MASTER PLAN

MOORESTOWN, NEW JERSEY

June 27, 2002

Master Plan

TOWNSHIP OF MOORESTOWN
COUNTY OF BURLINGTON

PLANNING BOARD OF THE TOWNSHIP OF MOORESTOWN

June 27, 2002

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Master Plan

TOWNSHIP OF MOORESTOWN
COUNTY OF BURLINGTON

Prepared pursuant to *N.J.S.A.* 40:55D-28,
the New Jersey Municipal Land Use Law

Adopted by the Moorestown Township Planning Board

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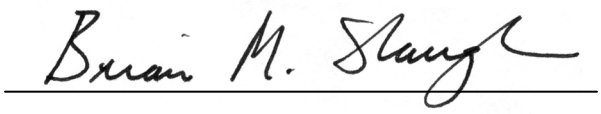
Prepared By:



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A signed and sealed original is on file with the Township Clerk's office.

ACKNOWLEDGEMENTS

The following committees and organizations contributed their time and effort to this Master Plan because of their shared commitment to the betterment of Moorestown:

MOORESTOWN TOWNSHIP COMMITTEES

Appearance Committee
Environmental Advisory Committee
Economic Development Advisory Committee
Open Space Advisory Committee
Planning Board Edit Subcommittee
Recreation Advisory Committee
Tree Planting and Preservation Committee

MOORESTOWN TOWNSHIP DEPARTMENTS

Department of Community Development
Department of Police
Department of Public Works
Department of Recreation
Department of Tax Assessment

MOORESTOWN ORGANIZATIONS

Board of Trustees of Free Public Library
Historical Society of Moorestown
Lenola Emergency Medical Services
Moorestown Township Board of Education
Moorestown Board of Fire Commissioners, District 1
Moorestown Board of Fire Commissioners, District 2
Moorestown Business Association
Moorestown Emergency Medical Services
Moorestown Improvement Association
Save the Environment Moorestown

In addition to these organizations, many citizens of Moorestown provided countless hours of comments and advice in the formulation of this Master Plan.

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Introduction to the Master Plan

Moorestown Township is located in western Burlington County, New Jersey, about twelve miles from the center of Philadelphia and seventy miles from New York City. The municipality contains about 15 square miles and has a population approaching 20,000 people. Moorestown generally dates its beginning from 1682 when the first European settlers arrived and established farms. Moorestown has historically been a center of population, first as an agrarian community, then as a center of commerce with the arrival of the railroad, as a bedroom community for Camden and Philadelphia, and lastly as a suburban town with its own large workforce, stores and offices.

In addition to the railroad, the Township is well served by the regional highway network that includes the New Jersey Turnpike, Interstate 295, Rt. 38 and Rt. 73, as well as by lesser intra-county highways, that makes it easily accessible from many locations. Moorestown is known in the South Jersey region for its attractive residential areas, traditional Main Street, well-regarded school system, regional shopping mall, modern industrial parks and the newly restored Strawbridge Lake Park. These attributes make it one of the most desirable places to live in the region. The Master Plan is a part of the municipal government's continuing efforts to ensure that it remains a first-class community.

The Master Plan is intended to provide a set of policies for Moorestown Township that will give guidance to public officials and private citizens on decisions and regulations that apply to the land within its borders. The responsibility for developing the Master Plan lies with the Moorestown Planning Board with its authority derived from the planning laws enacted by the New Jersey Legislature. This Master Plan derives from the analysis prepared by the

Planning Board, entitled, *Reexamination Report of the Master Plan*, adopted on July 19, 2001. This analysis is required by the state to be completed at least once every six years to ensure that the policies and regulations that operate in each municipality remain current and responsive to changing conditions. The *Reexamination Report* identified land use issues that are further explored in this document. Two major recommendations came from the *Reexamination Report* – the development of a comprehensive Master Plan for the Township and the reorganization and modernization of the Township's land development regulations. These regulations primarily include the zoning ordinance and land subdivision/site plan ordinance.

The structure of planning law in New Jersey requires that zoning and other land use regulations be in substantial consistency with the policies articulated in the Master Plan. Since modern planning law was first established in 1976, the link between a Master Plan and subsequent municipal land use regulations has strengthened in response to environmental and affordable housing law, court cases, and the adoption of the State Development and Redevelopment Plan in 1992.

This Master Plan is concerned primarily with the physical and natural environment of Moorestown as it affects the use of land. The use of land has physical manifestations in the form of buildings, roads and utilities that are a result of human interactions with the environment. The Master Plan only secondarily concerns operational or programmatic activities. In this document operational issues are found primarily in the Community Facilities Element and in the Open Space and Recreation Element.

The Master Plan was developed under the assumption that the general trends of society and the economy will continue without substantial or long-term disruption. The planning horizon for the Master Plan is twenty years though its policies, assumptions and recommendations will be reexamined within the statutory timetable of six years.

Planning History

Moorestown Township has a long history of municipal planning that first began with the establishment of the Planning Board in 1950. Six years later the first Master Plan was adopted and subsequently nineteen amendments or revisions were created. A chronological record of the Master Plans and amendments is as follows:

1. Master Plan, September 1956; adopted February 1957.

2. Master Plan (revisions); adopted May 14, 1958.

3. General Development Plan; adopted 1962.

4. General Development Plan (amended); June 1963.

5. General Development Plan (amended); December 14, 1966.

6. General Development Plan; adopted August 26, 1971.

7. Land Use Element; adopted December 9, 1976.

8. Land Use Plan Element, Town Center Area Goals and Objectives; adopted January 4, 1979[(1)] .

9. Circulation Plan Element; adopted February 12, 1981[(1)] .

10. Reexamination Report of the Master Plan & Development Regulation; adopted September 23, 1982.

11. Housing Element and Fair Share Plan; adopted April 1988[(1)] .

12. Conservation Plan Element; November 28, 1988[(1)] .

13. Land Use Element of the Master Plan; adopted July 1989[(1)].

14. Reexamination of the Master Plan; adopted December 14, 1995.

15. Amendment to Land Use Plan; adopted June 3, 1999[(1)].

16. Open Space & Recreation Element; adopted March 21, 2001[(1)].

17. 2001 Amendment to Housing Element & Fair Share Plan; adopted June 24, 2001(1)(2).

18. Reexamination Report of the Master Plan; adopted July 19, 2001(1)(2).

19. Open space & Recreation Element-Amendment No. 1; adopted October 4, 2001(1).

(1) – Master plan elements in effect prior to the adoption of this plan.
(2) – Master plan elements that remain in effect after the adoption of this plan.

Organization of the Master Plan

The Master Plan is organized into a set of sections, called either statements or elements, that are concerned with specific topics. Within each element, background information is presented that describes existing conditions. Where appropriate, projections of trends are next discussed. This leads to a discussion of issues discovered in the analysis. From the issues, recommendations are then made for implementation. This Master Plan includes the following statements and elements:

GOALS AND OBJECTIVES STATEMENT

The Goals and Objectives Statement is a set of principles, assumptions and standards that forms the basis for the substance of the Master Plan. The Goals and Objectives includes a Vision Statement that articulates in a brief paragraph the overall theme of the Master Plan. Five main goals are established for the Master Plan, including:

- Protecting the Land;
- Preserving the Past;
- Managing the Present;
- Envisioning the Future; and
- Improving the Environs.

Within each main goal, objectives are established to provide measures whereby it may be determined in the future that the goal has been reached.

CONSERVATION ELEMENT

Within the Conservation Element, the natural features of Moorestown are listed and described. This environmental analysis provides information on the natural processes that affect the use of land. Criteria for judging the acquisition of land for conservation purposes are established in the element. The concept of greenways is also introduced. The organizing concept of greenways is later used in the identification of potential open space parcels along stream corridors in the Open Space and Recreation Element. The environmental analysis in the Conservation Element also provides support for the assignment of residential densities in the Land Use Plan Element.

OPEN SPACE AND RECREATION PLAN ELEMENT

Closely allied with the Conservation Element, the Open Space and Recreation Plan Element will replace the element first adopted by the Planning Board on March 22, 2001 and amended on October 4, 2001. It represents more up-to-date information than these previous documents but it continues the same policies of open space acquisition and retention first identified in 2001. The Open Space and Recreation Element identifies land to be retained in open space for a variety of purposes that include conservation lands, passive recreation and active recreation purposes. This land includes both existing and proposed public lands as well as significant quasi-public facilities. The Township's recreation programs are discussed and compared in the element with the facilities available for hosting them.

HISTORIC PRESERVATION ELEMENT

Moorestown's past is examined in a brief history of the Township to set the stage for the Historic Preservation Element. The Township's historic district in the town center is depicted in the Historic Preservation Element. Individual landmarks are also identified. These are related to the National and State Registers of Historic Places. Background information is provided that supplies support for a local district should one be implemented. The conversion of farm land for new development and techniques for the retention of historic farm houses are discussed in the element.

COMMUNITY FACILITIES ELEMENT

Community facilities include government buildings, the municipal library, recreational facilities, educational facilities, religious institutions and similar uses

that provide services or house programs used by various segments of the public. The Community Facilities Element examines the adequacy of these facilities at the present time and with expected future population growth. School enrollment projections are also included in order to plan for orderly improvements under the jurisdiction of the Moorestown Board of Education.

CIRCULATION ELEMENT

The Circulation Element discusses the means of moving people and goods in Moorestown. It describes the network of roads and classifies them according to standard methods. Problem areas in the road network are identified for potential improvements. In addition to the street network, the Township's bicycle path system and public transportation routes are depicted. Extensions of bicycle pathways are proposed in the Circulation Element. The element includes a section on the design of streets with particular attention to the unusual streetscape that helps define the character of Moorestown. Trends in transportation, including public transportation, at the federal, state, and county level are reviewed.

LAND USE PLAN ELEMENT

The Land Use Plan Element synthesizes the information presented in the background studies of the underlying trends and changes in Moorestown. Existing land use is classified and mapped in the element. Population and employment trends are explored for the foreseeable future. The land use issues first identified in the *Reexamination Report* are explored in more depth. Based on the preceding elements, land uses are assigned to specific geographic locations at differing densities of development, designed to bring about the goals and objectives of the Master Plan.

TOWN CENTER SUB-ELEMENT

Functioning as a part of the Land Use Plan Element, the Town Center Sub-element concentrates on the Main Street area of Moorestown. More than that, it establishes Main Street as a model for remaking West Moorestown's commercial area, one of the main concepts in the Master Plan. Rationalization of the parking areas serving Main Street businesses is discussed in the sub-element.

REGIONAL LAND POLICY CONSISTENCY

A Statement of Consistency with other planning documents examines the land development policies of the surrounding municipalities. It compares the type of use and density of development for adjacent land areas to determine if the policies in the Master Plan create incompatibilities with the land uses in Delran, Willingboro, Cinnaminson, Mt. Laurel or Maple Shade. The Master Plan is also compared with the development polices of Burlington County. Lastly, the Master Plan is analyzed for consistency with the policies of the State Development and Redevelopment Plan.

HOUSING ELEMENT

The Township's response to the obligation for affordable housing is on a different planning cycle than the remainder of the Master Plan. The adoption of the Housing Element follows the time periods for substantive certification by the NJ Council on Affordable Housing. Running on a six-year cycle, the Township's plan was certified on July 9, 1997 and will be valid until that date in 2003. Recent legislative changes to the Fair Housing Act will lengthen the time period of future certifications to ten years. Therefore, the Housing Element is included by reference but is not otherwise adopted with this Master Plan.

The Master Plan also includes by reference several technical appendices which include:

Natural Resource Inventory, Moorestown Township Environmental Advisory Committee, 1989.

National Register of Historic Places Registration Report, Moorestown Improvement Association, 1990.

Cross-Acceptance Report, Moorestown Planning Board, July 1998.

Reexamination Report of the Master Plan, Moorestown Planning Board, July 19, 2001.

Goals and Objectives

A VISION FOR MOORESTOWN

Moorestown has a historic town center, fine residential neighborhoods, tree-lined streets, excellent schools, diverse religious institutions, strong civic organizations and a variety of natural resources constructed out of three hundred years of history. Moorestown's residents are committed to the shared values of community - seeking to balance prosperity with preservation, the needs of society with the enjoyment of private property, and environmental protection with balanced growth. We foresee an active and appealing Main Street, a bustling West Moorestown; an integrated system of open space encompassing streams, woodland and farmland; a comprehensive and efficient circulation system; continued preservation of its historic and cultural resources; a wide offering of private and public educational opportunities; and civic organizations that enhance the quality of life now and in the future.

INTRODUCTION

The Goals and Objectives Statement is the basis for the elements of the Master Plan. The goals arose from a series of public meetings wherein citizens expressed their opinions about the growth and direction of the Township in its use of land and its physical development. Further advice and recommendation in the formulation of the goals and objectives came from the various organizations, committees and other government agencies that examined how the Master Plan may be made more effective for their work. The goals and objectives reflect the gathering consensus of many people and represent their hopes for the future of the town.

GOALS OF THE MASTER PLAN

The goals and objectives are intended to be a guide to enhance the quality of life in the Township for its residents, business owners and visitors. The Master Plan has five major goals: Protecting the Land, Preserving the Past, Managing the Present, Envisioning the Future and Improving the Environs. Each goal is followed by a set of sub-goals, or objectives, by which progress in the implementation of this document may be measured. The objectives are not all inclusive as each individual element of this Plan may also have lesser objectives pertaining solely to its subject. No ranking or ordering of the objectives should be inferred; each one should be considered of equal weight.

GOAL: PROTECTING THE LAND

Protect the land within Moorestown and safeguard its natural heritage.

OBJECTIVES

- Promote the preservation of land for steam corridors, wetlands, flood plains, and woodlands to maintain or improve the quality of air and water.

- Encourage new open space areas throughout Moorestown for land conservation and scenic vistas.

- Strive to preserve the natural, scenic, historic, and aesthetic aspects of the community and its environment.

- Match zoning densities to the level of developable land available to avoid utilizing environmentally sensitive lands for development.

GOAL: PRESERVING THE PAST

Secure the heritage of the Township of Moorestown for future generations by preserving its cultural, social, economic and architectural history.

OBJECTIVES

- Establish a locally designated historic district or districts to

support the Township's cultural heritage.

- Conserve the scale and design features of eighteenth, nineteenth and twentieth century buildings and streetscapes.

- Promote historic preservation as an essential element of municipal character, economy and identity.

- Foster civic beauty through preservation of past architectural styles.

- Promote historic preservation for the education, enjoyment and welfare of the citizens of the Township and its visitors.

GOAL: MANAGING THE PRESENT

Maintain the necessary services, capacities and opportunities sufficient to satisfy the needs of present residents and to allow for their well-planned expansion to meet future needs.

OBJECTIVES

- Provide for the efficient movement of people and goods within and through the Township in a manner compatible with Moorestown's character.

- Increase the convenience of existing Main Street parking lots and encourage interconnections with adjacent commercial property.

- Maintain streets, parks, police and fire protection, recreational programs and other services sufficient to meet the needs of Moorestown residents and business owners.

- Add attractive signage directing motorists to the town centers, parking and community buildings.

- Ensure an adequate capital improvement program to maintain existing infrastructure and replace or modernize obsolete facilities.

- Provide for continuity of services under emergency conditions.

- Renovate and, if necessary, expand Town Hall to accommodate emerging requirements for services to residents and businesses and to utilize modern telecommunications and data networking technology to relay information around the clock.

- Maintain existing residential densities in neighborhoods.

- Maintain a fair share housing plan and associated development regulations which meet the municipality's requirements for affordable housing.

GOAL: ENVISIONING THE FUTURE

Bring about an improvement to the quality of life for the people of Moorestown by promoting, through the implementation of this document, the sense of a shared community with a consensus about the future of the town.

OBJECTIVES

- Maintain a physical relationship between development and open space that will be visually pleasing and that will endure for future generations.

- Ensure that as the Township matures, that its balance of open space, residential, institutional, industrial and commercial uses will provide sufficient revenue for the provision of public services at a level that meets the needs of its people.

- Recognize the value of open space lands for habitat, relief from urbanization and ecological processes beneficial to humankind.

- Facilitate access to a variety of housing to meet the income, aesthetic and personal requirements of the Township's future population.

- Balance the need for people and goods to travel through Moorestown with the desire to preserve the visual characteristics that define the town for its residents and visitors.

- Ensure the availability of utilities for a modern lifestyle. Promote conservation of water and other natural resources.

- Lower the density of allowed development in areas outside of the sanitary sewer service area.

GOAL: IMPROVING THE ENVIRONS

Improve the image of Moorestown from an already high standard as an attractive, thriving and productive community.

OBJECTIVES

- Establish design standards to ensure that new development in Moorestown is compatible with the style and scale of existing buildings, streetscapes and landscapes reflective of the established character of development in Moorestown.

- Actively foster the planting and cultivation of trees along streets, other public lands and on private property.

- Develop an agreement with other levels of government that allows the installation of street trees on roadways under their jurisdiction.

- Promote the development of leisure and recreational opportunities for all ages and new public park areas in the Township in support of them.

- Establish open space lands to ensure a sense of openness to the land in selected areas and closure of the landscape in others.

- Foster planning with adjoining municipalities where problems transcend municipal boundaries to achieve common objectives.

These Goals and Objectives pertain to the Master Plan as a whole. Within individual elements, additional recommendations for action and methods of implementation are made specific to their subject.

Conservation Element

INTRODUCTION

The Conservation Element of the Master Plan addresses the issues of the preservation and management of environmentally sensitive lands. In this context, environmentally sensitive lands include stream corridors, open water, freshwater wetlands, flood plains, soils with high water tables, steep slopes, aquifer recharge lands and areas with significant vegetative cover, including the urban forest resources of the Township. The preservation of these natural resources constitutes the main objective of the Township's conservation efforts. Conservation is a term that may also be used in conjunction with preserving the "built environment", that is significant buildings and streetscapes. Policies concerning this latter form of conservation may be found in the Town Center Sub-element, Historic Preservation and Circulation Elements.

The Conservation Element is designed to meet the goals and objectives of the Master Plan with a special emphasis on the goal of Protecting the Land. This element aids in achieving this goal by describing the natural environment, identifying environmentally sensitive lands, and recommending methods of land preservation. Retention of environmentally sensitive lands and mature woodland also assists in meeting the goal of Preserving the Past through the preservation of portions of the rural landscape. The element serves to provide techniques to enable the objectives under the goal of Envisioning the Future to be met.

In the overall structure of the Master Plan, the Conservation Element is closely allied with the Open Space and Recreation Plan Element. The Master Plan has been deliberately structured to begin with the lands that are to be retained for conservation and other open space purposes. Once these are described and mapped, land for development purposes is discussed in subsequent elements.

GEOLOGY

Geologic formations provide the parent material for the production of soils. Their characteristics help determine the suitability of land for development. The primary role of geology for land use policy relates to the supply of

groundwater and the disposal of effluent. In Moorestown, approximately one-quarter of the land area is outside the sanitary sewer service area, and because of the heavy clay layers that exist in much of the Township, adequate percolation for septic systems is often difficult to obtain. Geology is also important in identifying potential problem areas for existing development that use private well and septic systems. Lastly, geology aids in identifying aquifer recharge areas.

There are two basic types of geologic formations, surficial and bedrock. In Moorestown, only surficial geology creates constraints for development since bedrock is at a significant depth – too deep to play a part in human activities at the surface. Surficial formations in Moorestown consist of unconsolidated sands, gravels, silts and clays that formed as layers under the ocean. The rise and fall of the oceans, corresponding to glacial periods, successively inundated the land. Erosion from streams cutting through previously deposited materials on the land emptied into the ocean, creating distinct layers.

Moorestown is located within the Inner Coastal Plain, one of the five major geologic provinces in the State. A line beginning south of Marlton and drawn in a northeast direction towards Wrightstown roughly describes the boundary between the Inner Coastal and Outer Coastal Plains in Burlington County. The Inner Coastal Plain is west and north of the line and the Outer Coastal Plain is south and east of the line. The difference between the two is related to the time of deposition of the sediment that makes up the surficial geology. The land in the Inner Coastal Plain represents deposits made during the Cretaceous period (63 to 125 million years ago). The Outer Coastal Plain has deposits that are as recent as one million years ago. The boundary between the two geologic provinces is marked by a series of hills called *cuestas* that are partially cemented aggregates. Being partly cemented, *cuestas* have been less eroded than the surrounding land. Mt. Laurel and Mt. Holly are examples of *cuestas*. Both the Inner and Outer Coastal Plains are tilted towards Cape May. The oldest strata are located along the Delaware River and the youngest at the Atlantic coast. Like the edges of a pack of cards, the strata are exposed at the surface. Sedimentary layers become progressively deeper towards the southeast corner of the State.

In the Township five geologic formations have been identified (*see* Geology Map). These include the Magothy and Raritan, and Marshalltown Formations; the Englishtown Sand; and Merchantville and Woodbury Clays. A description of each of the formations is found after the Geology Map.

Legend

- KET Englishtown sand
- KMR Magothy and Raritan Formations
- KMT Marshalltown Formation
- KMV Merchantville Clay
- KWB Woodbury Clay
- Lakes/Rivers

Willingboro Township

Delran Township

Cinnaminson Township

Maple Shade Township

Mount Laurel Township

KET KMR KMT KMV KWB

Geology

Moorestown Township
Burlington County, New Jersey
June 27, 2002

1100 0 1100 2200 3300 Feet

North

CLARKE • CATON • HINTZ
A Professional Corporation

This Map was developed using New Jersey Department of Environmental Protection Geography Information System digital data for Geology but this secondary product has not been verified by NJDEP and is not state-authorized.

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

MAGOTHY AND RARITAN FORMATION - The Raritan consists chiefly of light-colored sand and clay, with clay more frequently found in the lower half and sand found in the upper half of the formation. The formation is extremely variable in composition and its thickness is not constant, ranging from 150 to 300 feet at the outcrop and increasing to the southeast to over 500 feet. Near the Delaware River, however, the beds are only 25 to 30 feet thick.

MARSHALLTOWN FORMATION - This formation consists of sandy clays ranging in color from gray to black. The clay contains varying amounts of argillaceous glauconite (marl). Marl, also called greensand, is generally calcareous sands, silts and clays containing phosphoric acid. Marl was used as a fertilizer prior to the advent of mass-produced nitrogen fertilizers and is a component of a number of the geologic formations as well as many soils found in Burlington County. Because of the widespread deposits in the County, it also lent its name to the village of Marlton. The formation ranges from 30 to 40 feet thick.

ENGLISHTOWN SAND - This formation is a conspicuous bed of white or yellow quartz sand. Locally some beds have been cemented by iron oxide into massive stone. The rusty colored stones uses locally in building construction are examples of this aggregation. In places, the formation also contains thin laminae of fine clay. The formation ranges from 20 to 140 feet in thickness.

MERCHANTVILLE CLAY - This formation is a black, glauconitic, jointed clay about 60 feet thick. It is generally greasy in appearance and massive in structure, and weathers to a brown earth. Both the Merchantville Clay and the following formation, Woodbury Clay, account for the large areas of clayey soils found in the Township that are concentrated in its northwestern half.

WOODBURY CLAY - The Woodbury is a black, jointed clay about 50 feet thick which weathers to a light chocolate color. When dry, it breaks into innumerable blocks, many showing a curved or conchoidal fracture.

SOILS

Parent geologic formations play a major role in the formation of different soil types. Soil is formed from the underlying geologic strata, the actions of weathering, organic material, and biological processes to create a material supportive of life on the planet. Soil types have specific characteristics that

determine landforms, slopes, drainage, and vegetation that provide the basis for determining suitable land uses for a variety of human activities.

Soils are made up of varying amounts of clay, silt and sand - which are determined by particle size - plus organic matter. Clay particles are the smallest and sand particles the largest in diameter. A number of the soil classifications have similar characteristics and it is usually the lower horizon of the subsoil that provides the distinguishing series. The general soil series are depicted on the Soils map found on the following page and are described generally in this section:

ADELPHIA – This series consists of loamy soils that have a fluctuating water table and are moderately well drained in most places. The glauconitic variant found in the Township is mostly associated with other Adelphia soils and with Collington, Marlton, Kresson, and Shrewsbury soils. The location of this soil type is limited to a small area along the west side of Westfield Road, near the high school.

ALLUVIAL LAND (LOAMY) – Alluvial refers to the deposition process where the surrounding soils have eroded by water action and the sediment is dropped on level areas adjacent to stream banks. As such, the soil is typical of the surrounding land but differs in that no clay layers have had an opportunity to form. Loamy Alluvial soils are a strong indicator of wetlands and are unsuitable for building.

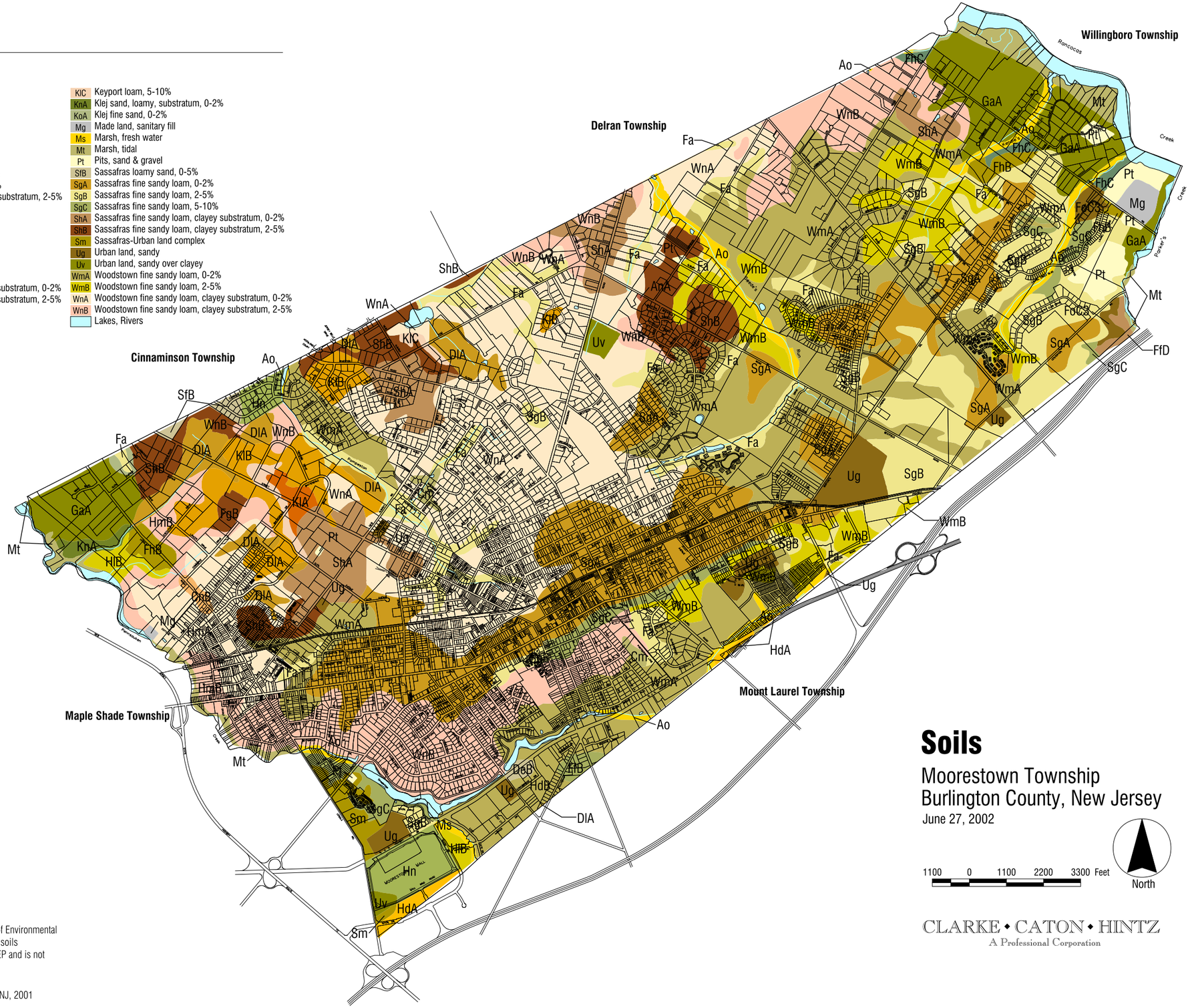
COLEMANTOWN – This soil series is limited to a small area south of the Moorestown Friends School. Colemantown soils are associated mostly with Kresson, Marlton, Adelphia, and Holmdel soils. Colemantown soils occur in lower positions than these associated soils and are more poorly drained. Due to the seasonal high water table and because these soils are subject to ponding and frost action, there are severe limitations for development.

COLLINGTON – The Collington series consists of well-drained loamy soils that contain moderate amounts of glauconite. These soils are associated mostly with Adelphia, Freehold and Marlton soils. However, they lack the mottling that commonly occurs in Adelphia soils and the dark olive sandy clay subsoil that commonly occurs in Marlton soils. They have a higher glauconite content than Freehold soils but lower than Marlton. Native vegetation is a hardwood forest that consists of red oak, yellow poplar, hickory, ash and beech and an understory of viburnum. Collington soil is limited to a small area along Lenola Road.

Legend

Streams

Ana	Adelphia fine sand
Ao	Alluvial land, loamy
Cm	Colemantown loam
CnB	Collington fine sandy loam, 2-5%
DeB	Donlonton fine sandy loam
DlA	Donlonton loam, 0-3%
Fa	Fallsington fine sandy loam
FfB	Freehold fine sandy loam, +2-5%
FfD	Freehold fine sandy loam, 10-15%
FgB	Freehold fine sandy loam, clayey substratum, 2-5%
FhB	Freehold loamy sand, 0-5%
FhC	Freehold loamy sand, 5-10%
FoC3	Freehold sandy loam, 5-10%
GaA	Galestown sand
HdA	Holmdel fine sandy loam, 0-2%
HdB	Holmdel fine sandy loam, 2-5%
HlB	Holmdel loamy sand, 0-5%
HmA	Holmdel fine sandy loam, clayey substratum, 0-2%
HmB	Holmdel fine sandy loam, clayey substratum, 2-5%
Hn	Holmdel-Urban land complex
KlA	Keyport loam, 0-2%
KlB	Keyport loam, 2-5%
KlC	Keyport loam, 5-10%
KnA	Klej sand, loamy, substratum, 0-2%
KoA	Klej fine sand, 0-2%
Mg	Made land, sanitary fill
Ms	Marsh, fresh water
Mt	Marsh, tidal
Pt	Pits, sand & gravel
SfB	Sassafras loamy sand, 0-5%
SgA	Sassafras fine sandy loam, 0-2%
SgB	Sassafras fine sandy loam, 2-5%
SgC	Sassafras fine sandy loam, 5-10%
ShA	Sassafras fine sandy loam, clayey substratum, 0-2%
ShB	Sassafras fine sandy loam, clayey substratum, 2-5%
Sm	Sassafras-Urban land complex
Ug	Urban land, sandy
Uv	Urban land, sandy over clayey
WmA	Woodstown fine sandy loam, 0-2%
WmB	Woodstown fine sandy loam, 2-5%
WnA	Woodstown fine sandy loam, clayey substratum, 0-2%
WnB	Woodstown fine sandy loam, clayey substratum, 2-5%
	Lakes, Rivers



Soils

Moorestown Township
Burlington County, New Jersey
June 27, 2002

1100 0 1100 2200 3300 Feet

North

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This Map was developed using New Jersey Department of Environmental Protection Geography Information System digital data for soils but this secondary product has not been verified by NJDEP and is not state-authorized.

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

DONLONTON – This series consists of somewhat poorly drained, nearly level, soils that contain small amounts of glauconite. Donlonton soils are normally found below Keyport soils and above the Colemantown and Shrewsbury soils. Donlonton soils are slowly permeable and have a high available water capacity with a lot of shrink/swell potential and frost heaving. As such, these soils present severe constraints on development. Within Moorestown, Donlonton soils are found in the northwest portion of the Township.

FALLSINGTON – This series consists of nearly level fine sandy loams that are grayish-colored and distinctly mottled. Fallsington soils form in water deposited sediments in low positions, where they receive considerable runoff from higher slopes. Generally, these soils are saturated 6 to 8 months of the year and the water table drops below 3 feet in the summer, though it may be higher when rains are heavy. Because of the high water table, constraints on development are severe. These are usually considered an indicator of freshwater wetlands.

FRESHWATER MARSH – Freshwater Marsh soils are located along Strawbridge Lake, in the southern corner of the Township. As freshwater wetlands, these soils are unsuitable for development.

FREEHOLD - Freehold soils are typically dark grayish-brown, well-drained and sandy. In contrast to other soil types, the soil is low in glauconite. Freehold is distinguished by inclusions of iron among the finer particles that gives it a reddish cast in the lower horizons. Freehold soils occupy higher elevations and are extremely acid. The natural vegetation, typically on slopes, consists of red oak, beech, and yellow poplar. Freehold soils generally present few constraints for development.

GALESTOWN – The series consists of excessively drained nearly level or gently sloping sandy soils that have a little more clay in the substratum than in the surface layer. Galestown soils occur along the Delaware River on a terrace that ranges from 10 to 50 feet in elevation. In Moorestown, these soils are found along the Rancocas and Pennsauken Creeks. Galestown soils are low in organic matter and hence fertility. They are very strongly acid. The native vegetation is woodland consisting mostly of mixed oaks, hickory and scattered Virginia pines.

HOLMDEL - Holmdel soils are similar to Freehold soils and are often found in association with them. Holmdel soil, however, is less well drained than

Freehold and often have a high late winter water table. Consequently, mottling is common in the lower subsoil. Holmdel usually are more steeply sloped than Freehold soil. Higher elevations of Holmdel soil contain red, scarlet, and white oaks, yellow poplar, beech and hickory in their natural state. Less well drained areas are dominated by pin oak, willow oak, and sweetgum.

KEYPORT - This series is found in a few areas in the northwest portion of the Township. Keyport soils have a high available water capacity and are slowly permeable. Where slopes exceed 2%, runoff is moderate to rapid and erosion is a hazard. These soils are moderate in organic matter and in fertility, and are very strongly acid. Natural vegetation is a hardwood forest consisting of yellow poplar, red oak, white oak, ash, beech and hickory.

KLEJ - This series is found on river terraces (along a small portion of the Pennsauken Creek in Moorestown) and consists of deep, nearly level and gently sloping sandy soils. Klej soils are rapid or moderately rapid in permeability and have a low available water capacity. Fertility is low. The natural vegetation is a hardwood forest that consists mainly of black ash, white oak and hickory.

SAND AND GRAVEL PITS- Sand and Gravel is a descriptive term rather than a soil series. As the name suggests, this type indicates the creation of borrow pits where the topsoil has been removed, exposing the underlying geologic layers which have been excavated for construction purposes. About half of the Laurel Creek Golf Course and the now-closed Township landfill on Creek Road are located on a former sand and gravel pit. Additionally, there are several smaller areas in the Township that are mapped as sand and gravel pits, although there are no longer any active sand and gravel operations in Moorestown.

SANDY URBAN LAND - This land type consists of cut and fill areas, most which have been developed. Where the original soil was removed and substratum exposed the material remaining is rapidly permeable and extremely low in organic material and fertility. The Kmart shopping plaza and Lockheed Martin complex exhibit these characteristics.

SANITARY FILL MADE LAND - This classification refers to soils that have been intermixed to such an extent by human activities that it is no longer possible to determine the original soil type. A portion of the former sanitary landfill

at the northeast corner of the Township near Creek Road is the only location of this soil classification.

SASSAFRAS – Sassafras soils are associated with Woodstown, Freehold, Holmdel and Downer soils. Near the Delaware River, Sassafras soils are normally occupying a high position above Woodstown and Holmdel soils. Sassafras and Woodstown soils developed in material deposited by glacial water on the glauconitic marine deposits in which Freehold and Holmdel formed. The native vegetation is a hardwood forest consisting mostly of red oak, white oak, black oak, scarlet oak, hickory, beech, yellow poplar and scattered Virginia pine.

TIDAL MARSH - In Moorestown, Tidal Marsh soils are low lying lands inundated by tides. Tidal Marsh land is in the stream corridors of the Rancocas Creek, Parkers Creek and Pennsauken Creek. Tidal Marsh is by definition freshwater wetlands and is unsuitable for development. The soil contains substantial proportions of organic material combined with silt. Vegetation is almost entirely grasses.

WOODSTOWN - These soils consist of moderately well drained, sandy and loamy soils that are nearly level or gently sloping. Woodstown soils generally are associated with Sassafras and Fallsington soils. The Woodstown series formed in water-laid material and usually occurs below Sassafras and above Fallsington soils. Woodstown soils have a fluctuating water table that rises to a depth of two feet in winter. However, this soil is not usually considered a wetlands indicator and with proper techniques may be developed.

PERMEABILITY AND AQUIFER RECHARGE

Permeability is the ability of surface water to move through the soil to reach underlying soil and geologic strata, which varies with the quality of soil horizons or layers. In Moorestown, virtually all of the soil types exhibit slow permeability. The few areas of moderate and rapid permeability are located in the northeast portion of the Township along the Rancocas Creek and Parkers Creek, and in the northwest corner of the Township adjacent to the Pennsauken Creek. The slow permeability of most of the soil is a function of the amount of clay and silt.

Aquifer recharge is an essential component of the hydrologic cycle that replenishes the underground water supply. Preventing overuse of aquifers is

an important environmental goal. This may occur from over pumping where more water is drawn from the aquifer than is available for replenishment by rainfall (water "mining") or when impervious surfaces prevent rainfall from percolating into the ground. As noted above, clay layers within soils may also limit the ability of water to move through the soil. Clay layers often also lead to "perched" water tables, which create surface drainage problems.

Most of the Township is served by public water which utilizes both ground water supplies from municipal wells and water from the Delaware River. The ground water is obtained from the Potomac-Raritan-Magothy aquifer. Over-pumping from this aquifer has reached serious levels and the state Department of Environmental Protection (DEP) established Critical Area No. 2 region in the late 1980's. Critical Area No. 2 is centered in northern Camden County and restricts the amount of water that may be withdrawn from the aquifer. The Township was required by the DEP to use water from the Delaware River to reduce its reliance on well water and allow the aquifer to recover. While the Township operates the public water system and wellheads on Kings Highway, N. Church Street and Hartford Road, river water is supplied by the NJ American Water Co. from a water treatment plant located in Delran.

STORM WATER MANAGEMENT AND WATER QUALITY

Water use patterns within Moorestown indicate a three-fold increase in water consumption during the summer months, which can be largely attributed to irrigation of agricultural and landscaped areas. In addition to encouraging the conservation of water supplies throughout the year, the Township should facilitate replenishment of surface and ground waters as well as improve water quality by requiring a high level of Best Management Practices (BMPs) in the site and subdivision design process and in the planning and design of storm water management systems. This is currently encouraged through the Township's adoption of the Residential Site Improvement Standards for non-residential development, too. Examples of BMPs for storm water management and non-point source pollution control include the following:

- Development that mimics, as closely as possible, pre-development hydrological conditions (such as the peak discharge, run-off volume, infiltration capacity, base flow levels, ground water recharge and water quality) will have the lowest adverse environmental effect. Lowering the allowed impervious surface coverage makes this easier to accomplish.

- Concentrating residential development on uplands will avoid stream disturbance and grade changes in natural drainageways, or in areas of the site dominated by dense vegetation, porous or erodible soils.

- The use of native or well-adapted non-native species in disturbed and open areas and limiting the use of turf will reduce the amount of fertilizers, pesticides and watering that are needed to maintain landscaping. This reduces chemical runoff into streams or percolating into aquifers and stretches water supplies farther.

- By using stormwater management techniques that are appropriate to a site, pollutants from parking lots and landscaping can be adequately treated through passive techniques. Further, relatively clean water can be infiltrated back into the ground where the soil characteristics are favorable. Such methods include retention ponds, dual purpose/extended detention basins, infiltration basins, underground sand beds, dry wells, vegetated swales, vegetative filter strips, and porous pavement (in small parking lots).

FRESHWATER WETLANDS

Jurisdiction for the regulation of freshwater wetlands was transferred from the U.S. Army Corps of Engineers to the New Jersey Department of Environmental Protection on July 1, 1988. Transitional buffer standards (after legal challenge from several quarters) were instituted on July 1, 1989. The final transfer from federal to state control of Section 404 permits, pertaining to the federal Clean Water Act, occurred in 1994, thereby completing New Jersey's assumption of wetlands protection. As part of this process, the New Jersey Department of Environmental Protection developed wetlands mapping. This mapping identifies wetlands more definitively than the National Wetlands Inventory mapping that it replaced (*see* Freshwater Wetlands Map, next page). Wetlands include three criteria: 1), the land at least periodically and predominantly supports hydrophytes (vegetation characteristically found in saturated soils); 2), the soil substrate is primarily undrained hydric soil characterized by at least long periods of oxygen starvation; and 3), the substrate is a non-soil and is saturated or covered by shallow water at some time during the growing season[1].

[1] - The three parameter approach to classifying wetlands is from the definition of a wetland by the U.S. Fish and Wildlife Service.

Legend

- Streams
- Tidal water/marsh
- Herbaceous/scrub wetlands
- Modified wetlands
- Wooded wetlands
- Uplands
- Water

Willingboro Township

Delran Township

Cinnaminson Township

Mount Laurel Township

Maple Shade Township

Wetlands

Moorestown Township
Burlington County, New Jersey
June 27, 2002

1100 0 1100 2200 3300 Feet

North

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This Map was developed using New Jersey Department of Environmental Protection Geography Information System digital data for fresh water wetlands but this secondary product has not been verified by NJDEP and is not state-authorized.

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

In Moorestown, the Adelphia, Colemantown, Donlonton, Fallsington, Freshwater Marsh, Klej, Loamy Alluvial, and Tidal Marsh soils, as well as the more common series of the Holmdel, Keyport and Woodstown soils, are all indicative of freshwater wetlands.

The NJDEP continues to use the U.S. Fish and Wildlife's classification system based on Cowardin, et al[2]. This consists of a hierarchical nomenclature encompassing a wide variety of wetlands' ecologies. Five systems are defined: Marine, Estuarine, Riverine, Lacustrine, and Palustrine (*see* Wetlands Illustration, following page). The Marine system consists of the open ocean and its associated coastline. The Estuarine system includes salt and brackish marshes and the brackish waters of coastal rivers and bays. These two classifications are salt water wetlands. Freshwater wetlands and deep water habitats (water over two meters in depth) are either classified as river or stream based (Riverine); lake, reservoir or large pond wetlands (Lacustrine); or Palustrine which encompasses forested wetlands, marshes, swamps, bogs, and small ponds[3]. In Moorestown, tidal marsh areas are classified as Riverine, and the remaining freshwater wetlands are classified as Palustrine. In addition to these natural systems, there are other wetlands that have been disturbed by human actions, such as wetlands that have been drained and plowed for agriculture. The major undisturbed wetlands types are described as follows:

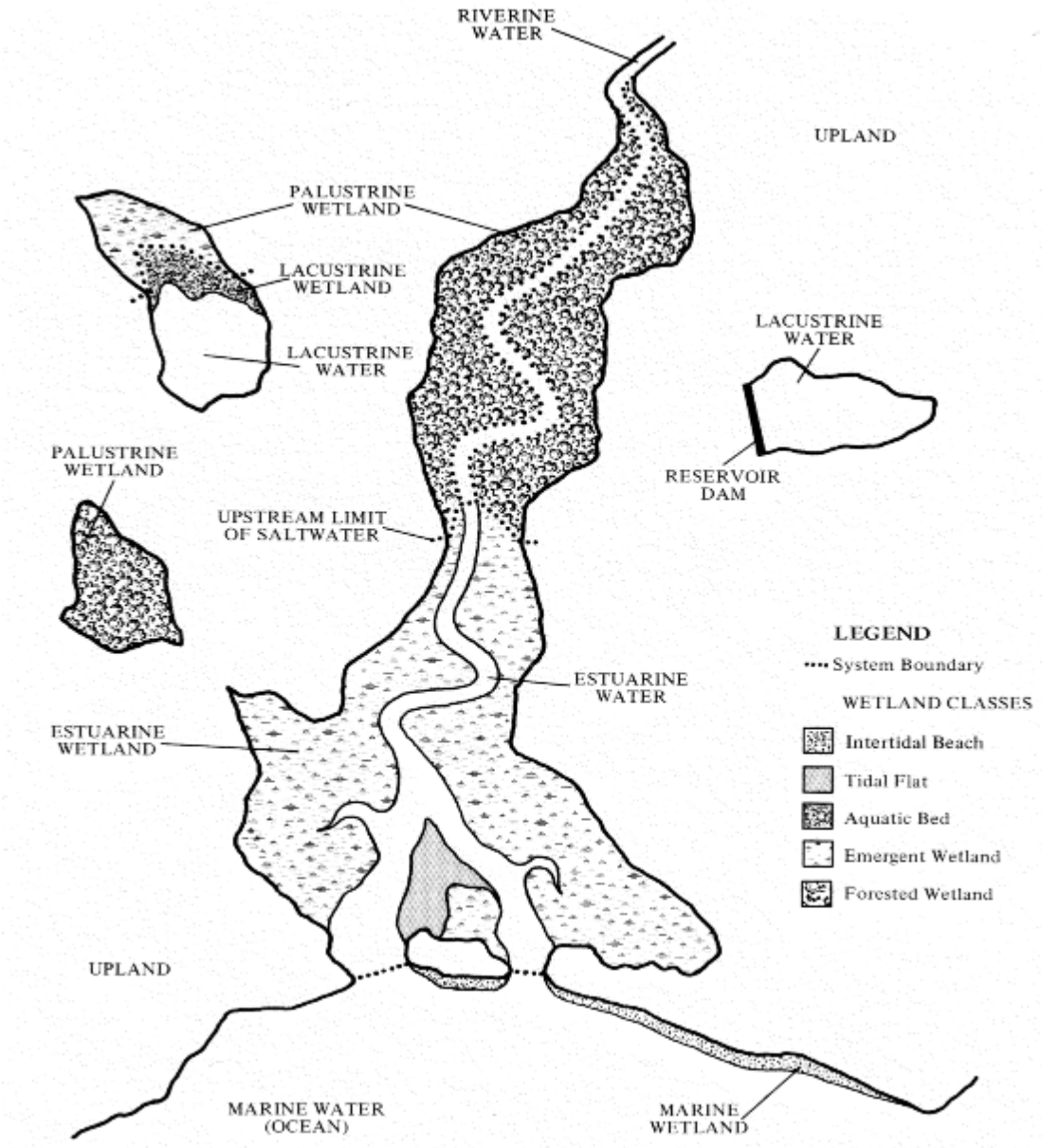
RIVERINE

Riverine wetlands are restricted to non-persistent emergent wetlands, aquatic beds, and unvegetated shallow water or exposed areas. These wetlands are most extensive in tidal freshwater areas, such as those contained within the Delaware River and its tributaries, and consist of low marsh and high marsh. The low marsh is flooded at least once daily by tides. High marsh areas are flooded less often by tides and may also be classified as palustrine wetlands. In Moorestown, high marsh areas are located along the Pennsauken and Parkers Creeks, whereas low marsh areas are located along the Rancocas Creek. Vegetation characterizing the majority of riverine tidal marshes are pure and mixed stands of wild rice, spatterdock and arrow arum.

[2] - L. M. Cowardin, V. Carter, F.C. Golet and E.T. La Roe, *Classification of Wetlands and Deep-water Habitats of the United States*, 1979, U. S. Fish and Wildlife Service.

[3] - This description is based on *Wetlands of New Jersey,* by Ralph W. Tiner, Jr., U.S. Fish and Wildlife Service, U.S. Department of the Interior, July 1985.

Wetlands Illustration



Typological Characteristics of Wetlands. Source: *Wetlands of New Jersey*, 1985.

PALUSTRINE

Palustrine wetlands are the most diverse of the five classifications in terms of the type of vegetation found and of the amount of water saturation. Water saturation ranges from permanently flooded to seasonal and temporarily flooded. There are two major Palustrine types of wetlands that occur in Moorestown.

Palustrine Emergent - On the Freshwater Wetlands Map these are identified as Herbaceous/Scrub Wetlands and in the Township are located immediately adjacent to flowing streams. They are tidally influenced but are protected behind natural levees so inundation is occasional rather than constant. They are dominated by grasses, sedges, forbs and rushes. Scattered trees include red maple and willow.

Palustrine Forested - The mapping indicates these wetlands under the heading of Wooded Wetlands. This is the most common type of wetland in Moorestown. Freshwater swamps are this type of wetland. Deciduous trees are commonly red maple, sweetgum, black gum (tupelo), and holly. Coniferous trees only include pitch pine - other evergreens require drier soil. The understory vegetation in forested wetlands typically includes pepperbush, high bush blueberry, swamp azalea, and arrowwood.

REGULATORY BASIS AFFECTING WETLANDS

The delineation of wetlands noted on the Freshwater Wetlands Map are not "regulatory" in the sense of being accepted as definitive for the placement of buildings or establishing wetlands transition areas. Each individual site must be surveyed and the results submitted for a "Letter of Interpretation" (LOI) which is a formal acceptance of the mapping by DEP. This is a common practice in the site design and approval process.

State law preempts any local freshwater wetlands regulation, including determining or regulating transition areas or buffers. State law sets up three categories of wetlands, "exceptional resource value", "intermediate resource value", and "ordinary resource value". Exceptional resource value wetlands typically harbor endangered species or are related to trout production (not a factor in Moorestown) and require a 150 foot buffer. Intermediate resource value wetlands are all wetlands which are neither exceptional nor ordinary.

Intermediate wetlands require a 50 foot buffer. Ordinary wetlands are generally man-made and have no transition area. Bodies of water and water courses with no fringe of associated wetlands are called "state open waters" and also require no transition area. It has been estimated that 47% of the water courses in the state do not have a wetlands transition area requirement. State regulations allow certain limited types of fill in wetlands and averaging of transition areas.

Municipalities have been pre-empted by the state from regulating freshwater wetlands. However, setback requirements from a stream or pond for aesthetic purposes may be implemented locally to provide greater protection for natural resources as well as to promote a better visual environment.

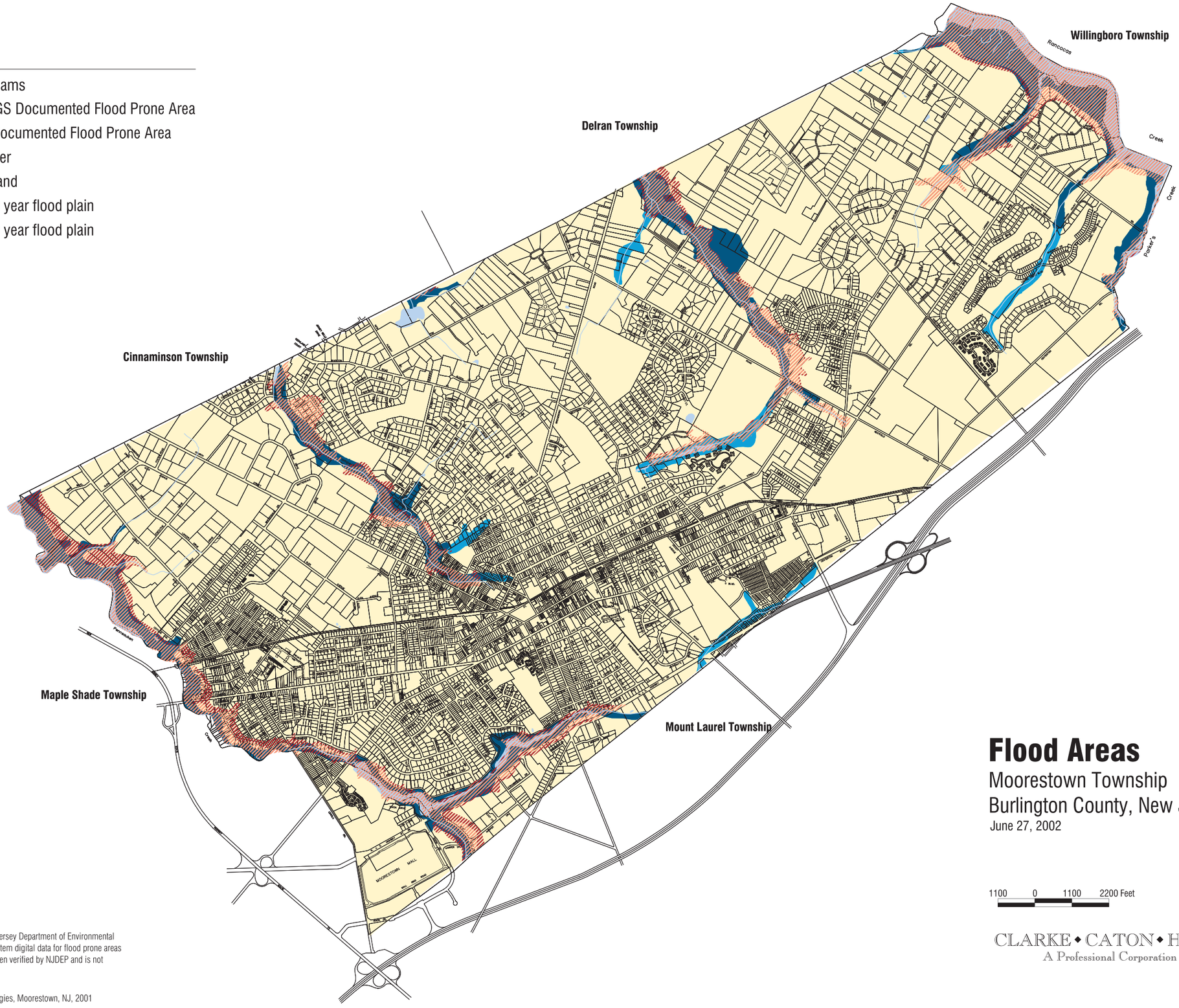
FLOOD PRONE AREAS

"Flood Prone" is a measurement of the danger or probability of flooding. This can result from the overflowing of a body of water onto adjacent land, but can also occur as the result of a rise in the water table, so that land becomes soaked at the subsurface level. The level or nearly level areas on either side of a water course or body created by successive and cyclical inundation and erosion is typically classified as a flood prone area. The DEP uses the “flood prone” description to include the flood plains that have been the subject of detailed engineering studies plus those areas outside of the study region that would likely flood based on aerial photography and topography. Flood prone areas in Moorestown are depicted on the Flood Area map on the following page.

For purposes of measuring hazards in flood prone areas, 100-year and 500-year flood plains are determined. The flood plains are based on a probability that a storm of a certain magnitude will occur once every 100 years or 500 years, respectively, and cover the land to the extent shown on the flood prone map. The delineation of these regulatory boundaries is based on the engineering studies noted above that examine the specific watershed. The study analyzes the land area of the drainage basin, the amount of impervious cover, slope, and the capacity of the stream channel. The flood hazard area is composed of three parts: 1) the stream channel, which is the normal stream bed of the stream and contains normal flows; 2) the floodway, which is the area on either side of the stream which must be kept free of obstruction in order to contain 100-year flood flows; and 3) the flood fringe or 500-year level.

Legend

- Streams
- USGS Documented Flood Prone Area
- Undocumented Flood Prone Area
- Water
- Upland
- 100 year flood plain
- 500 year flood plain



Flood Areas

Moorestown Township
Burlington County, New Jersey
June 27, 2002

1100 0 1100 2200 Feet

North

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Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

The State allows a certain amount of fill or construction in flood fringe areas – flood prone areas outside of the flood hazard corridor – but otherwise has established a policy of no construction in flood prone areas.

Municipalities are required to adopt ordinances that enforce the state statutes, including engineering details to minimize flood damage and adhere to net fill requirements. Moorestown has adopted a flood damage prevention ordinance that also meets the criteria for inclusion in the federal flood insurance program.

In areas outside of flood prone areas, provision need only be made for adequate drainage of each site to prevent local flooding (ponding). Flood prone areas are best suited for conservation and passive recreational purposes and many of these areas are identified as existing or proposed open space sites in the Township's Open Space and Recreation Plan Element.

VEGETATION

NATIVE VEGETATION

Although most of Moorestown is now developed, some areas with natural vegetative cover still remain, primarily within wooded wetlands located along stream corridors. The two largest areas of woodland remaining are South Valley Woods between South Valley Elementary School and Marter Avenue, and the Hundred Acre Wood in the vicinity of Swede Run and Garwood Road. These two areas also contain a significant amount of Palustrine wetlands. Trees found in these two woodlands include sweetgum, willow oak, red maple, pin oak, tulip tree, beech, swamp white oak, yellow poplar, ash, elm, and sassafras. Shrubs growing in more mature swamp and floodplain areas include arrowwood, spicebush, highbush blueberry, sweet pepperbush, and swamp azalea. Additionally, poison ivy and honeysuckle are abundant in certain areas, frequently making dense thickets. Non-native invasive species have also contributed to the underbrush, such as multi-flora rose and common reed in open wetland areas.

URBAN FOREST

In addition to natural vegetative cover, trees located along streets and within parks and yard areas create an "urban forest" in the Township, which is an important natural resource. Moorestown is noted for its tree-lined streets

and high branching canopy. The Township has been recognized nationally since 1990 as a Tree City, USA by the National Arbor Day Foundation. Many of the Township's street trees were planted in the 1920s through efforts of the Moorestown Improvement Association. As these trees approach the end of their natural life span and as many oaks succumb to bacterial leaf scorch disease, efforts to maintain and enhance the Township's urban forest resources have become increasingly important.

The environmental, aesthetic, financial and social benefits of the urban forest have been well established. In particular, urban trees have a positive influence on climate. Trees help reduce global warming, and they modify local climate by reducing urban "heat island" temperatures in summer, while admitting sunlight for heating in the cooler months. Urban trees also provide significant benefits by improving air quality, reducing noise, and by providing habitat for birds and other wildlife. Studies have consistently shown that a well-established street tree canopy supports property values and positive perceptions of a town's quality of life.

The Tree Planting and Preservation Committee was established by Township Council to protect and preserve the Township's tree resources. In addition to conducting educational outreach activities and promoting tree planting through efforts such as the Tree Remembrance Program, the Committee has established as goals the mapping of all street and park trees, assuring their proper maintenance and promoting the planting of a diverse selection of trees. Extending mapping efforts beyond street right-of-ways and park areas to identify significant tree resources throughout the Township should be considered, given the importance that the tree cover has in the values of its citizens. As an aid to tree retention, consideration should be given to establishing a landscape ordinance that would include limits on tree removal, require provisions for tree replacement, tree protection, and appropriate tree planting as part of the development process.

LAND FOR CONSERVATION PURPOSES

The imposition of environmental regulations over the past two decades has greatly reduced or eliminated the development of certain types of environmentally sensitive land. Most of the regulation of environmentally sensitive land has reverted to the state level, including stream encroachment (development within the flood plain), freshwater wetlands, water withdrawals and effluent disposal. Some municipalities also administer

complementary requirements that prohibit development or site disturbance next to streams, open bodies of water, net fill in floodplain areas and other types of environmental regulation. In 1998, the Township established stream setbacks regulations that fall within this category.

With these restrictions already in place, attention to other desirable site characteristics that are not protected by existing regulations become more important in the preservation of environmentally sensitive land. Protection of environmentally sensitive land is a prudent investment for the municipality to make. Once lands are developed, retrofitting a neighborhood or commercial complex becomes exceedingly expensive. Preventing the use of inappropriate lands for construction purposes eliminates future problems and preserves substantial ecological benefits. The Open Space and Recreation Element discusses several techniques, including cluster development, sale or donation of development rights, transfer of development rights, conservation easements and site design techniques that should be considered to enhance preservation of open space and environmentally sensitive lands.

The Open Space and Recreation Plan Element also describes recent efforts by the Open Space Advisory Committee to identify specific properties within Moorestown that should be preserved and protected from development. The Committee has recommended to the Township Council a number of properties that it considers worthy for open space retention, based on various criteria including the need to retain natural features and environmentally sensitive areas. A list of the specific site characteristics for ranking the value of open space for conservation purposes is provided below.

SITE CHARACTERISTICS IN THE RANKING OF CONSERVATION LAND

The following characteristics are considered positive factors in the ranking of land for conservation purposes:

1) Its environmentally sensitive nature which may include the following categories:

   a. stream corridors and adjacent upland sites
   b. aquifer recharge areas
   c. freshwater wetlands
   d. unique wildlife and plant habitats
   e. mature woodlands

f. headwaters of streams
g. wellhead protection zones
h. steep slopes

2) The site's historic significance;

3) The extent of aesthetic views and vistas;

4) The proximity of the land to other conservation land or other open space;

5) The demand for conservation land in the area based on current or future projected population;

6) Its accessibility to the public;

7) Whether the land may be suitable for multiple types of open space; and

8) The ability of the site to sustain its intended use.

In addition to the physical features and location that distinguish a particular site, there are often other considerations that may affect the desire of the municipality to pursue conservation efforts. These factors are listed below.

1) The property owner's willingness to sell or preserve land;

2) The amount of development pressure;

3) The cost of preservation;

4) The expected operating expenses and potential for liability claims.

Timely governmental action can be critical to an effective land preservation strategy. Accordingly, it is important for the Township to maintain an open dialogue with land owners and developers with interests in land identified for conservation and other types of open space. Early identification of potential lands for acquisition, easement purchase, or donation is essential because of the deliberative approach that governmental agencies must take in

considering the public interest. These factors affect the cost and means to preserve specific parcels.

GREENWAYS

The greenways concept has gained prominence in recent years in planning for recreation and conservation lands. Originally greenways were linear parks along rivers, interconnected open space in planned unit developments such as Laurel Creek, or trails converted from abandoned railroad lines. The original concept has been broadened to encompass the linking of recreational areas, civic institutions and residential districts with open space corridors and walking paths. This approach has gained new adherents as residents and government officials alike have discovered the benefits of greenways. Benefits include creating new recreational opportunities, increasing public awareness of the area's natural resources and their need for conservation, and retaining scenic vistas.

On a parallel track, environmental awareness and the evolving understanding of the importance of natural areas in controlling pollution and other man-made impacts have greatly increased over the past 25 years. For example, providing more than one means of reaching a recreational attraction reduces passenger vehicle travel and hence air pollution. The necessity for conserving environmentally sensitive land is now well established by the scientific community.

The benefits of interconnection and reducing environmental impacts converge in greenways, which may be defined as any of the following[4]:

1) A linear open space established along either a natural corridor, such as a river front, stream valley, or ridge line, or overland along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route;

2) Any natural or landscaped course for pedestrian or bicycle passage;

3) An open space connector linking parks, natural reserves, cultural features, or historic sites with each other and with populated areas; or

[4] - From *Greenways for America*, Charles E. Little, The John Hopkins University Press, Baltimore, 1990.

4) Locally, certain strip or linear parks designated as a parkway or greenbelt.

Much of the recent emphasis on creating greenways has focused on the preservation of stream corridors, and similarly, this has been emphasized as part of the Township's open space preservation efforts. Stream corridors include the water course or body, flood plain and flood fringe area, and often include freshwater wetlands and in some cases associated uplands. Establishing greenways along stream corridors allows the creation of an interconnected open space system. While no specific plan for a Greenway Network currently exists, a significant amount of the Township's existing preserved open space is located along the Pompeston and Pennsauken Creek stream corridors and future open space preservation efforts by the Township and County focus on the stream corridor areas associated with the Rancocas Creek and Swede Run. Additionally, connections between these open space areas, parks and population centers in the Township have been partly established through the Township's extensive bikeway network. Expanding and enhancing these linkages as part of a Greenway Network could enhance the value of the Township's open space areas. This would create a comprehensive passive recreation system throughout the Township that would provide a natural counterpoint to the built environment characterized by the existing street network.

Since greenways by definition frequently encompass environmentally sensitive lands, the institution of a trail or bicycle system must be designed to minimize disturbance. Most stream corridors in the municipality also support adjacent wetlands within the flood plain. If the construction of a trail system entails crossing wetlands, a state permit is required. When this occurs, the criteria for the issuance of a permit limits a path to 6 feet constructed of gravel or wood chips or a boardwalk to elevate the path above the ground. The trail alignment is also inspected for any endangered or threatened species. Greenway Network trails work best where there is an established organization or organizations that can assist in maintaining the system.

STREAM CORRIDOR BUFFER ZONE

Even though the regulation of certain environmentally sensitive land is preempted by state law, separating buildings from stream corridors also has aesthetic benefits. Setback requirements from a stream or pond can be used to

regulate the relationship between buildings and natural resources. Additionally, a purchaser of residential property, for example, has certain expectations about the use of the parcel which include outdoor household activities. A usable yard area that is free of wetlands, wetlands transition areas and flood plain will lower the potential for encroachments into regulated land. As a secondary benefit, the stream corridor can be preserved for its ecological benefits, as well. A Greenway Network may be seen as a method for managing stream corridors, often with a primary focus on water quality. Horizontal distance from a stream permits filtering of storm water that may carry sediment and pollutants from urbanization and farming.

Stream corridor management also has an important role in wildlife management. Stream shading, for example, is important in controlling water temperature and maintaining the fish population. Deer and other fauna use stream corridors as migration routes, as well as water sources.

Two methods of determining setbacks from streams follow from this approach of using environmental factors for greenways. One is to use a fixed boundary with a set distance from a stream. This is the approach taken with the first generation regulation adopted by the Township. The second is to use a variable setback depending on site specific characteristics. The latter method, while incorporating all of an area necessary for stream corridor management, is much more difficult to administer, particularly at the local level. Therefore, the former method of a fixed distance is the most practical initial approach even if in some circumstances not all environmentally sensitive land is included. As resources permit, stream corridors may be inspected and the fixed distance line adjusted to take individual natural features into account which would then be mapped and placed on an official map.

The State Planning Commission examined the distance requirements for various stream functions as part of its technical background for the first State Plan[5]. A review of research reports resulted in the establishment of these guidelines:

[5] - *The New Jersey Freshwater Wetlands Protection Act As It Relates to Stream Corridor Buffer Considerations in the State Development and Redevelopment Plan*, January 11, 1988, Rogers, Golden & Halpern, Philadelphia, PA

Stream Function	Buffer Width
Stream bank stabilization	25-50 feet
Sediment control	65-150feet
Nutrient removal	65-150 feet
Food energy	25-50 feet
Temperature control	50-80 feet
Fish cover	25-50 feet
Wildlife habitat	100-330 feet

These and other related technical standards can provide an additional basis for the establishment of setbacks of development from stream corridors. The Township's zoning ordinance requires a 25 foot wide strip of land, or buffer, landward from the 100-year flood plain where no development may occur. Further, buildings, paved surfaces and leaching fields from an individual septic disposal system are not permitted within 50 feet of the top of bank of a stream or pond found on U.S.G.S. topographic maps and from any other stream which has a continuous flow of water.

SEPTIC FIELD IMPACTS

In Moorestown, a number of the soil series (*see* p. III-7) present moderate to severe constraints to development due to a high water table and/or the presence of clay layers in the subsoil. Soils with clay layers in the substratum are primarily located in the northern and western portions of the Township. These soils limit the ability to dispose of septic effluent. Adequate percolation for septic systems is often difficult to obtain. To help address this issue, the Township reduced the density of permitted development in 1991 to two-thirds unit per acre, or a minimum lot size of one-and-a-half acres in the R-1 district which occupies most of the non-sewered area. As the eastern end of the Township develops with housing utilizing septic systems, there is concern that the cumulative impact from septic systems on ground water and streams is not being fully addressed. Further study by a hydrogeologist should be undertaken to confirm the septic suitability of this area, particularly when the cumulative impact of lot-by-lot development of the area may be greater than the impact anticipated by the individual modeling of each lot – an occurrence being reported in the scientific literature. A prudent course of action would be for lower densities of development in areas without sewer to ensure that the cumulative effects will not overwhelm the ability of the soil to treat effluent.

SUMMARY OF RECOMMENDATIONS

GEOLOGY AND SOILS

- Additional study of soils should be undertaken to predict the cumulative impact on ground and surface water quality from septic systems resulting from future development.

SURFACE AND GROUNDWATER REPLENISHMENT

- A local manual to incorporate Best Management Practices (BMPs) for storm water facilities design, infiltration and water quality should be developed. The manual should become part of the technical references for subdivision and storm water design. In the alternative, incorporate any appropriate state manuals or guidelines instead of a local manual.

- The Township's landscape design standards should be amended to encourage the use of plants native to New Jersey, or in the alternative, well-adapted non-native species to reduce the need for water and chemical applications.

- Special standards for aquifer recharge tailored to soil types should be developed and adopted in the Township's land development regulations.

LAND PROTECTION

- Encourage cluster development in locations where soil types or public infrastructure permit.

- Encourage sale or donation of development rights to preserve existing opens space and environmentally sensitive lands.

- Preserve additional conservation and other open space by encouraging developer contributions and dedication of conservation easements.

- Site design should maximize the quantity and quality of open space. The Planning Board shall continue to protect aesthetic views and environmentally sensitive land in the development review process.

PRESERVATION OF VEGETATION AND THE URBAN FOREST

- Develop specific standards in the form of a development regulation to minimize tree clearing.

- Require new trees to be planted to replace those removed by construction activities.

- Require planting of native and well-adapted non-native species of trees and promote good installation practices.

- Expand the Tree Planting and Preservation Committee's mapping of street trees and park trees to include other significant tree resources in the Township as resources permit.

- Maintain existing street trees along with other aspects of street infrastructure.

- Encourage citizens to replant street trees utilizing the Tree Remembrance Program or other means to raise public awareness of the need.

- Examine the feasibility of establishing a municipal tree farm for transplantation purposes.

GREENWAY NETWORK AND PRESERVATION OF STREAM CORRIDORS

- Support additional open space preservation along stream corridors and add connections between parks and other open space as part of a Greenway Network.

- The stream buffer zone has both aesthetic and environmental benefits and could be enhanced by imposing greater horizontal distances between the stream and buildings to allow for usable yards.

Conservation Plan

Moorestown Township
Burlington County, New Jersey
June 27, 2002

1100 0 1100 2200 3300 Feet

North

CLARKE ◆ CATON ◆ HINTZ
A Professional Corporation

This Map was developed using New Jersey Department of Environmental Protection Geography Information System digital data for flood prone areas but this secondary product has not been verified by NJDEP and is not state-authorized.

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

Open Space & Recreation Plan Element

INTRODUCTION

Master Plans, of which this element is a part, often analyze and recommend how land should be developed or redeveloped in response to economic, social and cultural factors. Open space differs in that it is land intended to remain largely undeveloped. Open space produces many benefits to the municipality but one of the most important is the contrast with buildings and streets, often called the "built environment". Open space provides opportunities for recreation, land for the preservation of wildlife habitats and other natural environments, a gathering place for community events and visual relief from urbanization. Setting aside land for these purposes also supports property values.

Open space includes active recreation, passive recreation, conservation lands and preserved farmland. Active recreation consists of organized sports or leisure activities that usually require specialized fields or equipment and have a list of rules. Baseball, football, soccer and tennis are examples of active recreation. Passive recreation includes less formal activities, such as kite flying, bird watching and hiking. Conservation areas are intended to be left in their natural state for wildlife refuges, as buffers between developments or to protect environmentally sensitive land and water resources. Preserved farmland is intended to remain in agricultural use. Large parks usually encompass more than one type of open space. For instance, level areas may be used for ball fields, with steeper areas near streams retained for conservation purposes. Passive uses, such as hiking trails, complement the conservation land.

This element will examine existing recreation uses and open space lands in Moorestown. The Township's recreation programs and other sports associations will be described in brief. The amount of land devoted to recreation will be compared to state and national standards. Criteria will be proposed for ranking open space parcels for acquisition, easement, or other development limitation. Recommendations are proposed to complete the element.

Within the structure of the Master Plan, this element is closely aligned with the Conservation Element that describes the natural environment of

Moorestown and the Community Facilities Element that proposes policy for governmental, educational and institutional uses within the municipality.

PARKS, RECREATIONAL FACILITIES, AND OPEN SPACE INVENTORY

The Township currently owns nearly 600 acres of open space that is intended for recreation and conservation purposes. Table IV-1 below lists these municipally owned sites and provides a general description of the recreational facilities or other uses present at the park. Table IV-2 identifies other types of open space not owned by the municipality such as land deed restricted from further development or for agricultural use and land for recreation-oriented community facilities. These include Board of Education facilities, golf courses and non-profit recreation associations that provide opportunities for Moorestown residents. These two tables identify existing resources. Table IV-3 includes agricultural land or other potential open spaces which might be retained by acquisition, development easement purchase or other means. Table IV-3 was primarily developed by a committee appointed by the Township Council, the Open Space Advisory Committee (OSAC), to establish criteria and identify sites for the purpose of open space preservation. The OSAC also gave input on several important historical resources. These latter sites are also included on the historic resources map in this Master Plan.

Table IV- 1. Existing Municipal Parks, Conservation & Other Township Lands

Ownership	Map No.	Name of Site	Acres	Facilities/Character
Township Parks and Recreation Facilities	1	Wesley Bishop Park	58.00	Field Sports, Conservation
	2	Lenola Road Athletic Fields	3.04	Field Sports
	3	New Albany Com. Ctr./ Jeff Young Memorial Park	9.10	Indoor Meeting Space, Field Sports, Courts
	4	Maple Dawson Park/ West End Field	4.33	Courts, Playground, Field Sports
	5	Yancy-Adams Park	0.52	Passive Recreation
	6	Locust Street Park	3.44	Former Farmer's Storage Site
	7	Perkins Memorial	3.50	Arts Center, Passive Recreation
	8	Strawbridge Lake Park	80.00	Passive Recreation, Playground
	9	Memorial Field	26.00	Field Sports, Track
	10	Church St. Recreation Cen.	1.16	Indoor Recreation
	11	Beech Street Park	0.63	Passive Recreation, Playground

Ownership	Map No.	Name of Site	Acres	Facilities/Character
	12	Fullerton Memorial Park	2.52	Courts, Field Sports, Playground
	13	Stokes Hill	8.00	Sledding, Passive Recreation
	14	Wigmore Acres	12.10	Former residential property
	15	Swede Run Fields	129.61	Former Benner Tract
	16	Maybury Tract	7.50	Former Affordable Housing Site
	17	Salem Road Park	13.50	Field Sports, Tot Lot
	18	McElwee Road Park	5.00	Passive Recreation
	Subtotal Acres		**367.95**	
Conservation and other Township Lands	19	N. Lenola Road	5.19	Pennsauken Greenway
	20	Red Leaf Road	3.67	Conservation
	21	Pompeston Creek Park	83.26	Pompeston Greenway (1)
	22	Fisher Tract	9.70	Former Affordable Housing Site
	23	Stokes Woods	2.50	Swede Run Greenway
	24	Tiver Avenue	1.63	Conservation
	25	Creek Road	7.00	Rancocas Greenway
	26	Little Woods	11.00	Rancocas Greenway
	27	Twp. Landfill Parcel (2)	64.00	Leaf Composting
	28	Nagel Tract	12.50	Affordable Housing Site (3)
	Subtotal Acres		**200.45**	
	Total Municipal Open Space		**568.4 acres**	

(1) Includes a playing field and other active recreation, but the site is predominantly for conservation.
(2) Proposed location for boat ramp for high school rowing activities; otherwise not proposed for recreational activities or restriction to open space use.
(3) To be used for open space in the event that the land is not required for future affordable housing purposes.

Table IV-2. Other Community Facilities, Private and Quasi-Public Open Space.

Ownership	Map No.	Name of Site	Acres	Facilities/Character
Board of Education Facilities	29	Moorestown HS/Allen Middle School	79.32	Stadium, baseball, field sports
	30	Baker Elementary	8.81	Playground
	31	Roberts Elementary	8.09	Playground
	32	South Valley Elementary	13.42	Playground
	33	Upper Elementary	22.66	Playground, field sports
	Board of Education Subtotal		**132.30**	
Development Restricted Properties	34	Moorestown West	10.00	Conservation Easement
	35	Hill House	27.00	Conservation Easement
	36	NJ Natural Lands Trust	28.83	South Valley Woods
	37	Stowe Farm	10.78	Agricultural Easement

	38	Moorestown Farms/Moriuchi	30.00	Agricultural Easement
	39	Commonwealth Drive	16.00	Restricted Development
	40	Borton Landing Road	21.02	Restricted Development
	Development Restricted Properties Subtotal		**143.63**	
Private, Quasi-Public Recreation and Golf Courses	41	Sunnybrook Swim Club	3.70	Pool, court games, playground
	42	Moorestown Field Club Golf Course	56.00	Private 9 hole course and tennis
	43	Community House	23.00	Pool, gym, meeting rooms
	44	YMCA	10.00	Pool, gym
	45	Willowbrook Golf Course	54.00	Public 18 hole course
	46	Laurel Creek Country Club	194.70	Private 18 hole course, full service clubhouse
	Quasi-Public & Golf Course Subtotal		**341.40**	
Total Other Open Space/Facilities			617.33 acres	
Total Municipal Open Space			568.40 acres	
Total Open Space & Community Facilities			**1,185.73 acres**	

Table IV-3. Sites Identified for Preservation and Open Space.

Map Letter	Name of Site	Acres	Facilities/Character
A	Block 100, Lots 1, 3, 4 & 6	40.32	Pennsauken Creek Greenway
B	Block 100, Lots 7, 13 & 14	22.47	Pennsauken Creek Greenway
C	Block 400, Lots 4	17.84	Pennsauken Creek Greenway
D	Block 800, Lot 4	10.80	N. Church & New Albany
E	Block 1500, Lot 3	2.83	Farmer's Brokerage site
F	Block 1801, Lot 17	0.26	Cowperthwaite House
G	Block 4405, Lot 19	1.29	Burr House
H	Block 4605, Lot 20	0.10	Puritan Oil Service Station, Main & High Streets
I	Block 5500, Lots 13-16	14.70	Flying Feather Farm
J	Block 5800, Lot 49	28.40	Allen Farm
K	Block 6300, Lot 40 & 41	12.00	Moorestown-Mt. Laurel Rd.
L	Block 6504, Lots 11-32	3.25	Marter Avenue
M	Block 7000, Lot 12	14.70	Westfield & Garwood
N	Block 7000, Lots 23.02 & 23.03	19.12	Swede Run Greenway
O	Block 7000, Lot 28	14.50	Garwood Road
P	Block 7500, Lot 1	32.81	Hartford at Garwood Rds.
Q	Block 7100, Lot 11	34.40	100 Acre Wood; Township purchase pending
R	Block 7100, Lot 24	55.36	100 Acre Wood
S	Block 7100, Lots 25-32, 45	78.81	100 Acre Wood

Map Letter	Name of Site	Acres	Facilities/Character
T	Block 7100, Lots 42 & 43	15.50	Westfield @ Stanwick Glen
U	Block 7200, Lot 2	22.23	Swede Run Field Extension
V	Block 6002, Lot 1	3.70	Salem Road Triangle
W	Block 8000, Lot 28	7.10	Identified by Burlington County for open space
X	Block 8000, Lots 2, 23, 29	66.30	Purchase pending by Burlington County
Y	Block 8000, Lots 3, 4, 5	62.38	Identified by Burlington County for open space
Z	Block 8700, pt. Lots 1 & 24	20.04	Proposed public park; wetlands mitigation area
Total Proposed Additional Open Space		**601.21 acres**	

Moorestown's land and water area is 9,555 acres (14.93 square miles). Parks and recreation land is equal to 3.85% of the total area. Lands earmarked for conservation add another 2.10%, or a total of 5.95%, of municipally owned open space. Including the other land noted in Table IV-2 increases the percentage to 12.41% of Moorestown's land area. Potentially, the land identified in Table IV-3 could add 6.29% open space to the municipality for a potential total of public and other open space of 18.7%. By any measure, this is a significant amount of open space and deed restricted land.

Municipal parks and recreational facilities, Township-owned open space, Board of Education facilities, deed restricted land, quasi public or community recreation sites, golf courses and potential open space sites are depicted on the attached Open Space and Recreation Plan at the end of this document.

MOORESTOWN'S PARKS

Moorestown Township has a well developed parks and recreation system that provides a strong emphasis on youth sports activities. Township-owned sites mainly used for active recreation include the Church Street Recreation Center, Maple Dawson Park/West End Field, Fullerton Memorial Park, New Albany Community Center/Jeff Young Memorial Park, Lenola Road Athletic Fields, Memorial Field, Salem Road Park and Wesley Bishop Park. Strawbridge Lake is used mainly for passive recreation and is the location of a well-attended community activities day each spring. Fullerton Memorial Park is the location of an R. D. Leathers playground notable for the intensive community involvement in its design and construction. Salem Road Park and Wesley Bishop Parks (formerly N. Church Street Park) are the most recent sites developed for active recreation and are already well used. They

were developed over the past 7 years and demonstrate the demand for fields fueled by the remarkable growth of youth sports activities in the Township. Use of these active recreation sites is divided among programs operated by the Moorestown Recreation Department and youth athletic associations that are typically organized around a particular sport, such as soccer, baseball, football, basketball and lacrosse.

Stokes Hill, located on East Main Street, occupies a unique place among the Township's open space parcels. Stokes Hill has been traditionally used for sledding in Moorestown. The hill, with Main Street at the top, is across the street from the home of the inventor of the Flexible Flyer, perhaps the most famous name in sleds. This land was held privately until purchased by the Township to maintain its traditional use for sledding. Stokes Hill also includes a wooded area at the bottom which is an extension of South Valley Woods.

The Perkins Memorial, located at the intersection of Camden Avenue and West Main Street, was donated to the Township as a park area in 1965 and is the site of weekly outdoor concerts in the summer. The grounds of the property include specimen trees from the Perkins Nursery. It also includes a small triangular-shaped parcel formed by the intersection of Camden Avenue and W. Second Street that is used for passive recreation. A three-story building and converted garage at the first site is leased by the Perkins Center for the Arts, a non-profit organization that offers a variety of visual, tactile and dramatic arts as well as music programs for the community.

Sites that are intended primarily for conservation with some passive recreation uses include lands along the Pennsauken Creek north of the Township's sewage treatment plant (N. Lenola Road), Red Leaf, Pompeston Creek Park, Stokes Woods, along the Rancocas Creek (Creek Road) and Little Woods on Parker's Creek. The Township's former landfill, now the site of its leaf composting facility, is open space but not designated for conservation purposes at this time. Leaf composting occupies the front center of the site which has frontage both on Creek Road and Rancocas Creek.

BIKEWAYS

The Township has an ambitious plan for establishing bikeways and bike routes throughout the municipality. Though the term "bikeway" is used, the system is intended for both pedestrians and bicyclists and has been designed

accordingly. Either as a municipal capital improvement project or as part of the development of adjacent properties, 7.5 miles of Class 1 bikeways have been constructed. These are depicted as solid red lines on the Open Space and Recreation Plan at the end of this document. The bicycle routes are also depicted and discussed in the Circulation Element. This class represents paved bicycle paths that are horizontally separated from the paved cartway of a road. Class 3 bikeways are routes designated on existing streets and total about 2.3 miles. The Plan proposes the extension of the bikeway system along most major thoroughfares with connections through neighborhoods to parks, schools, and community facilities. Planned Class 1 bikeways are either funded or required to be constructed as part of a site plan or subdivision approval. Proposed bikeways are the routes necessary to complete the entire network of bicycle paths throughout the Township. Funding for this program comes from the municipal capital improvement budget, contributions to the Bicycle Trust Fund, and state grants.

BOARD OF EDUCATION FACILITIES

Included in Table IV-2 are four school sites that also provide recreational facilities for Moorestown residents. The Township offers a number of recreational activities at the Moorestown High School and William W. Allen Middle School sites, including basketball, volleyball, gymnastics, theater workshop and field hockey clinics. Additionally, the Roberts Elementary School is utilized by the Department of Parks and Recreation as one of the locations for a summer playground program. When necessary, the Recreation Department provides custodial services following recreational activities as part of its agreement with the Board of Education regarding use of these school facilities.

DEVELOPMENT RESTRICTED PROPERTIES

As indicated in Table IV-2, several private properties within the Township are deed-restricted from development. A conservation easement was granted next to the Pompeston Creek greenway as part of the Moorestown West business park development. Consisting of almost 29 acres of *in rem* tax foreclosure lots, land in South Valley Woods was transferred by the Township to the New Jersey Natural Lands Trust, a non-profit conservation organization. Efforts by the Trust have resulted in the acquisition of other inholdings of the South Valley Woods, which is at the headwaters of Hooten

Creek, a tributary of the Pennsauken Creek. The portion of the Hill property outside of the sanitary sewer service area adjacent to South Valley Elementary School has been deed restricted for conservation purposes. An agricultural easement was established on the remainder of the Stowe Farm when a portion of the land was subdivided. A development restriction was placed in a similar fashion on three other properties located on Borton Landing and McElwee Roads, and Commonwealth Drive. Finally, Moorestown Farms, owned by the Moriuchi family, is a 30-acre site that is deed-restricted under an agricultural easement.

QUASI-PUBLIC AND PRIVATE RECREATIONAL FACILITIES

The YMCA, or Family "Y" of Burlington County, is located on Centerton Road and straddles the Township's border with Mount Laurel Township. This non-profit organization offers a number of social and recreational programs, including swimming, basketball, tennis, dance, exercise and fitness classes for both youth and adults.

Moorestown Community House, a privately owned facility located on East Main Street, was built in the late 1920's to provide a community gathering place with recreational facilities and meeting rooms. It was the inspiration of a president of RCA that drew widespread community funding and support. Recreational facilities at the site include an indoor swimming pool, a gym that is used by basketball leagues, and studios used for dance instruction. The Moorestown Recreation Department uses these facilities extensively for swim programs, ballet instruction, and a meeting site for its Women's Senior Citizen Club. Additionally, meeting rooms and office space at the Community House are used by various nonprofit organizations in Moorestown. The Community House features prominently in community activities centered around the Town Center, such as First Night.

The Sunnybrook Swim Club is a private swimming club that has a wide membership in Moorestown. Located at the end of Covington Terrace, off Devon Road, it is a seasonal facility that includes two adult pools, a wading pool, a basketball court, playground and picnic facilities. Sunnybrook hosts a youth swimming team that competes against similar clubs in the area.

There are three golf courses located in or partially in Moorestown. The Recreation Department offers golf lessons at the Willowbrook golf course, an 18-hole public golf course that is located along the Township's northern

border and extends into Delran Township. The 9-hole course at Moorestown Field Club is the oldest course in the Township and also features tennis and a dining facility. The 18-hole Laurel Creek Country Club is part of the Laurel Creek Planned Unit Development which includes a mixture of housing and office uses. Tennis courts and the clubhouse for the country club lie in Mt. Laurel Township. The Field Club and the Laurel Creek Country Club are under deed restriction for further development. Both are private clubs.

RECREATIONAL PROGRAMMING

Recreation programs are administered by the Moorestown Department of Parks and Recreation, nonprofit organizations such as the YMCA and the Perkins Art Center, and a number of youth sports organizations. The Township Council has also appointed a Recreational Advisory Committee made up of nine regular members, two high school student representatives, and liaisons to the Board of Education and the Township Council. The Recreational Advisory Committee helps to promote and coordinate recreational and park services and has played an active role in overseeing the development of new park facilities in recent years.

The Department of Parks and Recreation, housed in the Township Municipal Complex, currently has four full-time staff members, including a Director, Assistant Director, Supervisor and a clerk/typist. The number of part-time staff employed by the Department ranges from 20 to 50, depending on the season. In addition to developing and supervising the Township's recreational programs, Department staff are responsible for coordinating use of municipal fields and facilities with many of the sports organizations in the Township, and for maintaining park and recreational facilities in cooperation with the Department of Public Works.

Recreational programs offered by the Department include arts and crafts, ballet, basketball, bowling, step dancing, golf lessons, swimming, gymnastics, soccer, field hockey, lacrosse, softball, tennis, volleyball, and weight training. Additionally, the Department provides after school activities, including an open gym and game room for older students and an arts and crafts hour for elementary students. The 3rd Floor Program in the Recreation Center is aimed at providing activities of interest to middle and high school students during weekend evenings on a regular basis. The Department also organizes a summer concert series, coordinates an extensive summer playground program for Township youth, sponsors leisure activities for senior men and

women, and hosts special events throughout the year, including dances, parades, contests, tournaments and trips.

The Recreation Department's records indicate that the number of participants in the Township's programs is increasing. According to the Recreation Director, interest in all programs is strong, with participation ranging from approximately 10 to 15 participants per session for individual adult exercise programs such as lap swimming, to approximately 400 participants each in the boys' and girls' soccer programs. The number of sports clubs based within the Township is also an indicator of the high level of interest in recreation pursuits, and in particular, a strong interest in youth sports programs. For example, the Recreation Director estimates that approximately 800 youth play on baseball teams, approximately 500 youth play in the street hockey program, and approximately 300-350 youth each participate in soccer, football and softball programs offered through these volunteer organizations. Several of these club sports have grown significantly in recent years; for example, the football league expanded from 5 to 10 teams, and the girls' softball league expanded from 15 to 20 teams.

In general, the Recreation Department attempts to offer a wide range of programming designed to appeal to all of its constituents. In addition to the traditional sports activities indicated above, the summer concert series and a children's Theatre Program sponsored by the Department are very popular. New programs, such as a bowling league started by the Department, have also received strong interest. Programs offered by the Department are intended to emphasize the recreational aspect of each activity, and those with more competitive interests are directed to join local or regional league and club organizations.

FACILITY NEEDS

Given the high level of interest in recreational pursuits, demands on existing parks and facilities within the Township are also very high. While the Township attempts to balance the space needs of all of its own programs and the needs of local sports clubs, scheduling at municipal parks and indoor recreation areas is very tight, with many facilities in use every day of the week during peak seasons. Additionally, the heavy use of fields and indoor recreation facilities makes maintenance and upkeep of these facilities more difficult and expensive. In particular, proper maintenance of field areas

should include periodic rest to allow grass to recover but this can not occur when these facilities are constantly in use.

The Township is currently considering the development of several new recreational facilities at Wesley Bishop Park which may help to relieve some of the demand on existing facilities. As currently proposed, the facilities at this site would include a second street hockey rink, two new softball diamonds, a new soccer practice facility and a new multi-purpose field. Site improvements would also be needed, which would include lighting, landscaping, parking, storage buildings and restroom facilities. Another new facility that may help reduce demand on existing indoor recreation areas is the regulation size gym that was constructed at the new Upper Elementary School that opened in September 2001. Though not yet constructed, athletic fields are also planned for the school site. Even with these new facilities, however, it appears that demands on Township recreational facilities, and in particular, the demand for field areas to serve youth sports programs may not be fully met.

There is also a need for new facilities to provide recreational opportunities that are not currently available within the Township. For example, an area for skateboarding has been needed for some time as an alternative to skateboarding along sidewalks and streets. A commercial skateboarding facility at the Moorestown Mall has accommodated some of this need, however, a new skateboard park is needed and would be constructed at Wesley Bishop Park, pending a design study. Another new facility that has been requested is a dock site to be developed along the Rancocas Creek for use by the high school crew team at the Township's leaf composting site.

As noted above, maintenance of existing Township recreational facilities continues to be a concern, especially given the high level of use of these facilities. The Recreation Department is also concerned with the increasing amount of staff time that must be devoted to operations, including set up and removal of nets and equipment, marking fields, and coordinating with Public Works staff for the regular maintenance and improvements to fields, playgrounds, and indoor recreation areas.

GUIDELINES FOR THE ADEQUACY OF OPEN SPACE

There are several guidelines against which the adequacy of the amount of open space and recreation facilities in the Township may be measured.

NEW JERSEY GREEN ACRES PROGRAM

The New Jersey Green Acres Program, in the Department of Environmental Protection, disperses funds for acquisition and development of open space to municipalities, counties, and non-profit groups by a grant and loan program originated in 1961. The funding for the program has come from voter-approved state bonding. A new consistent funding source from the sales tax was approved by voters in November 1998. Over the years, the focus of funding has shifted towards acquisition rather than development and towards sites that have multiple benefits. Moorestown Township, like most municipalities in New Jersey, has received Green Acres funding for acquisition and development projects. The Green Acres program recommends a desirable goal of 8 acres of land per 1,000 persons for conservation, passive and active recreation open space earmarked for municipal purposes. Application of the guideline results in a desirable standard of 153 acres for the current estimated population and 180 acres for the projected build-out population. The Township, from Table IV-1, has 367.95 acres of developed (or to be developed) parkland and 200.45 acres of conservation land for a total of 568.4 acres, thereby meeting the minimum state standards.

The Green Acres guidelines also suggest that a minimum of 3% of the municipal land area be set aside for all types of open space; the municipal total is more than 6%. By both of these broad measures, the Township meets the minimum suggested guidelines established at the state level.

NATIONAL PARK AND RECREATION ASSOCIATION GUIDELINES

The National Recreation and Park Association (NRPA) is an organization devoted to promoting and developing recreational opportunities. The NRPA has published a number of standards for "developed" open space. As a broad measure, the NRPA has established a range of 6.25 to 10.5 acres of developed park land per 1,000 residents. Applying this standard to the April 2000 U.S. Census count of 19,017 persons would result in a range of 119 to 200 acres of developed park land. By these standards, the Township is significantly above this range, with 368 acres.

It should be noted that these standards are exclusive of recreational facilities provided by school districts or non-active open space. Some of the land that has been placed in the active recreation table also contains environmentally

sensitive land that should be preserved from development, such as the south end of Wesley Bishop Park; however, the amount devoted to active recreation would still fall within the recommended range.

New Jersey has the highest household income in the country with sufficient disposable income, in the aggregate, to enable many households to purchase their recreational needs from commercial providers; for example, ice hockey rinks are provided by commercial operators in South Jersey. This situation lessens the need for the municipality and school district to provide certain active recreation facilities.

The NRPA has also categorized active recreation parks into three types based on size and service area. These are mini-parks, neighborhood parks and community parks. Mini-parks are usually playgrounds, tot lots, or other small scale parks within close proximity to residences. Mini-parks are categorized as one acre or less in size, though larger areas are common in the Township. The NRPA recommends that neighborhood parks be 15 acres or larger. Such parks commonly constitute home parks for youth sports organizations that serve a development of homes. Community parks should be at least 25 acres but preferably larger, according to the NRPA. Under the NRPA rubric, community parks are multifunctional entities intended for a wide variety of recreation.

Moorestown's park system does not fall into such neat classifications. Some municipal facilities are special purpose uses (such as the Church Street Recreation Center) that serve the entire community but are on small lots. Accordingly, the Township's existing parks have been classified by function, rather than strictly by size. Parks have been classified under this functional approach in Table IV-4.

Table IV-4. Existing Municipal Parks and Recreation Facilities by Functional Classifications.

Park Type	Map No.	Name of Site	Acres	Facilities/Character
Community	1	Wesley Bishop Park	58.00	Field Sports, Conservation
Neighborhood	2	Lenola Road Athletic Fields	3.04	Field Sports
Neighborhood	3	New Albany Com. Ctr./ Jeff Young Memorial Park	9.10	Indoor Meeting Space, Field Sports, Courts
Neighborhood	4	Maple Dawson Park/ West End Field	4.33	Courts, Playground
Mini-Park	5	Yancy-Adams Park	0.52	Passive Recreation

Park Type	Map No.	Name of Site	Acres	Facilities/Character
Neighborhood	6	Locust Street Park	3.44	To be determined
Community	7	Perkins Memorial	3.50	Arts Center, Passive Recreation
Community	8	Strawbridge Lake Park	80.00	Passive Recreation, Playground
Community	9	Memorial Field	26.00	Field Sports, Track
Community	10	Church St. Recreation Center	1.16	Indoor Recreation
Mini-Park	11	Beech Street Park	0.63	Passive Recreation, Playground
Neighborhood	12	Fullerton Memorial Park	2.52	Courts, Field Sports, Playground
Community	13	Stokes Hill	8.00	Sledding, Passive Recreation
Neighborhood	14	Wigmore Acres	12.10	To be determined
Community	15	Swede Run Fields	129.61	To be determined
Neighborhood	16	Maybury Tract	7.50	Former Affordable Housing Site
Community	17	Salem Road Park	13.50	Field Sports, Tot Lot
Neighborhood	18	McElwee Road Park	5.00	Passive Recreation

Applying the broad ranges established by the NRPA standards allows a comparison of the types of parks needed within each size category. Table IV-5 below compares the NRPA standards applied to the Township's estimated current population with the existing parkland acreage in the Township.

Table IV-5. NRPA Standards and Existing Population.

Type of Park (recommended acreage)	Recommended Acreage in Moorestown Township (1999 Population)	Existing Acreage	2001 Surplus or (Deficit)
Mini-Park (.25 -.5 ac /1,000 pop.)	4.8 to 9.6	1.15	(3.65)
Neighborhood (1 - 2 ac/1,000 pop.)	19.1 to 38.3	47.03	8.73
Community (5 - 8 ac./ 1,000 pop.)	95.7 to 153.1	319.77	166.67
TOTAL	119.6 to 201.0	367.95	166.95

Based on this breakdown in the types of parks in the system, mini-parks are the only category experiencing a deficit under the NRPA standards.

Recently, the NRPA has developed additional guidelines that are based on user surveys of recreational facilities. Interviews and anecdotal information clearly indicate a heavy demand for active recreation facilities. This is apparent from the rapid growth in certain youth sports organizations, the difficult scheduling that occurs in trying to accommodate the demand, and the increased costs for maintenance and worn fields that occur after a season.

OPEN SPACE NEEDS

Open space is more than the active recreation described so far. Open space provides benefits for the ecology of the Township and region by supporting environmentally sensitive lands such as flood plains, freshwater wetlands, aquifer recharge areas, and the biota that depends on natural systems. Open space creates vistas of scenic beauty, preserves view sheds of historic properties, and provides a setting for buildings and people. Maintaining and preserving open space in the face of development pressure is very difficult, because by their democratic nature, governments are slower to act than commercial interests. The land remaining undeveloped in Moorestown is sought for many different and often competing purposes. Over the past 20 years, several different groups and Township committees were formed to examine the open space issue. A new impetus was gained by the passage of open space questions on the November 1998 ballot at the state, county and local level. Concern for the preservation of open space through the long economic progression of the mid- to late-1990's when development pushed into previously rural areas was galvanized by the positive votes.

OPEN SPACE ADVISORY COMMITTEE SITES

In response to the referendum, in June 1999 the Township Council established an Open Space Advisory Committee to identify properties within Moorestown which should be preserved and protected from development. The Committee has recommended to the Township Council a number of properties that it considers worthy for open space retention, based on various criteria. Ranking of property was accomplished by weighting ten factors, including:

- Open space – The extent to which preservation would satisfy open space deficits in the Township or in the surrounding neighborhood;
- Recreation – A property's usability for active or passive recreation;

- Use Preservation – The extent to which preservation would permit continued farming or the retention of natural features and systems;
- Historical Significance – A property's historical significance.
- Development Pressure – The perceived likelihood of development in the near future;
- Environmental Sensitivity – The adverse impact of development on environmentally sensitive land;
- Habitat – The effect that development of the property would have on wildlife;
- Viewshed – The importance of the property in maintaining open and attractive vistas;
- Aesthetics – The scenic beauty of the land especially where it serves as a gateway into the Township;
- Property Size – An evaluation of the size of the property in comparison to the open space needs of the Township and the local neighborhood.

Table IV-3 presents the work completed by the Committee in identifying properties for inclusion in this Open Space and Recreation Plan modified to account for circumstances which have changed since their list was prepared. These sites are incorporated into this element as the Township's priority list for acquisition, purchase of development rights, conservation easements, or other appropriate means of restricting the use of the land to open space.

BURLINGTON COUNTY OPEN SPACE

Currently, there are no County-owned recreation or open space sites located in Moorestown. However, the County has recently earmarked funding in the amount of $1.35 million to the Township for purchase of open space under the County's Local Open Space Land Grant Award program. Additionally, the County has identified three properties for potential acquisition as part of a Planning Incentive Grant request to the state. Burlington County has reached an agreement to purchase Block 8000, Lots 2, 23 and 29 as part of their long range plan for the preservation of the Rancocas Creek stream corridor (see below). Most of the County's funding will go towards the purchase of this property. The third acquisition parcel, Block 8801, Lots 2 and 3 (Pleasant Valley Farm), has been removed from the plan since it is under private contract of sale and one application for development has been approved.

The County's Open Space Strategic Plan, approved in 1996 and adopted in 1998 includes the active pursuit of riverine greenway projects, such as the

Rancocas Creek Greenway, as a key objective. In the fall of 2000, the County Freeholder Board agreed to take the lead in the administration of the Watershed Management Area Planning process for the Rancocas Watershed. A recent draft amendment to the Open Space Strategic Plan, notes that "it is expected that this process will yield an inventory of lands that are particularly significant in protecting water quality, the preservation of which would be encouraged". The three sites identified by the County for potential acquisition are all located within the Rancocas Creek watershed. Subsequent planning activities by the County may identify other sites for potential acquisition.

FUNDING FOR OPEN SPACE ACQUISITION

Purchasing the acreage necessary to establish additional parks and other open space represents a significant financial cost to the Township. Costs may be reduced through donation of land or funds for open space, and utilizing existing land owned by the municipality or other governmental entities. The traditional method of funding acquisitions is through the State Green Acres Program that provides low cost loans (typically 2% per annum). The 1998 state-referendum established a $98 million fund per year for ten years for parks, other open space, farmland preservation and historic preservation. Yet, even with state funding at a historically high level, applications to the Green Acres program have exceeded the available funding.

Moorestown voters supported not only the state-wide referendum for state purchase of open space, but also the county and township levies in 1998. Voters in Moorestown strongly backed an added assessment of 2 cents per hundred dollars of property valuation in 1998 to purchase open space. An open space survey in 2001 indicated additional support to raise the municipal open space assessment as high as 6 cents per one hundred dollars of assessed valuation. This could generate as much as an estimated $1.1 million per year towards the purchase of open space.

In 1996, Burlington County began collecting funds for preservation of farmland and open space lands by establishing a new property tax at a rate of 2 cents per $100 of total county equalized real property value. In 1998, an additional 2-cent tax was approved by the voters to expand the County's farmland and open space preservation program, and also to fund the preservation of historic resources, improvement and maintenance of county parkland, and payment of debt service. Together, the 4-cent tax assessment

raises just over $9.0 million per year, with a portion of the funding to be used to assist municipalities and charitable conservancies through a grant award program. As noted above, Moorestown has previously received funding under the grant program and the Township will apply for additional funding through the program in the future. Further, the County has undertaken its own program of land purchase. While in the past, County money has been largely earmarked for farmland preservation costs, a new emphasis on other open space needs has emerged. The pending purchase of the Moriuchi tract from Toll Brothers, Inc. on Creek Road will be the first County acquisition in Moorestown.

CONSERVATION TECHNIQUES

There are a number of methods of preserving open space apart from direct purchase by government or by a private nonprofit conservation organization. Purchasing large tracts of land in fee simple is expensive and other avenues should be explored in order to fulfill the goals of preserving open space.

Techniques discussed here to conserve land include cluster development, performance zoning based on environmentally sensitive land, purchase or donation of development rights, transfer of development credits or rights, conservation easements, and site design.

No one technique will achieve the goals of the Master Plan. Rather, all techniques should be scrutinized to select the best methods for achieving each objective in this document.

Specific techniques for conservation are as follows:

CLUSTER DEVELOPMENT

This form of development concentrates buildings on a small portion of a site while preserving the remainder. This design maintains the overall (gross) density for the entire parcel while saving environmentally sensitive land from development. Moorestown has not previously employed this technique and its use will depend on the particular soil characteristics of the areas where preservation is desirable.

PURCHASE OR DONATION OF DEVELOPMENT RIGHTS

Under the "bundle of rights" theory of property ownership, development rights are an additional right inherent in a property along with the better known air, water, and mineral rights. Development rights may be separated from the property and sold or donated to governmental agencies or conservation organizations. The sale of development rights requires the landowner to pay federal capital gains taxes which may be offset depending on the individual landowner's tax situation. The donation of these rights, however, can be treated as a charitable contribution and provide the donor with a tax deduction. The sale of development rights also reduces the property assessment for tax purposes. Since development rights are less than fee simple ownership, their cost is substantially less.

TRANSFER OF DEVELOPMENT CREDITS OR RIGHTS(TDR)

Transfer of development rights (TDR) is permitted in Burlington County and has been successfully used to preserve farmland in Lumberton and Chesterfield Townships. Though the focus of the program has been farmland preservation, the statute also permits environmentally sensitive land, historical sites or areas of distinctive aesthetic points of interest to be preserved by transferring the development rights from a sending district to a receiving district. Property rights in land may be conceived as a number of intertwined rights, such as mineral rights, air rights and water rights. This also includes the right to develop land under a municipality's zoning regulations. This right may be reassigned to another parcel of land (a receiving parcel) from the original land (sending parcel).

CONSERVATION EASEMENTS

The dedication of easements is a technique sometimes used by the Township in preserving wetlands and other environmentally sensitive areas. While retaining ownership in private hands, conservation easements effectively protect lands of ecological importance. Donation of an easement and donation of development rights have similar tax advantages. Donations may include other general benefits, such as public access. Private nonprofit conservation organizations are substantially involved in identifying prospective properties and working with interested land owners in securing conservation easements.

SITE DESIGN

Site design – the layout of buildings, circulation, and utilities – is the single largest factor in the preservation of environmentally sensitive lands. To achieve the best results, design should be guided by a development suitability map that shows the environmental constraints of the land. From this starting point, a design sensitive to the preservation of natural and environmentally sensitive features may be produced.

RECOMMENDATIONS FOR OPEN SPACE AND RECREATION

The following recommendations are made to fulfill the goals and objectives for open space in Moorestown:

1) A continual process of refinement of the open space acquisition list is recommended. Table IV-3 constitutes the current list but is in itself a refinement of the list first adopted by the Planning Board in March 2001. The process of refinement should use the criteria established in this element and the Conservation Element for the ranking of land for acquisition or easement purchase. The intent is to identify only lands in which the landowner is willing at least to entertain the notion of an easement or purchase.

2) Seek aggressively to share the costs of open space acquisition through funding from Burlington County and the Green Acres Program.

3) Survey park users to gain a profile of the people using the facility. Use this survey to project existing needs and trends for future programs and facilities. Meet the demand for recreation in the future through adequate budgets for capital improvements and maintenance of facilities or the imposition of fees where appropriate.

4) Use the land development process and capital improvements to establish both greenways and bicycle routes in accordance with the Conservation Plan and the Open Space and Recreation Plan.

5) Continue the roles of the Recreation Advisory Committee and the Open Space Advisory Committee in the planning for recreation and open space acquisitions in relation to this document.

6) Identify a Township individual or entity to act as a liaison in watershed management at the county or state level.

7) Utilize professional site planning assistance in concert with neighborhood groups to create a consensus plan for the development of recreational facilities.

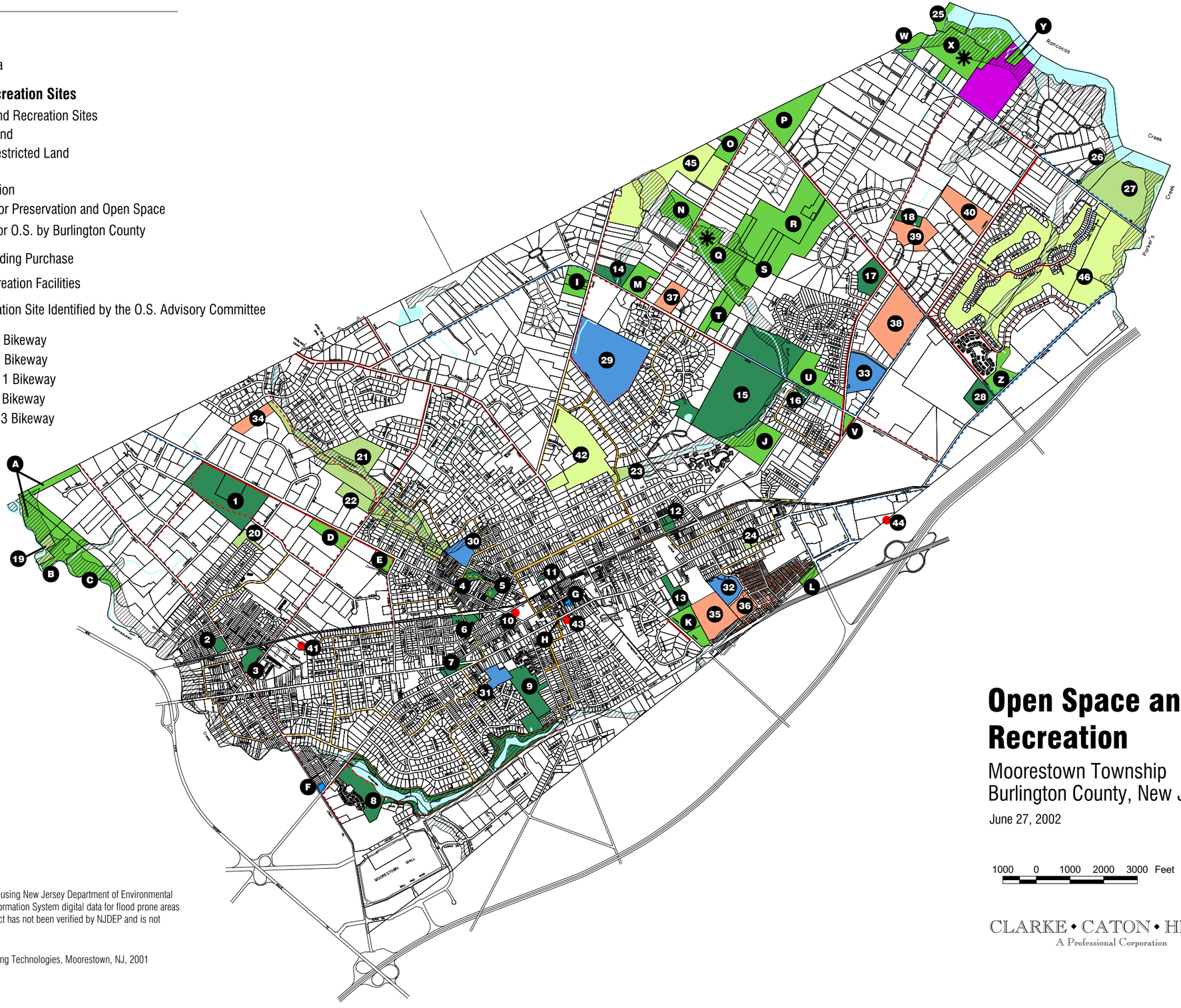
8) Preserve environmentally sensitive land in the development of active recreation sites.

Legend

- Streams
- Water
- Flood Prone Area

Open Space and Recreation Sites

- Existing Parks and Recreation Sites
- Conservation Land
- Development Restricted Land
- Golf Courses
- Board of Education
- Sites Identified for Preservation and Open Space
- Sites Identified for O.S. by Burlington County
- Open Space Pending Purchase
- Community Recreation Facilities
- Historic Preservation Site Identified by the O.S. Advisory Committee
- Existing Class 1 Bikeway
- Planned Class 1 Bikeway
- Proposed Class 1 Bikeway
- Existing Class 3 Bikeway
- Proposed Class 3 Bikeway



This Map was developed using New Jersey Department of Environmental Protection Geography Information System digital data for flood prone areas but this secondary product has not been verified by NJDEP and is not state-authorized.

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

Open Space and Recreation

Moorestown Township
Burlington County, New Jersey

June 27, 2002

1000 0 1000 2000 3000 Feet

North

CLARKE • CATON • HINTZ
A Professional Corporation

Historic Preservation Element

INTRODUCTION AND HISTORICAL BACKGROUND

The initial conception of historic preservation was aimed at preserving buildings where significant persons lived or events occurred, such as Independence Hall or Williamsburg. Over time, the concept of historic preservation has been broadened to emphasize the preservation of the cultural heritage of a community. While Moorestown has had its share of significant events, such as the British forces' brief occupation of the village during the Revolutionary War, this Element concerns itself most with the physical characteristics that have shaped the town since its founding.

Moorestown's history of settlement reflects the larger history of European immigration to the New World and the establishment of colonies along the eastern seaboard of the United States, including New Jersey. Before European immigration, the land was occupied by tribes people of the Lenni Lenape Indian group. This group was part of a larger cultural collective known as the Eastern Woodland culture that existed at the time of European contact. Indian groups engaged in subsistence agriculture, foraging and hunting activities. More permanent settlements ("macro-band base camps") and temporary seasonal quarters ("micro-band base camps") as different food sources were exploited. Little evidence of these pre-historic peoples remain. The likeliest locations are along stream corridors where camps may have been established for fishing, hunting and gathering activities.

Moorestown itself dates from the earliest days of English rule after Dutch and Swedish claims to the land were eliminated. New Jersey was the province of James, the Duke of York, who was given the land by his brother, King Charles II, in 1664. The Duke of York in turn rewarded two of his loyal courtiers, Sir George Carteret and John, Lord Berkeley, with East and West New Jersey, respectively. The dividing line between East and West New Jersey can still be discerned today in the Province Line that divides municipal boundaries, running from Great Egg Harbor northwest to Three Bridges in Readington Township. Moorestown was established in the Fourth Tenth of West Jersey which had Burlington City as its seat of government.

The origins of the village of Moorestown began with the surveying and clearing of Salem Road between Burlington and Salem in 1682, the year William Penn chartered Pennsylvania. The dirt highway followed the ridge on which the oldest section of the town stands today. Early accounts of Moorestown suggest that the community was originally divided into two sections. Chestertown,

being the eastern part, was named after Chester Township - the original name of the municipality (which also occupied a larger area than Moorestown). Rodmantown, in the western section, was owned by Clark Rodman in 1722 and was at the confluence of the Pennsauken Creek and Salem Road. At this time, the road network was poorly developed and waterways were the modern equivalent of the highway. Chestertown and Rodmantown grew as hamlets about two miles apart. Though today that is a short distance, at the time it was conceptually as far apart as Moorestown and Trenton in the modern era.

In 1700 James and Esther Adams conveyed a plot for a Friends Meeting House which was constructed thereafter, marking this as the first community building in Moorestown. The name of the municipality comes from a man called Thomas Moore. From what little is known about the man, he appears to have settled in Chestertown in 1722. In 1732 he bought 33 acres of land on the north side of King's Highway, extending from the west side of the Friends cemetery on the east, to the present day Locust Street on the west. In the western portion of this tract, Moore established a hotel or inn for people traveling on Kings Highway, believed to be at Union Street. Because of the association of Moore's inn to the area, it gradually became known as Moorestown and was called by that name in an account written in 1762.

The growth of the hamlet in the 18th century owed more to its location on King's Highway than anything else. Geographically, the town was between Colestown in present day Cherry Hill and Burlington City. Moorestown grew also as a location to serve agriculture needs in the surrounding land. Prior to the Civil War, in addition to a number of taverns and residences, one found grist mills, tanneries, blacksmith shops and distillers within the hamlet, with grist mills on the outskirts of the hamlet because of their need for water power.

The need for materials during the Civil War gave a strong boost to industrialization aided by the earlier development of canals and shortly thereafter, railroads. One of the first railroads in the country was built between Bordentown and Camden in 1834. It was not until after the Civil War in 1867, however, that the railroad came to Moorestown. The Camden and Burlington County Railroad encouraged commercial development in the town where land abutted the new line. The J. S. Collins and Sons millwork building at Mill Street, which houses a variety of uses today, is one of the last vestiges of this post-Civil War development.

The railroad not only provided a means for agricultural and commercial products to get to market, but also a revolution in expanded job opportunities.

Train travel became rapid enough to allow Moorestown residents to commute to work in Camden and Philadelphia. As a consequence, the Township's residential areas grew to the north, east and west along the line. Train stops were established at Stanwick, Chester, N. Church and Lenola Roads. The neighborhoods in the center of town were laid out between 1875 and 1910, and reflect the styles popular among the affluent upper-middle class of the day. Changes within the town center during the last quarter of the 19th century reflect this influx. During this time, the far eastern and western parts of the township remained primarily agricultural.

The modern era of the town began with the rapid increase in car ownership that took place during the 1920's. Middle class families were increasingly able to afford an automobile. This led to the creation of suburban areas more distant from train stops as workers were no longer confined to houses within a reasonable walking distance. The Great Depression, beginning in 1929, brought housing construction to a virtual standstill throughout the 1930's. The early part of the 1940's, devoted to producing materials for the war effort, also was an era of low housing construction. From this period begins the great demographic shift from the cities to the suburbs driven by post-war prosperity. The beginning of this era neatly ends the main concerns of this element, which is focused on buildings and their sites more than 50 years old.

PURPOSE OF THE HISTORIC PRESERVATION ELEMENT

The Historic Preservation Element is intended to establish and maintain policies for the conservation of the history of Moorestown as it relates to its buildings and sites. Historic preservation efforts may be broadly or narrowly drawn. In this document, policies are guided by the Goals and Objectives Statement. The creation of a local historic district is one of the objectives articulated in the *Goal: Preserving the Past*. The element sets out the framework for establishing a local historic district, should the Township Council decide to implement one at a future date. Local efforts in the conservation of the historic fabric of the town fit into a legal and programmatic framework developed by the state and federal governments that is designed to coordinate and promote preservation activities.

BENEFITS OF HISTORIC PRESERVATION

There are five main benefits that come from pursuing the objectives for historic preservation. The positive aspects of historic preservation are maximized by a comprehensive approach to historic preservation that includes a strong educational component. The benefits include in more detail:

- *Civic Accomplishment*. A well-maintained historic district and landmark buildings emphasize the values held by a community. They demonstrate to its citizens and visitors that the community has made a commitment in policies, funds, and resources to historic preservation.

- *Cultural Awareness*. Historic preservation is a means of recognizing and acknowledging the historical influences that shaped a community. These cultural resources are part of the physical heritage of a place that add to the quality of life.

- *Knowledge*. An appreciation of history leads to a more informed public that can acknowledge past trends that have led to this point in time. An understanding of the stylistic changes in buildings and landscapes that have occurred throughout history promotes a larger knowledge of the earlier lives of people and the forces of technological change. Historic preservation provides the visual history of a place that enlivens accounts of earlier eras.

- *Economic Prosperity*. Well documented studies point to the stabilizing effect of local historic districts in distressed areas and the steady appreciation of property values in prosperous ones - in many cases exceeding that of newer neighborhoods. Historic preservation can be an effective business revitalization tool in town centers.

- *Aesthetically Pleasing Design*. A local historic district ensures that alterations and additions visible from the street are not inappropriate designs - thereby preserving the details of architectural styles from earlier eras for future generations.

HISTORIC REGISTERS

The National Historic Preservation Act of 1966 established federal policy for preserving the country's cultural heritage. This marked the first time that a comprehensive federal policy on historic preservation was articulated. Funding was made available throughout the country to identify, map, and preserve historic and pre-European structures and sites. Much of the identification and organizing work was delegated to the state level through the establishment of State Historic Preservation Officers (SHPO's). The State Historic Preservation Officer is the official liaison between local officials or groups and the federal Department of the Interior, the agency responsible for administering federal historic preservation efforts. The federal program became the impetus for the New Jersey Legislature's passage of historic preservation legislation in 1970.

The federal and state acts established the National and State Registers of Historic Places, respectively. In New Jersey, the State Historic Preservation Officer and staff are part of the Department of Environmental Protection. The SHPO is responsible for maintaining the State Register and evaluating petitions for inclusion on the list, as well as submitting requests for inclusion on the National Register.

Sites listed on the Registers are afforded a comprehensive level of review and protection whenever a federal or state project is proposed that may have an impact on the historic property. The State also requires that its political subdivisions - counties and municipalities and their agencies - conduct an analysis of the effect of a development proposal whenever there is public financing involved. Historic sites on a Register are also given first priority if funding for the maintenance or restoration of buildings, structures or sites is appropriated. This recently occurred with the establishment of the Garden State Preservation Trust Act that in addition to providing funding for open space acquisition, earmarked specific money for the preservation of historic buildings and sites.

Registration of historic building, structures, and landscapes only provides protection from the actions of governments. If a private individual wanted to alter or demolish a building on the National and State Registers, no protective measures exist unless some governmental funding is involved. Only at the local level may historic buildings and sites be preserved from being inappropriately altered or demolished by the action of private individuals. This regulatory structure underscores the importance of a locally delineated historic district for preservation purposes.

A local historic district and the identification of individual sites not within a district also serve the purpose of identifying places of local history that are less important to state or national history or culture but are significant to the development and history of the Township. In the same vein, sites and building may be placed on the State, but not the National, Registers for those places of only state-wide interest. This hierarchy reinforces the notion of a bottom-up process that begins with the interest of a group of local people that coalesces around the desire to preserve the history of their area and in turn protect buildings of state and even national importance.

CERTIFIED LOCAL GOVERNMENT PROGRAM

A program was established by the NJ Historic Preservation Office to implement federal legislation to involve local communities more fully in historic preservation. Municipalities (and counties) may petition the state for inclusion in this program, the Certified Local Government Program (CLG). In order to be accepted as a CLG participant, the local government is required to meet certain criteria. These include four broad areas:

- Establishing a local historic preservation commission in accordance with the Municipal Land Use Law;
- Initiating or continuing progress towards completion of a comprehensive survey and inventory of local historic resources;
- Designating and protecting local landmarks and historic districts; and
- Developing a process which ensures public participation in the local historic preservation program.

The benefits to the program include eligibility to apply for limited funding for historic resources surveys and historic preservation planning. In 1999, about $36,000 was available as pass-through funding from the federal government to CLG's in New Jersey. In Burlington County, there are eleven municipalities that have established historic preservation commissions and three of those, Burlington City, Evesham Township and Mt. Holly Township, are Certified Local Governments. Once certified, a local historic preservation commission is required to meet a set of responsibilities, including education, and the governing body must execute a memorandum of understanding with the NJ Historic

Preservation Office related to preservation of historic property.

CREATING A MOORESTOWN LOCAL HISTORIC DISTRICT

There are several steps that are required should the governing body decide to institute a local historic district or districts. The first constitutes this document that spells out the Township's goals for historic preservation, the governmental framework that operates within the state, the criteria used to delineate a district or landmarks outside of a district, the suggested boundaries of such a district and other similar planning details. The adoption of the Historic Preservation Element sets goals and provides necessary background information that supports the delineation of a district.

The Municipal Land Use Law provides for creation of historic districts, designation of landmarks, design criteria and guidelines within the zoning ordinance. If this framework is used, a Historic Preservation Commission (HPC) must be established. Notwithstanding the use of the word "commission", the local enabling legislation may provide for either strong or weak forms of the HPC. In its strong form, the statute gives the HPC a number of powers, including the independent authority to approve alterations to historic buildings that do not require other approvals by the Planning and Zoning Boards. The HPC in this form sends a report to the Administrative Officer who then issues the appropriate permit. When there is an application for development such as a new store or office in the district, the HPC would serve in an advisory capacity to either the Planning or the Zoning Board. The weak form curtails this independence by making the HPC an advisory body only. The weak form also creates new duties for the Planning Board. The Planning Board does not review applications for alterations in one and two-family dwellings. However in the weak form of the HPC, if a residential building of this type were the subject of a building permit, the Planning Board would review the building plans. Because of this legal provision, most forms of the HPC that are created are strong forms.

There is a fair amount of latitude in how any ordinance creating an HPC establishes the level of review for applications for development. The ordinance may limit review powers to projects that exceed a certain monetary threshold, for instance, or specifically include only those portions of a property visible to the public. The ordinance may remove paint color as a subject for review, as an example.

In addition to review of building plans, an HPC would also have the responsibility to prepare surveys of historic properties, make recommendations to the Planning Board on future Historic Preservation Elements, advise the Planning Board on any capital improvement program that includes a historic property, advise how the zoning ordinance regulations affect historic resources, and carry out educational functions concerning preservation in the community.

In the alternative, if a historic district or landmarks were established as part of the general code (e.g., not a development ordinance) of the municipality instead of as a zoning function, then a purely advisory group could be created; for example, a Historic Preservation Advisory Committee. This would be analogous to sign regulation, which may be established either as part of the zoning ordinance or as a separate part of the general regulations of the municipality. The powers and duties of such a committee would need to be spelled out in the enabling ordinance.

CRITERIA FOR INCLUSION IN A HISTORIC DISTRICT

The determination of what should be protected depends on the goals and objectives for historic preservation in each community. To aid in that determination, a set of criteria developed by the U.S. Secretary of the Interior in the 1970's is used to determine the need and desirability for inclusion of buildings and sites in preservation efforts. These criteria include:

1) Whether the site or district has significant character, interest, or value, as part of the heritage of cultural characteristics of the municipality, state, or nation, or is associated with the life of a person significant in the past.

2) Whether the site or district is associated with an event of importance to the history of the municipality, state, or nation.

3) Whether the place reflects the environment in an era characterized by a distinctive architectural style.

4) Whether the building or structure embodies distinguishing characteristics of an architectural style or engineering specimen.

5) Whether the work is one by a designer, architect, landscape architect, or engineer whose design has significantly influenced the historical,

architectural, economic, social, or cultural development of the municipality, state, or nation.

6) Whether the site or district contains elements of design, detail, materials, or craftsmanship which possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

7) Whether an area is part of or related to a park or other distinctive location which should be preserved according to an historic, cultural, or architectural motif.

8) Whether an area has yielded, or may be likely to yield, information important to pre-history or history.

9) Lastly, whether the site or district exemplifies the cultural, political, economic, social, or historical heritage of the community.

These guidelines were the basis for the development of Moorestown's historic district placed on the State and National Registers of Historic Places, an effort spearheaded by a group of concerned citizens, local historians and the Moorestown Improvement Association. This designation has served as the beginning of the identification and preservation of Moorestown's many architectural and cultural resources. Districts should be drawn so that the number of "non-contributing" buildings is minimized. Non-contributing buildings may be thought as buildings of the modern era which are defined in this document as post-World War II construction. In any historic district, there will be non-contributing buildings simply because vacant lots have existed and were developed at a later era or older buildings were destroyed either by accident or design and rebuilt. This guideline was used in the preparation of the Historic Preservation Plan located at the end of the Element.

STATE AND NATIONAL REGISTER DISTRICTS

A historical survey was completed by the Moorestown Improvement Association in 1990. It resulted in a State and National Register District that includes about 350 contributing structures. The State and National Register of Historic Places district is shaped in the form of a "T", extending on Main Street from the Perkins Memorial at Kings Highway to Zelley Avenue, with a leg that encompasses the area roughly between Mill Street and Chester Avenue

westward to Maple Avenue. This constitutes the core area of the oldest buildings in the municipality and occupies most of the town center. In addition, there are currently seven sites listed individually on the State and National Registers, inside and outside the defined district, including:

- Thomas French House, early 18th century or possibly earlier. 512 Camden Ave. (Block 1902, Lot 13)

- Perkins Memorial, 1910. Kings Highway and Camden Ave. Owned by the municipality and used as an arts center. (Block 2001, Lots 8&9)

- Smith-Cadbury Mansion, 1738, 1766. 12 High Street. The home of the Moorestown Historical Society. (Block 4502, Lot 19)

- Old Town Hall, 1810, 1889. 40 E. Main Street. (Block 4605, Lot 25)

- Friends Meeting Complex, 1802, Main Street. (Block 4900, Lot 2)

- "Breidenhart", 1894. 255 E. Main Street. Presently used as an administrative office for the Lutheran Home at Moorestown. (Block 6102, Lot 15)

- Ivins-Conover House and Barn, 1775. 801 Cox Road. (Block 7500, Lot 28)

Listing on the National Register of Historic Places automatically includes listing on the State Register. This district may be viewed as the base upon which an expanded district may be contemplated to preserve other significant historical resources that are contiguous to the State and National Register district. Further, in the same fashion that there are landmarks outside of the existing district, other sites at the periphery of the Township also have local significance. This will be discussed further in a later section.

Research undertaken by the Moorestown Historical Society indicates that more sites are worthy of listing on the State and National registers. These include the following eligible properties:

- Thomas Cowperthwaite House, 1742, 425 South Lenola Road. (Block 1801, Lot 17)

- Bispham/Walton House, c. 1770, 730 Marne Highway. (Block 6800, Lot 2)

- Roberts House, c. 1800s, 770 Marne Highway. (Block 6800, Lot 5)
- Barclay Leeds House, c. mid-1800s, 900 Riverton Road. (Block 3801, Lot 1)
- Unnamed House, Tom Brown Road at New Albany Road. (Block 5400, Lot 1)
- Zelley House, c. 1725, 401 Stanwick Road. (Block 5800, Lot 64)
- Thomas Stratton House, c. 1791, 310 Bridgeboro Road. (Block 5604, Lot 15)
- Abraham Heulings House, c. 1720, 401 Bridgeboro Road. (Block 6900, Lot 1)
- Crispin House (or Tenant House to Bispham Farm), c. 1760, 760 Marne Highway. (Block 6800, Lot 4)
- Tallman House, c. 1757, 651 Centerton Road. (Block 8800, Lot 1)
- Littles House, c. 1800, 301 Creek Road. (Block 8600, Lot 11)

Since these properties are particularly significant historic resources, listing on the State and National Registers should be pursued with the landowners regardless of what decision occurs on establishing a local historic district. These are indicated on the Historic Preservation Plan.

MOORESTOWN HISTORIC DISTRICT

A local historic district may be conceived in two phases, the first phase utilizing the boundaries of the existing State and National Register of Historic Places delineation and the second phase a larger area roughly surrounding the first phase. If a local historic district is to be established, the logical starting point is the National and State Register of Historic Places area (*see* Historic Preservation Plan). The research for this area has already been completed and accepted at higher levels of government. Phase I may be viewed as the core of a larger area that has the potential to become the Moorestown Historic District as the local area of concentrated historic resources in the town.

PHASE I: LOCAL HISTORIC DISTRICT DESCRIPTION

The commercial core of the Moorestown historic district extends along Main Street roughly between Chester Avenue to the east and Union Street to the west. Adding distinctiveness to this streetscape is the large number of residences interspersed among stores, churches, and civic buildings. The commercial buildings range from mid-nineteenth-century houses converted for commercial use to high-style 1920s banks.

The adaptive reuse of residences as stores has been a common trend along Main Street. Buildings such as the Italianate houses at 11-13 and 15-17 E. Main Street are masked behind modern storefronts, as is the mansard-roofed dwelling at 25-27 E. Main Street. Many of the large homes on Main Street, which primarily date from the second half of the nineteenth century have also been given over to professional uses with minimal alterations such as the Shingle Style house at the southwest corner of Church and Main Streets.

Accompanying the residences renovated for commercial use are buildings erected exclusively for commercial use such as 135 E. Main Street, a mid-nineteenth-century Greek Revival/Italianate brick store, and several twentieth-century commercial buildings. These include the two-story Spanish Colonial Revival brick row at 127-33 W. Main Street and the brick building at 5-9 W. Main Street. Also contributing to the twentieth-century commercial character of Main Street are the Neoclassical cast stone and brick bank designed by Philadelphia architects Davis, Dunlap, and Barney for the Moorestown Trust Company (41 E. Main St.) in1926 (now housing a Starbucks store) and the Georgian Revival limestone bank designed by Simon & Simon, also of Philadelphia, for the Burlington County Trust (1927) on the former site of the Coles Hotel, now the Wachovia Bank (91 E. Main St.).

Amidst the commercial and residential buildings along Main Street, churches serve as major architectural landmarks. At the intersection of Chester Avenue and Main Street, the Friends' Burial Ground occupies the northwest corner where their first meeting house once stood. Across the street stands the 1802 brick meeting house and the larger one of 1897, designed by Walter Smeldley, who previously had designed "Breidenhart" (now the offices of the Lutheran Home) for Quaker Samuel L. Allen. Further west on the north side of Main Street is the Baptist Church, a stuccoed masonry structure built by William LeConey in the 1870s. Romanesque Revival in style, the church features stained glass windows and a heavy bracketed cornice. Connected by a covered

walkway is its parsonage, a Flemish bond brick Federal-style house. On the south side of Main Street near Church Street, stands the Roman Catholic Church of Our Lady of Good Counsel. This greystone and limestone church of transitional Gothic/ Romanesque Revival design was built in 1895 and given a Queen Anne style stone rectory in 1912 and a school in 1924. Diagonally across the intersection of main and Church Streets is Trinity Episcopal Church built in 1929, designed by Philadelphia architects Karcher and Smith, who also designed Moorestown's Community House in 1926. This architecturally significant complex of English Country Gothic Revival stone buildings includes the church, chapel, rectory, and parish house that are arranged to form a courtyard. The church is of particular note for its attenuated stone steeple pierced with dormers. Although not situated on Main Street, another church included in the district is the turn-of-the-century Second Baptist Church on Mill Street.

Just as Main Street has served as a factor in Moorestown's commercial and religious activities, it also has become the center of civic and social life. The original Town Hall, a brick building erected in 1812 and enlarged in 1859 and again in 1888, is located at 40 E. Main Street. Within close proximity is the brick temple-fronted Masonic Temple with its commercial first floor (1916) and the rural English Gothic-style Community House (16 E. Main St.) designed by Karcher and Smith (1926). Further east along Main Street is the Grange Hall; a 2-story brick building erected in 1886. Located on Chester Avenue at Plum Street is the Relief Engine House, a Georgian Revival brick firehouse built in 1910, subsequently enlarged in the modern era.

PHASE II: FURTHER EXPANSION OF THE LOCAL HISTORIC DISTRICT

Based on research undertaken by the Moorestown Historical Society, an area that surrounds the Town Center district has been identified with buildings that were built prior to 1930. These two areas combined may be characterized as the Moorestown Local Historic District which holds the majority of the Township's historic resources. Phase II would encompass building styles to include colonial revival, Spanish colonial revival, American four-square, Dutch colonial revival and bungalow dwellings. It also includes an era when residential property has started to accommodate automobiles in garages. Unlike the Phase I district, this area is largely residential. As part of Phase II, three major and one minor appendages to the Phase I district are recommended:

- Northwest along N. Church Street to Locust Street/Maple Avenue, between the railroad line and Camden Avenue to Collins Avenue, and

extending on both sides of Camden Avenue to Colonial Ridge.

- A minor addition northwest along Chester Avenue on both sides to the intersection of Walnut Avenue/Bridgeboro Road.

- Northeast to include the neighborhood extending to East Oak Street, Frank Fullerton Park and Marter Avenue.

- South along S. Church Street to Route 38.

The Phase II area is indicated on the Historic Preservation Plan. While this part of the Moorestown Historic District has been labeled 'Phase II', the establishment of the local historic district does not necessarily require a two-step process. The Moorestown Historic District may be implemented to include both the Phase I Town Center and Phase II. Historical research amply supports the inclusion of the larger district.

Potentially, there are other areas of the Township that may be of historical importance but would require additional research. An example is West Moorestown where neighborhoods that adjoin Lenola Road were developed with bungalow and American four-square houses.

LOCAL HISTORIC LANDMARKS

In the same fashion that the Township has seven individually listed sites on the National and State Registers of Historic Places, so too are there properties that are local historic landmarks. While these landmarks may not be eligible for higher status, they nonetheless exhibit characteristics that are important to the understanding of history and changing architectural styles in Moorestown. Many of these structures are examples of Moorestown's agrarian past. A significant number are large houses attesting to the prosperity of many founding families, such as Lippincott, Borton, Hollingshead and Coles. Table V-1, Buildings of Local Historical Significance, provides a location and description of the buildings on the following page. They are also found on the Historic Preservation Plan.

Table V-1: Buildings of Local Historical Significance

House Name	Date and Notes	Address	Block/Lot
Josiah Venable/Browning House	18th century. Excellent example of vernacular building of its time.	834 North Lenola Road	400/11
Thomas L. Slim House	18th century. Excellent example of vernacular building of its time.	834 North Lenola Road	400/11
816 North Lenola Road	circa 1890. Small house, 2 stories, 3 bays	816 North Lenola Road	400/21
Elijah L. Hunt House	circa 1834 and earlier.	505 Camden Ave.	1611/12
Robert Williams Farmhouse	circa 1825, Simple 4-bay house in 7-course American bond.	118 South Colonial Ave	2600/3
Lippincott House	mid 19th century. Substantial, unpretentious house retaining details from at least 2 periods. Fronted on Salem Rd.	1237 N. Church Street	3504/3
Clayton Lippincott/Collins House	circa early 1800s. 19th century vernacular frame farmhouse.	310 Pleasant Valley Rd.	3102/24
Lippincott House	circa 1859. 4-bay house, probably originally clapboarded, now shingled.	1040 Riverton Road	3603/26
Lippincott House	circa 1800 or earlier, striking example of typical Federal house.	2801 Riverton Road	3603/27
Benj. Leeds House	circa 1835. Good example of a late Federal house.	555 New Albany Rd.	3900/12
Joseph Lauer House	circa early 1800s. Good example of a 19th century farmhouse. Porch demolished.	1117 N. Church Street	3902/9

House Name	Date and Notes	Address	Block/Lot
Pancoast House	circa 1800 or earlier. Large house with several additions (possibly 1840's and 1880's)	580 New Albany Road	4000/7
764 Riverton Road	circa 1850. Former tenant house for Lippincott Farm. Frame, 2 stories, 2 bays.	764 Riverton Road	4012/16
762 Riverton Road	circa 1850. Frame, 4 bays, 2 stories, door with transom, 2 dormers, modillion cornice.	762 Riverton Road	4012/17
Roberts House	circa 1899. Frame, 3 stories, Victorian.	555 Stanwick Road	5800/80
Heulings' Tenant House	circa mid 1800's	1001 Westfield Road	6900/1
Fruit Dale Farm	circa 1800 or earlier	437 Bridgeboro Rd.	6900/18
Bishop House	mid-1800	781 Garwood Rd.	7000/30
Majoda House	Unknown date. Gothic Revival overtones	Garwood Rd., (just east of Westfield Road)	7100/1
Lippincott/Stow House	circa 1829, 5 bay, 2 ½ story frame on Jersey sandstone foundation	895 Westfield Road, to be relocated to another site on Westfield Rd, 2002	7100/1
Albert Lippincott House	circa 1830's. 5 bay, 2 ½ story saltbox.	310 Borton's Landing Road	7401/10
L.L. Walton House	circa 1850 or earlier (research needed)	Hartford Road at Delran Line	7500/1
William Cox House	circa early 1800's	800 Cox Road	7700/9
Samuel Huston House	circa 1830's.	551 Hartford Road	7800/11
Heaton House	circa 1835	522 Creek Road	7900/13

House Name	Date and Notes	Address	Block/Lot
Lippincott/Pew House	circa early 1800's and 1870. Front portion built 1825; moved in 1904/6 from the Williams farm in Mt. Laurel; back addition.	Commonwealth Drive; situated on a Township-held conservation easement	8100/2
BortonLanding House and Barn	circa 1852 and earlier	BortonLanding Road at Rancocas Creek	8600/1
101 Hartford Road	Unknown date. Also has carriage house w/earlier beams.	101 Hartford Road	8801/1
Pleasant Acres Dairy Farm	circa 1850. 19th century vernacular frame farmhouse.	500 & 501 & 590 Centerton Road	8801/3

Source: Moorestown Historic Society, 2001

HISTORIC ROADS

Moorestown's beginnings more than 300 years ago mean that its transportation routes are also historically important. The development of land from wilderness to a rural landscape and its subsequent urbanization has changed the view from the road, although certain segments provide a semblance of earlier life. It isn't possible in modern society to return to the use of unpaved roads to achieve historical authenticity on historic roads. Instead, the streetscape outside of the cartway becomes the primary focus for the preservation of historic roads by establishing the setting for historic buildings. In addition, preserving rural roads that are not necessarily historic provides a window into the past (*see* Scenic Roads in the Circulation Element). Roads that have been identified as historic are as follows:

- Old Salem Road, laid out 1692. The remaining portions of this road lie between Borton Landing Road and Westfield Road and a portion of Salem Crossing Road from the Upper Elementary School to Hartford Road. The eastern end originally continued straight to the Hollinshead Ferry which was located on the Rancocas Creek. The road on the western end was north of Kings Highway, closer to the tributary of the Pennsauken Creek that forms the boundary with Maple Shade Township.

- The "Great Road" (Kings Highway) laid out in 1765 from Mt Holly to Haddonfield. Old Salem Road and Kings Highway ran coterminously on Main Street.

- Featherbed Lane, formerly called Pettit's Lane, laid out in 1761, connecting the Kings Highway with the Evesham (Mt. Laurel) Meeting House. This road followed an earlier Indian trail which began at the Delaware River and traveled to the seashore. The portion of the old road remaining is a driveway to three private residences. Theoretically, the Lane also provides access to Moorestown Friends Meetinghouse and School, but is not used by them.

- Riverton Road (Chester Avenue) called "Meeting House Lane" was surveyed in 1720 for the convenience of the Quaker families who lived near the river.

- Lenola Road, laid out in 1768, from Se-ne-men-sing (Cinnaminson) to the "Great Road" (Kings Highway).

- Church Street, early 1800s. North of Main was originally called Forklanding Road; south of Main it was originally called Bodine Road.

As noted, maintaining the historic character associated with these roads is an exceptional challenge in metropolitan areas. Unlike the waterways that were once trade "highways" and now look insignificant, narrow roads have been widened to accommodate modern vehicles, which has affected the setting of historic building and landscapes. The Township is also hampered by a jurisdictional issue - all but Featherbed and Salem are owned by Burlington County . To the extent feasible, historically appropriate setbacks and historically accurate landscaping may maintain historic character. Establishing criteria for historic landmark landscaping and its view from the public right-of-way should also be pursued in the implementation of this Element.

ARCHAEOLOGICAL SITES

Known archaeological sites in Moorestown encompass Archaic and Eastern Woodland cultures of its aboriginal occupants and the early settlement activities of Europeans. Because of the early settlement of New Jersey by colonialists, sites occupied by aboriginals have not been well studied. Many sites have been disturbed by later activities and the acidic soils found throughout the state have

destroyed much of the physical evidence of their occupation. These factors make the importance of known sites higher than in states with well-studied finds. Aboriginal people in New Jersey at the time of European contact were often found in seasonal camps located at the confluence of streams and rivers. Known sites in Moorestown follow this pattern of occupation of stream corridors. In addition to pre-historic sites, other known archaeological sites include ferry landings. The following archaeological sites have also been delineated in a general way on the Historic Preservation Plan.

- Sbar Drive site on the Pennsauken Creek is the location of a 17th c. ferry landing and undetermined aboriginal materials.

- Salem Road at Rancocas Creek was the site of the Hollingshead ferry landing (17th and 18th c.). The Rancocas was also the location of various Archaic and Eastern Woodland habitations.

- Featherbed Lane from Main Street to Mt. Laurel, the original road intersected Hooten Creek. At this location, aboriginal artifacts found.

- Pompeston Creek, including its headwaters behind Baker Elementary School on Maple Avenue, is an area of archaeological significance for pre-historic artifacts.

- Swede Run occupied a similar importance as Pompeston Creek in supplying food and water for Lenni Lenape Indians.

- South Valley Woods, at the headwaters of Hooten Creek, is an area of archaeological importance in the Township.

- Parker Creek and unnamed tributary of the Laurel Creek Country Club contained artifacts of a pre-European context that were uncovered during construction.

- The headwaters of Kendle's Run are yielded pre-European contact artifacts.

RECOMMENDATIONS

This Element has set forth the framework and background information concerning historic preservation in Moorestown. The town is one of the best preserved historic places in South Jersey, with a wealth of buildings and sites that makes Moorestown a desirable place to live and work. The state government has devised the legal framework under which a regulated local historic district may be implemented and this Element notes three versions that may be used.

- *Establish a Local Historic District when Appropriate*. The basis for the Moorestown Historic District has been described in two parts, one using only the area that mirrors the National and State Register of Historic Places, and the second that incorporates historic neighborhoods surrounding the town center. Establishing a district with only the first part would be an incremental approach. If that proved successful and supported by citizens, the second part could be added. On the other hand, if sufficient public support existed, both parts of the district could be implemented at the same time.

- *New Listings to the Historic Registers*. Individual sites have been identified that are eligible for the National Register of Historic Places (and by extension the State Register). Owners should be approached about listing their properties on the register through an educational program designed to inform them of the benefits and restrictions that the listing would entail.

- *Sites outside of a Historic District*. Sites of local importance outside of the delineated Historic District, whether in one or two phases, have been identified. These should be included as part of any legislation creating a Moorestown Historic District. Since these resources are not in a district, they are more likely to be affected by new development that may detract from their setting. They are more vulnerable to demolition since many buildings are on large sites that may be developed with new uses. New standards to protect these resources should be developed in the Township's land development ordinances.

- *Preserving Historic Roads*. Transportation has played a large role in the evolution of Moorestown. Historic roads have been recognized that contributed significantly to the town's identity. While maintaining the majority of these roads with any semblance of their past look and design

is difficult, the same effect may be achieved by applying rural character design standards to municipally owned, low volume roads.

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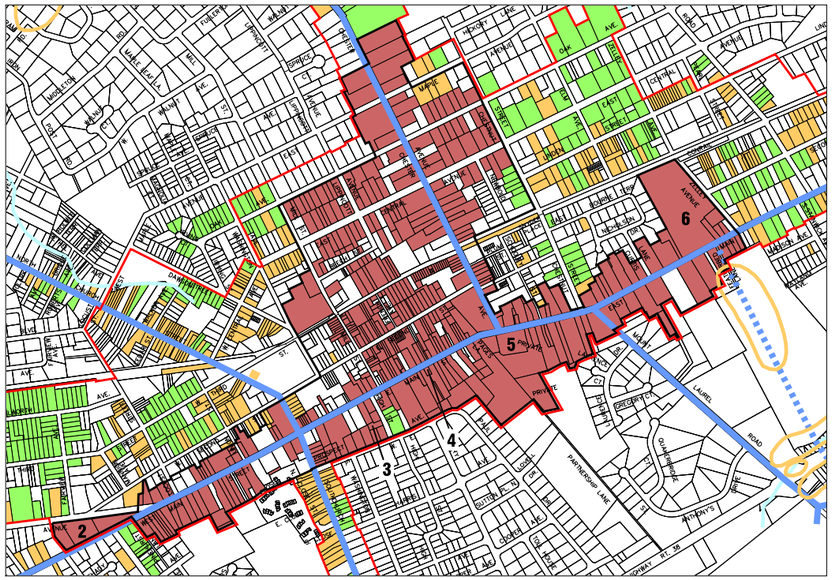

Town Center Detail

Legend

- Prehistoric/Paleo-Indian Site
- Pre 1900
- State and National Register Listed Properties
- State and National Register District, Phase I
- 1900-1930
- Post WWII
- Historic Roads
- Historic Roads
- Proposed Local Historic District, Phase II
- Town Center Detail Area

Individually Listed National and State Registers of Historic Places

1. Thomas French House
2. Perkins Memorial
3. Smith-Cadbury Mansion
4. Old Town Hall
5. Friends Meeting Complex
6. Breidenhart
7. Ivins-Conover House and Barn

Sites Eligible for Listing on the National and State Registers of Historic Places

8. Thomas Cowperthwaite
9. Bispham/Walton House
10. Roberts House
11. Barclay Leeds House
12. Unamed House
13. Zelley House
14. Thomas Stratton House
15. Abraham Heulings House
16. Crispin House
17. Tallman House
18. Littles House

Sites of Local Historical Significance

19. Josiah Venable/Browning House
20. Thomas L. Slim House
21. 816 North Lenola Road
22. Elijah L. Hunt House
23. Robert Williams Farmhouse
24. Lippincott House
25. Clayton Lippincott/Collins House
26. Lippincott House
27. Lippincott House
28. Benjamin Leeds House
29. Joseph Lauer House
30. Willam Roberts House
31. Pancoast House
32. 764 Riverton Road
33. 762 Riverton Road
34. Roberts House
35. Heulings' Tenant House
36. Fruit Dale Farm
37. Bishop House
38. Majoda Stables
39. Lippincott/Stow House
40. W.B. Lippincott House
41. Albert Lippincott House
42. L.L Walton House
43. William Cox House
44. Samuel Huston House
45. Heaton House
46. Lippincott/Pew House
47. Borton Landing House and Barn
48. 101 Hartford Road
49. Pleasant Acres Dairy Farm

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

Willingboro Township

Delran Township

Cinnaminson Township

Maple Shade Township

Mount Laurel Township

Historic Preservation

Moorestown Township
Burlington County, New Jersey

June 27, 2002

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North

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Community Facilities Element

INTRODUCTION

This element concerns itself with public buildings and grounds that provide for the administration and delivery of services. These facilities include governmental operations, policing and emergency services, schools, library and similar uses. Additionally, community facilities include quasi-public uses that serve citizens, landowners and business people in Moorestown. These could include churches and other houses of worship, fraternal and social organizations, and other kinds of institutions dedicated to community building. There is some overlap between this element and the Open Space and Recreation Plan Element. Buildings designed for recreational and leisure purposes serve the functions of both elements.

The purpose of the element is to examine the adequacy of community facilities for Moorestown, emphasizing those owned by the municipal government. Determining adequacy depends on the goals and objectives of the municipality, its demographic characteristics, and the expectations of residents and workers for the delivery of services. For example, a rise in the elderly population might mean an emphasis on senior services and facilities to meet these needs. A projected school student increase might require expanded educational and recreational facilities. In this way, based on demographic factors and residents expectations for services, future capital expenditures can be planned in a rational manner.

MUNICIPAL COMPLEX

Moorestown's municipal complex consists of the Town Hall, Town Library and Church Street Recreation Center on a 5.4 acre site. The complex is in the block bounded by W. Second Street, N. Church Street, W. Third Street and Washington Street. The complex is located on the site of the former Moorestown high school and an elementary school. The Recreation Center includes the gymnasium of the former high school as well as other facilities. While it was originally part of the high school, the Recreation Center became a freestanding building when the remainder of the old high school was demolished. Both the Town Hall and Town Library date to 1973 and have a similar architectural style consisting of two stories with gable roofs and a stucco exterior. These three facilities share a common parking lot. The Town Hall and the Library are linked by a partially covered walkway across the parking lot. Police vehicles are

also parked on the site in a lot at the corner of N. Washington and W. Third Streets. A storage building facing Third Street completes the structures found at the municipal complex.

TOWN HALL

Town Hall is the seat of most municipal administrative functions as well as the Police Department. In addition to the Police, Town Hall provides office space for the Township Manager, Township Clerk, Municipal Court, Tax Assessor, Tax Collector and the Finance, Community Development (including Construction Code enforcement), and Recreation Departments. The Police Department is located in a separate wing of Town Hall. In addition to housing these administrative functions, Town Hall has meeting rooms for its own staff as well as the thirteen Boards and Committees established by the Township Council.

Town Hall was constructed with a mezzanine (partial second floor) that contains only the Recreation Department, Judge's Chambers, the main assembly room and a community meeting room. While the building has a large volume, approximately a third of it is the lobby and hallway for the mezzanine that overlooks the lobby. About half of the remaining floor space has a two-story height, which creates a ceiling of almost 30 feet for first floor offices. Further, large planters also occupy a significant portion of first floor space. These factors make for an inefficient use of space and technical difficulties in evenly heating and cooling the building. Noise reverberating from the high ceilings and atrium is distracting. The building also has a pervasive odor problem that has defeated attempts to mitigate it - a trait in common with the library.

The inefficient use of space could be overlooked when the building was first constructed but is difficult to reconcile with the current need for additional office space, storage for important documents and meeting rooms for community groups, the governing body and staff use. When the building was designed, the Township's population was 20% smaller than today. In addition to serving a larger population, the municipality now provides a broader spectrum of services as well. In part, this expansion of services results from State of New Jersey mandates regulating municipal operations in specific ways which ultimately require both more space and more personnel. State regulations have become increasingly more burdensome over the three decades since the building was constructed.

Overcrowding affects all of the departments, but particularly those with large document storage needs such as the Finance and Community Development Departments and Township Clerk's Office. In the Construction Code division of Community Development, contractual employees utilize half of the public atrium as their offices. If the Library Board moves ahead with their plans to utilize the second floor (see below), the Township's Geographical Information Services (GIS) will be displaced and there is no space within Town Hall or the Recreation Center to house it. Town Hall was designed to add a second floor above the open first floor offices so theoretically additional space could be created within the existing footprint of the administrative side of the building. At this stage, however, construction would be disruptive to staff occupying the first floor.

The Police Department has many of the same storage needs as the administrative portion of Town Hall, but also has particular storage needs for maintaining evidence. Due to the sensitive nature of many of the department's records, secure storage is very important. The Police Department also lacks office space for its staff, which now number 38 officers and patrol personnel, including the Director of Police. Because of the volume of traffic that now moves through the Township, its proximity to Interstate 295 and Rt. 38, and the regional shopping areas around the Moorestown Mall, calls for assistance have outpaced the growth in population. In addition, better procedures have led to higher arrest rates with a concomitant need for facilities such as an enclosed sally port and larger holding cells.

The Township has many competing demands for funds and limited resources. For example, the Township has recently initiated an aggressive open space acquisition program (*see* Open Space and Recreation Plan Element) and streetscape improvements for Main Street (*see* Town Center Plan). One way to approach the correction of Town Hall's inefficiencies is to start with a space study. Much of the discussion on the inefficiency of the building rests on anecdotal information and observations. A space study would examine the existing areas of the building, office space, police needs and storage demands, compare them against accepted standards, and arrive at a set of conclusions. At that point, the municipality would know what needed to be addressed and could take action as necessary. If action appeared warranted, the next step would be to engage an architectural firm to develop a renovation/building program based on the study's conclusions.

TOWN LIBRARY

The Moorestown Township Library has nearly 123,000 volumes and other media available for circulation and reference purposes. The companion building to Town Hall, the library served in excess of 165,000 patrons in the year 2000. Those patrons borrowed 164,783 items such as books, videos and CD-ROM's. Yearly, the library runs or hosts 360 activities, or more than one per day when the facility is open. The library has 16 public access computers for card catalog searches, word processing and Internet access. The library also provides space for the Township's GIS data service, operated by the Environmental Advisory Committee, on its second floor.

The library consists of two floors and a partial basement, with only the first floor of 16,000 sf. available to the public. The library plans to expand to the second floor and move children's books and activities to this area. When the building was constructed, the second floor was designed as "shell" space, for future expansion. The second floor contains 12,000 sf. and houses only the GIS office. The library's partial basement area of 5,000 sf. is used by the staff for book storage, repair services and similar operations.

The library is run by the Library Board, an autonomous municipal organization. They have identified a need to expand the use of the building to its entire floor area. Moving children's books and activities to the second floor would allow an expansion of services and materials for adults. Finishing the second floor would also entail renovating the first floor. New construction code requirements will require the construction of a new stairway and the internal displacement it would cause contributes to the need to renovate the first floor. An early estimate of the cost of the internal expansion is $4 million, but that figure could be higher depending on the extent of the first floor renovation. State funding in the amount of $45 million in grants was available earlier this year but has now been earmarked for specific projects in other municipalities. The outlook for additional state grants is uncertain.

CHURCH STREET RECREATION CENTER

The Church Street Recreation Center is a three story brick building used for indoor active recreation and community programs oriented towards youth activities. Once part of the former high school, it has a full size gymnasium on the first floor and a youth center/game room on the third floor. The second floor contains former offices used for storage and does not occupy the entire level - the

gymnasium occupies the northerly space. The second floor is not open to the public. The basement contains a boxing ring and storage for the Public Works Department.

The facility has gradually been improved starting with the replacement of the deteriorated windows in the early 1990's. A handicapped access ramp was installed from the parking lot to the first floor in 1998. Recently, additional rest rooms were installed on the third floor. Township Council in early 2002 approved the application for federal Community Development Block Grant funds to install an elevator to make the Center fully handicapped accessible.

PUBLIC WORKS COMPLEX

The public works facility is located on E. Third Street with access from Borton Landing Road. The Public Works Department maintains the municipality's buildings and grounds as well as its public infrastructure. In Moorestown, public infrastructure includes municipal streets, street lighting, street trees, water lines, sanitary sewer and storm drainage. The Public Works Department also handles trash pickup and some recycling, such as brush and appliance collections. The Township contracts with Burlington County to handle curbside pickup of cans and bottles for recycling.

The facility functions as the maintenance garage for police and department vehicles. Equipment is stored on site and materials stockpiled for use in maintenance, such as road salt. A section of the yard is devoted to recycling containers for residents to drop off materials. The site is 12.4 acres on the north side of the railroad line and .77 acres on the south side at Pancoast and E. Third Streets (both are paper streets at this location). The south side is not currently used by Public Works. The building was designed to allow expansion and the site is large enough to accommodate increased use of the facility, if needed. Currently the facility is adequate and no expansion is anticipated in the foreseeable future.

Access to the facility, however, is increasingly difficult because of high levels of traffic on Borton Landing Road. Though the department starts earlier than most offices, once crews are marshaled and the proper equipment is gathered, the drivers are in the middle of rush hour traffic. Traffic at the signal at E. Main Street stacks up well past the Third Street intersection, making right-hand turns dependent on driver courtesy and left-hand turns nearly impossible.

This reduces the amount of work that can be accomplished by the department in a given day because of the time it takes to exit onto Borton Landing. The facility is also located on the paper street portion of Linden Street. This street will be partially extended as part of the Ducoson's subdivision (Block 5802, Lot 52) development at N. Stanwick Road. In time, Linden Street is proposed to extend from N. Stanwick Road to the public works facility which will allow the department a second means of access and is considered critical to the long term viability of this site for the Public Works Department. *See also*, the Circulation Element.

FIRE DISTRICTS AND EMERGENCY SERVICES

Moorestown is divided into two fire districts each operated by a Board of Fire Commissioners. The two districts were established in the early 1930's. Each district has its own taxing authority and elected slate of five commissioners. Fire District 1 encompasses about two-thirds of the municipality in its central and eastern portions. District 2 includes the western portion of Moorestown. Three fire stations are distributed among the two districts. District 1 includes the Hose Company No. 1 station at 261 W. Main Street and the Relief Engine Company at 222 Chester Avenue. District 2 is located at 229 N. Lenola Road, next to the railroad line. The two districts have a limited number of paid personnel who conduct fire safety inspections, investigate causes of fires, and review building plans in addition to serving as the administrators for fire and rescue services. District No. 1 has six full and part time personnel and District No. 2, three persons. The districts primarily depend on volunteers to respond to emergencies.

Both Districts 1 and 2 provide space for emergency medical services' (EMS) vehicles and equipment. While operating funds for the fire districts come from taxing property, the EMS squads are dependent almost entirely on donations. The EMS squads rely on volunteers to staff the services that they provide, which involves not only responding to medical emergencies and accidents, but also providing services at athletic contests and other events. The Lenola EMS group is fully dependent on volunteers and the Moorestown EMS (on Main Street) only has paid part-time first responders. From an operations standpoint, recruiting and retaining of new volunteers is a serious problem, though it does not directly impinge on the adequacy of the facilities. However, if Moorestown should increase the number of full-time paid personnel, as have other municipalities facing similar problems, the districts' facilities may no longer be adequate.

At the present time, both equipment and facilities are adequate. District 1 at the Hose Company station holds two pumper/ladder engines, two rescue vehicles, three passenger/light truck vehicles, two ambulances and a rescue boat. The building also houses an antique fire engine. The Relief Engine Company has two pumper/ladder engines, an aerial ladder truck, a brush truck and an antique engine. Fire District No. 1 also has two passenger vehicles not stored on site.

District No. 2 has three pumper/ladder engines and a 100 foot aerial ladder truck. The EMS squad has two ambulances and a first response passenger vehicle.

District No. 1 has secured by donation a parcel of land from Lockheed Martin Corp. for a future fire station. Located on Hartford Road near Borton Landing Road, the station would also serve to house an EMS squad. However, the Board of Fire Commissioners is uncertain at what point a new facility should be constructed and continues to monitor response time to emergencies in east Moorestown. Manning the facility is a large concern, given the difficulty in recruiting volunteers. No design or construction timetable has yet been set.

PUBLIC SCHOOL FACILITIES

The Moorestown Township School District operates six public schools in the municipality serving about 3,800 students. Descriptions of the schools follow:

Baker Elementary School - The school is a kindergarten through third grade facility located on W. Maple Avenue.

Roberts Elementary School - Similar to Baker Elementary, this kindergarten through third grade school is located on Williams and Crescent Avenues. Both of these schools have roughly 350 students.

South Valley Elementary - Also a kindergarten through third grade facility, it is the largest of the elementary schools with about 500 students. The school is located at the end of S. Stanwick Avenue and Maryland Avenue. All three schools were renovated and new additions constructed in the early 1990's to accommodate enrollment growth.

Upper Elementary School - The Board of Education's newest facility, the Upper Elementary School, first opened in September 2001 on Borton Landing Road, teaching students in the fourth through sixth grades. It has approximately 900 pupils. Prior to its opening, the three other elementary schools were K-4 facilities and the Allen Middle School contained the fifth and sixth grades.

Allen Middle School - The Allen Middle School currently provides instructional space for the seventh and eighth grades. It is located on a campus with the high school at the intersection of N. Stanwick and Bridgeboro Roads. The middle school opened in the early 1970's to accommodate the peak of the "baby boom" generation. The building did not undergo any significant renovation until a bond referendum was passed by voters in the spring of 1998 approving the construction of the Upper Elementary School and improvements to the Allen Middle School. Renovations are currently underway to replace many of the core facilities of the school, including the auditorium, library, performing arts, arts studios and administrative offices. Windows as well as mechanical and electrical systems will be replaced or upgraded. The project is expected to be completed for the 2003-2004 school year.

Moorestown High School - Moorestown High School also opened in the early 1970's, replacing the high school on N. Church Street. Renovations to improve fire safety, refurbish the auditorium and construct a new science wing were completed in 1997. The Board of Education also received bond approval in 1998 to construct up to ten additional classrooms on the western side of the building should enrollment increases dictate their construction.

The high school and middle school complex has associated athletic facilities, including a track and football field with bleachers, tennis courts, soccer and lacrosse fields, and a baseball diamond. These facilities are also used by the Township Recreation Department and youth sports groups.

The high school also provides space for school bus storage. Attached to the rear of the building is a two-bay garage for maintenance on school buses and vehicles used by the grounds and maintenance personnel. The school district also operates a fueling station at this location.

The adequacy of public school facilities is based on a number of factors; the primary one is the level of enrollment. Other factors include state mandates on

the types of facilities and programs that are required (for example class size and special education), changes in technology that create the demand for new educational programs, and the level of achievement expected by the community. Enrollment is related to demographic change in Moorestown, which takes two forms. The first is the change over time that occurs when an empty nester family is replaced by a family with school age children. Enrollment will increase if the number of schoolchildren coming into the school system exceeds that of pupils that progress out of the system. Secondly, new housing provides the opportunity for people to move from existing houses, thereby accelerating the turnover in ownership previously described, and to allow other households to immigrate from other communities. The type of housing also affects the number of school children, as the following table indicates:

Table VI-1. Demographic Factors in Housing Types.

House Type	No. of Bedrooms	Average Household Size	Average No. of Schoolchildren
Single family detached	2	2.06	.11
	3	3.08	.59
	4	3.71	1.04
	5	4.17	1.30
Duplex	2	2.54	.35
	3	3.40	.74
Townhouse	2	2.08	.13
	3	2.71	.41
	4	3.24	.66
Garden apartment	1	1.66	.08
	2	2.52	.38
	3	3.48	.90

Source: *New Jersey Demographic Multipliers*, Center for Urban Policy Research, Rutgers University. Based on 1990 U.S. Census data.

As may be seen from the table, on the average, larger single family detached houses generate the highest number of school students. Townhouses have averages similar to those of single family detached two-bedroom houses. Single family detached units with three bedrooms, however, have 44% more students than townhouses with three bedrooms and for four bedrooms, the disparity is 58%. Except for certain units constructed by MEND, Inc. (*see* Housing Plan Element) and the townhouses in Laurel Creek, all of the houses constructed in the past decade have been single family detached houses. The large majority of these have had four or more bedrooms. The effect of this construction is shown by rising school enrollments throughout the 1990's and into this decade. Limiting the number of single family detached residences would aid in limiting school enrollment increases.

The Board of Education each year projects enrollment for the following decade as part of their capital facilities planning. Their projections are based on existing enrollment, the number of housing units under construction or planned, the number of pre-school children and the anticipated percentage of children that will go to private or parochial school. The school district, like many other districts, uses the age cohort method of population projection. This method takes a specific grade level (the age cohort) and moves it through succeeding years, adjusting for transfers of students into and out of the system. This process results in the enrollment projections in Table VI-2 on the following page.

Table VI-2. Moorestown Township School District Enrollment Projection Summary Including New Housing.

School Year	Baker K-3	Roberts K-3	South Valley K-3	Upper Elementary 4-6	Middle 7-8	High 9-12	Total Projection	% Change
2000-01*	356	340	472	862	586	1,015	3,631	-
2001-02	360	340	499	913	629	1,070	3,811	5.0%
2002-03	381	348	523	950	629	1,158	3,989	4.7%
2003-04	396	342	530	981	651	1,213	4,113	3.1%
2004-05	381	350	504	1,030	696	1,266	4,227	2.8%
2005-06	382	351	486	1,064	721	1,329	4,333	2.5%
2006-07	373	345	456	1,114	721	1,378	4,388	1.3%
2007-08	372	345	454	1,071	781	1,427	4,450	1.4%
2008-09	371	345	453	1,053	808	1,477	4,507	1.3%

* Actual enrollment has been adjusted to place 4th –6th grades in the Upper Elementary School, not open until 2001 school year.
Source: Moorestown Township Board of Education, October 2000.

The Board of Education, as may be seen by the projections, expects the rate of growth to moderate significantly over the next decade, for several reasons. First, the amount of developable land is decreasing as farmland is converted to housing and commercial development. Second, the amount of land within the sanitary sewer areas is particularly scarce for residential development. Lots in non-sewered areas are consequently larger, leading to a lower density of housing. Third, the Township's open space acquisition plans (*see* Open Space and Recreation Plan Element) target mainly residentially zoned land. As purchases are made, municipal and county open space will reduce the supply of residential land that is available. This has already occurred with the purchase of the Benner Farm that removed 190 potential units and Farmers Storage that removed 10 houses. Fourth, household size continues to decrease over time so that there are fewer schoolchildren per house. Lastly, the percentage of households with school-aged children compared with the general population also continues to decline. In summary, demographic factors, coupled with a finite amount of land, point to a moderating of growth within the school district.

As part of their long range facilities planning, the school district does not expect

that any additional school sites will be required. Accordingly, no new school sites are designated in this element. Nonetheless, the Board of Education has identified certain other future capital needs it anticipates, though it has not requested and has no plans to request a bond referendum in the foreseeable future. These include the following:

$ Additional classrooms for the high school. While enrollment is the main reason behind this increase, so are new educational programs, often mandated by the State, that require additional classroom space.

$ A school bus facility that is not located at the high school. Additional passenger vehicle parking at the school is needed that may only be obtained by relocating the school bus storage area.

$ An expanded maintenance garage. The present two-bay garage is inadequate for the number of vehicles that must be maintained. Logically, the school bus facility and the maintenance garage would be located on the same property.

OTHER SCHOOL FACILITIES

There are two other school facilities in Moorestown in addition to the public school system. The first is Our Lady of Good Counsel School affiliated with the Roman Catholic church of the same name. It provides education for kindergarten through eighth grade students. It also provides day care and pre-kindergarten services. First through eighth grades are housed in the Main building while the nursery through kindergarten are in the Early Childhood Center. The school, located at 23 W. Prospect Street, started in 1927 and has an enrollment of approximately 500 students.

The second school facility is Moorestown Friends School associated with the Moorestown Monthly Meeting of the Society of Friends. The school was founded in 1785, became two different Friends schools in 1827 and reconsolidated in 1920 at its present location. The school occupies several different buildings on a campus that also includes the Meeting House, as well as extensive athletic fields. The school is functionally divided into the Lower (pre-kindergarten through fourth grade), Middle (fifth through eighth grade) and Upper (ninth through twelfth grade) Schools. Total enrollment approximates 635 students.

Our Lady of Good Counsel has very limited room for additional development. Moorestown Friends School is building a new gymnasium facility and renovating the existing athletic space mainly for performing arts purposes. The school has additional land for development if the athletic fields are rearranged.

RELIGIOUS ORGANIZATIONS AND AFFILIATIONS

Houses of worship function as quasi-public community facilities, often providing meeting rooms and hosting events for the general public as well as providing for social services. There are 18 houses of worship located in Moorestown Township, as detailed in the table below and on the Community Facilities Plan at the end of this element.

Table VI-3. Houses of Worship in Moorestown.

House of Worship	Address	Map Symbol
Bethel AME Church	512 N. Church St.	8
Christadelphian Ecclesia	101 N. Lenola Rd.	3
Church of Jesus Christ of Latter-Day Saints	319 Bridgeboro Rd.	16
First Baptist Church	19 W. Main St.	11
First Church of Christ, Scientist	420 Kings Highway	7
First Presbyterian Church	101 Bridgeboro Rd.	15
First United Methodist Church	446 Camden Ave.	6
Grace Community Church	750 E. Main St.	18
Harbor Baptist Church/ Lenola Bible Church	32 New Albany Rd.	4
Holy Bible Church	Browning Ave.	2
Jehovah's Witnesses	339 Bridgeboro Rd.	17

Maranatha Tabernacle	802 N. Lenola Rd.	1
Moorestown Bible Church	237 W. Main St.	9
Moorestown Society of Friends Meeting	118 E. Main St.	2*
Our Lady of Good Counsel Church	42 W. Main St.	1*
St. Matthew Lutheran Church	318 Chester Ave.	13
Second Baptist Church	319 Mill St.	12
Trinity Episcopal Church	207 W. Main St.	10

* In the Church and School category.

Three facilities that provide housing and some form of daily assistance or medical care are affiliated with religious organizations in Moorestown. The Greenleaf, located at 28 E. Main Street, is associated with the Society of Friends. The Greenleaf is a boarding facility for the elderly. The Lutheran Home is a skilled nursing facility associated with the Evangelical Lutheran Church in America. The nursing center is located at 255 E. Main Street. The third facility is The Evergreens, a continuing care retirement center located at 309 Bridgeboro Road. The Evergreens is affiliated with the Episcopal Diocese of New Jersey. Though affiliated with religious organizations, all three facilities are non-denominational with regard to their admissions policies.

The Lutheran Home and The Greenleaf own sufficient land that expansion plans are theoretically feasible. The Evergreens is constrained by significant wetlands that would likely prevent additional development on the site. The Lutheran Home advanced a plan in 1995 for independent living units (a form of senior housing); however, this plan was ultimately denied by the Zoning Board over several concerns, including the proposed density of development. Though this plan has been abandoned, there are likely to be future plans that will affect the use of the site.

The Greenleaf owns a vacant lot on Prospect Avenue between its existing facility and Moorestown Friends School. In 1998 The Greenleaf added rooms and safety improvements to its main building and renovated its annex. This completed its conversion from a nursing facility to a boarding home. Administrators have

expressed interest in utilizing their vacant lot for an expansion of the boarding home should funding become available; however, no further plans have been proposed either formally or informally.

This history points to the need to address the intensity of uses allowed on sites having institutional land uses. Such uses clearly have a beneficial effect on the Township, providing for those persons unable to care for themselves or for whom assistance is needed with the daily tasks of life. A balance should be struck, however, between the needs of the institution and those affected by the off-site impacts of employees and traffic on the tranquility of existing neighborhoods. The history also suggests taking a more proactive approach in determining where any future new uses should be located. Revised conditional use standards for institutional uses should be developed.

QUASI-PUBLIC COMMUNITY FACILITIES

There are three quasi-public organizations that provide community support and services to residents of Moorestown. The YMCA, or Family "Y" of Burlington County, is located on Centerton Road and straddles the Township's border with Mount Laurel Township. This nonprofit organization offers a number of social and athletic programs for both youth and adults.

Moorestown Community House, a privately owned facility located on East Main Street, was built in 1926 to provide a community gathering place with recreational facilities and meeting rooms. It was conceived by Edward Johnson, a president of RCA and resident of Moorestown, who donated a significant amount of money and challenged the community to raise the remainder of the necessary funding. While the Community House provides for a number of recreational activities, its also furnishes meeting rooms and office space which are used by various nonprofit organizations in Moorestown. The Community House features prominently in community activities centered around the Main Street Town Center area.

The Perkins Center for the Arts is located within a State and National Register of Historic Places building donated to the municipality. The Perkins Center offers instruction in the visual arts such as painting and sculpture as well as the performing arts of music and dance. The facility holds exhibits by various artists open to the public. It is located at 395 Kings Highway at its intersection with Camden Avenue. The Perkins Center is also notable for its arboretum

where summer band concerts are held and wedding photographs often taken. The municipality leases the building to the Center. Trustees of the Center have expressed an interest in building an addition which would connect the main building (formerly a residence) to the carriage house for the stated reason of improving handicapped accessibility and creating a new entrance to the facility.

SUMMARY AND RECOMMENDATIONS

The Township is well served by a "civic infrastructure" consisting of governmental, non-profit and religious organizations that provide a high level of programs and support to residents, landowners, business persons and visitors. The civic infrastructure is dependent on buildings and facilities that may no longer be adequate for the Township's existing and projected population. Nowadays, municipalities are expected to provide more services at greater convenience. For example, providing information via Internet requires skilled programmers, hardware and maintenance services on an ongoing basis. Though not space consuming, this example indicates how technological change can bring about new demands that were not anticipated when the facilities were built. Maintaining the services that the public has come to expect requires investment in facilities and replacement as they become obsolete. The recommendations for the Community Facilities Element are:

1) Town Hall is overcrowded because of a lack of storage, meeting rooms and offices. A space study should be initiated to provide an objective method of determining if the space could be used more efficiently and how much floor area is actually needed. A space study is needed to form the basis for any subsequent architectural program.

2) Eventually the municipality will need to decide whether the plan proposed by the Library Board to use the library's second floor and renovate the first floor is essential for the needs of the community.

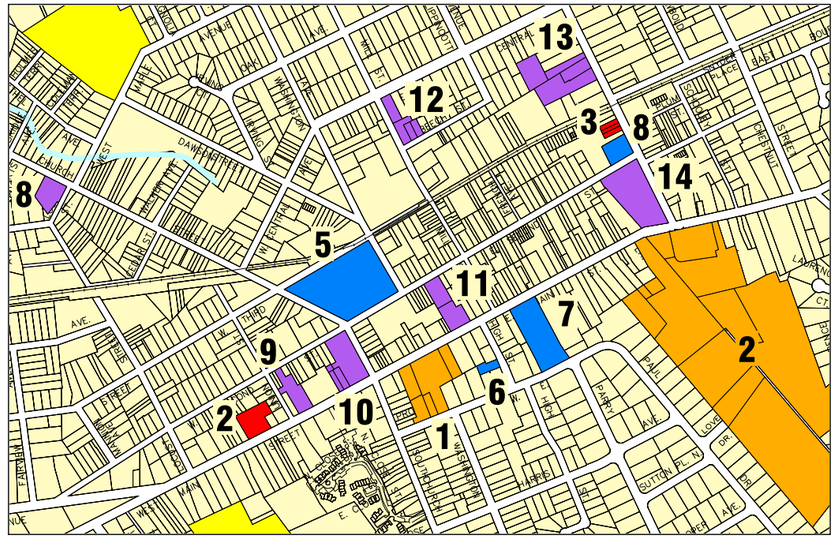
3) An elevator should be added to the Church Street Recreation Center to make it fully handicapped accessible.

4) A second means of access from N. Stanwick Road to the Public Works facility should be provided through the construction of Linden Street either by private and public means.

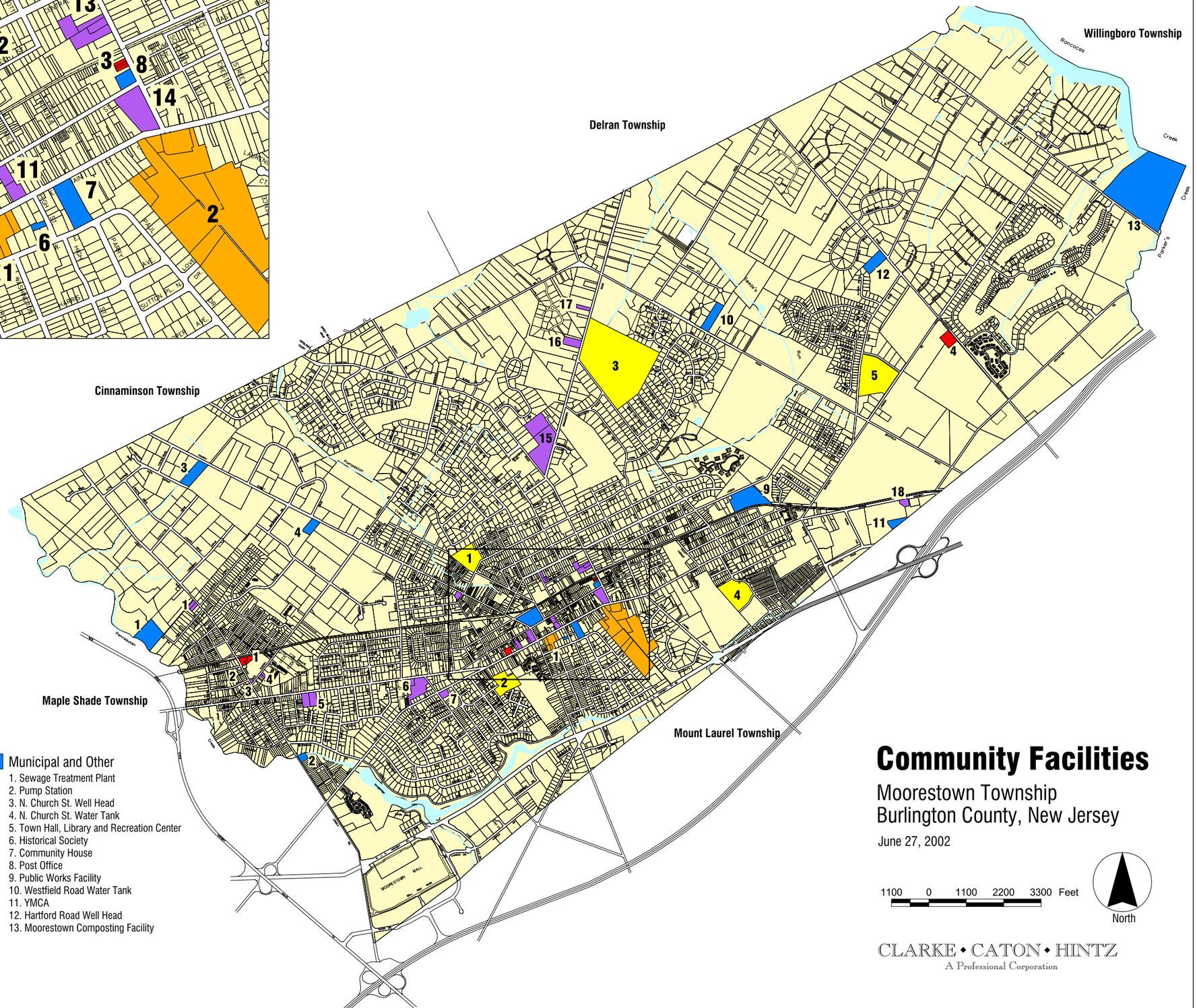
5) It is expected that within twenty years a new fire station should be constructed on Hartford Road.

6) The Board of Education has identified a long term need for a new bus storage and maintenance facility. This type of use is consistent with uses in one of the Township's business parks; however, bus storage and maintenance should be limited to school board use only.

7) Institutional and certain combined residential and medical service uses should be regulated to moderate the level of intensity permitted. This recommendation is consistent with the adopted *Reexamination Report*.



Town Center Detail



Legend

Town Center Detail Area

Churches/Cemeteries

1. Maranatha Tabernacle
2. Holy Bible Church
3. Christadelphian Ecclesia Church
4. Harbor Baptist Church
5. Calvary Cemetery
6. 1st United Methodist Church
7. 1st Church of Christ, Scientist
8. Bethel AME Church
9. Moorestown Bible Church
10. Trinity Episcopal Church
11. First Baptist Church
12. Second Baptist Church
13. St. Matthew Lutheran Church
14. Friends Cemetery
15. First Presbyterian Church
16. Church of Latter Day Saints
17. Jehovah's Witnesses
18. Grace Community Church

Schools

1. Baker Elementary School
2. Roberts Elementary School
3. Moorestown High School and Middle School
4. South Valley Elementary School
5. Upper Elementary School

Churches and Schools

1. Our Lady of Good Counsel Church and School
2. Society of Friends Meeting House and School

Fire Stations and Emergency Services

1. Lenola Fire House
2. Hose Co. No. 1
3. Relief Engine Co.
4. Proposed Fire House

Municipal and Other

1. Sewage Treatment Plant
2. Pump Station
3. N. Church St. Well Head
4. N. Church St. Water Tank
5. Town Hall, Library and Recreation Center
6. Historical Society
7. Community House
8. Post Office
9. Public Works Facility
10. Westfield Road Water Tank
11. YMCA
12. Hartford Road Well Head
13. Moorestown Composting Facility

Community Facilities

Moorestown Township
Burlington County, New Jersey

June 27, 2002

1100 0 1100 2200 3300 Feet

North

CLARKE • CATON • HINTZ
A Professional Corporation

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

Circulation Element

INTRODUCTION

This element is concerned primarily with the movement of people and goods within and through the Township. The Circulation Element examines the transportation network of streets, sidewalks and pathways that provide mobility for commuters, residents and business owners. This document takes the local view of this transportation system and its influence on the policies of the Land Use Plan Element. Most of this element will focus on the street network but it also includes a description of public transportation and pedestrian (and bicycle) access. Though Moorestown has rail service, it has very limited use as a freight line and does not feature in any significant way in providing goods movement and accordingly is not discussed in this document. Lastly, the element discusses ride sharing ideas and design concepts for improvements to streetscapes.

REGIONAL PLACEMENT AND DESCRIPTION OF ROADS

Moorestown is located in close proximity to Interstate 295 and the New Jersey Turnpike, the two major limited access highways in the southwestern part of the state, paralleling the Delaware River. Access to the Interstate is from state Route 38 (Exit 40) and County Route 636 (Creek Road; Exit 43). The NJ Turnpike's closest access is Exit 4 from state Route 73, a drive of 5 to 10 minutes from most of Moorestown. State Route 38, the only such highway actually in Moorestown, traverses the Township in an east/west direction. Route 38 is the Township's main commercial artery and was originally constructed in 1932. The highway was "dualized" in 1960 by constructing two additional travel lanes and a median strip. Route 73 lies just to the south and west of the municipality in Maple Shade and Mt. Laurel Townships. Route 73 supplies a similar function as Rt. 38. Route 130 lies to the north and west of Moorestown in the neighboring municipalities of Cinnaminson and Delran. This highway served as the principal route between Camden and Trenton prior to the advent of the limited access highway system. Route 130 serves as the primary commercial artery for the river towns in Burlington County. Because the bulk of Moorestown lies between Rts. 38 and 130, considerable intermunicipal traffic occurs on the county roads linking the two highways. The state highway system is linked to Pennsylvania and New York in a complex web of roadways. Because of Moorestown's close proximity to these major routes, it is well positioned for convenient access to Philadelphia, New York and more distant destinations.

The jurisdiction of the public road network is divided among state, county, and local governments. This section of the Element describes the road system within Moorestown. Since no federally designated routes traverse Moorestown, they have been excluded from this section (though Rt. 38 is part of the National Highway System, it has a state route number). Private roads such as those serving apartment buildings, townhouse developments and office complexes or those that create shared access among several uses may serve many of the same functions as the public street network but will not be dealt with in this Element.

Table VII-1 below enumerates the total number of miles under each level of government.

Table VII-1. Road Miles by Governmental Jurisdiction in Moorestown.

Jurisdiction	Number of Miles
New Jersey	2.7
Burlington County	24.7
Moorestown Township	74.0
Total	101.4

Source: NJDOT, Moorestown DPW and CCH calculations.

Table VII-2 lists the roads under state and county jurisdiction in Moorestown. These include the following:

Table VII-2. State and County Roads in Moorestown.

NEW JERSEY STATE ROAD:	Route 38
BURLINGTON COUNTY ROADS:	Lenola Road (Route 608)
	Kings Highway (Route 611)
	Camden Avenue (Route 537)
	New Albany Road (Route 583)
	Church Street (Route 607)
	Fellowship Road (Route 673)
	Chester Avenue/Riverton Road (Route 603)
	Bridgeboro Road (Route 613)
	Moorestown-Mt. Laurel Road (also Route 603)
	Marter Avenue (Route 610)
	Marne Highway (also Route 537)

Table VII-2. State and County Roads in Moorestown, cont.

BURLINGTON COUNTY ROADS:	Tom Brown/Westfield Road (Route 614)
	Hartford Road (Route 686)
	Creek Road (Route 636)

Source: NJDOT and Burlington County Highway Master Plan

Sections of two roads identified by county route numbers are actually under other jurisdictions: one under Moorestown's; the other under the State of New Jersey. Main Street connects Camden Avenue and Marne Highway through the center of the Township and carries the County Route number of 537 but is under the jurisdiction of Moorestown. Lenola Road between Rt. 38 and the intersection of Nixon Drive/Collins Avenue has the County Route number 608 but is under the jurisdiction of the State of New Jersey. This means that those two governments are responsible for capital improvements and maintenance of the roads.

Road jurisdiction roughly reflects the functional relationship between governments in the use of streets and highways. Highways of national importance are federally designated and the majority of funding is provided by the federal government. Streets providing access to residential lots are provided by municipalities. A hierarchy has been created of functional categories that range from roads of national importance to those at the local level. A description of these functional categories is in the following section.

FUNCTIONAL CLASSIFICATION SYSTEMS

Streets and roads are classified in three different ways depending on the agency and purpose of the system. One classification of roads is based on the Federal Highway Administration's (FHWA) definitions[1]. This classification is highway oriented covering the interstate and regional highway network. The character of the traffic using this system determines its classification. The FHWA classification is extended in this element to cover Burlington County's classification of their road network. The second road classification system categorizes residential streets under the state's Residential Site Improvement Standards (RSIS). The RSIS establishes a hierarchy of roads for access to residential property. These types of roads form the large majority of the streets under Moorestown's jurisdiction. Though the two systems use some of the same terminology, they are distinct. The third system unique to the Master Plan, creates a system of roads labeled as

1 - Under the Municipal Land Use Law, the Circulation Element is required to consider these classifications.

Principal Arterial, Major Arterial, Minor Arterial and Collector as these roads function with the municipality. The road designations are shown on the Circulation Plan at the end of this document.

The FHWA's classification system is described in the following sections:

PRINCIPAL ARTERIALS – Principal Arterials are intended to handle large volumes of regional and through traffic. Principal Arterials include the Interstate and Turnpike traversing the state just outside of Moorestown. In addition, the FHWA also considers Rt. 38, Rt. 73 and Rt. 130 to be Principal Arterials. Highways of this type are intended for large volumes of traffic in urban areas, such as Moorestown. The FHWA makes a distinction between urban and rural areas in its classification system. In urban areas, volumes exceeding 25,000 vehicles per day are common, though may not exceed 5,000 vehicles during average daily traffic (ADT) in rural parts of the country. The prime characteristic is the principal arterial's function to carry through traffic. All of the highways noted above are designated as Urban Principal Arterials. Daily traffic counts indicate the high usage of these roads. For example, Rt. 38 carries about 52,000 vehicles per day in Maple Shade and about 42,000[2] in Moorestown (Rt. 73 siphons away traffic). Principal Arterials are part of the National Highway System. The National Highway System is an extensive network of primary roads of national importance, totaling about 164,000 miles of which 2,100 miles are in New Jersey. On the Circulation Plan, this designation is also called a Principal Arterial, with only one road, Rt. 38, identified.

MINOR ARTERIAL AND MAJOR COLLECTOR – Minor Arterials are intended to move traffic from municipality to municipality within a region and to provide connections between Principal Arterials and lower orders of streets. In the urban vs. rural dichotomy, Major Collectors are the rural version of Minor Arterials. Once a Major Collector crosses the defined urban boundary under the FHWA system, it becomes a Minor Arterial. Since Moorestown is in an urban area, all roads of this type are designated Minor Arterials. In Moorestown, these roads are largely under Burlington County's jurisdiction. However, in this document, classifying all of the roads that provide through travel between municipalities and to regional attractions such as the Moorestown Mall is too imprecise at the local level. Instead, this category is divided into two classes for the Master Plan: Major and Minor Arterials. Major Arterials carry heavier levels of traffic, typically in excess of 10,000 vehicles ADT, and constitute the main routes of travel for commuters and shoppers through the Township. They may have more than two lanes of traffic or may be expanded to that size.

2 - The Maple Shade data is from 1998 and the Moorestown data, taken between S. Church Street and Moorestown-Mt. Laurel Road is from 1999 (*source* NJDOT).

Examples include Centerton Road, Nixon Drive, and Lenola Road near the Mall. Minor arterials carry lesser levels of traffic, typically greater than 3,000 ADT but less than 10,000 ADT and are usually two lanes. Where two minor arterials converge such as Kings Highway and Camden Avenue to form Main Street, Main Street has been designated a Major Arterial. The following roads have been classified as Major Arterials:

Table VII-3. Major Arterial Roads in Moorestown Township.

Name	Between	No. of Lanes	Jurisdiction*
Lenola Road	Kings Hwy. & Nixon Dr.	4	C & S
Nixon Dr.	Entire Length	4 to 5	M
Fellowship Rd.	Entire Length	2	C
Church St.	Entire Length	2	C
Main St.	Camden Ave. & Mt. Laurel Rd.	2	M
Marter Ave.	Entire Length	3 to 4	C & S
Borton Landing Rd.	Main St. to Westfield Rd.	2	M
Salem Rd.	Borton Landing & Westfield Rds.	2	M
Westfield Rd.	Bridgeboro Rd. & Mt. Laurel Border	2	C
Hartford Rd.	Entire Length	2	C
Centerton Rd.	Entire Length	2 to 4	M
Creek Rd.	Entire Length	2	M

* - S=State of New Jersey, C=Burlington County, and M=Moorestown

As noted in the discussion above, Minor Arterials in the Master Plan function for many of the same purposes as Major Arterials but with lesser volumes of traffic and fewer through routes. They provide a connection between major arterials and residential or non-residential collector streets, as well as providing intra-municipal travel paths. Minor arterials are not intended to be enlarged to handle major arterial levels of traffic, though intersection improvements are warranted in certain circumstances to add stacking lanes for left hand turns. Table VII-4 lists the streets designated as minor arterials in Moorestown Township.

Table VII-4. Minor Arterial Roads in Moorestown Township.

Name	Between	No. of Lanes	Jurisdiction*
Lenola Road	Kings Hwy. & Cinnaminson Border	2 to 3	C
New Albany Rd.	Entire Length	2	C
Camden Avenue	Entire Length	2	C
Kings Highway	Entire Length	2	C
Pleasant Valley Rd.	Entire Length	2	M
Harper Dr.	Entire Length	2 to 4	M
East Gate Dr.	Entire Length	4	M
Chester Ave./ Riverton Rd.	Entire Length	2	C
Bridgeboro Rd.	Entire Length	2	C
Tom Brown Rd.	Entire Length	2	C
Haines Mill Rd.	Entire Length	2	M

* - C=Burlington County, and M=Moorestown

COLLECTOR streets are the next lower step in the street hierarchy. Collectors distribute traffic between residential access and subcollector streets and arterial order streets in residential subdivision design. Some of the streets designated as Minor Arterials in this document would be considered Collectors under the FHWA system since they do not serve as through routes. An example would be Harper Drive. Non-residential collectors also service industrial and business parks by channeling traffic to arterial roads. Collectors are intended to carry up to 3,000 vehicles per day (ADT). Table VII-5 indicates roads classified as collectors on the Circulation Plan.

Table VII-5. Collector Roads in Moorestown Township.

Name	Between	No. of Lanes	Jurisdiction*
Foster Rd./ Glen Ave.	Lenola Rd. & N. Church St.	2	M
Flynn Ave.	Entire Length	2	M
Maple Ave.	N. Church St. & Chester Ave.	2	M
Second St.	Camden Ave. & Chester Ave.	2	M
N. Stanwick Rd.	Entire Length	2	M
Sentinel Rd./ Windsock Way	N. Stanwick & Westfield Rds.	2	M
Salem Crossing/ Salem Rds.	Borton Landing & Hartford Rds.	2	M

* - M=Moorestown

The classifications of Principal Arterial, Major Arterial, Minor Arterial and

Collector are the higher order streets. Lower orders of streets serving residential neighborhoods are discussed in a following section.

SCENIC ROADS

The Circulation Plan also includes a special classification that has been called Scenic Road. Four roads are labeled with this designation:

1) Haines Drive along Strawbridge Lake.
2) Garwood Road.
3) Cox Road.
4) McElwee Road.

Moorestown, of course, has many other attractive and beautiful streets. These four are singled out for several reasons. The first is that the streets are under local control. Their scenic beauty can be assured by Moorestown, unlike Creek Road, for example, that is under the jurisdiction of Burlington County. Secondly, the roads exemplify two particularly attractive types, the park drive in the case of Haines Drive and the rural road for the other three roads. All four roads also are links to the past. Haines Drive provides opening vistas of Strawbridge Lake. The 1937-era Strawbridge Lake (actually a series of three lakes) represents the efforts of the federal Works Progress Administration in park development and the local initiatives of the Shade Tree Commission and Moorestown Improvement Association. Garwood, Cox and McElwee Roads represent a pastoral era when agriculture was the mainstay of the economy. Even though only four roads have been highlighted as scenic, the elements that define this scenic quality are important throughout Moorestown. Public perception of the community character of Moorestown places great emphasis on streetscapes that combine history and scenic beauty. Preserving and enhancing the streetscape through tree planting, defining the physical demarcation of the public and private spheres through fencing and walls, hedges and planting beds are worthy techniques to use in creating new scenic roads.

RESIDENTIAL SITE IMPROVEMENT STANDARDS

In January 1997, the New Jersey Department of Community Affairs adopted the Residential Site Improvement Standards (RSIS) in accordance with law enacted in 1993 to standardize the level of required public improvements for residential development throughout the state. Though much criticized by municipalities, the RSIS has withstood legal challenge. The RSIS has preempted municipal street standards for residential uses and has rendered invalid any existing

ordinance provisions pertaining to the width of streets and cartways, parking requirements and technical engineering criteria.

Like the Federal Highway Administration, the RSIS established a hierarchy of streets for residential development. The RSIS classifications have some commonality with the FHWA terms, but are defined somewhat differently. For example, the RSIS's major collector is intended to handle traffic that would be classified as a minor arterial under the FHWA definition. All of the streets noted in this section are considered Local Streets in the FHWA classification system. The RSIS establishes the following street hierarchy:

MAJOR COLLECTOR - The highest order of residential street is also called a residential collector. This street type, as its name suggests, collects and distributes traffic between lower-order residential streets and the higher-order streets in the FHWA's system. This type of street carries the largest volume of traffic at higher speeds compared to other residential streets. Its function is to promote free traffic flow. On-street parking and direct access reduce this free flow and should be avoided for this type of street. Major Collectors should be limited to no more than 7,500 trips per day.

In Moorestown, modern neighborhoods have been designed without major collectors due to the comparatively small number of housing units in any one location. Many of the Township's residential areas were constructed before the hierarchy of streets concept was established. For instance, Maple Avenue functions as a Collector for the surrounding neighborhoods as well as collecting traffic from the east side of Chester Avenue. The largest post-World War II neighborhood is Laurel Creek with more than 450 housing units which could be expected to generate about 4,000 trips per day. It is unlikely that any future residential development would have this number of housing units or need to be designed with a Major Collector as part of its internal road system.

MINOR COLLECTOR is a middle order residential street. It is also known as residential sub-collector. Such streets provide frontage for access to lots and carry traffic to and from adjoining residential access streets. Minor Collectors connect to either (Residential) Major Collectors or Arterials. This type of street should be designed to carry traffic volumes higher than lower-order streets such as rural and residential access streets, with traffic limited to motorists having origin or destination within the immediate neighborhood. They are not intended to carry regional traffic. Each half of a loop-configured minor collector may be classified as a single minor collector street, but the total traffic volume conveyed on the loop should not exceed 3,500 ADT, nor should it exceed 1,750 ADT at any

point of traffic concentration.

RESIDENTIAL ACCESS streets are the lowest order classification, other than the rural street type. Most streets in subdivision design fall into this category. As its name suggests, this street type allows access to lots and carries traffic with a destination or origin on the street itself. They are designed to carry the least amount of traffic at the lowest speed. The best design practice is to front all of the lots on streets of this order. Each half of a loop street should be classified as a single residential access street, but the total traffic volume generated on the loop street should not exceed 1500 ADT, nor should it exceed 750 ADT at any point of traffic concentration.

Specialized forms of residential access streets are cul-de-sacs, alleys, and parking loops which should not exceed 250-500 ADT, depending on design.

STATE HIGHWAY POLICY

The New Jersey Department of Transportation (NJDOT) adopted a Highway Access Management Code (HAMC) in April 1992, with several subsequent amendments, that applies to all of the roads under its jurisdiction. The HAMC was developed in response to the unprecedented increase in traffic congestion in the 1980's when the state realized that it could not construct enough road capacity to satisfy potential demand. This demand arose from several trends that solidified in the 1980's - a high percentage of women in the workforce, an increase over time in the average lot size and house, and decreasing household size. These latter two factors increased the consumption of land at the urban fringe where the existing road capacity is thinly stretched. In response, NJDOT changed the emphasis of the highway system from providing access to property to providing mobility for people and goods. NJDOT discovered that easy access to the state highway system impaired its traffic moving capabilities and added extra costs to the economy in the form of delays.

Each state highway has been classified for different levels of access, depending on existing conditions and NJDOT's functional plans for the highway system. Route 38 is classified as an Access Level 3, which allows right hand turns into a site from the highway, but left hand turns are only permitted via a jughandle. The left turn lanes in the median at East Gate Drive and Pleasant Valley Road do not meet this access level standard and would not be permitted under the present regulations.

NJDOT has also established an ultimate highway development classification

called Desirable Typical Sections (DTS). This indicates how wide the highway, under ideal circumstances, would become in the future. Rt. 38 is designated with a DTS of 6A. This DTS has six travel lanes with a median and a right-of-way width between 114 and 128 feet. The existing right-of-way is 110 feet. Though the DTS is wider, there are no long range plans for widening in Moorestown. Conceptual interchange improvements at the intersection of Rt. 38 and I-295 in Mt. Laurel have been developed by NJDOT. Under normal circumstances, any construction at this location is at least ten years away.

BURLINGTON COUNTY HIGHWAY POLICY

The Burlington County Highway Master Plan, adopted in 1989 and updated in 1991, provides a comprehensive analysis of the County's roadway system. The Master Plan includes an ultimate right-of-way circulation plan for its highway system that functions in much the same way as NJDOT's DTS standard. The County usually requires a dedication of land for right-of-way purposes if the road is substandard in width when a developer submits an application for development. In most circumstances, the County's right-of-way policy will result in the dedication of additional land in Moorestown. The table below lists the County routes and compares the existing and proposed rights-of-way.

Table VII-6. Comparison of Proposed County R.O.W's with Existing R.O.W's

No.	Road Name	Proposed R.O.W.	Existing R.O.W.
537	Camden Ave./	66' (Lenola Rd.- Main St.)	66' (Lenola Rd.- Main St.)
	Marne Hwy.	86' (Marter Ave.-Centerton Rd.)	66' (Marter Ave.-Centerton Rd.)
603	Riverton Rd./	66' (Cinn. Twp.-Walnut Ave.)	49.5'- 76' (Cinnaminson-Walnut Ave.); 60'-73'
	Chester Ave./	60' (Walnut Ave.-Main St.)	(Walnut Ave.-Main St.)
	Mt. Laurel Rd.	66' (Main St. – Rt. 38)	50'- 68' (Main St. – Rt. 38)
607	Church Street	86' (Cinn.Twp-New AlbanyRd.);	66'- 76' (Cinn. Twp.-New Albany Rd.);
		50' (New Albany Rd.- Rt. 38)	50'-66' (New Albany Rd.- Rt. 38);
		86' (Rt. 38 – Mt. Laurel Twp.)	66' (Rt. 38 – Mt. Laurel Twp)

Table VII-6. Comparison of Proposed County R.O.W's with Existing R.O.W's, cont.

No.	Road Name	Proposed R.O.W.	Existing R.O.W.
608	Lenola Road	86' (Cinnaminson-Camden Ave.)	49.5'-86' (Cinnaminson-Camden Ave.)
		66' (Camden Ave.-Kings Hwy)	50'-66' (Camden Ave.-Kings Hwy);
		86' (Kings Hwy-Mt. Laurel Twp)	66' (Kings Hwy. Rt. 38) 86' (Rt. 38-Nixon Drive)
613	Bridgeboro Rd.	86' (Riverton Rd. – Delran Twp.)	49.5'-76' (Riverton Rd. – Delran Twp.)
614	T. Brown Rd./ Westfield Rd.	86' (Riverton Rd .– Centerton Rd.)	49.5-86' (Riverton Rd .– Centerton Rd.)
636	Creek Road	86' (Delran – Mt. Laurel)	49.5'- 67.75' (Delran – Mt. Laurel)
673	Fellowship Road	86' (Mt. Laurel – Rt. 38)	49.5' (Mt. Laurel – Rt. 38)
686	Hartford Road	86' (Delran – Mt. Laurel)	49.5'- 67.75' (Delran – Mt. Laurel)

Source: Burlington County Highway Master Plan and Moorestown tax assessment maps.

The County's responsibility is to provide travel routes between municipalities and as connections from higher order roads to significant regional attractions such as employment centers and shopping areas. Their rationale for the width of roads is to permit four or six lanes of travel with appropriate left turn lanes at intersections either with or without medians. The Highway Master Plan makes concessions in areas that are already developed, such as Chester Avenue, where no wider right-of-way is contemplated. Nonetheless, road widenings on the scale that could occur within the proposed right-of-way would be significant.

NEW COUNTY ROADS

In addition to the County Routes indicated above, the Highway Master Plan identifies Centerton Road as a proposed county road since it will carry significant regional traffic between Creek Road and Marter Avenue. In many ways it will function as a service road between two interchanges of the Interstate at Exits 40 (Rt. 38) and 43 (Creek Road - C.R. 636). Intensive retail and office development is proposed on this road in both Moorestown and Mt. Laurel. This includes nearly 2 million sf. of office space and 1 million sf. of retail floor area, including a hotel. This level of development will necessitate substantial road improvements that include:

- The widening of Marter Avenue to five lanes;
- The extension of Centerton Road from its terminus at the YMCA to

Westfield Road;
- The expansion of Centerton Road to four lanes with a divided landscaped median;
- The realignment of Marne Highway to a "T" intersection with the extended Centerton Road;
- The replacement of the Parker's Creek bridge; and
- The realignment of Centerton to the west side of the Texaco station at its intersection with Creek Road in Mt. Laurel.

The County Highway Master Plan, however, does not mention other road segments that have many of the same characteristics as Centerton Road – namely its regional significance and interconnections between higher order streets. Nixon Drive and East Gate Drive share these same characteristics by serving regional traffic in the East Gate office complex, the East Gate Square shopping center and the Moorestown Mall. For example, ramps from Interstate 295 lead directly to Nixon Drive which also serves as the means for traveling northbound to Rt. 73. East Gate Drive provides a main connection between Rt. 38 and Fellowship Road in Mt. Laurel where there is substantial office and hotel development. This connection, as well as the Harper Drive bridge over a tributary of the Pennsauken Creek, serve as an outlet for commuter traffic to I-295 that would otherwise utilize the congested Fellowship Road intersection with Rt. 73. Considering how these roads are used, it is recommended that the transfer of jurisdiction of Harper and East Gate Drives to the County be pursued by the appropriate Township officials.

CONNECTION BETWEEN LAND USE AND TRANSPORTATION

How land is used affects the circulation system. Each land use generates a certain number of vehicle trips. Reports on the amount of traffic that is generated by a particular land use have been assembled into reference manuals used by transportation engineers and planners to predict the level of traffic that a proposed development will generate. Each level of traffic can then be assigned to a road segment or an intersection to determine if improvements are necessary. In this way, lands with traffic intensive uses can be located in a close physical relationship to higher order streets and highways (*see* Functional Classifications, above, and the Land Use Plan Element).

Traffic is not evenly distributed throughout the day but has higher levels of use at certain times. The capacity of the road system to handle the traffic generated is usually examined from a "peak hour" perspective. Congestion occurs when

the capacity of an intersection or road segment is reached.

PEAK HOUR CONGESTION AND ROAD CAPACITY

The use of the road system is heaviest at certain times of the day during rush hour, or technically, the peak hour of travel. During the weekday, one hour within the range of 7 a.m. to 9 a.m. is typically the morning peak hour and one hour between 4 p.m. and 6 p.m. is the afternoon peak hour. Different land uses generate traffic that uses the road system at different times. The accumulation of the traffic generated from different land uses is what leads to the overall peak hour. Office uses, for example, have a peak hour that corresponds generally to the overall peak hour, but retail uses do not contribute much to the morning peak hour since main shopping areas are not yet open. During the weekday, retail uses have a peak hour in the late afternoon to early evening period that slightly lags the office peak hour as workers stop on their way home to shop. Store's highest peak hour usually occurs in the early afternoon on Saturdays, between 12 noon and 2 p.m. Schools have a peak hour that often begins at 6:30 a.m. in the morning but ends by 3:30 p.m. in the afternoon. Manufacturing, which has traditionally operated as shifts of workers, has a peak hour pattern similar to that of schools.

Capacity constraints in the road system occur primarily at intersections. Traffic signals identify those intersections with the highest levels of traffic. By definition, intersections without traffic signals have lower levels of traffic, since a certain threshold of traffic, called a warrant, is necessary before state approval can be obtained to install a signal[3]. Which segments and intersections of the Township's road system have the greatest capacity constraints has not been systematically studied. Anecdotally, the intersections of the through roads - such as Lenola, Church Street, Chester Avenue/Mt. Laurel Road and Borton Landing/Marter Avenue - between Rt. 38 and Rt. 130 with Main Street, New Albany Road and Camden Avenue, have long queues of traffic at the morning and evening peak hour.

3 - All of the traffic signals in Moorestown are under the jurisdiction of the state or county excepting the two signals on Harper Drive at Nixon Drive and East Gate Drive.

ACCIDENT DATA AND IDENTIFIED CONGESTION POINTS

In addition to observation, accident data collected by the Moorestown Police Department is an indicator of troublesome intersections. At intersections with capacity constraints, motorists may attempt to proceed through an intersection after the signal has turned against them, or make risky maneuvers to turn left against the flow of through traffic without a sufficient gap between vehicles, leading to accidents. The following table lists (in descending order) the top dozen locations having the highest accident rates in Moorestown in the year 2001.

Table VII-7. Intersections with Highest Levels of Accidents, 2001.

1.	Camden Avenue and Lenola Road
2.	Westfield and Bridgeboro Roads
3.	Westfield and Salem Roads
4.	Harper and East Gate Drives
5.	Chester Avenue and Bridgeboro Road
6.	(tie)
	N. Church Street and Maple Avenue
	N. Church Street and New Albany Road
	Hartford and Centerton Roads
	Kings Highway and Pleasant Valley Avenue
10.	(tie)
	Westfield and Borton Landing Roads
	Westfield and Centerton Roads
	Lenola and New Albany Roads

Source: Moorestown Police Department

County Routes that intersect Main Street or Kings Highway and Camden Avenue are among the highest accident locations. These roads, which traverse the Township between Rt. 38 and Rt. 130, are heavily congested at peak hour times. Long queuing occurs at the traffic signals at Rt. 537. Many of the accidents occur when motorists attempt left hand turns with insufficient gaps in the through traffic. Improvements to these intersections should emphasize left turn stacking lanes and left turn signals where warranted. This type of improvement was recently completed at Main Street and Church Street as part of the Main Street streetscape beautification and has allowed easier left hand turns. Similar left hand turn improvements are slated for Lenola and New Albany Roads.

Westfield Road figures prominently in the accident report data. Westfield is relatively unencumbered by cross streets and driveways. For large stretches, the land is open and the road is straight and level. These characteristics contribute to higher rates of speed than can be achieved on most other roads of a similar functional classification. The Lockheed Martin complex, the largest office worker generator with more than 4,000 employees, is located along a portion of Westfield Road, contributing to congestion at its intersecting streets, such as Salem, Borton Landing and Centerton Roads. The congestion and higher speeds largely explain Westfield's prominence in the ranking. However, intersection design also plays a role. In the summer of 2001, the intersection of Borton Landing and Westfield was improved with left hand turn lanes being added for stacking vehicles, though the signal remained unchanged. This may improve the accident incidence at this location.

The intersection at Salem Road serves as a short cut for drivers on Borton Landing desiring to head northwest on Westfield Road. Sight distance is limited looking west and the cartway[4] is narrow. The Police Department has identified this intersection and this stretch of Salem Road as hazardous. Two potential solutions have been broached. One is to make the road one-way from Westfield to Borton Landing. This would preserve Salem's function as a relief movement for the Borton Landing intersection located a short distance east and permit easier access from the Moorestown Hunt neighborhood. The second is to close off the through movement by creating a small cul-de-sac or similar turnaround, most likely at Westfield Road. This intersection and road segment should be analyzed further by a traffic professional for recommendations to the governing body.

Westfield at Bridgeboro Road has multiple turning movements but no dedicated turning lanes which could clear center lanes for through traffic. The rate of speed on the road also will need to be addressed should the recently acquired Benner Farm be developed for active recreation programs. The farm is on both sides of Westfield Road midway between the traffic signals at Bridgeboro Road and Borton Landing Road (*see* Open Space and Recreation Plan Element).

The Circulation Plan identifies several additional problematic intersections for further study other than those already mentioned in this section. These include the following:

1) *Camden Avenue and Lenola Road*. This intersection and the one

4 - The cartway is the paved portion of the street. The street includes the area between the right-of-way lines that may also include curbing, street trees, street furniture, sidewalks and utilities.

on Lenola at New Albany handle substantial traffic heading for the business park between Lenola and N. Church Street. The cartway is too narrow to permit left hand turns westbound from Lenola Road onto Camden Avenue. This congestion contributes to this intersection having the highest accident rate in the Township. Signal timing changes are probably warranted to allow greater time for through movements using Lenola.

2) *Rt. 38 and Lenola Road*. This is a major intersection for traffic to and from the Moorestown Mall and East Gate Square shopping centers. The intersection has been expanded many times and is probably at its maximum feasible limit. Because of the stacking of vehicles on Lenola on the north side of Rt. 38, the jughandle in front of Perkins Restaurant functions poorly.

3) *Rt. 38 and Pleasant Valley*. Pleasant Valley on the north side of Rt. 38 lacks turning lanes because of the restrictions imposed by the bridge that crosses Hooten Creek, dividing the upper from the middle of Strawbridge Lake. The environmental factors present at this intersection may preclude the possibility of making physical improvements.

4) *Rt. 38 and S. Church St.* In a similar situation, S. Church Street lacks sufficient cartway to permit a left-hand turn stacking lane on the north side of Rt. 38 for southbound traffic. Motorists create two lanes but the street was not designed to accommodate this arrangement.

5) *Rt. 38 and Marter Avenue*. Though this intersection is in Mt. Laurel, traffic congestion affects motorists traveling on Marter Avenue in Moorestown. This intersection is congested in part due to the lack of ramps at the interchange with Rt. 38 and I-295. Motorists traveling southbound on the Interstate must use the intersection to head eastbound on Rt. 38. This intersection also serves traffic heading westbound on Rt. 38 and making the turning movement to northbound I-295. The traffic impact report submitted by the applicant for the development of the northwest quadrant of the interchange noted the need for substantial improvements at the intersection including the acquisition of the liquor store.

6) *W. Second and N. Church Streets*. This intersection is close to the intersection of N. Church and W. Main Street and is affected by its congestion. The short length of N. Church between Main and Second Streets is often filled to capacity even at off-peak hours. Motorists traveling westbound on Second Street are often blocked from moving around a vehicle turning left southbound onto N. Church St., leading to significant delay.

7) *Chester Avenue and E. Main Street*. Delay and significant congestion occur from the combination of commuter and school traffic at this location. Motorists turning left into the Friends School block through movements heading west on Main Street.

8) *E. Main Street, Marne Highway, Borton Landing and Marter Avenue*. This intersection is one of the main routes to the Lockheed Martin complex and consequently has significant commuter hour congestion. The construction of the new Upper Elementary School on Borton Landing Road has also added new school bus and parent drop off trips to this intersection. The office and retail development approved on Centerton Road will include substantial improvements to this intersection. Further, the construction of Young Avenue from Marne Highway to Centerton Road and the installation of traffic signals on Marne Highway and at the intersection of Centerton Road and Marter Avenue will provide an alternative route for Lockheed Martin employees and lessen congestion.

The construction of turning lanes will have only an incremental effect on improving the overall flow of traffic through intersections. Widening cartways to accommodate such traffic movements requires a judicious balancing of the potentially adverse effects with the benefits to the traveling public. It must be noted that even if all of the constrained intersections were improved, significant delays would still remain simply because the number of employees and students traveling to work and school exceeds the existing road system – a system that was largely developed in the 18th and 19th centuries for horse-drawn wagons. This is another way of stating that congestion can not be relieved solely by construction, but that other approaches in controlling the demand for road capacity need to be implemented.

BICYCLE AND PEDESTRIAN ROUTES

The Township has developed approximately nine miles of dual-use paths for bicycles and pedestrians. The municipality has received grants and payments in lieu of construction from developers required to install paths as a condition of development approval (developers have also constructed paths). The Township's system consists of Class 1 and Class 3 routes. Class 1 paths are separate asphalt and concrete lanes that are usually built in the right-of-way adjacent to the cartway. Class 3 routes are located on existing streets in the cartway and are signed as bicycle routes. Class 3 routes are for bicycles only since the streets are coupled with sidewalks for pedestrians.

The two classes of bicycle routes are subdivided into the categories of existing, proposed and planned for Class 1 and existing and proposed for Class 3. Proposed means that the routes have been surveyed and in some instances design work has occurred for its construction. Planned means that the route is expected to go in the location indicated, but no feasibility study has been completed on the project.

DESCRIPTION OF BUS ROUTES

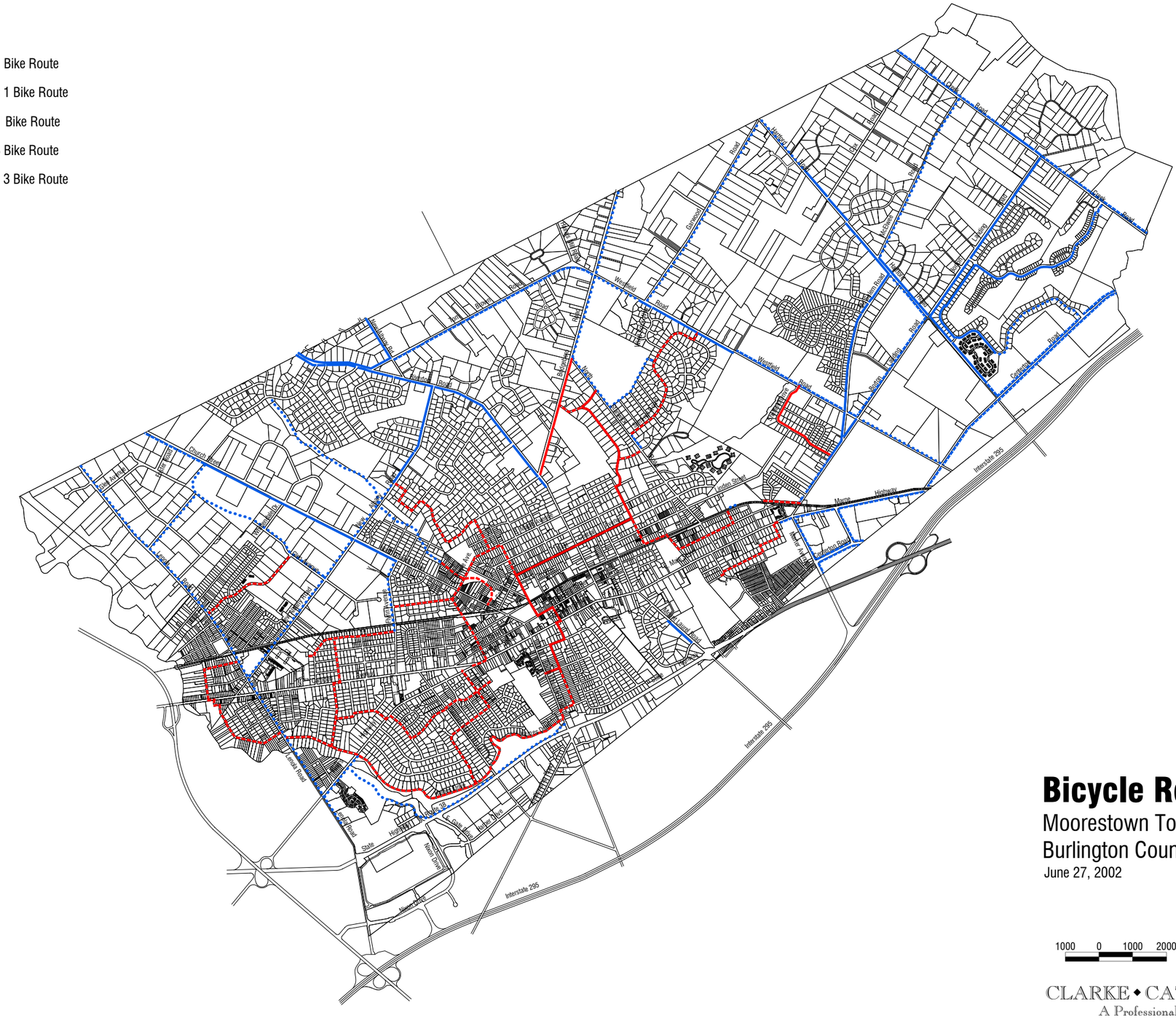
Bus service in Moorestown is provided by New Jersey Transit, an arm of the state government. Four different routes operate in the Township. These are described below:

- *Route 317*. This route is an express that runs between Philadelphia and Asbury Park, New Jersey. The closest regular bus stop is on Rt. 38 at Ark Road but the driver will stop for passengers along the highway. NJ Transit operates seven full routes and two partial routes (to McGuire Air Force Base).

- *Route 407*. Route 407 runs between Philadelphia and the Moorestown Mall. Its main route is a loop that runs down Route 537 to Mt. Laurel Road and then along Rt. 38 to the Mall. One version of the route runs along Kings Highway rather than Camden Avenue and an intermittent service uses Marter Avenue rather than Mt. Laurel Road. This bus may be a candidate to provide bus service to the Centerton Square retail development on Centerton Road. Thirty-three buses are run daily on this route.

Legend

- Existing Class 1 Bike Route
- Proposed Class 1 Bike Route
- Planned Class 1 Bike Route
- Existing Class 3 Bike Route
- Proposed Class 3 Bike Route



Bicycle Routes

Moorestown Township
Burlington County, New Jersey
June 27, 2002

1000 0 1000 2000 Feet

North

CLARKE • CATON • HINTZ
A Professional Corporation

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

Route 413. Service is also provided to the Moorestown Mall and downtown on Route 413. This route operates between Philadelphia and Mt. Holly. The route coming from Philadelphia via Maple Shade uses Rt. 38 to the Moorestown Mall. The route then continues on Lenola Road to Kings Highway and then to Main Street and Marne Highway to Mt. Holly. Twenty-two buses are available daily on this route. Route 413 would be the logical choice for providing service to the Toll Brothers and Whitesell Construction office park developments on Centerton Road.

- *Route 457*. Route 457 runs from Camden to Haddonfield, Cherry Hill and Mt. Laurel to Fellowship Road. The route makes a loop through the East Gate office park and ends at the Moorestown Mall. This route has twenty buses daily in operation.

The four routes that service Moorestown are concentrated in the Rt. 38/Main Street corridor (see preceding page). No bus routes operate from the towns that line the Delaware River to Moorestown for employees of the business parks in the Township. Finding a method to increase bus service to the northwest business parks would help to moderate future levels of traffic when employment grows as expected.

NEW ROAD SEGMENTS

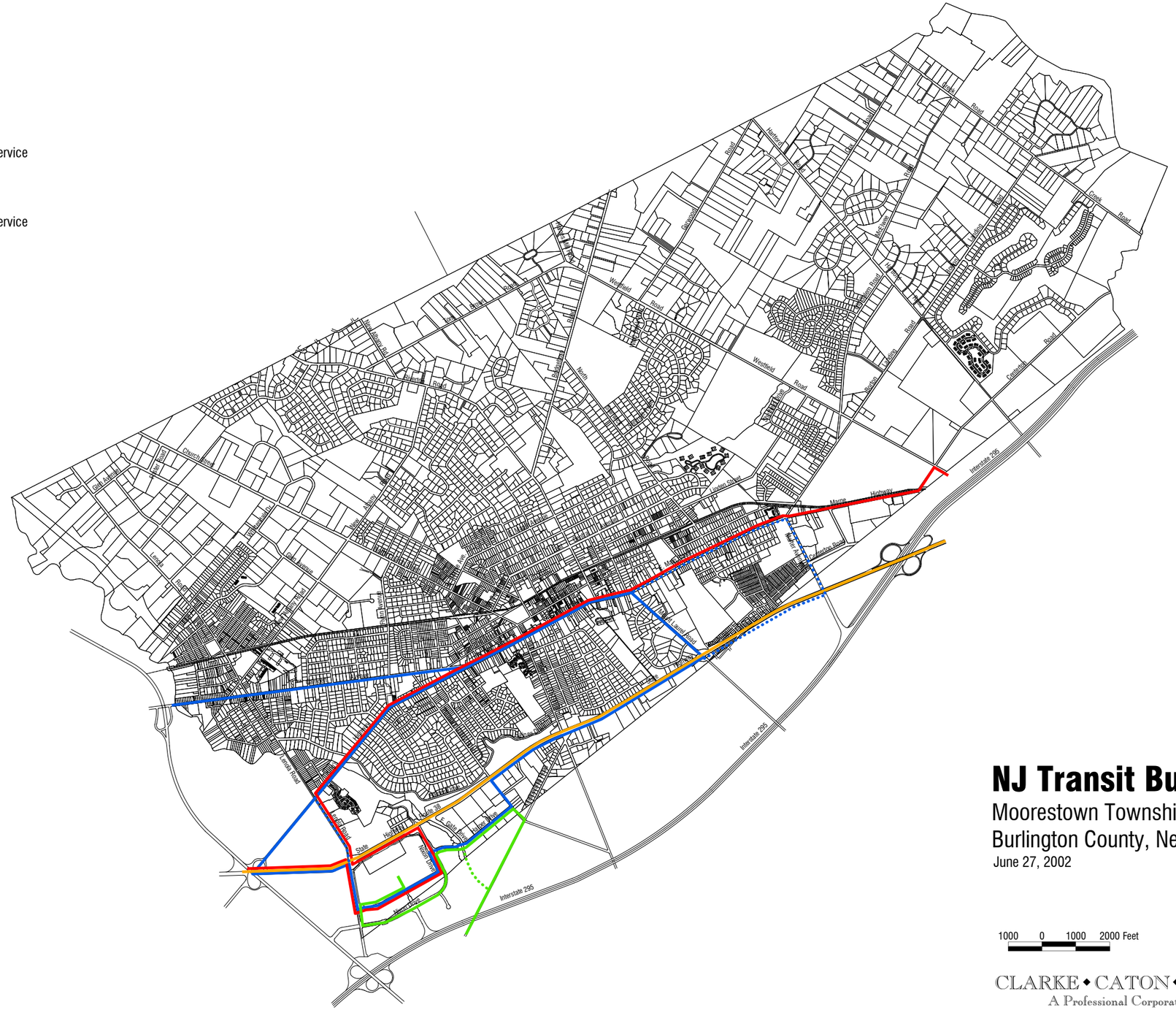
Proposed new road segments are limited in this Master Plan. Within the time period of the Plan, it is expected that Centerton Road will be extended and widened to four lanes from Marter Avenue to Creek Road. Some question remains as to the timing, cost and responsibility for that portion between Westfield Road and Hartford that will require municipal input and possible action.

The construction of a part of Linden Street has been identified as a very important need of the Public Works Department because of the difficulty of moving staff and equipment from its entrance on Borton Landing Road via East Third Street. Linden Street between N. Stanwick Road and Sheffield Drive is an existing right-of-way but the cartway is only partially constructed – a condition known as a "paper street". The portion of Linden Street from N. Stanwick Road to the Public Works facility is proposed to be constructed as residential development occurs in that area. One small segment may be needed to be constructed utilizing public funds to finish the access to the Public Works facility. A portion of Linden Street near the Mindy Drive detention basin is proposed to be vacated east of the Public Works facility to prevent through

Legend

NJ Transit Bus Route #

- 317
- 407
- 407 Intermittent Service
- 413
- 457
- 457 Intermittent Service



NJ Transit Bus Routes

Moorestown Township
Burlington County, New Jersey
June 27, 2002

1000 0 1000 2000 Feet

North

CLARKE ◆ CATON ◆ HINTZ
A Professional Corporation

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

traffic using Linden Street as a collector or higher order street. Remaining portions of Linden Street that could be constructed as part of a future residential development would be used only to access residential lots. A residential access street is proposed from Borton Landing Road to Linden Street and its general location is shown on the Circulation Plan.

Crider Avenue was developed as a collector street. Originally residential in nature, the street was extended into the adjacent industrial park. Collector street design ordinarily separates residential from non-residential uses. This arrangement results in truck traffic traveling through the residential area to reach Lenola, which is a minor arterial in this area. Crider Avenue would benefit from instituting a speed table or other traffic calming measure as discussed in a later section. Traffic calming measures should also be studied for Central Avenue since its wide cartway, straightness and good vertical sight distance all contribute to higher vehicle speeds than is desirable in a residential neighborhood.

RESIDENTIAL STREET DESIGN

Most of the streets that will be built in the future in Moorestown Township will be designed to service new residential development. New residential streets are created as part of the subdivision and development of land. The Township has an important interest in the design and layout of streets for several reasons. The first of these is the efficiency of the street layout which has an effect on the cost of providing services to residents. Inefficient layouts are wasteful of land and are more expensive to maintain and reconstruct, if necessary, because there are correspondingly fewer residences per road mile to generate taxes to maintain the system.

Second, certain types of streets are more expensive to service. Cul-de-sacs create a particular problem for the municipality. Trash trucks and school buses have difficulty in maneuvering within cul-de-sac streets. Cul-de-sacs take longer to be cleared of snow because of the backing up that is required. Loop streets should be encouraged instead of cul-de-sacs when residential developments are being designed. Loop streets provide nearly the same level of privacy without impairing governmental efficiency.

STREETSCAPE

The view from the public street forms most people's perception of the aesthetic quality of a place. Surveys have indicated, for example, that a well-developed tree canopy is associated with high quality residential neighborhoods. The need to provide for mobility within town must be balanced with the negative aesthetic impacts of wide streets, overhead utility lines and lack of vegetation. Certain roadways exhibit characteristics of the Township's disappearing rural landscapes. These may be typified by narrow lanes, or narrow shoulders, drainage swales rather than curbs w/drainage inlets, and delineation of roadways by hedgerows and open-work fences. Historically, rural roadways were developed over a lengthy time period instead of being pre-engineered and constructed to modern standards from their inception. Rural roads were typically created by cutting trees, pulling the stumps out and scraping the ground with horse-drawn sledges to even the road bed. Later, starting in the 1920's, gravel would have been added to dirt roads to allow travel during spring thaw and to accommodate the rapid increase in motorized transportation. Early paved roads is in rural areas would have been made from a mixture of bitumen and small stones ("oil and chip"). Finally, asphalt paving (bituminous concrete) would have added yet another layer, creating a durable all-weather surface. Such gradual improvement could easily have taken one hundred years.

Roads built over a long period of time were often done by eye instead of by survey and plan. They follow the contour of the land more closely than modern roads because horses and carriages moved much more slowly than automobiles. Vertical and horizontal curves are hence sharper than is desirable for motorized vehicles. Edge clearance - which is the separation of travel lanes to obstacles on the shoulder - was not a consideration when people traveled at 8 or 10 mph. Nowadays, greater edge clearance is necessary to allow motorists to correct driving errors. While cartways should be narrow on contemporary rural roadways, the grassed shoulder should be undergirded with stabilizing materials to provide a firmer surface than can be achieved merely with soil. In this fashion, the scenic nature of rural roads can be preserved, while maintaining safety for the traveling public.

The Scenic Roads shown on the Circulation Plan are intended to be maintained in this fashion. Other streets which retain some rural character could also benefit from this preservation strategy when the need for through travel is not dominant.

TRAFFIC CALMING

Traffic calming is an approach to traffic planning that attempts to reduce the volume and speed of vehicles in neighborhoods while maintaining maximum mobility and access. By reducing vehicle speeds, traffic calming methods can help decrease the number and severity of accidents, reduce air quality and noise impacts related to vehicle traffic, and can actually increase the capacity of existing road space by reducing the travel distance required between each vehicle.[5] These methods can also encourage greater use of the street by pedestrians and bicyclists.

Traffic calming techniques include both active and passive controls. Active controls focus on physical alterations to roadway design, including installation of, speed tables, rumble strips, diagonal diverters, median barriers, curb extensions, and other construction that alters the cartway. Passive control devices include traffic signs, traffic signals, and pavement markings that are intended to regulate traffic without direct physical intervention. Studies that have been done in the United States, particularly in the Pacific Northwest states, and Western Europe find that the active controls are more effective than passive controls in instituting traffic calming. Studies have consistently shown that speed limit signs, for example, are widely ignored when the design of the roadway permits motorists to comfortably travel at higher speeds. This occurs on Westfield Road, for instance. Roadway design is evolving towards "self-reinforcing" speed limits through traffic calming methods that alert motorists to the proper speed for their vehicles.

Moorestown has a few examples of traffic calming. The crosswalks recently installed on Main Street, with their contrasting surfaces, warn motorists of pedestrian movements. The town also has some existing examples, such as small roundabouts in residential areas, like this illustration on Stafford Drive.

Following are descriptions of

5 Cynthia L. Hoyle, Traffic Calming (Chicago: American Planning Association, PAS Report No. 456, 1995) 9

various active traffic calming controls that may be suitable for Moorestown. The town centers at Main Street and in West Moorestown and the residential areas immediately adjacent to them are good candidates for active controls.

- *Speed Tables*. A speed table is a raised hump in a street that extends across the roadway. The speed table is approximately 12 feet long, so that both the front and rear wheels of a car can be on top of the table at the same time. The extended length is also needed to allow normal snow plowing operations. Speed tables can be comfortably crossed only at a speed of 15 to 25 miles per hour.

- *Rumble Strips.* Rumble strips are patterned sections of rough pavement that cause vibrations in a vehicle, causing a driver to become more alert and slow down. Studies have shown that a change in road surface affects primarily the upper end of acceptable speeds in residential areas. However, studies have also shown that such strips have noticeably reduced accidents when placed in advance of stop signs.

- *Chokers and Protected Parking.* These devices reduce vehicle speed by extending the curb to block access in one direction or to provide protection for parking bays. Main Street has a partial curb extension in front of the Prudential real estate office.

- *Chicanes.* A variation of the *choker* technique is the use of *chicanes*, which are curbed extensions to protect parking that alternate from one side of the street to the other. An extension of this concept is the creation of pedestrian streets as in found in Western Europe, where the entire surface is paved for pedestrians. The vehicle travel lane is then limited to about eight feet, with a widening for passing every 100 feet. Streets are broken up into small sections by the use of large planters, walls, benches, barriers, or mounds.

- *Traffic Circles or Roundabouts*. A traffic circle or roundabout is created by installing a raised island, which is usually landscaped, at the intersection of two streets. In addition to reducing traffic speed, roundabouts are more effective than stop signs and traffic signals in reducing the number of accidents at intersections when designed correctly. In New Jersey, "traffic circle" has become a pejorative term because of motorists' experience with state highway circles. However, the roundabout discussed here differs in substantive ways from the state highway circles. Roundabouts are much smaller than the state traffic circles and handle much less traffic. One of the reasons that state

highway circles gained their poor reputation was that the volume of traffic greatly exceeded their design specifications, sometimes by 100%. Roundabouts would only handle one lane of traffic at each intersection into the circle; state highways often had multiple lanes entering in the same direction. The state of the art has advanced since the time when the state's traffic circles were first designed. Roundabouts have been successfully implemented in Massachusetts, Washington and Oregon.

- *Interrupted Sight Lines.* Many of the above devices create interrupted sight lines, which causes drivers to slow down to widen their field of vision. In Moorestown, interrupted sight lines occur most often from the extensive tree canopy that exists. Other methods of interrupting sight lines are gateways that arch over the road, walls that define the street line - such as are found at the Evergreens complex on Bridgeboro Road - and the visual termination of the street through landscaping or building placement.

TRANSPORTATION DEMAND MANAGEMENT

The Land Use Plan Element includes an analysis of anticipated workers in Moorestown should all of the potential land for development be utilized. Theoretically based on the Land Use Plan, the level of employment in the Township could increase about 50%. The Township is well-established in its development pattern of streets and buildings which makes constructing new roads problematic. Increasing road capacity to handle existing and future congestion brought on by the anticipated growth in employment will have several negative effects. These negative effects may include:

- Loss of the street tree canopy;
- Noise and air pollution on residential property;
- Narrowing of sidewalks and bikeways;
- Stream encroachments; and

- Water quality degradation

These quality of life problems could occur from indiscriminant street widenings and the construction of new connector roads. They may also occur if intersection improvements, discussed in a previous section of this element, for turning lanes are done in an insensitive manner. Making streets wider, which is the traditional response to congestion, can be viewed as increasing the supply of road miles to meet the demand for more capacity in the system. What has been somewhat neglected in transportation planning has been the demand side of the equation. If demand, meaning the volume of traffic, can be reduced, then the need for wider roads declines.

Transportation Demand Management is the term of art for reducing the need for new infrastructure by reducing vehicular use. It is a difficult proposition to undertake since it requires people to change their driving behavior. Transportation Demand Management (TDM) requires a strong collaborative effort between business owners and government, but may be run by either sector. The concept of TDM may take a number of forms and includes such activities as:

- *Car Pooling And Ride Sharing*. Car pooling has traditionally operated among neighbors going to the same company. In TDM, rides are matched by a transportation coordinator to bring together people from the same neighborhood who work for different companies in the same business park.

- *Van Pooling*. Van pools operate with paid drivers who may have other duties in the middle of the day. They pick up passengers and deliver them to their jobs. Employees pay a fee for the service, but this is often subsidized by employers.

- *Bus Service*. More frequent bus service or routes that are specific to a particular location such as a business park may be instituted. For example, New Jersey Transit might be petitioned to alter its route to include a new office development. If there should be sufficient demand within Moorestown, a jitney service using passenger vans could be explored.

- *Staggered operating hours*. Coordination among companies to stagger their beginning work hours would spread the peak hour of congestion over a longer time span. This differs from flex time in that there is an

established starting time for businesses.

TDM efforts have a twenty-five year history in the state and there is a local organization, mainly for the Rt. 73 corridor, in Burlington County called the Cross-County Connection. At one time the Township was a member, however, the group was not focused on traffic issues germane to Moorestown. But the concepts behind TDM have the potential for mitigating the increase in traffic expected from the level of employment projected in the Land Use Plan Element. Since the visual and environmental effects from wider roads are well known, utilizing TDM methods can have obvious benefits in the preservation of Moorestown's character.

SUMMARY AND RECOMMENDATIONS

Improving the ability of people and goods to be moved in and through the Township is an important goal of the Master Plan but in this element is tempered by the desire to preserve and enhance the scenic beauty of the street. It is clear that government can not build enough road capacity to satisfy the demand that exists. Congestion will remain but through incremental physical improvements, adverse effects on the fabric of the community can be minimized. Pedestrian and bicycle networks provide an important alternative to motorized transportation. As this system expands, it provides the opportunity for recreation trips instead of motor vehicle trips. The following recommendations are made in the Circulation Element and depicted on the Circulation Plan as appropriate:

1) *Street Tree Planting*. The Township's street tree planting program should be commensurate with the need to replace trees as they reach the end of their lives. Since many street trees were first planted in the 1920's, the coming decade will see many trees die. Bacterial leaf scorch disease among oaks will accelerate this trend.

2) *County Highway Plantings*. An agreement with Burlington County should be reached allowing the planting of street trees along County highways, even if it is at Township or private citizen expense.

3) *N*ew *Road Segments*. As depicted on the Circulation Plan, Centerton Road is proposed to be extended from its terminus at the YMCA to Westfield Road, Marne Highway will be turned into this new road, and a new intersection created at Creek Road in Mt. Laurel. Marter Avenue is proposed to be expanded to five lanes. These new road segments involve

County participation and are expected to be privately funded from developer contributions. As part of these changes, new traffic signals are proposed for Marne Highway and Young Avenue; Young Avenue and Centerton Road; and Marter Avenue and Centerton Road. Linden Street is proposed to be extended from N. Stanwick Road to the Public Works facility. A new residential access street (as the land is developed) is proposed from Borton Landing Road to Linden Street.

4) *County Road Assumptions*. The shifting of jurisdiction to Burlington County for East Gate Drive, Nixon Drive and the Harper Drive connector between the two streets should be pursued. Burlington County participation in widening the stretch of Centerton between Westfield and Hartford Roads should be explored. The timing of the transfer of jurisdiction for Centerton Road from Moorestown to Burlington County should be made explicit.

5) *Salem Road*. Salem Road between Borton Landing Road and Westfield Road should be studied by a traffic professional to determine if the street should be made one-way or terminated at one end.

6) *Intersection Improvements*. Several intersections have obvious congestion problems and are constrained by physical limitations. These are identified on the Circulation Plan and should be studied as funding permits.

7) *Bicycle Routes*. The bicycle route system should continue to be expanded as indicated on the Bicycle Route Map as funding permits.

8) *Traffic Calming*. Traffic calming methods should be considered in the reconstruction of streets. Crider Avenue is specifically identified as a location for a speed table or other technique.

9) *Street Design*. Cul-de-sacs should be eliminated in favor of loop streets to reduce service costs to the municipality. A specific design standard for scenic roads should be developed emphasizing narrow lanes, a turf stabilized shoulder and drainage swales.

10) *Transportation Demand Management*. Any reduction in travel demand will aid in reducing congestion and the need to widen road segments and intersections. Transportation Demand Management techniques should be implemented on a Township-wide basis among business park owners

to aid in reducing the demand for greater road capacity.

W:\5000's\Moorestown\5180.mp\Circulation.doc

Legend

Road Classification

- Principal Arterial
- Major Arterial
- Proposed Major Arterial
- Minor Arterial
- Proposed Minor Arterial
- Collector
- Scenic
- Constrained Intersections

Realign Centerton Road

Realign Marne Highway; Remove railroad underpass

Extend Centerton Road

New traffic signals

Plan for new residential access road

Vacate wetlands portion of Linden Street

Provide access to Public Works Facility

Add Traffic Calming Measures

Circulation Plan

Moorestown Township
Burlington County, New Jersey
June 27, 2002

1000 0 1000 2000 3000 Feet

North

CLARKE • CATON • HINTZ
A Professional Corporation

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

Land Use Plan Element

INTRODUCTION

The Land Use Plan Element seeks to promote the goals and objectives of this Master Plan for the conservation, development and redevelopment of Moorestown. The Land Use Plan Element synthesizes the policies and recommendations found in the preceding elements. The element is designed to encourage compatible land uses, the reuse of existing buildings for new purposes, the restriction of development on environmentally sensitive lands and the careful management of growth and preservation on the limited land remaining for open space and development. The Land Use Plan is expected to be implemented mainly through the instruments of private capital and land ownership, but local government has a significant role in guiding how and where such changes occur.

The Master Plan underpins the regulation of land use through the zoning ordinance and other land development ordinances. Land use classifications, found in this element, provide the rationale for various zoning regulations. The Land Use Plan, found at the end of this document, supports the zoning map by designating the use of land in specific areas of the municipality.

Moorestown first adopted a zoning ordinance in 1948 and a Master Plan in 1956 in response to the development pressure that was part of the great post World War II wave of suburbanization. This Master Plan is a continuation of those earlier efforts to control the direction of growth, preservation and development to retain Moorestown's compelling attractiveness. This element continues with a survey of existing land use in the Township, projections of population and employment, an analysis of the implications of developing land under the zoning ordinance, major issues in land use and the establishment of land use categories as a means of addressing the issues.

EXISTING LAND USE

The Existing Land Use map is based on earlier work undertaken by the Township Engineer in 1995. Utilizing aerial photography and a ground survey, the 1995 map was updated for this document. The land use categories in this Existing Land Use map are also somewhat different than those on the 1995 map in order to be able to examine different development patterns and characteristics. The appropriate residential density in agricultural areas, for example, is an issue that was raised during public

meetings held to gather input on the direction and scope of the Master Plan. Accordingly, agricultural uses and a finer distinction of residential densities has been described. The analysis of institutional uses such as churches, fire houses, and governmental buildings indicates sufficient similarity to create an aggregate category for such uses. Township tax assessment data also were used to discern land use. A compilation of all of this information was used to create the Existing Land Use map on the following page. This depicts how land is currently being used in the Township in contrast to how it is regulated through zoning.

The Existing Land Use plan geographically divides Moorestown into fourteen different land use categories. Land covered by water has been included in the land use of which it is a part. For example, Strawbridge Lake, has been included in the Open Space category. The existing land use categories are described below:

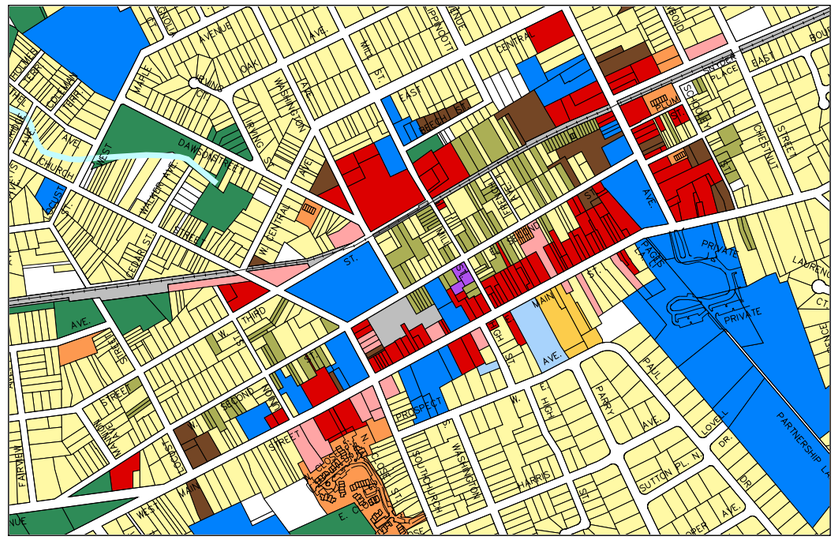
- *Single Family Detached Residential*. This category consists of detached housing occupied by a single household. In certain older portions of town, it may also include an accessory apartment above a garage or carriage house. This category constitutes about three-quarters of the housing units in the Township.

- *Semi-detached Residential*. The semi-detached residential category is for houses that are attached, having one party wall common to another house; i.e., a twin house.

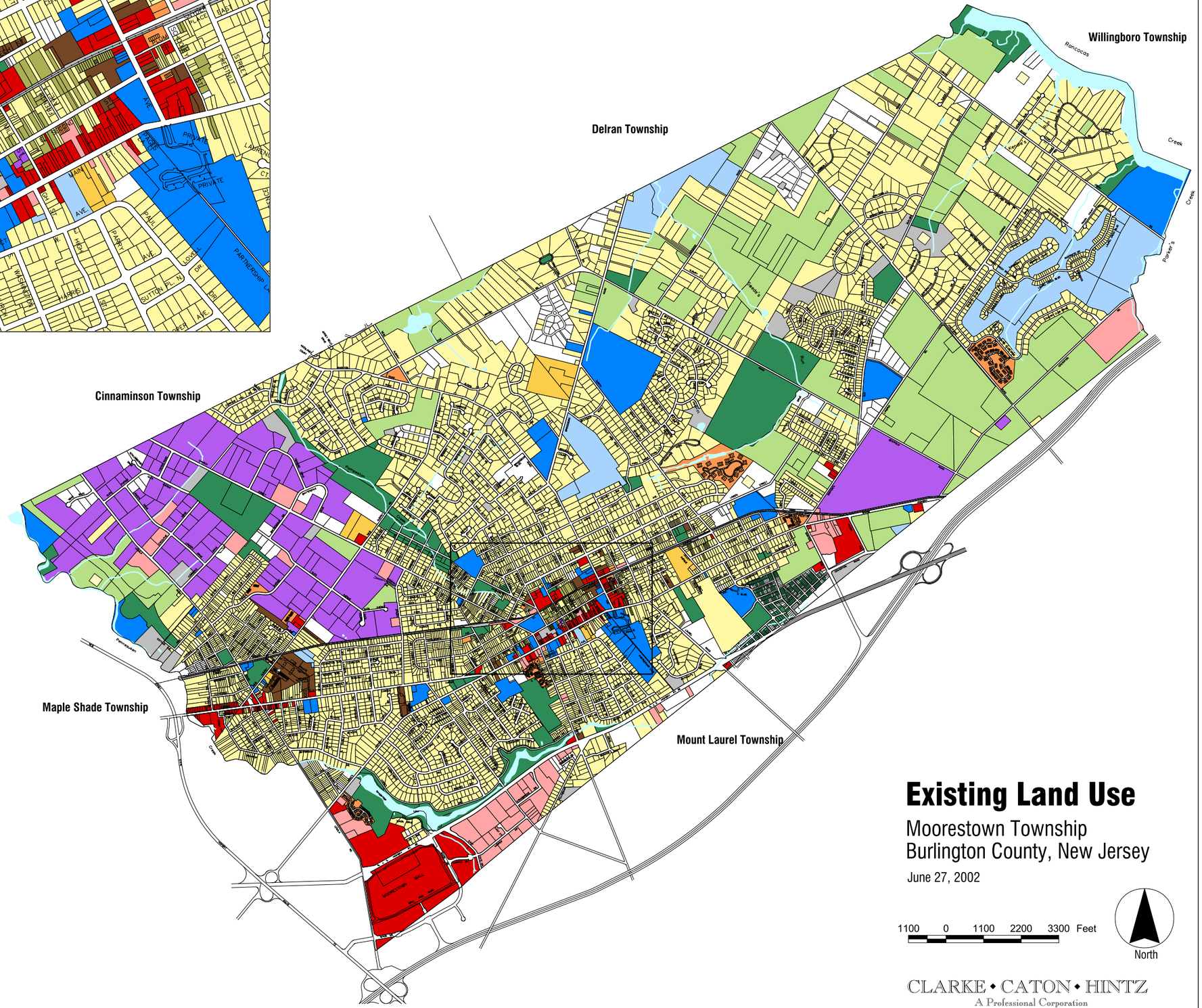
- *Townhouse Residential*. Single family attached residences in a group of three or more have been placed in the townhouse residential category. This constitutes the second largest residential category in Moorestown.

- *Apartment Residential*. These are multi-family housing developments such as garden apartments or units constructed in converted non-residential buildings. This category constitutes the second largest residential designation.

- *Senior Citizen Housing*. While some housing units in this category are apartments, most of the uses are group quarters in nursing or boarding homes and assisted living facilities.



Town Center Detail



Legend

- Streams
- Water
- Town Center Detail Area

Land Uses

- Single Family Residential
- Semi-Detached Residential
- Townhouse Residential
- Apartment Residential
- Senior Citizen Housing
- Retail Sales and Services
- Office
- Institutional
- Semi-Public
- Industrial
- Agriculture
- Open Space
- Transportation, Utility and Detention
- Vacant

Existing Land Use

Moorestown Township
Burlington County, New Jersey

June 27, 2002

1100 0 1100 2200 3300 Feet

North

CLARKE • CATON • HINTZ
A Professional Corporation

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

- *Institutional*. The Institutional classification refers to social institutions and governmental uses. Accordingly, it includes municipal offices and facilities, religious uses, and schools. This category may be contrasted with Township-owned land used or intended for recreational or conservation purposes. In that circumstance it has been placed in the Open Space rather than in the Institutional category. Further, land owned by the municipality, but used for water supply, sewage treatment or storm water management has been placed in the Transportation, Utility and Detention class.

- *Semi-Public*. The Semi-Public category is used for golf courses and nonprofit community facilities, and recreational facilities that have a widespread local membership but are not public facilities.

- *Retail Sales and Services*. Retail Sales and Services included stores, shops, and services. Services encompass a wide range of uses such as restaurants, entertainment, services provided to households and businesses, and similar uses, including automotive services. This category also includes wholesale businesses within the town center area. In the town center, this category also includes apartments above shops and offices.

- *Office*. This designation applies to professional, business, and general administrative offices. Where offices are operated as part of a distribution or manufacturing concern, they have been placed in the Industrial category. Offices are concentrated in the East Gate Complex on Rt. 38, on Lenola Road near Kings Highway and at the end of East Main Street.

- *Industrial*. The Industrial category encompasses manufacturing, assembly, distribution, warehousing, research and development, and office uses. If the office use is the predominant use, it has been placed in the Office class, instead. In general, such existing uses are concentrated in the business parks on N. Church Street and Lenola Road, but the Lockheed Martin complex is also included under this heading.

- *Agricultural*. Areas that are orchards or tilled and growing field crops have been included in this category. The agricultural category also

includes areas utilized for livestock, including the raising of horses. This category includes farm markets that are part of agricultural uses.

- *Open Space*. Open space designates land held by the government or a non-profit land trust for active and passive recreation or conservation purposes.

- *Transportation, Utility and Detention*. This category identifies land used for streets and highways, railroads, utility services such as potable water or sewage treatment, and storm water management facilities owned by the Township. On the Existing Land Use plan, streets and highways have been left white for purposes of clarity, but are included in the acreage total in Table VIII-1.

- *Vacant*. Vacant land is land with no discernible use and assessed for tax purposes as vacant land.

The Township contains approximately 9,555 acres, or 14.93 square miles. The acreage of the existing land use categories is depicted in the following table.

Table VIII-1. Existing Land Use.

Existing Land Use	Acreage	% of Total Acreage
Single Family Detached Residential	3,987.97	41.7%
Semi-Detached Residential	18.13	0.2%
Townhouse Residential	92.23	1.0%
Apartment Residential	60.88	0.6%
Senior Citizen Housing	60.29	0.6%
Retail Sales and Services	244.63	2.6%
Office	214.28	2.2%
Institutional	342.84	3.6%
Semi-Public Facilities	347.20	3.6%
Industrial	742.61	7.8%

Existing Land Use	Acreage	% of Total Acreage
Agriculture	1,144.98	12.0%
Open Space	603.07	6.3%
Transportation, Utility & Detention	997.51	10.5%
Vacant	698.58	7.3%
Total	9,555.20	100.0%

As the table indicates, the single family detached residential use occupies by far the largest land area, with agriculture a distant second, followed by roads and industrial development. This is fairly typical land use pattern in suburban areas. The most atypical aspect of the existing land use is the larger amount of land devoted to industrial uses in comparison to other suburbs at a similar stage of development, such as Mt. Laurel, Evesham or Voorhees Townships. This likely reflects an early municipal emphasis on industrial development by the Township beginning in the 1950's.

The existing land use categories may be aggregated into the broader categories of residential, commercial (office and retail), industrial, institutional (institutional, open space, semi-public) and undeveloped (agriculture and vacant). In this analysis, the transportation and utility category has been removed since it is a function of the development of the other land uses. These broader categories are indicated in the following table.

Table VIII-2. Aggregated Existing Land Use.

Existing Land Use	Acreage	% of Total Acreage
Residential	4,219.50	49.3%
Commercial	458.91	5.4%
Industrial	742.61	8.7%
Institutional and Open Space	1,293.11	15.1%
Undeveloped	1,843.56	21.5%
Total	8,557.69	100.0%

By this analysis, the Township is nearly four-fifths developed, with 78.5% of its land area used. This figure should be viewed with several caveats, however. Land that is already developed may also have further development potential. Some land that is in the undeveloped category may have deed restrictions that prevent development. Environmental regulations will render some lots unbuildable, regardless of the allowed development in Moorestown's zoning ordinance. Lastly, a significant portion of the undeveloped land, about 225 acres, represents the radar tower field for the Lockheed Martin complex that would require a different business emphasis by the company for there to be significant future development on this land.

POPULATION TRENDS

Moorestown differs from most other suburban areas in South Jersey because it has been a town since colonial times. Even though agriculture was an important part of the Township's economy for its first 250 years, it established a civic and commercial center lacking in other, more fully agrarian, municipalities such as Cherry Hill, Voorhees and Willingboro Townships. These other more rural areas in the path of development often developed much more quickly than Moorestown. The Township's population growth has been more modest in comparison to these and other townships where population increases of 100% or more per decade in the post-World War II era have been common.

Moorestown also differs from the trend of growth in South Jersey by growing very slowly in the 1970-1990 period - particularly in the first decade. The 1970's in New Jersey were a time of rapid loss of industry to the South, the two Arab oil embargoes, and stagflation (a combination of low economic growth and high inflation). Moorestown was also affected by this trend. In the 1980's, a lack of sewer capacity hampered residential development. These two constraints, external and internal, are prime factors in the Township's slow growth during this period. Without these influences, Moorestown would be at a higher level of development than it is today.

Table VIII-3. Population Growth, 1930 to 2000.

Year	Population	Population Change	% Population Change
1930	7,247	-	-
1940	7,749	502	6.93%
1950	9,123	1,374	17.73%
1960	12,497	3,374	36.98%
1970	15,577	3,080	24.65%
1980	15,596	19	0.12%
1990	16,116	547	3.51%
2000	19,017	2,901	18.00%
1930-2000		11,770	162.41%

Source: U.S. Bureau of the Census, Decennial Census

The era of most rapid growth occurred in the 1950 to 1960 time period when not only was the rate of growth the highest, but also the absolute number of people added to the Township was the highest. This level was almost reached in the 1960 to 1970 decade and again in the 1990's. The development that occurred in the 1990's occurred mostly in the latter half of the decade when the sanitary sewer issues were addressed through an increase in plant capacity and diversion of effluent to Mt. Holly, the Township's affordable housing dilemma was solved and the deep 1989 to 1993 recession in New Jersey gave way to economic growth. The increase in the population in the 1990's also represents unsatisfied demand for housing from the 1980's.

Growth in the population is dependent on several factors. From a demographic viewpoint, population growth is a function of the birth rate plus immigration minus deaths. At the local level, this overall view is tempered by the amount of developable land for housing, the economic climate for housing, the number of persons per household, the strength of the school system (for families) and the intangible factors that make up household decisions about the location and type of housing to occupy. These affect the rate of growth or decline and the eventual population of the Township.

Population projections have been developed based on the Year 2000 U.S. Census as shown in the following table:

Table VIII-4. Population Projections for Moorestown, 2000-2025.

Year	Population	Population Change	% Population Change
2000	19,017	2,901(1)	18.00%(1)
2010	20,410	1,393	7.32%
2020	23,134	2,724	13.35%
2025	22,625	-509	-2.20%
2000-2025		3,608	18.97%

(1) - Change from 1990 to 2000.
Source: Delaware Valley Regional Planning Commission, November 6, 2001.

In this forecast, there are two trends that are apparent. The first is the moderation of the growth rate from the 1990-1999 decade to the 2000-2010 decade. The model indicates an increase in the growth rate in the following decade; however, by that time the model becomes more conjectural. The second important part of the forecast is that the population will reach its peak sometime around the year 2020 and then begin to decline. This is consistent with the build-out analysis discussed in the following section.

BUILD-OUT ANALYSIS OF THE ZONING ORDINANCE

RESIDENTIAL

A build-out analysis was undertaken to estimate the potential level of development represented by the Zoning Ordinance. The Zoning Ordinance, containing allowed uses and intensity of development, establishes the upper limit of development in the municipality. From this limit, environmental factors such as freshwater wetlands and flood plains (*see* Conservation Element) are subtracted to arrive at a net developable parcel. The remaining developable area was reviewed for road access, shape, probable layout of lots based on lot standards and other typical subdivision factors to arrive at an estimated number of residential units. The R-1 district, which requires a minimum of 1.5 acres, houses the largest potential number of units of any

zone. It is estimated that the R-1 has the potential for 260 housing units. The other residential zoning districts with development potential, the R-1-A, R-2, R-3 and SCR districts have an estimated potential of 452 units, with subtotals of 110, 102, 118 and 122 residences, respectively. The total estimated build-out of the residential areas in the Township is 712 dwellings based on current zoning standards.

The median household size for New Jersey in the Year 2000 U. S. Census is 2.68 persons. Multiplying this number by the estimated number of housing units yields a potential increase in Moorestown's population of 1,908 or 1,900, rounded, at full build-out. This projection has several assumptions. The first is that the median household size for New Jersey is reflective of Moorestown. Secondly, all of the houses that could be built will be constructed and occupied. This is a lower number than accompanied the Reexamination Report that was adopted on July 19, 2001 but may be attributed to a few factors. The purchase of land by the municipality in the last six months has removed the potential for approximately 195 housing units to be built. The Reexamination Report used a higher household multiplier to estimate population. The median household number being used here may understate the eventual population if larger single family detached housing is constructed. Typically the larger the house, the larger the average household and the recent past history of the Townships indicates mostly construction of single family detached houses (*see* Table VI-1, p. VI-9). In the future, the larger household size of single family detached houses will be moderated by the lower household sizes of senior housing.

Building permit data from January 2000 through September 2001 indicate the construction of 202 housing units. With a median household size of 2.68 persons, that would translate into 541 new inhabitants, assuming that all of these units are occupied and that no double counting in early 2000 took place between the issuance of the permits and the U.S. Census count. If this is added to the Year 2000 Census population of 19,017, the present Township population is 19,558 persons. Adding the full build-out number to the estimated current population would suggest a peak population of 21,466 people, rounded to 21,500 people, in the Township. Again, there are several factors that could affect this projection. If the density of allowed housing increases, then the population would likely be higher, unless it was intended for senior housing. If household size increases, reversing a steady reduction over the years, this would also result in a higher peak population. The

Township has an ambitious open space acquisition program (*see* Open Space and Recreation Plan Element). Purchase of land zoned for residential use will lower the peak population. Since the timing and effect of these potential population factors are not known, establishing a low and high range of population is the most prudent course. For the low range, a population of about 21,000 people is projected and for the high range, 23,000 people. It is expected that the Township will reach its population peak within the next twenty years.

NON-RESIDENTIAL

A build-out analysis was also undertaken for potential non-residential development based on current zoning regulations. The largest amount of potential development remaining is in the Specially Restricted Industrial (SRI) zone. This is a result of this district having the largest amount of land, about 345 acres, that is vacant or in agriculture and the generally higher floor area ratios[1] that could be constructed (up to .30). In this district, the largest areas are the Lockheed Martin lands northeast of Westfield Road and the area southeast of Lenola Road to the Pennsauken Creek. The SRI land also includes contaminated sites on New Albany Road that are in the process of being remediated. It is estimated that the potential from this undeveloped land is 2.43 million square feet of manufacturing and office space.

The other large zone is the Specially Restricted Commercial-2 district on Centerton Road that has the potential for an additional 1.07 million sf. of office space. The remaining districts - other Specially Restricted Commercial zones and the Residential/Professional Office district - have an estimated developable land area of 675,000 sf. There is no additional development capacity for retail development aside from minor additions on existing sites or as part of office park developments. An examination of aerial photographs reveals that certain lots in the SRI district, though developed, have the potential for additional development that may be appended to their buildings, however, no analysis of this potential has been undertaken since it involves site plan design beyond the scope of the Master Plan. Totaling these commercial districts, exclusive of already developed lots in the SRI district, yields a potential of 4.175 million, or 4 million sf., rounded.

[1] - Floor area ratio is the relationship between the size of a lot and the total square footage of a building. See Footnote 4 for further explanation.

EMPLOYMENT PROJECTION

The employment projection for this plan is based on the potential square footage that could be developed under the existing zoning rather than through the use of econometric data and predictions concerning the business cycle. The ability to project the timing of future employment is beyond the scope of the Master Plan. In this projection, an assumption has been made in calculating potential employment in the SRI district to anticipate that 80% of the floor space would be for warehousing and manufacturing space, while 20% would be office uses. It has also been assumed that the other zoning districts would be all office uses except for assisted living facilities. The assisted living facility potential totals 144,000 sf. in this projection based on the developments that have received some form of approval from Moorestown. Using these assumptions and the information from the preceding section results in a potential for 2.087 million sf. of office floor space. Based on a rule of thumb of 250 sf. per employee, this amount of office space would represent the potential for an additional 8,348 employees under present zoning. A nearly identical amount of manufacturing/warehousing space, 1.944 million sf., would yield 1,944 employees based on 1,000 sf. per employee, for a total of 10,292 potential jobs.

As with the residential build-out analysis, assumptions have been made about the municipality's potential nonresidential development. To the extent that zoning is altered to allow more or less development, the potential level of non-residential development would also be affected. Changes in the sanitary sewer service district, while not anticipated in this Master Plan time period except for lots on Tom Brown Road, could also affect the intensity of development. The floor area ratio assumptions are .30 for SRI zoned areas, .20 to .25 for other nonresidential development and .10 for areas not in the sanitary sewer service area. These ratios were used in calculating the estimated build-out.

The number of existing jobs in Moorestown can only be approximated. Covered employment date from the NJ Department of Labor indicates that there were 19,150 employees in September 1999 (the latest available data). Covered employment means those jobs covered by state unemployment insurance. This excludes certain categories of workers such as the self-employed, most federal workers, a number of non-profit and/or religious organizations and certain other categories, such as domestic help.

Consequently, covered employment understates the number of people who work in Moorestown, but it clearly exceeds the number of Moorestown residents who are employed. The NJ Dept. of Labor estimated that Burlington County's labor force participation rate was 39.3% of the population in 2000. Inasmuch as a labor force participation rate is not available at the municipal level, this Dept. of Labor percentage (39.3%) is useful as a basis for employment figures in Moorestown. On this basis, about 7,450 residents were employed in 2000. A comparison of September 1999 to September 2000 figures shows a better than 1:2.5 ratio, i.e., there were two and a half times as many jobs in Moorestown as there were residents who were employed. As noted, this ratio is actually understated, since covered employment does not include all employed persons in Moorestown. A ratio of this magnitude indicates that Moorestown is presently a significant employment center for the Burlington, Camden and Gloucester region. The nonresidential build-out analysis indicates that with full development of the existing zoning districts, jobs would increase perhaps 50% more than the existing level of employment.

Taking the midpoint of the projected population at build-out, 22,000 persons, and multiplying it by the labor force participation rate of 39.3% yields about 8,650 employed residents. The employment projection at build-out rounds to 30,000 workers. This results in a projected ratio of employed residents to jobs of almost 1:3.5. The population increase to a peak between 2,500 and 4,500 residents would be noticeable because of the additional houses that will be needed to house them. The increase in the number of workers, however, is likely to have an even larger effect than the increase in population. These impacts will be most obvious in the ability to move in and through town (*see* Circulation Element). A less obvious effect will be increased use of municipal services such as: library services for business users, police monitoring and enforcement of traffic regulations, sewer and water utilities and the fielding of questions by Town Hall staff.

Land Use Issues

In the development of the Master Plan, significant insights, testimony, and reports were received from the public, many civic organizations and governmental committees that contribute to Moorestown's quality of life, and from municipal departmental directors. On the basis of this information and the background data gathered, a set of land use issues has been formed to underpin the establishment of the land use classifications and the land use plan found in this element.

OPEN SPACE, FARMLAND AND DEVELOPMENT

There is a strong sense among the public that development of farmland and vacant land has occurred at a rapid pace. Public comments have focused on residential development in the east end and the area of the Township north and east of Westfield Road. However, there has also been similar construction in the area of New Albany and Riverton Roads. Statistical information bears out this public perception. In 1994 in the Township, 55 building permits were issued for new residences; in 1995 this increased to 80 units and the following year (1996) 155 permits. From 1995 through 2000, the Township issued 912 building permits for single family detached housing, or an average of 152 units per year. In 2001, this moderated to 96 units through November, still twice the level of the 1980's and early 1990's.

Spurred by the longest peace time economic expansion, nonresidential development in Moorestown also continued, mainly as flexible space – buildings combining office, assembly and distribution uses. Through the 1990's to the present, the northwest business parks were largely completed. They are concentrated northwest of New Albany Road from Lenola Road to N. Church Street. The largest remaining undeveloped area of this type is between Lenola Road and the Pennsauken Creek.

As noted above, the slow growth that occurred from 1970 to the mid-1990's, in contrast to the rapid growth that followed, served to heighten the perception of dwindling land resources. This recent increase in the pace of development over historical levels, a desire to preserve a portion of the Township's rural past and historic buildings, rising national awareness about sprawl and its effect on the quality of life have made land use a prominent public issue. In 1998, a number of binding and non-binding referenda for

acquiring open space and farmland were placed on the November ballot for approval by voters. A high percentage of the referenda passed, including those in Moorestown and Burlington County and the state bond issue to preserve a million acres of land. These represent a strong consensus for the preservation of land, both for open space and for agricultural purposes. The Open Space and Recreation Plan Element discusses additional open space issues in depth.

Agricultural land occupies only about 12% of Moorestown's land area. In many instances, this land is held by nonagricultural interests which lease the land for farming in order to gain favorable farmland assessment taxation. For example, the single largest block of agricultural land is held by Lockheed Martin. For a long time, an increasing number of factors have been working against the retention of agriculture in Moorestown, including the following:

- Farming is difficult work and its results are often dependent on the vagaries of the weather. When jobs are plentiful it is usually easier to find less demanding employment at better wages.

- The costs of agricultural inputs such as fuel, fertilizer and equipment often rise faster than the selling price of farm products.

- In New Jersey, the agricultural industry consists of small to medium size farms and hobby farmers. It is difficult for them to compete with large agribusiness in other states.

- There is a lack of businesses that support agriculture in New Jersey such as tractor dealers, seed and fertilizer companies, irrigation specialists and grain elevators.

- High land value provides an incentive to farmers to sell for development.

- Finding qualified help is increasingly difficult. The level of wages that farmers can afford to pay workers is not competitive with many other jobs.

- Finding a buyer for a farm who desires to continue farming is increasingly unusual.

- The fragmentation of agricultural land increases costs and reduces efficiency, while often aggravating conflicts between farmers and residents over spraying, odors and other potential nuisances.

Left to itself, agriculture as a full-time occupation will disappear from Moorestown within the 20-year planning horizon of this Master Plan. Hobby farmers growing food for direct sales through farm stands may remain. Because New Jersey is a high cost of living state, farmers are increasingly dependent on nontraditional means of making a living. These include pick your own crops, all-year farm markets for the sale of produce and crafts, hay rides, petting zoos, ice cream sales, harvest events, bakeries and similar types of businesses that attract retail customers to their farms. Springdale Farm in Cherry Hill and Johnson Farm in Medford are two nearby examples of well-developed secondary businesses for farmers. In Moorestown, Flying Feather has advanced this concept the farthest. Produce from the farms supply the markets and give residents and visitors an opportunity for fresher and more varied products than those supplied by a grocery store. Accessory uses such as these could provide additional income to extend the viability of farming in Moorestown and to provide services to residents that are not presently available.

The desire to maintain a feeling of openness in at least a portion of Moorestown can be met through open space acquisition or the purchase of development rights in lieu of preserving agricultural uses. Purchase of farmland by the municipality or county for agricultural purposes leaves government officials to deal with the same difficult economic factors that now face the farming community in their attempts to lease land to farmers for agricultural purposes. Accordingly, retaining agriculture as a means of keeping key parcels of land undeveloped is considered in this Master Plan to be secondary to the goal of open space preservation.

TOWN CENTERS

MAIN STREET

Main Street represents for many people the heart of Moorestown. In this document, Main Street is defined as the area roughly from Union to Schooley

Street and Main to Second Street. "Main Street" is being used to distinguish this town center from West Moorestown, also called Lenola (see below, West Moorestown) The two centers share a number of attributes. Both areas provide every day services to Moorestown residents and have a variety of retail and other commercial activities. Both are historically centers of commerce for the Township. The three main differences are:

- West Moorestown is more automobile-oriented;
- Main Street has institutional uses lacking in West Moorestown;
- West Moorestown has fewer historical structures.

This Master Plan is predicated on the idea that the overall appearance of West Moorestown and Main Street should contain similar design elements and that public and private investment be used to improve both town centers. Improvements have occurred through the reconstruction of the streetscape along almost two blocks of W. Main Street. The reconstruction has included new curbs and sidewalks with inlaid brick patterns, crosswalks, street lighting, parking meters, coordinated seating, trash receptacles and other street furniture. Substantial utility work was also completed where necessary. This work was undertaken as a public improvement that started in Spring 2001 with the strong support of the Moorestown Business Association. The physical attributes of Main Street had deteriorated over several decades and uncoordinated private improvements had contributed to the uneven quality of the streetscape. The new design corrects these problems and provides a guide for future Main Street improvements as well as a blueprint for West Moorestown.

Because of the importance of Main Street as a civic focus of the Township, a specific sub-element of the land use plan focusing solely on the downtown has been developed. The sub-element includes a discussion of land uses, important community design elements and means of coordinating parking within the Main Street area.

WEST MOORESTOWN

West Moorestown is the western gateway to Moorestown from Maple Shade and Rt. 73, one of the major state highways in the region. The intersection of Lenola Road and Camden Avenue is the center of the district. Properties on both sides of Camden Avenue from Calvary Cemetery westward to the

municipal boundary and northward along N. Lenola Road to New Albany Road define this town center. Attractive and vibrant commercial districts are assets to the Township but in recent years this part of Moorestown has witnessed an increased number of vacant stores, vacant lots, and broken stretches of paving that act in concert to present a less than desirable image of the municipality. Countering the economic forces that have led to disinvestment in West Moorestown will require a concentrated effort. The redevelopment of West Moorestown is a recommendation from the 2001 Reexamination Report. The West Moorestown town center would benefit from the creation of a Redevelopment Plan and the delineation of a Redevelopment Area. This designation permits the Township to utilize provisions in state redevelopment law to bring about improvements and to stem deterioration more quickly than might occur solely from private investment. The comprehensive reform of the state's redevelopment law ten years ago has made it an effective tool for municipalities.

Even if this step were not taken, streetscape improvements along Camden Avenue, Lenola and New Albany Roads would greatly enhance the appearance of West Moorestown. The simplest method would be the installation of street trees. Secondly, the creation of planting strips behind the sidewalk would allow screening of the parking lots and loading areas that contribute to an unattractive streetscape. At some point in the future, more attractive sidewalks and crosswalks could be installed.

Camden Avenue and Lenola Road are both under the jurisdiction of Burlington County. The County's approach to roadway design focuses primarily on the efficiency of traffic movements rather than on the aesthetic quality of the streetscape. This may account for the resistance by County transportation officials to the planting of trees in their right-of-way. Further, County officials claim that allowing trees within their right-of-way increases their liability when accidents occur. But in Maple Shade, recent streetscape improvements involve the municipality's downtown area, a few blocks west of West Moorestown on County Route 537 that points to a method of reaching common ground with Burlington County[2]. Since Burlington County's interest is in preserving the roadway capacity to move traffic, the Township's desire to rehabilitate the streetscape to have a more attractive gateway to West

[2] - Main Street in Moorestown has the same county route number but the portion of the street from Kings Highway to Marter Avenue is the Township's responsibility.

Moorestown will likely require local funding.

In the West Moorestown town center, the intersection of Camden and Lenola has the distinction of being the Township's highest accident location in the past year (*see* Circulation Element). This suggests that the heart of West Moorestown is working neither from a functional nor aesthetic perspective. Improving this intersection could be the catalyst for developing a closer working relationship between the County and the Township. Such cooperation would facilitate streetscape improvements not only in West Moorestown but throughout the municipality on county roads.

PRESERVATION OF HISTORIC AND CULTURAL RESOURCES

The Main Street town center is the core area of the Township's listing on the National and State Registers of Historic Places. The core area and its surrounding neighborhoods equals the Register of Historic Places delineation (*see* Historic Preservation Element). Based on work sponsored by the Moorestown Improvement Association in 1990, approximately 350 buildings and other structures were listed. There is little dissent that the historic and cultural resources of the municipality are worthy of preservation but it is not clear what path towards meeting this goal should be taken. On the one hand, the town retains a wealth of historic buildings, most of them residences, that have been maintained by private individuals without the need for a local historic district. On the other hand, despite the best efforts of interested parties and municipal officials, several prominent buildings on private property have been lost to demolition. This might have been avoided if there had been a municipal district and an approval process. The National and State registry provides protection only from governmental and not from private actions. State law requires that a Historic Preservation Element be adopted prior to enactment of any ordinance relating to historic preservation. Inclusion of this element in Moorestown's Master Plan will enable the Township to establish a local historic district at some future time, if it so chooses.

ENVIRONMENT

Three major issues concerning the environment confront policymakers as the Township becomes fully developed. These include:

- Protecting environmentally sensitive lands from inappropriate land development. Environmentally sensitive lands include freshwater wetlands, flood plains, steep slopes, important aquifer recharge areas and significant wildlife habitats.

- Ensuring adequate soil treatment of effluent from septic systems in the non-sewered areas of the municipality.

- Improving the quality of water discharged from storm water systems into streams.

These three major concerns are interrelated. Improving the quality of water that discharges into streams helps to protect biological functions which in turn helps to preserve wildlife habitats. Ground water supports stream flows in addition to providing potable water. Properly functioning septic systems are important in preserving or enhancing ground water resources. Approximately one-quarter of the Township is outside of the sanitary sewer service area - meaning that the public system can not be legally extended into it. This area is primarily in the north corner of the Township along the Delran and Willingboro boundaries. Because of the heavy clay layers that exist in much of the Township, adequate percolation for septic systems is often difficult to obtain. As housing develops in this area, it is unknown what cumulative effect will emerge from the addition of more effluent from septic systems. The carrying capacity of the soil for full development in the non-sewered area is proposed to be investigated further (*see* Conservation Element), but to be prudent, allowed densities in select areas should be reduced (*see* Land Use Categories) in non-sewered areas with clay geology and soils.

The Township should not be in a position where it must extend sewer to alleviate an emergency condition because it previously allowed a higher level of development. Further, as policy, it is inefficient to provide sanitary sewer services to low density development. For each dwelling served, the corresponding amount of pipe, pumping stations and other infrastructure is subsequently higher. Low density development also complicates maintenance since there is low levels of effluent and collection pipes become more easily clogged, resulting in higher governmental costs per unit.

A review of the Township's wastewater management plan map and utility infrastructure reveal that the very low density areas on Tom Brown Road are within the sanitary sewer service area, yet are not physically connected to the system. The only connected properties are on Cobblestone Court, with sewer service provided by Delran Township. Because of the low level of development presently existing, the limited opportunity for additional development and in an area dominated by clay soils that the sewer service area be scaled back. It is recommended that the properties on Tom Brown Road as indicated on the Sewer Service Area plan on the following page be removed from the Wastewater Management Plan.

As land develops, previously undeveloped areas are paved over and covered with buildings. Storm water that was previously able to percolate into the soil is prevented from doing so by new impervious surfaces. This has a two-fold effect: flooding may occur more readily from the rapid runoff and ground water levels may decline because rain is no longer replenishing the underground aquifer. Aquifers are geologic formations that hold ground water. Storm water regulations enacted over the past twenty years by the state are intended primarily to control flooding of streams from new development. Replenishment of aquifers by storm water has not yet been regulated by the state. In Moorestown, aquifer recharge has only been attempted on an *ad hoc* basis with several commercial developments. A more comprehensive approach to aquifer recharge is currently being studied by the Township's environmental consultant.

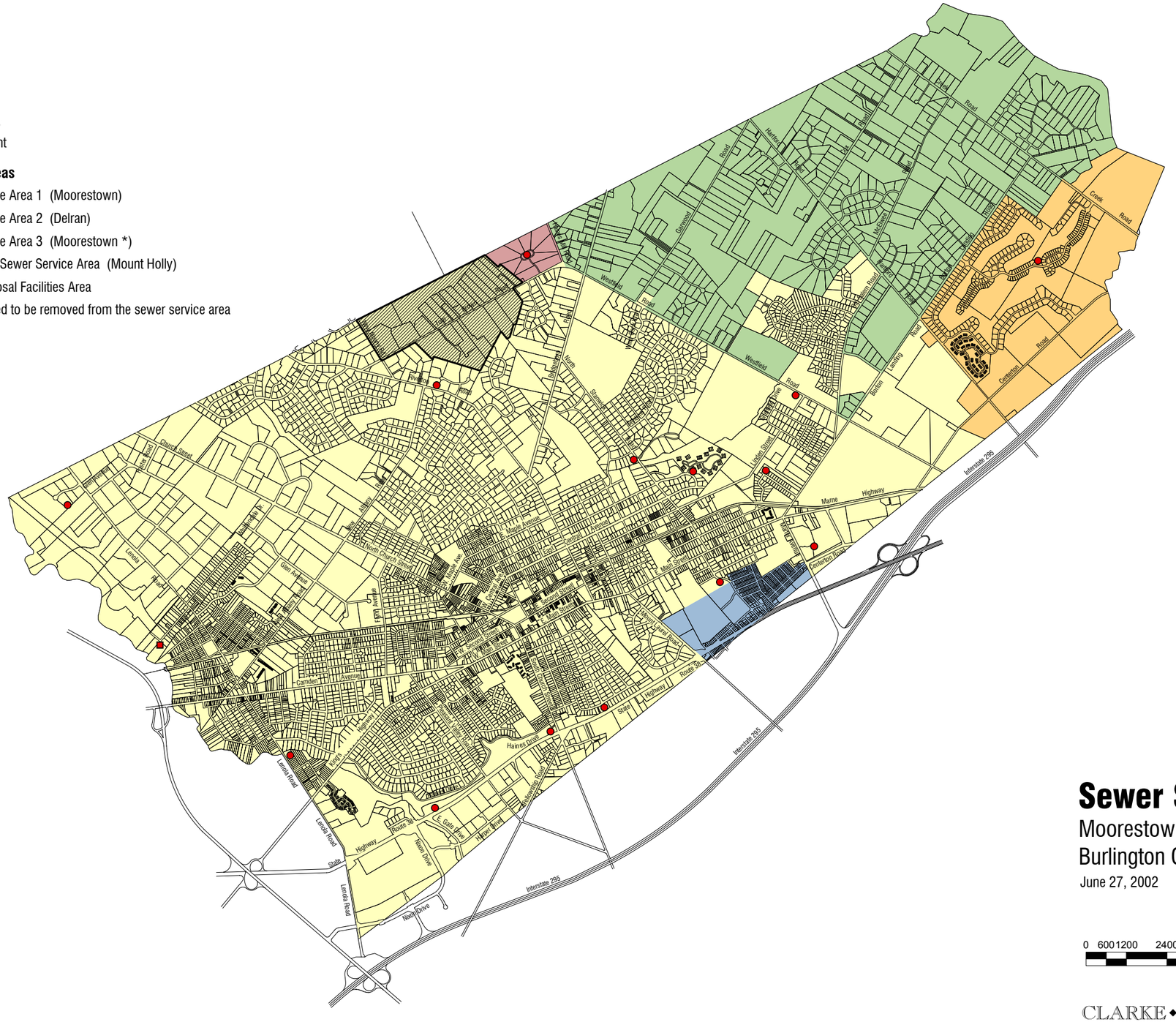
Cluster residential subdivision design holds promise for allowing some portion of a site to remain in its natural state as open space, thus addressing some of the concern raised in the first major issue. However, this can only be readily accomplished for sites within the sanitary sewer service area. In the non-sewered section of the Township, clustering would concentrate effluent more than existing regulations allow. A new technical solution for community septic systems that meets state regulations would need to be found before consideration of clustering in the non-sewered areas could occur.

Legend

- Pump Stations
- Treatment Plant

Sewer Service Areas

- Sewer Service Area 1 (Moorestown)
- Sewer Service Area 2 (Delran)
- Sewer Service Area 3 (Moorestown *)
- Laurel Creek Sewer Service Area (Mount Holly)
- On Site Disposal Facilities Area
- Area proposed to be removed from the sewer service area



Sewer Service Area

Moorestown Township
Burlington County, New Jersey
June 27, 2002

0 600 1200 2400 3600
Feet

North

CLARKE • CATON • HINTZ
A Professional Corporation

* Existing connections only

Utilities Source: Wastewater Management Plan, Pennoni Associates Inc., 12/17/01

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

INSTITUTIONAL AND RESIDENTIAL USES

The nature of institutional uses has changed substantially over the past decade as new combinations of institutional and residential uses have become common. There have been many influences that have led to these changes. The aging of the population has given the impetus for creating a greater variety of residential uses that include a component of nursing and/or medical care. The expense of long term care has led to the development of less expensive levels of assistance more tailored to individuals' needs. The capital markets have been more willing to fund alternative residential health care uses. Government social service regulations have sought to create greater efficiencies in managing the care of the indigent, the elderly, and the addicted. Where once the old or infirm were cared for in the home or in homes for the aged, a greater level of care was introduced with the creation of nursing homes. Nursing home care, the most intensive level of assistance, has been joined by a wide variety of new uses, including congregate apartments, elder cottages, assisted living facilities, comprehensive personal care facilities, continuing care retirement communities and other combinations of institutional, residential and medical uses.

In addition to the changes that have occurred in caring for the elderly and infirm, there have also been the deinstitutionalization of people under the care of the state. Prompted by changes in federal regulations for reimbursement, the setting for the care of the mentally and physically disabled and those with substance abuse problems has moved from large state hospital settings to smaller scale, decentralized places such as group homes.

Appropriate locations for these uses should be designated in Moorestown's zoning regulations so that their development does not create negative impacts on existing neighborhoods. The intensity of use for larger facilities is similar to commercial retail uses. This suggests that larger facilities should be located on state and county routes that have the capacity to handle the traffic impacts associated with higher intensity uses. A number of these uses have a substantial number of deliveries and high staff levels. Others have high visitor traffic. The conditional use standards present in the zoning regulations have proven inadequate to address the potentially adverse impacts caused by these uses and will need to be changed during implementation of this Master Plan.

In a similar fashion, religious and school uses have also grown larger and more activities now take place in their environs. While the Moorestown Board of Education has its own sovereignty on par with the municipality, parochial, private and charter schools are required to conform to local land use regulations. The zoning ordinance permits such uses in most residential and some non-residential districts but there are few area, yard and intensity standards to ensure compatibility with adjacent residential uses. Conversely, school uses may be affected by the proximity of industrial and trucking uses. Appropriate standards and locations for residential/institutional and institutional uses need to be established.

HOUSING

The two major issues for housing policy, setting aside the Township's affordable housing plan, are senior citizen housing and housing for medium income households. Housing restricted to senior citizens has had a long history in other regions of New Jersey, particularly in the Atlantic Ocean counties. Interest in senior housing from landowners and developers has grown in Moorestown over the past five years. The initial interest was in the types of combined institutional and residential uses described in the preceding section. More recently, interest in purely residential housing has arisen. House types including single family detached, single family attached (townhouses), semidetached (twins) and quadraplexes (housing arranged in a cross) have been developed in other New Jersey municipalities for age-restricted housing. Anecdotal evidence suggests that there are limited opportunities for residents who own a large single family detached house to sell their houses and move to something smaller after their children have grown up and left home. Age-restricted housing, since it is typically developed at higher densities than housing that is not so restricted, needs to be located within the sanitary sewer service area.

The national and state economic expansion since 1995 has also put upward pressure on housing prices in the Township. Even though the pace of residential development in Moorestown has been nearly the highest in its history, its attributes of a traditional town center, fine civic institutions and strong educational reputation have created more demand for housing than has been satisfied by the new units constructed. Further, many of the units

that have been built are located in the R-1 zoning district which has the largest lot size. Consequently, the houses that have been built are also large, and therefore affordable only to upper income households. Aside from scattered infill housing on leftover lots, middle income housing has not been built. Middle income housing is defined as that which is affordable to households with incomes of 80-120% of median income. In Burlington County for a family of four, this means a household income between $48,000 and $72,000 per year[3]. Some residential areas should be retained for medium density development to permit this middle income group (which includes older home buyers with existing equity) to obtain housing.

Land Use Categories

The land use categories represent a set of recommendations for the use and development of property in Moorestown and should be viewed as providing the planning basis for various zoning districts. The land use categories are drawn broadly and are intended to set overall land use policy for the Township. Because land use categories are drawn broadly, they may underpin more than one zoning district.

In order to meet the new goals and objectives of this Master Plan and to address the major land use issues identified in the 2001 Reexamination Report, the Land Use Plan distinguishes different land uses more finely than did the 1989 Plan. This element follows a number of the conventions of the 1989 Plan with regard to residential development but with several new categories. Land within the Township has been grouped into three board classifications: Residential, Commercial and Lands for the Community. These groups have been further divided into fifteen different land use categories. They are described below and graphically depicted on the Land Use Plan found at the end of this document.

[3] - NJ Council on Affordable Housing, *2001 Regional Income Limits*

RESIDENTIAL

The residential districts in the Township consist mostly of single family detached uses at varying densities. In all but the multifamily districts, small scale open space and religious uses are common, typically on lots of less than one acre. These uses are appropriate in the context of residential neighborhoods. Also commonly found are uses for utility purposes, such as pumping stations, substations, and storm water management facilities. These uses are necessary complements to all residential districts. Home occupations are intended to be permitted in some form in all residential districts in accordance with municipal ordinance. Specific residential land use categories include:

Very Low Density Residential - The very low density residential category is intended for single family detached houses at densities less than one-third unit per acre. These areas are outside of the sanitary sewer service area except for a section fronting on Tom Brown Road. The districts are also characterized by large lot development (lots of three acres or larger) and areas of significant natural resources such as Swede Run. Much of the estate housing in Moorestown has been constructed in this district. Significant areas are farmed. Where environmentally feasible, this area would be suitable for low density cluster development on lots of at least one acre in order to preserve open space on the remaining land not subdivided into building lots.

Low Density Residential - This classification is intended for single family detached housing at densities ranging from one-third to one and two-tenths units per acre. This district encompasses the remainder of the non-sewered areas of Moorestown and other sections developed at low densities. Portions of this class also include agriculture. This land use classification encompasses, among others, the R-1 zoning district. This zone includes, as an option, the development of a planned unit development (PUD) if certain conditions are met. This optional district was the basis for the approval of the Laurel Creek residential and country club development. At this point in Moorestown's development it is no longer desirable to have a "floating" (optional) zoning district that could be applied indiscriminately. Accordingly, it is recommended that the PUD provisions be eliminated from the zoning regulations and a new zone created that is specific only to the Laurel Creek

neighborhood and limits development to its existing condition. In all other areas of this Low Density land use category, it is intended that density not exceed .67 unit per acre.

Moderate Density Residential – The Moderate Density Residential category is intended for single family detached houses and in sewered areas at densities ranging from 1.2 to 2 units per acre.

Medium Density Residential - This is primarily a single family detached residential district that constitutes the largest land area of the Land Use Plan Element. This area also includes limited semi-detached dwellings as non-conforming uses. Land within this category is also within the sanitary sewer service area of Moorestown or the Mt. Holly MUA. The range of density is from 2 to 3.5 units per acre. Small scale open space and religious uses are included in this category. The latter use is most suited to locations with available sanitary sewer.

High Density Residential - The high density residential land use category is for multifamily, garden apartment and townhouse developments that exceed 3.5 units per acre but are less than 6 units per acre. There are no undeveloped areas proposed for this land use classification.

Age-Restricted Residential – Age-restricted residential development limited to persons aged 55 years old and older is proposed in two locations, Laurel Creek at the intersection of Centerton and Hartford Roads and the west side of Marter Avenue at Main Street. The characteristics of such development include a variety of housing designed for a maturing population and may include single family detached housing, semi-detached and townhouse dwellings. The density of development is intended to be 2.25 units per acre for the Laurel Creek site and no more than 2 units per acre for the Marter Avenue parcel. Though the density is approximately the same as the Moderate Density Residential category, lot sizes are smaller so that a significant portion of the site may be placed in common or public open space, minimally 50% of the tract area. The Marter Avenue site is positioned at one of the primary gateways to the municipality and its appearance must be carefully designed to create the highest quality development incorporating the best architectural and landscape design features, and incorporating well-positioned entry and exit points onto the public

street. It is expected that more than one zoning district will be required to implement this land use category.

Senior Citizen Residential - This classification is intended for combined residential and institutional uses on existing sites in the Township. The type of uses include skilled nursing facilities, boarding homes for the elderly, continuing care retirement centers and assisted living facilities. These facilities are intended for persons 62 years old and older. The density of development is proposed to be five units or ten beds to the acre or less in keeping with existing zoning regulations.

COMMERCIAL

Moorestown has a highly varied commercial sector in land use. Small shops and offices are found in the Main Street area and in West Moorestown, large office complexes are found on Rt. 38 as well as regional shopping in the Moorestown Mall and East Gate shopping centers. These provide needed services and employment opportunities for Moorestown residents as well as for the region.

Town Center - Though the Town Center land use category has been placed in the commercial portion, it represents a mix of residential and commercial uses. The prototypical example is the mixed use building with shops on the first floor and apartments above them. The Town Center classification, however, also includes attached and detached housing on the periphery of the central commercial areas and significant civic assets such as churches and non-profit organizations. While there are a number of non-conforming buildings that have been converted into apartments, it is not intended that further conversion of single family detached or attached houses be permitted. New buildings with shops below and apartments above are proposed and in certain circumscribed locations, apartments, but with a limited number of units, consistent with existing zoning regulations. The Town Center designation includes service businesses for automobiles and other heavier commercial uses along the railroad line and these are proposed to continue but only through the conditional use approval process. The category is proposed for the downtown area of Moorestown and West Moorestown, or Lenola. It is intended that West

Moorestown would eventually become more like the Main Street area with its greater concentration of residential uses.

Commercial - The Commercial land use category is intended for the main shopping areas of Moorestown which are found in two locations and a few scattered lots with existing commercial uses. The first is the Moorestown Mall with its ancillary East Gate and Kmart Plaza shopping centers that provide regional retail sales and services in western Burlington County. The second is the emerging shopping area between Marne Highway and Centerton Road intended to provide for the every day needs of residents and office workers in the east end.

Professional Office - The type of land use envisioned for the Professional Office category occupies transitional areas between residential neighborhoods and high volume roads or more intensive nonresidential uses and neighborhoods. In a few locations this use has resulted from the redevelopment of obsolete commercial or industrial buildings. This land use is intended for residential scale buildings or clusters of buildings in a campus setting most typically occupied by small businesses such as engineering, medical or legal firms. It is less intensive in use than the Office Campus category. The scale of buildings would be up to two stories in height and in modules not exceeding 10,000 sf. without other mitigating factors.

Office Campus - The Office Campus land use category is for large scale office parks along major thoroughfares. The intensity of use should be limited to a floor area ratio of about .25[4]. The scale of buildings would be up to three stories in height and perhaps 150,000 sf. in floor area per building. Good access to the Interstate Highway system is a characteristic of this land use category so that the impact of vehicular traffic may be better controlled and directed. In addition to general office use, limited personal service and sales uses associated with the office use and intended primarily for office workers is proposed. Conference or training centers for business in the largest areas

[4] –Floor area ratio is the total gross floor area of building divided by the total lot area and is a measure of the intensity of development. A one-story building that covered the entire lot would have a floor area ratio of 1.0. A four-story building that covered 25% of the lot would have the same floor area ratio of 1.0.

designated for this use are appropriate secondary uses. General retail sales and services are not anticipated except for restaurants or lodging. These could be included as a method of preserving historic landmarks in special circumstances.

Business Park - A significant portion of land has been designated as Business Park which encompasses the Township's northwest corner and the land owned by Lockheed Martin, its largest employer. Until this document, these areas have been largely characterized as industrial uses. While light industrial uses are still proposed, most of the uses are flex space that combines an office with a small manufacturing or assembly area and distribution space. This classification marks an intention to move away from purely industrial uses to a more mixed set of uses. Further, uses with high trucking needs are to be discouraged because of the road access problems found in the northwest. Enterprises that are solely for distribution are to be phased out. The Lockheed Martin complex encompasses a well-developed block and two other large blocks that are used for its field testing. A lower intensity of allowed development is proposed for these two blocks which are bounded by Borton Landing Road, Hartford Road, the municipal boundary with Mt. Laurel and Westfield Road. Except for the Aegis "ship" and radar towers, this land is farmed but could be developed with a series of warehouses and engineering facilities. A low floor area ratio of .025 to .05 is proposed that would limit development in this location more than in the other Business Park areas.

LANDS FOR THE COMMUNITY

Lands for the community is a title that encompasses public and quasi-public uses. Intended not only for governmental functions, this classification includes land uses that support civic, religious and recreational uses.

Open Space - The Open Space land use category identifies land to be acquired or restricted for conservation, active and passive recreation or farmland. Land owned by Moorestown Township for recreation or conservation purposes has been labeled as Open Space. Other lands held by the municipality are in the Education, Government and Institutions classification. If owned by a public entity, conservation

trust, or other organization for open space, the areas are proposed to be protected from uses that would damage or degrade the ecological capabilities of the land, and to remain essentially undeveloped except for structures ancillary to recreation and leisure activities, such as food stands, restrooms, equipment houses, or outdoor performance space. On private land, the land that the Township or other governmental entity desires to preserve or acquire is indicated with the symbol ❶. Land deed restricted for open space, farmland preservation or to prevent any more than the existing development is depicted on the Land Use Plan with the symbol ❷. The zoning of this land would differ whether it was publicly or privately owned since reasonable economic use of private land must be maintained.

Private Recreation – The Private Recreation land use classification identifies the three private golf courses, swim club, and YMCA that are privately owned yet have a large membership from Moorestown. No new uses are proposed in the Land Use Plan.

Education, Government and Institutions - Moorestown has a wide variety of religious institutions within its boundaries. With the exception of those included in the Town Center, these institutions have been classified in the Education, Government and Institutions category. Some religious institutions are on very small lots and have been included within the surrounding residential district for clarity of the Land Use Plan. In addition to these institutions, cemeteries outside of the Town Center category are also included. The only undeveloped land included in this category is held by the Diocese of Trenton at the corner of Westfield and Bridgeboro Roads. This land use category also includes educational and governmental properties of the Moorestown Board of Education, local utilities owned by Moorestown, other facilities such as Town Hall and the Moorestown Library and the federal government-owned Aegis facility on Centerton Road.

SUMMARY OF ADDITIONAL RECOMMENDATIONS

In addition to the recommendations for land use policy explicit in the assignment of the different land use categories shown on the Land Use Plan (at the end of this element), the following recommendations are made for land

use in Moorestown:

1) The preparation of a Redevelopment Plan for the West Moorestown commercial area should be pursued or, alternatively, rehabilitation of the streetscape.

2) A common agreement with Burlington County should be reached concerning streetscape improvements, including tree planting within their right-of-way.

3) The form and establishment of a local historic district should follow the guidelines discussed in the Historic Preservation Element.

4) A study of the soil characteristics should be undertaken in the non-sewered parts of Moorestown to model the cumulative effects of septic field disposal. As a prudent and perhaps intermediate measure, land has been identified on the Land Use Plan for Very Low Density Residential uses, which could lessen the number of septic systems operating in an area of possible marginally permeable soils. A portion of the Township presently in the sanitary sewer service area along Tom Brown Road, but not connected to the treatment plant, is proposed to be removed from the Wastewater Management Plan.

5) Methods in the Township's development regulations should be instituted to replenish ground water.

6) Additional conditional use standards should be established in the Township's development regulations for controlling trucking uses in business park areas and for institutional uses.

7) The planned unit development regulations should be eliminated from the zoning ordinance and a new zone created specific to the Laurel Creek residential and country club development.

8) Age-restricted housing should be located within the sanitary sewer service area.

Legend

Streams
Water

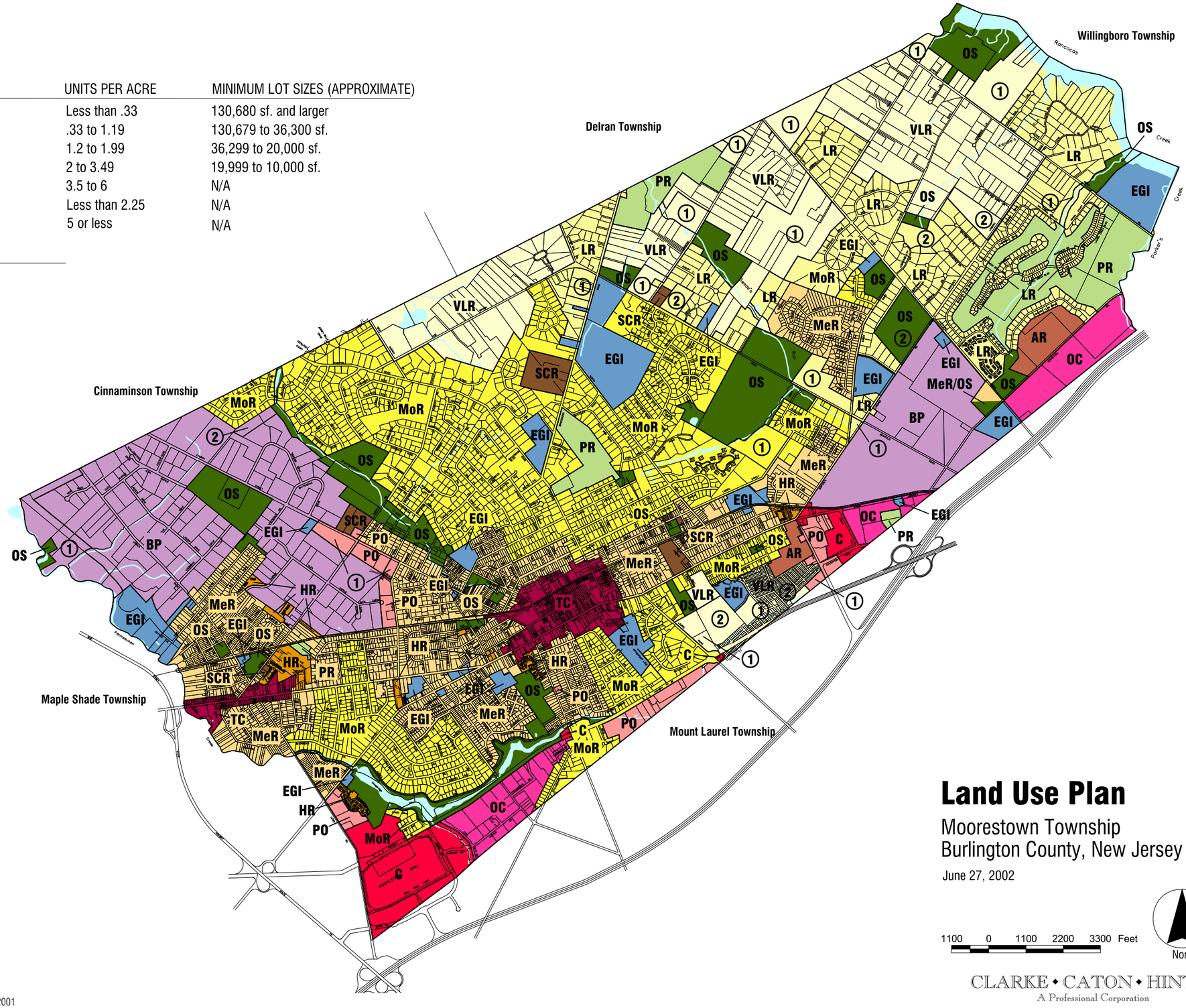
Land Uses

	RESIDENTIAL DISTRICTS	UNITS PER ACRE	MINIMUM LOT SIZES (APPROXIMATE)
VLR	Very Low Density Residential	Less than .33	130,680 sf. and larger
LR	Low Density Residential	.33 to 1.19	130,679 to 36,300 sf.
MoR	Moderate Density Residential	1.2 to 1.99	36,299 to 20,000 sf.
MeR	Medium Density Residential	2 to 3.49	19,999 to 10,000 sf.
HR	High Density Residential	3.5 to 6	N/A
AR	Age-Restricted Residential	Less than 2.25	N/A
SCR	Senior Citizen Residential	5 or less	N/A

OTHER DISTRICTS

- TC Town Center
- C Commercial
- PO Professional Office
- OC Office Campus
- BP Business Park
- OS Open Space
- PR Private Recreation
- EGI Education, Government and Institutions

① Land Identified for Open Space Acquisition
② Land Deed Restricted to Open Space or Farm Land



Land Use Plan

Moorestown Township
Burlington County, New Jersey

June 27, 2002

1100 0 1100 2200 3300 Feet

North

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Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

Main Street Town Center

The Main Street Town Center is the heart of Moorestown. The Town Center creates the sense of place that exemplifies Moorestown and distinguishes it from other suburban municipalities. With its compact buildings and lots, historic and attractive structures, leafy and walkable streets, the Town Center provides a point around which the rest of Moorestown is arranged, tying together neighborhoods and businesses.

The Main Street Town Center is the traditional commercial area of the Township. The Town Center has the highest concentration of historically significant buildings and most of the Township's oldest structures. This concentration of historic resources is the largest contributor to the heritage of Moorestown. Although Main Street is no longer the prime commercial center of Moorestown, that being ceded to the Moorestown Mall and its ancillary retail stores at the periphery of town, it remains the civic and religious locus of the municipality with no fewer than seven churches, the seat of local government, important civic assets and the town's banking center.

This chapter of the Master Plan functions as a sub-element of the Land Use Plan Element. In the Land Use Plan Element, there are two town center areas identified, the Main Street Town Center that is the subject of this chapter, and the West Moorestown area. Many of the design ideas that are discussed here are also applicable to West Moorestown, one of the objectives of the Master Plan being to redevelop that area to a physical and regulatory standard that is closer to Main Street. The Main Street Town Center encompasses roughly the land area from Third Street to parts of Prospect Avenue and from Union Street to Schooley Lane (see exact boundaries on the Land Use Plan). The Town Center land use classification includes both commercial and residential uses either in combination or as single use areas.

This sub-element concentrates on a smaller area than the whole Town Center land use category in order to analyze the retail environment on Main Street. The study area is consequently both sides of Main Street from N. Union Street to Schooley Lane and including the northerly blocks extending to Second Street (*see* Main Street Plan at the end of this chapter). The orientation of these four blocks also differs in that the center of the two blocks between N. Church Street and Chester Avenue is the walkable portion of the Town Center - the most heavily concentrated commercial section and the section most frequented by pedestrians. The two outer blocks are more

automobile-oriented and present their own challenges to cohesively tying together the core area of the Town Center.

Though this sub-element discusses the limitations and external forces acting on the retail environment within the Main Street Town Center, it has many fine attributes and serves the local community ably, all in an attractive setting. It should not be construed by the discussion within this sub-element that the Town Center is distressed or in decline. Instead, this chapter is intended to point the way to an improved Town Center through prudent actions and investments.

Because of the Main Street Town Center's importance as the embodiment of Moorestown, it has long been the focus of attention by policy makers and citizens. There have been numerous studies undertaken of the parking and metering situation, the mix of uses and capital investment by the municipality. Town Center has been the primary focus of the historic preservation movement in town and contains the largest number of members of the Moorestown Business Association. This represents a large constituency for its enhancement by building on its strengths and overcoming its weaknesses.

Main Street is undergoing the largest physical improvement in its history as new curbing, street furniture, sidewalks, crosswalks, traffic signals and parking meters are constructed, and new street trees and planters are installed. The first part of the construction was completed in 2001 from the intersection of Church Street to Mill Street on the north side and to the Community House on the south side.

New Streetscape Improvements

In 2002, the second phase will be constructed, completing the improvements eastward to Schooley Street. Potentially, there are three other phases of similar streetscape improvements. The third phase would encompass Chester Avenue from Main Street to the railroad tracks at Third Street. The fourth phase would be from N. Church Street to Chester Avenue on Second Street. Some of the necessary improvements have occurred already on Second Street when the cartway was reconstructed between Mill Street and Chester Avenue. The fifth and last phase would incorporate Main Street from Church Street west to Union Street and the first block of N. Church Street. This is a long range plan with funding only assured through the second phase.

ESTABLISHMENTS AND NEW USES ON MAIN STREET

Main Street primarily provides personal sales and services, some retail sales and services, civic facilities and professional services (e.g., legal) to residents. The Moorestown Business Association has compiled an informal list of the various businesses that occupy or have occupied stores and buildings. The list, though incomplete, imparts a sense of the commercial trends in the downtown. For example, there are no longer any places for overnight lodging. In the past, there was the Rulen Hotel/ Colonial Inn in the Prudential building, the West End Hotel where the PNC Bank now stands, and Coles Inn where First Union Bank was built. The number of eating places has been reduced, including Woolworth's, Snediker's, Gilchrist's, and Kuhlwind's luncheonettes. There are no longer any variety or department stores such as Matlack's general store, Cohen's, Woolworth's, and Carson's dry goods, movie theatres (Criterion), or clothing stores (Talbot's, Johnson's and McGuire's). Conversely, there has been an increase in specialty shops such as toys (Happy Hippo), games (Odyssey), crafts (Nimble Needle), gifts (Signature Designs, Shoppe on Main Street) and so forth, as well as an increase in office uses.

During the development of this Master Plan, members of the public voiced a need for a greater variety of retail uses. Others observed that office uses seemed to be displacing shops and suggested that restricting office uses from the first floors of buildings would encourage a better pedestrian environment. There has also been a publicly expressed desire by many people for additional restaurants. Permitting more outdoor dining has been suggested as a method of encouraging more eating establishments while simultaneously furthering more foot traffic. The public was clear in desiring to see more fine dining as oppposed to convenience or take out establishments. These latter

types of eating places are more automobile-oriented and typically have prepackaged food that can more easily create litter. Higher quality restaurants are often located in historic places and are reachable by walking from common parking lots. Fine dining restaurants, however, are usually dependent on the sale of alcholic beverages both to meet the expectations of their customers and to make a reasonable profit. Since Moorestown has been a dry town since the end of Prohibition, this represents an impediment to the realization of more high quality restaurants.

Other towns in New Jersey with a historic center have capitalized on their assets by instituting regulations that provide incentives for the tourist industry. In particular, bed and breakfast or small inns have been developed within historic structures as a method of providing sufficient revenue for owners to afford the high maintenance costs typical of old buildings. Main Street and its surrounding streets form the core area of the oldest buildings in town and the area included on the National and State Registers of Historic Places. Mt. Laurel Township, because of its confluence of highways, has a substantial number of modern hotels and motels. Small inns or bed and breakfast lodging in Moorestown would serve a niche market that is not currently being met in the area. Visitors from out of town would provide new customers for existing businesses and suport for new specialty stores.

RETAILING TRENDS

The objective to increase the number of retail establishments on Main Street should be understood against the backdrop of larger retailing trends in the industry. As the South Jersey region expands geographically and in population, locations with concentrations of residents at the metropolitan fringe become attractive to shopping center developers and national chain stores. This trend accounts for the development of new shopping centers along state highways in Mt. Laurel and Evesham Townships over the last few years. Since retail space has increased at a faster rate than population or income, this has resulted in abandoned shopping centers in older communities. From a broader persepctive, shoppers tend to gravitate to the newest shopping centers with the latest retailing concepts. Shoppers, with limited time, are searching for centers where they can do one-stop shopping. Not only are stores competing to provide everything the shopper needs, but easy and convenient accessbility. These changes in shopper's behavior help account for the increase in the size of stores to mammoth proportions and the decrease in the amount of time shoppers spend in enclosed shopping malls. Big box retailing, such as the East Gate Center and the anticpated center at

Rt. 38 and I-295 in Mt. Laurel, is now the preferred arrangement for stores. This type of retailing addresses most household necessities and a large percentage of discretionary purchases.

At the same time, surveys of shopping behavior find that consumers desire a greater range of goods. National chain stores have the advantage of brand recognition, but this also enforces a sameness in the type of merchandise offered. Supplying goods that are not found in shopping malls and strip centers would play to the strengths of Moorestown, where an eclectic mix of specialty shops combined with a historic place would be an antidote for blandness and increase its regional attractiveness. If Moorestown became known for a particular type of specialty shop, then it gains name recognition among people with discretionary income in the region, thereby improving the business climate for retailing. For instance, Mullica Hill is known for its specialty antique shops and Millville for its art glass. Locating similar businesses together creates a critical mass for the consumer who views shopping as recreation or is comparing purchases. This latter behavior is what prompts automobile dealerships to cluster together. If Moorestown became known as the place to find hand-knitted clothes, carved furniture or imported tile, for example, it would attract regional business as well as the local trade providing everyday services.

There are several techniques that other municipalities with traditional commercial centers have taken that may have currency now or in the future if a more active role is taken by the business association or municipality. These include:

- Enrolling in the Main Street Program at the National Trust for Historic Preservation. The program offers assistance in a number of areas, including marketing, adaptive reuse of historic buildings, charettes, and other items designed specifically for traditional commercial centers.

- Hiring a Main Street manager to coordinate sales and marketing events, lure new retailers to unused buildings, and undertake consensus building with the business community.

- Establishing a business improvement district to create a dedicated funding source specifically earmarked for services and capital improvements to the area. New Jersey statute allows an added property assessment for this purpose.

PHYSICAL FACTORS AFFECTING MAIN STREET

Main Street has several physical attributes that affect its viability for retail sales and services. Main Street is more commercially developed on the north side of the street. The south side has many institutional uses, such as Our Lady of Good Counsel church, rectory and convent, the Greenleaf home for the aged, Friends meeting house and school, and the Community House. Further, the south side still has single family residences on Main Street that have disappeared from the north side. The south side of the street lacks enough stores to create a loop that would invite shoppers to cross the street. The few stores that do exist on the south side are set back from the street which does not allow pedestrians to discover through window shopping the goods each has for sale.

Another factor is the length of Main Street. The Township's Phase 1 and 2 streetscape improvements will encompass 3,000 lineal feet (2,400 feet from Church Street to Chester Avenue). This is considerably longer than many other traditional commercial centers such as Mt. Holly, Medford and Haddonfield in the region. Because of the institutional uses on the south side, the Town Center developed linearly rather than compactly on both sides of the street. In addition, the Main Street area also has very long blocks. Washington Street and French Avenue, if they had been extended from Main Street to Second Street, would have created opportunites on side streets for other commercial enterprises. These facts work against the retail viability of the downtown. The typical maximum distance that people are willing to walk to their destination is 600 feet. On the north side, offices are interspersed with retail stores. Study of shopping behavior shows that the typical browser will not venture beyond more than two buildings that house

non-retail spaces. The retail environment in Moorestown is fragmented by this land use pattern of shops interspersed with offices and institutional uses. Because of the length of the Town Center, parking in reasonable proximity to the store that a resident wants to patronize is important. This is discussed in the following section.

PARKING AND CIRCULATION

Encouraging additional uses and a livelier pedestrian environment is likely to aggravate parking and congestion problems. Town centers without street congestion usually have a struggling business climate. A degree of congestion is to be expected with any vibrant commercial center with the type of traditional downtown found in Moorestown. Slower traffic allows for safer pedestrian crossings and has the added benefit of giving motorists an opportunity to look at nearby display windows. Accordingly, providing for through movements along Main Street is considered secondary to the need to provide on-street parking, maintain low speeds for vehicles and promote pedestrian crossings. Further, as detailed in the Circulation Element, longer signal time for traffic coming from and to Rt. 38 at the expense of travel time along Main Street is suggested to reduce vehicle queing on these routes.

All of the commercial and institutional properties on Main Street have access to parking, both on street and in lots at the rear of the buildings. Most of this parking is private, accessed through driveways from Main Street, Second Street or Prospect Avenue. However, the municipality has one parking lot in the study area that serves the north side of the west end with the main access points from Second Street but also one next to Carl's Shoes. The original design appears to be intended to maximize parking spaces, however it has a number of circulation flaws. For example, the parking lot has five curb cuts onto Second Street. Two of these should align with the entrance to Town Hall and Washington Street, but are offset awkwardly. The parking lot uses angled parking, but some of the parking aisles are two-way, which encourages motorists to drive into spaces that are angled the wrong way.

Municipal Parking Lot

Aesthetically, the large expanses of hardscape (paving and sidewalk) are not well balanced by the small traffic islands. The islands are too small to support large trees. The ones in the photograph above have reached their mature size due to the lack of soil volume for growth. Many islands only have low shrubs and some, such as the island to the left of the photograph, are only concrete. The parking lot is at least 25 years old that is a typical life expectancy for such an improvement. If the parking lot is redesigned and reconstructed, more landscaping and an improved circulation system should be developed, common areas for trash disposal and potentially a public restroom facility should be considered.

Private parking is extensive in the block between Mill Street and Chester Avenue. This has been the subject of far-reaching study by the Township and the Moorestown Business Association as both entities look for ways to improve their appearance and efficiency. Some parking lots are paved with curbing and storm water management facilities. Others, such as the one in the photograph on the right, are gravel without defined spaces. Volunteer trees are common between property lines. There are also problems with slopes that become steeper heading eastward towards Chester Avenue. Some property

owners have addressed the slope problem by building retaining walls along their property lines. This renders the interconnection of parking lots more difficult in some locations. This is the case with the Burr House. The Burr house is on the Township's open space and recreation list for acquisition as a historic resource to be preserved. The property is historically important not only for the house but also for the barn in the middle of the property. The retaining wall of old Moorestown Trust building, which now has a Starbucks coffee shop, is immediately adjacent to the rear yard and barn.

The Burr House

There is no question that combining the parking lots on either side of the Burr House would facilitate a better downtown district. Keeping in mind the 600 foot rule, parking lots easily available to the public would encourage parking and walking to clusters of shops on Main Street. Now, potential patrons are searching for on-street parking. Attractive, lighted parking lots with well-defined paths to the street would be an improvement over the existing situation.

Potential customers will need to feel comfortable with using pathways to the street unless they are inviting and well lighted. The design of a pathway should tell the public that it is either for public or private use. Further, pedestrians should not be concerned that the pathway will be used by vehicles turning from the street. Since many of the buildings are close to the street, there is limited sight distance for both the pedestrian and driver. Separating the two types of circulation is important. Logically, with combined parking lots, the number of driveways intersecting Main Street could be reduced or converted to pedestrian only use. Many of the driveways in use are undersized by site planning standards and have limited sight

distance. Driveways create vehicular/pedestrian conflicts that discourage the use of rear parking lots even when they are open to the public. Narrow driveways preclude rear truck loading and unloading that could be addressed in a comprehensive design.

Narrow driveway also used by pedestrians

Alleyway for Pedestrians Between Street and Parking Lot

The Town Center's identity would be increased through "wayfaring" signs. "Wayfaring" combines directional and informational signs with an easily recognizable symbol or logo that represents the town. Wayfaring serves the purpose of directing people to the business district and reinforcing a single identity for potential shoppers. Once people have arrived on Main Street, the wayfaring system can be used to direct motorists to parking, community bulletin boards or kiosks for local information and maps of the different shops, offices and civic buildings.

COMMUNITY DESIGN

Moorestown has a wealth of high quality buildings and landscapes that give the town a special character. The Main Street Town Center, because it occupies such a central place in the minds of the populace, should be treated not as an agglomeration of individual sites, but as a whole entity. The look and appearance of buildings and the streetscape, along with the patronage and economic activity of commerce, create the place. The Main Street Town Center has buildings belonging to the modern era, some of which are more successful in fitting into the historic context than others. Architectural elements in historic buildings can be used successfully to integrate new buildings into the Town Center. Retention of interesting and historic streetscape elements should be a priority in any new building construction. An example is the fountain that supplied drinking water in front of Old Town Hall and the town clock in front of First Union Bank (*see* page IX-13). Methods of demarcating public and private spaces along Main Street with landscaping, fencing or walls are common.

Friends Cemetery Fencing

Cast Iron Fence at Prudential Building

Landscaping used as a method of demarcating the public from the private areas of Main Street is shown in a later section of this document.

The type of signage used conveys a sense of the businesses that occupy Main Street. Projecting signs, such as the top one in the photograph at right, orients pedestrians to find the building as they walk along the sidewalk. The free-standing sign at lower right, uses an image to convey the name of the place, "Deacon's Alley". This photograph also illustrates the type of trees that should be planted. Trees with a high branching habit and columnar shape allow stores and offices to be seen from the street by passing motorists. Low branching trees would, on the other hand, block the view of windows that retailers need to attract customers, as illustrated below.

Short trees block the view of shops

Building proportion and scale are also important concepts in design. Moorestown has many excellent examples of building proportion. The First Union building, an individually identified historic building, is neo-classical in

design, with formal proportions. However, even in buildings with less ornate and expensive construction, proportion remains an important concept.

Neoclassical First Union Bank and Town Clock

Across the street from the bank building is Roberts Hall, shown below, an office that is part of the Moorestown Friends School. This building, with elements of both Federal and Georgian styles, has a traditional relationship between the windows on the first floor and second floor, with the front door centered. The portico roof over the front door matches the pitch of the main roof, which adds a proper sense of scale to the whole facade. Also, the shutters are proportionate to the windows.

Robert's Hall

Use of Historic Architectural Elements in New Design.

Building design should also take into account surrounding buildings, so they do not overwhelm existing building in terms of their scale. In the photograph, the Lewis Funeral Home has a simple neo-Georgian facade that is elegant in its simplicity. The law office beyond the funeral home, build in the last 25 years, manages to maintain a satisfactory scale with the funeral home building by the use of a porch, even though the funeral home is two stories and the office is one story tall. This picture also illustrates the concept of a "streetwall". Each building is built to the same distance from the sidewalk and creates an identifiable edge to the streetscape. A sense of enclosure is reinforced by the overarching trees for pedestrians. Pedestrians are also insulated from traffic by the parking lane. Parked cars provide a buffer between the sidewalk and moving vehicles. This can be demonstrated by observing the difference in pedestrian comfort in front of the old Matlack general store (Moorestown Tailors) where traffic travels close to the curb and 100 feet west in front of the Friends Cemetery.

Outdoor seating associated with restaurants, luncheonettes and coffee shops can create a more lively pedestrian environment. Studies of human behavior have consistently shown that people like to observe other people - outdoor seating provides that opporutnity. Two eating places, Starbucks and The Cubbyhole, have instituted outdoor seating on Main Street. Outdoor seating at Starbucks is located in the forecourt of the building. Since the outdoor seating opened there in 2001, it has been well used. This can be attributed to the desire for outdoor seating by the public and also because the seating is located facing south. Study has also shown that south facing seating is

preferred for the sun it receives. Like other areas where it is adjacent to the public sidewalk, a demarcation between the public way of the sidewalk and the private area of the building should be made. This is important, because the seating should allow enough distance so that other pedestrians on the street will still feel at ease even if seated patrons are boisterous. The Starbucks outdoor seating meets these tests for the most part, even though the planters could be higher to better mark the distinction between public and private space.

The Main Street Town Center can be enhanced by the use of appropriate landscaping designed in concert with buildings. Landscaping should also be respectful of the traditional characteristics of the downtown. Landscape elements common to suburban and rural areas should be avoided in the Town Center area. Of keen importance is the retention of the street tree canopy on Main Street. This is the single most important landscape element that defines the character of the Town Center. The tree canopy has also been established over time by trees that reach mature heights of 80 feet or more. The Township's past experiment with smaller street trees has not been successful in creating the tree canopy.

Hedging to define the street and to hide vehicles in side parking lots is preferred over the more modern suburban technique of installing berms and evergreens. Traditional hedges of privet and boxwood are still

found in the Town Center, as illustrated in the following photographs.

100-year old Boxwood Hedges at the Burr House.

Privet Hedge at Trinity Episcopal Church

SUMMARY AND RECOMMENDATIONS

The Main Street Town Center identifies several challenges for the municipality and the business community in ensuring its continued success in serving the residents of Moorestown. The vibrancy of the district is predicated on maintaining and increasing the number of stores, restaurants and other establishments that will in turn increase the number of pedestrians on the street. Trends in the retail industry have been examined and several ideas for new uses on Main Street have been discussed to assist in enlivening the downtown. Capitalizing on the Township's historic assets is a proven method of encouraging visitors to come to Moorestown. Should a

more activist approach be desired, this document outlines what other municipalities have done in similar situations.

Parking in the Town Center area is presently available from both on-street spaces and off-street public and private lots. Efforts to replicate the success of the municipal lot in the western end of the Town Center in the eastern half have not yielded fruit. Individual property owners have demonstrated a reluctance to voluntarily agree to allow their land to be used for a common parking lot even though it appears, based on the analyisis in this document, that they would benefit. As a specific objective of the sub-element, two parking lots bisected by the Burr House are proposed to be constructed, with the municipality as the implementer of last resort.

Community design has become a more important part of municipalities' review process. Municipalities are increasingly incorporating design requirements in their development regulations to achieve a higher level of quality in buildings. For Moorestown, maintaining its historic resources in the Town Center makes designing new buildings or additions doubly important. The intent is to ensure that new buildings and renovations meet the high standards that have been established by the historic buildings and landscapes that already exist in Moorestown.

Recommendations for the Main Street Town Center include:

1) Continuing the streetscape improvements begun in 2001 as funding permits.

2) Reduce the number of non-retail stores on the first floor level of buildings.

3) Establish standards for outdoor eating locations.

4) Consider allowing limited lodging on both sides of Main Street.

5) Make no efforts to speed up traffic through the Main Street Town Center study area.

6) Redesign the municipal parking lot to improve circulation and its aesthetic quality.

7) Create two new parking lots in the Mill Street to Chester Avenue block on either side of the Burr House by combining existing private parking into well-designed and attractive places.

8) Reduce the number of driveways intersecting Main Street.

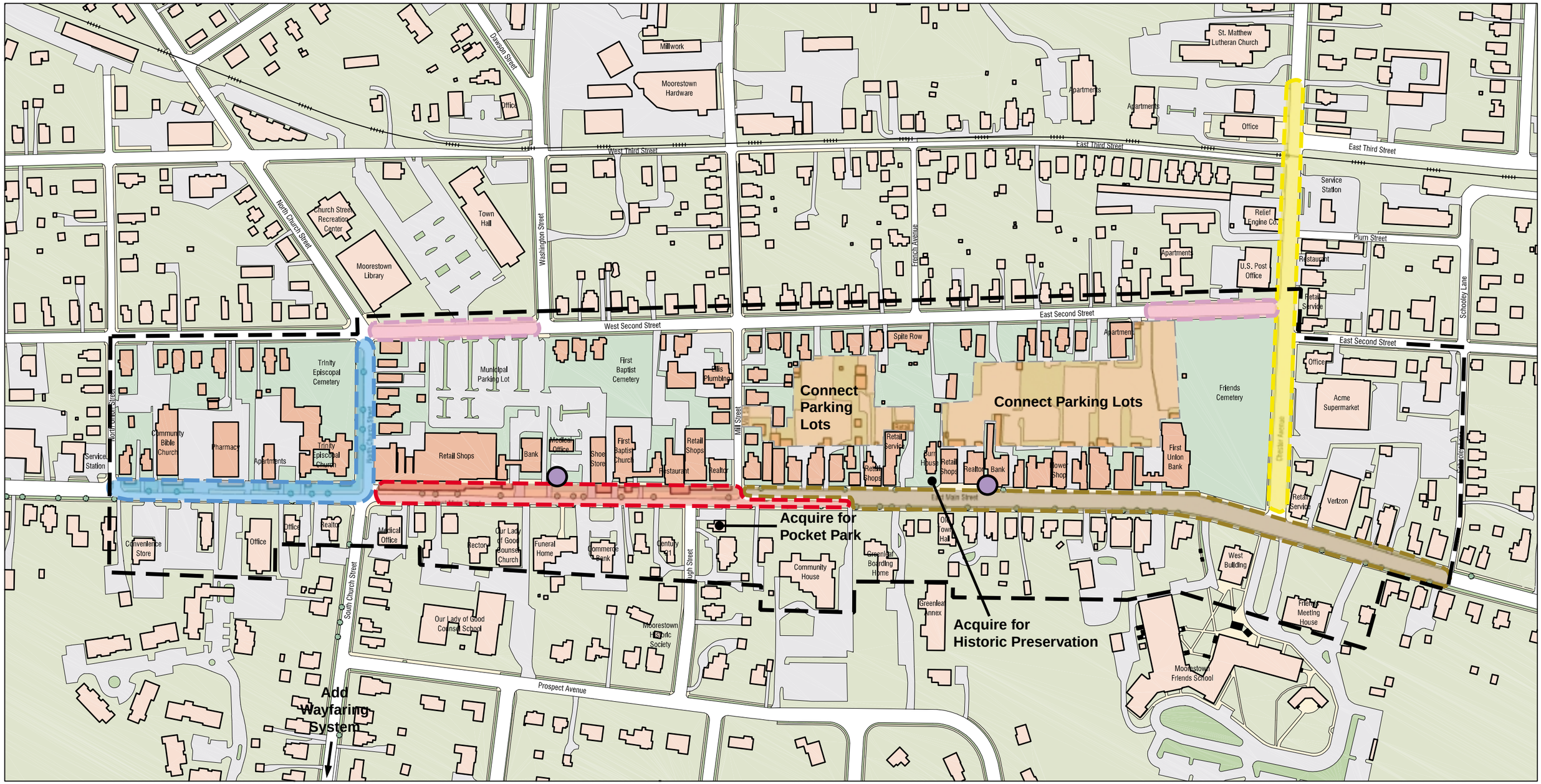
9) Establish new pedestrian connections to the new parking lots.

10) Acquire the Burr House for historic preservation purposes.

11) Acquire Ward's service station and construct a pocket park.

12) Develop a wayfaring signage system, information kiosks and Town Center maps for visitors.

13) Incorporate design standards into any new zoning regulations that affect the Town Center district.



Main Street Town Center

Moorestown Township
Burlington County, New Jersey
June 27, 2002

Legend

- Phase I Streetscape
- Phase II Streetscape
- Phase III Streetscape
- Phase IV Streetscape
- Phase V Streetscape
- Study Area
- Kiosk

125 0 125 250 feet

North

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Consistency with Other Planning Documents

INTRODUCTION

This section addresses the relationship of the land uses proposed under Moorestown's Master Plan to the land use designations and related Master Plan policies of contiguous municipalities, Burlington County, and the State of New Jersey. The land use categories implementing Moorestown's land use policy are more fully described in the Land Use Plan Element.

Land Use Policy in Surrounding Municipalities

CINNAMINSON TOWNSHIP

Cinnaminson Township's R-1 and R-2A Residential Districts are located along its border with Moorestown. The R-1 District is limited to a small area west of New Albany Road. This land use designation is compatible with the adjoining Medium Density Residential District (MR) in Moorestown, although the permitted density within the MR District (2 to 5 units per acre) is somewhat higher than the 1 unit per acre density permitted within Cinnaminson's R-1 District. Cinnaminson's R-2A District, with a minimum lot size of 11,475 square feet and corresponding density of approximately 3.5 units per acre, is highly compatible with Moorestown's adjoining MR District, located to the west of Riverton Road. To the east of New Albany Road, the R-2A District also can be considered compatible with the adjoining Very Low Density Residential District (VLR) in Moorestown, although the residential density allowed under the R2-A District is higher than the .3 unit per acre density within the VLR District.

In the vicinity of Church Street, Cinnaminson's R2-A District borders Moorestown's Business Park (BP) District. Although these land use designations have some potential incompatibilities, development potential on both sides of the border is limited by existing development and Moorestown requires a buffer area where development within the BP District is adjacent to residential uses. Additionally, Moorestown's Open Space (OS) District provides a buffer for some portions of the R2-A District near the Pennsauken Creek.

DELRAN TOWNSHIP

In Delran Township, there are two types of land use designated along the border with Moorestown. Delran's Single Family Residential (SFR) District requires a minimum lot size of 15,000 square feet for conventional development and 10,000 square feet for cluster development, which equates to a density range of 2.9 to 4.4 units per acre. Delran's Agricultural (AG) District permits single family residential development at a somewhat lower density range of 1 to 2.9 units per acre. The adjoining land uses of Private Recreation, VLR, and OS designations in this portion of Moorestown are compatible with Delran's SFR and AG land use districts, although the permitted density within the VLR is lower than the density permitted in the SFR and AG Districts.

WILLINGBORO TOWNSHIP

The Rancocas Creek delineates the border between Willingboro Township and Moorestown and provides a wide horizontal separation between lands of the two townships. Lands within Willingboro located adjacent to this waterway are included within their Community Facilities (CF), Open Space (OS) and Single Family Detached 1 (SFD-1) land use districts. The SFD-1 is the lowest density of the Township's residential districts with lot sizes averaging 12,000 to 24,000 square feet, which equates with a density of 1.75 to 3 units per acre. In Moorestown, lands along the Rancocas Creek are included within the OS, Low Density Residential (LR) and Education, Government and Institutions (EGI) Districts. These land use designations are compatible with the CF, OS and SFD-1 Districts in Willingboro.

MOUNT LAUREL TOWNSHIP

Along Moorestown's southern border, adjacent non-residential land use districts within Mount Laurel Township include the Major Commercial (MC), Industrial (I), Special Industrial (SI), and Business (B) Districts. Residential districts within Mount Laurel located along the Moorestown border include the Medium Residential (M) and Very Low Residential (VL) Districts.

Mount Laurel's 2000 Master Plan indicates that the MC District was created to allow for development of large scale office centers with some retail uses. In general this district appears highly compatible with adjoining nonresidential land use districts in Moorestown, including the Commercial land use district located around the Moorestown Mall, and the PO, C, OC and PR Districts

located to the east of Marter Avenue. East of Mount Laurel Road, there is a small portion of the MC District which borders Moorestown's OS District. While these land uses might not be considered compatible, wetlands areas and Route 38 provide a buffer between the two districts. Similarly, wetlands areas provide a buffer between the small Business District within Mount Laurel that abuts the OS District along the north side of Route 38.

Mount Laurel's Industrial District permits most industrial uses that are not environmentally objectionable and some quasi-industrial uses. The SI District is confined to more strictly industrial uses. Both of these industrial districts can be considered compatible with the adjoining OC and BP Districts in Moorestown.

To the east of Pleasant Valley Avenue, lands within Mount Laurel along the Moorestown border are included within the M Residential district, which reflects the existing residential density of approximately 3.5 units per acre. While the M District is highly compatible with Moorestown's adjoining MR District, there is a potential for some incompatibility where the M District borders Moorestown's PO District, west of Mount Laurel Road. South of Parkers Creek, at the eastern end of the municipal border, the VL Residential District permits agricultural uses and single family dwellings at a density of approximately 1.3 units per acre. This residential district are compatible with the adjoining EGI District located within Moorestown, provided that the leaf composting facility activities remain concentrated in the center of the tract.

MAPLE SHADE TOWNSHIP

Along Moorestown's southeast border, the majority of land within Maple Shade Township is located within nonresidential land use districts, including the Business Development (BD), Business Development-1 (BD-1), and Planned Development (PD) Districts. Along the portion of the municipal boundary demarcated by the Pennsauken Creek, the BD District borders Moorestown's OS, EGI, MR, and Town Center (TC) Districts. Although the retail and office uses permitted under the BD District could present some incompatibility with residential uses in the MR District, the Pennsauken Creek provides a buffer between land use districts along this portion of the border. Similarly, where Maple Shade's PD District borders the MR District to the south of Main Street/Camden Avenue, the Pennsauken Creek provides a buffer for potential land use incompatibility.

In the portion of the border delineated by Lenola Road, the BD-1 District borders a small portion of Moorestown's MR District located to the south of the Pennsauken Creek. While the BD-1 District differs from the BD District by permitting adult entertainment businesses as a conditional use, there are numerous restrictions placed on this use by Maple Shade that include a prohibition against locating such businesses in the vicinity of residential uses. Along the remainder of the border, the B District is adjacent to and can be considered compatible with Moorestown's PO and TC districts.

Compatibility with Regional and State Planning Documents

The consistency of the Master Plan with regional and state plans is examined in this section. The documents compared include Burlington County's Strategic Open Space Plan and the 2001 State Development and Redevelopment Plan (SDRP).

BURLINGTON COUNTY STRATEGIC PLANNING

While Burlington County does not have an official master plan, the County utilizes a number of its programmatic plans to guide county actions and policies. Of particular relevance to land use planning in Moorestown is the County's Open Space Program Strategic Plan. Approved in 1996 and adopted in 1998, the Open Space Strategic Plan includes the active pursuit of river corridor greenway projects, such as the Rancocas Creek Greenway, as a key objective. Land use designations in the Township's Land Use Element as well as acquisition sites identified in the Open Space and Recreation Element are consistent with and support this County planning objective.

Burlington County has also adopted a Highway Master Plan, last revised in 1991. A discussion of this document and its relationship to land development policies in Moorestown is found in the Circulation Element.

STATE DEVELOPMENT AND REDEVELOPMENT PLAN

The New Jersey State Plan, first adopted in 1992 and updated in March 2001, is a comprehensive statewide guide to municipal, county and regional planning. It contains vision statements, goals, strategies and policies. The overall goals of the State Plan were derived from the State Planning Act

1) Revitalize the State's cities and towns;
2) Conserve the State's natural resources and systems;

3) Promote beneficial economic growth, development and renewal for all residents of New Jersey;
4) Protect the environment, prevent and clean up pollution;
5) Provide adequate public facilities and services at a reasonable cost;
6) Provide adequate housing at a reasonable cost; and
7) Preserve and enhance areas with historic, cultural, scenic, open space and recreational value.[1]

The State Plan Policy Map integrates the two critical spatial concepts of the State Plan—*Planning Areas* and *Centers and Environs*—and provides the framework for implementing SDRP goals and policies. Each Planning Area consists of many square miles of land that share certain characteristics and strategic intentions. Centers are central places within Planning Areas where growth should either be attracted or contained, depending on the unique characteristics and growth opportunities of each Center, and the characteristics of the surrounding Planning Area in which it is located. Areas outside Center Boundaries are Environs and should be protected from the growth that occurs in Centers.

The Planning Areas, arranged in order from most to least developed, are as follows:

PA1 Metropolitan Planning Area
PA2 Suburban Planning Area
PA3 Fringe Planning Area
PA4 Rural Planning Area
PA5 Environmentally Sensitive Planning Area

As indicated in the accompanying exhibit of the state Planning Areas (found at the end of this statement), all of Moorestown Township west of Westfield Road, is located within the Metropolitan (PA1) Planning Area, with the exception of the area around the Benner Farm tract (Swede Run Fields) and several surrounding properties that are located in the Suburban (PA2) Planning Area. Lands in the eastern portion of the Township are located within the PA2 and Fringe (PA3) Planning Area, with Borton Landing Road generally demarcating the boundary between these two planning areas.

The Metropolitan Planning Area (PA1) includes a variety of communities that range from large urban centers to 19th century towns, all of which form a

[1] New Jersey State Planning Commission. March 2001. *The New Jersey State Development and Redevelopment Plan*. p.7

part of the metropolitan mass where municipal boundaries tend to blur. Land use policy objectives set forth within the *SDRP* for the PA1 promote redevelopment and development in Cores and Neighborhoods of Centers and in Nodes, diversification of land uses, and efficient and beneficial utilization of scarce land resources.

The Suburban (PA2) Planning Area is generally located adjacent to the more densely developed PA1, but can be distinguished from it by a lack of high intensity Centers, by the availability of developable land, and by a more dispersed and fragmented pattern of predominantly low-density development. *SDRP* land use policy objectives for this planning area emphasize guiding development and redevelopment into more compact forms, better integration of diverse land uses, and preserving parklands, farmlands and other areas within the Environs.

The Fringe Planning Area (PA3) is characterized by a predominantly rural landscape with scattered small communities and freestanding residential, commercial and industrial development. Within this planning area, the *SDRP* recommends that development and redevelopment be focused in appropriately located and designed Centers to accommodate growth that would otherwise occur in the Environs.

Moorestown Township's proposed Land Use Plan is consistent with the land use policy objectives of the State Plan in that more intensive residential and nonresidential land use districts are concentrated in the PA1 and PA2 areas of the Township. Land use within the PA3 is limited to Low Density and Very Low Density Residential with more limited Open Space and Private Recreation uses. Additionally, within the PA1, the Township has created a Town Center District that embodies the Centers planning and design concepts promoted by the State Plan, including an emphasis on mixed use development and redevelopment that will complement the existing historic resources in the Main Street and West Moorestown areas.

A more detailed review of the consistency of Moorestown's planning efforts with eleven Key Concepts presented in the State Plan is addressed in the Township's July 1998 Cross-Acceptance Report. The report describes a number of planning efforts in the Township, including downtown revitalization, restoration of Strawbridge Lake, affordable housing, and open space/greenway planning that are consistent with these planning concepts. Additionally, the report notes that Township land use categories support concentrated areas of development in the Main Street town center. As noted,

the Town Center concept is carried forward to this document for both the Main Street area and West Moorestown.

The Township Cross-Acceptance Report also identified concerns with regard to State Plan center designation process and the draft State Plan map, which identified a Planned Village Center along Hartford Road. It also identified the entire eastern portion of the Township as located within the Suburban Planning Area (PA2). The State Plan map has since been revised to eliminate the Hartford Road Center and to redesignate areas south of Harper's Road as Fringe Planning Area (PA3). With regard to center designation, the State Planning Commission has recently replaced the centers designation petition process with a more comprehensive approach known as "plan endorsement". While the Township has not determined whether it will apply for plan endorsement, the establishment of the Town Center district as described above as well as other Master Plan revisions are intended to be consistent with State Plan policy objectives.

SUMMARY

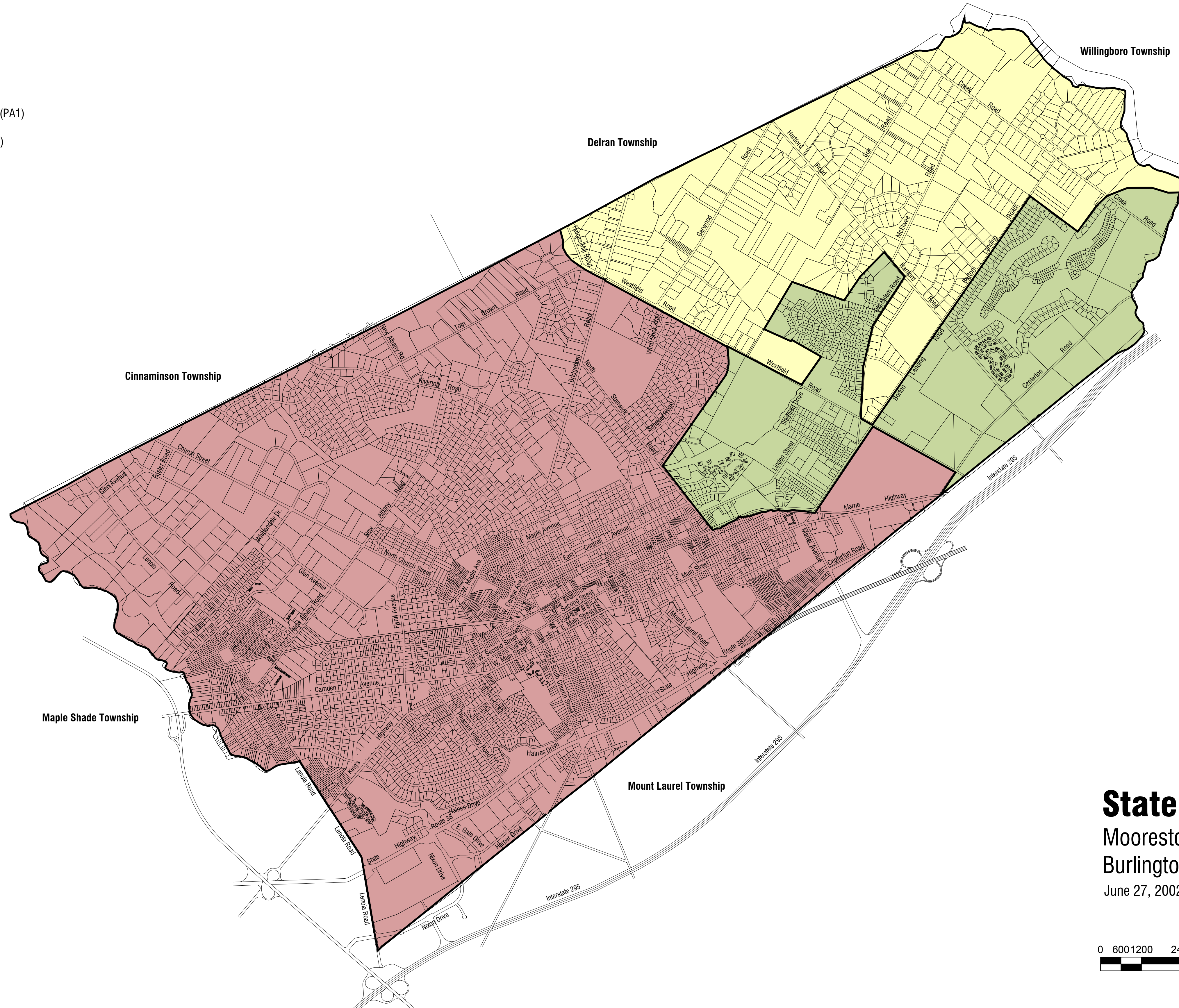
As demonstrated in this section, the policy goals and objectives for the Moorestown Master Plan are substantially consistent with local plans and ordinances, County strategic planning documents and the State Development and Redevelopment Plan. While certain minor inconsistencies exist with regard to land use policies in adjacent municipalities, these do not alter the substantial compatibility of this document with other relevant planning documents.

W:\5000's\Moorestown\5180.mp\Consistency.DOC

Legend

Planning Areas

- METROPOLITAN (PA1)
- SUBURBAN (PA2)
- FRINGE (PA3)



State Plan Policy

Moorestown Township

Burlington County, New Jersey

June 27, 2002

0 600 1200 2400 3600 Feet

North

CLARKE • CATON • HINTZ
A Professional Corporation

Base Map Source: Mapping Technologies, Moorestown, NJ, 2001

Glossary

Aquifer – A water bearing geologic formation that supplies potable water from wells and that supports water flow in streams.

Buffer – An area of land used to separate incompatible uses or to provide protection of natural resources.

Build-Out Analysis – An estimate of the amount of development a given area of land might have keeping constant zoning and environmental regulations.

Built Environment – In contrast to the natural environment, the built environment is that produced by humankind in the form of buildings and structures.

Cartway – The paved portion of a street used by vehicles for travel and parking.

Certified Local Government – A designation by the New Jersey Historic Preservation Office that a municipal historic preservation commission has met certain standards including continuing education making it eligible for federal pass-through funds.

Civic Infrastructure – The network of social, cultural, and religious organizations that support the civic life of a place.

Cluster Development – A method of developing residential land that places houses in one part of the tract in exchange for preserving the remainder in perpetual open space.

Desirable Typical Section – A term of art developed by the New Jersey Department of Transportation to establish the ultimate widths and lane configurations of state highways.

Flex Building – A building that combines an office with a small manufacturing or assembly area with a portion used for the distribution to the establishment's products.

Greenbelt – An open area that may be cultivated or maintained in a natural state surrounding development or used as a buffer between land uses or to mark the edge of an urban or developed area.

Greenway – An open space link between other open space, usually linear, and often encompassing bicycle paths and trails or streams.

Highway Access Management Code – A set of technical standards (*N.J.A.C.* 16:47-1) developed by the New Jersey Department of Transportation that govern the interconnection of private property to the state highway system.

Hobby Farmer – An individual who undertakes farming activities on a part time basis who also has employment in a non-agricultural occupation.

Household – A household includes all the people who occupy a housing unit as their usual place of residence. This contrasts with family, which is a group of two or more people who reside together and who are related by birth, marriage, or adoption. Typically, the median size of a household is smaller than that for families.

Infrastructure – Water lines, sanitary sewers, storm water management facilities, communications lines, electrical power, streets and public facilities that sustain industry, commerce and shelter.

Open Space – Land that is essentially undeveloped and used as a park, conservation area, or farmland.

Quasi-Public – A term of art used to describe non-profit, religious, or charitable or institutions that provide educational, cultural, recreational, or religious programs.

Parkway – A linear park incorporating a road or highway.

Reexamination Report – A document that analyses a municipality's land use policies and regulations mandated by the state to be undertaken every six years.

Residential Site Improvement Standards – Regulatory requirements imposed by the state (*N.J.A.C.* 5:21-1) that govern the development standards applicable to residential development, such as streets, parking, water supply, sanitary sewer and the control of storm water.

Right-of-way – A area of land used for a street or railroad that typically encompasses the cartway, curbing, sidewalk or bikeway, street trees and lights, traffic signals and signs, tracks, street furniture and utilities.

State Development and Redevelopment Plan – A document adopted periodically by the State Planning Commission that sets broad policy goals for land use in the state. Local master plans are required to acknowledge the effects of the State Plan on their own policies.

Street Furniture – Constructed aboveground objects, such as outdoor seating, kiosks, bus shelters, sculpture, tree grates and protection devices, trash receptacles, fountains, and telephone booths designed for use by the public located on a street or plaza.

Street Wall – The line established by the front façade of buildings along a street that contributes to the streetscape.

Streetscape – The design elements that constitute the physical character of a street that as a group present a public appearance, such as building frontage, street paving, street furniture and hardware, lighting, landscaping, and awnings.

Traffic Calming – A set of physical alterations and design techniques used to reduce vehicle speeds and encourage pedestrian use of streets in residential areas and which may include speed tables, rumble strips, chokers, chicanes, roundabouts and interrupted sight lines.

Transportation Demand Management – The coordination of commuting trips to reduce the number of vehicles on the road during peak hours of use.

Water Mining – The pumping of water from an aquifer in excess of the amount replenished by rainfall.

Wayfaring – A system of signs and kiosks designed with colors and symbols unique to a particular place that provides information to motorists and pedestrians in an attractive, legible format.

Wetlands – Lands inundated with fresh or brackish water that support plants that have adapted to wet conditions and that are now protected by state and federal law.