate land use recommendation.
- *Green Avenue Professional Area:* The 1992 Master Plan recommended that the lots that front on Shunpike be proposed for office development while the lots fronting on Garfield Road should be proposed for single-family attached residential development. It is recommended that the remaining P Professional zoning is valid for this area and should remain in place.
- *Green Village Road Professional Area:* It was recommended in the 1992 Master Plan that the existing P Professional zone remain. This continues to be a valid recommendation.
- *CBD Zone:* The 1992 Plan recommended the slight expansion of the CBD boundaries to include uses on Greenwood Avenue just north of Elmer Street as well as lots fronting on Main Street near Greenwood Avenue and Alexander Avenue. The Plan also recommended that repair garages be deleted as conditional uses in the CBD and that consideration of off-site parking should be permitted. The proposed expanded area was included in the CC zone when the zone was established in 1994. The remaining land use recommendations continue to be valid.
- *University Zone:* The Plan recommended that bulk standards similar to the adjacent PCD-O zone be considered for the University zone and that a facilities master plan be required. This continues to be an appropriate recommendation.
- *FDU:* The 30 acre parcel owned by FDU located along Madison Avenue was recommended to be considered for rezoning to permit faculty housing similar to the zoning related to the Drew University faculty housing in addition to permitting use by the Housing Authority on four acres. This recommendation is not proposed to be implemented.

- *Accessory Buildings:* The 1992 Plan proposed to modify regulations governing the size of accessory buildings and structures in residential zones to relate them to the proportion of the lot size rather than the size of the principal structure. An amendment to the Land Development Ordinance occurred in 1994 which limited the size of accessory buildings to 500 square feet or one-third the size of the floor or ground area of the principal building, whichever is greater.
- *Receive Only Satellite Dish Regulations:* The 1992 Plan recommended that regulations governing these antennas be revised to make them accessory uses in all zones with amended standards to reflect recent legal precedence and Federal regulations. This recommendation has been implemented through an amendment to the Land Development Ordinance in 1995.
- *Accessory Uses for Auto Service Stations:* The Plan recommended that the Land Development Ordinance be revised to clearly indicate that retail uses are not acceptable as accessory uses for service stations. The Ordinance was revised in 1994 to reflect this recommendation.
- *Home Offices as Accessory Uses in Residential Zones:* The 1992 Plan recommended that the Borough Ordinance be revised to permit home offices as permitted accessory uses in all residential zones, provided that no non-residential employees use the premises and that visits by clients are not a customary part of the office use. The Borough Ordinance was revised in 1996 to acknowledge home occupations as an accessory use under a two-tiered review process with certain standards triggering review.
- *Institutional Uses:* The 1992 Plan recommended that conditions governing institutional uses be revised to recognize the characteristics of existing uses or structures and to differentiate among the various types of institutional uses. This recommendation has been partially implemented. For example, the assisted living facilities ordinance has been adopted and there has been significant discussion regarding ordinance revisions which would relate to mausoleums.

Finally, the Zoning Board in its 1997 annual report recommended that consideration be given to modifying the R-3 and R-4 district zone lines along Kings Road between Cross Street and the railroad underpass. The suggestion was in response to creating zoning which accurately reflects existing development. It is recommended that the southerly side of Kings Road be zoned R-3 and the northerly side be zoned R-4.

The accompanying land use plan map identifies 11 land use designations for the Borough ranging from single-family detached homes to university.

Housing Progress Report (1992 - 1999)

The housing conditions in Madison are excellent. The majority of the housing stock is single-family detached housing; however, over 30 percent of the housing contain two or more units. The developed nature of the Borough continues to limit the potential of any additional large scale residential development. Since 1992, a total of 135 building permits have been authorized in the Borough. The majority of these units (62%) have been for single-family dwellings. The Borough continues to maintain a diversity of housing types, including providing low and moderate income units.

The Borough received substantive certification from the Council on Affordable Housing in 1995. The certified plan includes a credit of 134 units. Since April of 1980 the Borough, through the Madison Housing Authority, has constructed 134 units of low and moderate income housing. Since 1992, an addition 12 units of senior housing were completed on Cook Avenue. The project was funded through HUD funds. The ten unit obligation which the Fair Share Plan addressed included the construction of eight affordable rental housing units through the Madison Housing Authority on a site on Park Avenue. Funding for the project is through the HUD conventional public housing monies. The plan also proposed continued participation in the rehabilitation of substandard housing through the Morris County Community Development Rehabilitation Program.

Circulation Progress Report (1992 - 1999)

Several changes have occurred since 1992 which have affected the circulation network of the Borough. The Route 24 Freeway has been opened since 1993. This has diverted traffic from Main Street. According to NJDOT traffic counts, average daily traffic along Main Street has decreased from 1991 to 1997. The feasibility of constructing two additional interchanges was under study by the NJDOT in 1992. Since then, the interchanges, known as the Chatham Connector and the East Madison Connector, have been dropped from consideration and the Borough does not support these connectors.

One of the objectives of the 1992 Master Plan was encouraging the use of mass transportation. The completion of the NJ Transit Midtown Direct rail line has increased ridership and demand. During 1996, approximately 868 commuters utilized the Madison train station during weekday AM peak hours. In comparison, ridership during 1990 weekday AM peak hours was 511 commuters. Although this increase creates additional demand for commuter parking, it has a positive impact on CBD revitalization efforts. The Borough has reduced the percentage of out-of-town permits. The Borough should consider the relationship between commuter parking needs and other Borough parking needs.

The need to address commuter parking is an important element to the Borough's overall parking issue. As previously noted, the Borough prepared a Parking Study for the CBD in 1997 which established a base

inventory and utilization of parking within the CBD. It was determined that commuter parking is utilized at capacity and that more commuter parking opportunity should be provided in cooperation with NJ Transit. The Borough recently applied for a jitney service grant from NJ Transit. Although it did not receive the grant, the Borough encourages future opportunities to support jitney service.

The Borough and Friends of the Madison Train Station, a non-profit entity, are working with NJ Transit to restore and upgrade the train station which is listed on the State and National Register of Historic Places. The Friends of the Madison Train Station are currently focusing their efforts on restoring the sidewalks and curbs around the Crescent and to restore lighting and to recreate the landscaping in keeping with its historic period in collaboration with Friends of Madison Shade Trees.

Four programmed County road improvements have occurred since 1992. Green Village Road, Shunpike Road, Loantaka Way and Central Avenue were resurfaced in 1993, 1995, 1996 and 1997, respectively. The New Jersey Department of Transportation also paved Route 124 in 1998. Further, scheduled resurfacing of selected Borough roads occurs annually.

The Master Plan also encouraged opportunities for increased bicycle and pedestrian facilities. The Borough has recently received a bikeway grant in order to initiate a bikeway plan during 1999. Although there have been no additional sidewalks constructed, the Borough continues to repair existing sidewalks.

Community Facilities Progress Report (1992 - 1999)

As noted in the 1992 Master Plan, Madison is served by extensive and well-maintained community services, including municipal programs and services, emergency services and schools. The location of community facilities is already largely determined in the developed Borough. The Borough's population is generally stable. As a result, no major facility expansion was proposed; rather, the emphasis was recommended to be on the maintenance and more efficient usage of existing facilities. The 1992 Plan, however, mentioned several deficiencies in existing facilities, including the municipal court, senior citizen center and the health center.

The health facility on Cook Avenue operates as a regional health department for Madison residents and 10 surrounding communities which contract for services with the Madison Board of Health, an autonomous department. The health facility was described as inadequate in terms of condition and space needs for labs in the 1992 Plan. Since 1992, the lab has been eliminated. With capital improvements including ADA compliance, the facility would be adequate for health and other community uses.

The existing senior center on Maple Avenue was also deemed inadequate to serve the current and future needs of the senior citizen population. There are also, however, existing senior centers at the Community House on Cook Avenue, at the YMCA, at Chateau Thierry Rexford Tucker Senior housing and at the Time Out Center on Division Avenue. The Mayor and Council are currently evaluating the existing and future needs of seniors and teens in the Borough.

The Borough has recently contracted with an architect to renovate the municipal building so that it will be ADA compliant. Expected improvements include the relocation and upgrade of the municipal court and installation of an ADA compliant elevator.

Since 1992, the 4,200 square foot addition to the Borough library has been completed and the catalogue file has been computerized.

According to the 1992 Master Plan, total school enrollment had experienced a declining trend since 1980 of approximately 29 percent. The Master Plan projected a gradual increase in enrollment from the 1990-1991 school year through 1993-1994 school year and then a stable enrollment. In fact, enrollment during the past six years has been significantly greater than projected. The average daily enrollment has steadily increased from 1,665 students in the 1991-92 school year to 1,920 students during the 1998-99 school year, an increase of 255 students. Average daily enrollment is projected to increase another 68 students during the next school year. In order to accommodate growth, additions to all three elementary schools (Central Avenue, Kings Road and Torey J. Sabatini) were constructed during the 1997-98 school year. Further, renovations of three science rooms at Madison High School were completed from 1992 through 1995.

Parks, Recreation and Open Space Progress Report (1992 - 1999)

The 1992 Master Plan noted that the Borough has 180 acres of open space which constituted seven percent of Madison's area. Although there is and continues to be a scarcity of vacant land, four additional parcels were recommended as Borough open space:

- The 9 acre wooded tract that runs parallel to the railroad right-of-way between Samson and Union Avenues
- A vacant parcel located at the Gibbons Place/Loantaka Way intersection
- The Loantaka Moraine parcel
- Part of the public library tract

The acquisition of these lands has been partially accomplished. As previously discussed, the Loantaka Moraine parcel has been purchased by Morris County with Green Acres funds and has become a part of the open space inventory. The Gibbons Place/Loantaka Way tract was purchased by the Borough and the cost will be reimbursed by State Green Acres Funds. The nine acre tract which runs parallel to the railroad right-of-way has been developed for single-family homes. It is recommended that part of the library tract not be considered for open space designation. Finally, a conservation easement was recommended in 1992 to preserve the golf course as open space. This continues to be a valid recommendation.

Conservation Progress Report (1992-1999)

The emphasis of the 1992 Conservation Element was to ensure protection of the Buried Valley Aquifer in order to provide water free from contaminants. Three land use strategies were identified as mitigating the impacts of development on the Aquifer. These were:

- Preservation of open space in the southern end of the Borough.
- Low density cluster zoning (e.g. Bayley Ellard and Loantaka Moraine/Gibbons Place)
- Best Management Practices (BMP's)

Protection of the Buried Valley Aquifer continues to be a priority. A number of the strategies discussed in the 1992 Plan have been implemented. These include preservation of open space through purchase of the Loantaka Moraine/Gibbons Place tract and implementation of Best Management Practices which incorporate Integrated Pest Management.

Since 1992, the 10 Towns Coalition has been established as an alternative to the proposed Great Swamp Planning Commission. The 10 towns, including Madison, have all or a portion of their lands in the Great Swamp Watershed. The Coalition, which is voluntary, is addressing regional issues such as stormwater management. The Borough proposes to continue to participate in the Coalition in order to address regional issues which may impact the Borough.

Utility Progress Report (1992-1999)

The 1992 Master Plan identified the extension of the Borough's sanitary sewer service into a small corner of southwestern Madison as underway. This extension has been completed with the installation of a force main and 16 individual grinder pumps.

In 1995, the Borough initiated a 20 year Capital Improvement Plan which addresses improvements to roadways and water service. All remaining 4 inch water mains will be replaced, thereby improving flow

and quality. All roadways are scheduled for resurfacing or reconstruction during the 20 year cycle. Necessary repairs to curbing, sidewalk, storm sewers and sanitary sewers are made in conjunction with the road improvement projects.

The Borough has maintained a rigorous program to address inflow and infiltration to the Borough's sanitary sewer conveyance system. Prior to any road improvement project, the sanitary sewer is video taped to identify any broken or cracked pipe. In 1999, the Madison Chatham Joint Meeting will install flow monitoring equipment to further target areas of consistent inflow and infiltration. As maximum plant capacity is approached, it will be critically important to reduce any extraneous flow entering the system.

In 1995, an air stripping facility was installed at two of Madison's water supply wells. The treatment facility has successfully maintained the wells within Federal and State water quality standards. In 1999, the Borough initiated a study to introduce treatment to two additional wells. Various treatment alternatives will be considered.

The Borough's Electric Department is consistently working to improve service quality. This is of particular concern with the advent of deregulation of the industry. Maintenance and upgrades of primary and secondary circuits will minimize outages. Changes in staffing and structure within the Electric Department will contribute to improved service.

Economic Progress Report (1992-1999)

Covered employment in the Borough has substantially increased. In 1990, there were 5,319 covered jobs in the Borough. By the third quarter of 1996, the employment base grew to 6,885 jobs or 29 percent. The 1992 Plan projected that any increase in employment would be generated by the continued development of Giralda Farms. The recent development approvals of the Reckson site have resulted in an approved build-out of Giralda Farms of 1.6 million square feet which is less than the projected build-out of 2.25 million square feet. Greater emphasis should be placed on the preservation and continuous enhancement of the CBD as an economic development tool.

Historic Preservation Progress Report (1992-1999)

Historic preservation continues to be a significant issue in the Borough. The 1992 Plan relied on an inventory of historic sites which was prepared for the Morris County Heritage Commission in 1987. The Borough Historic Preservation Commission, which was created in 1993, has recently undertaken an update of the 1987 inventory of historic sites. The updated Inventory is detailed in Appendix A. The following introduction to the 1996 Historic Survey Update was prepared by the Historic Preservation Commission and gives a comprehensive status overview:

"The update of the Madison Historic Resources Survey was carried out December 1995 through January 1996. Every site recorded in the 1986 Morris County survey was revisited, and notes were taken on any changes in condition on the visible exterior of the site. Special attention was made to recording streetscapes and districts more accurately, for these groups of historic resources make up a significant number of buildings in Madison.

In summary, in the past ten years, Madison has lost some very important buildings. The most significant bit of our town's architectural heritage to have been lost was Wisteria Lodge and its associated outbuildings, recorded as survey number 1417-006. The most historically important building to have been lost was the Bottle Hill Tavern, (survey #1417-65) visited by Lafayette in 1824, and when threatened with demolition in 1922, created the cause around which the Madison Historical Society coalesced. Other recorded buildings lost in the past decade include an 18th-century house which stood on Elm Street, recorded as part of the Elm Street Railroad District (survey #1214-014B); a late 19th-century cottage on Wilmer Street (#1417-43); and the Seward House, recorded as part of a Green Village Road Streetscape (#1417-38).

In the same time, Madison created a Historic Preservation Commission, had the downtown business area placed on the State and National Registers of Historic Places as the Madison Civic and Commercial District, and the Historic Preservation Society (an outgrowth of the effort to save Wisteria Lodge) sponsored annual walking tours highlighting historic neighborhoods, which drew large and enthusiastic crowds. Historic preservation is openly discussed in Planning and Zoning Board meetings as another valid concern of the community. Although as of this writing there is no ordinance to specifically control the demolition or alteration of historic structures, there is interest in establishing such an ordinance in Madison as part of the zoning regulations.

Historic structures are defined for the purposes of the National Register as being at a minimum fifty years old, and having some historical significance, either at the state, local or national level. This definition has guided the author of the survey update and the Madison Preservation Commission in their work. As time rolls on, much of Madison's building stock falls into the fifty-year age criterion, and almost anything can be found to have "local significance." The survey's job then is to both record and edit, and there are bound to be concerns over why some resources are recorded here and others are not.

In general, all 18th-century structures remaining in Madison have been noted in the survey. The survivors are all residences. Most have been substantially altered over time, and none retain much of their original setting or outbuildings. Yet, they are valuable as survivors of the earliest years of settlement of the community, and they gain significance as part of a group, where comparisons can be made between them to determine the "typical" window type or room arrangement or fireplace construction technique of the early residence of Bottle Hill.

The 19th century spans a century of change in Madison, as it turned from a small farming village in Chatham Township, to a small town linked by railroad to the larger world, to a comfortable suburban residential enclave, established as its own Borough in Morris County. Surviving buildings from the 19th century have also been almost completely recorded, most of them in streetscapes and districts. The tight concentration of buildings from this time reflects the fact that it was a pedestrian-oriented town, with neighborhoods established within easy walking distance to the town center and the railroad station. Scattered sites, some of them parts of the great estates which characterized the Madison-Morristown area at the turn of the century, are also noted.

Increasing suburban development in the 20th century relied on the automobile, and the subdivisions of the pre-World War II years are now old enough to be considered historically significant. Many of them were established on tracts of land which had been estates in the 19th century, and are some distance from the center of town. From the first decade of the century comes Fairwoods (survey #1417-11), a neighborhood reflecting the popular bungalow and Craftsman styles of the era. Houses in the 1920's took a more eclectic turn, based on European and medieval models. This is best represented in the Oak Court development (#1417-01), added in this survey. By the 1930's, the Colonial Revival style became dominant in Madison's housing stock, as seen in two well-preserved neighborhoods - the modest houses of Shady Lawn Drive (#1417-02) and the more expansive houses of Cross Gates (#1417-117).

Many, many houses of similar age and style are found throughout town, filling in lots which were platted earlier. Only where the houses exist in groups of five or more, and are particularly notable for the level of architectural detail and/or their architectural integrity (how much of the original exterior fabric is maintained and preserved) were they recorded

for this survey. A full house-by-house survey may be warranted for Madison as its housing stock ages even more, but could not be undertaken in the scope of this project.

The survey update has been interweaved with the 1986 survey, so that comparisons may be made between the two, and demolished buildings are still in the record for information. No budget was made for photography updates or further research on any recorded sites, although this is a laudable goal for further updates. The new updates have been done on computer and so may be updated in the future more easily than completely retyping the hard copy, as was the case in this project.

The historic survey is only the groundwork of preservation activities in a community, but it is an important one. The sites and structures which are recorded as historic communicate many important aspects of the town. They range from 18th century farmsteads to 19th century immigrants neighborhoods to 20th century subdivision, and all are part of the story of Madison. By preserving these historic sites, in all their diversity, the diverse history of the people of a town can be remembered and enjoyed in the future.”

There has been significant effort from various groups, including the Historic Preservation Commission, to draft an Historic Preservation Ordinance which has broad based support. This effort has been ongoing for the past several years and has included seminars and community meetings. A draft Historic Preservation Ordinance is presently under review. It is expected that the Planning Board, the Mayor and Council will be reviewing the revised draft Ordinance this year.

Recycling Progress Report (1992-1999)

The Borough ordinance satisfied the State regulations with the exception of the requirements detailed in NJSA 40:55D-28(12) which relate to disposal of recyclable in all developments of 50 or more single family residences, 25 or more multi-family units and commercial industrial developments using 1,000 square feet or more land. The 1992 Plan recommended that the ordinance be amended to include these requirements. These amendments have been adopted.

THE EXTENT TO WHICH THERE HAVE BEEN SIGNIFICANT CHANGES IN THE ASSUMPTIONS, POLICIES AND OBJECTIVES FORMING THE BASIS FOR THE MASTER PLAN OR DEVELOPMENT REGULATIONS AS LAST REVISED WITH PARTICULAR REGARD TO THE DENSITY AND DISTRIBUTION OF POPULATION AND LAND USES, HOUSING CONDITIONS, CIRCULATION, CONSERVATION OF NATURAL RESOURCES, ENERGY CONSERVATION, COLLECTION, DISPOSITION AND RECYCLING OF DESIGNATED RECYCLABLE MATERIAL AND CHANGES IN STATE, COUNTY, AND MUNICIPAL POLICIES AND OBJECTIVES.

Since the 1992 Master Plan, there have been changes affecting the assumptions, policies and objectives forming the basis of the Master Plan. These include the following:

Cross Acceptance II of the State Development and Redevelopment Plan

The State Plan was adopted by the State Planning Commission on June 12, 1992. The State Planning Act requires that the State Planning Commission conduct a periodic review and update of the State Plan. The 1997 Reexamination Report and Preliminary State Plan represented the Commission's first update of the Plan since its 1992 adoption. The Cross Acceptance II (CA II) process by which the 1997 Plan is reviewed, began with the release of the Preliminary Plan. In September 1997, Phase I, the Comparison Phase of the CA II process, anticipated that each municipality would undertake a consistency review and identify recommended revisions to the Preliminary Plan.

The Borough of Madison prepared a Cross Acceptance Report in the Fall of 1997 which was subsequently incorporated into the Morris County Cross Acceptance Report. Madison concluded that the Borough's planning documents were consistent with the goals and policies of the Preliminary Plan. Further, Madison functions as an existing Town Center while the CBD has the characteristics of a core, functioning as a traditional linear "Main street" model. The Borough, however, recommended that the plan should make every effort to reinforce the positive attributes of Towns such as Madison. As such, the Plan should be careful not to encourage significant redevelopment; in particular, increased development intensity which would be inconsistent with the existing development character. Finally, the Cross Acceptance Report recommended that more emphasis be placed on State agencies review and implementation.

Council on Affordable Housing (COAH)

Under the Fair Housing Act and COAH regulations, each municipality has a fair share obligation. COAH is currently in its second 6-year obligation period which is a cumulative obligation running from 1987 through 1999.

The Borough received substantive certification from COAH in 1995. Certification provides the Borough with a 6-year period of repose until 2001.

Telecommunications Facilities

The siting of the communications facilities has become a significant land use issue. A subcommittee has been formed to address all telecommunications issues. It is recommended that the Borough consider adopting an ordinance which regulates their locations and establishes standards.

Group Homes

In January 1998, the Municipal Land Use Law was amended to address group homes in residential districts. N.J.S.A. 40:55D-66.1 states that:

“Community residences for the developmentally disabled, community shelters for victims of domestic violence, community residences for the terminally ill and community residences for persons with head injuries shall be a permitted use in all residential districts of a municipality, and the requirements therefore shall be the same as for single-family dwelling units located within such districts.”

This change should be incorporated into the revised Land Development Ordinance.

Sexually Oriented Businesses

It is recognized and documented by numerous expert studies and reports throughout the country that adult entertainment uses, because of their very nature, have serious objectionable operational characteristics that result in a deleterious effect upon adjacent areas.

Title 2C of the New Jersey Code of Criminal Justice, effective September 15, 1995, regulates the location and building requirements of sexually oriented businesses as defined by Statute. Further, in January 1998 the Appellate Division of the Superior Court of New Jersey (Township of Saddle Brook vs. A.B. Family center, Inc., et al.) remanded the case for further proceedings “in light of our conclusion that N.J.S.A. 2C:34-7 renders municipal boundaries irrelevant where the buffer can not be satisfied within a particular municipality and that the statute avoids the constitutional infirmity of not providing alternative means of communication within a single municipality.”

It is recommended that the provisions of sexually oriented businesses in the Madison Land Development Ordinance be evaluated in light of the 1995 New Jersey Criminal Code and the 1999 Supreme Court case.

Residential Site Improvement Standards (RSIS)

The Residential Site Improvement Standards were adopted in January 1997 and govern any site improvements carried out in connection with a residential development application. According to the

Statute, the standards are intended to create uniform standards and ensure predictability. The rules supersede municipal standards for residential development. The rules took effect June 3, 1997.

It is recommended that the amended Land Development Ordinance contain provisions which are consistent with RSIS.

SPECIFIC CHANGES RECOMMENDED FOR THE MASTER PLAN AND DEVELOPMENT REGULATIONS.

It is recommended that the Planning Board and Mayor and Council continue to prepare a comprehensive revision to the Borough Land Development Ordinance. Articles I (Definitions), II (Establishment) and III (Procedures) have already been revised and adopted. Further, the sign ordinance has been amended. The revisions to the ordinance should be consistent with the attached Land Use Map which is incorporated as part of the current Master Plan.

RECOMMENDATIONS OF THE PLANNING BOARD CONCERNING THE INCORPORATION OF REDEVELOPMENT PLANS INTO THE LAND USE ELEMENT OF THE MASTER PLAN.

There may be areas in the Borough appropriate for designation as an area in need of redevelopment as defined in N.J.S.A. 40A:12A-1 et seq. These areas include certain parcels within the Central Business District and parcels which contain non-conforming uses.

APPENDIX A

MADISON HISTORIC RESOURCES SURVEY

1996

INDEX

MADISON HISTORIC RESOURCES SURVEY MADISON, MORRIS COUNTY, NEW JERSEY 1996

<u>Street Address</u>	<u>Type of Resource/ Date if known</u>	<u>Survey Number</u>	<u>Block/ Lot</u>
Academy Road	Academy Road Historic District, ca. 1920	1417-37	
Alexander Avenue	Brittin-Alexander Historic District, ca. 1900-1925	1417-89	
Alma Avenue, east side	Streetscape, 1945	1417-32	
Bardon Street # 7,8,11,15	Streetscape, 1920	1417-75	
Brittin Street, between Greenwood Ave. & Highland Ave.	Brittin-Alexander Historic District, ca. 1900-1925	1417-89	
12 Brooklake Road	Individual Site, late 18th or early 19th century	1417-99	2302/19
Bruns Street, between Kings Road & Main Street	Streetscape, ca. 1860	1417-104	
Central Avenue, between Brittin Street and Floyd Street	Streetscape, ca. 1900	1417-73	
Central Avenue, between Bardon Street and Fairview Ave.	Streetscape, ca. 1875-1925	1417-77	
Central Avenue, between Fairview Ave. and Lorraine Road	Streetscape, ca. 1880-1920	1417-80	
Central Avenue, between Lorraine Road and Ridgedale Avenue	Streetscape, ca. 1910	1417-81	
Central Avenue School	Individual Site, 1909	1417-71	1601/1
53 Central Avenue Bethel AME Church	Individual Site, 1905	1417-72	1701/1
Cole Park	Individual Site, 1918	1417-85	1004/19

MADISON HISTORIC RESOURCES SURVEY, MADISON, NEW JERSEY, 1996

<u>Street Address</u>	<u>Type of Resource/ Date if known</u>	<u>Survey Number</u>	<u>Block / Lot</u>
Cook Avenue between Central Ave. & Community Place	Streetscape	1417-70	
36 Cook Avenue First Baptist Church	Individual Site , 1900	1417-69	1601/16
Crescent Road	Streetscape, ca. 1900	1417-49	
CrossGates Road	CrossGates Historic District, 1930s	1417-117	
Dellwood Drive Dellwood Parkway East Dellwood Parkway West	Dellwood Historic District, 1930s	1417-111	
Drew University Mead Hall (1835) Tilghman House (1900)	Drew University Historic District (1865-1940) Individually listed on the National Register of Historic Places Madison Avenue Streetscape	1417-23 1417-08	3001/1
East Lane	Cross Gates Historic District, 1930s	1417-117	
54 East Street Lucy D. Anthony School (now F.M. Kirby Child Care Center)	Individual Site, 1930	1417-15	1107/8
Elm Street, between Park Ave. and Railroad Bridge	Streetscape, ca. 1850-1900	1417-14B	
Fairleigh Dickinson University	Individual Site, 1895 (only 1 building in Madison; part of a larger potential historic district)	1417-04	101/6.01
Fairview Avenue, between Ridgedale Ave. & Greenwood Ave.	Streetscape, ca. 1880-1920	1417-79	
Fairwoods at Madison	Fairwoods Historic District, 1911	1417-11	
1 Fairwood Road	Individual Site, ca. 1870	1417-10	1001/69

MADISON HISTORIC RESOURCES SURVEY, MADISON, NEW JERSEY, 1996

<u>Street Address</u>	<u>Type of Resource/ Date if known</u>	<u>Survey Number</u>	<u>Block / Lot</u>
Forest Road	Fairwoods Historic District, 1911	1417-11	
Garfield Avenue, north side between Shepard Lane & Colonial Drive	Streetscape, ca. 1890	1417-55	
61 Garfield Avenue	Individual Site, ca. 1820	1417-54	4502/8
125 Garfield Avenue	Individual Site, 1890	1417-110	4601/2
Gibbons Place between Lathrop Place and Prospect Place	"The Orchard" Historic District ca. 1860-1920	1417-31	
Glendale Road	Fairwoods Historic District	1417-11	
Green Avenue, west side between Wilmer street and Hillside Avenue	Streetscape, ca. 1900	1417-44	
Green Avenue, east side between HDM and Hillside Avenue	Green-Maple-Prospect Historic District ca. 1885-1935	1417-61	
Green Avenue Madison Golf Club	Individual Site, 1903	1417-52	4401/14
19 Green Avenue Presbyterian Church of Madison	Individual Site, 1887, 1928	1417-42	2801/7
144 Green Avenue	Individual Site, 1900	1417-57	4402/35
158 Green Avenue	Individual Site	1417-56	4402/34
Green Hill Road	"The Green Tract" Historic District, 1910	1417-48	
Green Village Road, west side between Lathrop Avenue and Strickland Place	Streetscape, ca. 1925	1417-33	
Green Village Road, west side between Woodland Road and Glenwild Road	Streetscape, ca. 1925	1417-35	

MADISON HISTORIC RESOURCES SURVEY, MADISON, NEW JERSEY, 1996

<u>Street Address</u>	<u>Type of Resource/ Date if known</u>	<u>Survey Number</u>	<u>Block / Lot</u>
Green Village Road, west side between Kings Road and opp. Wilmer Street	Streetscape, ca. 1910	1417-40	
26 Green Village Road St. Vincent the Martyr Catholic Church	Individual Site, 1912	1417-41	2801/8
39 Green Village Road Greenvilla Apartments	Individual Site, ca. 1925	1417-38A	
46-50 Green Village Road Madison Court Apartments	Individual Site, ca. 1925	1417-38B	
55 Green Village Road Henry Pilch House	Individual Site, 1908	1417-39	3002/8
86 Green Village Road Jeremiah O'Brien House	Individual Site, ca. 1870	1417-36	3501/11
Greenwood & Fairview Avenues Cole Park	Individual Site, 1918	1417-85	
Greenwood Avenue between Elmer Street & Locust Street	Streetscape, ca. 1880-1920	1417-76	
Greenwood Avenue, between Knollwood Ave & Valevue	Streetscape, ca. 1890-1930	1417-76A	
72 Greenwood Avenue	Streetscape, ca. 1900	1417-76B	
74 Greenwood Avenue	Streetscape, ca. 1900	1417-76B	
Greenwood Avenue # 82, 84, 86	Streetscape, ca. 1920	1417-75	
92 Greenwood Avenue	Individual Site, ca. 1900	1417-74	1004/38
196 Greenwood Avenue	Individual Site, 18th century	1417-83	707/28
216 Greenwood Avenue	Individual Site, ca. 1840	1417-82	707/45

MADISON HISTORIC RESOURCES SURVEY, MADISON, NEW JERSEY, 1996

<u>Street Address</u>	<u>Type of Resource/ Date if known</u>	<u>Survey Number</u>	<u>Block / Lot</u>
Grove Street, between Greenwood Ave. & Highland Ave.	Grove-Highland Historic District ca. 1890-1910	1417-88	
Highland Avenue, between Brittin Street & Grove Street	Grove-Highland Historic District ca. 1890-1910	1417-88	
45 Highland Avenue	Individual Site, ca. 1915	1417-95	
Highview Terrace	Highview Historic District, ca. 1900-1918	1417-51	
Hillcrest Road	Highview Historic District, ca. 1900-1918	1417-51	
Hillside Avenue, north side between Green Ave. & Green Hill Road	Streetscape, ca. 1880	1417-47	
3 John Marshall Lane	Individual Site, ca. 1800 & later	1417-84	707/8
Kings Road, north side east of Seaman Street	Streetscape, ca. 1915	1417-122	
242 Kings Road E.R. Bruen House	Individual Site, late 18th c.	1417-102	5101/12
286 Kings Road	Individual Site, c. 1860	1417-100	5201/11
299 Kings Road	Individual Site, ca. 1800 & 1860	1417-101	4806/3
Lathrop Avenue between Gibbons Place and Green Village Road	"The Orchard" Historic District ca. 1860-1920	1417-31	
Lincoln Place	Madison Civic and Commercial Historic District Listed on the State and National Register of Historic Places		
114 Loantaka Way	Individual Site, c. 1895	1417-27	3405/2
136 Loantaka Way	Individual Site, ca. 1920	1417-28	3404/1

MADISON HISTORIC RESOURCES SURVEY, MADISON, NEW JERSEY, 1996

<u>Street Address</u>	<u>Type of Resource/ Date if known</u>	<u>Survey Number</u>	<u>Block / Lot</u>
144 Loantaka Way	Individual Site, ca. 1895	1417-29	3404/55
152 Loantaka Way	part of Woodland Road Streetscape, ca. 1930	1417-34	
192 Loantaka Way	Individual Site, ca. 1760	1417-30	4303/5
4 Madison Avenue Grace Episcopal Church	Individual Site, 1857 & later	1417-26	3001/6
Madison Avenue, sw side	Streetscape, ca. 1900-1915	1417-25	
# 16 Madison Avenue			3001/5
# 18 Madison Avenue			3001/4
# 20 Madison Avenue			3001/3
# 22 Madison Avenue			3001/2
Madison Avenue Methodist Episcopal Church	Individual Site, 1870	1417-24	3001/2
47 Madison Avenue David Howell House	Individual Site, ca. 1810	1417-20	1301/13
57 Madison Avenue George Saxe House	Individual Site, ca. 1870	1417-21	1301/8
61 Madison Avenue	Individual Site, ca. 1890	1417-22	1301/6
95 Madison Avenue	Individual Site, ca. 1900	1417-09C	209/20
99 Madison Avenue	Individual site, ca. 1900	1417-09A	209/19
105 Madison Avenue	Individual site, ca. 1900	1417-09B	209/16
114 Madison Avenue	Individual Site, c. 1895	1417-08C	
116 Madison Avenue	Individual Site, c. 1895	1417-08B	3101/1
120 Madison Avenue	Individual Site, ca. 1895	1417-08A	1301/21

MADISON HISTORIC RESOURCES SURVEY, MADISON, NEW JERSEY, 1996

<u>Street Address</u>	<u>Type of Resource/ Date if known</u>	<u>Survey Number</u>	<u>Block / Lot</u>
123 Madison Avenue	Individual Site, ca. 1850	1417-07	209/6
205 Madison Avenue Bayley Ellard School	Individual Site, 1911-1913	1417-05	201/1
223 Madison Avenue 233 Madison Avenue 245 Madison Avenue	part of Shadylawn Historic District, 1930s	1417-02	
285 Madison Avenue Fairleigh Dickinson University	Individual Site, 1895 (only 1 building in Madison; part of a larger potential historic district)	1417-04	101/6.01
300 Madison Avenue Enos Wilder House	Individual Site, 1891-92	1417-03	3301/1
Madison Golf Club	Individual Site, 1903	1417-52	4401/14
Main Street, between Park Avenue and driveway/parking lots at 66 Main Street & Chemical Bank Parking Lot	Madison Civic and Commercial Historic District Listed on the State and National Register of Historic Places	1417-67	
Main Street, between Masonic Hall (site # 1417-91) and Elks Hall (site # 1417-94)	Streetscape, ca. 1890	1417-93	
Main Street Madison Junior School (built as Madison High School)	Individual Site, 1924	1417-90	2001/16
108 Main Street	Individual Site, 1820 & later	1417-66	1802/12
170 Main Street Masonic Lodge (built as Old Presbyterian Church)	Individual Site, 1825	1417-91	2001/17
Main Street Hillside Cemetery (Presbyterian Church Burying Ground)	Individual Site, 1750	1417-92	2601/19

MADISON HISTORIC RESOURCES SURVEY, MADISON, NEW JERSEY, 1996

<u>Street Address</u>	<u>Type of Resource/ Date if known</u>	<u>Survey Number</u>	<u>Block/ Lot</u>
192 Main Street	Individual Site, ca. 1800 & 1890	1417-94	2001/24
250 Main Street Brittin-Bruen House	Individual Site, 18th century	1417-97	2206/5
268 Main Street	Individual Site, ca. 1850	1417-98	2209/3
Maple Avenue	Green-Maple-Prospect Historic District ca. 1885-1935	1417-61	
Midwood Terrace	Streetscape, ca. 1910-1940	1417-58	
North Oak Court	Oak Court Historic District, 1925	1417-01	
North Street	Streetscape, ca. 1900-1930	1417-14A	
Oak Court	Oak Court Historic District, 1925	1417-01	
"Orchard, The"	The Orchard Historic District ca. 1860-1920	1417-31	
Orchard Street between Woodland Avenue and	The Orchard Historic District Lathrop Avenue ca. 1860-1920	1417-31	
Park Avenue Force Houses and Iron Works #38 Park Avenue #42-44 Park Avenue # 49 Park Avenue	Individual Site, c. 1880	1417-17	1402/8 1402/7 1101/7
Park Avenue - West Side between Elm Street and Madison Ave	Streetscape, ca. 1850-1900	1417-19	
57 Park Avenue	Individual Site, ca. 1876	1417-18	1101/8
Pomeroy Road, between Prospect St. & Dogwood Drive	Streetscape, ca. 1890	1417-107	

MADISON HISTORIC RESOURCES SURVEY, MADISON, NEW JERSEY, 1996

<u>Street Address</u>	<u>Type of Resource/ Date if known</u>	<u>Survey Number</u>	<u>Block/ Lot</u>
70 Pomeroy Road	Individual Site, 1903	1417-108	3804/1
83 Pomeroy Road	Individual Site, early 19th century	1417-109	4004/2
Presbyterian Church of Madison (current - Green Ave.)	Individual Site	1417-42	2801/7
(old - Main Street)	Individual Site	1417-91	2001/17
Prospect Place	The Orchard Historic District ca. 1860-1920	1417-31	
Prospect Street, between King's Road & Belmont Avenue	Green-Maple-Prospect Historic District ca. 1885-1935	1417-61	
Prospect Street, east side between Belmont Ave. & Pomeroy Road	Streetscape, ca. 1920	1417-60	
Prospect Street, west side between Belmont Ave. & Hillside Ave.	Streetscape, c. 1860	1417-60A	
15 Prospect Street	Individual Site, ca. 1795	1417-64	2702/20
82 Prospect Street	Individual Site, ca. 1900	1417-59	4001/61
Ridgedale Avenue, between Park Avenue & Boro Boundary	Streetscape, ca. 1750-1910	1417-16	
139 Ridgedale Avenue	Individual Site, ca. 1860	1417-78	1001/72
Rose Avenue	Streetscape, ca. 1925	1417-12	
137 Rosedale Avenue	Individual Site, mid-19th century	1417-86	701/1.02
100 Rosedale Avenue	Individual Site	1417-87	904/9
St. Vincent's Roman Catholic Church	Individual Site, 1912	1417-41	2801/8
St. Vincent's Cemetery	Individual Site, 1862	1417-112	4701/24

MADISON HISTORIC RESOURCES SURVEY, MADISON, NEW JERSEY, 1996

<u>Street Address</u>	<u>Type of Resource/ Date if known</u>	<u>Survey Number</u>	<u>Block/ Lot</u>
Samson Avenue, between Main St. & Kings Road	Streetscape, 1900 - 1925	1417-105	
85 Samson Avenue	CrossGates Historic District, 1930s	1417-117	
89 Samson Avenue	CrossGates Historic District, 1930s	1417-117	
Shadylawn Drive	Shadylawn Historic District, 1930s	1417-02	
Station Road Madison Water & Light Plant	Individual Site, 1890	1417-96	2208/19
3 Stonegate Court	Individual Site, c. 1880 with later alterations	1417-113	4701/45
South Oak Court	Oak Court Historic District, 1920s	1417-01	
50 Union Hill Road	Individual Site, c. 1750	1417-116	4805/2
35 Vinton Road	Individual Site, ca. 1890 & later	1417-45	3601/16
9 Vinton Road 11 Vinton Road 15 Vinton Road	part of "The Green Tract" Historic District, ca. 1900	1417-48	
Waverly Place	Madison Civic and Commercial Historic District Listed on the State and National Register of Historic Places		
West Street, between Elm Street and Railroad tracks	Streetscape, ca. 1860	1417-14C	
36 West Street	Individual Site, ca. 1890	1417-13	306/40
West Lane	CrossGates Historic District, 1930s	1417-117	
Woodland Road, north side, between CrossGates Road and Samson Avenue	CrossGates Historic District, 1930s	1417-117	
Woodland Road, south side, between Gibbons Place and Green Village Road	The Orchard Historic District, ca. 1860-1920	1417-31	

MADISON HISTORIC RESOURCES SURVEY, MADISON, NEW JERSEY, 1996

<u>Street Address</u>	<u>Type of Resource/ Date if known</u>	<u>Survey Number</u>	<u>Block / Lot</u>
Woodland Road, both sides, between Green Village Road and Green Avenue	Streetscape, ca. 1860-1920	1417-50	
Woodland Road, north side, east of Loantaka Way	Streetscape, ca. 1935	1417-34	
19 Woodland Road	Individual Site, mid-19th century	1417-115	3904/1
91 Woodland Road	Individual Site, ca. 1750	1417-114	3904/21
222 Woodland Road	Individual Site, ca. 1920	1417-121	4101/7
253 Woodland Road	Individual Site, ca. 1920	1417-119	4001/47
254 Woodland Road	Individual Site, ca. 1920	1417-120	4101/1
263 Woodland Road	Individual Site, ca. 1920	1417-118	4001/48
325 Woodland Road	Individual Site, ca. 1910	1417-50A	4201/19
333 Woodland Road	Individual Site, ca. 1910	1417-50B	4201/20
334 Woodland Road	Individual Site, ca. 1910	1417-50C	4203/2
393 Woodland Road	Individual Site, 1908	1417-34A	3403/43
Woodside Road	Fairwoods Historic District, 1911	1417-11	

