Township of Fredon Master Plan 2007

Comprehensive Master Plan 2007

Township of Fredon — Sussex County, New Jersey

- Land Use Plan Element
- Farmland Preservation Plan Element
- Open Space and Recreation Plan Element
- Historic Preservation Plan Element
- Community Facilities Plan Element
- Circulation Plan Element
- Recycling Plan Element

Prepared by: Burgis Associates, Inc.

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2007 MASTER PLAN

TOWNSHIP OF FREDON
SUSSEX COUNTY, NJ

PREPARED FOR TOWNSHIP OF FREDON PLANNING BOARD
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1.0 INTRODUCTION

The 2007 Master Plan of Fredon Township is part of the continuing comprehensive planning effort that has been undertaken by the Township over the last three decades. Since 1975, the Township has engaged in a continuing planning process that has been the subject of periodic review and reexamination. The most recent reexamination report was adopted in 2004. Each of the various reports and amendments were designed to guide the future development of the community in a manner consistent with sound planning and statutory requirements.

Adopting a new comprehensive master plan is necessary to ensure that Fredon's planning policies and practices remain current and up-to-date. It is also necessary to ensure that the township's master plan and zoning ordinance are consistent with the applicable provisions of the state's Municipal Land Use Law (MLUL) which mandates that all local zoning regulations be substantially consistent with a regularly revised and updated land use plan element. As presented herein, the master plan constitutes the official guide for future growth and development within the township. It is to be used by the Planning Board, Governing Body, Zoning Board of Adjustment and the citizens of Fredon in making land use planning and policy decisions that are consistent with the character of our community.

This comprehensive master plan includes planning goals and objectives, a detailed existing land use study, a new land use plan for the municipality, a detailed study of the environmental characteristics and constraints of the municipality, a community facilities plan, detailed information regarding traffic circulation, a circulation plan, a farmland preservation plan, a recreation/conservation plan, detailed historic properties data and a cultural and historic preservation plan.

1.1 Legal Requirements For Planning

The New Jersey Municipal Land Use Law (MLUL) establishes the legal requirements and criteria for the preparation of a master plan, which may be adopted or amended by the board only after a public hearing. The plan must be reviewed or reexamined by the board at least once every six years. The MLUL identifies the required contents of a master plan and the master plan reexamination. The Statute requires that the master plan include the following:

- A statement of goals, objectives, and policies upon which the proposals for the physical, economic and social development of the municipality are based.
- A land use element which takes into account physical features, identify the existing and proposed location, extent and intensity of development for residential and non-residential purposes, and states the relationship of the plan to any proposed zone plan and zoning ordinance.
- The preparation of a housing plan and recycling plan by the municipality. The township is in the process of preparing a third round housing plan and fair share element. Once completed, the plan should be considered as part of this master plan document and should be forwarded to the New Jersey Council on Affordable Housing for their certification.

In addition, the MLUL identifies a number of other plan elements that may be incorporated into a comprehensive master plan document, such as circulation, recreation, community facilities, and historic preservation. The Township of Fredon has elected to complete each of these elements, which are included in this comprehensive document. A Master Plan also gives the community the legal basis to control development in the municipality through the adoption of development ordinances that are designed to implement the plan's recommendations.

This land use plan enumerates a detailed and definitive set of goals and policy statements regarding the township's existing and future development. It recognizes that even though the municipality is essentially characterized by farmland and open space with scattered single-family development, there is little opportunity for extensive future development given the significant environmental constraints, all of which are detailed in this document. Given the sensitive environmental characteristics of the township, the plan sets forth a planning approach that is designed to protect the existing farmland, and support the established rural character of the community, by establishing areas of conservation and environmental protection. In addition, the plan contains recommendations for modifications to the township's zoning ordinance and development regulations where conditions warrant it.

1.2 Background

This section of the master plan details, in summary form, the municipality's location, a brief history, an overview of the surrounding development pattern and existing land uses.

Location

Fredon Township is located in the northwestern part of New Jersey, approximately fifty (50) miles west of New York City. It is situated in the south central section of Sussex County, just west of the Highlands Preservation and Planning Areas. While the township is not technically located within the Highlands areas, it contains several of the environmental and aesthetic characteristics that the lands located in the Highlands district possess. These characteristics are detailed in this document.

Hampton and Stillwater Townships border Fredon to the west. It is along this border, through the Paulinskill Valley, that the New York Susquehanna & Western Railroad operated from 1872 until 1962, taking agricultural products and Pennsylvania coal to the cities of eastern New Jersey and New York City. Today, the right-of-way has been developed into the Paulinskill Valley Trail, a non-motorized multi-use trail that is part of the Kittatinny Valley State Park.

As detailed in the map below, Fredon is located just north of Interstate Route 80 and south of Route 206. Route 94 connects 206 to 80 and extends right through the center of the municipality, It also connects Route 23 to Route 80.

History of Fredon Township

Fredon Township, an 18.3 square mile community, was incorporated in 1904, when it became the youngest township in Sussex County. It was formed from parts of Andover, Green, Hampton and Stillwater Townships. The main roadway in Fredon, Route 94, was once a dusty, rutted, narrow dirt road which traveled through a busy little village in the 1800's known as Coursen's Corners, located at the intersection of Phil Hardin Road and Stillwater Road.

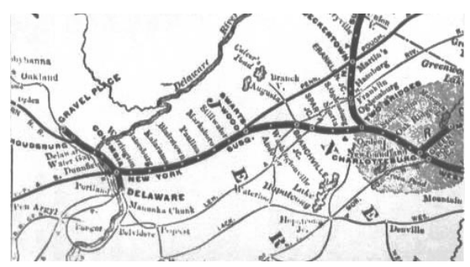
Source: The keepers of Coursen Corner

Fredon was described in 1939 as "a highway junction with a small white schoolhouse". In addition to the school, the area had a blacksmith shop, tannery, tailor shop, chapel, two stores and a post office. In close proximity, the Fountain House was a favorite stopping place for travelers between Newton and Blairstown. It is still in operation today, but not for overnight customers. While Fredon does not have a "village center" or a "main street", it is this portion of Route 94 — with the school and its additions, the municipal building, and the firehouse — that is still today the core of the township.

In the mid 18th Century, two descendents of New Amsterdam Dutch families, Johannes (John) Coursen, and his wife, Gertrude Van Tuyle, arrived in the Fredon area. The Colonel John Coursen Homestead, located across from the township school, was purchased by Fredon Township in 1994 as part of developing Lodestar Park, immediately adjacent to the house. It is being refurbished by the Keepers of Coursen's Corners, a not-for-profit group, to be used by small community groups.

The farmstead reflects the history of agriculture and Fredon's role in community development. In 1763, Johannes purchased over 800 acres, which included land extending from Paulinskill Road past the four-corners area by Stillwater Road. When he died, his property was inherited by two of his sons — the Paulinskill Mill Farm by Jacob Coursen, and the four-corners land by Colonel John. Starting in 1811, Colonel John's sons built and operated a blacksmith's shop, a tannery, a store, and later a tailor shop. Also, his son Isaac established a post office and was the first postmaster. After Isaac's death, the position was taken over by his son, William P. Coursen, until 1881.

A log cabin was most likely the first building on the present site of the Coursen House at this highway junction. The Coursen mansion was built circa 1805. It contained four rooms on the first floor with a chimney across the corner of two rooms. There were three bedrooms on the second floor. The kitchen, located on the southern end of the house had a large bake oven to the right of the chimney. Isaac Coursen added a first floor parlor and two more bedrooms upstairs as the family grew.



As mentioned above, this junction, along with its history and important community buildings, serves as the "core" of Fredon Township today. The land use plan contained in this document is centered around this core and is focused on enhancing its role in the community.

Overview of Existing Land Use

The analysis of a community's present development pattern represents one of the fundamental steps in the preparation and formulation of a land use plan element of a master plan. This analysis is designed to identify both the extent of development in the community and the amount and location of vacant land remaining in the municipality. Additionally, land use studies are utilized to analyze evolving development patterns and the relationship and location of various land uses.

In this manner, an existing land use survey can also identify areas where there is an underutilization or lack of proper utilization of property that may more fully contribute to the economic well being of the community. This data, in association with an analysis of available open space and recreation facilities, environmental features and natural resources, community facilities and other factors, including regional land use and economic trends, is used to assess the community's full development potential and its ability or inability to properly accommodate additional growth. This, in turn, serves as the basic premise of the land use plan, which sets forth the future distribution and intensities of land uses within the community. This includes areas where new zoning approaches may be appropriate.

Creation of Existing Land Use Map

To conduct the existing land use survey, a Geographic Information Systems (GIS) parcel map was first produced for the entire township. This map was created by digitizing the existing tax maps provided by the tax office. The data was then field-verified to ensure accuracy and subsequently recorded in mapped form on the accompanying Existing Land Use and Zoning map (page 3). Once the field verification was completed, there were a number of guidelines which were developed to establish the land use categories. These guidelines were utilized in appropriating all of the parcels into the specific land use categories.

Given the fact that farmland is one of the more prominent land uses in the township, it was the first category to be examined. In order to distinguish the various types of farmland in Fredon, this category was further refined into three sub-categories on the existing land use map.

The first sub-category, shown as "farm", includes farm assessed land that is approximately forty (40) acres or greater in area. This is in accordance with the *Sussex County Agricultural Development Preservation Program*, which is open to any landowner with forty (40) acres or more of farm assessed land. It is noted that although many of these properties also contain a residential component, they are categorized solely as farmland on the existing land use map.

The second sub-category, shown as "mini-farm", includes farm assessed land that is between forty (40) and twelve (12) acres in area, while those farm assessed properties less than twelve (12) acres were considered as residential. Twelve (12) acres was established as an appropriate cut-off based on the existing zoning regulations. Given the fact that the majority of the township is currently located in the AR-6 zone district, wherein single-family dwellings are permitted on six-acre lots, those lots with less than twelve (12) acres in area cannot be further subdivided (without a variance) and are therefore considered single-family residential parcels that will likely remain as such.

The third sub-category of farmland is shown as "farm/commercial". This sub-category includes all those farm assessed properties that also include some commercial component.

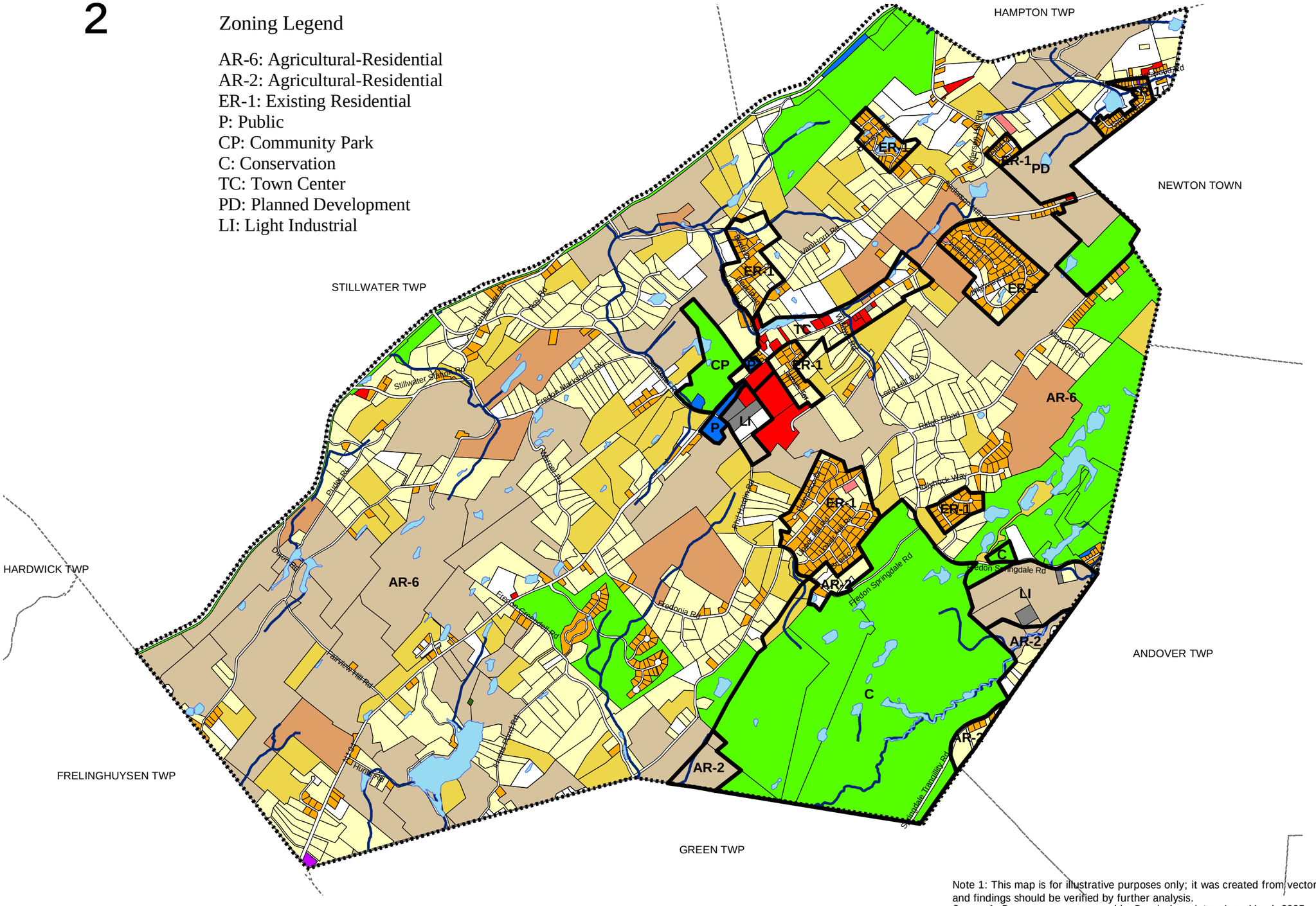
After farmland, the next land use category to be examined was residential, which is also highly prominent throughout the township. This category was further refined into two sub-categories, rural residential and suburban residential, to reflect the varying intensities of use. The "rural residential" sub-category includes single-family parcels, including those farm assessed parcels less than twelve (12) acres that are two (2) acres or greater in size. The "suburban residential" sub-category, on the other hand, includes those single-family parcels that are less than two (2) acres in size.

Finally, the land use categories shown as "commercial", "industrial", "public" and "quasi-public", "open space", "cemetery" and "vacant" represent the remaining existing land uses in the township. With the exception of open space, these land uses do not make up a large percentage of the township's land area.

2

Zoning Legend

AR-6: Agricultural-Residential
AR-2: Agricultural-Residential
ER-1: Existing Residential
P: Public
CP: Community Park
C: Conservation
TC: Town Center
PD: Planned Development
LI: Light Industrial



Note 1: This map is for illustrative purposes only; it was created from vectorized raster data and findings should be verified by further analysis.
Source 1: Base map was prepared by Burgis Associates, Inc., March 2005.
Source 2: Land use information was obtained from the current municipal tax records and field-verified by Burgis Associates, Inc.
Source 3: Zoning information was obtained from the Township of Fredon.

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Dwg. Title
Existing Land Use and Zoning

Key Map
Scale NOT TO SCALE

Dwg. Legend
- Municipal Boundary
- Zoning Districts
- Lakes
- Streams

Land Use
- Rural Residential
- Suburban Residential
- Group Homes
- Commercial
- Industrial
- Municipal Use
- Charitable
- Open Space
- Cemetery
- Mini-Farm
- Farm
- Farm/Commercial
- Vacant

Rev	Description	Date	Dwn	Ckd

Project Title
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TOWNSHIP OF FREDON
SUSSEX COUNTY, NEW JERSEY

Graphic Scale

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Summary of Existing Land Use Pattern

A review of the existing land use survey confirms that Fredon, which covers 11,712 acres (18.3 square miles), is most heavily occupied by various types of farmland. Specifically, farm assessed land 4,850 acres, or 41.4 percent of the township's total area. As can be seen in the accompanying table, large farms (over forty (40) acres in size) make up the majority of this total, comprising 26 percent of the total land area, while mini-farms (between twelve (12) and forty (40) acres) comprise approximately ten (10) percent of the total land area. Farms with commercial components are far less prominent, comprising only 5.5 percent of total land area. The accompanying Existing Land Use and Zoning map (page 3) shows that while farmland is present throughout Fredon, it is most heavily concentrated in the western portion of the township.

The second largest land use presence in the township is that of residential, which occupies a total of 3,374 acres, or 28.8 percent of the township's total land area. Rural residential properties (two (2) acres or greater in size) are by far the most dominant type of residential use, representing just under 24 percent of the total land area. Suburban residential properties (less than two (2) acres in size), though still a significant portion of the township, comprise a substantially smaller area at 5.1 percent of total land area. The township also contains four group homes/alternative living arrangement residences, which encompass a total area of just eight (8) acres.

Approximately 19 percent of land in Fredon is preserved as open space, either by public entities such as the State or the Township itself, or by private entities, such as The Nature Conservancy. The majority of this open space is located in the easternmost portion of the township, which includes the 722-acre NJDEP Whittingham Tract, a number of Nature Conservancy properties in the Muckshaw Ponds area, and additional State-owned lands.

Commercial and industrial land uses do not have a substantial presence in Fredon, emphasizing its rural character. In fact, collectively, these land uses only comprise 1.1 percent of the township's total land area. For the most part, both commercial and industrial uses in Fredon are concentrated along the Route 94 corridor, between Routes 610 (Stillwater Road) and 618 (Willows Road/Fredon-Springdale Road).

Table 1
Existing Land Use Distribution

Land Use Category	Area in Acres	Percent
Residential		
Rural Residential	2,769.8	23.6
Suburban Residential	596.0	5.1
Group Homes	7.8	0.1
Sub-Total	3,373.6	28.8
Non-Residential		
Commercial	100.1	0.9
Industrial	27.0	0.2
Sub-Total	127.1	1.1
Farmland		
Farm	3,045.6	26.0
Mini-Farm	1,160.7	9.9
Farm/Commercial	643.7	5.5
Sub-Total	4,850.0	41.4
Miscellaneous		
Municipal Use	28.0	0.2
Charitable	3.8	0.03
Private Cemetery	0.8	0.01
Open Space	2,262.3	19.3
Vacant	512.7	4.4
Roads and R-O-W	553.8	4.7
Sub-Total	3,361.4	28.7
Total	**11,712**	**100**

Municipal and charitable facilities occupy approximately 32 acres of land in the township, or 0.2 percent of its total land area. These facilities include municipal buildings and utilities, public schools, as well as religious institutions. When the township's various roads and rights-of-way are added to these categories, public and quasi public land uses make up approximately 576 acres, or 4.9 percent of the total land area.

The accompanying table and map also show that a considerable amount of vacant parcels remain in Fredon, comprising some 513 acres, or 4.4 percent of the township's total land area. These parcels are scattered throughout the township. Their sizes range from a high of approximately 22 acres to as low as 1,300 square feet, with half of all vacant parcels less than three (3) acres in size.

2.0 SUMMARY OF EMERGING DEVELOPMENT CONSIDERATIONS

2.1 Introduction

As identified in the Sussex County Master Plan, the concept of sprawl does not necessarily apply to the rural low density development and rural landscape of the municipalities of Sussex County. In addition, many of the other planning concepts detailed in the *NJ State Development and Redevelopment Plan* do not apply to the existing character and development pattern of the Township of Fredon. These issues are discussed in greater detail in Section 11.1 of this plan.

The township is in a unique position since, while it is not included in the Highlands Preservation Area, it is extremely environmentally constrained. The restrictions on development within the Highland Areas will result in more intense development pressures on Fredon. It is now the township's responsibility to ensure future development is sensitive to its environmental constraints and its rural character. Therefore, the planning concept that is the basis for this plan is preservation: farmland preservation, scenic corridor preservation and open space preservation. While these three goals are related, this plan approaches each of them through different means, each of which come together to create a comprehensive land use plan for the municipality where these elements work collectively to preserve the character of the community. Chief among these means is the concept of creating a higher concentration of the municipality's development within the center of the township, resulting in the preservation of other parts of the community that are more environmentally sensitive and have less infrastructure capability. Detailed below is a summary of the plan's approach to each of these goals.

2.2 Farmland Preservation

The farmland preservation plan is based on the existing development pattern. Currently the township includes both large farms with more than forty (40) acres of land and mini farms which range in land area between twelve (12) and forty (40) acres. The farmland preservation plan focuses on the preservation of the larger farmland. As seen in Table 1, 41 percent of the land in Fredon is utilized as farmland. *The NJ State Development and Redevelopment Plan* promotes the creation of coordinated policies at all levels of government that support agriculture statewide, and preserve farmlands for continuation of agricultural land use, without unduly undermining property values in those areas. This plan encompasses these ideas and encourages creative land planning and design through tools such as clustering, phasing and density transfers, purchase and donation of development rights, agriculture enterprise zones and districts.

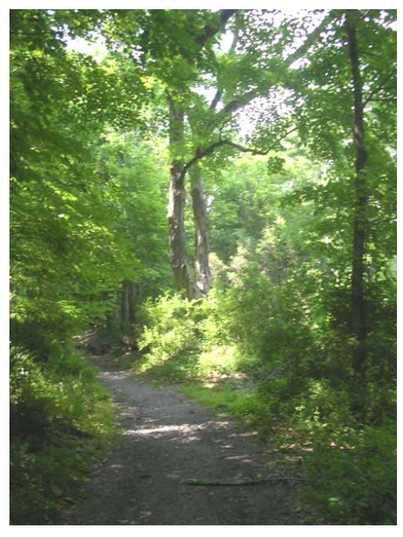
Currently, this land that is occupied by large farms is zoned for agricultural and residential development with a minimum lot area of six (6) acres. The first step to ensure that this valued farmland is not divided into six (6) acre residential lots is to increase the zoning requirements. The *Sussex County Farm Land Preservation Program* suggests that the minimum lot area for farming be approximately forty (40) acres. The land use plan in this document recommends that the areas of the municipality which are characterized by these large farms be rezoned to increase the lot area requirements. In addition, the recommended zoning details incentives for cluster zoning, overlay zone districts, preserving parcels for farmland, and creating farming easements.

2.3 Scenic Corridor Preservation

The *NJ State Redevelopment and Development Plan* states as a goal to protect, enhance and where appropriate rehabilitate historic, cultural and scenic resources. The plan calls to identify the historical sites, landscapes, archeological sites and scenic corridors. The plan states as one of the goals to protect the character of historic sites, landscapes, structures and areas through comprehensive planning and the flexible application of zoning ordinances, construction codes and other development regulation. The plan also states the goal to develop a regional greenway system with publicly accessible portions of scenic and historic corridors to provide passive and active recreational and cultural opportunities.

The scenic corridor ordinance that was adopted in 2004 delineates twenty (20) roadways identified as worthy of preserving. Each one of these roadways include tremendous viewsheds and create a driving experience unlike no other. It is these experiences which add to the rural character of the township. The ordinance requires buffers along these roadways where development can not occur. While this will assist in the corridor preservation, this plan includes a detailed analysis of development along these corridors which have resulted in recommendations for amendments to the zoning ordinance to ensure that these environments are protected. These recommendations include an increase to the required buffer area, cluster subdivision designs and the establishment of development designs that have the least intrusive effects on the aesthetics of the area. And in keeping with the goals of the state plan, the scenic corridors are incorporated into the open space and recreation plan for the township.

2.4 Environmental Constraints



As detailed in Section 3.0 of this plan, the township is characterized by lands with numerous environmental constraints, which encompass ninety (90) percent of the community. Given this fact, it is difficult to ensure that all environmentally sensitive lands are protected. This master plan document is based on the premise that the more intense development would be encouraged along the Route 94 corridor and some of the other county corridors where there are fewer environmental constraints and there is an established development pattern. At the same time, lower intensity development will be permitted in areas with extreme constraints. In addition, this plan recommends the acquisition of the most environmentally sensitive parcels in the township. This plan is based on the prioritization tables detailed in the farmland preservation and open space elements of this document.

2.5 Conservation of Open Space

The *NJ State Development and Redevelopment Plan* provides for the conservation of open space. It calls to prepare and maintain a detailed state open space and outdoor recreation plan, including appropriate maps for existing and needed recreational and open space land in New Jersey. The plan also calls for the preservation of recreational and open space land to maximize implementation of other statewide policies, including environmental protection of the environs, while implementing recreational and open space policies.

This plan identifies all of the environmentally constrained land, existing open space, and vacant land, and has determined, based on a prioritization table, which lands should be targeted for acquisition for open space.

3.0 ENVIRONMENTAL FEATURES

3.1 Introduction

An analysis of the township's physical characteristics is important in determining the developability of the community's remaining vacant undeveloped acreage. This data enables a clearer assessment of the community's development potential, and assists in establishing projections for future population growth.

The principal environmental features which are typically assessed within the framework of a master plan include topography, slope, soils, wetlands, and flood plain characteristics. Each of these five elements is described below, as well as an assessment of Category One waterways and threatened and endangered species habitat. While this municipal-wide environmental review provides pertinent information, it should be noted that physical features and environmental factors are best reviewed on a site by site basis as development applications are submitted to the township's local review agencies.

3.2 Topography and Slope

Topography in Fredon is varied and presents difficulties to development in many sections of the township. Elevation ranges from highs of 960 feet above sea level, at three ridge tops in the northeastern portion of the township, to lows of under 480 feet, in the southwest, adjacent to the municipal border with Stillwater Township. Slopes in excess of 15 percent are found throughout the township, posing considerable challenges to development. Specifically, steep slopes are limiting in terms of run-off control, soil erosion, suitability of terrain for specific land uses, and potential for safe road access.

The most significant bands of steep slopes are located along Fredon's western boundary and in the eastern portion of the township, to the east of Ridge Road. These areas are heavily dominated by farmland and dedicated open space, but are also populated with several single-family residences.

The accompanying Environmental Constraints map (page 7) provides a detailed analysis of all of the township's steep slopes and their location. This map was created from New Jersey Geological Survey data, which presents contours at an interval of twenty (20) feet for this portion of the state. As such, this map provides a good indication of where steep slopes are located in Fredon, but only evaluations of individual properties can officially determine their presence.

3.3 Soils and Septic Limitations

The type and distribution of soils over an area must be taken into consideration when making land use decisions. Fredon is comprised of nineteen (19) different types of soil. The accompanying Soils map (page 8) provides an overview of the location of various soil types across the township, and the chart located on the following page illustrates each soil type's characteristics and limitations on development. A soil is considered to be *not limited* if soil properties and site features are generally favorable for the indicated use and limitations are minor and easily overcome. It is considered *very limited* if soil properties or site features are unfavorable or difficult to overcome, requiring special design, a significant increase in construction costs, and possibly increased maintenance. It is noted that these descriptions are intended solely for planning purposes and do not eliminate the need for on-site soil investigation.

Using these soil types and the "Selected Soil Interpretations" report prepared by the USDA's Natural Resources Conservation Service in 2004, we were able to assess the septic limitations by geographic area in Fredon. This assessment is based on each soil type's depth to bedrock, depth of the water table, permeability and steep slopes. As can be seen on the accompanying Septic Suitability map (page 9), the vast majority of the township is characterized as *very limited*. Those areas characterized as *not limited* are located in the eastern portion of the township, in locations primarily preserved as open space but also composed of some single-family neighborhoods and farmland properties. Again, although these descriptions are valuable for general planning purposes, only a site-specific analysis can determine the particular limitations on a given site.

TABLE 2
SOIL CHARACTERISTICS

Soil Name and Symbol	Dwellings without Basements	Dwellings with Basements	Small Commercial Buildings	Local Roads and Streets	Shallow Excavations	Lawns and Landscaping
AhbBc (0-8% slopes) Alden mucky silt loam	Very limited: depth to saturated zone, ponding	Very limited: depth to saturated zone, ponding	Very limited: depth to saturated zone, ponding	Very limited: depth to saturated zone, frost action, low strength, ponding	Very limited: depth to saturated zone, ponding, cutbanks cave	Very limited: depth to saturated zone, ponding
AhcBc (0-8% slopes) Alden silt loam	Very limited: depth to saturated zone, ponding	Very limited: depth to saturated zone, ponding	Very limited: depth to saturated zone, ponding	Very limited: depth to saturated zone, frost action, low strength, ponding	Very limited: depth to saturated zone, ponding, cutbanks cave	Very limited: depth to saturated zone, ponding
CatbA (0-2% slopes) Catden mucky peat	Very limited: subsidence, depth to saturated zone, content of organic matter, ponding	Very limited: subsidence, depth to saturated zone, content of organic matter, ponding	Very limited: subsidence, depth to saturated zone, content of organic matter, ponding	Very limited: depth to saturated zone, subsidence, frost action, ponding	Very limited: depth to saturated zone, content of organic matter, ponding, cutbanks cave	Very limited: depth to saturated zone, ponding
FaxC (0-15% slopes) Farmington-Rock outcrop complex	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock, slope	Very limited: depth to hard bedrock, frost action	Very limited: depth to hard bedrock, cutbanks cave	Very limited: depth to bedrock, droughty
FdwB (0-8% slopes) Farmington-Wassaic-Rock outcrop complex	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock, frost action	Very limited: depth to hard bedrock, cutbanks cave	Very limited: depth to bedrock, droughty
FrdAb (0-3% slopes) Fredon-Halsey complex	Very limited: depth to saturated zone	Very limited: depth to saturated zone	Very limited: depth to saturated zone	Very limited: depth to saturated zone, frost action	Very limited: depth to saturated zone, cutbanks cave	Very limited: depth to saturated zone
HdxAb (0-3% slopes) Hazen-Hoosic complex	Not limited	Not limited	Not limited	Somewhat limited: frost action	Very limited: cutbanks cave	Somewhat limited: droughty
HdxBb (3-8% slopes) Hazen-Hoosic complex	Not limited	Not limited	Not limited	Somewhat limited: frost action	Very limited: cutbanks cave	Somewhat limited: droughty
NauBh (0-8% slopes) Nassau-Manlius complex	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock, frost action	Very limited: depth to hard bedrock, cutbanks cave	Very limited: depth to bedrock, droughty, gravel content
NauCh (8-15% slopes) Nassau-Manlius complex	Very limited: depth to hard bedrock, slope	Very limited: depth to hard bedrock, slope	Very limited: slope, depth to hard bedrock	Very limited: depth to hard bedrock, slope, frost action	Very limited: depth to hard bedrock, slope, cutbanks cave	Very limited: depth to bedrock, droughty, gravel content, slope
NauDh (15-35% slopes) Nassau-Manlius complex	Very limited: slope, depth to hard bedrock	Very limited: slope, depth to hard bedrock	Very limited: slope, depth to hard bedrock	Very limited: depth to hard bedrock, slope, frost action	Very limited: depth to hard bedrock, slope, cutbanks cave	Very limited: depth to bedrock, slope, droughty, gravel content
NavE (35-60% slopes) Nassau-Rock outcrop complex	Very limited: slope, depth to hard bedrock	Very limited: slope, depth to hard bedrock	Very limited: slope, depth to hard bedrock	Very limited: depth to hard bedrock, slope, frost action	Very limited: depth to hard bedrock, slope, cutbanks cave	Very limited: depth to bedrock, slope, droughty
RnfC (8-15% slopes) Rock outcrop-Farmington-Galway complex	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated
RnfD (15-35% slopes) Rock outcrop-Farmington-Galway complex	Not rated	Not rated	Not rated	Not rated	Not rated	Not rated
USHAZB (0-8% slopes) Urban land-Hazen-Hoosic complex	Not limited	Not limited	Not limited	Not limited	Very limited: cutbanks cave	Not rated
USNAMB (0-8% slopes) Urban land-Nassau-Manlius complex	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock, cutbanks cave	Not rated
USNAMC (0-15% slopes) Urban land-Nassau-Manlius complex	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock, cutbanks cave	Not rated
USNAMD (0-25% slopes) Urban land-Nassau-Manlius complex	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock	Very limited: depth to hard bedrock, cutbanks cave	Not rated
VepBc (0-8% slopes) Venango silt loam	Very limited: depth to saturated zone	Very limited: depth to saturated zone	Very limited: depth to saturated zone	Very limited: depth to saturated zone, frost action, low strength	Very limited: depth to saturated zone, cutbanks cave, dense layer	Very limited: depth to saturated zone

Note: In cases of complex soils, descriptions based upon properties of dominant soil component ***only****.*
Source: Soil Survey Geographic (SSURGO) database, Natural Resources Conservation Service, December 2004.

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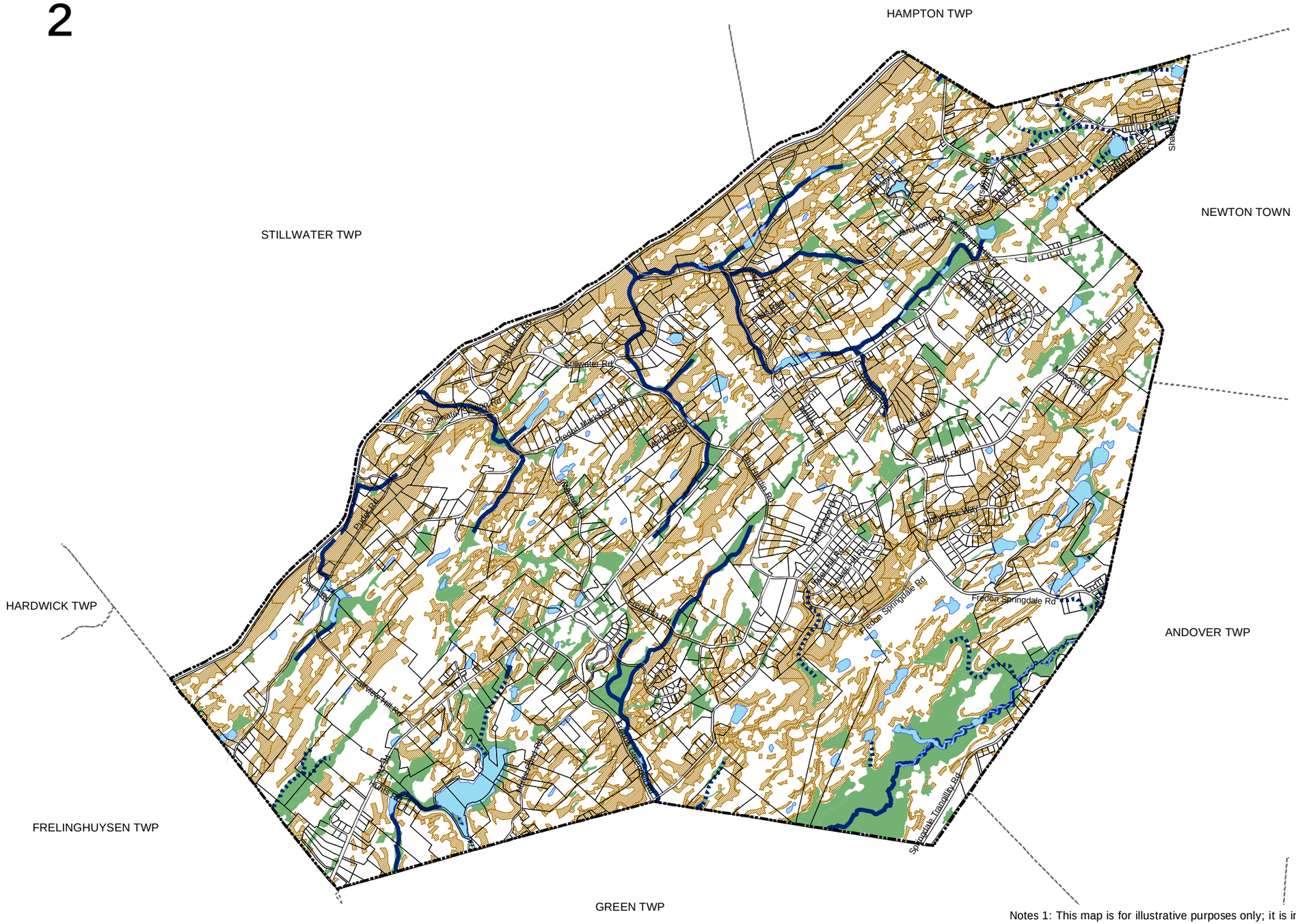

Notes 1: This map is for illustrative purposes only; it is intended to show potential environmental constraints and findings should be verified by further analysis.

Source 1: Wetlands, lakes, streams, and municipal information obtained from Sussex County Office of GIS Management.

Source 2: Flood data obtained from FEMA Q3 digital flood data, Sep. 1996.

Source 3: Slope information prepared by Burgis Associates, Inc., June 2005 from New Jersey Geological Survey topographical data.

Source 4: Base map was prepared by Burgis Associates, Inc., March 2005.

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Dwg. Title

Environmental Constraints

Key Map

Scale NOT TO SCALE

Dwg. Legend

- Municipal Boundary
- Lakes
- Streams
- Category One Streams
- 100-Year Floodplain
- 500-Year Floodplain
- Slopes 15% or Over
- Wetlands

Rev	Description	Date	Dwn	Ckd

Project Title

MASTER PLAN

TOWNSHIP OF FREDON
SUSSEX COUNTY, NEW JERSEY

Graphic Scale

JOSEPH H. BURGIS AICP
PROFESSIONAL PLANNER
NEW JERSEY LIC. NO. 2450

Project No.	1467.04
Sheet No.	1 of 1
Date	06/10/05
Drawn	RW
File Name	1467.04ENV

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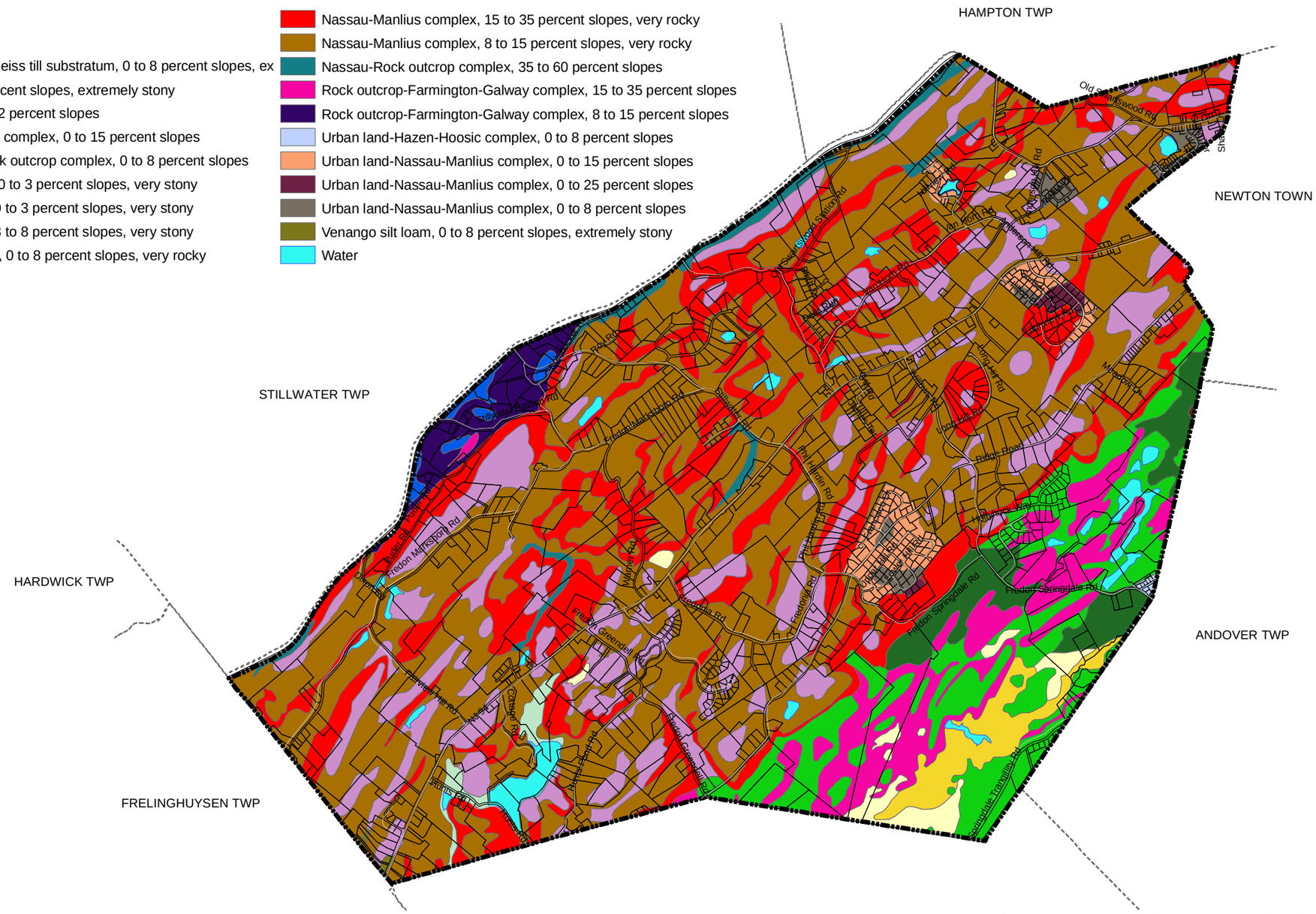
Soil Types

- Alden mucky silt loam, gneiss till substratum, 0 to 8 percent slopes, ex
- Alden silt loam, 0 to 8 percent slopes, extremely stony
- Catden mucky peat, 0 to 2 percent slopes
- Farmington-Rock outcrop complex, 0 to 15 percent slopes
- Farmington-Wassaic-Rock outcrop complex, 0 to 8 percent slopes
- Fredon-Halsey complex, 0 to 3 percent slopes, very stony
- Hazen-Hoosic complex, 0 to 3 percent slopes, very stony
- Hazen-Hoosic complex, 3 to 8 percent slopes, very stony
- Nassau-Manlius complex, 0 to 8 percent slopes, very rocky
- Nassau-Manlius complex, 15 to 35 percent slopes, very rocky
- Nassau-Manlius complex, 8 to 15 percent slopes, very rocky
- Nassau-Rock outcrop complex, 35 to 60 percent slopes
- Rock outcrop-Farmington-Galway complex, 15 to 35 percent slopes
- Rock outcrop-Farmington-Galway complex, 8 to 15 percent slopes
- Urban land-Hazen-Hoosic complex, 0 to 8 percent slopes
- Urban land-Nassau-Manlius complex, 0 to 15 percent slopes
- Urban land-Nassau-Manlius complex, 0 to 25 percent slopes
- Urban land-Nassau-Manlius complex, 0 to 8 percent slopes
- Venango silt loam, 0 to 8 percent slopes, extremely stony
- Water



Note 1: This map is for illustrative purposes only; it is intended to show potential environmental constraints and findings should be verified by further analysis.
Note 2: Not all water bodies are depicted on this map; refer to the Environmental Constraints map (Page 7) for a complete view.

Source 1: Soils information obtained from Soil Survey Geographic (SSURGO) database, Natural Resources Conservation Service.
Source 2: Base map was prepared by Burgis Associates, Inc., March 2005.

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Dwg. Title

Soils

Key Map
Scale NOT TO SCALE

Dwg. Legend
- Municipal Boundary
- Parcels

Rev	Description	Date	Dwn	Ckd

Project Title

MASTER PLAN

TOWNSHIP OF FREDON
SUSSEX COUNTY, NEW JERSEY

Graphic Scale

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File Name	1467.04SOIL

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SOILS

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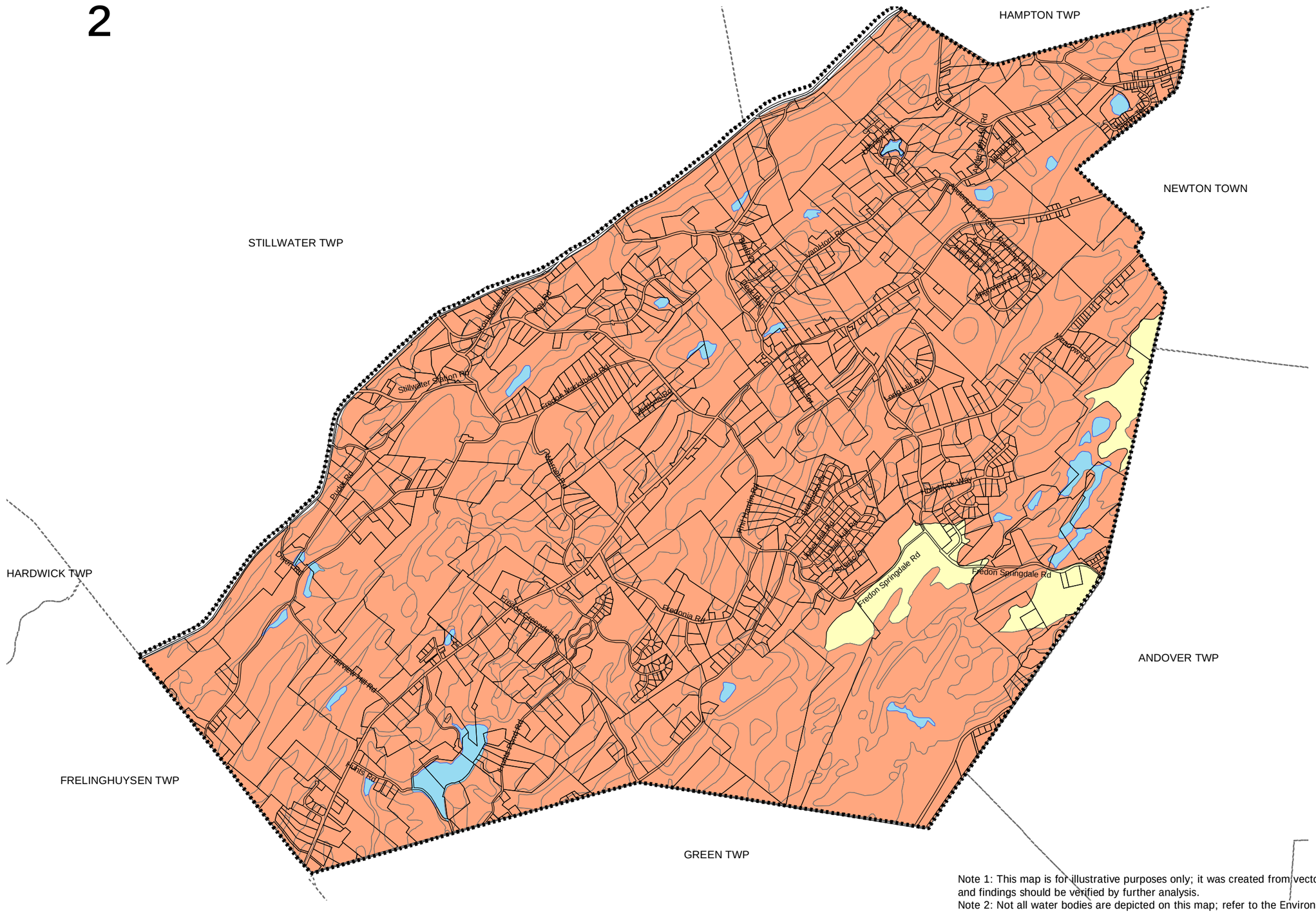

HAMPTON TWP
NEWTON TOWN
STILLWATER TWP
HARDWICK TWP
ANDOVER TWP
FRELINGHUYSEN TWP
GREEN TWP
Stillwater Station Rd
Fredon Warbasford Rd
Van Hoeven Rd
Van Horn Rd
Van Horn Rd
Van Horn

3.4 Floodplains

As shown on the accompanying Environmental Constraints map (page 7), Fredon contains very little land area that is within the 100- and 500-year floodplains. In fact, only a small number of parcels along the Andover Township border have property within the floodplains. This data was derived from the Federal Emergency Management Agency (FEMA) as part of the National Flood Insurance Program.

Although this data does provide a broad overview of potential flood problems throughout the municipality, it does not necessarily show all areas in the township that are subject to flooding. To reduce the potential of flood damage, as well as pollutants in stormwater runoff, the Township has adopted a Municipal Stormwater Management Plan which requires environmentally sensitive site design and structural source controls for all major development. It is a goal of the municipality to ensure that all future development is consistent with this plan.

3.5 Wetlands

The National Wetlands Inventory, prepared by the United States Department of the Interior Fish and Wildlife Service, provides an inventory of wetland areas in Fredon as well as other municipalities in the State of New Jersey. The wetland delineations are based upon vegetation, visible hydrology and geography in accordance with acknowledged source data pertaining to wetlands classification. This data has been mapped by the New Jersey Department of Environmental Protection (NJDEP) and is illustrated on the accompanying Environmental Constraints map (page 7).

As indicated on the map, there are a number of wetland areas throughout Fredon, with the largest being that which surrounds the Pequest River branch in the eastern-most portion of the township. Although this map provides a good indication of where wetlands are located in the township, only an official determination from the NJDEP (called a "letter of interpretation" or "LOI") can validate the presence of wetlands on a given property.

The adoption of the Freshwater Wetlands Protection Act in 1988 established a host of regulations aimed towards the preservation of New Jersey's wetlands as well as transition areas, or "buffers". Specifically, the Act requires the NJDEP to regulate virtually all activities proposed in wetlands, including cutting of vegetation, dredging, excavation or removal of soil, drainage or disturbance of the water level, filling or discharge of any materials, driving of pilings, and placing of obstructions. In addition, the DEP must determine the width of transition areas around wetlands, which is dependent on the sensitivity of the particular wetland. For example, especially valuable wetlands may require a 150-foot buffer. On the other hand, zero feet of buffer may be required when transition area averaging is applied. Most wetlands, however, require a minimum fifty (50) foot buffer. Proposed activity within these transition areas typically require permits from the DEP.

3.6 Category One Waterways & Buffers

There are several Category One waterways located throughout the township. These waterways are delineated on the accompanying map entitled "Category One Waterways and Buffers" (page 11), as well as on the accompanying Environmental Constraints map (page 7) in solid blue lines. Category One waterways, as well as those areas within 300 feet of the stream, receive special protection under New Jersey's Surface Water Quality Standards (SWQS) because of their exceptional ecological, water supply, and/or recreational significance. In addition, protection is afforded to those waterways with exceptional shellfish or fisheries resources.

In those waters designated as Category One and their surrounding buffers, known as Special Water Resource Protection Areas (SWRPA), existing development is not regulated. However, new construction or expansion to existing structures that will disturb one (1) acre or more of the property or that would increase impervious surfaces on-site by at least one-quarter (1/4) of an acre is prohibited within SWRPAs.

The watersheds draining to each of Fredon's Category One waterways are shown in the accompanying Watersheds map (page 12). As can be seen, the majority of the township is located in a watershed containing at least one Category One stream, with the only exception being the Paulinskill watershed, located below Stillwater Village in the southwest corner of the township.

3.7 Threatened and Endangered Species Habitat

There are two primary sources of information with regard to the location of threatened and endangered plant and animal habitat in Fredon Township. These are the New Jersey Landscape Project, which was developed by the State's Division of Fish and Wildlife, and the New Jersey Natural Heritage Program, which is overseen by the NJDEP.

New Jersey Landscape Project

The Landscape Project combines threatened, endangered and priority species location information with land use/land cover data to provide maps of critical habitats throughout the state. The Project looks individually at each of the five major habitat types in New Jersey – forest, forested wetlands, emergent wetlands, grasslands, and beach – and classifies each based on the presence of federally threatened or endangered species, state endangered species, state threatened species, non-listed species of special concern, and/or the presence of suitable habitat that has not been surveyed to determine the actual presence or absence of species. The information presented herein is from the Landscape Project's most recent version, February 2004, and may be updated in the future.

As detailed on the accompanying New Jersey Landscape Project map (page 13), the habitats of state and federally threatened and endangered species cover a large portion of the township. The following table enumerates these species by habitat type and classification.

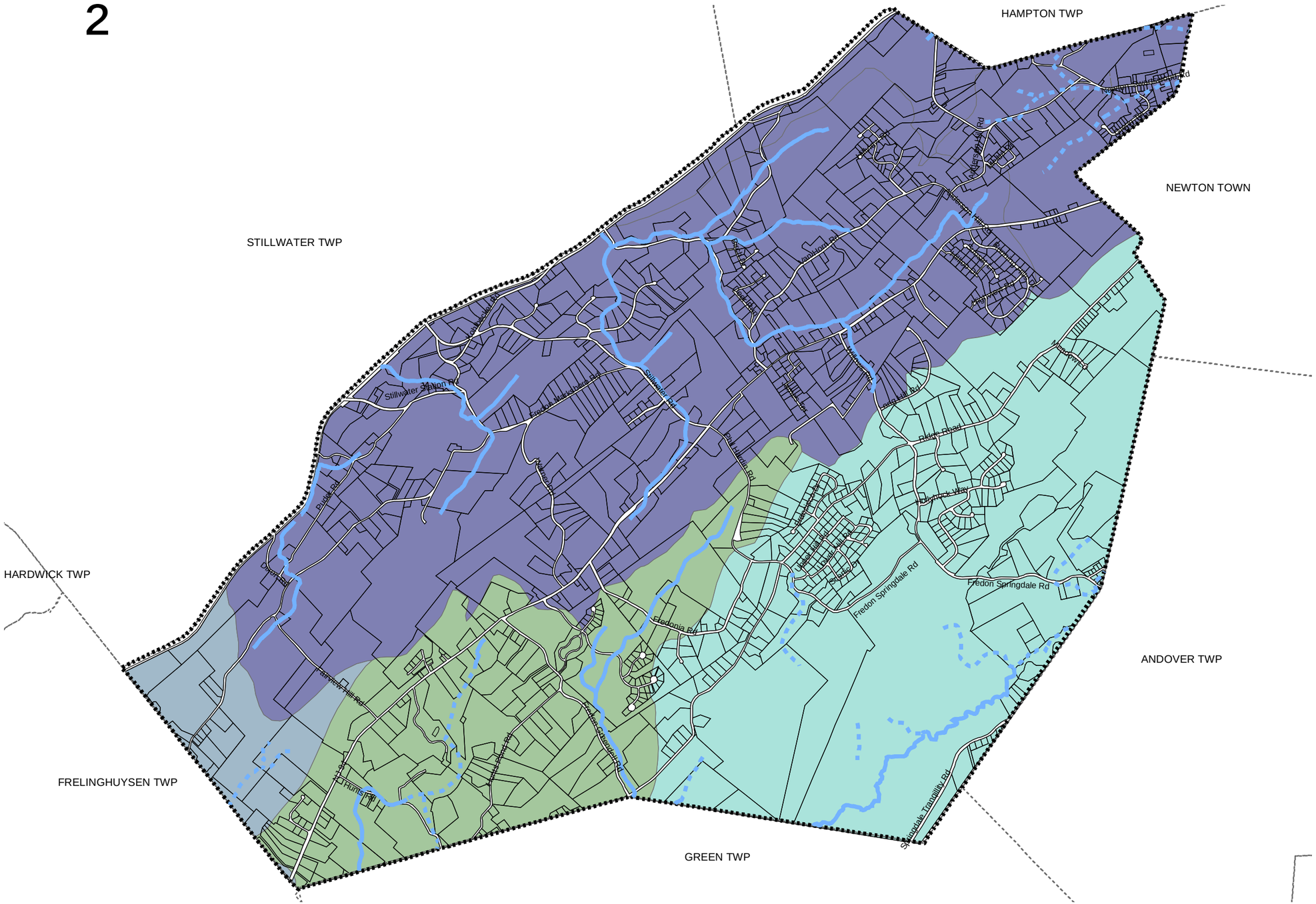
Table 3
Threatened and Endangered Species by Habitat Type

Habitat Type	Species		State Threatened	State Endangered	Federal Threatened
	Common Name	Scientific Name			
Emergent Wetlands	Bog Turtle	*Clemmys muhlenbergii*		X	X
	Longtail Salamander	*Eurycea l. Longicauda*	X		
Forested Wetlands	Barred Owl	*Strix varia*	X		
	Bog Turtle	*Clemmys muhlenbergii*		X	X
	Cooper's Hawk	*Accipiter cooperii*	X		
	Longtail Salamander	*Eurycea l. Longicauda*	X		
	Silver-Bordered Fritillary	*Boloria selene myrina*	X		
Forest	Barred Owl	*Strix varia*	X		
	Blue-Spotted Salamander	*Ambystoma laterale*		X	
	Cooper's Hawk	*Accipiter cooperii*	X		
	Long-Eared Owl	*Asio otus*	X		
	Longtail Salamander	*Eurycea l. Longicauda*	X		
	Red-Headed Woodpecker	*Melanerpes erythrocephalus*	X		
	Red-Shouldered Hawk	*Buteo lineatus*		X	
	Silver-Bordered Fritillary	*Boloria selene myrina*	X		
Grasslands	Bobolink	*Dolichonyx oryzivorus*	X		
	Grasshopper Sparrow	*Ammodramus savannarum*	X		

2

HAMPTON TWP
STILLWATER TWP
NEWTON TOWN
HARDWICK TWP
ANDOVER TWP
FRELINGHUYSEN TWP
GREEN TWP
Stillwater Rd
Stillwater Station Rd
Hampton Rd
Ridge Road
Hollybrook Way
Fredon Springdale Rd
Fredonia Rd
Dry Hill Rd
Dry Hill Rd
Dry Hill

2



Source 1: Base map was prepared by Burgis Associates, Inc., March 2005.
Source 2: Watershed information obtained from NJDEP.
Source 3: Streams information obtained from Sussex County Office of GIS Management.

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Dwg. Title

Watersheds

Key Map

Scale NOT TO SCALE

Dwg. Legend

- Municipal Boundary
- Parcels
- Category One Streams
- Category Two Streams

Watersheds

- Bear Creek
- Paulins Kill (above Stillwater Village)
- Paulins Kill (below Stillwater Village)
- Pequest River

Rev	Description	Date	Dwn	Ckd

Project Title

MASTER PLAN

TOWNSHIP OF FREDON
SUSSEX COUNTY, NEW JERSEY

Graphic Scale

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PROFESSIONAL PLANNER
NEW JERSEY LIC. NO. 2450

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File Name	1467.04WSH

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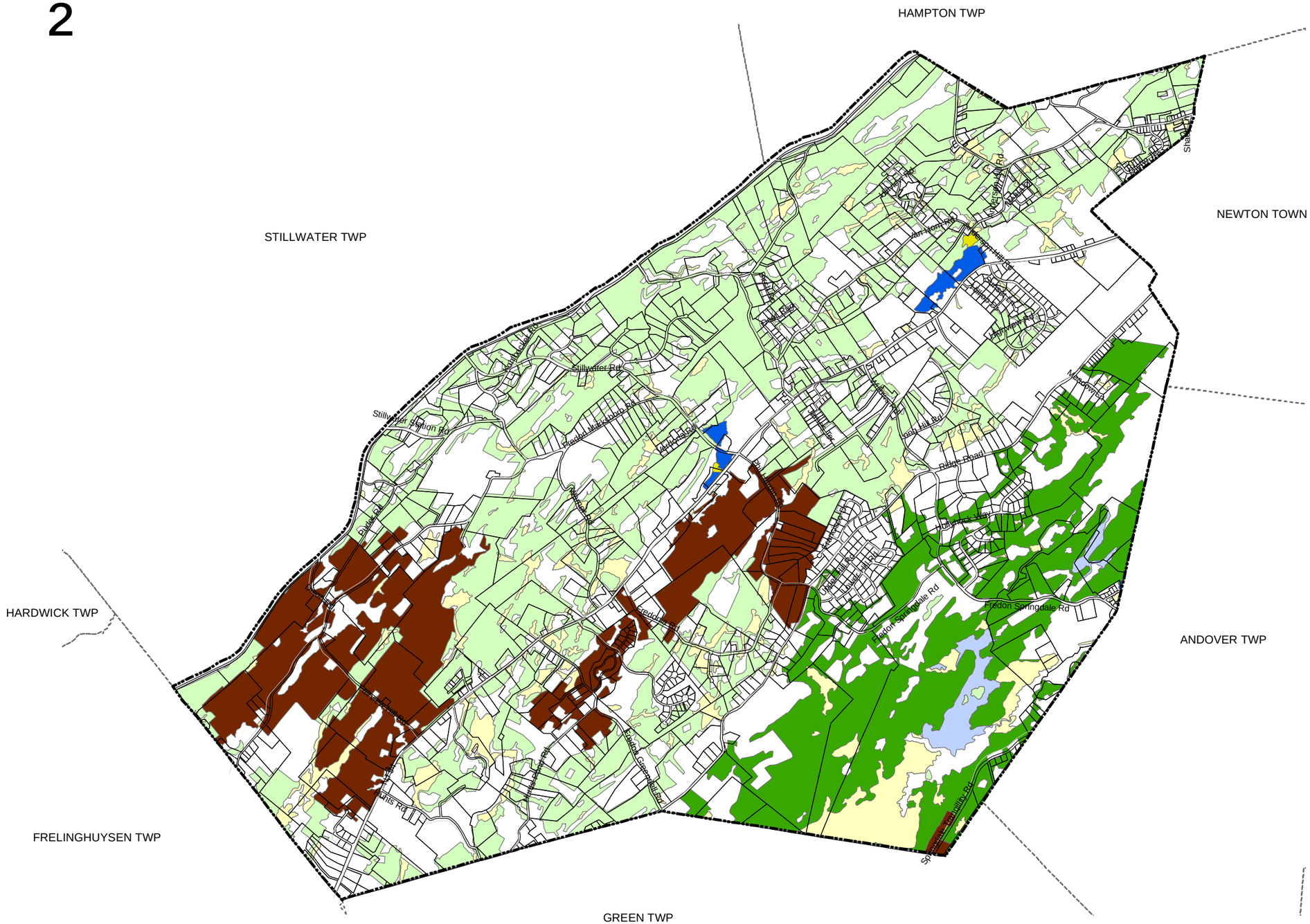

Notes 1: This map is for illustrative purposes only; it is intended to show potential environmental constraints and findings should be verified by further analysis.

Source 1: Landscape project data obtained from NJ Division of Fish and Wildlife, February 2004 (Version 2).
Source 2: Base map was prepared by Burgis Associates, Inc., March 2005.

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Dwg. Title

New Jersey Landscape Project

Key Map

Scale NOT TO SCALE

Dwg. Legend

- Municipal Boundary
- Parcels

Emergent Wetlands Areas
- with state threatened species*
- with state endangered / federal threatened species*

Forested Wetlands Areas
- with state threatened species*
- with state endangered / federal threatened species*

Forest Areas
- with state threatened species*
- with state endangered species*

Grasslands Areas
- with state threatened species*

* See Table 3 for lists of species

Rev	Description	Date	Dwn	Ckd

Project Title

MASTER PLAN

TOWNSHIP OF FREDON
SUSSEX COUNTY, NEW JERSEY

Graphic Scale

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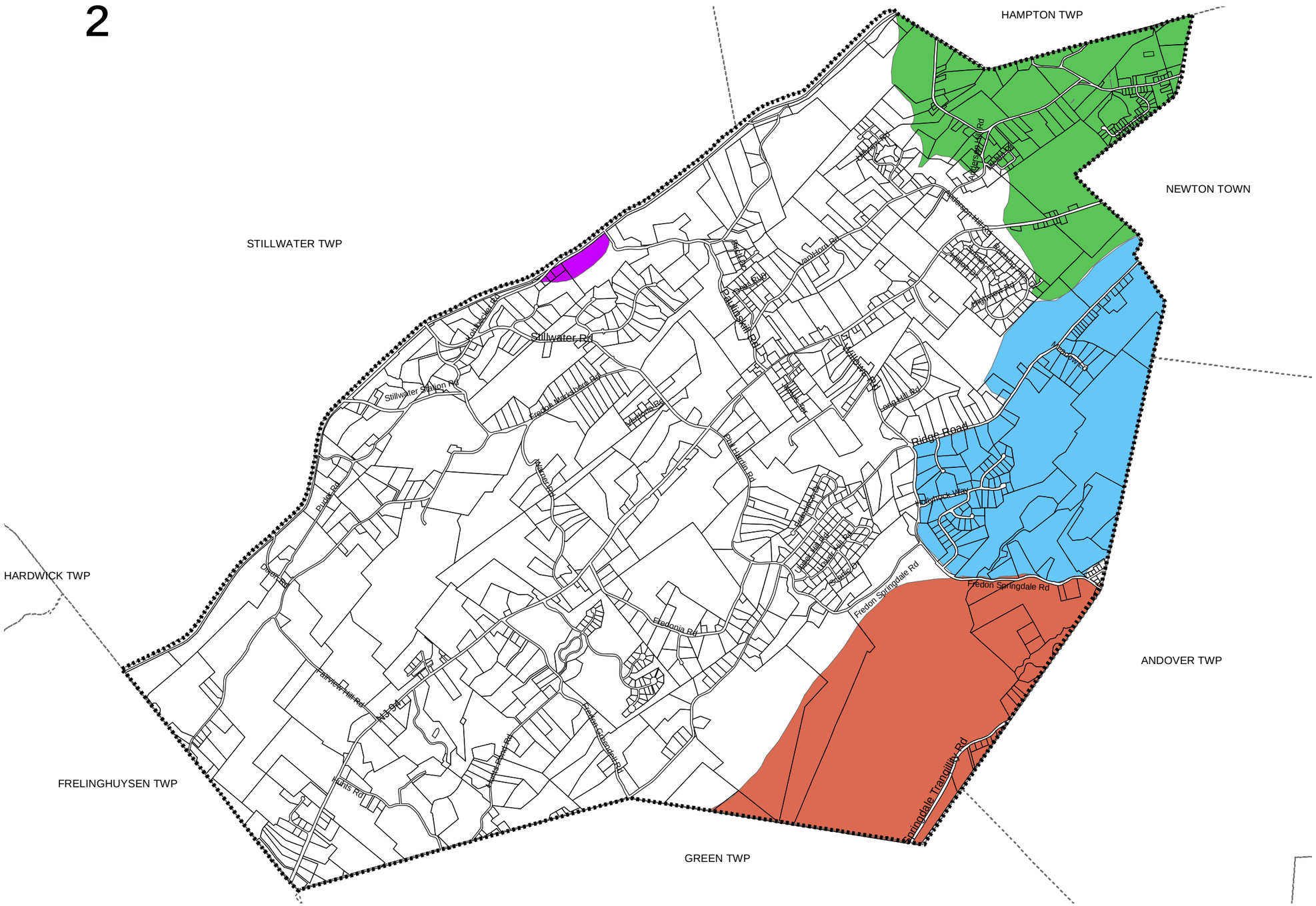

HAMPTON TWP
NEWTON TOWN
STILLWATER TWP
HARDWICK TWP
FRELINGHUYSEN TWP
GREEN TWP
ANDOVER TWP
Stillwater Rd
Stillwater Station Rd
Fredon Marksboro Rd
Dunde Rd
Dwyer Rd
Farmer Hill Rd
NJ 94
Ayers Rd
Fedonia Rd
Fedon Greenville Rd
Fredon Springdale Rd
Springdale Tranquility Rd
Ridge Road
Vaughn Rd
Pal Hardin Rd
Pal Rup Rd
Hillside Rd
Hillsboro Rd
Jacksonville Rd
Hopewell Rd
Holmes Way
Lake Hill Rd
Lower Hill Rd
Shadow Dr
Chadwick Dr
Hunter Rd
Jones Rd
Jones Hill Rd
Jones Place Rd
Hopewell Hill Rd
Hopewell Rd
Hopewell Way
Hopewell Ridge Rd
Hopewell Ridge Way
Hopewell Ridge Dr
Hopewell Ridge Ct
Hopewell Ridge Pl
Hopewell Ridge Cir
Hopewell Ridge Ln
Hopewell Ridge Sq
Hopewell Ridge Tr
Hopewell Ridge Bl
Hopewell Ridge Ml
Hopewell Ridge Ex
Hopewell Ridge Pk
Hopewell Ridge Wy
Hopewell Ridge Hl
Hopewell Ridge Vw
Hopewell Ridge Ob
Hopewell Ridge Ov
Hopewell Ridge Ts
Hopewell Ridge Ts
Hopewell Ridge Ts

New Jersey Natural Heritage Program

The Natural Heritage Program identifies the state's most valuable natural areas through a continuously updated inventory of the distribution, biology, status and preservation needs of rare plants and animal species in New Jersey. From this inventory, Natural Heritage Priority Sites have been established for each municipality. These sites are areas of critical importance in preserving biological diversity in New Jersey and are ranked from a scale of B1 to B5. Those sites ranked B1 through B3 are areas of global significance for biological diversity, while those ranked B4 through B5 are areas of state significance for biological diversity. In addition, each site is categorized into macrosites and standard sites, with the former being larger in size (typically over 3,200 acres) and the latter being smaller in size (typically under 3,200 acres).

As can be seen on the accompanying Natural Heritage Priority Sites map (page 14), there are four (4) such sites located wholly or partially in Fredon Township. The Emmens Station Site, situated along the township's western border, is described as wooded limestone hillside with meadow along a stream and is ranked B4 for the presence of one state-listed endangered plant and some special concern plant species. The area containing this site is primarily farmland property, with some single-family homes situated within the area as well.

The Muckshaw Ponds site, in the township's northeast corner, is described as a series of sinkholes and one larger pond surrounded by steep, wooded dolomite ridges. This site carries a rank of B3 for its high quality assemblage of globally rare upland and wetland natural communities, with nine state endangered plants and one state threatened animal. A mix of single-family residences, farmland properties, and dedicated open space currently represents the Muckshaw Ponds area.

The Springdale site is located in the eastern region of the township and is described as a large limestone wetland complex fed by numerous alkaline seeps and drained by a stream running northeast through the entire wetland basin. It is classified as a B2-ranked site, due to the presence of several state significant and globally rare natural communities, globally rare state endangered plant species, and additional state-listed endangered plant and animal species. The majority of the Springdale site is protected from future development, either through the New Jersey Division of Fish and Wildlife, the New Jersey Department of Environmental Protection, or deed restrictions for open space.

Finally, the Two River Headwaters Macrosite is located in the northern portion of the township and is described as a large area of wetlands, forests and grasslands at the upper reaches of the Paulinskill and Wallkill Rivers. The site is ranked B3 and contains eleven B3 or B2 ranked standard sites and additional habitat for globally rare and imperiled animal species. A broad range of uses, including some dedicated open space in the Paulinskill Wildlife Management Area, farmland and single-family residences, as well as public and commercial properties, characterizes the area containing the Two River Headwaters Macrosite.

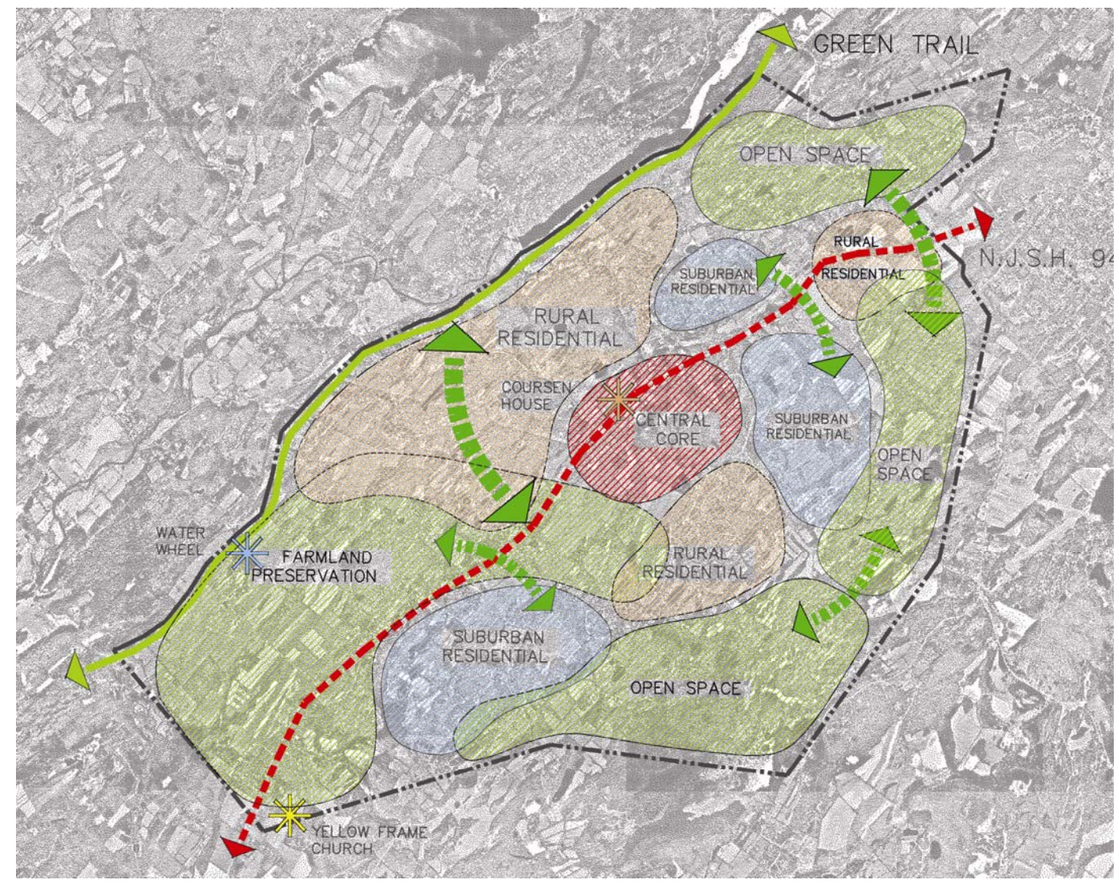
4.0 Land Use Plan

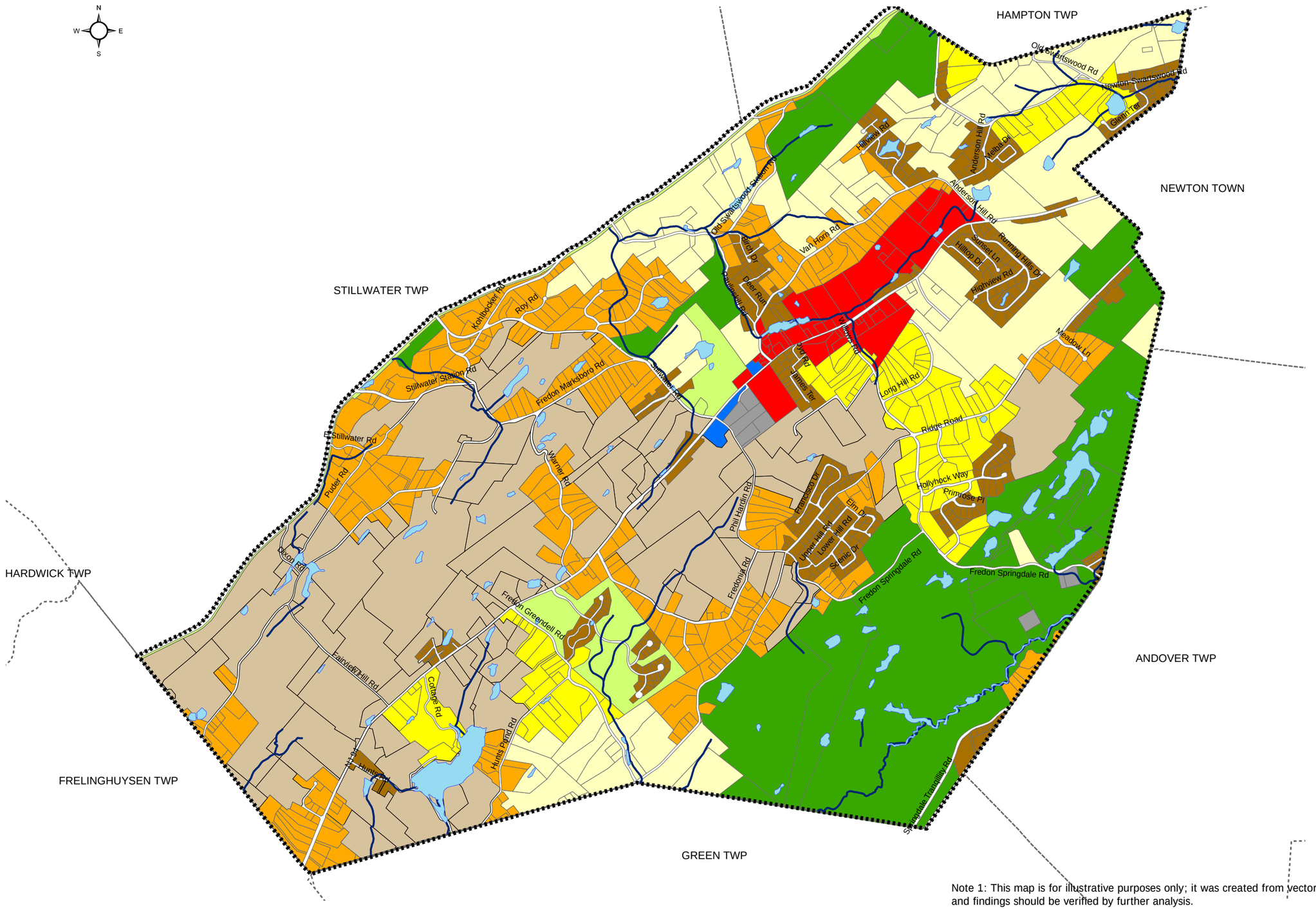
4.1 Overview

The overall intent of this Master Plan is to preserve and enhance the rural character of Fredon by protecting the existing residential development, preserving farmland, conserving natural resources and providing the community with facilities and amenities that meet the needs of the residents. During several months of meetings with the master plan subcommittee, numerous planning issues were identified as important to the community. The issues that were identified serve as the basis for the goals and objectives that are detailed below.

First and foremost was the preservation of the rural character of the community. In order to create a plan that encourages the preservation of farmland and open space and the protection of environmentally sensitive areas, a detailed existing land use map and numerous maps detailing the environmentally sensitive characteristics of the township were created. These maps were the basis for the land use plan.

Based on overlays of the environmental data on top of the existing land use map, the following conceptual land use plan was created. From this conceptual stage, the detailed parcel Land Use Plan map was created and is illustrated on the following page of this document.





Note 1: This map is for illustrative purposes only; it was created from vectorized raster data and findings should be verified by further analysis.

Source 1: Base map was prepared by Burgis Associates, Inc., March 2005.

Source 2: Land use information was obtained from the current municipal tax records and field-verified by Burgis Associates, Inc.

Source 3: Stream and lake features obtained from NJDEP.

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Dwg. Title

Land Use Plan

Key Map

Scale NOT TO SCALE

Dwg. Legend

- Municipal Boundary
- Lakes
- Streams

Parcels

Land Use Designation

- Very Low Density Res / Ag
- Low Density Res
- Moderate Density Res
- Medium Density Res
- Rural Agricultural
- Open Space Conservation
- Park
- Community Facilities
- Mixed-Use Market District
- Light Industrial

Rev	Description	Date	Dwn	Ckd

Project Title

MASTER PLAN

TOWNSHIP OF FREDON
SUSSEX COUNTY, NEW JERSEY

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4.2 General Objectives

The Municipal Land Use Law requires that all municipal master plans set forth a statement of objectives, principles, assumptions, policies and standards upon which the master plan recommendations are based. This section of the Fredon land use plan element sets forth the township's goals, objectives and supportive policy statements. The land use plan is predicated on the following general objectives, which are consistent with the "purposes of zoning" as defined in the Municipal Land Use Law.

1. To encourage township actions to guide the appropriate use or development of all lands in Fredon Township which will promote the public health, safety, morals and general welfare.
2. To secure safety from fire, flood, panic and other natural and man-made disasters.
3. To provide adequate light, air and open space.
4. To ensure development within the township does not conflict with the development and general welfare of neighboring municipalities, Sussex County and the state as a whole.
5. To promote the establishment of appropriate densities and concentrations that will contribute to the well being of persons, neighborhoods, communities and regions and preservation of the environment.
6. To encourage the appropriate and efficient expenditure of public funds by the coordination of public development with land use policies.
7. To provide sufficient space in appropriate locations for a variety of uses and open space, both public and private, in a manner compatible with the character of the township and the environment.
8. To encourage the location and design of transportation routes which will promote the free flow of traffic while discouraging the location of such facilities and routes which would result in congestion, blight or unsafe conditions.
9. To promote a desirable visual environment through creative development techniques and good civic design and arrangements.
10. To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources, and to prevent urban sprawl and degradation of the environment through improper use of land.
11. To encourage senior citizen housing construction.
12. To encourage coordination of the various public and private procedures and activities shaping land development with a view of lessening the cost of such development and to the more efficient use of land.
13. To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to compliment municipal recycling programs.

4.3 Goals and Policies

The background research and mapping prepared for this master plan document revealed important details of the environmental characteristics of the municipality that have not previously been identified in a comprehensive planning document. These findings have resulted in significant modifications to the planning goals and policies of the township. Detailed below are goals of the municipality that were developed to reflect the numerous environmental characteristics of the municipality and the Township's strong stance on the preservation of farmland, environmentally constrained land, sensitive habitat for noteworthy species and open space.

Farmland Preservation

Goal 1: To preserve agricultural lands and open space is the township's first and foremost goal. Agriculture occupies 41 percent of the land area in the township, which acts as open space and contributes to many environmental and aesthetic benefits including breathtaking vistas.

Goal 2: To manage the character and location of new development to avoid critical slopes and ridgeline areas through municipal master plan policies and regulations. And to ensure these policies and regulations are part of a coordinated planning effort with state and county resource protection endeavor.

Goal 3: To ensure any future development of farmland that does occur includes a component of preservation within the overall development and is designed to minimize any visual and environmental impacts that may occur.

Goal 4: To ensure a stable land base for the future of agricultural industry by permanently preserving privately owned agricultural land. In turn, this land base will serve to manage watersheds, recharge aquifers, manage wildlife and protect stream corridors.

Goal 5: To collaborate with the State and County farmland preservation plans and participate in their numerous farmland preservation programs in order to meet the established local preservation goals.

Open Space Preservation and Environmental Conservation

Goal 1: To protect areas constrained by steep slopes, wetlands, category one streams, flood prone areas, forested areas, and areas with threatened or endangered habitat by enforcing the township's environmental regulations and establishing new regulations to address unregulated elements.

Goal 2: To minimize the visual impact of future development on the rural landscape and scenic corridors. And within this context, ensure that new development is located in the appropriate areas and that it provides the appropriate buffers necessary to protect the environment and minimize the visual impact.

Historic Preservation

Goal 1: To encourage awareness and protection of Fredon's cultural, social and historic heritage in order to provide a link to the past as well as enhance the character and visual image of the municipality.

Goal 2: To ensure future development is sensitive to the historic elements of the municipality and future structures, enhance the historic character of the area through proper site planning and architectural design.

Goal 3: To create a historic preservation commission that can review and modify the historic properties inventory to establish if there is a need for an historic preservation ordinance.

Residential Development

Goal 1: To provide a variety of housing types, densities and a balanced housing supply, in appropriate locations to serve the township. The Township has an opportunity to provide a varied housing stock consisting of detached dwellings, townhouses, and multi-family units. The township's policy is to accommodate this broad array of housing, and encourage the provision of some townhouses and multi-family residential development, within the area identified as the Mixed-Use Market District on the Land Use Plan map, but not encourage any additional attached residential development beyond that which is depicted on the Land Use Plan map (page 16). The township's housing policies also recognize that the State has refined the housing issues to direct attention to the specific need for lower income housing. One means to address this need is to encourage the construction of group homes in appropriate locations.

Goal 2: To encourage and further enhance the existing development pattern and land use arrangement in the township that respects the environmentally sensitive nature of the municipality. The municipality is characterized by a number of environmental constraints including the limitations of the soil and underlying geological structure, flood prone areas, C-1 waterways, wetlands and steep slopes. Future residential development should respect these environmental constraints and incorporate them into any new development design with appropriate buffer areas.

Goal 3: To encourage the construction of new residential structures that are in keeping with the character of the numerous historic structures, farmhouses and barns from the turn of the century. The architecture, location, orientation, and setbacks from the roadways of these historic structures create a certain experience that adds to the character of Fredon. The goal is to encourage future development that is not only in keeping with the character of these structures but also enhances their existence by utilizing the same setbacks and orientation to streets.

Goal 4: To preserve large tracts of land for open space and farmland by encouraging the development of new residential subdivisions in a cluster design, as well as encouraging development outside critical farming or open space areas without significantly penalizing landowners.

Commercial / Industrial Development

Goal 1: To promote commercial and industrial development within established areas, specifically concentrating along the Route 94 corridor exclusively in the central portion of the municipality to the extent identified in the land use plan and Mixed-Use Market District concept plans.

Goal 2: To encourage commercial farm uses that supplement the existing farms in the township.

Goal 3: To encourage infill development, the adapted re-use of existing buildings and the more intense development of the Mixed-Use Market District, as depicted on the Land Use Plan map (page 16) along Route 94.

Goal 4: To encourage commercial and industrial development that is in keeping with the scale and character of the entire township. And to discourage larger retail establishments that would have a negative impact on the environmentally sensitive characteristics of the township.

Recreation and Community Facilities

Goal 1: Enhance the level of community facilities in the township to meet the current needs of the municipality while remaining consistent with the rural character of the township.

Goal 2: Concentrate the development of additional community facilities in the center of the township where they can enhance the newly constructed recreation center with additional municipal amenities including additional passive recreational facilities.

Goal 3: To encourage future development to incorporate passive recreational trails on site that will enhance the design and constriction of the municipal wide passive recreation trail that is identified in this document.

4.4 Land Use Plan Categories

The Township's land use plan is based on the goals and objectives that are identified in the prior section of this document. The mapping of the township's environmental data serves as a backdrop for the plan, which respects the existing development pattern and environmentally sensitive areas, encourages preservation of large tracts of land and concentrates all development into areas of the municipality that are not environmentally sensitive.

Since much of the environmental data that was utilized for this plan was not analyzed or available when the previous plans were created, this plan departs considerably from previous plans and the existing zoning regulations. There are several areas in the municipality which have been identified as extremely environmentally sensitive and were previously zoned for higher density development. This plan, oriented towards the preservation of these areas, calls for the down zoning of several parcels and permits higher density cluster development on unconstrained land.

In order to accomplish the preservation goals detailed above, the land use plan is organized into ten (10) categories. The planning goals and objectives of each of these categories are detailed below and the accompanying Land Use Plan map (page 16) designates one of these ten (10) categories for each parcel in the municipality.

Rural Agricultural

This land use category encompasses approximately 3,300 acres in the southern portion of the municipality. A majority of the parcels located in this land use category are currently utilized as farmland, and are generally over forty (40) acres in area.

The purpose of this category is to minimize sprawl and deleterious development impacts on the large tracts of land that comprise both Fredon's largest contiguous farming area and several of its most important scenic corridors. The area designated for farmland conservation is to be preserved for agricultural purposes, including those with a commercial component, and limited residential development. Any residential development that is to be constructed on lands within this land use category must be designed to minimize any potential impacts to the rural character and aesthetics of the area. Such designs should include the preservation of farmland through cluster development, the provision of buffers when between sites being developed and adjacent farmland or scenic corridors, appropriate methods for streamside protection, locating development in areas least likely to have a negative impact on the agricultural operations of adjacent properties, creating conservation easements in areas with environmental constraints, and locating development in areas that acknowledge, appreciate and protect existing view sheds along scenic corridors.

The rural agricultural category is designed to permit agricultural and single-family residential uses on a minimum lot size of fourteen (14) acres. A cluster option should be permitted with a maximum residential density of one (1) dwelling unit per seven (7) acres, wherein the dwellings can be constructed on lots that are between two (2) and three (3) acres in area, with the remaining portion of the tract to be conserved for farmland purposes.

Very Low Density Residential—Agricultural

This land use category is intended to minimize development impacts on those areas of the township that are substantially vacant or utilized as farmland and have the potential to contribute to the open space and recreation plan (OSRP). Detailed in the OSRP are the characteristics of each of these parcels which have led them to be placed in this category. In addition, the OSRP prioritizes these sites for future open space acquisitions or for the creation of passive recreation corridors.

Like the rural agricultural category, the very low density residential-agricultural category is designed to permit agricultural and single-family residential uses on a minimum lot size of fourteen (14) acres. A cluster option should be permitted with a maximum residential density of one (1) dwelling unit per seven (7) acres, wherein the dwellings can be constructed on lots that are between two (2) and three (3) acres in area, but the remainder of the tract should be preserved for open space or recreation purposes.

It should be noted that given the number of significant existing farms in this land use category, it would be appropriate for the Township to consider preserving this land for farming purposes, if given the opportunity.

The parcels located in this category are generally defined as follows:

- Properties adjacent to the Green Township municipal border, generally east of Hunt's Pond Road and west of the DEP tract along Ridge Road.
- An area adjacent to the Stillwater Township municipal border, straddling Paulinskill and Old Swartswood Station Roads, and extending east to Van Horn Road.
- An area in the northern portion of the township, generally east of Hampton Township and the Paulinskill Wildlife Management Area, north and east of the Mixed-Use Market District, and west of Ridge Road.
- Scattered sites in the vicinity of Lodestar Park and the Nature Conservancy open space areas.

Low Density Residential

The low density residential category is designed to permit single-family residential uses on a minimum lot size of six (6) acres. A cluster option is permitted, but with no increase in density. This designation is recommended to encompass those areas that are a mix of mini-farms (those between twelve (12) and forty (40) acres in size) and rural residential properties, as well as those properties that are heavily constrained by environmental features. The parcels in this category generally consist of the following:

- An area north of Newton Swartswood Road and south of the Hampton Township municipal border.
- An area on the east side of Newton Swartswood Road, just north of its junction with Anderson Hill Road.
- An area along Route 618, stretching between the designated Mixed-Use Market District and the Nature Conservancy properties.
- An area along Fredon-Greendell Road, immediately south of Bear Brook Village.
- An area on the east side of Route 94, in the vicinity of Hunts Pond.

Moderate Density Residential

The moderate density residential category is designed to permit single-family residential uses on a minimum lot size of four (4) acres. This land use category encompasses a number of areas throughout the township and reflects the prevailing densities found here. The areas included in this designation are typically fully developed, with few vacant properties. The further expansion of this land use category beyond those areas identified on the accompanying map is discouraged. These areas are generally described as follows:

- A number of parcels along Fredon-Marksboro Road, adjacent to the Frelinghuysen Township municipal border.
- An area along Route 94, adjacent to the Frelinghuysen Township municipal border.
- A number of parcels along Hunts Pond Road, adjacent to the Green Township municipal border.
- An area bounded generally by Route 94 to the west, Fredonia Road to the north, Ridge Road to the east, and Bear Brook Village to the south. This area also includes several parcels located along Warner Road, west of Route 94.
- An area adjacent to the Stillwater Township border, generally following Stillwater Road, Puder Road, and portions of Fredon Marksboro Road.
- Three pockets adjacent to the Ridge View Acres development, including along Fredon-Springdale Road, Ridge Road and Phil Hardin Road.
- An area along Van Horn Road, stretching up to and along Old Swartswood Station Road.
- An area along Old Swartswood Station Road, adjacent to the Hampton Township municipal border.
- The parcels along Meadow Lane, to the east of Ridge Road, as well as several adjacent lots.
- A small area located adjacent to the Andover Township municipal border, just east of the Whittingham Wildlife Management Area tract.

Medium Density Residential

This land use category encompasses several areas in the township which have developed as single family residential neighborhoods with an average lot size of one (1) acre in area. This land use category generally reflects the existing development pattern. The areas in the township that are located in this land use category are generally described as follows:

- An area along Hunts Road, just east of Route 94.
- The Pleasant View Estates area on the west side of Route 94, off of Lakeview Drive.
- The Bear Brook Village development east of Route 94, off of Players Boulevard.
- A small pocket along both sides of Route 94, immediately south of Fredon Elementary School.
- An area extending along the east and west sides of Verdona Road, including two parcels on the north side of Stillwater Road.
- The Deer Run and Fredon Acres developments and vicinity.
- The Fredon Heights development on the east side of Route 94, off of Lloyd Road and James Terrace.
- The Westview Estates development and surrounding lots along Westbrook and Van Horn Roads.
- A small area along Newton Swartswood Road, adjacent to the Paulinskill Wildlife Management Area.
- The east and west sides of Anderson Hill Road, between Newton Swartswood and Van Horn Roads. This area includes the Circle Drive subdivision.
- The residential properties in the Green Hill Estates development, as well as neighboring properties along Newton Swartwood Road and the Newton municipal border.
- An area encompassing the east and west sides of Route 94, between Anderson Hill Road and the Newton border.
- The residential area off of Running Hills and Hilltop Drives, east of Route 94.
- An area located along the west side of Route 94, partially surrounded by the designated Mixed-Use Market District .
- The east side of Ridge Road, just south of the Newton border.
- Several properties along Hollyhock Way and Larkspur Lane, north of Route 618.
- The Ridge View Acres developments, both east and west of Ridge Road.
- The lots along Springdale Garden Road, west of the Andover Township border.
- The east side of Springdale Tranquility Road, along the Andover border.

The Plan recommends that these areas be designated for single-family residential uses on a minimum lot size of one (1) acre. This designation reflects the existing development pattern, which is typically of a suburban residential nature. It is the explicit goal of the Township not to encourage or permit creation, by subdivision, any lots further reduced in size from this recommended minimum. The further expansion of this land use category beyond those parcels identified on the accompanying map is discouraged.

Light Industrial

The light industrial designation encompasses three small areas within the township — one being directly east of Phil Hardin Road and south of the Fredon Township municipal complex, and the remaining two being the Mira Plastics sites near the Andover Township municipal border. This land use category is designed for a variety of light industrial uses that impose a limited or moderate impact on the surrounding environment and neighboring uses, including general manufacturing and related business activities, warehouses, scientific and research laboratories, ancillary office and similar type uses.

Community Facilities

The community facilities designation applies to three properties along Route 94 that are currently devoted to municipal business. The first is the Fredon Elementary School property, located at the southeast corner of Route 94 and Phil Hardin Road. The second property is the Municipal Building/Fire complex, located on the northeast side of Route 94 and Phil Hardin Road. The third property is located on the west side of Route 94 and is identified as Block 1601 Lot 2. This property is the site of the newly constructed Firehouse and Recreation Center, which opened in August of 2006.

Park

This land use category is designed to acknowledge the township's existing parkland. While the open space and recreation plan identifies numerous parcels that are appropriate for recreation purposes that would warrant a park designation in the land use plan, the park category for the land use plan is solely for the designation of existing parks. This category encompasses three specific areas, including the semi-private Bear Brook Village golf course, which comprises approximately 177 acres; the municipally-owned Lodestar Park, which comprises approximately 81 acres; as well as the NJDEP-owned Paulinskill Valley Trail, which is located along the township's western boundary adjacent to Stillwater and Hampton Townships.

Open Space Conservation

This land use category is designed to acknowledge the Township's existing open space, as well as acknowledge other parcels that are appropriate to be considered for acquisition. These areas are intended to serve as expansive public conservation areas with minimal disturbance, utilized primarily for hiking, biking, wildlife appreciation and other low intensity activities. The preservation of these environmentally critical areas are identified as an important priority for the municipality, as well as their enhancement through acquiring additional lands adjacent to already established open space areas.

Existing open space in Fredon includes the following properties:

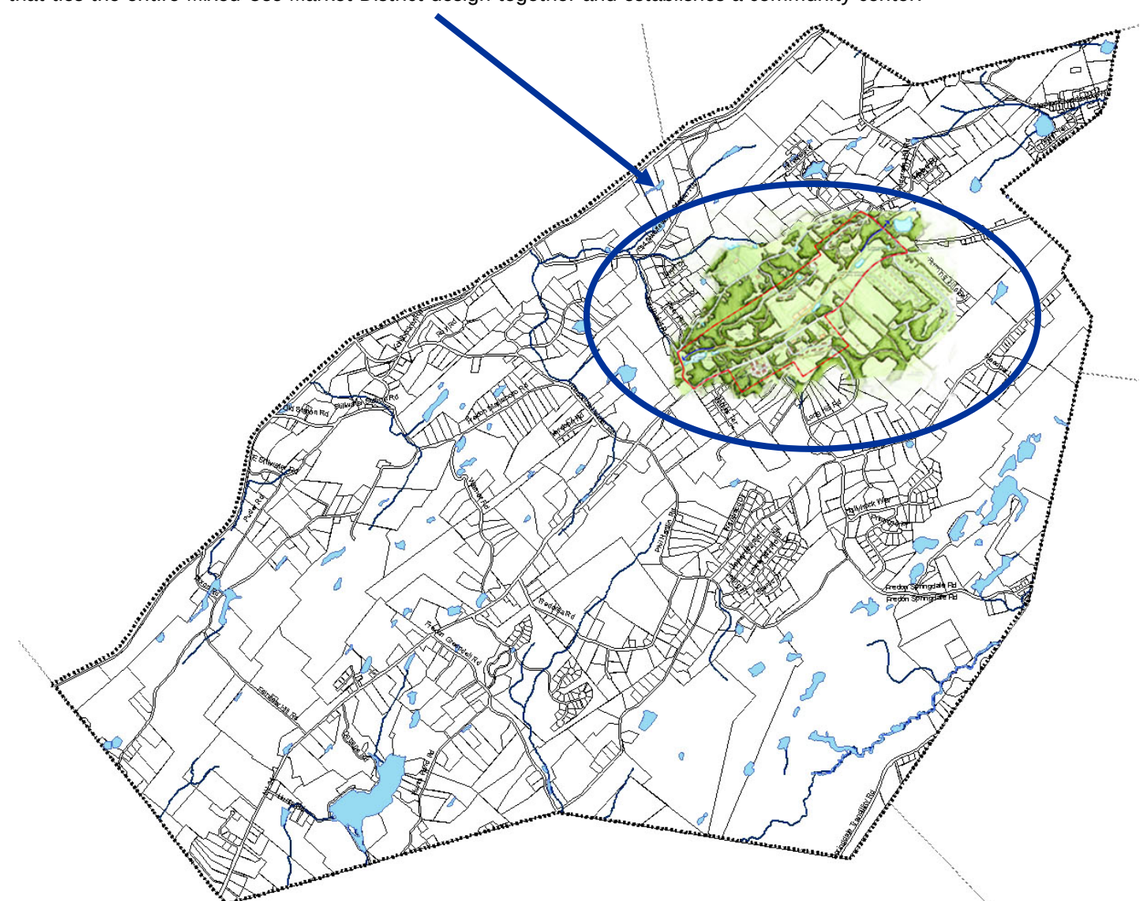
- The Whittingham Wildlife Management Area, owned by the State Division of Fish, Game and Wildlife. It occupies an area of 722 acres generally south of Route 618 and east of Ridge Road.
- Approximately 525 acres of other state-owned (NJDEP, Department of Conservation, etc.) lands in scattered sites surrounding the Whittingham tract.
- The Paulinskill Wildlife Management Area, located in the northern portion of the township, adjacent to the Hampton Township border. This NJDEP-owned site occupies an area of 250 acres.
- The Emmens Station Site, located adjacent to the Paulinskill Valley Trail just south of Route 614. It is owned by the NJDEP and totals 14.5 acres in area.
- The Nature Conservancy's Muckshaw Ponds Preserve, located north of Route 618 near the Andover municipal border. This area extends to two lots on each side of Ridge Road, adjacent to the Newton municipal border, occupying a total area of 470 acres.
- Various properties that have been deed restricted for open space conservation, including the following:
  - — Block 1601 Lot 13, located along both Stillwater Road and Paulinskill Road (69.4 acres).
  - — Block 1201 Lots 4.01, 6.02, 6.04 and 6.06, located south of Route 618, just west of the Andover Township border (141.08 acres).
  - — Block 1001 Lot 15.70, located along the north side of Route 618 (20.07 acres).

Mixed-Use Market District

This land use category is recommended to encompass the area along Route 94 that is generally south of Anderson Hill Road and north of Lodestar Park and the municipal complex. While the Township of Fredon currently has a Town Center (TC) zone district here, the area depicted on the adjacent land use plan incorporates new design concepts. These new design concepts are intended to promote a community center, not just a commercial core, while also being sensitive to the unique constraints of the area. They would encourage commercial development and a higher density residential development than in the remainder of the township, with its main focus being the creation of a center for the community.

The designation is in keeping with the County master plan, which suggests that job creation centers should be located along or in close proximity to major highways, such as Route 94. While the job centers do not correspond directly to the Nodes concept identified in the State Development and Redevelopment Plan, they do play an important role in the economic health of the county. In the section of this document that addresses the State Plan, the differences between the proposed district and the centers delineated in the State Development and Redevelopment Plan are detailed.

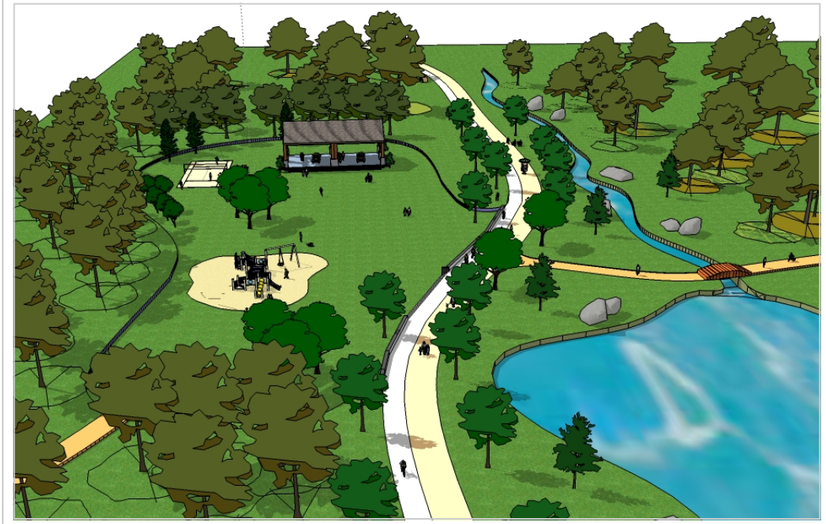
The map below is the conceptual Mixed-Use Market District design overlaid on the parcel base map for the entire municipality. This map shows how the extent of this designation has been consolidated from the current Town Center (TC) zone designation to create a more compact design. The concept plans depict a plan that includes both commercial and residential uses that are developed around a pedestrian trail system and central park facility. It is the trail system that ties the entire Mixed-Use Market District design together and establishes a community center.



As noted above, a pedestrian trail system is incorporated into the entire Mixed-Use Market District design. The trails would link several existing residential neighborhoods, new residential developments, and commercial uses with existing parks and open space.

The trail system would extend along the stream that parallels Route 94. Because the stream is a designated Category One stream by the Department of Environmental Protection, there is no development permitted within 300 feet of it. The design of this park system allows this land area to be utilized and provides the township with a much needed recreation facility.

The trail would connect Lodestar Park to the south, the existing commercial uses along Route 94, the proposed commercial development on the east side of Route 94, new multi-family residential development on both sides of Route 94, and then to the Nature Conservancy land to the northeast.

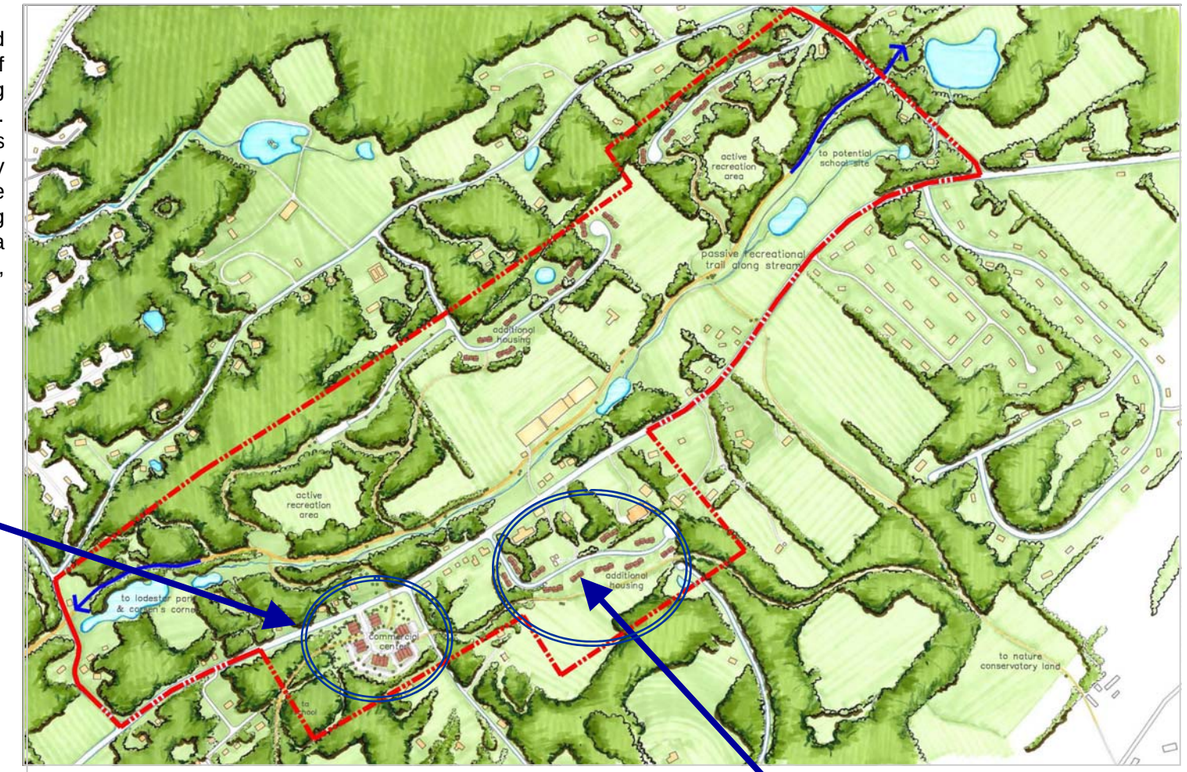


Along the proposed trail system, there would be pockets where active recreation facilities could be constructed. Along the west side of Route 94, in between the steep sloping and environmentally sensitive lands, there are pockets of unconstrained areas that range in size up to approximately six (6) acres in area. Given the physical separation between these lands and existing developments, these pockets provide the perfect opportunity for the construction of additional playgrounds, tennis courts, community pavilions, and fields.

The perspectives on this page illustrate conceptual recreational facilities that could be constructed along the proposed trail system. These types of recreational facilities would enhance and work with the upgrades for Lodestar Park that are currently being constructed. The conclusion for these planning and design studies is that the creation of new zoning regulations for the Mixed-Use Market District should include a passive and active recreation component.

While the passive/active recreation component is the heart of the Mixed-Use Market District design, it is further enhanced and complemented with both commercial and residential development. In order to determine the location and extent of development that is appropriate for this district, a three-step process was undertaken. First, the existing surrounding land uses were reviewed to ensure that any future designs are consistent with this existing pattern of development. Secondly, in order to determine the extent of development, a review of the soil limitations and septic suitability was completed. The soil limitations analysis was based on the findings detailed in Table 2 (page 9) and the septic suitability was based on general design standards for septic systems. The NJDEP standards set the size of the system based on the proposed bedroom count. Once the size of the system was identified (assuming three (3) bedroom units, each dwelling unit would require a 1,000-gallon tank), typical standards for the land area required for those systems was taken from a manufacturer of septic systems. Lastly, in designing the residential component to the Mixed-Use Market District design, each dwelling unit was given a designated portion of land to be set aside for a septic system.

The Mixed-Use Market District land use category would provide for a variety of commercial uses, such as business and professional offices and studios, eating and drinking establishments, retail and service establishments, banks, post offices, and recreation facilities. The concept plan to the right is an illustration of a commercial core designed around a central park. This design includes approximately 40,000 square feet of retail space immediately adjacent to Route 94.



In addition to the park and commercial components, the Mixed-Use Market District design illustrates some townhouse type development on lots set back from Route 94. The multi-family development would be extended along the proposed trail system, and would allow residents to access the park facilities and neighboring retail uses without a vehicle. Such developments would be especially suitable for senior housing and/or fulfilling the township's affordable housing obligation, as set forth in the Housing Plan Element. The concept plan detailed above illustrates that the appropriate number of housing units for this district is between 50 and 100 dwelling units. This number of dwelling units will allow for a substantial amount of land area devoted to passive recreation, as well as accommodate some active recreational facilities, while also remaining complementary with the rural character of the community.

The basis for the creation of the Mixed-Use Market District is to concentrate the majority of the township's development in one location, while at the same time preserving the land area on the periphery. One tool that may be explored by the municipality is the State's Transfer of Development Rights (TDR) program, which would further their preservation goals even more. If this program is utilized, the preservation of specified land area in the township may be exchanged for a slightly higher permitted density in the Mixed-Use Market District. However, this density cannot be determined until a detailed planning and marketing analysis is complete.

4.5 Recommended Amendments to Zoning Map

As stated, the main goal of the land use plan is to recognize and protect the environmentally sensitive land located in the municipality. In order for the plan to respect these characteristics and layout a development pattern that would be sensitive to them, it is necessary to modify the permitted density of the development throughout the entire municipality. All of the proposed modifications are based on the existing development pattern and the Existing Land Use and Zoning Map (page 3). The land use plan reflects all existing land uses, and creates an agricultural zone district which includes a majority of the existing larger lots that are utilized for agricultural purposes. The existing residential neighborhoods were divided into four (4) additional separate categories, based on their average lot area. There are some areas of the municipality that currently have larger lots and are more rural in nature, therefore the recommended minimum lot area was increased. Likewise, there are areas in the township that have smaller lots then the current zoning regulations permit, In these areas, the recommended minimum lot areas were decreased to reflect current conditions.

To implement the new land use plan, a new zoning map would need to be adopted. The Recommended Zoning map that would assist in the implementation of this land use plan is located on the following page. It delineates ten (10) zone districts, including the Mixed-Use Market District described above. The table below details the proposed zone districts.

Table 4
Proposed Zoning Districts

Abbreviation	Description	Planning/Future Development Comment
AR	Agricultural Residential	Minimum 14 acre lots with cluster option for farmland preservation
RA	Residential Agricultural	Minimum 14 acre lots with cluster option for open space preservation
R-6	Residential	Minimum 6 acre lots with cluster option (no density bonus)
R-4	Residential	Minimum 4 acre lots
R-1	Residential	Minimum 1 acre lots
MUMD	Commercial Residential	In accordance with Mixed-Use Market District design
LI	Light Industrial	Reflects existing industrial development
P	Public	Reflects existing public property
CP	Community Park	Reflects existing community parks
C	Conservation	Reflects existing sites for conservation

4.6 Recommended Amendments to Zoning Regulations

The Recommended Zoning map (page 24) illustrates the recommended location of the ten (10) zoning districts detailed above. Since the land use plan is based on the surrounding development pattern and the principal goal to preserve both farmland and open space, the plan calls for the creation of new zone districts and significant changes proposed to the zoning map and significant changes to the zoning ordinance. The most significant change pertains to the concept of cluster development in the AR and RA zone districts. These new districts were designed to reduce the development impacts to environmentally sensitive lands and minimize the visual impacts to designated scenic corridors, while still allowing private property owners to develop their properties in accordance with appropriate densities.

In order to calculate the amount of development that would be permitted in a cluster development, an applicant for development would have to provide a conceptual subdivision to determine how many lots would be permitted to be developed with a seven (7) acre minimum lot area. That would be the maximum number of lots permitted in a cluster development. This increase would double the density permitted and would therefore provide the incentive for the development of the property as a cluster design. Also, the seven (7) acre minimum would be similar to the existing six (6) acre minimum lot area and therefore the cluster option provides property owners with a similar development potential to what currently exists. The applicant could then develop the parcel with that number of lots determined above, in a cluster design with lots that have between two (2) and three (3) acres in area. This would then allow for the preservation of the remaining parcel for either open space or farmland.

The concept design on page 25 illustrates a favorable design for cluster development on smaller parcels, while the concept design on page 26 details prospective development on a larger parcel adjacent to several designated scenic corridors. These pages illustrate development under the current zoning regulations, development under a minimum fourteen (14) acre lot scenario and development utilizing the cluster option that would be provided for the AR and RA zone districts. As can be seen from the concept designs, the cluster option allows the most land area to be preserved and minimizes negative visual impacts to scenic corridors.

Conceptual Cluster Design: Route 94

The images on page 25 depict the existing subdivision design on a 16-acre parcel located at the southern part of the municipality along Route 94, as well as a conceptual subdivision design for the same parcel utilizing the proposed cluster requirements. As seen from the illustrations, the land adjacent to the proposed dwellings would be preserved under the proposed cluster requirements and could have been left in its natural state, which would have less of a visual impact on the Route 94 corridor. In addition, this portion of land that is left to be preserved would extend to the west to connect to adjacent preserved farmland, which is consistent with the farmland preservation & open space conservation plans contained in this document.

Conceptual Cluster Design: Fairview Hill, Fredon Marksboro & Dixon Roads

The images on page 26 illustrate a conceptual cluster development along Fairview Hill, Fredon Marksboro and Dixon Roads. This 240-acre site extends along Fredon Marksboro Road in a north/south direction. The cluster design option shows the development of 34 two and one-half (2.5) acre lots developed with single-family dwellings. These dwellings are located towards the southern end of the property, where they would have the least environmental and visual impact on the scenic corridors. In this scenario, the remaining lot to the north, towards the intersection with Fairview Hill Road, would be preserved as farmland. This type of development scenario would allow a property owner/private developer to utilize the land's development potential while at the same time preserving the land area and scenic views for a public benefit.

Cluster Design Goals

In general, there are two design goals that should be taken into consideration when planning a cluster development. First and foremost is the location of the cluster itself. The proposed dwelling should be located adjacent to existing dwellings, with consistent setbacks from the roadways and from each other. The proposed roadway should also be located in a place where it is complementary to the surrounding circulation system and would have the least impact on the township's roadway system. In addition, the location of the proposed dwellings should not be immediately adjacent to land being utilized for open space or farmland purposes, and should be consistent with and in furtherance of the farmland preservation and open space and recreation plans contained herein. Lastly, whenever possible, the remaining land dedicated for preservation should be located adjacent to existing lands held for open space and farmland and should be designed in a manner to create the visual and physical connections that are contemplated by both the farmland preservation and open space conservation plans.

Secondly, a view shed study and analysis of the proposal's impacts on scenic corridors and significant view sheds should be completed. The proposed dwellings should be designed and located to ensure the least amount of impact on these significant features of the township. In addition, any development proposal should include the necessary mechanisms for minimizing any negative impacts which may occur as a result of the proposed development. These mechanisms can include the installation of landscaping, the construction of walls and fences that promote a historic image, and/or the inclusion of specific details in the architecture of the buildings themselves. These architectural details can include stepping back the structure to reduce the visual impact, designing a building consistent the with the architecture of surrounding buildings, especially if they are historically significant, and/or creating a building whose scale and massing is considerate to the landscape and environmental features of the land on which it is located.

All of these goals, objectives and requirements should be included in the new comprehensive ordinance that permits the clustering of new residential developments.

Proposed Zoning:

AR: Agricultural-Residential
RA: Residential-Agricultural
R-6: Residential
R-4: Residential
R-1: Residential
MUMD: Mixed-Use Market District
LI: Light Industrial
P: Public
CP: Community Park
C: Conservation

Note 1: This map is for illustrative purposes only; it was created from vectorized raster data and findings should be verified by further analysis.
Source 1: Base map was prepared by Burgis Associates, Inc., March 2005.
Source 2: Municipal boundary, lakes, and streams information obtained from NJDEP.

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Dwg. Title
Recommended Zoning

Key Map
Scale NOT TO SCALE

Dwg. Legend
Municipal Boundary
Parcels
Proposed Zoning

Rev	Description	Date	Dwn	Ckd

Project Title
MASTER PLAN
TOWNSHIP OF FREDON
SUSSEX COUNTY, NEW JERSEY

Graphic Scale

JOSEPH H. BURGIS AICP
PROFESSIONAL PLANNER
NEW JERSEY LIC. NO. 2450

Project No.	1467.04
Sheet No.	1 of 1
Date	10/21/05
Drawn	RW
File Name	1467.04RZN

Dwg. No.
RZN

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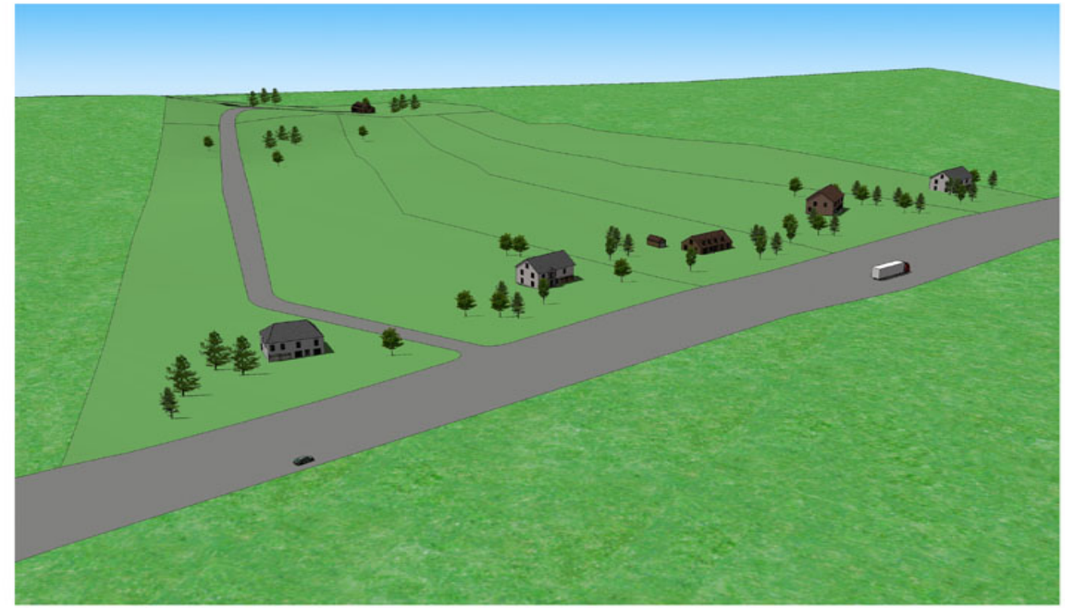
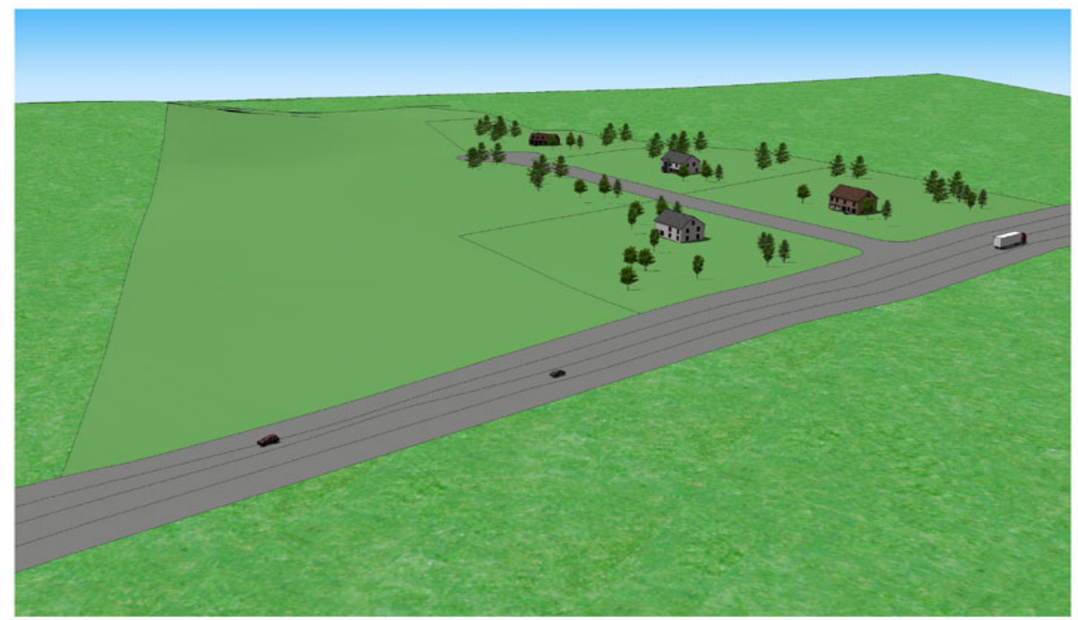
Conceptual Cluster Design: Route 94 (16-Acre Study Area)



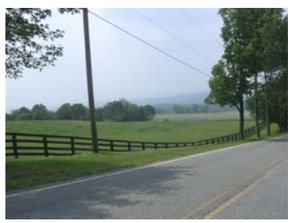
Existing subdivision design in accordance with current zoning requirements



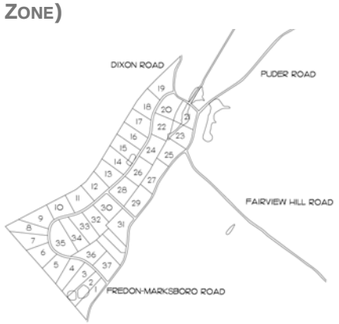
Conceptual subdivision design in accordance with proposed cluster requirements

Conceptual Cluster Design: Fairview Hill, Fredon Marksboro and Dixon Roads (240-Acre Study Area)

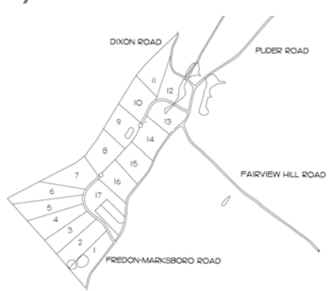
Note: The numbers below are based on land area and do not take into account environmental constraints or necessary engineering owing to the nature of the land. They are for conceptual purposes only.

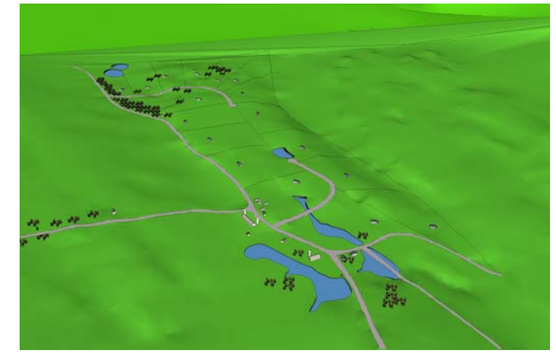


37 six acre single-family residential lots (AR-6 Zone)

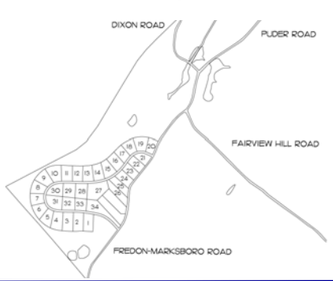


17 fourteen acre single-family residential lots (AR Zone)



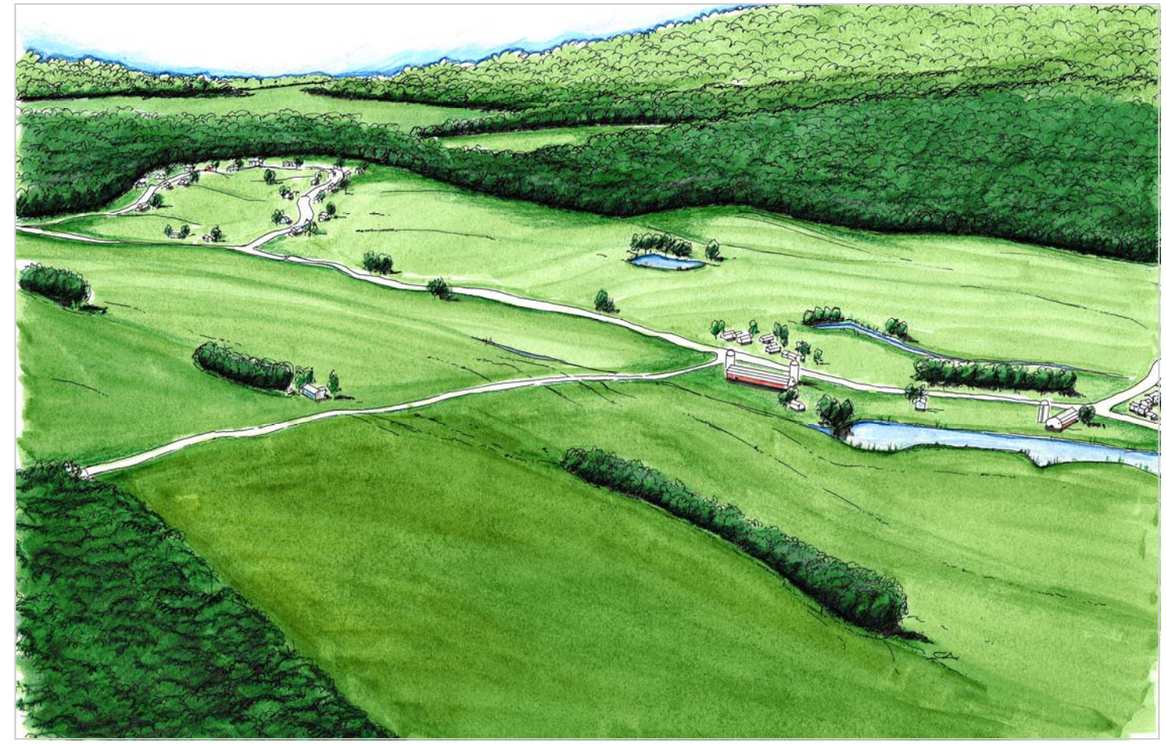


34 two and one-half acre single-family residential lots and 1 lot with remaining farmland (AR Zone Cluster Design)



Simulation of development along Fairview Hill, Fredon Marksboro and Dixon Roads under existing zoning regulations (37 six acre lots)

Simulation of development along Fairview Hill, Fredon Marksboro and Dixon Roads under proposed cluster regulations (34 two and one-half acre lots)



5.0 FARMLAND PRESERVATION PLAN

5.1 Introduction

To establish the parcels that warrant preservation from a farmland perspective, the township drew from the Existing Land Use and Zoning map (page 3) and the Land Use Plan map (page 16). Each of the existing farms, mini-farms and commercial farms that are identified in the land use plan as either rural agricultural or very low density residential-agricultural were selected, which served as the basis for the Farmland Preservation map and table on the following pages. It is these parcels that are recommended for farmland preservation, either through fee simple purchases or farming easements. Some of the current State and County funding sources for farmland preservation are detailed below.

The State Agriculture Development Committee (SADC) chaired by the Secretary of Agriculture, is an 11-member committee made up of public officials and private citizens. This committee administers the Right to Farm Program, oversees the Transfer of Development Rights Bank, and operates the Farm Link Program, which helps match people who own farmland with farmers seeking access to land and farming opportunities.

The Farmland Preservation Program is administered by the State Agriculture Development Committee (SADC), which coordinates with County Agriculture Development Boards, municipal governments, nonprofit organizations and landowners in the development of plans that best meet the needs of individual landowners. Land is eligible for the Farmland Preservation Program if it qualifies for farmland tax assessment and is part of an agricultural development area, an area where the County Agriculture Development Board has determined that farming is viable over the long term.

County Agriculture Development Boards are responsible for approving most applications to the Farmland Preservation Program. Therefore, they are the starting point for most interested landowners. County Agriculture Development Boards review and approve applications, and then forward them to the SADC, coordinating with the State and local municipalities throughout the process.

5.2 Agricultural Easements Purchase Program

Landowners sell the development rights to their county. They retain ownership of the land, but agree to permanent deed restrictions that prohibit nonagricultural development. The state provides grants to counties to fund between sixty (60) to eighty (80) percent of the cost to purchase the development rights on approved farms. The county and or municipality provides the remaining twenty (20) to forty (40) percent. There are two options under the county easement program, as follows:

1. **Sale of Development Easements -** Landowners who want to continue farming their land can sell their development easements. When landowners sell development easements, they still own their land but sell the rights to develop it for anything other than agriculture. Those deed restrictions remain in force for any future owners. Landowners can sell the development rights on their land to the SADC, County Agriculture Development Boards, municipalities or nonprofit organizations. The sale price is based on the difference between what a developer would pay for the land and what it is worth for agriculture. Most farms have entered the Farmland Preservation Program through the sale of development rights.

2. **Donation of Development Easements -** Some farmers and landowners may want to donate the development rights for all or a portion of the land they own. In certain cases, this can provide significant income and estate tax benefits. Landowners should consult an attorney, accountant or financial planner to determine how this option would affect them.

5.3 Fee Simple Purchases

Farms are purchased outright from willing sellers, permanently preserved for agricultural use and resold or leased with deed restrictions attached. The State Agriculture Development Committee (SADC) then auctions the farm to private owner with agricultural deed restrictions in place that ensure its permanent preservation. This option also provides other farms with opportunities to purchase land at reasonable prices that reflect only farmland values, not development potential. The following programs are offered:

1. **Grants to Nonprofits** The State provides cost sharing grants of up to fifty (50) percent to assist nonprofit organizations in permanently preserving farms.

2. **Planning Incentive Grants.** These grants are to municipalities or counties that have identified specific project areas where they intend to permanently protect large blocks of reasonably contiguous farmland. Municipalities must have an agricultural advisory committee and their master plans must contain a farmland preservation plan.

3. **Eight Year Program.** An eight (8) year program allows landowners to voluntarily restrict nonagricultural development on their property for eight years in exchange for selected easement. Although landowners receive no payment for this, they are eligible to apply for cost-sharing grants for soil and water conservation projects, as well as for the Farmland Preservation Program's other benefits and protections.

5.4 State Transfer of Development Rights Bank

The State Transfer of Development Rights Bank was created by the Legislature in 1993. It is in, but not of, the State Agriculture Development Committee (SADC). The Bank provides planning assistance grants to municipalities for costs incurred in preparing transfer of development rights (TDR) ordinances. The Bank also has the authority to purchase, or provide matching funds for the purchase of 80 percent of the value of development potential, as well as provide grants to municipal TDR banks.

Transfer of developments rights (TDR) programs are designed to encourage a shift in growth away from agricultural, environmentally sensitive or open space regions of a municipality to more appropriate areas. Landowners in areas where land use is restricted are allowed to sell their development rights or development credits. Purchasers of these credits then may use them to build elsewhere in a designated growth area at a higher density than is normally allowed in a town's zoning ordinance.

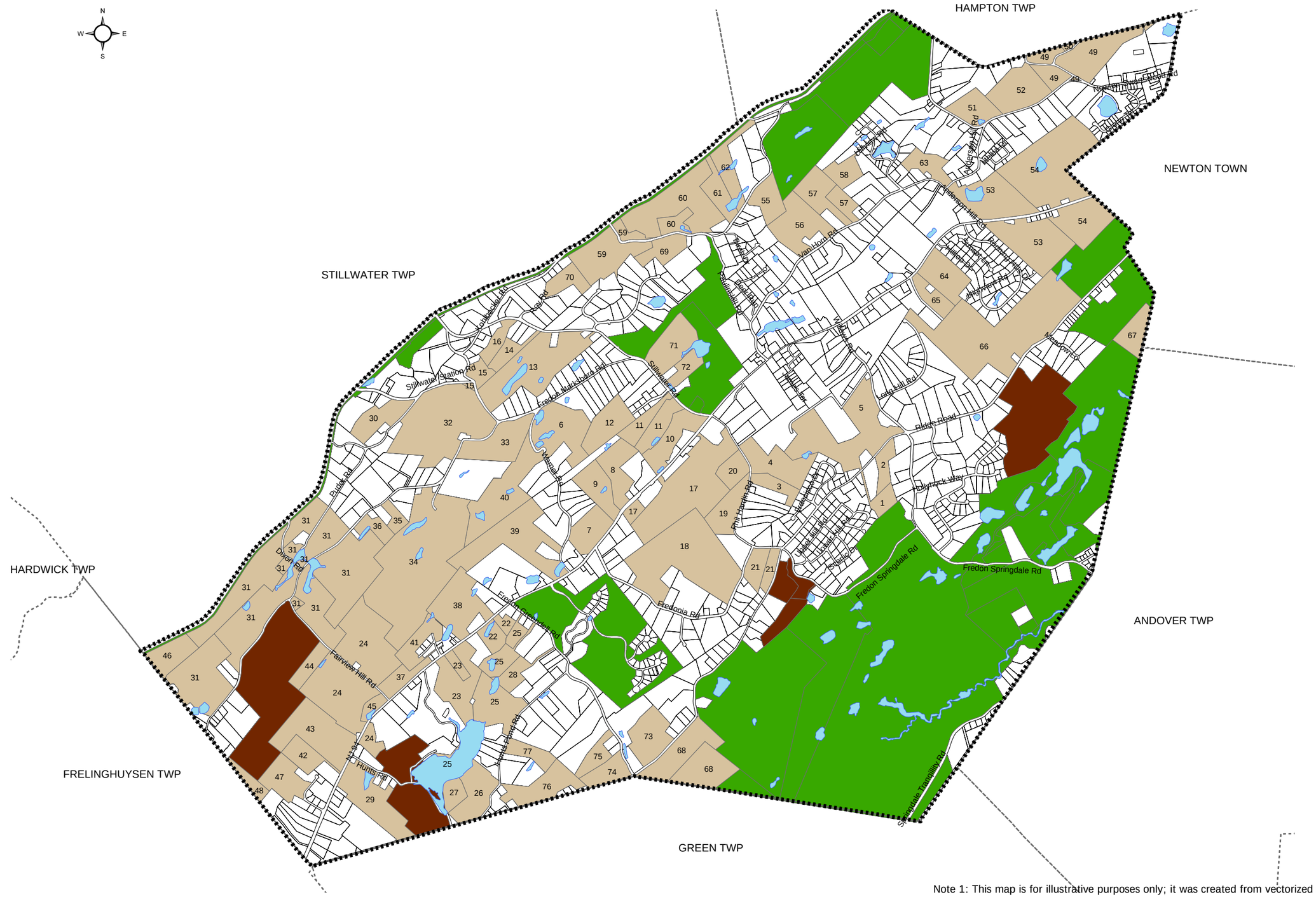
Prior to 2004, only towns in Burlington County had the authority to adopt TDR ordinances. The Legislature enacted the Statewide Transfer of Development Rights Act in 2004, which extended this authority to all municipalities in the State.

As discussed in Section 4.4 of this plan, the municipality may explore the use of a TDR program for the Mixed-Use Market District, which is intended to concentrate the majority of the township's development in one location, while at the same time preserving the land area on the periphery. If this program is utilized, the preservation of specified land area in the township may be exchanged for a slightly higher permitted density in the Mixed-Use Market District. However, this density cannot be determined until a detailed planning and marketing analysis is complete.

5.5 Planning Assistance Grant for Transfer of Development Rights

The State has a grant program which allows municipalities to apply for funds to assist in the planning necessary to create a Transfer Development Rights bank.

The program will provide assistance up to fifty (50) percent of the total cost of preparing, for development potential transfer purposes, a utility services plan element or a development transfer plan element of a master plan pursuant to N.J.S.A. 40:55D-28, a real estate market analysis required pursuant to N.J.S.A. 40:55D-148 and a capital improvement program pursuant to N.J.S.A. 40:55D-29 and incurred by a municipality, or $40,000, whichever is less.



Note 1: This map is for illustrative purposes only; it was created from vectorized raster data and findings should be verified by further analysis.

Source 1: Base map was prepared by Burgis Associates, Inc., March 2005.
Source 2: Information on existing preserved properties obtained from Township of Fredon.
Source 3: Stream and lake features obtained from NJDEP.

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Dwg. Title

Farmland Preservation

Key Map
Scale NOT TO SCALE

Dwg. Legend

- Municipal Boundary
- Lakes
- Priority for Farmland
- Preserved Farmland
- Parcels Preservation
- # ID Number
- Existing Open Space & Recreation

Rev	Description	Date	Dwn	Ckd

Project Title

MASTER PLAN

TOWNSHIP OF FREDON
SUSSEX COUNTY, NEW JERSEY

Graphic Scale

JOSEPH H. BURGIS AICP
PROFESSIONAL PLANNER
NEW JERSEY LIC. NO. 2450

Project No.	1467.04
Sheet No.	1 of 1
Date	03/08/06
Drawn	RW
File Name	1467.04FP

Dwg. No.
FP

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TABLE 5
APPROPRIATE SITES FOR FARMLAND PRESERVATION

ID#	Block	Lot	Address	Use	Acres	2004 Assessment	Proposed Zone
1	1401	1.02	419 RIDGE RD	3C	13.13	$ 165,500	AR
2	1401	1.06	409 RIDGE RD	3C	13.45	$ 302,700	AR
3	1402	3.04	92-94 PHIL HARDIN RD	3C	13.44	$ 8,600	AR
4	1402	3.05	96-100 PHIL HARDIN RD	3B	39.78	$ 331,200	AR
5	1402	7.01	400-412 RIDGE RD	3B	97.55	$ 29,300	AR
6	1602	2.01	50 WARNER RD	3B	50.52	$ 172,100	AR
7	1602	3	500-510 RT 94	3C	29.93	$ 234,800	AR
8	1602	7.01	494 RT 94	3C	32.50	$ 223,600	AR
9	1602	7.02	498 RT 94	3C	32.50	$ 36,000	AR
10	1602	8	476 RT 94	3C	32.77	$ 77,100	AR
11	1602	11.01, 11.02	9 & 15 STILLWATER RD	3C	38.29	$ 511,300	AR
12	1602	12.01	12 VERDONA RD	3C	34.80	$ 413,700	AR
13	1603	2.01	51-57 STILLWATER RD	3D	88.96	$ 625,700	AR
14	1603	3.01	63 STILLWATER RD	3C	12.25	$ 161,000	AR
15	1603/2004	3.06/9	STILLWATER STATION RD	3C	12.05	$ 230,100	AR
16	1603	3.08	75 STILLWATER RD	3C	14.09	$ 276,900	AR
17	1801	4, 4.02	481 & 494-495 RT 94	3B	116.56	$ 75,100	AR
18	1801	8	65 FREDONIA RD	3D	130.76	$ 456,900	AR
19	1801	12.02	67-107 PHIL HARDIN RD	3C	29.64	$ 262,000	AR
20	1801	12.03	95-101 PHIL HARDIN RD	3C	15.73	$ 10,100	AR
21	1802	17.01,17.02	61-65 FREDONIA RD	3C	24.48	$ 19,800	AR
22	1902	3.01,3.02	553 RT 94	3C	18.80	$ 204,300	AR
23	1902	4,4.01	561-571 RT 94	3B	58.67	$ 223,100	AR
24	1902/2005/2101	8/11.01/6	RT 94/FAIRVIEW HILL RD	3B	162.24	$ 335,400	AR
25	1902	12,16.04,18,18.12	HUNTS POND RD/FREDON-GREENDELL RD	3B	102.59	$ 184,900	AR
26	1902	15	150-160 HUNTS POND RD	3B	39.45	$ 191,500	AR
27	1902	15.01	204 HUNTS RD	3C	13.50	$ 242,000	AR
28	1902	18.09	22 FREDON-GREENDELL RD	3C	15.11	$ 121,600	AR
29	1903	2.01	619-627 RT 94	3B	60.68	$ 189,500	AR
30	2002	3	125 STILLWATER STATION RD	3C	29.55	$ 312,700	AR
31	2003/2004/2005/2102/2201	1,3/4,5/8,9,10/1,2,3/4	DIXON RD/FREDON-MARKSBORO RD	3B/3D	377.54	$ 1,206,300	AR
32	2004	7	66 FREDON-MARKSBORO RD	3B	119.62	$ 509,200	AR
33	2005	1	33-49 FREDON-MARKSBORO RD	3D	43.85	$ 314,300	AR
34	2005	3.01	77 FREDON-MARKSBORO RD	3B	206.71	$ 192,300	AR
35	2005	4.02	93 FREDON-MARKSBORO RD	3C	9.99	$ 80,600	AR
36	2005	6	99-103 FREDON-MARKSBORO RD	3C	14.21	$ 113,900	AR
37	2005	12	578-596 RT 94	3C	17.00	$ 267,300	AR
38	2005	15	550 RT 94	3B	53.26	$ 13,600	AR
39	2005	24.01	9 WARNER RD	3B	79.80	$ 726,200	AR

Use: 3B=Farm; 3C=Mini-Farm; 3D=Farm/Commercial

ID#	Block	Lot	Address	Use	Acres	2004 Assessment	Proposed Zone
40	2005	28	39 WARNER RD	3B	65.28	$ 253,200	AR
41	2010	3	8 LAKEVIEW DR	3C	31.92	$ 9,600	AR
42	2101	3.02	626 RT 94	3C	22.60	$ 354,000	AR
43	2101	4	614-624 RT 94	3D	69.36	$ 183,200	AR
44	2101	6.01	27 FAIRVIEW HILL RD	3C	16.72	$ 297,800	AR
45	2101	7	598-606 RT 94	3C	8.45	$ 500	AR
46	2102	4	STILLWATER-WARREN CO LN	3C	27.03	$ 800	AR
47	2103	13	11 DUKE OF GLOUCESTER ST	3C	30.19	$ 213,700	AR
48	2104	9	OFF RT 94	3B	11.0	$ 400	AR
49	101/102/103/105	2/2/8/1	NEWTON-SWARTSWOOD RD/SLATE PENCIL HILL RD	3B	71.41	$ 183,800	RA
50	102	1	15 SLATE PENCIL HILL RD	3B	1.47	$ 200	RA
51	103	6.02	348 NEWTON-SWARTSWOOD RD	3C	26.28	$ 204,900	RA
52	103	7	334 NEWTON-SWARTSWOOD RD	3B	40.00	$ 214,600	RA
53	104/801	15.02/8	327-339 & 340 RT 94	3B	118.88	$ 225,400	RA
54	104/801	19/1.01	301-311 & 302-308 RT 94	3B	154.00	$ 84,200	RA
55	401	4	24 OLD SWARTSWOOD STATION	3C	24.86	$ 173,700	RA
56	401	12.01	56-68 VAN HORN RD	3B	45.19	$ 529,800	RA
57	401	12.04,12.06	48 & 50 VAN HORN RD	3C	40.81	$ 79,900	RA
58	401	14.06	2 HILLVIEW RD	3C	15.50	$ 244,400	RA
59	402/1601	1/11	72 & 75 PAULINSKILL LAKE RD	3B	55.26	$ 114,200	RA
60	402	2,2.01	56-60 & 64 PAULINSKILL LAKE RD	3B/3D	91.11	$ 628,900	RA
61	402	4	11 OLD SWARTSWOOD STATION	3C	22.44	$ 206,100	RA
62	402	5	15 OLD SWARTSWOOD STATION	3C	27.55	$ 60,600	RA
63	405	7	22 VAN HORN RD	3C	21.30	$ 151,400	RA
64	801	16	361-367 RT 94	3D	36.53	$ 20,100	RA
65	801	17.01	371 RT 94	3C	16.05	$ 124,400	RA
66	801	32.03	322-350 RIDGE RD	3B	162.84	$ 621,000	RA
67	1001	30.01	OFF RT 206	3C	24.67	$ 11,100	RA
68	1301	11,12	RIDGE RD/FREDON-GREENDELL RD	3B	82.75	$ 25,000	RA
69	1601	10	53-63 PAULINSKILL LAKE RD	3C	20.49	$ 311,400	RA
70	1601	12	9 ROY RD	3C	17.79	$ 213,900	RA
71	1601	14	26 STILLWATER RD	3B	37.65	$ 143,400	RA
72	1601	15.01	18 STILLWATER RD	3C	16.14	$ 243,700	RA
73	1802	11	524-538 RIDGE RD	3B	41.33	$ 70,900	RA
74	1901	1	66-72 FREDON-GREENDELL RD	3C	21.22	$ 683,100	RA
75	1901	2.04	60 FREDON-GREENDELL RD	3C	15.27	$ 222,400	RA
76	1901	4.01	147 HUNTS POND RD	3B	39.63	$ 409,800	RA
77	1901	4.13	133 HUNTS POND RD	3C	14.91	$ 228,000	RA

Use: 3B=Farm; 3C=Mini-Farm; 3D=Farm/Commercial

5.6 Other Preservation Resources

One of the Farmland Preservation Program's functions is help match farmland owners with farmers seeking access to land and farming opportunities is the NJ Farm Link Program. Farm owners looking for farmers can also advertise through the NJ Farmer newspaper, contact Rutgers Cooperative Extension county agents, or speak with local farmers and agricultural organizations, such as NOFA-NJ or a County Boards of Agriculture (CBA) or County Agriculture Development Boards (CADB). To learn more about the "access to land" issues faced by new and established farmers, visit the Growing New Farmers (GNF) website.

The NJ Green Pages, published by the NJ Department of Agriculture, is a resource guide which lists the contact information for NJ's agricultural organizations, including the Department of Agriculture, County Boards of Agriculture, Rutgers Cooperative Extension, grower organizations, and lending agencies.

In some cases, farm owners would like their land stay in agriculture but are unable to either find a farmer buyer or immediately preserve the land. Through the NJ Farmland Preservation Program's Fee Simple Purchase Program, the State Agriculture Development Committee (SADC) can help. The SADC can buy the farm at its unrestricted value, preserve the farm with deed restrictions, and then resell the newly preserved farm at auction.

5.7 Appropriate Sites for Preservation

The Farmland Preservation map and table on the previous two pages identify the sites that have been determined appropriate for farmland preservation. As described in Section 5.1 of this plan, the basis for these selections is the Existing Land Use and Zoning map (page 3) and the Land Use Plan map (page 16). Each of the existing farms, mini-farms and commercial farms that are identified in the land use plan as either rural agricultural or very low density residential-agricultural were selected as appropriate sites.

It is these parcels that are recommended for farmland preservation, either through fee simple purchases or farming easements. While the map and table detail numerous agricultural sites, there may be other sites that are appropriate to be preserved but are not identified here. If a site that is not identified here is able to be preserved, a review of the Land Use Plan and Open Space and Recreation Plan should be undertaken to determine the most appropriate use for those lands.

6.0 OPEN SPACE AND RECREATION PLAN

6.1 Introduction

The preservation of open space for both active and passive recreation fulfills many worthwhile goals, such as preserving environmentally critical areas, retaining the natural beauty of the landscape, providing recreation opportunities in close proximity to residential areas, as well as providing locations for leisure activity. In furtherance of these goals, the open space and recreation plan sets out to identify potential resources for recreation and to preserve and enhance existing facilities. Each of these issues is addressed herein.

6.2 Inventory of Existing Open Space/Recreation Facilities

Fredon's existing recreation facilities — including both public land and privately owned land — account for over 2,500 acres, or approximately 22 percent of the township's total area. Recreational uses are generally categorized as active or passive uses. Active recreation is a term used to encompass leisure activities usually of a formal nature and often performed with others, required equipment and taking place at prescribed places, sites or fields. It can include such activities as swimming, tennis, baseball and playground activities. Passive recreation usually constitutes relatively inactive or less energetic activities, such as walking, sitting, picnicking and table games. Passive recreation can also mean open space for nature walks and observation.

A brief description of each of the township's recreation facilities is provided below, with numbers corresponding to their location on the accompanying map (page 32). Table 6 also provides a summary of the existing facilities.

Public Facilities

1. Lodestar Park: Lodestar Park is located at the northwest corner of Route 94 and Stillwater Road, across from the municipal complex and Fredon Township School. It is 68.9 acres in area, making it the largest of the Township's land holdings. The park currently contains a multi-purpose field used for both soccer and football, a smaller soccer field, a "Little League" baseball field, a softball field, a basketball court within the paved parking lot, a sand volleyball court, a playground containing a swingset and a large piece of play equipment, a walking trail, a bicycle path, and a pavilion with men's and women's restrooms. There are also 44 paved parking spaces, including two handicapped accessible spaces, as well as 47 additional grassed parking spaces. As shown on the accompanying site plan (page 35), prepared by Harold E. Pellow and Associates in May 2006, additional facilities planned for the park include a second "Little League" field, a second multi-purpose field, a tennis court, a basketball court located outside of the parking area, a football scoreboard, and 46 extra grassed parking spaces.

2. Community Center: Located just north of Lodestar Park on Route 94 is the Fire/EMS and Community Center, which is opened in August of 2006. The community center contains a 9,000 square foot gymnasium with a court striped for volleyball, one basketball full court and two half-courts. The gymnasium will also contain an electric scoreboard. Groups utilizing the center include the YMCA, Stillwater-Fredon Athletic Leagues, Adult Basketball League, the Boy Scouts, Girl Scouts and Cub Scouts, as well as senior citizens groups. Scheduling and maintenance are managed by the Fredon Recreation Commission.

3. Fredon Township School: This elementary school is a Board of Education facility located at the southeast corner of Route 94 and Phil Hardin Road. The property contains 8.88 acres. The school's recreation facilities include two playground structures, a soccer field, and a multi-purpose soccer and baseball field.

4. Paulinskill Trail: The Paulinskill Trail is located along the township's entire western boundary, adjacent to both Stillwater Township and Hampton Township. It occupies an area of approximately 35 acres within Fredon, however it extends for a total of 26 miles from Knowlton Township in Warrant County in Warren County to Sparta Junction. The trail is part of the Kittatinny Valley State Park and is owned by the New Jersey Department of Environmental Protection. Comprised of old railroad tracks used by the New York Susquehanna and Western Railroad until their abandonment in 1962, the trail is used today for a variety of activities, including hiking, running, bicycling, horseback riding and cross-country skiing.

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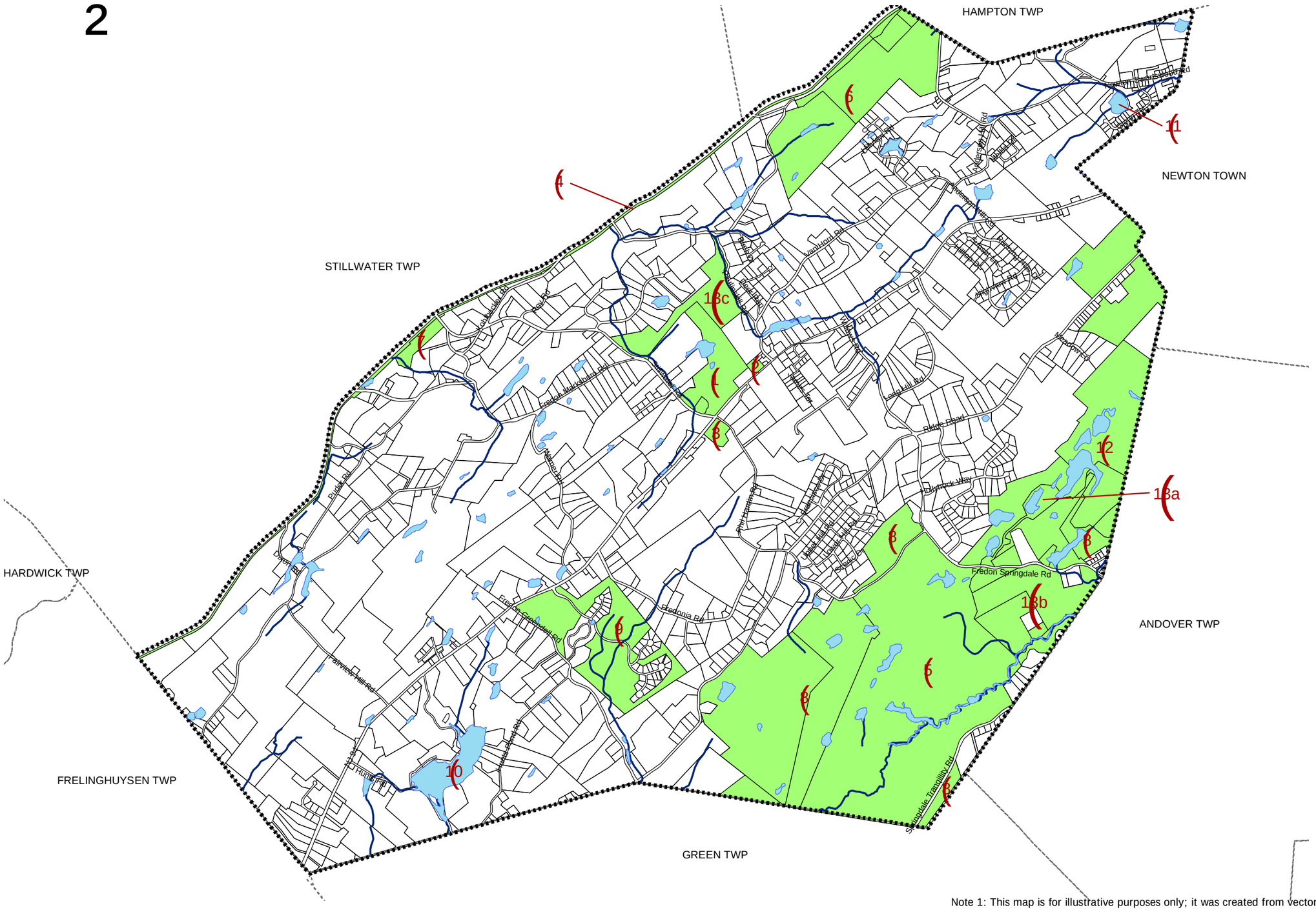

HAMPTON TWP
NEWTON TOWN
STILLWATER TWP
HARDWICK TWP
FRELINGHUYSEN TWP
GREEN TWP
ANDOVER TWP
Vanhorn Rd
Key Rd
Greater Newfoundland Rd
Rutledge Rd
Rutledge Ln
Rutledge Cir
Vanhorn Rd
Wallace Rd
Wallace Ln
Lake Hill Rd
Ridge Road
Rutledge Rd
Rutledge Ln
Rutledge Cir
Rutledge Rd
Rutledge Ln
Rutledge Cir
Rutledge Rd
Rutledge Ln
Rutledge Cir

5. Whittingham Wildlife Management Area (WMA): The Whittingham Wildlife Management Area is Fredon's largest area of public open space, encompassing over 720 acres of land. It is located in the eastern portion of the township, to the south and east of Fredon Springdale Road. Additional portions of the WMA extend beyond the township's borders. The WMA is owned by the New Jersey Division of Fish, Game and Wildlife and supports a range of activities, including hunting, cross-country skiing, horseback riding, as well as passive recreation activities.

6. Paulinskill Wildlife Management Area (WMA): The Paulinskill Wildlife Management Area encompasses approximately 250 acres within Fredon, with additional acreage extending beyond the township's borders. It is located in the northwestern corner of the township, between Old Swartswood Station Road and Newton-Swartswood Road. The WMA is owned by the New Jersey Department of Environmental Protection (NJDEP) and is used for hunting, fishing, and passive recreation activities.

7. Emmens Station: The Emmens Station site is a Natural Heritage Priority Site owned by the New Jersey Department of Environmental Protection (NJDEP). It is located adjacent to the Paulinskill Trail, south of Stillwater Road, with additional portions extending beyond Fredon's borders. The site's portion within Fredon is approximately fifteen (15) acres and consists of a wooded limestone hillside that supports several rare plants.

8. Other State-Owned Properties: There are a number of properties abutting the Whittingham Wildlife Management Area that are owned by various state agencies, including the NJDEP and the New Jersey Department of Conservation. Together, these sites comprise nearly 525 acres of land. They support many of the same uses as Whittingham.

Private Facilities

9. Bear Brook Village Golf Course: The Bear Brook Village Golf Course is a semi-private eighteen-hole course that surrounds the Bear Brook Village residential development, located at Route 94 and Fredon-Greendell Road. The course itself is approximately 177 acres in size.

10. Hunts Pond: Hunts Pond is a privately owned, man-made lake located in the southwestern portion of the municipality, along Hunts Road between Route 94 and Hunts Pond Road. It occupies an area of approximately 52.5 acres and extends over the lot lines of several homeowners, who collectively own the lake. It is used for swimming and fishing, as well as small power boating, jet skiing and water skiing.

11. Green Hill Pond: The Green Hill Estates property owners association has its own private, artificial lake. This lake, which totals just over six (6) acres in size, is located in the northeastern portion of the municipality, along Glenn Terrace off of Newton-Swartswood Road. It was created by the construction of a flood controlled dam and is used for non-motorized boating and fishing.

12. Muckshaw Ponds Preserve: The Muckshaw Ponds Preserve is owned by the Nature Conservancy, an international non-profit agency. The preserve is located in the eastern portion of the township, adjacent to the Andover and Newton municipal borders. In total, it comprises nearly 470 acres and contains the Muckshaw Ponds, a series of limestone sinkhole ponds. This botanically-rich area is open to the public for passive recreation on a limited scale.

13. Deed Restricted Properties: There are presently three (3) privately-owned sites in the township that have been deed restricted for open space preservation. These sites include (a) the 20.1-acre Rudzki property on the north side of Fredon-Springdale Road; (b) a 141-acre portion of the Mira Plastics site on the south side of Fredon-Springdale Road; and (c) the 69.4-acre Marpol International property between Stillwater Road and Paulinskill Road.

14. Other: Lastly, several of the farms and larger residential properties within the township provide horseback riding and other equestrian activities on-site.

Table 6
Existing Open Space/Recreation Facilities

Site No.	Site	Block and Lot (Location)	Ownership	Size (AC)
1	Lodestar Park	Block 1601 Lot 16 (Rt. 94 & Stillwater Rd.)	Township	68.90
2	Community Center	Block 1601 Lot 2 (436 Rt. 94)	Township	3.87
3	Fredon Township School	Block 1801 Lot 1 (Rt. 94 & Phil Hardin Rd.)	Board of Education	8.88
4	Paulinskill Trail	Block 402 Lot 11; Block 403 Lots 1, 5 and 6; Block 1601 Lot 17; Block 1605 Lot 5; Block 2001 Lot 1; Block 2002 Lot 5; Block 2003 Lot 5; Block 2102 Lot 5 (western boundary of township)	NJDEP	34.44
5	Whittingham Wildlife Management Area	Block 1201 Lot 1 (Fredon-Springdale Rd.)	New Jersey Division of Fish, Game and Wildlife	722.14
6	Paulinskill Wildlife Management Area	Block 401 Lots 2 and 2.01; Block 406 Lots 1 and 2; Block 501 Lot 1 (Old Swartswood Station Rd.)	NJDEP	251.78
7	Emmens Station	Block 2001 Lot 5 (99 Stillwater Rd.)	NJDEP	14.55
8	Other State-Owned Properties	Block 1001 Lot 19; Block 1202 Lot 2; Block 1301 Lot 13; Block 1401 Lot 7	New Jersey Department of Conservation	72.97
		Block 1103 Lot 1; Block 1201 Lot 7; Block 1301 Lot 9; Block 1301 Lot 14.01	NJDEP	425.38
		Block 1001 Lot 25 (Fredon-Springdale Rd.)	State of New Jersey	25.33
9	Bear Brook Village Golf Course	Block 1802 Lots 8.02 and 71; Block 1807 Lot 6 (Rt. 94 and Fredon-Greendell Rd.)	Private	177.25
10	Hunts Pond	Block 1902 (Hunts Rd.)	Private	52.51
11	Green Hill Pond	Block 106 (Glenn Terrace)	Private	6.18
12	Muckshaw Ponds Preserve	Block 801 Lot 33 ; Block 1001 Lots 1.01, 15.06, 21, 21.01, 26, 27 and 30 (Fredon-Springdale Rd.)	The Nature Conservancy	468.88
13	Deed Restricted Properties	Block 1001 Lot 15.70 (146 Fredon-Springdale Rd.)	Adam and Zena Rudzki	20.07
		Block 1201 Lots 4.01, 6.02, 6.04 and 6.06 (Fredon-Springdale Rd.)	A Miragliotta Foundation, Inc.	141.08
		Block 1601 Lot 13 (30-62 Stillwater Rd.)	Marpol International, Inc.	69.40
TOTAL				**2,563.61**

Source: Fredon Township Tax Records; Natural Resources Inventory of Fredon Township, prepared by Wander Ecological Consultants, et al., dated July 2003; and the Township of Fredon Open Space and Recreation Plan, prepared by Coppola & Coppola Associates, dated September 2001 and revised to June 2003.

6.3 Preliminary Needs Assessment and Recommended Facilities Upgrades

The National Recreation and Park Association (NRPA) has developed planning design criteria to assist municipalities in determining their park and recreation needs. According to the national standards Lodestar Park is classified as a large urban park which serves the entire community. This is determined by the park's size, location, accessibility and amenities. The following table details the park classifications as set forth by the NRPA standards.

Table 7
National Recreation and Park Association Classification Table

Recreation System	Developed Open Space		
	Quantity of Open Space Recommended	**Size of Parcels**	**Area Served**
Mini-Park	According to guidelines, the township should have 3 to 5 Mini-Parks throughout the township. **Currently there are no such facilities located in the township.**	1 acre or less (NRPA) Not less than 2,000 sf or more than 30,000 sf	Less than ¼ mile radius
Neighborhood Subdivision Level	According to guidelines, the township should have 3 to 5 Neighborhood Parks. **Currently there are no such facilities located in the township.**	15+ acres (NRPA)	¼ to ½ mile radius to serve population up to 5,000 (NRPA)
Community Level	According to guidelines, the township should have 2 Community Parks. **Currently there are no such facilities located in the township.**	25+ acres	Several neighborhoods, 1 to 2 mile radius (NRPA)
Large Urban Park	According to the guidelines, Large Urban Parks serve a broader purpose than community parks and are used when community and neighborhood parks are not adequate to serve the needs of the community. Focus is on meeting the community-based recreational needs as well as preserving unique landscapes and open space. **Currently there is 1 Large Urban Park located in the township.**	Usually a minimum of 50 acres with 75 acres being optimal	Can serve the entire community approximately a 3 mile radius.

Source: "Park, Recreation, Open Space and Greenway guidelines," a publication of the National Recreation and Park Association dated December 1995.

As noted above, Lodestar Park is classified as a Large Urban Park which serves the entire community. Therefore, based on NRPA standards, the remaining types of facilities are technically not needed. The national standards indicate that a large urban park serves the population within a three (3) mile radius, which extends beyond the municipal borders of the township in all directions except for the south, where there is a small silver of land located outside the three (3) mile radius. While it is understood that this facility can service the entire community from a recreation standpoint, it is recommended that the community consider developing smaller mini-parks and neighborhood parks throughout the municipality to serve the local population. There are a number of sites identified in Table 10 which could be developed with an active recreation component consistent with the land use plan and open space and recreation plan.

In addition to the recommendation to acquire and develop additional lands for recreation, it is noted in the national guidelines that the focus of a large urban park is not only on meeting the community-based recreational needs but also preserving unique landscapes and open space. The following recommendations focus on the enhancement and preservation of the unique landscape of Lodestar park.

Additional Recommended Upgrades to Lodestar Park

- A comprehensive landscape improvement plan should be prepared for the park in order to improve shade conditions in proximity to playground and sitting areas. In addition, landscaping should be added to establish wind breaks for the fields and tennis courts and to enhance the aesthetics of the park and enhance significant viewsheds while minimizing negative visual impacts such as parking and trash collection areas.

- A walking/jogging circuit pathway system should be planned for the park to provide alternate forms of recreation. This trail system could be expanded to provide access to additional environmental features such as the streams, wetlands and varied topography for aesthetic improvements and interest.

- Existing and future surface run-off from the field and parking areas should be collected and treated in vegetated swales to reduce pollutant and particulate loading of adjacent streams in accordance with state recommendations. The use of natural treatment systems for stormwater enhances the environmental sensitivity of the park while minimizing the aesthetic impact of the stormwater treatment systems.

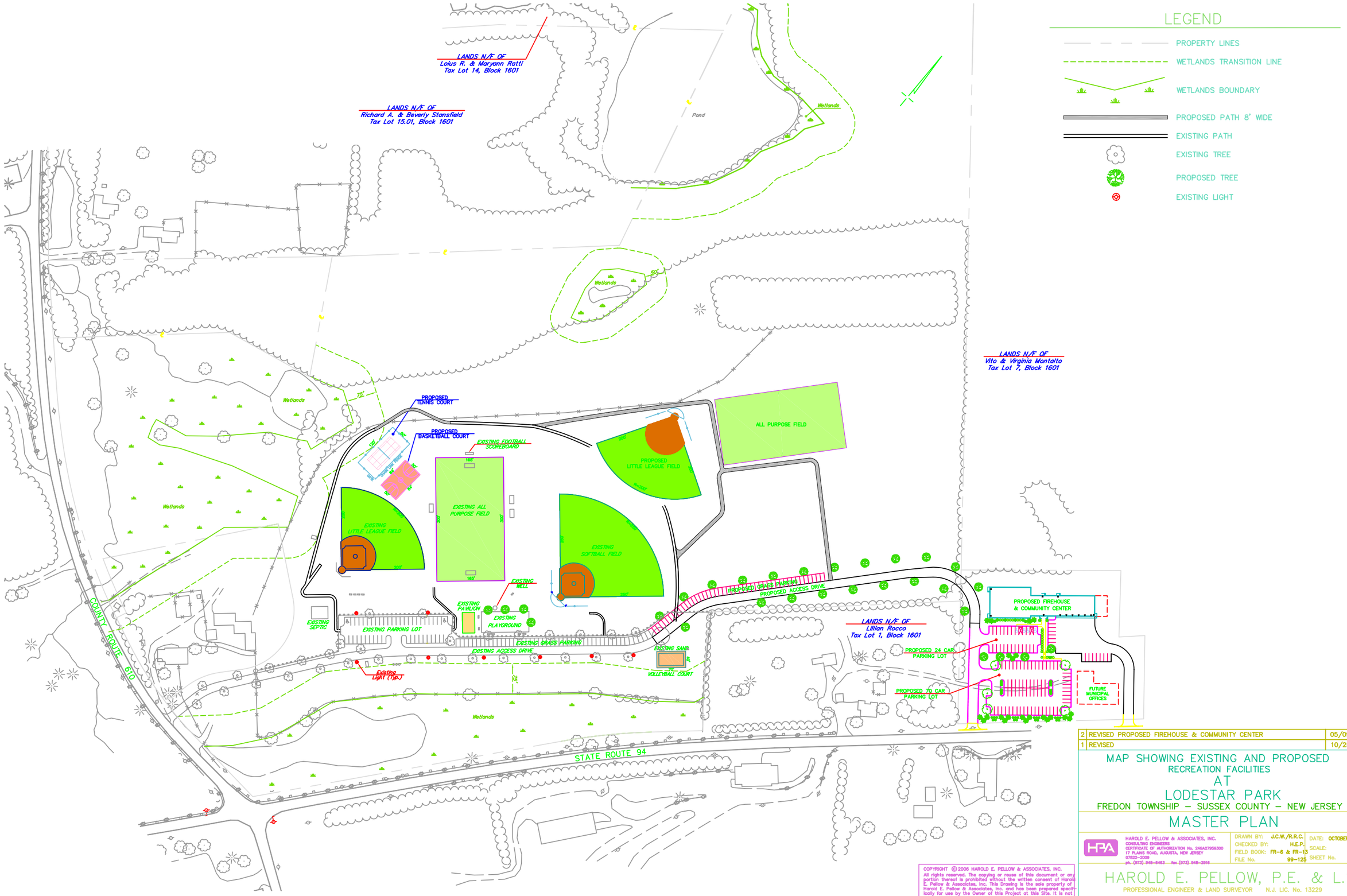
- The style of the existing park benches are utilitarian but would provide greater comfort, aesthetics and maintenance benefits if replaced with one of several styles available in the industry today. In addition, additional seating should be provided in strategic areas adjacent to the field activities and along future jogging or walking pathways. The sitting areas should be placed to maximize views and shade offerings for park users.

- Future field improvements should be planned to optimize the areas conducive to field development and optimize solar orientation to maximize the safety and usability of the fields.

In addition, the chairman of Fredon's Recreation Commission identified the following additional needs for Lodestar Park:

- Additional parking spaces.
- Basketball courts should be moved out of the existing parking lot.
- More soccer fields
- An additional baseball field.
- Tennis courts.
- Lights to allow for more use of the existing facilities.

As previously discussed, there are specific upgrades planned for Lodestar Park, including a second "Little League" field, a second multi-purpose field, a tennis court, a basketball court located outside of the parking area, a football scoreboard, and additional parking spaces. These upgrades enforce the idea that "Coursen's Corners" is the central core of the community. The plan encourages these upgrades and further looks to coordinate them with the comprehensive Mixed-Use Market District park design detailed in the Land Use Plan Element of this document. The site plan shown on the following page illustrates the planned upgrades to Lodestar Park.



2	REVISED PROPOSED FIREHOUSE & COMMUNITY CENTER	05/09/06
1	REVISED	10/25/00

MAP SHOWING EXISTING AND PROPOSED RECREATION FACILITIES AT LODESTAR PARK

FREDON TOWNSHIP – SUSSEX COUNTY – NEW JERSEY

MASTER PLAN

HPA

HAROLD E. PELLOW & ASSOCIATES, INC.
CONSULTING ENGINEERS
CERTIFICATE OF AUTHORIZATION No. 24GA27959300
17 PLAINS ROAD, AUGUSTA, NEW JERSEY
07822-2009
ph. (973) 948-6463 fax (973) 948-3916

DRAWN BY: J.C.W./R.R.C.
CHECKED BY: H.E.P.
FIELD BOOK: FR-6 & FR-13
FILE No. 99-125

DATE: OCTOBER 2000
SCALE: N.T.S.
SHEET No. 1 of 1

HAROLD E. PELLOW, P.E. & L.S.
PROFESSIONAL ENGINEER & LAND SURVEYOR N.J. LIC. No. 13229

DATE

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6.4 Open Space/Recreation Plan Recommendations

Recommendations are set forth below regarding the creation of a trailway system and the preservation of additional lands for open space. Potential sites prioritized for trailways and/or open space are also identified on the accompanying maps and tables. Municipal officials should review the lists of potential sites in pursuing the acquisition of, or easements on, parcels for active or passive recreation.

Recommended Easements/Acquisitions for Trailways

The Conceptual Trailway Plan map (page 37) and accompanying tables are intended to guide the township's recreation endeavors in the years to come. Specifically, they delineate parcels that may be appropriate for easements or acquisition for trailway purposes, should the property owner be willing to sell or grant such easements. As can be seen, these parcels are divided into two options. The first option is the most direct approach to create links across the municipality, while the second option provides the municipality with an alternative plan in the event that acquiring or gaining easements on parcels in the first option is obstructed.

Unlike the farmland preservation plan and the open space conservation plan, the conceptual trailways plan was delineated based on the location of each parcel. The main concept that served as the basis for the conceptual trailways plan was to create open space links from the Whittingham Wildlife Management Area (WMA) and Nature Conservancy Lands in the east to the Paulinskill Trail along the western municipal boundary. In addition, these links were connected with the community facilities and commercial core of the Mixed-Use Market District.

Recommended Dedications/Acquisitions of Lands for Open Space

Although a significant portion of Fredon's environmentally sensitive areas are already protected against future development, the loss of additional valuable resources continues to be a very real threat. In an effort to reduce this threat, the Township has prepared an inventory of the municipality's potential open space candidates and has assigned priority rankings based on each property's relative desirability for acquisition. This inventory is intended to guide the township's open space preservation endeavors in the years to come.

The first step in this process was to determine which properties were eligible for open space acquisition (or deed restriction). Those parcels identified as potential candidates included sites that are shown on the Existing Land Use map (page 3) as some form of farmland — either large (over forty (40) acres), mini (twelve (12) to forty (40) acres) or commercial farms — or vacant land. In addition, all properties located within the Very Low Density Residential category of the Land Use Plan were also added as potential candidates, given their particular suitability for open space preservation. After narrowing the list based on lot size and character of surrounding development, what resulted is an inventory containing a total of 149 properties.

From here, each of the properties included on the inventory was assessed for the presence of a range of environmental constraints, including the following: steep slopes, wetlands, Category One waterways and their 300-foot buffers, floodplains, state and federal threatened and endangered species habitat (per NJ Landscape Project data), and finally National Heritage Priority Sites. Those sites with the least environmental constraints were ranked as the lowest priority (#3) for acquisition. Those sites with the most environmental constraints were ranked as priority #2 for acquisition because of their low potential of being developed. Thus, those parcels ranked as the highest priority (#1) for acquisition are somewhere in between — that is, these parcels have many environmentally sensitive areas needing protection, but enough development potential to warrant immediate attention. In addition, a number of properties were identified as having the highest priorities within their respective categories; these parcels are those which contain either State endangered or Federal threatened species.

The results of this evaluation are presented in the accompanying Proposed Open Space map (page 39) and in Table 10.

6.5 Methods for Preservation/Funding Sources

There are generally two approaches for the preservation of open space, which are either direct acquisition of the land or acquisition of an easement on privately owned land. Usually, the most expensive way to preserve property is direct acquisition through fee simple purchase where the title changes hands from one owner to another. Unfortunately, it is difficult for local governments to raise the funds necessary to have the full purchase price available at the time of closing.

The second general approach is the acquisition of easements which grant the municipality the right to use another's property for a specific purpose. Since the property remains in the hands of a private owner, costs are typically lower (approximately 70-80 percent of fair market value for the land) and the municipality will still collect property taxes from the owner.

There are many kinds of easements designed for many purposes:

- Trail easements: the right to traverse a specific path through a property or used appropriately to create greenways along and around water bodies;
- Scenic easements: the right to maintain a view and ensure that view is maintained;
- Conservation easement: purchasing of development rights to preserve the natural landscape of the site.

In addition to these two approaches to acquisition, there are several other options of land acquisition which detail different methods of negotiation. These include: *Installment Purchases*, where the township may work out an arrangement with a landowner that allows an incremental purchase over time; *Lease Back Agreements* where the township can purchase a piece of property and lease it back to the owner or another entity for use. Partial reimbursement of the purchase price can be repaid through rental fees, and maintenance costs are reduced; *Donation/Bargain Sale*, where a private property owner can take advantage of reduced capital gains liability through the donation of the property; and lastly *Long Term Leasing*, which can be utilized where a property owner is not willing to transfer complete ownership. It should be noted that in order to receive most grant funds, there must be a willing seller.

In order to accomplish preservation, there are a number of different funding options available, some of which are detailed below:

Local Funding Sources: Local funding sources can be utilized as a match for additional funds received from the State or County sources.

1. *Bonding.* The municipality can issue bonds to borrow money to pay for acquisitions. The funds from an open space trust could be used for the five (5) percent down payment to issue the bonds as well as the debt service over time. If a town or county has an open space trust, the amount to be bonded for open space acquisition is deducted from the gross debt of the local government entity.

2. *Open Space Tax Funds.* The municipality can utilize funds they have received from the local open space tax.

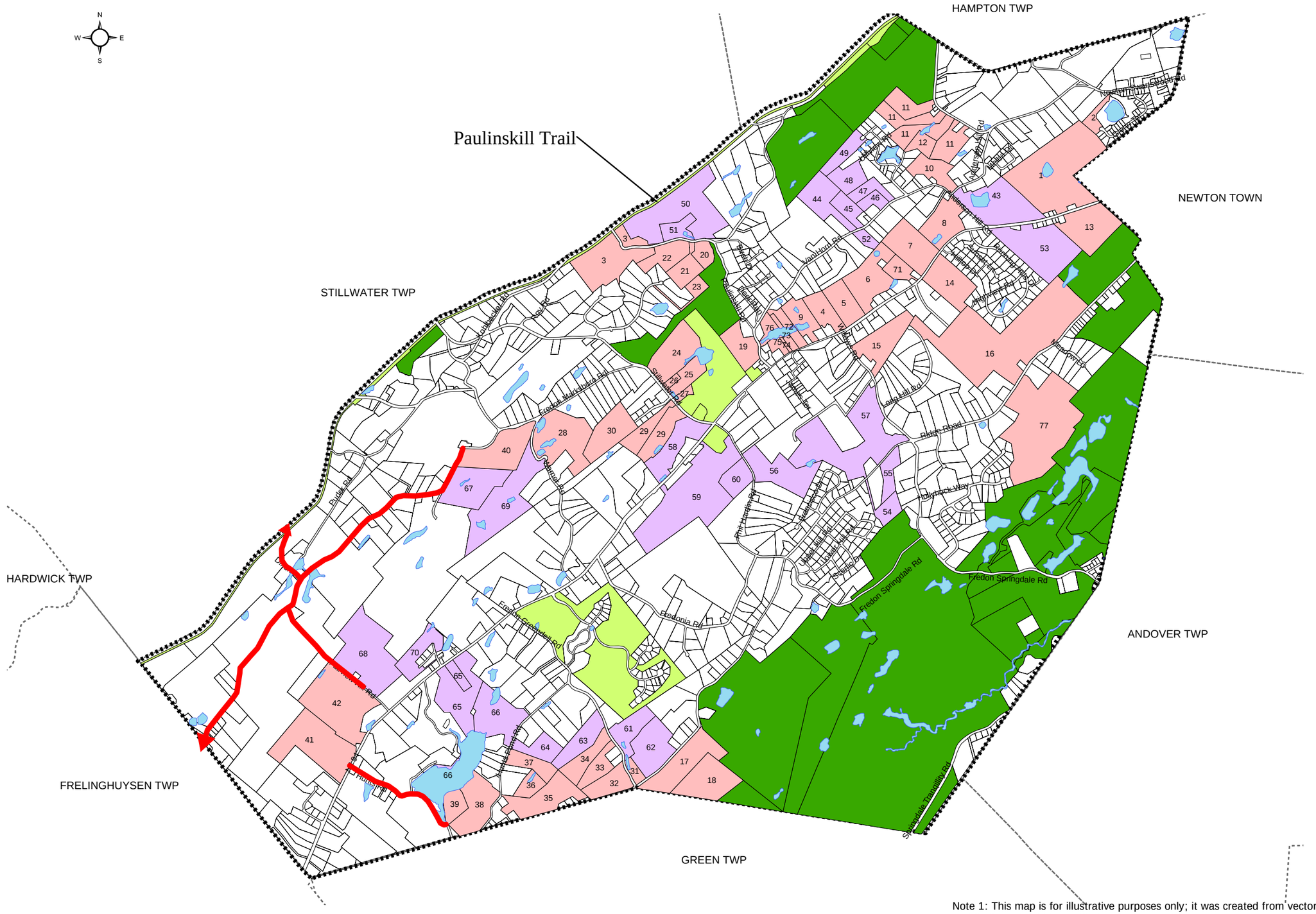
The Sussex County Farmland, Recreation, and Open Space Trust Fund

The municipality can apply to the county for funds to assist in the acquisition of property that protects public water supplies, improves access to waters, is suitable for active recreation and/or threatened and endangered species habitat, or is part of a greenway and trails project. These funds should be balanced with local funds and/or state funds.

New Jersey Department of Environmental Protection: Green Acres Program

1. *Low Interest Loans* Green Acres provides low interest (two (2) percent) loans and grants to municipal and county governments to acquire open space and develop outdoor recreation facilities.

2. *Planning Incentive Grants* The Planning Incentive Program provides grant and loan funding to local governments that have enacted an open space tax and have adopted an open space and recreation plan.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STILLWATER TWP
HARDWICK TWP
FRELINGHUYSEN TWP
GREEN TWP
ANDOVER TWP
Paulinskill Trail
Fredon Springdale Rd
Fredonia Rd
Ridge Road
Lodge Hill Rd
Meadow Rd
Vanhorn Rd
Fredon Marksboro Rd
Stillwater Rd
Fredon Greenwich Rd
Springdale Tranquillity Rd
Hollymack Way
Rhy Hardin Rd
Dutch Hill Rd
Newton Hill Rd
Rider Hill Rd
Pleasant Hill Rd
Mitchell Rd
Wilson Rd
Pulaski Rd
Kirkpatrick Rd
Asay Rd
Pudis Rd
Dunnack Rd
Hunt Rd
Hoffman Rd
Stickle Rd
Lodge Hill Rd
Valley Rd
Hillside Ave
Hillside Ter
Hillside Rd
Hillside Pl
Hillside Cir
Hillside Ct
Hillside Dr
Hillside Ln
Hillside Way
Hillside Sq
Hillside Blvd
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Hillside Tlbl
Hillside Tlpy
Hillside Tlwy
Hillside Tlrd
Hillside Tlst

TABLE 8
PRIORITY SITES FOR PROPOSED TRAIL OPTION #1

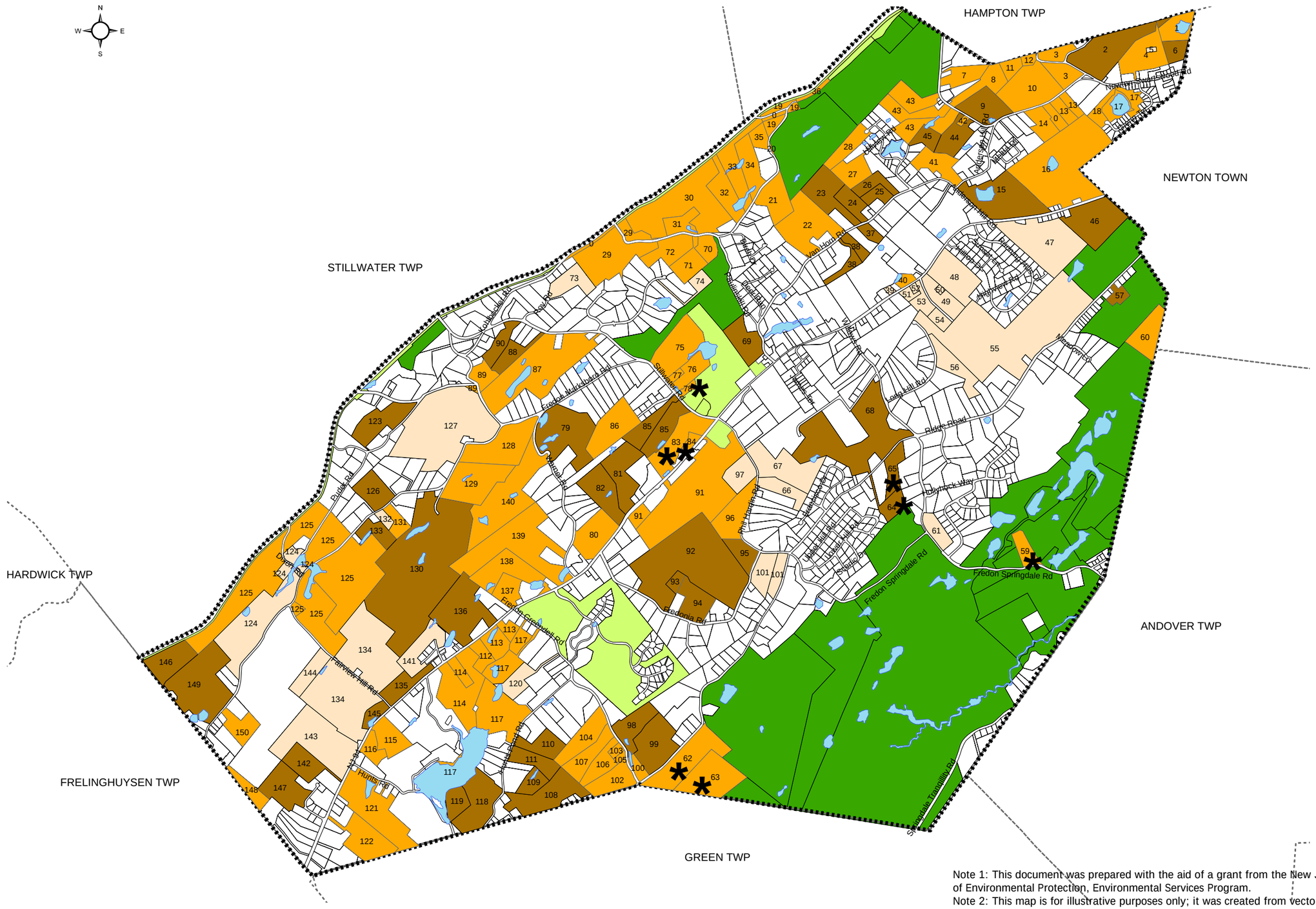
ID #	Block	Lot	Address	Use	Acres	2004 Assessment	Proposed Zone
1	104	19	302-308 RT 94	3B	112.76	$ 58,200	RA
2	106	48.01	GLENN TERRACE	1	7.68	$ 31,900	R-6
3	402/1601	1/11	72 & 75 PAULINSKILL LAKE RD	3B	55.26	$ 114,200	RA
4	404	10.01	85-89 VAN HORN RD	2B	7.65	$ 418,600	R-1/MUMD
5	404	10.04	426 RT 94	2B	4.35	$ 316,600	MUMD
6	404	12	424 RT 94	4A	1.50	$ 117,100	MUMD
7	404	13	422 RT 94	2B	5.17	$ 123,700	R-1/MUMD
8	404	14	420 RT 94	2B	10.71	$ 180,400	R-1/MUMD
9	404	15.01	408 RT 94	1	17.80	$ 101,000	MUMD
10	404	16	400 RT 94	3C	22.40	$ 228,700	MUMD
11	404	17	396 RT 94	3D	43.68	$ 322,200	MUMD
12	404	23.02	374 RT 94	2B	10.39	$ 217,300	MUMD
13	404	25	362 RT 94	3D	35.55	$ 327,000	MUMD
14	404	26.05	350 RT 94	3D	30.39	$ 11,300	MUMD
15	404	29	416 RT 94	1	19.85	$ 106,100	MUMD
16	405	7	22 VAN HORN RD	3C	21.30	$ 151,400	RA
17	405	20.01, 20.05, 20.06, 20.07	359-363 NEWTON-SWARTSWOOD	1	74.74	$ 346,900	RA
18	405	20.04	8 HILL TERRACE	2B	8.51	$ 174,200	RA
19	801	1.01	301-311 RT 94	3B	41.24	$ 26,000	RA
20	801	16	361-367 RT 94	3D	36.53	$ 20,100	RA
21	801	28	224-234 WILLOWS RD	3C	32.72	$ 194,800	MUMD
22	801	32.03	322-350 RIDGE RD	3B	162.84	$ 621,000	RA
23	1001	15.01	355-369 RIDGE RD	3D	122.79	$ 301,900	AR
24	1301	11	515-39 RIDGE RD	3C	44.56	$ 289,900	RA
25	1301	12	OFF FREDON-GREENDELL RD	3C	38.19	$ 16,400	RA
26	1601	7	5 PAULINSKILL LAKE RD	2B	25.41	$ 285,900	RA
27	1601	9.01	47 PAULINSKILL LAKE RD	2B	8.22	$ 121,700	RA
28	1601	9.02	51 PAULINSKILL LAKE RD	1	16.69	$ 81,700	RA
29	1601	10	53-63 PAULINSKILL LAKE RD	3C	20.49	$ 311,400	RA
30	1601	13.21	17 FARM CREEK RD	1	8.64	$ 75,900	RA
31	1601	14	26 STILLWATER RD	3B	37.65	$ 143,400	RA
32	1601	15.01	18 STILLWATER RD	3C	16.14	$ 243,700	RA
33	1601	15.02	20 STILLWATER RD	1	2.68	$ 41,900	R-1
34	1601	15.03	14 STILLWATER RD	1	3.14	$ 43,100	R-1
35	1602	2.01	50 WARNER RD	3B	50.52	$ 172,100	AR
36	1602	11.01, 11.02	9 & 15 STILLWATER RD	3C	38.29	$ 511,300	AR
37	1602	12.01	12 VERDONA RD	3C	34.80	$ 413,700	AR
38	1802	11.01	540 RIDGE RD	2B	6.28	$ 93,200	RA
39	1901	1	66-72 FREDON-GREENDELL RD	3C	21.22	$ 683,100	RA
40	1901	2.04	60 FREDON-GREENDELL RD	3C	15.27	$ 222,400	RA
41	1901	2.05	58 FREDON-GREENDELL RD	2B	20.0	$ 390,400	RA
42	1901	4.01	147 HUNTS POND RD	3B	39.63	$ 409,800	RA
43	1901	4.03	145 HUNTS POND RD	1	11.25	$ 68,100	RA
44	1901	4.13	133 HUNTS POND RD	3C	14.91	$ 228,000	RA
45	1902	15	150-160 HUNTS POND RD	3B	39.45	$ 191,500	AR
46	1902	15.01	204 HUNTS RD	3C	13.50	$ 242,000	AR
47	2005	1	33-49 FREDON-MARKSBORO RD	3D	43.85	$ 314,300	AR
48	2101	4	614-624 RT 94	3D	69.36	$ 183,200	AR
49	2101	6	608 RT 94	3B	78.04	$ 299,400	AR

Use: 1=Vacant; 2A=Suburban Residential; 2B=Rural Residential; 3B=Farm; 3C=Mini-Farm; 3D=Farm/Commercial; 4A=Commercial; MUMD=Mixed Use Market District

TABLE 9
PRIORITY SITES FOR PROPOSED TRAIL OPTION #2

ID #	Block	Lot	Address	Use	Acres	2004 Assessment	Proposed Zone
50	104	15.02	340 RT 94	3B	55.17	$ 178,100	RA
51	401	12.04	50 VAN HORN RD	3B	24.78	$ 73,400	RA
52	401	12.06	48 VAN HORN RD	3C	16.03	$ 6,500	RA
53	401	14.03	38 VAN HORN RD	2B	8.98	$ 337,400	RA
54	401	14.04	34 VAN HORN RD	2B	11.10	$ 209,600	RA
55	401	14.06	2 HILLVIEW RD	3C	15.50	$ 244,400	RA
56	401	14.08	1 SLATE RIDGE RD	2B	14.76	$ 334,700	RA
57	402	2	64 PAULINSKILL LAKE RD	3B	76.57	$ 35,000	RA
58	402	2.01	56-60 PAULINSKILL LAKE RD	3D	14.54	$ 593,900	RA
59	404	4.02	49 VAN HORN RD	1	5.59	$ 48,600	R-4
60	801	8	327-339 RT 94	3B	63.71	$ 47,300	RA
61	1401	1.02	419 RIDGE RD	3C	13.13	$ 165,500	AR
62	1401	1.06	409 RIDGE RD	3C	13.45	$ 302,700	AR
63	1402	3.05	96-100 PHIL HARDIN RD	3B	39.78	$ 331,200	AR
64	1402	7.01	400-412 RIDGE RD	3B	97.55	$ 29,300	AR
65	1602	8	476 RT 94	3C	32.77	$ 77,100	AR
66	1801	4	481 RT 94	3B	110.22	$ 69,600	AR
67	1801	12.03	95-101 PHIL HARDIN RD	3C	15.73	$ 10,100	AR
68	1802	10.04	51-57 FREDON-GREENDELL RD	2B	20.41	$ 331,100	RA
69	1802	11	524-538 RIDGE RD	3B	41.33	$ 70,900	RA
70	1901	2.02	52-54 FREDON-GREENDELL RD	2B	24.42	$ 360,800	RA
71	1901	4.12	125 HUNTS POND RD	2B	16.6	$ 306,200	RA
72	1902	4,4.01	561-571 RT 94	3B	58.67	$ 223,100	AR
73	1902	12,16.04	118-128 HUNTS POND RD	3B	75.81	$ 22,300	AR
74	2005	2	63-71 FREDON-MARKSBORO RD	2B	41.65	$ 155,000	AR
75	2005	11.01	8-24 FAIRVIEW HILL RD	3B	73.92	$ 34,100	AR
76	2005	28	39 WARNER RD	3B	65.28	$ 253,200	AR
77	2010	3	8 LAKEVIEW DR	3C	31.92	$ 9,600	AR

Use: 1=Vacant; 2A=Suburban Residential; 2B=Rural Residential; 3B=Farm; 3C=Mini-Farm; 3D=Farm/Commercial; 4A=Commercial; MUMD=Mixed Use Market District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HAMPTON TWP
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STILLWATER TWP
HARDWICK TWP
FRELINGHUYSEN TWP
GREEN TWP
ANDOVER TWP
Van Horn Rd
Stillwater Rd
Fredon Springdale Rd
Fredonia Rd
Ridge Road
Long Hill Rd
Holmack Way
Skyline Tranquility Rd
Fairview Hill Rd
Honis Rd
Dunn Rd
Dixon Rd
Fredon Marksboro Rd
Newton Hill Road
Meadow Rd
Mulberry Rd
Rhyl Hardin Rd
Lower Hill Rd
Upper Hill Rd
Stiles Dr
Hardwick Rd
Rider Hill Rd
Rider Mill Road
Pleasant Hill Rd
Pleasant Rd
Pleasant Ridge Rd
Hill Rd
Hill Top Rd
Hill Rd
Hill Rd
Hill

TABLE 10
PRIORITIZATION OF SITES FOR OPEN SPACE

ID #	Block	Lot	Address	Use	Acres	2004 Assessment	Steep Slopes	Wetlands	C1 / Buffer	State Threatened	State Endangered/ Federal Threatened	NHP Sites	Proposed Zone	Open Space Priority
1	101	1	OFF SWARTSWOOD RD	1	16.82	$ 43,600	X	X		X		TR	RA	2
2	101	2	NEWTON-SWARTSWOOD RD	3B	47.82	$ 35,000	X	X		X		TR	RA	1
3	102/103	2/8	316 NEWTON-SWARTSWOOD RD	3B	22.50	$ 148,500	X	X				TR	RA	2
4	101	4.01	220 NEWTON-SWARTSWOOD RD	1	21.35	$ 93,400	X			X		TR	RA	2
5	101	4.03	220A NEWTON-SWARTSWOOD RD	2B	7.91	$ 167,200				X		TR	RA	3
6	101	12	OFF SWARTSWOOD RD	2B	9.29	$ 232,900	X			X		TR	RA	1
7	103	1.04	374 NEWTON-SWARTSWOOD RD	1	11.77	$ 69,400	X			X		TR	R-6	2
8	103	6.01	364 NEWTON-SWARTSWOOD RD	2B	14.26	$ 212,500	X	X		X		TR	RA	2
9	103	6.02	348 NEWTON-SWARTSWOOD RD	3C	26.28	$ 204,900	X	X		X		TR	RA	1
10	103	7	334 NEWTON-SWARTSWOOD RD	3B	40.00	$ 214,600	X	X		X		TR	RA	2
11	103	7.01	OFF OLD SWARTSWOOD RD	1	6.92	$ 17,400	X	X		X		TR	RA	2
12	103	7.02	19 OLD SWARTSWOOD RD	2B	7.02	$ 303,800	X					TR	RA	2
13	104	10.01,10.05	323 NEWTON-SWARTSWOOD RD	3C	12.59	$ 181,100	X			X		TR	R-6	2
14	104	10.03	335 NEWTON-SWARTSWOOD RD	1	13.97	$ 74,900	X			X		TR	R-6	2
15	104	15.02	340 RT 94	3B	55.17	$ 178,100	X	X	X	X		TR	RA	1
16	104	19	302-308 RT 94	3B	112.76	$ 58,200	X	X		X		TR	RA	2
17	106	46,47	GLENN TERRACE	1	20.67	$ 37,300	X	X		X		TR	R-6	2
18	106	48.01	GLENN TERRACE	1	7.68	$ 31,900	X	X		X		TR	R-6	2
19	401/402/403	1/8/2	OLD SWARTSWOOD STATION	1	9.74	$ 129,400	X			X			R-4	2
20	401	3	38 OLD SWARTSWOOD STATION	1	0.25	$ 1,000	X	X	X	X			R-4	2
21	401	4	24 OLD SWARTSWOOD STATION	3C	24.86	$ 173,700	X	X	X	X			RA	2
22	401	12.01	56-68 VAN HORN RD	3B	45.19	$ 529,800	X	X	X	X			RA	2
23	401	12.04	50 VAN HORN RD	3B	24.78	$ 73,400	X	X	X	X			RA	1
24	401	12.06	48 VAN HORN RD	3C	16.03	$ 6,500	X		X	X			RA	1
25	401	14.03	38 VAN HORN RD	2B	8.98	$ 337,400	X	X					RA	1
26	401	14.04	34 VAN HORN RD	2B	11.10	$ 209,600	X	X		X			RA	1
27	401	14.06	2 HILLVIEW RD	3C	15.50	$ 244,400	X	X		X			RA	2
28	401	14.08	1 SLATE RIDGE RD	2B	14.76	$ 334,700	X	X		X			RA	2
29	402/1601	1/11	72 & 75 PAULINSKILL LAKE RD	3B	55.26	$ 114,200	X		X	X		ES	RA	2
30	402	2	64 PAULINSKILL LAKE RD	3B	76.57	$ 35,000	X	X	X	X			RA	2
31	402	2.01	56-60 PAULINSKILL LAKE RD	3D	14.54	$ 593,900	X		X	X			RA	2
32	402	4	11 OLD SWARTSWOOD STATION	3C	22.44	$ 206,100	X	X	X	X			RA	2
33	402	5	15 OLD SWARTSWOOD STATION	3C	27.55	$ 60,600	X		X	X			RA	2
34	402	6	23 OLD SWARTSWOOD STATION	2B	20.30	$ 181,900	X	X	X	X			RA	2
35	402	7.02	39 SWARTSWOOD STATION RD	1	8.17	$ 60,400	X			X			R-4	2
36	403	3	OLD SWARTSWOOD STATION RD	1	1.58	$ 4,700	X			X			R-4	2
37	404	4.02	49 VAN HORN RD	1	5.59	$ 48,600	X		X	X			R-4	1
38	404	4.06,4.07	55-57 VAN HORN RD	1	12.25	$ 99,600	X	X		X			R-4	1
39	404	19	384 RT 94	1	1.64	$ 39,100		X	X	X			R-1	3
40	404	21	380 RT 94	1	4.34	$ 46,400		X	X				R-1	2
41	405	7	22 VAN HORN RD	3C	21.30	$ 151,400	X	X		X		TR	RA	2
42	405	19	357 NEWTON-SWARTSWOOD RD	2A	1.25	$ 105,500	X					TR	RA	2
43	405	20.01, 20.05, 20.06	359-363 NEWTON-SWARTSWOOD	1	52.79	$ 252,000	X	X		X		TR	RA	2

Use: 1=Vacant; 2A=Suburban Residential; 2B=Rural Residential; 3B=Farm; 3C=Mini-Farm; 3D=Farm/Commercial
NHP Sites: ES=Emmens Station Site; MP=Muckshaw Ponds; S=Springdale; TR=Two River Headwaters Macrosite

TABLE 10 CONTINUED
PRIORITIZATION OF SITES FOR OPEN SPACE

ID #	Block	Lot	Address	Use	Acres	2004 Assessment	Steep Slopes	Wetlands	C1 / Buffer	State Threatened	State Endangered/ Federal Threatened	NHP Sites	Proposed Zone	Open Space Priority
44	405	20.07	359-363 NEWTON-SWARTSWOOD	1	21.95	$ 94,900	X	X		X		TR	RA	1
45	405	20.04	8 HILL TERRACE	2B	8.51	$ 174,200	X			X		TR	RA	1
46	801	1.01	301-311 RT 94	3B	41.24	$ 26,000		X				TR	RA	1
47	801	8	327-339 RT 94	3B	63.71	$ 47,300	X	X				TR	RA	3
48	801	16	361-367 RT 94	3D	36.53	$ 20,100	X	X					RA	3
49	801	17.01	371 RT 94	3C	16.05	$ 124,400	X						RA	3
50	801	17.02	369 RT 94	2A	1.0	$ 145,400	X						RA	3
51	801	18.01	381 RT 94	2B	2.61	$ 165,000							RA	3
52	801	18.02	377 RT 94	2A	1.65	$ 146,400							RA	3
53	801	18.04	375 RT 94	2B	8.01	$ 303,500		X		X			RA	3
54	801	18.05	373 RT 94	2B	9.38	$ 204,000	X	X		X			RA	3
55	801	32.03	322-350 RIDGE RD	3B	162.84	$ 621,000	X	X		X		MP/TR	RA	3
56	801	32.22	11 LONG HILL RD	2B	20.49	$ 420,500	X	X		X			RA	3
57	1001	2.02	313 RIDGE RD	2B	6.0	$ 235,200	X			X		MP	R-1	1
59	1001	20	126-130 FREDON-SPRINGDALE RD	1	10.59	$ 34,800	X				X	MP	RA	2*
60	1001	30.01	OFF RT 206	3C	24.67	$ 11,100	X	X		X		MP	RA	2
61	1002	18	160-174 WILLOWS RD	3C	12.12	$ 185,600	X			X		MP	R-6	3
62	1301	11	515-39 RIDGE RD	3C	44.56	$ 289,900	X	X	X		X		RA	2*
63	1301	12	OFF FREDON-GREENDELL RD	3C	38.19	$ 16,400	X	X	X	X	X		RA	2*
64	1401	1.02	419 RIDGE RD	3C	13.13	$ 165,500	X				X		AR	1*
65	1401	1.06	409 RIDGE RD	3C	13.45	$ 302,700	X	X			X		AR	1*
66	1402	3.04	92-94 PHIL HARDIN RD	3C	13.44	$ 8,600	X			X			AR	3
67	1402	3.05	96-100 PHIL HARDIN RD	3B	39.78	$ 331,200	X	X		X			AR	3
68	1402	7.01	400-412 RIDGE RD	3B	97.55	$ 29,300	X	X	X	X			AR	1
69	1601	7	5 PAULINSKILL LAKE RD	2B	25.41	$ 285,900	X		X	X			RA	1
70	1601	9.01	47 PAULINSKILL LAKE RD	2B	8.22	$ 121,700	X		X	X			RA	2
71	1601	9.02	51 PAULINSKILL LAKE RD	1	16.69	$ 81,700	X		X	X			RA	2
72	1601	10	53-63 PAULINSKILL LAKE RD	3C	20.49	$ 311,400	X		X	X			RA	2
73	1601	12	9 ROY RD	3C	17.79	$ 213,900	X			X		ES	RA	3
74	1601	13.21	17 FARM CREEK RD	1	8.64	$ 75,900	X			X			RA	3
75	1601	14	26 STILLWATER RD	3B	37.65	$ 143,400	X	X	X	X			RA	2
76	1601	15.01	18 STILLWATER RD	3C	16.14	$ 243,700	X		X	X			RA	2
77	1601	15.02	20 STILLWATER RD	1	2.68	$ 41,900	X	X	X	X			R-1	2
78	1601	15.03	14 STILLWATER RD	1	3.14	$ 43,100	X	X	X	X	X		R-1	2*
79	1602	2.01	50 WARNER RD	3B	50.52	$ 172,100	X	X		X			AR	1
80	1602	3	500-510 RT 94	3C	29.93	$ 234,800	X	X		X			AR	2
81	1602	7.01	494 RT 94	3C	32.50	$ 223,600	X	X		X			AR	1
82	1602	7.02	498 RT 94	3C	32.50	$ 36,000	X	X		X			AR	1
83	1602	8	476 RT 94	3C	32.77	$ 77,100	X	X	X	X	X		AR	2*
84	1602	10	464 RT 94	1	3.53	$ 43,900	X	X	X		X		R-1	2*
85	1602	11.01, 11.02	9 & 15 STILLWATER RD	3C	38.29	$ 511,300	X		X	X			AR	1
86	1602	12.01	12 VERDONA RD	3C	34.80	$ 413,700	X	X		X			AR	2

Use: 1=Vacant; 2A=Suburban Residential; 2B=Rural Residential; 3B=Farm; 3C=Mini-Farm; 3D=Farm/Commercial
NHP Sites: ES=Emmens Station Site; MP=Muckshaw Ponds; S=Springdale; TR=Two River Headwaters Macrosite
** Indicates highest priority within each category*

TABLE 10 CONTINUED
PRIORITIZATION OF SITES FOR OPEN SPACE

ID #	Block	Lot	Address	Use	Acres	2004 Assessment	Steep Slopes	Wetlands	C1 / Buffer	State Threatened	State Endangered/ Federal Threatened	NHP Sites	Proposed Zone	Open Space Priority
87	1603	2.01	51-57 STILLWATER RD	3D	88.96	$ 625,700	X	X	X	X			AR	2
88	1603	3.01	63 STILLWATER RD	3C	12.25	$ 161,000	X	X		X			AR	1
89	1603/2004	3.06/9	STILLWATER STATION RD	3C	12.05	$ 230,100	X	X	X	X			AR	2
90	1603	3.08	75 STILLWATER RD	3C	14.09	$ 276,900	X			X			AR	1
91	1801	4, 4.02	481 & 494-495 RT 94	3B	116.56	$ 75,100	X	X	X	X			AR	2
92	1801	8	65 FREDONIA RD	3D	130.76	$ 456,900	X	X	X	X			AR	1
93	1801	9	OFF FREDONIA RD	2B	5.27	$ 2,900		X	X	X			AR	1
94	1801	10.02	33-39 FREDONIA RD	2B	22.60	$ 360,000	X	X		X			AR	1
95	1801	12.01	67 PHIL HARDIN RD	2B	11.16	$ 294,400		X		X			AR	1
96	1801	12.02	67-107 PHIL HARDIN RD	3C	29.64	$ 262,000	X	X	X	X			AR	2
97	1801	12.03	95-101 PHIL HARDIN RD	3C	15.73	$ 10,100	X	X	X	X			AR	3
98	1802	10.04	51-57 FREDON-GREENDELL RD	2B	20.41	$ 331,100	X	X	X	X			RA	1
99	1802	11	524-538 RIDGE RD	3B	41.33	$ 70,900	X		X	X			RA	1
100	1802	11.01	540 RIDGE RD	2B	6.28	$ 93,200	X	X	X	X			RA	2
101	1802	17.01,17.02	61-65 FREDONIA RD	3C	24.48	$ 19,800				X			AR	3
102	1901	1	66-72 FREDON-GREENDELL RD	3C	21.22	$ 683,100	X		X	X			RA	2
103	1901	2.01	62 FREDON-GREENDELL RD	2B	3.0	$ 134,700	X		X				RA	2
104	1901	2.02	52-54 FREDON-GREENDELL RD	2B	24.42	$ 360,800	X	X		X			RA	2
105	1901	2.03	64 FREDON-GREENDELL RD	2A	1.73	$ 128,300	X		X				RA	2
106	1901	2.04	60 FREDON-GREENDELL RD	3C	15.27	$ 222,400	X						RA	2
107	1901	2.05	58 FREDON-GREENDELL RD	2B	20.0	$ 390,400	X			X			RA	2
108	1901	4.01	147 HUNTS POND RD	3B	39.63	$ 409,800	X	X		X			RA	1
109	1901	4.03	145 HUNTS POND RD	1	11.25	$ 68,100	X			X			RA	1
110	1901	4.12	125 HUNTS POND RD	2B	16.6	$ 306,200	X			X			RA	1
111	1901	4.13	133 HUNTS POND RD	3C	14.91	$ 228,000	X			X			RA	1
112	1902	3	559 RT 94	1	7.99	$ 58,500	X	X	X	X			AR	2
113	1902	3.01,3.02	553 RT 94	3C	18.80	$ 204,300	X	X	X	X			AR	2
114	1902	4,4.01	561-571 RT 94	3B	58.67	$ 223,100	X	X		X			AR	2
115	1902	7	599-603 RT 94	2B	19.65	$ 160,800	X	X		X			AR	2
116	1902	8	607-611 RT 94	3B	10.28	$ 1,300	X	X		X			AR	2
117	1902	12,16.04,18,18.12	HUNTS POND RD/FREDON-GREENDELL RD	3B	102.59	$ 184,900	X	X		X			AR	2
118	1902	15	150-160 HUNTS POND RD	3B	39.45	$ 191,500	X	X		X			AR	1
119	1902	15.01	204 HUNTS RD	3C	13.50	$ 242,000	X	X		X			AR	1
120	1902	18.09	22 FREDON-GREENDELL RD	3C	15.11	$ 121,600	X			X			AR	3
121	1903	2.01	619-627 RT 94	3B	60.68	$ 189,500	X	X	X				AR	2
122	1903	4.01	635 RT 94	2B	33.47	$ 253,000	X	X	X	X			AR	2
123	2002	3	125 STILLWATER STATION RD	3C	29.55	$ 312,700	X	X	X	X			AR	1
124	2003/2004/2102	1/5/1,2	DIXON RD/FREDON-MARKSBORO RD	3B/3D	148.45	$ 538,100	X	X	X	X			AR	3
125	2003/2004/2005/2102	3/4/8,9,10/3	DIXON RD/FREDON-MARKSBORO RD	3B/3D	186.96	$ 352,300	X	X	X	X			AR	2
126	2004	6	94 FREDON-MARKSBORO RD	3C	20.12	$ 159,600	X			X			R-4	1
127	2004	7	66 FREDON-MARKSBORO RD	3B	119.62	$ 509,200	X	X	X	X			AR	3
128	2005	1	33-49 FREDON-MARKSBORO RD	3D	43.85	$ 314,300	X	X	X	X			AR	2

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TABLE 10 CONTINUED
PRIORITIZATION OF SITES FOR OPEN SPACE

ID #	Block	Lot	Address	Use	Acres	2004 Assessment	Steep Slopes	Wetlands	C1 / Buffer	State Threatened	State Endangered/ Federal Threatened	NHP Sites	Proposed Zone	Open Space Priority
129	2005	2	63-71 FREDON-MARKSBORO RD	2B	41.65	$ 155,000	X	X	X	X			AR	2
130	2005	3.01	77 FREDON-MARKSBORO RD	3B	206.71	$ 192,300	X	X	X	X			AR	1
131	2005	4.02	93 FREDON-MARKSBORO RD	3C	9.99	$ 80,600	X	X		X			AR	2
132	2005	4.03	95 FREDON-MARKSBORO RD	3C	3.51	$ 1,200	X						R-4	3
133	2005	6	99-103 FREDON-MARKSBORO RD	3C	14.21	$ 113,900	X			X			AR	1
134	2005/2101	11.01/6	RT 94/FAIRVIEW HILL RD	3B	151.96	$ 333,500	X	X		X			AR	3
135	2005	12	578-596 RT 94	3C	17.00	$ 267,300	X			X			AR	1
136	2005	15	550 RT 94	3B	53.26	$ 13,600	X	X	X	X			AR	1
137	2005	18	540 RT 94	1	14.69	$ 76,700	X	X		X			AR	2
138	2005	21	530 RT 94	2B	33.97	$ 167,600	X	X		X			AR	2
139	2005	24.01	9 WARNER RD	3B	79.80	$ 726,200	X	X		X			AR	2
140	2005	28	39 WARNER RD	3B	65.28	$ 253,200	X	X		X			AR	2
141	2010	3	8 LAKEVIEW DR	3C	31.92	$ 9,600	X			X			AR	3
142	2101	3.02	626 RT 94	3C	22.60	$ 354,000	X	X		X			AR	1
143	2101	4	614-624 RT 94	3D	69.36	$ 183,200	X	X		X			AR	3
144	2101	6.01	27 FAIRVIEW HILL RD	3C	16.72	$ 297,800	X	X		X			AR	3
145	2101	7	598-606 RT 94	3C	8.45	$ 500	X	X		X			AR	1
146	2102	4	STILLWATER-WARREN CO LN	3C	27.03	$ 800	X			X			AR	1
147	2103	13	11 DUKE OF GLOUCESTER ST	3C	30.19	$ 213,700	X	X		X			AR	1
148	2104	9	OFF RT 94	3B	11.0	$ 400		X		X			AR	2
149	2201	4	172-184 FREDON-MARKSBORO RD	3B	41.63	$ 202,800	X	X		X			AR	1
150	2203	3.01	179 FREDON-MARKSBORO RD	3C	16.30	$ 423,300	X						AR	2

Use: 1=Vacant; 2A=Suburban Residential; 2B=Rural Residential; 3B=Farm; 3C=Mini-Farm; 3D=Farm/Commercial
NHP Sites: ES=Emmens Station Site; MP=Muckshaw Ponds; S=Springdale; TR=Two River Headwaters Macrosite

7.0 HISTORIC PRESERVATION PLAN

7.1 INTRODUCTION

The planning board recognizes that within the township there are several buildings, sites and districts of historical, architectural, engineering, archaeological and/or cultural interest. In an effort to encourage awareness, appreciation and recognition of this heritage, as well as plan for the preservation of buildings and sites deemed historically significant, a historic preservation plan element has been prepared pursuant to N.J.S.A. 40:55D-28b(10). The MLUL defines the required features of a historic preservation plan element as (a) an indication of the location and significance of historic sites and historic districts; (b) an identification of the standards used to assess worthiness for historic site or district identification; and (c) an analysis of the impact of each component and element of the master plan on the preservation of historic sites and districts. Each of these features are addressed herein, as well as the existing and recommended avenues for preservation of Fredon's historic resources.

7.2 THE NATIONAL AND STATE REGISTER OF HISTORIC PLACES

The National Register of Historic Places is the official list of the nation's historic resources that are worthy of preservation. The 1966 National Historic Preservation Act established a National Register of Historic Places to include significant districts, sites, structures, buildings, and objects of local, state and national interest. To qualify, a property must meet one of the following four (4) criteria: (A) association with events that have made a significant contribution to the broad patterns of our history; (B) association with the lives of a significant person of our past; (C) embodiment of the distinctive characteristics of a type, period, or method of construction, or representative of the work of a master, or in possession of high artistic value, or representative of a significant and distinguishable entity whose components may lack individual distinction; or (D) having yielded or may be likely to yield information important to history or prehistory.

Inclusion on the National Register enables the owner of the property to take advantage of several financial benefits. The Tax Reform Act of 1986 permits owners and some lessees of historic buildings to take a twenty (20) percent income tax credit on the cost of rehabilitation of such buildings for industrial, commercial, or rental purposes. The rehabilitated buildings must be a certified historic structure that is subject to depreciation, and the rehabilitation must be certified as meeting standards established by the National Park Service.

The New Jersey Register of Historic Places is the official list of New Jersey's historic resources of local, state, and national interest. It was created by the New Jersey Register of Historic Places Act and is closely modeled after the National Register Program. Both Registers have the same criteria for eligibility, nomination form and review process. Similar to the National Register, there are financial benefits associated with properties that are listed on the state register. Historic Preservation Bond Fund matching grants and low interest loans for rehabilitation and restoration are available to state, county and municipal agencies and non-profit organizations with properties listed on the New Jersey Register.

Fredon does not contain any properties currently listed on the State or National Registers. However, the township does have five properties, sites or districts that are eligible for listing on the Registers, as indexed by the New Jersey Department of Environmental Protection's Historic Preservation Office. These are shown in Table 11. Two of these sites have received a Certificate of Eligibility (COE) and three have been the subject of Opinions of Eligibility issued by the State Historic Preservation Officer (SHPO). For sites not listed on the Registers, COEs satisfy a prerequisite to apply for funds from the New Jersey Historic Trust, as well as several county preservation funding programs. SHPO Opinions, on the other hand, are issued in response to a federally funded activity that would have an effect on historic properties not listed on the National Register. Both designations provide essentially the same protections as an official listing on the National Register, and facilitate an official listing once a nomination is made.

TABLE 11
PLACES INDEXED BY STATE HISTORIC PRESERVATION OFFICE

ID	Name	Location	Status*
3809	Hankinson House	46 Old Swartswood Station Road	COE 7/9/2001
4471	Sampson Dildine House	540 Ridge Road	COE 7/26/2005
4167	Hunts Mill Historic District	Hunts Road and Hunts Pond Road	SHPO Opinion 5/21/1991
4050	Orchard Crest Red Barn (demolished)	County Road 519 (Ridge Road)	SHPO Opinion 3/22/2002
4144	Stillwater Historic District	Area around County Route 610 and County Route 521	SHPO Opinion 3/18/2003

*See discussion regarding status
Source: New Jersey Department of Environmental Protection, Historic Preservation Office website, November 21 2005.

7.3 MUNICIPAL HISTORIC PRESERVATION

A listing on the State and National Register provides recognition of the historic value of a site and protects these places from *public* action that may adversely impact these resources. It does not, however, limit *private* property owners' ability to alter their property, even if such action negatively impacts the historic resource. Therefore, while the National and State Registers are good tools to assist in the preservation of historic resources, designation and regulation at the local level is often the most effective means to preserve the historical assets of a community. Fredon Township, however, has not yet taken such measures.

Municipal protection of a community's historic elements typically begins with the enactment of local legislation for the designation and protection of historic properties. For example, ordinances are often adopted by communities which outline procedures and criteria for the designation of a landmark or historic district, procedures and criteria for review of land use applications affecting a designated landmark or historic district, as well as procedures for the enforcement of the ordinance provisions.

A local ordinance can also establish a Historic Preservation Commission (HPC). Under the Municipal Land Use Law, the HPC is required to consist of between five and nine members, plus alternates, who have a variety of backgrounds ranging from preservation professionals to citizen advocates. The MLUL also assigns the HPC with the power and responsibility to prepare a survey of the municipality's historic sites, make recommendations to the planning board on the historic preservation plan element of the master plan and on the implications for historic preservation on any other master plan elements, advise the planning board on the inclusion of historic sites in the capital improvement program, advise the planning board and board of adjustment on applications for development, provide written reports on the application of any zoning ordinance provisions concerning historic preservation, as well as carry out other advisory, educational and informational functions that will promote historic preservation in the municipality.

Lastly, communities often seek to gain Certified Local Government (CLG) status — a designation that links a local government's preservation efforts more closely with the State Historic Preservation Office. Specifically, participation in the CLG program allows municipalities to review and comment on federal or federally supported projects that have the potential to affect historic properties in the community (known as the Section 106 review process, in reference to the National Historic Preservation Act of 1966). Also, CLG status gives a municipality priority eligibility for a variety of federal and state preservation grants, including the surveying of historic sites, the preparation of National Register nominations, the preparation of preservation plans, and even restoration or renovation work.

7.4 Identification of Historically Significant Properties

The 1992-1993 Master Plan references a historic preservation and scenic sites study prepared in 1976 by the Sussex County Department of Planning, Conservation and Economic Development. This study contained a listing of 24 historically significant properties in the township that warrant preservation. These properties, along with their location and period of establishment, are detailed in the following table.

Table 12
Sussex County List of Historic sites

Site Name	Location	Period	Inventory Number*
Allen Coursen House	Paulinskill Lake Road	c. 1760	**13**
Col. Joseph Hankinson House	Old Swartswood Station Road	c. 1755	**17**
Robert Morris House (aka Smith Brothers Shop)	Route 94 & Paulinskill Lake Road	c. 1777	**11**
Joseph Anderson House	Van Horn Road	c. 1779	**21**
John Anderson Farmhouse	Swartswood Road	c. 1787	**22**
Farmhouse	Route 94 (unknown)	c. 1770 1848	**—**
Episcopal Church Farm	Willows Road	c. 1798	**34**
Gov. Griggs House	Ridge Road	—	**35**
John Coursen House (aka Whittingham Tract)	Route 618	c.1784 1904	**39**
Moody's Rock	Route 618	—	**40**
King House (aka Willson Home)	Fredon-Springdale Road	c. 1798	**41**
Richardson House (aka Ralph Dildine Farm)	Hunts' Pond Road	c. 1820	**58**
Cemetery	Hunts' Pond Road	c. 1820	**60**
Yellow Frame Church	Yellow Frame Road	c. 1887	**69**
Robert Shaw House	Route 94	c. 1772	**68**
Albertos House	Route 94 (unknown)	c. 1840	**—**
Fairview School	Marksboro Road	c. 1864	**2**
Klemm Farmhouse (aka Robert Roy Farmhouse)	Marksboro Road	c. 1725 1820	**1**
Hopper Farmhouse (aka Smith-Kerr-Goble Home)	Stillwater Road	c. 1797	**5**
Lockburner House (aka John Hampton Roy Home)	Marksboro Road	c. 1810	**4**
J. Coursen House (Hotel)	Stillwater Road	c. 1780	**Demolished**
Old Post Office (aka Colonel John Coursen Homestead)	Route 94 & Stillwater Road	c. 1805	**8**
Packman Farmhouse	Route 94	c. 1775	**45**
Ralph Hunt House	Route 94	c. 1755	**61**

Source: Master Plan Study Report No. 10, Historic Preservation and Scenic Sites, Sussex County Department of Planning, Conservation and Economic Development, August 1976.
* inventory number refers to the "Inventory of Historic Significant Properties" in this master plan document.

In order to provide a more comprehensive listing of the township's historic resources, an updated inventory of historically significant properties has been prepared for this plan. This inventory, which is detailed on pages 47 through 55 and on the accompanying Historic Properties map (page 46), contains a total of 80 sites. It provides an evaluation of each site's historic contribution, with the purpose of establishing a basis for future designation and preservation efforts. The information provided herein is based on a variety of sources, including the 1992-1993 Master Plan and 1976 Sussex County study, research conducted by the Township's Historian Myra Snook, and Judith Cummings Kaiser's 1998 edition of "A Pictorial Sampler of Historic Fredon". Oral accounts were also provided by Virginia Richardson and Virginia Wask (co-chairs of Keepers of Coursen's Corners), as well as Jane Groves.

7.5 Standards for Historic Site Designation

The Municipal Land Use Law requires a Historic Preservation Element to include standards that were used to assess the worthiness of the historic sites included in the inventory. The historic properties inventory, located on the following pages, details the construction dates as well as historic elements pertaining to each structure. In general, the sites included in the inventory and recommended for historic status at the local level are structures that were constructed in the early 1800's and were occupied by local farmers and families that contributed to the growth of Fredon Township. It is recommended that the Historic Preservation Commission review this inventory to establish the appropriate guidelines and standards, incorporate only the sites that meet the standards identified, and then create the historic preservation ordinance.

7.6 Impact of Other Master Plan Elements on Historic Preservation

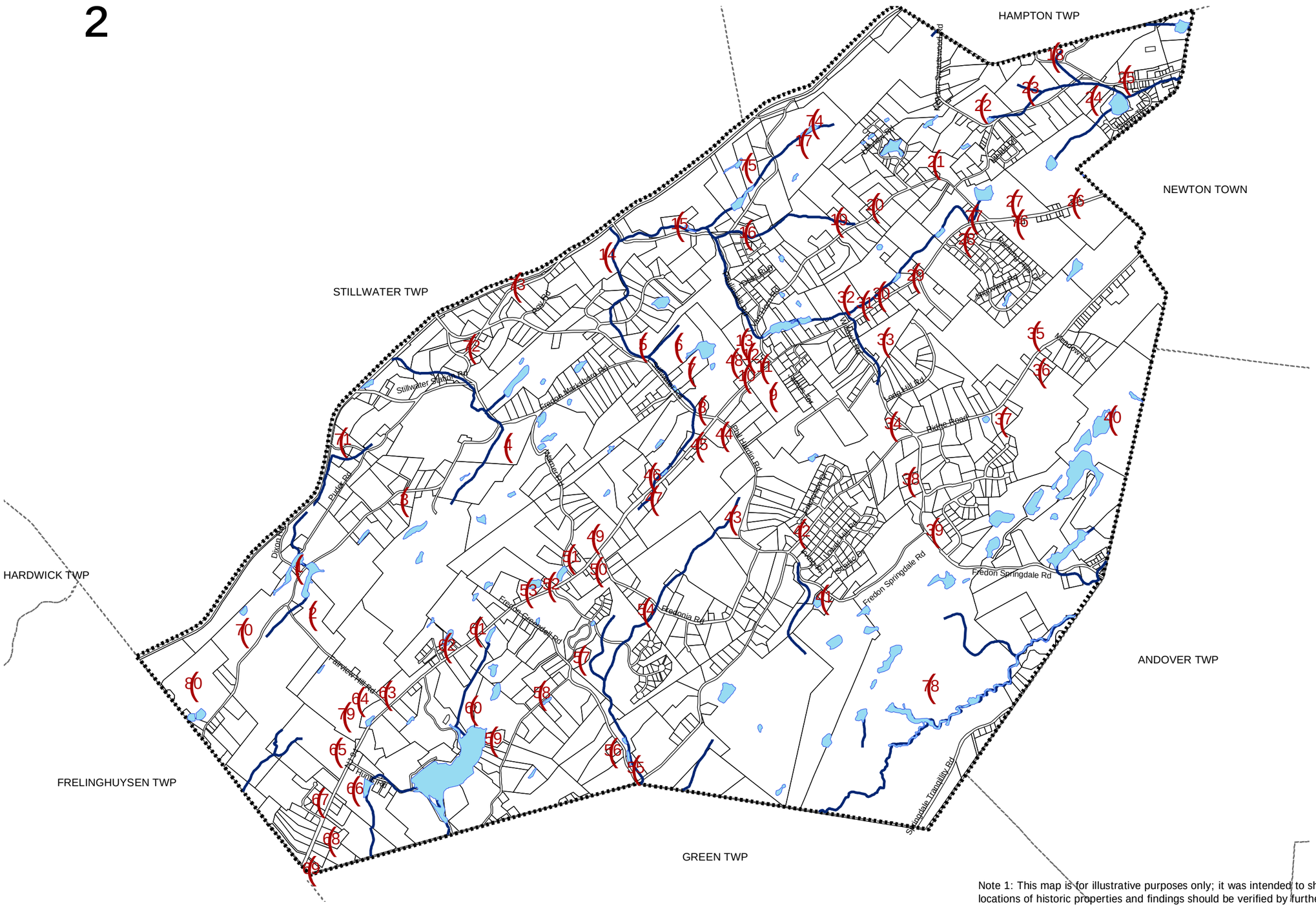
The MLUL also requires that the Historic Preservation Plan Element include an analysis of "the impact of each component and element of the master plan on the preservation of historic sites and districts". Such an analysis is important given the undeniable relationship that historic landmarks and districts have with issues such as land use, housing, circulation, community facilities, recreation and open space, as well as conservation. As shown, the policies contained in these master plan elements have generally positive or no impacts on the historic preservation policies provided herein. This conclusion is based on the fact that the historic preservation element was constructed in conjunction with the new comprehensive master plan document which contains all of the Township's master plan elements. The main goal of all the elements contained in this master plan is preservation, including open space preservation, farmland preservation and historic preservation. All elements have been drafted to reflect this goal.

7.7 Summary and Recommendations

Fredon Township has a rich history that is still represented in a number of its buildings, sites and landmarks. It is important that this historical legacy be acknowledged and preserved for future generations — not only to provide a link to the past, but also to protect local culture and quality of life. An effective historic preservation movement, however, should not rely solely on state or national programs. Instead, preservation efforts should originate at the local level, where citizens can yield greater control over what is preserved and how it is regulated. As such, the Township should consider the following recommendations:

- By ordinance, establish a Historic Preservation Commission in conformance with the Municipal Land Use Law. Such a commission would have the responsibilities of preparing a survey of the township's historic sites, advising the planning board and board of adjustment on historic preservation matters, as well as acting in an advisory, educational and informational role for promoting historic preservation in the community.
- In cooperation with the Historic Preservation Commission, prepare and adopt an ordinance which outlines the procedures and criteria for designating a landmark or historic district, procedures and criteria for review of land use applications affecting a designated landmark or historic district, as well as procedures for the enforcement of the ordinance provisions.
- Develop design guidelines for use by property owners and the Historic Preservation Commission in reviewing development applications affecting historic landmarks or districts.
- Consider applying for Certified Local Government (CLG) status from the State Historic Preservation Office. To be eligible, the township must give evidence that a historic preservation commission has been established with powers of review, that its system of surveying properties is tied to state office procedures, and that it is able and willing to enforce state and local preservation ordinances.

2



Note 1: This map is for illustrative purposes only; it was intended to show approximate locations of historic properties and findings should be verified by further analysis.

Source 1: Base map was prepared by Burgis Associates, Inc., March 2005.
Source 2: Historic site information was obtained from J.C. Kaiser's "A Pictorial Sampler of Historic Fredon", 1998 Edition; Ginny Richardson and Ginny Wask; Fredon Master Plan: 1992-1993; and Burgis Associates field work.

BURGIS ASSOCIATES, INC.
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Fax: (201)-666-2599

Dwg. Title

Historic Properties

Key Map

Scale NOT TO SCALE

Dwg. Legend

- Municipal Boundary
- Lakes
- Streams
- Parcels
- # Historic Site

Rev	Description	Date	Dwn	Ckd

Project Title

MASTER PLAN

TOWNSHIP OF FREDON
SUSSEX COUNTY, NEW JERSEY

Graphic Scale

JOSEPH H. BURGIS AICP
PROFESSIONAL PLANNER
NEW JERSEY LIC. NO. 2450

Project No.	1467.04
Sheet No.	1 of 1
Date	10/11/05
Drawn	RW
File Name	1467.04HIST

Dwg. No.
HIST

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INVENTORY OF HISTORICALLY SIGNIFICANT PROPERTIES

Property # 1: Robert Roy Farmhouse
Address: 124 Fredon-Marksboro Road **Block #:** 2004 **Lot #:** 5
Date: 1725-1820s

Description: This house was built by Robert Roy in two phases — the original stone section of the home in 1725 and the wood frame addition in the 1820s. Inside, the floors are made of oak and a long leaf pine. In the ceiling are exposed thick hand-sewn beams. Clay, straw, brick and plaster are used in the walls. The Roy family remained on this farm until the early 1900s. When the present owners, Willard and Jeanette Klemm, bought the property, it was very dilapidated. The Klemms have since restored the property, now called Waterwheel Farm, to its original beauty.

Property # 2: Fairview School
Address: 123-133 Fredon-Marksboro Road **Block #:** 2005 **Lot #:** 9
Date: 1864

Description: Also situated on the Robert Roy Farm property, now called Waterwheel Farm, is the one-room schoolhouse once known as "Fairview No.1". The school operated out of this building from 1864 to 1919, when it consolidated with Fredon School. Today, the schoolhouse functions as a residence.

Property # 3: Insley Roy Home
Address: 89 Fredon-Marksboro Road **Block #:** 2005 **Lot #:** 4
Date: 1817

Description: Before the Revolution, Insley Roy, his two brothers John and Stephen, as well as two sisters came to Sussex County and purchased several acres of property. Included in this purchase was the property shown here, on which Insley Roy built his home in 1817. The house was left to Insley Roy's son, William Charles Roy, who was born here. When he himself died in 1900, his son William sold the house to settle the estate.

Property # 4: John Hampton Roy (aka Burner) Home
Address: 37 Fredon-Marksboro Road **Block #:** 2005 **Lot #:** 1
Date: 1810

Description: This brick house has been traced back to 1810, but there is no record of who actually built the structure. It is known, however, that one early inhabitant was John Hampton Roy, the father of Mildred Snook.

Today, the property is owned by Edward and Kathleen den Breejen, who operate the Ednie Flower Bulb growing and distribution company there.

Property # 5: Smith-Kerr-Goble Home
Address: 32 Stillwater Road **Block #:** 1601 **Lot #:** 13
Date: 1797

Description: This homesite dates back to 1797, but the property's history dates years before that. In 1793, Joseph Kerr purchased the property from Samuel and Richard Smith. Then, in 1799, Robert Goble purchased the home. It remained as a Goble family home until the late 1920s, when Miss Annie Goble died. Annie was the twin sister of Roy, who himself died in 1921.

Although many changes have been made to the house as it has changed hands over the years, one thing that remains is the original spring/milk house. These are relatively rare.

Property # 6: Charles Gruver Home
Address: 26 Stillwater Road **Block #:** 1601 **Lot #:** 14
Date: 1830s

Description: The home pictured at left was built in the 1830s and later purchased by Charles Nelson Gruver. His brother Joseph Gruver also moved in just down the road (see Property #7). These two properties operated as fruit farms in the mid 1800s to 1900s. Although the original design of this house has been lost to changes, the site's extensive barn complex remains basically intact.

Property # 7: John C. and Sarah Coursen House
Address: 18 Stillwater Road **Block #:** 1601 **Lot #:** 15.01
Date: 1830s

Description: In 1830, John Cummings Coursen purchased this property from Isaac Coursen. It is believed that Isaac built the house shown at left, which probably originated as a smaller structure. John Cummings died in 1840. His widow Sarah married William Hunt in 1847, at which time the house became known as the Sarah and Judge Hunt Home. After their deaths, the lot was sold to W. Vought in 1870. Circa 1885, the lot was sold to Joseph Gruver, whose brother Charles lived just up the road (see Property #6). Both properties operated as fruit farms in the late 1800s to 1900s.

Property # 8: Colonel John Coursen Homestead
Address: 8 Stillwater Road **Block #:** 1601 **Lot #:** 16.01
Date: 1805

Description: The intersection of Phil Hardin Road, Route 94 and Stillwater Road was once called "Coursen's Corners", due to the many operations of the Coursen family living here. The homestead was purchased in 1735 and the house seen here was built in 1805. The house served not only as a residence for the Coursen family, but also as a store and a post office. Isaac V. Coursen was the first postmaster, and supposedly gave Fredon its name before his death in 1855. In 1994, the Township purchased the property for preservation and is currently being restored to its original state.

Property # 9: The Fountain House
Address: 439 Route 94 **Block #:** 1402 **Lot #:** 1.01
Date: 1864

Description: The Fountain House was built by Harrison Cole in 1864 and has continually served as a popular gathering spot. At one time, it had two fountains and a public watering trough for horses. On the third floor was a ballroom where many people came for Saturday night dances. The House also has a rich political history, as municipal business was conducted here for six years before the 1910 Town Hall was erected (see Property #44). Today, the building's beautifully aged wainscoating, fourteen foot ceilings and ballroom remain unaltered.

INVENTORY OF HISTORICALLY SIGNIFICANT PROPERTIES

Property # 10: Tunnison-Garis House
Address: 434 Route 94 **Block #:** 1601 **Lot #:** 3
Date: Circa 1800

Description: The intersection of Paulinskill Lake Road and Route 94 was the earliest section of Fredon and was once known as Smith's Corners. One of the early landowners in this area was the Tunnison family, which lived in the house shown here circa 1800.

The house started out as a log cabin, evidenced by old logs and unfinished lumber in the basement. Floors in one part of the house are rough and random planked. This part is at least 100 years older than the rest of the present house.

Property # 11: Smith Shop
Address: 1 Paulinskill Lake Road **Block #:** 1601 **Lot #:** 4
Date: Circa 1800

Description: This house, also located at Smith's Corner, is known to have been an army barracks prior to 1800. In 1840, Abram Smith purchased the structure and used it as a woodworking shop. In the 1860s, the Smith family moved their shop west to the old mill site (see Property #13) and converted this structure to a residence for Joseph Smith and his wife Marietta Coursen (John Cummings' daughter). After their deaths, it became the home of their daughter Jennie and her husband Robert Morris. They remained here until the 1930s.

Property # 12: Abram Smith House
Address: 3 Paulinskill Lake Road **Block #:** 1601 **Lot #:** 5
Date: Late 1700s

Description: This property was part of the Jacob Coursen mill farm in the late 1700s, at which time only the small east wing of the house existed. In the early 1800s, Jacob's son Allen sold the lot to Robert Goble, who then sold it to J. Emmans in 1815. Abram Smith, whose shop was on the corner (see Property #11), bought the property in 1840 and lived here with his family. It is believed that he gradually added the west wing of the house. The Smith family continued to occupy the house and the corner shop — moving between them as circumstances warranted — until the house was sold in the 1920s.

Property # 13: Allen Coursen Home, Coursen's (Smith's) Mill
Address: 5 Paulinskill Lake Road **Block #:** 1601 **Lot #:** 7
Date: 1766

Description: Though more recent additions have rendered it unrecognizable, the original portion of this house was built in 1766 by Jacob the Miller. Jacob was the son of Johannes Coursen, one of the area's first settlers. The property, which also contained a grist and cider mill dating back to 1755, was later inherited by Jacob's son, Allen Coursen, and then his grandsons, John Cummings and W.N. Coursen. In 1829, they sold the property to William Hunt. The mill burned down in 1848, but was rebuilt by the Smith family in the 1860s. Joseph Smith and his wife Marietta Coursen lived in the house briefly.

Property # 14: Henry Van Stone Farm
Address: 75 Paulinskill Lake Road **Block #:** 1601 **Lot #:** 11
Date: 1864

Description: Just prior to reaching the boundary line between Fredon and Stillwater Townships lies the Henry Van Stone Farm. This farm dates back to 1864 and once contained an active sawmill, wheelwright shop and lever-powered threshing machine. Before the road was realigned, the last log house in Fredon stood on the opposite side of the road.

In more recent years, the property was the home of Pauline Morris, whose mother was a Coursen. Ms. Morris died in April of 2005.

Property # 15: Edward Hunt-Garis Home
Address: 56 Paulinskill Lake Road **Block #:** 402 **Lot #:** 2.01
Date: Late 1700s

Description: Edward Hunt's father, Thomas, was a brother to the ancestor Samuel, of Hunts Pond. It is said that Edward Hunt first came to Fredon to survey the East-West Jersey line for the King of England. In payment for his services, Hunt was awarded 900 acres of land in Hardwick and Fredon. This particular property was settled around 1710-1720, with the home dating back to the late 1700s. Today, the property is operated as Spring Valley Farms.

Property # 16: Shuman-Snook House
Address: 6 Old Swartswood Station Road **Block #:** 401 **Lot #:** 6.02
Date: Mid 1800s

Description: This house was originally built by a Mr. Shuman, who died in 1864. Subsequent owners were Marshall Snook, William Westbrook and then his son Levi. The house is now owned by Bruce and Ginny Wask.

Property # 17: Joseph Hankinson Mansion
Address: 46 Old Swartswood Station Road **Block #:** 401 **Lot #:** 2.01
Date: 1796

Description: This property traces back to 1729, but the house itself was built in 1796. Joseph Hankinson bought the property and, over the years, divided the acreage among various family members. Members of the Hankinson family lived in this house until 1873. Although an addition has been constructed in recent years, many parts of the old home remain untouched.

Today, the property is owned by the NJ Department of Fish and Game. It received a Certificate of Eligibility (COE) from the State Historic Preservation Office on July 9, 2001.

Property # 18: Morrow Farmhouse
Address: 1 Slate Pencil Hill Road **Block #:** 102 **Lot #:** 2
Date: Circa 1800

Description: In September of 1806, Gilbert Ingersoll purchased this farmhouse from William and Abbey Griffith. Between 1811 and 1819, the house was the meeting place for the Methodist congregation. Then, in 1865, William S. Ingersoll sold the house to William S. Hardin. Hardin's great-grandson. Robert Morrow, continues to own and farm the property today.

INVENTORY OF HISTORICALLY SIGNIFICANT PROPERTIES

Property # 19: Henry Van Horn Farm
Address: 54 Van Horn Road **Block #:** 401 **Lot #:** 12.02
Date: Early 1800s

Description: Henry Van Horn, who purchased this home in 1863 from Theodore Struble, moved to Fredon from Stillwater. Van Horn's daughter, Arvilla, married a cousin, Isaac Van Horn, in 1884. They moved to the farm adjoining her parents (see Property #20). At the time of purchase, both houses were very old and still retain some of these features today.

Property # 20: George Van Horn Farm
Address: 42 Van Horn Road **Block #:** 401 **Lot #:** 14.02
Date: Early 1800s

Description: Arvilla and Isaac Van Horn moved to this farm in the 1880s, which adjoined the farm of Arvilla's parents (see property #19). A descendant, George Van Horn, continued to farm the family land and also served as Fredon's first Treasurer. He later served in World War II, where he was a prisoner of war. Because his father believed he was dead, the family farm was then sold.

Property # 21: Joseph Anderson House
Address: 22 Van Horn Road **Block #:** 405 **Lot #:** 7
Date: Early 1800s

Description: Joseph Hankinson built the house shown here in the early 1800s. It was later passed on to Joseph Anderson, who raised twelve children here. The property still operates as a farm today.

Property # 22: John Anderson House
Address: 348 Newton-Swartswood Road **Block #:** 103 **Lot #:** 6.02
Date: 1800s

Description: This house, built by John Anderson, Jr., is shown on an 1860 map of the community. It is said that Mr. Anderson had three wives and three houses, all of which still stand today (see Properties # 23 and # 77).

Property # 23: John Anderson House
Address: 334A Newton-Swartswood Road **Block #:** 103 **Lot #:** 7
Date: Circa 1840

Description: John Anderson also built the house shown here around 1840. It is also featured on an 1860 map of the community.

Property # 24: Unknown
Address: 305 Newton-Swartswood Road **Block #:** 104 **Lot #:** 8
Date: Circa 1800

Description: This home, built around 1800, has many distinctive features that are still prominent today. These include eyebrow windows, a slate roof, fieldstone basement, and an original cider mill in the cellar.

Property # 25: George H. Coursen House
Address: 224 Newton-Swartswood Road **Block #:** 101 **Lot #:** 4.04
Date: 1812

Description: George's wife, Lucy Coursen, was a direct descendant of John Pettit. Born in 1726, Pettit was of French Huguenot ancestry who came to America in 1660 to escape religious persecution. Six brothers – Johnathan, Amos, John, Nathanial, Isaac and Charles — all came to live in Sussex County. John, active in the community, was appointed by Governor John Jay of New York as his collector of rents and general agent for the properties he owned in Sussex County. This property was a grant from King George and dates back to 1812.

Property # 26: James Mattison House (aka Tea Hive)
Address: 310 Route 94 **Block #:** 104 **Lot #:** 18
Date: 1793

Description: This house was built in 1793 by James Mattison, who came to Sussex County between 1780 and 1785. An addition was put onto the house in the early-mid 1800s. The property remained in the Mattison family until approximately 1869. A later inhabitant was Samuel Washer, who raised ducks and geese here in the early 1900s. When Washer sold the property, he sold his geese and duck houses in three sections to George Snook, Mr. Bales, and William Commings. Today, the house serves as the Tea Hive — a bustling restaurant and gift shop owned by the Shotwell family.

Property # 27: Anderson-Hankinson-Snook House
Address: 340 Route 94 **Block #:** 104 **Lot #:** 15.02
Date: 1830-1870

Description: John Anderson built the stone (back) portion of this house in 1830. In 1859, Simeon Goble Hankinson, John's son-in-law, bought the home. It was Simeon who built the wood (front) portion of the house in 1870. Simeon's daughter Amelia remained in the house after his death 1884 and married Elias Snook. When Amelia herself died, Elias remarried with Sarah Snook. The property remained a Snook farm (named "Maplecrest") until 1966. Today, it serves as an example of a typical Sussex County dairy and fruit farm.

INVENTORY OF HISTORICALLY SIGNIFICANT PROPERTIES

Property # 28: Stieger-Griggs-Roy House
Address: 349 Route 94 **Block #:** 801 **Lot #:** 12.13
Date: 1839

Description: John Stieger built the home pictured at left in 1839, but it is believed that the back portion of the house was built before this date. It is also believed that, because of the 3-foot thick walls, this portion served as a fort from the Indians. It was rumored that Stieger himself burned down the house in 1848. He then rebuilt the house from the remaining stone walls and sold it to Aaron Griggs. In 1892, Milton Roy purchased the farm at a foreclosure sale for $7.52. The last Roy to own the property was Donald and his wife, Alice, who sold it in the 1960s.

Property # 29: Smith-Crawn-Van Sickle-Bunnell House
Address: 376 Route 94 **Block #:** 404 **Lot #:** 22
Date: 1800s

Description: This is a very large home, distinguished by its mansard roof and the ornamental wrought-iron work around the top of the house. The house dates back to the 1800s and one of its prominent residents was Thomas G. Bunnell, who came to live in the house in the late 1800s. Bunnell was a well-respected political leader in the County. He was a graduate of Blairstown Presbyterian Academy and taught there for three terms. Upon marrying Alice Decker Smith, he was a farmer for two years. In 1867, he then became the local editor of the New Jersey Herald and wrote a number of rare books relating to the State's history.

Property # 30: Emmans-Horsfield Farmhouse
Address: 386 Route 94 **Block #:** 404 **Lot #:** 18
Date: 1890

Description: This farmhouse was built in 1890, next door to the Crawn-Emmans farm (see property #31) when Frank Emmans remarried. He designed and built much of the house himself. The house supposedly cost $800.00. Today, it is used for commercial purposes.

Property # 31: Crawn-Emmans Farm
Address: 396 Route 94 **Block #:** 404 **Lot #:** 17, 17.01
Date: 1800s

Description: The Crawn-Emmans Farm was built by the Crawn Family to house Sanford's father, Jacob, and his wife. The large property was later purchased by Frank Emmans after the death of his first wife. He lived there with his widowed mother, Rebecca Schooley Emmans, his unmarried brother Edson, and his own daughter Jessie. Jessie later became Mrs. Joseph B. Hunt Sr. Today, the property operates as Fredon Farms.

Property # 32: Isaac Smith-Sanford Crawn Home
Address: 400 Route 94 **Block #:** 404 **Lot #:** 16
Date: Circa 1810

Description: This house was built around 1810 by Issac Smith, who later sold it to Sanford Crawn. Today, it stands as a typical 1800s farmhouse. The spring house in the back attests to the fact that there were two very active springs on this property. It has been said that not only did the Indians use these springs, but later on they were used as a watering place for stagecoaches.

Property # 33: Rutherford-Miller-Wintermute-Smith Van Dorn Home
Address: 230 Willows Road **Block #:** 801 **Lot #:** 28
Date: Circa 1860

Description: This home, with its particularly long lineage, was once part of a much larger tract of land. The property includes a stream where once sat a distillery, probably built around 1830-1840 by the Smith Brothers, William and Isaac. The home itself was built about 1860. Also note the old barn in disrepair; not many of this vintage remain.

Property # 34: Newton Episcopal Church Farm
Address: 205 Willows Road **Block #:** 1402 **Lot #:** 8
Date: 1789

Description: In 1769, Dr. Thomas Chandler, Rector of St. John's (Episcopal) Church in Elizabeth, visited the Fredon area. During this visit, Dr. Chandler obtained a new place to worship and a 200-acre farm that could provide support for both himself and the parish. Having built a small, poorly constructed church in 1823, it was found to be unsafe for services by 1867. In order to raise funds for a new church, Dr. Chandler sold the farm for $15,750. This church, pictured at left, is now part of a larger residence.

Property # 35: Governor John W. Griggs Birthplace
Address: 340 Ridge Road **Block #:** 801 **Lot #:** 32.03
Date: 1800s

Description: Griggs was born in this home in 1849. His family were well-to-do farmers whose New Jersey roots date back to the 1730s. As a prosperous attorney in Passaic County, Griggs entered State politics in 1875 as an assemblyman. By 1882, he was a State Senator and was elected as Governor in 1895. Griggs resigned his position as governor in 1898 in order to serve as the United States Attorney General under President McKinley. He remained in the cabinet until McKinley's assassination in 1901. Though Griggs himself died in 1929, the Griggs name remains prominent in Sussex County.

Property # 36: The Van Sickle Stone House
Address: 355 Ridge Road **Block #:** 1001 **Lot #:** 15.07
Date: 1844

Description: The house shown here was built in 1844, but Mr. Van Sickle lived on this property in a log cabin before the house was built. Note the recent additions on the ends of the home. The property was part of the four farms purchased by Ralph Inslee that eventually became Windy Brow Farms.

INVENTORY OF HISTORICALLY SIGNIFICANT PROPERTIES

Property # 37: Ralph Inslee Home
Address: 373 Ridge Road **Block #:** 1001 **Lot #:** 15
Date: Early 1900s

Description: Circa early 1900s. This turn-of-the-century home epitomizes the opulence and wealth that defined the beginning of the industrial age. Mr. Inslee worked as an inventor for the Singer Sewing Machine Company, making him a very wealthy man. He and his wife raised seven children in this home. Their grandson, Thomas, was the last Inslee to reside here. He moved from Sussex County to Vermont in the 1980s.

Property # 38: Joseph Greer Farm
Address: 187 Willows Road **Block #:** 1401 **Lot #:** 1
Date: 1807

Description: Joseph Greer's father, also named Joseph, emigrated to the United States from Ireland in the mid 1700s. Joseph Jr. moved to Sussex County when we he was twelve years old, going on to become a farmer and one of the leading men of the County. Greer's farmhouse, shown at left, was constructed in 1807 and later became part of the Inslee, Windy Brow Farm property. Of special note are the home's beautiful double chimneys and the large stone fireplace.

Property # 39: Walton C. Whittingham Mansion Site & Mill
Address: 164 Willows Road **Block #:** 1002 **Lot #:** 18
Date: Circa 1890

Description: The Whittingham family moved to Fredon from Millburn in the late 1800s. In 1890 , Mr. Whittingham built this estate as a summer home. The property previously contained a Coursen log cabin dating back to 1784. Although the mansion itself burned down years ago, many of the out buildings remain, including the old ice house, the stables, and the caretaker's house. Also remaining is an old mill dating back to 1904, which the Whittinghams built from limestone ledges to generate power. The mill was never successful, prompting the family to build their own generator — a first in the County.

Property # 40: Muckshaw Ponds, Indian Rock Shelter - Moody's Rock
Address: North of Willows Road **Block #:** N/A **Lot #:** N/A
Date: Unknown

Description: Located all throughout the Whittingham Tract, which is now protected by the Nature Conservancy, are the Muckshaw (Indian for "swampy place") Ponds. These ponds could once be crossed by canoe, but today abound with active beaver dams. Within this area lies a rock shelter cavern formed by low-shelved overhangings of slate and limestone outcroppings. Artifacts found in the shelter verify that the Lenape Indians used the shelter in some way. Also here is Moody's Rock, in which James Moody, a Tory, is said to have hidden out while recruiting for His Majesty's Army, 1780-81.

Property # 41: Mahlon Willson Home
Address: 203 Fredon-Springdale Road **Block #:** 1301 **Lot #:** 14.03
Date: 1798

Description: This farmhouse was built in 1798 by Mahlon Willson, a Quaker, who came to Fredon from near Johnsonburg. Here, he lived with his wife and eleven children. The back portion of the house is the oldest, with the front having been added on in subsequent years. Old barns now in poor condition suggest a once thriving farm. Mahlon's son, Obed, took over the farm until his death in 1852 — the same year that Mahlon himself died.

Property # 42: Jacob Cummings - Isaac Snook Farm
Address: 444 Ridge Road **Block #:** 1402 **Lot #:** 4.05
Date: Circa 1840

Description: Jacob Cummings began leasing this farm in 1794 from Andrew Linn and George Armstrong, and then bought it four years later. One of the farm's workers, William C. Snook, later married one of Cummings' daughters and came into ownership of the farm. The farmhouse burned sometime before 1840, which was replaced by the house pictured here. At this time, the deed recorded Isaac Snook as owner of the farm. Mr. Snook raised a large herd of dairy cows here, as well as hogs that were slaughtered on the farm.

Property # 43: Dildine-Joshua Hardin Farm
Address: 85 Phil Hardin Road **Block #:** 1801 **Lot #:** 12.02
Date: 1840-1880

Description: It is believed that John Roy had a log cabin on this property as early as 1749, but it was the Dildine family who, in 1840, built the oldest (back) portion of the present house. The Dildines, who were Huguenots, resided here until 1854. It was then that Joshua Hardin moved to the farm from the Swartswood Road area because of the better land. Cows as well as corn, oats, hay and clover have all been raised here. Over the years, the Hardin family added on to the front of the home (1880) as well as added a second floor (1923). The spring house in the back is the property's oldest structure.

Property # 44: Town Hall
Address: Phil Hardin Road, east of Route 94 **Block #:** 1801 **Lot #:** 1
Date: 1910

Description: Fredon became incorporated as a Township in 1904, due to the tenacity of men like Col. Whittingham and William Coursen. Whittingham even funded the building of a town hall, which was completed in 1910. Originally, the hall was located in front of the school, but it was moved up the hill to its current location in 1930. The town committee met here until 1971, when an agreement was reached to move municipal business to the firehouse site. Two years later, the old town hall became part of the school, first housing a classroom and then serving as the business office.

Property # 45: John Roy Mansion (aka Packman Farmhouse)
Address: 465 Route 94 **Block #:** 1801 **Lot #:** 2.01
Date: 1775

Description: This house was built in 1775 by John Roy, who moved to Fredon from Basking Ridge. His was the first frame house built in Fredon and because of its relative elegance to the prevailing log homes, it was called a "mansion". In fact, people came from miles around to see this new innovation in construction. Interestingly, one is actually viewing the back of the home from Route 94 because the road previously went in front. The portion to the right of the front is actually the oldest portion of the house, as the left side was added on in the 1800s. Many original features remain, including the floors and fireplaces.

INVENTORY OF HISTORICALLY SIGNIFICANT PROPERTIES

Property # 46: William Roy House
Address: 484 Route 94 **Block #:** 1602 **Lot #:** 7
Date: 1800

Description: This home, built in 1800, was the birthplace of George Watson Roy (son of William) in 1858. George left Fredon for Nebraska when he was in his 30s, however he remained enamored with Fredon for the rest of his life — so much so that he eventually compiled four volumes of Fredon's history. It is because of the efforts of people like Mr. Roy that so much of Fredon's history has been preserved for future generations.

Property # 47: Lodestar Farmhouse
Address: 489 Route 94 **Block #:** 1801 **Lot #:** 4.01
Date: Circa 1800

Description: This property was originally owned by the Kerr family, who are believed to have built the home pictured at left circa 1800. In 1807, Col. John Coursen bought the property and his oldest son Enos lived here with his family. When Enos died in 1819, the property changed hands a number of times before Daniel Morris, from Baleville, bought it in 1860. Daniel and his wife, Margaret Shotwell Morris, lived here with their family until 1900.

Property # 48: Smith Hearse Barn
Address: 3 Paulinskill Lake Road **Block #:** 1601 **Lot #:** 5
Date: 1800s

Description: This small gray barn near the Abram Smith House (see Property #12) was known in the 1800s as the Hearse Barn because it stored the horse-drawn local hearse. Since the Smith family were woodworkers, they probably made the community coffins. Brothers William, George and Joseph Smith (as well as members of the Roy and Hankinson families) were listed as undertakers.

Property # 49: Stevans-Shotwell House (aka Orchard House)
Address: 500 Route 94 **Block #:** 1602 **Lot #:** 3
Date: Early 1800s

Description: An early owner of this house, built sometime before 1849, was John Stevans. He later sold the property to James Shotwell. Around 1940, it was known as the "Orchard House".

Property # 50: Swayze's Store
Address: 513 Route 94 **Block #:** 1802 **Lot #:** 1
Date: Circa 1900

Description: It has been noted that David Swayze owned and operated a store here in 1900.

Property # 51: Goble's Hotel - Brown Home - Halfway House (aka Decker Place)
Address: 8 Warner Road **Block #:** 1602 **Lot #:** 4.01
Date: 1750s-1800s

Description: This home dates back to the Revolution, when it was a hotel. Stagecoaches traveling between Easton, PA, and Newburgh, NY, would stop here for a change of horses because it was halfway between the two towns — earning the nickname "Halfway House". Later inhabitants include the Decker family, whose accounts of Generals Washington and Gates stopping at the inn have been handed down through the years.

One notable feature of the house is its original fireplace, which serves two rooms.

Property # 52: Goble House
Address: 526 Route 94 **Block #:** 2005 **Lot #:** 22
Date: Circa 1840

Description: The house pictured at left is believed to be an early Goble house. Grace Van Horn is also said to have lived here. Historical accounts say that the militia trained in the front field of this home at one time.

Property # 53: Budd House
Address: 534 Route 94 **Block #:** 2005 **Lot #:** 20
Date: Early 1800s

Description: This home was built by Margaret and John Budd in the early 1800s. The front of the house, as it stands today, may have originally been in the rear.

Property # 54: Reverend Boyd House, Barn Site & Slave Cemetery
Address: 24 Fredonia Road **Block #:** 1802 **Lot #:** 23
Date: 1782

Description: This house, built by Reverend John Boyd in 1782, has been restored by more recent owners to much of its original beauty. Remaining architectural features include carved wood mantelpieces, a four-paned transom window over the front door, as well as a kitchen fireplace and intact oven. Today, the house serves as a strong example of eighteenth century farmhouses.

On the opposite side of Fredonia Road was the Boyd's barnyard. The foundation of the barn is still visible today. It is believed that the barnyard also served as a slave cemetery.

INVENTORY OF HISTORICALLY SIGNIFICANT PROPERTIES

Property # 55: Sampson Dildine House (aka Dildine-Kyle Home and Mill)
Address: 540 Ridge Road **Block #:** 1802 **Lot #:** 11.01
Date: 1790

Description: This property, developed in 1790, contains a charming old residence and remnants of the mill's foundation. This mill was used during two different periods — the first to mill clover and the second to mill land plaster. Limestone hauled to the mill was crushed into lime and added to gypsum to cover the fields. This plaster was also used as a wall covering. In 1829, James and Margaret Kyle emigrated to America and settled in Orange County, NY, for a number of years. In 1848, the family moved to Sussex County and purchased this property. James Kyle died here in 1859. COE 7/26/05

Property # 56: Dildine - William C. Gray Home
Address: 62 Fredon-Greendell Road **Block #:** 1901 **Lot #:** 2.01
Date: 1827

Description: This home, built in 1827, was bought from the Dildine family by William C. Gray in the mid 1800s. William went on to marry Mary Ann Kyle, daughter of neighbors James and Margaret Kyle. Mary Ann was just fourteen when she married William. Together, they had eight children, one of which was Whitfield Gray who became a veterinary doctor. Whitfield was the first of three generations of Gray doctors in Fredon, including Dr John S. Gray and Dr. William C. Gray.

Property # 57: Roy Farmhouse
Address: 27 Fredon-Greendell Road **Block #:** 1802 **Lot #:** 8.01
Date: Circa 1820

Description: This house is believed to have been built circa 1820, though the cellar shows evidence of two prior homes on the same foundation. The first owner, of which there is record, was William Roy in the 1860s. Later, Charles Roy and his wife Lizzie lived in the house, divided it into a two-family, and rented the larger side to farmhand Earl Hunt and his family. Roy eventually left the farm to Hunt, whose widow later married Lewis Weber. In 1961, Weber sold the farm to Abe Meirop, who was the property's last dairy farmer/owner.

Property # 58: Ralph Dildine Farm (aka Richardson House)
Address: 110 Hunts Pond Road **Block #:** 1902 **Lot #:** 17
Date: 1820

Description: This farm near Hunt's Pond dates back to 1820. The farm was purchased by Ralph Dildine in 1850, after he sold his farm on the present Phil Hardin Road to Clinton Hardin. Here, Ralph lived with his wife, Eunice Wills, and their five children: Mary, Samuel, Sarah, John, Henry, and Ralph W. Ralph Sr. was the seventh born child of Samson Dildine, who was of French ancestry, and Martha Hunt.

The house could have been built for a Hunt grandmother, which would explain the structure's "fancy" moldings and doors on its first floor.

Property # 59: Hunt Homestead
Address: 130 Hunts Pond Road **Block #:** 1902 **Lot #:** 16.01
Date: 1822

Description: Eight generations of the Hunt family have been living in Sussex County since the early 1700s. In 1748, Samuel Hunt purchased this land near what came to be known as Hunt's Pond from New Jersey proprietors. Upon his death in 1752, Samuel's many land holdings were divided among his five sons. One son, Ralph, lived in Fredon and owned 1,600 acres of land — including this property. In 1822, Ralph built the first portions of the home shown here. Other additions were made over the years as the family grew. In 1958, the property was being farmed by J. Budd Hunt — the last Hunt to live here.

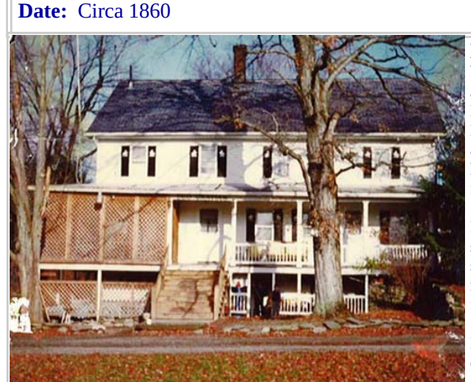
Property # 60: Hunt Graveyard
Address: Off Hunts Pond Road **Block #:** 1902 **Lot #:** 19
Date: Mid 1700s

Description: Behind the Hunt Homestead lies a graveyard that dates back to Samuel Hunt in the mid 1700s. Samuel decided that his hills overlooking Hunt's Pond , which at that time was called Am-Hole (Indian for "barrel shaped"), would be a fine location for a cemetery. He became the first Hunt to be buried here, with many later generations following him. A number of slaves are buried here as well. Although the Hunt Homestead is no longer in the family's hands, this property remains in Hunt trusts.

Property # 61: Ralph Hunt Stone House (aka White House Hotel)
Address: 554 Route 94 **Block #:** 2005 **Lot #:** 16
Date: 1768

Description: This two-story stone house built by Ralph Hunt in 1768 is the original Hunt Homestead. Ralph, father of Samuel, was born in 1732 and died in 1821. He owned two flour mills, a saw mill, a fulling mill, and a rye distillery. He was also in the Revolutionary War. It has been reported that George Washington even stayed in this house overnight while marching through Sussex County during the war in 1782. This is why the house has been given the nickname "White House Hotel". The dwelling has been beautifully maintained over the years, a credit to its owners.

Property # 62: George Budd House (aka Spring Lake Cottage)
Address: 566 Route 94 **Block #:** 2008 **Lot #:** 1.01
Date: Circa 1860



Description: This house, which is believed to have been built sometime after 1860, was the home of George Budd. George was the first son of Mahlon Budd. He was born in 1858 and died in 1926. At one time, the house was a popular boarding home. In fact, it was here that workers stayed in 1922 while Route 94 was being built. Fire has since changed the look of the structure, as it once contained a third story. On the pond in back is "flat rock" — well known as a meeting place for Native Americans.

Picture courtesy of Mario Inglima, owner.

Property # 63: Thomas Hunt - Mahlon Budd House
Address: 590 Route 94 **Block #:** 2005 **Lot #:** 12
Date: 1828

Description: This farm was part of Thomas and John Hunt's share of their father's (Samuel Hunt) estate. John died unmarried, so the property was eventually passed on to Thomas' descendent Margaret Hunt and her husband, Mahlon Budd. Mahlon and Margaret built this house in 1828. Today, the property is still in Budd hands, belonging to Henry and Sarah Budd.

INVENTORY OF HISTORICALLY SIGNIFICANT PROPERTIES

Property # 64: Austin Hunt - Luse Home
Address: 608 Route 94 **Block #:** 2101 **Lot #:** 6
Date: 1832

Description: This house was built by Austin Hunt in 1832. Austin was the great-grandson of Richard Hunt, who was the son of the first Hunt. Also on this property were a blacksmith shop and a shoemaker's shop. Today, the property is part of the Crisman family holdings. The Crismans are a five generation Fredon family and are still farming these lands.

Property # 65: Richard Hunt House
Address: 620 Route 94 **Block #:** 2101 **Lot #:** 4
Date: Late 1800s

Description: This house was built by Richard Hunt in the late 1800s. Until recently, the property had been continuously run as a dairy farm.

Property # 66: John Shaw House
Address: 621 Route 94 **Block #:** 1903 **Lot #:** 2.01
Date: Unknown

Description: Sitting back off the road is John Shaw's house. John originally owned 750 acres in the area, a portion of which was sold to the Upper Hardwick Presbyterian Church (now the site of the Yellow Frame Church; see Property # 69).

Property # 67: George C. Shaw Farm
Address: 636 Route 94 **Block #:** 2103 **Lot #:** 1
Date: Late 1700s-1850

Description: In the area once referred to as "Gratitude" lie the many Shaw properties. One of these was George Shaw's farm, which still stands as a farm of great beauty today. George was a dynamic farmer, raising pigs, prize-winning cattle, and the first Cotswold sheep in Sussex County.

The house was built in two phases: the first floor was built in the late 1700s and the second floor was added in 1850. Of note are the beautiful barns, stables and cupola on the roof that still remain today.

Property # 68: Robert Shaw House
Address: 645A Route 94 **Block #:** 1903 **Lot #:** 5.02
Date: Late 1700s

Description: Another Shaw to own a home in this area was Robert Shaw. Robert's was actually the first Shaw home to be built. The property was obtained through a Land Grant Deed.

Property # 69: Yellow Frame Church
Address: 1 & 3 Yellow Frame Road **Block #:** 1903 **Lot #:** 6
Date: 1887

Description: At the Fredon-Frelinghuysen boundary line lies the Yellow Frame Church area. These lands and the areas surrounding them were originally owned by John Shaw, but a portion of his property was sold to the Upper Hardwick Presbyterian Church. The church began services in a log cabin east of Johnsonburg in 1750. By 1786, the congregation had grown so large that they built a two-story yellow frame building on the site of the present Yellow Frame cemetery. In 1887, the present church was constructed across the road to replace the dilapidated one. The church and cemetery are still in use today.

Property # 70: Unknown
Address: 148 Fredon-Marksboro Road **Block #:** 2102 **Lot #:** 1
Date: Unknown

Description: The age of this farmhouse, which is now part of the Willard Klemm property, is not exactly known. However, the old age of the original portion of the house is evident. As seen in the picture at right, multiple additions have been made in more recent years.

Property # 71: Uriah Dildine House
Address: 5 East Stillwater Road **Block #:** 2002 **Lot #:** 1
Date: Early 1800s

Description: The house pictured at left was built by Uriah Dildine circa 1800. Originally a square house, it features Jersey twister stairs and the kitchen was located n the cellar.

Property # 72: Kohlbocker Lime Kiln
Address: Kohlbocker Road, south of Stillwater Road **Block #:** N/A **Lot #:** N/A
Date: Unknown

Description: This kiln was used to burn limestone rocks by Fredon's earliest farmers. We do not know when the kiln was first constructed, or whether it was operated by a single owner or a group. However, the kiln's significance lies in the relatively good condition it remains in.

INVENTORY OF HISTORICALLY SIGNIFICANT PROPERTIES

Property # 73: Unknown
Address: 31 Kohlbocker Road **Block #:** 1605 **Lot #:** 4
Date: 1790

Description: The house pictured at left was built in 1790. The foundation of the house is made of dry laid stones, and the interior is insulated by mud bricks made from the clay of the adjacent Paulinskill River.

Property # 74: Hankinson Tenant House
Address: 46 Old Swartswood Station Road **Block #:** 401 **Lot #:** 2.01
Date: 1835

Description: This house was built in 1835 as part of the Hankinson family estate (see property #17). It served as the tenant house. Today, the property is owned by the NJ Department of Fish and Game.

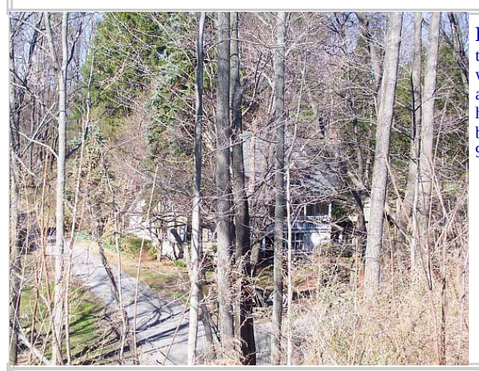
Property # 75: Jacob Nelson Snook House
Address: 23 Old Swartswood Station Road **Block #:** 402 **Lot #:** 6
Date: Early 1800s

Description: This house, which was built in the early 1800s and owned by Jacob Nelson Snook, was also part of the original Hankinson family lands (see Properties #17 and #74). Snook was related to the Hankinson family by marriage.

Property # 76: Russell Snook House
Address: 331 Route 94 **Block #:** 801 **Lot #:** 9
Date: 1930

Description: This stone bungalow was built in 1930 by Russell Snook. It stands as the only example of this architecture in Fredon.

Property # 77: Anderson-Onsted House
Address: 34 Anderson Hill Road **Block #:** 404 **Lot #:** 27
Date: 1830



Description: John Anderson built the house at left in 1830 for his third wife (see Properties #22 and #23). He also died here in 1859. Today, the house is almost completely obscured by trees due to the re-grading of Route 94 in 1929.

Property # 78: Whittingham Wildlife Lime Kiln
Address: Whittingham Wildlife Management Area **Block #:** N/A **Lot #:** N/A
Date: Unknown

Description: Like the Kohlbocker Lime Kiln (see Property # 72), this kiln was used to burn limestone rocks by Fredon's earliest farmers. Although the date that this kiln was constructed is unknown, its significance lies in the relatively good condition it remains in.

Property # 79: Craftsman Home
Address: 608 Route 94 **Block #:** 2101 **Lot #:** 6
Date: 1920s

Description: Also part of the Crisman family holdings (see Property #64) is the house pictured at left. It is an original Craftsman home, which was sold as a kit by Sears Roebuck in the 1920s. This is the only known example in Fredon.

Property # 80: Metzger Farm
Address: 180 Fredon-Marksboro Road **Block #:** 2201 **Lot #:** 4
Date: 1850

Description: The original portion of this house dates back to 1850, however subsequent additions have been made. In the 1940s, the property was known as the Metzger Farm. Today, it is part of the Klemm family holdings, also known as Waterwheel Farm.

8.0 COMMUNITY FACILITIES PLAN

8.1 Introduction

The objective of the community facilities plan is two-fold. First, it is to provide an understanding of the township's community facilities needs. Secondly, it is to offer a blueprint for the upgrading of those facilities which are determined to be in need of upgrading and expansion, thereby serving as the basis for guiding improvements in the years to come. These assessments are based on both current usage and trends, as well as an estimation of the future needs based on population growth and change in the community's demographic characteristics. Each of these issues are addressed herein.

8.2 Existing and Projected Population

Population projections provide demand parameters for evaluating future community facility needs. According to U.S. Census data, Fredon's population increased 3.4 percent between 1990 and 2000, rising from 2,763 to 2,860 residents. By the year 2020, Fredon's population is expected to increase another 22.4 percent to 3,500 residents, according to the Sussex County Development and Redevelopment Report. This estimate could easily be achieved — or even surpassed — if land continues to be developed at the rate that it has been in recent years. However, if the recommended preservation efforts and zoning regulations in this master plan document are put into place, actual population growth may be slightly lower.

8.3 Inventory of Existing Facilities

The inventory of existing facilities addresses six (6) separate categories of community facilities. These include the municipal building, fire department and emergency medical services, police protection, the department of public works, libraries, and schools. The township's recreation and open space lands, although owned by public or quasi-public entities, are addressed in the open space and recreation plan element of this document.

As shown in the table below and map on the following page, Fredon's existing community facilities — exclusive of open space and recreation areas — comprise just over 35 acres, or 0.3 percent of Fredon's total land area. Of this, approximately nineteen (19) acres are held by the Township itself. The remaining seventeen (17) acres are occupied by a number of autonomous public agencies, including the Board of Education and four (4) group home providers.

Table 13
Existing Community Facilities

Site	Block and Lot (Location)	Ownership	Acres
Fredon Township Municipal Complex	Block 1402 Lot 2.02 (443 Route 94)	Township	5.88
Fire/EMS Headquarters & Community Center*	Block 1601 Lot 2 (436 Route 94)	Township	3.87
Fredon Township School	Block 1801 Lot 1 (459 Route 94)	Board of Education	8.88
Colonel John Coursen Homestead	Block 1601 Lot 16.01 (8 Stillwater Road)	Township	3.00
Group Homes	Block 1001 Lot 1.04 (307 Ridge Road)	Sussex County Association of Retarded Citizens	1.00
	Block 104 Lot 11.02 (343 Newton-Swartswood Road)	Skylands Center Offering Autism	4.02
	Block 1401 Lot 3 (429 Ridge Road)	Nora G Inc. of New Jersey	1.95
	Block 801 Lot 12.03 (357 Route 94)	Willowglen Academy	0.81
Isolated Lots	Block 403 Lot 4; Block 1101 Lot 7; Block 1605 Lot 1	Township	6.23
Total			**35.64**

* Occupancy expected by August 2006

As the community grows, additional facilities will be required. Prior to these additions and/or replacements, a needs assessment should be completed, community input should be sought, and a referendum should be completed for projects costing more than $1 million.

Municipal Buildings and Facilities

Overview

The Township's municipal complex is located at 443 Route 94. It is situated on the northeast corner of Route 94 and Phil Hardin Road. The site occupies an area of 5.88 acres.

The site is characterized by a relatively steep topography and slopes downward from east to west. It is developed with Fredon's municipal building, the department of public works (DPW) garage, and a 26-car parking area. The need for additional parking is accommodated by use of the DPW space and/or the driveways of adjacent buildings.

The municipal building, which was constructed in 1968, contains 9,240 square feet of floor area on two (2) levels. The upper level is occupied by the administrative offices of the Township and temporary offices for the Board of Education. There are currently two (2) full-time employees in the Township offices, two (2) full-time employees in the Board of Education offices, and an additional twelve (12) part-time employees. The upper level also contains a meeting room that can accommodate 100 people. The lower level of the building is occupied by the fire department and emergency medical services headquarters.

The municipal building was refurbished in 1994 to include air conditioning, new carpeting and the replacement of two (2) rotting support posts.

Needs Assessment Based on Interview

- The Township needs an expansion of their office facilities.
- However, the property and municipal building are severely constrained by Route 94 to the west and the access drives of neighboring properties to the north and east.

Fire Department and Emergency Medical Services

Overview

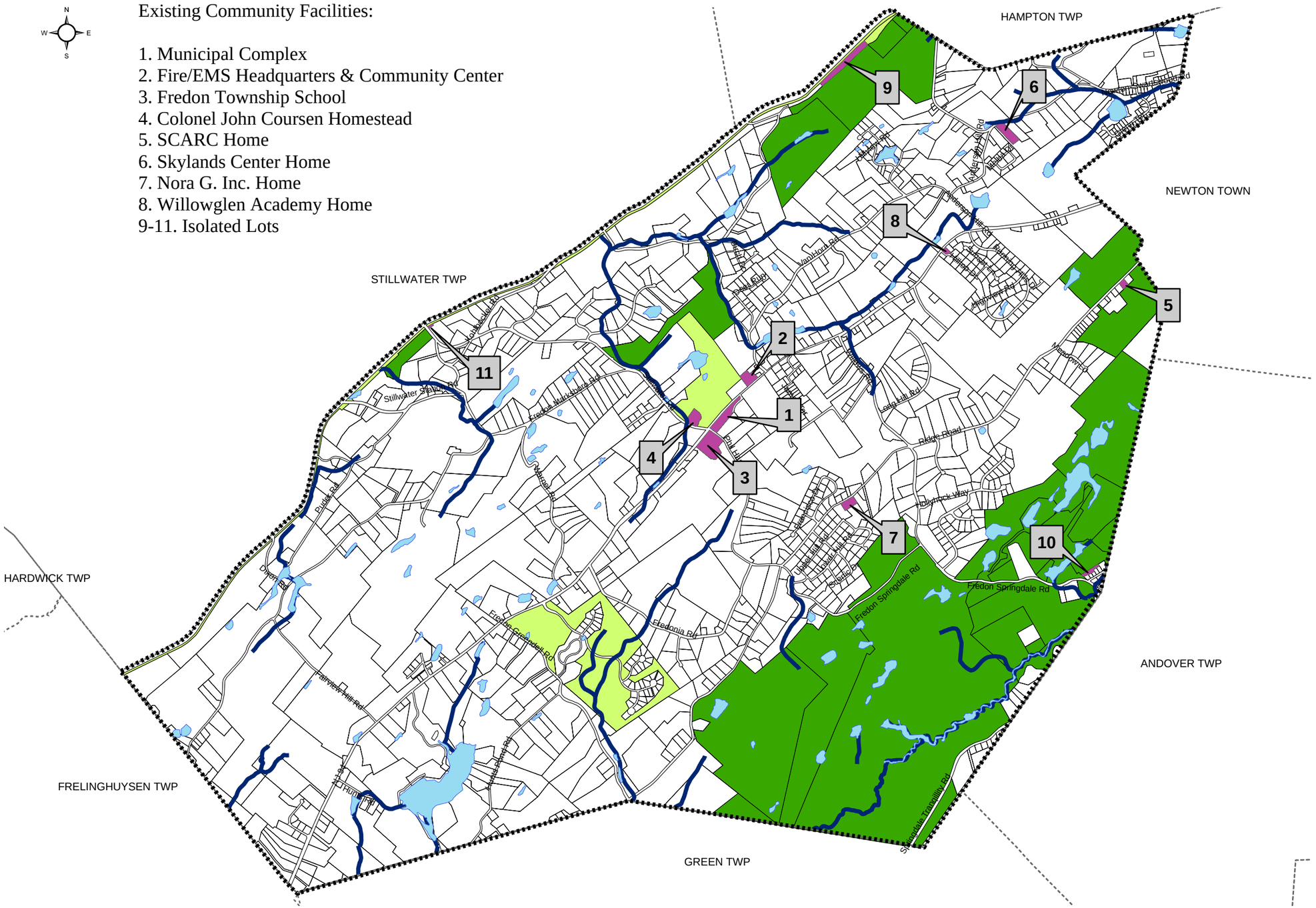
The fire department and emergency medical services (EMS) headquarters are located on the lower level of the municipal building and occupy approximately 4,600 square feet of space. The facilities include three (3) bays, a meeting room, lounge, and kitchen. The following table indicates the type of equipment that is currently housed here:

Table 14
Fire Department/EMS Equipment

Equipment	Notes
1980 Chevrolet Brush Truck	250 gallon tank capacity 400 gpm self contained engine/pump
1993 KME Pumper	1,000 gallon tank capacity 1,250 gpm engine
1993 Ford Explorer	EMS first response vehicle Same equipment as ambulance, but no transport
1999 Pierce Pumper-Tanker	2,500 gallon tank capacity 1,500 gpm engine/tanker
2003 PL Customs Ambulance	Equipped as required by NJ State First Aid Council Can transport two patients
2006 Pierce Rescue Truck	Stainless steel body: 30-year life For heavy rescue, automobile extrication, air bags for lifting, ice rescue equipment
2006 Ford Excursion	Incident command vehicle Equipped as field communication center, for all township emergencies, all hazards

Existing Community Facilities:

1. Municipal Complex
2. Fire/EMS Headquarters & Community Center
3. Fredon Township School
4. Colonel John Coursen Homestead
5. SCARC Home
6. Skylands Center Home
7. Nora G. Inc. Home
8. Willowglen Academy Home
9-11. Isolated Lots


N
W
E
S
HAMPTON TWP
NEWTON TOWN
STILLWATER TWP
HARDWICK TWP
FRELINGHUYSEN TWP
GREEN TWP
ANDOVER TWP
1
2
3
4
5
6
7
8
9
10
11
Fredon Springdale Rd
Ridge Road
Fredonia Rd
Stillwater Stanhope Rd
Fredon Marksboro Rd
Walpole Rd
Meadow Rd
Hollybrook Way
Fairview Hill Rd
Drum Rd
Pudge Rd
Hunter Rd
Stanhope Tranquillity Rd
Fredon Grenadier Rd
Pole Hill Rd
Lake Hill Rd
Rocky Hill Rd
Rocky Hill Rd
Rocky

Fredon is served by a team of 42 fire and EMS volunteers, which is the highest it has ever been. Membership is split approximately 50-50, although some members serve both fire and EMS. Basic training for Fire and EMS is approximately 160 hours each, while training for specialized heavy rescue and extrication are an additional forty (40) hours. All volunteers require continuing education courses. There is also an ice rescue unit within the group, as well as a wilderness rescue group under development. All members have personal protective equipment as required by the respective disciplines (NFPA, PEOSHA, etc.), including a portable radio.

Fire and EMS calls are dispatched by the Newton Police Department using tone activated pagers carried by all members.

NEW FACILITIES

A new building opened in August of 2006 at 436 Route 94, just north of the municipal complex, which houses the fire department and EMS headquarters, as well as a recreation center. This building has a total floor area of approximately 15,500 square feet. The fire and EMS portion contains six (6) bays of approximately 5,500 square feet, and a mezzanine meeting room of approximately 1,200 square feet.

NEEDS ASSESSMENT BASED ON INTERVIEW

- Dependent on the rate and type of development in the township, the following equipment/vehicle replacements may be needed in the coming decades. These are *not* in order of priority.
    - 1996 EMS first responder vehicle
    - 1993 first out engine
    - Brush truck/remount skid unit
- Additional needs will be based on future growth projections. With an increase in population, provisions should be made for purchasing additional equipment and recruiting additional crew members. In addition, recruiting and retention methods will need constant maintenance.

POLICE PROTECTION

Fredon relies on the New Jersey State Police (NJSP) for all police activities. Calls to 911 are answered at the Township's PSAP/dispatch center, which is located at and operated by Newton's Police Department. Police requests are then forwarded to NJSP.

DEPARTMENT OF PUBLIC WORKS

OVERVIEW

The department of public works (DPW) occupies a 4,950 square foot garage on the southern portion of the municipal complex lot. This garage contains six (6) bays, an office, as well as a salt and mixed-grits shed. Equipment currently housed here includes a backhoe, road grader, asphalt spreader, roller, trailers, large bucket loader, large and small mowers, and a variety of hand operated machinery. The department also has a storm sweeper/storm drain vacuum, which is compliant with the municipality's new stormwater regulations and is co-owned with Green Township via a special agreement.

All of the DPW's trucks are rotated out on a regular schedule, purchased on open bids, and sold via the Sussex County Co-operative. Other equipment is replaced as it wears out, based on the cost of maintenance and repairs versus replacement

costs. Major material purchases such as salt, grits, diesel fuel, propane, and asphalt are made through the Sussex and Morris County Co-operatives.

The DPW currently has five (5) full-time employees. Responsibilities include the maintenance and minor repair of all Township roads (approximately 32 miles); snowplowing and salting; opening, installing and replacing of storm drains; grass and weed control; the installation and replacement of road signs; tree removal along roadways; and litter removal after wind and thunderstorms. In addition, the DPW is in charge of maintaining Fredon's Lodestar Park.

NEEDS ASSESSMENT BASED ON INTERVIEW

- The DPW building needs its floors cleaned and resurfaced.
- Better lighting is also needed in the DPW building.
- The roof drains should be re-built.
- The following equipment is expected to need replacement within the next six (6) to ten (10) years:
    - Loader (already ten (10) years old)
    - 1988 single-axel dump truck
    - Asphalt roller
    - Mason dump

LIBRARIES

The Township currently does not have its own library facilities, but instead is served by Sussex County's Library System. The nearest library branch to Fredon is located in Newton at 101 Main Street. The County's main library branch is located in Frankford at 125 Morris Turnpike (Route 655).

SCHOOLS

OVERVIEW

The Fredon Board of Education is responsible for the township's public school services. It currently operates one (1) elementary school consisting of kindergarten through sixth (6th) grade at the Fredon Township School. The Kittatinny Regional High School complex in Hampton Township serves Fredon's students from seventh (7th) through twelfth (12th) grades.

The Fredon Township School is located at 459 Route 94, on the southeast corner of Route 94 and Phil Hardin Road. It occupies an area of 8.88 acres.

The 36,000 square foot school building is comprised of multiple wings. The original school was built in 1927 and consists of a two (2) story, four (4) room wooden building with a slate roof. Subsequent additions were then made in 1954, 1957 and 1969. The school presently contains fifteen (15) classrooms – two (2) classes devoted to each grade level, with the exception of three (3) classes for the third (3rd) grade. Average class size is currently 22 students per class. Additional facilities include: a library/media center, resource center, basic skills room, technology lab, science lab, art room, music room, kitchen, multi-purpose room (gymnasium/cafeteria/stage), nurse's office, faculty room, administrative offices, and two (2) mechanical rooms. Recreational facilities include two (2) playground structures, as well as an "upper" soccer field and a "lower" combination soccer and baseball field. Additional administrative offices are housed in the Township municipal building, as previously noted, and non-essential storage is housed in the former Town Hall building to the rear of the school.

The school's staff presently consists of 58 members. This total includes 35 certified staff members, including teachers and administration, and 23 non-certified staff members, including secretaries, custodians and teaching associates. There are also an additional five (5) employees who work in the cafeteria.

NEEDS ASSESSMENT BASED ON INTERVIEW

- Continue to evaluate classroom size needs and facility upgrades.
- The school should become handicapped (ADA) accessible.
- Infrastructure needs upgrading and replacing (including boilers, windows, HVAC, electrical, security, fire doors, roof, and lock-down).
- Explore all green-building options (including landscaped roofs, solar power, etc.).
- Additional parking space is needed, especially for day-to-day visitor parking.

8.4 Community Facilities Plan Recommendations

This section of the Community Facilities Plan Element sets forth the recommendations to address the future community services needs of the township. Services provided by the municipality are an important asset to the community and should be maintained. The following recommendations serve to strengthen existing services, as well as suggest potential sites for acquisition for Township facilities.

1 *Municipal building*. Consideration should be given to the expansion or relocation of the Township's administrative offices and meeting room.

2 *Schools*. To address concerns of overcrowding in the Fredon Township School, the township should consider participating in a regionalization program, which would include the sharing of educational resources, facilities and students with neighboring municipalities. Such a program would not only relieve Fredon's overburdened school system, but would also take advantage of underutilized resources, such as in Stillwater Township where school enrollments are declining.

   Should it become necessary to build a new school within Fredon itself, potential sites should be analyzed for feasibility and desirability of acquisition.

9.0 CIRCULATION PLAN

9.1 Existing Conditions

The roadways that comprise the township's circulation system can be grouped into three (3) functional classifications: arterial, collector and local. The functional classifications, organized into a hierarchical system, describe the character of the roadway with respect to its role within the regional transportation network. The classification system, as defined by the Federal Highway Administration, recognizes that urban and rural areas differ in the extent and character of their transportation networks. Fredon's roadways are part of a rural functional system. The circulation systems are generally described in the following section. See Table 16 and the accompanying Existing Circulation map (page 60) for more details.

Rural Arterial Roadways

Arterial roadways, the highest order roadway classification, provide for regional links between cities, towns and the interstate highway system. Rural arterials form a rural network that links towns and other traffic generators. They are generally characterized by higher travel speeds and minimal interruptions. Travel on arterial roadways is typified by high trip length and travel density.

Fredon's circulation system contains one (1) arterial road, Route 94, a state roadway that runs approximately six (6) miles through the center of the township. Route 94 is a north-south route that connects municipalities in northern Warren County to northern Sussex County. In Fredon, Route 94 connects the township to Frelinghuysen Township in the south and Newton in the north. It is a two (2) lane roadway with a posted speed limit that ranges between 45 mph and 50 mph. There is one traffic light located at the intersection with Stillwater Road and Phil Hardin Road.

Rural Collector Roadways

Collector roadways are the next highest order in the functional classification system. Collector roads typically serve intra-county traffic and are typified by more moderate speeds and travel distances. They often connect to towns and areas which lack arterial roadways. They connect smaller towns to the arterial system.

The township contains six (6) collector roadways: Ridge Road (Rt. 519), Stillwater Road (Rt. 610), Springdale Tranquility Road (Rt. 611), Willows Road/Fredon-Springdale Road (Rt. 618), Newton-Swartswood Road (Rt. 622). All of these roads are under county jurisdiction, with the exception of a portion of Fredon-Springdale Road, which is a municipal road. Many of these collector roads run east-west and connect to Route 94.

Local Roadways

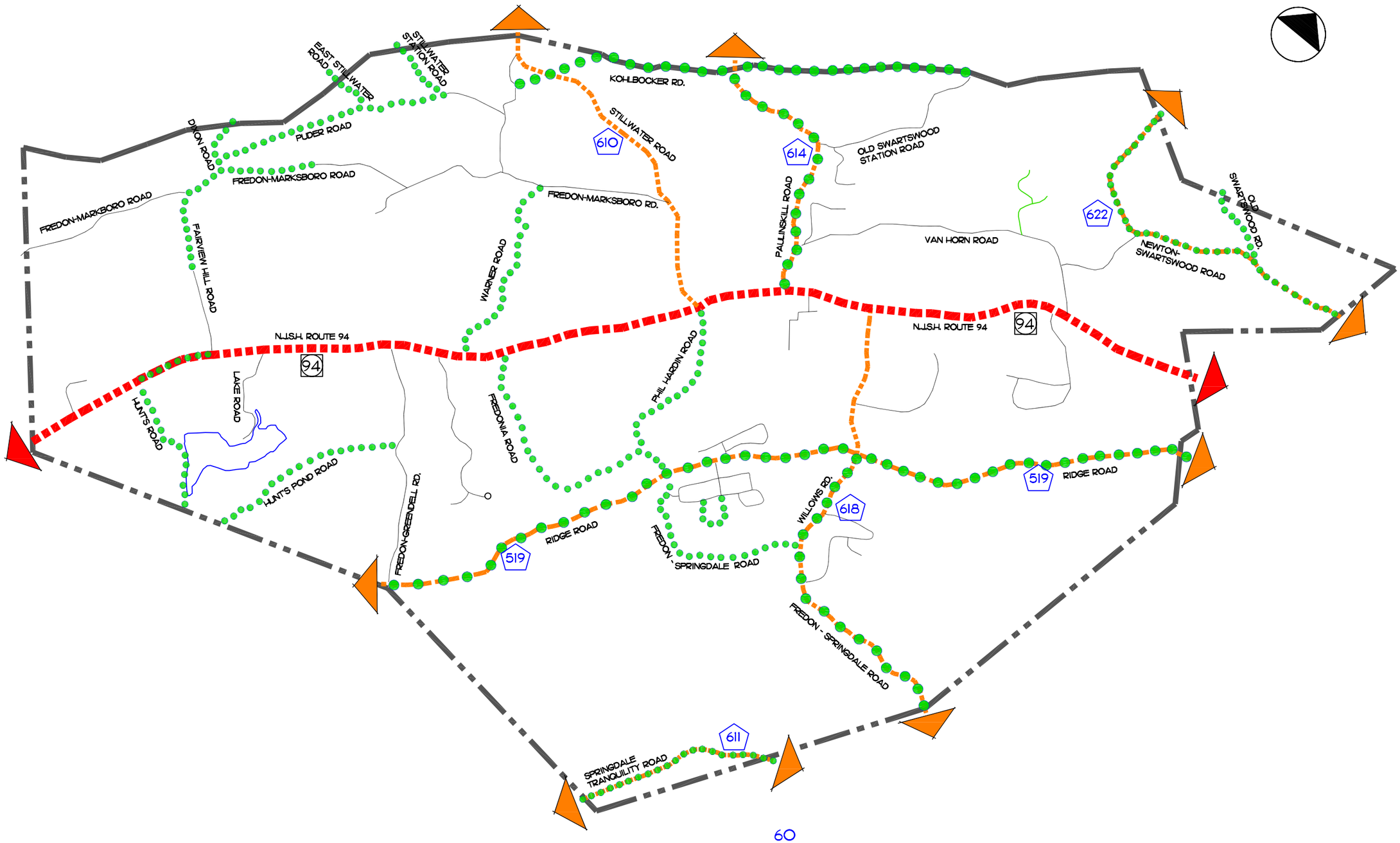
The lowest order roadways, local roads, are those that are neither collector or arterial roadways. They are intended primarily to provide access to adjacent land. Travel distances are short and speeds are more modest.

The township has a number of local roadways, most of which are under municipal jurisdiction. The only county-owned road classified as local is Paulinskill Lake Road (Rt. 614), which runs east-west from Stillwater Township to Route 94.

9.2 Traffic Counts

Average annual daily traffic (AADT) count data is available from the NJDOT for ten (10) locations along eight (8) of the township's roadways. This data is summarized in Table 17.

To determine whether these roadways can adequately support the average daily traffic being reported, each roadway was assigned a street type based on the State's Residential Site Improvement Standards (RSIS) handbook and their AADT. The widths of each roadway were then compared to the RSIS width requirements for that street type. As shown in Table 17, it appears that these roadways are substantially consistent with the RSIS standards and do not require widening.



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Dwg. Title

EXISTING CIRCULATION

Key Map

Scale

Dwg. Legend

N.J.S.H. ROUTE 94

COUNTY ROADS

SCENIC DRIVES

Rev	Description	Date	Dwn	Ckd

Project Title

MASTER PLAN

TOWNSHIP OF FREDON
SUSSEX COUNTY, NEW JERSEY

Graphic Scale

JOSEPH H. BURGIS AICP
PROFESSIONAL PLANNER
NEW JERSEY LIC. NO. 2450

Project No.	1467.04
Sheet No.	1 of 1
Date	10/21/05
Drawn	BB/RW/CBA
ACAD File	1467.04CIR
Dwg. Scale	1"=1100'

Dwg. No.

CIR

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TABLE 16
EXISTING ROADWAY DESCRIPTIONS

Name Classification Jurisdiction	**Description**	**Length** (milepost)	**Lanes**	**Speed Limit**	**Cartway Width**	**Shoulder Width**	**Traffic Signal**
Route 94 Rural Minor Arterial NJDOT	State highway connecting Warren County and Sussex County municipalities. Runs north-south through center of Fredon, between the municipal borders with Frelingheysen Township and Town of Newton.	6.31 miles (15.05-21.36)	2	50/45	Varies: 24 (Frel-15.3) 30 (15.3-15.8) 24 (15.8-end)	Varies: 8 (Frel-15.3) 0 (15.3-15.8) 3 (15.8-16.1) 6 (16.1-16.5) 3 (16.5-17.7) 6 (17.7-Newt)	Intersection with Stillwater Rd/ Phil Hardin Rd.
Ridge Road (Rt. 519) Rural Major Collector County	Runs north-south through eastern portion of Fredon, parallel to Rt. 94. Connects to Green Township to the south and Town of Newton to the north.	4.36 miles (59.24-63.6)	2	45	20	2	Intersection with Willows Rd.
Stillwater Road (Rt. 610) Rural Major Collector County	Runs east-west between western municipal border with Stillwater Township and Route 94.	1.87 miles (2.08-3.95)	2	40	21	2 (Still-2.6) 3 (2.6-end)	Intersection with Rt. 94
Springdale Tranquility Road (Rt. 611) AKA Springdale-Greendell Road Rural Minor Collector County	Runs north-south in the easternmost tip of the township. Connects between Green Township to the south and Andover Township to the north. Eventually connects to Route 206 in Andover.	1.05 miles (4.60-5.65)	2	50	21	2	None.
Paulinskill Lake Road (Rt. 614) Rural Local County	Runs east-west between western municipal border with Stillwater Township and Route 94. Parallel to Route 610, which is located to the south.	1.47 miles (0-1.47)	2	35	21	2 eastbound 1 westbound	None.
Willows Road/Fredon Springdale Rd (Rt. 618) Rural Major Collector County	Runs east-west between eastern municipal border with Andover Township and Route 94.	2.52 miles (0-2.52)	2	40	21	2	At intersection with Ridge Rd.
Newton-Swartswood Rd (Rt. 622) Rural Major Collector County	Located in northwest tip of township, between municipal border with Hampton Township and Town of Newton.	1.86 miles (3.02-4.88)	2	40/35	22	2 eastbound 4 westbound	

TABLE 17
TRAFFIC COUNT DATA & STANDARDS

Name Jurisdiction	**NJDOT Traffic Count Data**			**Residential Site Improvement Standards (RSIS) Street Type per Maximum ADT**	**Residential Site Improvement Standards (RSIS) Cartway Width Requirement (ft)**	**Actual Cartway Width (ft)**
	Location	**Average Annual Daily Traffic (AADT)**	**Date**			
Route 94 NJDOT	1.4 miles west of Stillwater Between Fredonia Road and Rt. 610 Between Paulinskill Lake Road and Phil Hardin Road	5,517 5,665 5,320 7,504 7,360	5/18/2004 12/12/2001 10/07/1999 10/2003* 10/07/1999	Major Collector — All Intensities	24	Varies: 24 (Frelinghuysen to milepost 15.3) 30 (Milepost 15.3 to 15.8) 24 (Milepost 15.8 to Newton)
Stillwater Road (Rt. 610) County	Between Verdona Road and Rt. 94	2,870	10/07/1999	Minor Collector — Low Intensity with No Parking	20	21
Paulinskill Lake Road (Rt. 614) County	Between Rt. 94 and Van Horn Road	2,320 1,958	4/15/2003 4/10/2000	Minor Collector — Low Intensity with No Parking	20	21
Fredon Springdale Rd (Rt. 618) County	Between Willows Road and Andover Township	4,683 4,111	5/18/2004 9/18/2001	Major Collector — All Intensities	24	21
Fairview Hill Road Municipal	Just west of Rt. 94	488 494	8/24/2004 10/09/2001	Rural Street	20	21
Kohlbocker Road Municipal	Just north of Rt. 610	228 216	10/15/2002 9/22/1999	Rural Lane	18	19
Phil Hardin Road Municipal	Between Rt. 618 and Rt. 94	990	10/07/1999	Residential Neighborhood — All Intensities	30	34
Van Horn Road Municipal	Just northeast of Rt. 614	385 350	4/29/2003 4/10/2000	Rural Street	20	21

*Traffic count prepared by Harold E. Pellow & Associates, Inc., between 10/23/2003 and 10/31/2003.

9.3 Roadway Safety

The NJDOT crash data reports detail 87 vehicular accidents in Fredon in 2003. This was up from 78 accidents in 2002 and 55 in 2001. In 2003, certain roadways were the site of multiple vehicular accidents. The collector and arterial roadways experienced more traffic accidents than local roads. For instance, there were 35 accidents reported along Route 94 in 2003, the majority of which did not take place at roadway intersections.

Given these recent increases in accidents and the continuing growth of the township, consideration should be given to the installation of more traffic controls, including speed limit and stop signs. The Township should evaluate which roads or unmarked intersections would be the most appropriate to receive such devices.

9.4 Scenic Corridors

As detailed in the Land Use Plan element of this document, the Township of Fredon is characterized by beautiful farms, forested areas, grasslands, streams and gorgeous viewsheds. While this plan goes into great detail regarding the preservation of both farmland and open space, planning to preserve viewsheds and scenic corridors is slightly more complex. The following section of this document describes some of the journeys on these scenic corridors, detailing some of the elements in the landscape that make them so unique. It is a goal of the master plan to preserve these elements, the corridors and their views to the greatest extent possible. And to ensure that future development respects them and is designed to minimize any impacts that it may have.

Since each of these roadways have different characteristics, the manner in which future development treats them should respect their unique characteristics. In general, the following design goals should be addressed by all proposed developments along scenic corridors:

1. Locate all proposed development in an area on a site that would create the least amount of visual impact to viewsheds and scenic corridors.
2. Preserve historic buildings and structures to the greatest extent possible and ensure future development respects the setbacks, locations and orientation of existing historic structures.
3. Locate new development behind the tree lines and forest fringe to maintain the natural vegetation to the greatest extent possible on roadways with heavy tree canopies and tree lines close to the street .
4. Locate future development in the background in areas where there are large open fields and grasslands. These structures should consist of low scale (ranch style, or max 1½ story) buildings where trying to preserve long views.
5. Respect the setbacks that existing development has from the roadways and ensure future development is consistent and compatible with those dimensions.
6. Provide supplemental landscape plans to enhance the existing character of the corridors and replace the existing vegetation that is removed as a result of development.
7. Maintain and imitate the character of the roadways, including width and cartway design, on all new roadway designs.

The following is a description of the scenic corridors located in the Township of Fredon.

Dixon Road

This 1/4 of a mile rural lane is defined by fields on both sides and flanked by historic buildings on either end. The farm fields, farm buildings and the proximity of these buildings to the street, as well as rural lane roadway widths, are the quintessential elements of rural pastoral lands. This area's farmlands and rural architecture are some of the best rural landscapes that Fredon has to offer. This roadway is one of the streets defined by Waterwheel Farm's fields and a historic stone house located in Stillwater. All of these elements create a visually interesting intersection at the confluence of Puder, Fredon-Marksboro, Fairview Hill and Dixon Roads.

Fredon-Marksboro Road

(From waterwheel at intersection with Dixon, traveling south 1.0 mile) Rural farm house and outbuildings with expansive fields/grasslands and bucolic setting. Tree line defines edge partially up slope on properties to east side, past Fairview Hill. Pond/water feature and large wetlands area on bottom of slope, parallel to street's east side. On western side of roadway, property slopes up away from road to farm fields and a number of residences. Last 0.2 mile, houses on either side with standard setbacks of 30 to 50 feet on rural lane. Traveling north, stone house, pond, barn, windmill and waterwheel at intersection with Dixon. Outstanding rural aesthetic.

Fairview Hill Road

Outstanding views from Fairview Hill Road to west including the Kittatinny Ridge. In addition to the magnificent view of the distance ridge lines, the immediate views include several farmsteads which line the road on both the north and south sides. This rural road is a standard roadway width (+/-25) with no curbing.

Puder Road

Traveling south from Stillwater Road, the road is a rural lane characterized by a heavily wooded landscape on both sides of the street. A majority of the street is characterized by limited residential development with significant tree canopies. The final 0.2 miles is different in nature and has open fields to both east and west as the roadway terminates with Dixon Road and Waterwheel Farm.

East Stillwater Road

East Stillwater Road is a very narrow rural lane connecting the Township of Fredon with Stillwater. The rural residential character of the roadway is identified by its meandering design that accommodates the topography, and its buildings that are located within close proximity to the road. The road's edge is defined by a large maintained tree row and farm fences along both sides.

Stillwater Station Road

The street can be characterized as a rural lane with its beginning defined by historic buildings and a branch of the Paulins Kill. The roadway itself is first bound by tall vegetation which provides a canopy overhead and then it is surrounded by an open naturalized grassed landscape as one leaves Fredon.

Old Swartswood Road

Traveling north from Newton-Swartswood Road, Old Swartswood Road is a narrow rural lane. As it climbs immediately uphill, the roadway reveals a view over a valley to the west, with pastures abutting the roadway to both sides. A farmhouse set close to the street emerges in a prominent position on the east side. Traveling south, the views seen from the crest of the hill reveal the interaction between the various landscapes, with horse paddocks and pastures transitioning into woodland in the distance.

Newton-Swartswood Road

Traveling west from Newton, Newton-Swartswood Road is a rural road of moderate width with shoulders along both sides for the entire length. As the road approaches the intersection with Old Swartswood Road, the terrain opens up and views are lengthened. At the intersection, the roadway remains relatively flat while the topography climbs to the south and falls to the north. A large horse farm is located on a hill on the south side of the roadway. After the intersection with Anderson Hill Road at 0.9 miles, the landscape becomes more rugged as natural vegetation lines the roadway. Trees, located approximately ten (10) feet off the side of the road which limits some of the views as the road winds and descends into Hampton.

Paulins Kill Lake Road

Paulins Kill Lake Road is a rural road of moderate width with narrow shoulders line both sides of the street. Traveling north from Route 94, the beginning of the road is marked by commercial structures located close to the street. The roadway quickly descends into a densely wooded area where it parallels a stream for much of its duration. Rugged natural terrain surrounds the roadway, with tall trees forming an outstanding canopy approximately fifty (50) feet above the roadway. At this point the roadway is located in a narrow valley surrounded by steep terrain on both sides with views that are tightly defined by the proximity of the large trees close to the roadway for nearly the entire length. At 0.9 miles, the stream crosses over to the east side of the road, and the topography begins to fall off on that side. At 1.0 mile, the paddocks and pastures of a large horse farm dominate the view below along the east side of the roadway for approximately 1,500 feet. At 1.3 miles, after emerging from a bend, an old farm structure set very close to the street acts as a visual termination point before the roadway turns sharply to the right, emerges from the hills, and approaches Paulins Kill Lake.

Hunt's Road

Hunt's Road is a very narrow rural lane with no shoulders. Traveling south from Route 94, the roadway descends under a dense canopy for one-tenth of a mile and then narrows and the surface transitions to gravel for the next half mile. The view shed is confined to the roadway due to the vegetation and modest banks on either side. As the vegetation clears, a small water feature is located on the west side of the roadway and after a sharp bend, a clearing reveals a large pond to the east. At 0.7 miles, the roadway widens and pavement returns, as the road continues into Green Township.

Hunt's Pond Road

Hunt's Pond Road is characterized by dense vegetation along the entire length of the north side of the roadway and open fields along the south side with a mountain range behind. Traveling east from Hunt's Road, the roadway ascends through dense woods. At the crest of the hill, the vegetation clears on the right side, as fields and horse paddocks open the view in that direction. The left side continues to be enclosed by trees and natural vegetation. Picket fences and stonewalls appear at various locations along the right side of the roadway. At 1.0 mile, a modest pond is visible on the right side. At this point, the roadway straightens and flattens to reveal a view over the valley ahead. The end of the roadway is defined by the emergence of farm structures located close to the street on the left corner, and a small water feature on the right corner.

Route 94: Fairview to Hunts Road

This portion of Route 94 has maintained an undisrupted rural landscape. Beginning at Fairview Hill Road, natural vegetation lines are located on the left side of Route 94, while the right side is opened up by a pasture, cornfield and a large pond. Farm structures are located in the distance with a barn and silo are situated on the right side at 0.2 miles. At 0.15 miles, the left side opens as well, with a grassy pasture visible below. The rural landscape continues until the intersection with Hunts Road at 0.4 miles.

Ridge Road / Route 519

Ridge Road offers intermittent views of the mountain ranges to the south for its entire length. The roadway transitions through a variety of rural and natural landscapes, from tree cover to open meadows and then to cornfields with residences are scattered throughout.

Heading east on Ridge Road from Green Township, the intersection with Fredon-Greendell Road is marked by a prominently positioned stone residence. At 0.2 miles, vegetation clears to reveal a view over the valley to the mountains beyond. Between 1.2 and 1.6 miles, there are scattered views of the mountains on the right, residences on the left. These homes are set back significantly from the roadway and are framed by the tree line behind them. The long views returns between 3.1 and 3.3 miles, at which point a farm and cornfield bring the view back to the immediate periphery. At 4.3 miles, the longest view shed is revealed before the road continues into Newton. The experience from the other direction is similar, with the best vista available at 2.9 miles.

Kohlbocker Road

Heading north on Kohlbocker Road from Old Middleville Road, the first 0.2 miles of the roadway are very narrow, with no shoulders. The narrowness is further exaggerated by steepness of the rocky embankment on the east side of the roadway at various locations. Stonewalls intermittently line this portion of the roadway, and residences are scattered throughout. After the intersection of Stillwater Road, the character of the roadway changes, as it descends into the dense tree cover of a heavily wooded area. Residences are located far from the road and blend into the landscape. The roadway and views are tight and narrow. Thirty-foot tree stands enclose both sides of the street, located no more than 2 feet from the road edge. At 0.5 miles, the roadway bends to the right, and an old residence located very close to the left edge of the road terminates the views. From this point, the topography falls steeply to the left and rises to the right. A gravel trail, located below the roadway on the left, begins to parallel the roadway at 0.7 miles. At 0.8 miles, a branch of the Paulins Kill Lake is visible on the left.

Scenic Drive

Scenic Drive offers dramatic roadway vistas of the mountain ranges in the distance. Unobstructed views over the valley allow the view to extend to reveal the distant multiple ridgelines.

Fredon Springdale Road

Heading south from Ridge Road, Fredon Springdale road descends steeply downhill. As the roadway curves at 0.2 miles, a brief period of tree canopy covers the roadway. At 0.3 miles, an outstanding view over the valley reveals distant mountain ranges. The road continues to descend steeply and a canopy of tall trees returns to enclose the views on both sides at 0.5 miles. The wooded area and significant canopy continues for one-quarter mile. Emerging from the tree cover, a large structure set close to the street punctuates the view ahead. Open fields characterize the right side and the road reaches the intersection with Willows Road.

Fredonia Road

As Fredonia Road ascends from Route 94, farm structures dominate the view to the right with small setbacks. Natural vegetation defines the left side. As the road continues to climb at 0.1 miles, beautiful views emerge over the valley to right. The views persist for 0.1 miles, at which point vegetation returns to the periphery. On the left, the vegetation momentarily gives way to a clearing of open grassy fields. At this point the road is narrows and begins winding through the topography with trees approximately fifty (50) feet in height located on both sides of the street. The narrowness and bending nature of the road limit the view on both sides. However, residences, with varying setbacks, are visible from the street. At 1.1 miles, the views widen as the heavy woods give way to open fields and grassy meadows for the remainder of the road. Corn fields are visible further in the distance on the right.

Phil Hardin Road

Heading south of Phil Hardin Road from Route 94 the road ascends immediately with meadows located on the right near the crest of the hill, which reveal views of the mountain ranges in the distance. Rolling hills, meadows and pastures define the roadway with natural vegetation on both sides of the street. At 0.6 miles, there is a barn and farm structures located very close to the street on the right, punctuating the view as the road bends sharply to the left. As the roadway nears the intersection with Ridge road, a commanding view of the mountain range is revealed in the background. A farm/field crop of corn on the right signifies the end of the road at 1.0 miles.

Traveling north on Phil Hardin Road offers enhanced views of the mountains in the distance. As the road ascends from Ridge Road, the distant mountain ranges are visible ahead. As the roadway bends to the right, the ridges are visible to the left, framing the rural landscapes in the foreground. At 0.3 miles, the farm structures, located close to the street are framed by the distant mountain ranges. Open meadows, pastures and rural landscapes characterize the roadway. The last half of the roadway leading to Route 94 offers unobstructed views of the mountain range ahead, from 0.7 to 0.9 miles.

Warner Road

Warner Road is a narrow rural lane that winds around bends and over hills. Views are tightly confined by vegetation and tree cover for nearly the entire length. Traveling south on Warner Road from Fredon-Marksboro Road, a small creek is located on the left hand side of the street. At 0.1 miles, the creek crosses to the right side of the road. As the road bends sharply to the left, a large pond is located on the left at 0.2 miles. The roadway is very narrow and tight with vegetation on both sides. Residences are, for the most part, set back far from the street. At 0.3 miles, the creek is again visible on the right, offering a nice view before the road briefly enters into an area of dense tree cover and canopy. Picket fences line the road edge at various points in this location. At 0.7 miles, the tree cover and substantial canopy return for 0.2 miles. At 0.9 miles, the trees recede, and a meadow and pond emerge on the right hand side before the intersection with Route 94. When traveling north, the sight of the pond around the bend at 0.9 miles is notable, as are the narrow view which defined the entire roadway begins to expand and opens up.

10.0 RECYCLING PLAN

10.1 Introduction

In 1987, the Municipal Land Use Law was amended to require that all municipal master plans include a Recycling Plan Element. According to the MLUL, a Recycling Plan Element is required to incorporate the State Recycling Plan goals, including provisions for the collection, disposition and recycling of recyclable materials within any development proposal for the construction of fifty (50) or more units of single-family residential housing or 25 or more units of multi-family residential housing and any commercial or industrial development proposal for the utilization of 1,000 square feet or more of land.

Simultaneous with the MLUL amendment was the enactment of the New Jersey Source Separation and Recycling Act in 1987, which made recycling mandatory throughout the state. The initial goal of this Act was to recycle 25 percent of the municipal waste stream statewide. In 1992, this recycling goal was raised to fifty (50) percent of the municipal waste stream, with the goal for the overall waste stream established at sixty (60) percent. In 1997, the New Jersey Department of Environmental Protection again raised the state's overall recycling goal to 65 percent by the end of the year 2000.

10.2 County Recycling Objectives

The Sussex County Municipal Utilities Authority (SCMUA) is the County Agency designated to implement solid waste and recycling management functions at the county level. In 1992, the SCMUA prepared the Sussex County Solid Waste Management Plan, in which the following requirements were identified for all municipalities in the county:

1. Designate a recycling coordinator.
2. Provide a collection system for recyclables.
3. Adopt ordinances requiring generators of municipal solid waste to source-separate designated recyclable materials.
4. Submit a tonnage grant report to the County Office of Recycling on or before July 1st of each year.
5. Publish the provisions of the recycling program at least once every six (6) months.
6. Provide for separate collection of leaves from September 1st to December 31st of each year.
7. Revise the municipal master plan and site plan ordinance to require designated new developments to incorporate recycling provisions.
8. Update the Recycling Plan Element of the Master Plan every three (3) years.
9. Include provisions for recycling in the site plan ordinance, in accordance with the County's Solid Waste Management Plan.

According to the SCMUA, the Sussex County Solid Waste Management Plan is currently in the process of being amended. This amendment is intended to update the County Plan in accordance with the 2006 Statewide Solid Waste Management Plan. A finalized plan, as well as draft recycling ordinances, are anticipated by the end of 2006.

10.3 Township Recycling Activities

The Township of Fredon adopted a recycling ordinance in July of 1990. This ordinance requires that all residences, businesses and institutions in the township separate aluminum cans, bi-metal cans, corrugated cardboard, glass, magazines, newspaper and plastic (PET) bottles from all other solid waste that is produced. The ordinance also outlines violations and penalties for any person within the township that fails to comply with the provisions of the ordinance, as well as designates the Township's Recycling Coordinator for enforcement of these provisions.

Curbside recycling pickup is available for all residential dwellings in the township that are located on roads regularly serviced by garbage haulers. Pickup is scheduled for the first (1st) and third (3rd) Monday of each month. The following items may be recycled: aluminum and tin cans, glass bottles and jars, plastic bottles, corrugated cardboard, brown paper bags, and newspapers.

Fredon's total recycling tonnage reported for 2004 was 597.14 tons. In 2005, this number had nearly doubled to 1,214.80 tons.

10.4 Summary and Recommendations

Fredon Township is committed to recycling, as is evidenced by the adoption of its current recycling ordinance and its efforts in encouraging recycling through the curbside pickup program. However, additional efforts should be undertaken, many of which were called for in the Township's 1992-1993 Master Plan Update.

First, the Township should look to increase the tonnage of items that are currently recyclable, as well as provide for the recycling of additional items such as grass clippings, wood waste, textiles and other construction and demolition materials.

Second, the Township's recycling ordinance should be reviewed and amended to address the following issues:

- Because the township had its own recycling facility at the time the Township's recycling ordinance was drafted and adopted, the ordinance reflected the necessities of that facility. However, recycling in the township is now handled by a private collector. The ordinance should therefore be updated in accordance with current conditions.
- The list of mandated recyclable materials in the Township's ordinance should be updated so as to be consistent with those currently recommended by the SCMUA. These materials are as follows: aluminum cans, dry cell batteries, grass clippings, leaves and brush, mixed office paper, newspaper, glass bottles, jars and jugs, corrugated cardboard, office paper, PET plastic bottles, HDPE plastic bottles, ferrous scrap (tin and bi-metal cans and white goods), used motor oil, magazines and junk mail, and old clothing/textiles.
- The Township's ordinance should be amended to comply with the provisions of the MLUL. Specifically, the ordinance should be revised to require that all developers proposing the construction of fifty (50) or more single-family homes or 25 or more multi-family units and all developers proposing the utilization of 1,000 square feet or more of land for commercial or industrial purposes provide for the collection, disposition and recycling of recyclable materials generated by the development.

Lastly, it is recommended that the Township review the County's amended Solid Waste Management Plan when it is complete and consider incorporating its goals, objectives and ordinances into Fredon's recycling activities.

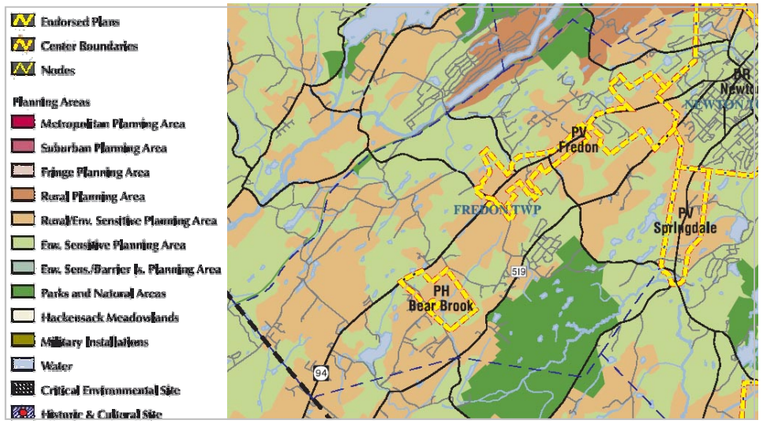
11.0 BACKGROUND INFORMATION

The Municipal Land Use Law requires all municipal master plans to include a substantial amount of background information in order to ensure that, as part of the preparatory process, there is a firm understanding of the community's historic growth patterns, influences, etc. The MLUL consequently mandates that municipal plans take into account a community's physical features, land use arrangements, and social and economic development. This background data is presented in this section of the report.

11.1 Relationship to Other Plans

New Jersey State Development and Redevelopment Plan (SDRP)

The State Plan Policy map indicates that there are four (4) Planning Areas located in the Township of Fredon. The map also indicates that there are two (2) Centers located within Fredon. Each of these Planning Areas and Centers are identified in the map at right, which was taken from the State Plan.



The specific goals and policy statements associated with each of these Planning Areas and Centers is detailed below:

Rural Planning Area

The rural planning areas are defined as the large contiguous areas of farmland and other open lands interspersed by traditional centers and other carefully planned new centers. These areas provide the greenery and open space opportunities for the larger region and are not intended to be urban or suburban in nature. The rural planning areas contain most of New Jersey's prime farmland, which require adequate water resources and large contiguous tracts of land with minimal land use conflicts to sustain productivity. More intensive farming operations and the growing encroachment of housing into what were once considered the domain of crops and livestock have produced the need for "right-to-farm" ordinances and other techniques in order to ensure a future for the agricultural industry.

The following is the criteria provided for designating land as a rural planning area:

1. Population density of less than 1,000 people per square mile.
2. Land area greater than one square mile.
3. Land currently in agricultural or natural resource production or having strong potential for production.
4. Vacant lands, large contiguous tracts of agricultural lands, and other areas outside the Centers that are predominantly served by two lane roads and individual wells and septic systems.

The intention of the state plan in this area is to maintain the large contiguous areas of farmland and other open spaces by accommodating growth in Centers. The plan recommends that other planning tools, such as clustering, capacity-based planning, development phasing, density transfer programs, etc., should also be employed to encourage appropriate patterns of development in these areas.

Environmentally Sensitive Planning Area

The environmentally sensitive planning areas contain large contiguous land areas with valuable ecosystems, geological features and wildlife habitats. The protection of these areas is critically important as they contain prime forested lands, coastal and freshwater wetlands recharge areas for potable water aquifers and other significant topographical, geological or ecological features. These areas are highly vulnerable to damage from any sorts of development like fragmentation of landscapes, degradation of potable water, extinction of plant and animal species.

The following is the criteria provided for designating land as an environmentally sensitive planning area:

1. Population density of less than 1,000 people per square mile.
2. Land area greater than one square mile.
3. One or more of the of the following features outside the Centers:
   - trout production waters and trout maintenance
   - pristine non-tidal Category 1 water and watersheds
   - watersheds of existing or planned potable water supply sources
   - prime aquifer recharge areas
   - habitats of populations of endangered species
   - coastal wetlands
   - contiguous freshwater wetland systems
   - significant natural features or landscapes
   - prime forested areas

The intention of the state plan in this area is to protect the environmental resources by accommodating growth and development in Centers. All economic development is encouraged to be directed towards the Centers, which will ensure that the natural and environmentally sensitive areas remains undisturbed and protected.

Rural/Environmentally Sensitive Planning Area

Some lands in the rural planning area also meet the criteria for designation as an environmentally sensitive planning area. Such lands qualify for delineation as a rural/environmentally sensitive planning area. These sub-areas contain valuable ecosystems or wildlife habitats. Also, like the rural planning area, they are supportive of agricultural and other related economic development efforts

Any development or redevelopment in these areas should respect the natural and environmentally sensitive features of the area. The main aim of the state is to protect the natural and rural character of the area and promote a stronger rural economy for the future. The state recommends strong Centers for these areas that meet the immediate needs of the local residents and provide certain farm services and businesses to accommodate an appropriate level of growth. These centers should have greenbelts or buffers around them to protect the large contiguous land and natural features. All development in these areas should be planned development with the aim to protect the natural features and environmentally sensitive areas.

The state also recommends focus on multi-family and higher density, single-family housing in Centers which will maintain or enhance the scenic qualities with minimum impact on the environment. The plan suggests providing active and passive recreational and tourism facilities in the environs and locating economic development opportunities like businesses and travel tourism industries in the Centers. It encourages maintaining and enhancing a transportation system that will encourage the usage of public transportation, and will protect the environs from scattered and piecemeal development. The plan is to promote agricultural practices that minimize conflicts with sensitive environmental resources.

Parks & Natural Areas

Parks are tracts of land providing active, passive or both experiences for the public while preserving the historic, cultural and scenic features, protecting the valuable habitat and conserving the biodiversity of the state's natural systems. These include state and federally owned or managed parks. It also includes county and local parks and can be defined as tracts of land that have been dedicated for the public benefit.

The state plan's intention is to provide the public with recreational and educational opportunities while ensuring the protection of critical natural resources. The plan recommends the maintenance of facilities and ensures the connection of these areas into systems of open lands.

Centers

The New Jersey State Development and Redevelopment Plan (SDRP) designates Centers as the main geographic location type to accommodate future growth. Centers provide compact development in contrast to other sprawling patterns which inefficiently use land. They provide multiple uses and are adaptable to change over time. As a result of this type of development, environmental resources can be conserved, citizens have options for travel, infrastructure costs are reduced and communities with a sense of identity can be provided.

The state plan recommends that the main idea behind the design and redevelopment of these centers should be to achieve balance between the diverse and competitive interest of various stakeholders. The center should promote the interest of the community as a whole. Centers should accommodate interests of both the public and private sector and should establish basic street alignments, reserve choice locations for major public uses and establish neighborhood character.

The plan identifies five types of Centers including: Urban, Regional, Town, Village and Hamlet. The plan also states, however, that these places are not expected to remain static and may expand over the years. The SDRP identifies Fredon Township as a Village Center type and Bear Brook as a Hamlet Center type. The following are the comparisons between the center characteristics of a village, hamlet and Fredon Township.

Villages- *Fredon (Proposed Village)*

"Villages are compact, primarily residential communities that offer basic consumer services for their residents and nearby residents." These communities have a downtown core which has services and retail opportunities available on a small scale. Villages should also provide public uses for the community, including: schools, libraries, police, and a post office. "In Fringe, Rural and Environmentally Sensitive Areas, new Villages should, wherever possible, be surrounded by natural areas, farmland or open lands in the form of a greenbelt."

Circulation networks in Villages should be catered to pedestrians, bicyclists and automobiles. It is important that pedestrians and bicyclists have access to commercial areas as well as residential neighborhoods and parks. Villages should also have a community focal point, located at its core, and they should be linked to nearby Centers not just by road, but by bikeways and other forms of transit.

The following criteria are intended as a general guide for designating Villages. Local conditions may require flexible application of the criteria to achieve the Policy Objectives of the Planning Area:

1. It is (or is planned to be) primarily a mixed-residential community with a compact core of mixed-uses (for example, commercial, resource-based industrial, office, cultural) offering employment, basic personal and shopping services and community activities for residents of the Village and its Environs;
2. It has a land area of less than one (1) square mile;
3. It has (or is planned for) a minimum gross population density of 5,000 people per square mile (excluding water bodies) and a minimum gross housing density of three (3) dwelling units per acre;
4. The existing and 2020 population should not exceed 4,500 people; and
5. It has reasonable proximity to an arterial highway.

In addition, new Villages should meet the following criteria:

- It is identified in municipal and county master plans;
- It is an area capable of being served by a wastewater treatment system to meet applicable standards; and
- It is identified as a result of a strategic planning effort with participation by the private sector, municipalities, the county and relevant state agencies and is identified in local master plans.

Hamlets -*Bear Brook (Proposed Hamlet)*

Of all the Centers provided in the State Plan, Hamlets are intended to be the smallest. Hamlets have traditionally occurred in rural areas. They are dominated by residential uses but often have a few small stores or other small scale uses.

Township's Relationship to Center Designations

The Township feels that the Village Center designation for the Route 94 corridor is not appropriate, given the fact that it doesn't meet the criteria set forth in the SDRP (Table 18). For example, the Village Center designation suggests a minimum gross population density of 5,000 people per square mile, whereas Fredon as a whole has only 2,860 residents. Given the criteria set forth by the SDRP, it is more appropriate that a Hamlet Center designation be given to the land area surrounding Route 94, consistent with the boundaries of the Mixed-Use Market District identified in the Land Use Plan of this document. It should be recognized that this district encompasses a smaller land area than the Village Center designated in the SDRP.

The Township also feels that Bear Brook is not appropriately designated as a Hamlet Center. The main planning rationale behind this is the fact that Bear Brook is developed as a subdivision and semi-private golf course and does not contain any retail uses as contemplated by the Hamlet Center designation in the SDRP.

Given these two significant designation issues, it is recommended that the municipality engage the Office of Smart Growth in the cross-acceptance process to make any necessary adjustments.

TABLE 18
CENTER CHARACTERISTICS

	Fredon Twp	Village Center	Hamlet
Area (square miles)	18.3	<1	10 to 50 ac without community wastewater; <100 ac with community wastewater
Population	2,860	<4,500	25 -250
Gross Population Density (people/ square mile)	<1,000	>5,000	3,000
Housing	982	100 to 2,000	10-100
Gross Housing Density (dwelling unit/ acre)		>3	>2
Employment	1,627	50 to 1,000	
Jobs:Housing Ratio	N/A	0.5:1 to 2:1	

Source: New Jersey State Development and Redevelopment Plan

Sussex County Plan

The State Development and Redevelopment Plan (SDRP) classifies Sussex County as an area with agricultural potential and an environmentally sensitive area. One of the goals of SDRP was to promote beneficial economic growth, development and renewal for all residents of New Jersey. The strategic growth plan for Sussex County does emphasize the development rights of property owners and the offering of incentives that will be available through leveraging funds from other state, federal, or municipal programs to achieve the maximum protection of farmland. Along with farmland preservation, the county believes in promoting the business of agriculture through value added and agri-tourism programs.

Also, the county plans to promote the area, in conjunction with open space, parklands and farmlands initiatives, as a four-season tourism destination. The plan encourages location of agricultural industry in proximity to agricultural operations as the sole small-scale economic expansion in the environs or rural/agricultural landscape.

The goals identified in the Master Plan of Sussex County for Open space and Farmland preservation are listed below:

a. Permanently protect water resources; including aquifer recharge areas, surface water, groundwater, wetlands and stream corridors, and access to surface bodies.
b. Preserve land for greenway or trail development to connect public lands via corridors of green either through trails, expanded parklands, or protected greenways.
c. Preserve land adjacent to publicly owned parkland to expand these existing parklands and promote regional protection of open space.

Preserve agricultural resources and farming communities. Goal in their master plan. It is noted in the Master Plan for Sussex County that the county farmland and open space preservation strategy is to continue the purchase of lands for open space and agricultural purposes.

Master Plans of Adjacent Municipalities

Stillwater Township

Fredon Township shares the majority of its westerly municipal border with the Township of Stillwater. Stillwater's 1999 Master Plan designates the boundary between these two municipalities as the Paulinskill Trail greenway. To the west of this greenway, between the township's southern border and East Shore Drive, lands are designated for low-density residential use at a density of one (1) unit per five (5) acres, with a cluster option. Just north of East Shore Drive, a small area is designated for neighborhood commercial uses. To the north of this area, up to West End Drive, are lands designated for very low-density residential use at a density of one (1) unit per 7.5 acres, with a cluster option. Lands to the north of West End Drive, up to the township's northern border, are designated for residential use at a minimum lot size of 30,000 square feet.

Fredon's land use plan is generally consistent with Stillwater's, with the exception of the area north of West End Drive in Stillwater. Here, residential lots planned for a minimum of 30,000 square feet abut a portion of Fredon that is planned for very low-density residential uses at a minimum lot size of sixteen (16) acres. However, the developed nature of Stillwater's residential area, as well as the Master Plan's discouragement of further development there, suggest that no new land use conflicts are anticipated.

Hampton Township

Fredon Township shares the northern portion of its westerly municipal border with the Township of Hampton. As with Stillwater Township, Hampton's 2002 Master Plan designates a portion of its municipal border with Fredon for a greenway. This greenway lies along the northern portion of the Paulinskill Wildlife Management Area and continues north within Hampton. Lands that are adjacent to Fredon's municipal boundary are designated for single-family residential uses, with proposed densities decreasing from south (minimum 1.5-acre lots) to north (minimum two (2) and three (3) acre lots).

Fredon's land use plan also calls for residential land uses along the Hampton Township border that decrease in density from south (minimum four (4) acre lots) to north (minimum sixteen (16) acre lots). Thus, no new land use conflicts or inconsistencies are anticipated.

Newton Town

Fredon Township shares its northern municipal border with the Town of Newton. According to Newton's 1996 Master Plan, the lands in Newton that are adjacent to this border are designated for a variety of uses. Beginning in the west, lands are designated for low-density residential use, but are occupied by a seminary. To the east of this, lands are designated for low-medium density residential use, a pocket of high-density residential use, a hospital service district, a planned senior residential and congregate care village, low-density residential use and, finally, medium-high density residential use.

For the most part, Fredon's land use plan proposes compatible residential uses along the Newton municipal border and no new land use conflicts are foreseen. Although the medium-high density residential designation in Newton abuts very-low density designated lands in Fredon, their common ownership is expected to prevent negative spillover impacts.

Andover Township

Fredon Township shares a portion of its easterly municipal border with the Township of Andover. Andover's most recent Master Plan was prepared in 1992, but an amendment was made to the land use element of the plan in 2000. In this amendment, lands adjacent to Fredon's municipal boundary were designated for a variety of uses. Moving south from the Andover-Newton border, lands are designated for Mount Laurel low-moderate income housing, a pocket of highway commercial use, a small area of residential use at a minimum lot size of 0.5 acres, another pocket of highway commercial use and, finally, a large area of residential use at a minimum lot size of two (2) acres.

The majority of Fredon's lands that abut the Andover municipal boundary are conserved for open space purposes and therefore present no new land use conflicts. Those portions that are designated for residential purposes are compatible and consistent with the adjacent densities in Andover's Master Plan.

Green Township

Fredon Township shares the southern portion of its easterly municipal border with the Township of Green. Green's 2003 Master Plan designates the entirety of its lands adjacent to Fredon's municipal border for low-density residential use. This land use category is designed for agricultural uses and single-family residential use at a density of five (5) acres per unit, with a cluster option.

Fredon's land use plan likewise designates the majority of lands along the Green Township border for low-density residential use — either as part of the AR-16 agricultural-residential zone, or the R-16 very low-density residential zone. There are also small pockets adjacent to the Green border designated for residential uses at a minimum lot size of four (4) acres. All of these land uses are consistent and compatible with Green's low-density residential zone and, thus, no new land use conflicts are anticipated.

Frelinghuysen Township

Fredon Township shares its southern municipal border with the Township of Frelinghuysen, which is located in Warren County. Frelinghuysen's 1987 Master Plan designates the entirety of lands adjacent to Fredon's municipal border for agricultural-residential use at a minimum lot size of four (4) acres. The Township is currently in the process of adopting a new plan, which proposes to maintain the same land use designation along this border.

Fredon's land use plan also designates the majority of its lands adjacent to Frelinghuysen Township for residential uses at a minimum lot size of four (4) acres. Other lands along this border are designated for agricultural-residential at a minimum lot size of sixteen (16) acres, with a cluster option. Both of these designations are consistent with Frelinghuysen's land use plan and create no expected inconsistencies.

11.2 Census Data

Population Characteristics

Population Growth. The Township's population growth has slowed in recent decades after nearly tripling in the years between 1960 and 1980. The 2000 population was recorded at 2,860, just 3.4 percent higher than in 1990. In fact, the population growth experienced through the 1990s, at 3.4 percent, was the first time growth fell into the single-digits since prior to 1930. Fredon's growth rate in 2000 lagged behind both the State and County growth rates of 8.9 and 10.1 percent, respectively. Notably, the 2004 population projection of 3,253 residents, provided by the New Jersey Department of Labor, represents a 13.7 percent increase over the four year period. Table 19 outlines the community's population and growth rate since 1930. Table 20 identifies the growth rate for both the township and the county over the same period.

Table 19
Population Trends

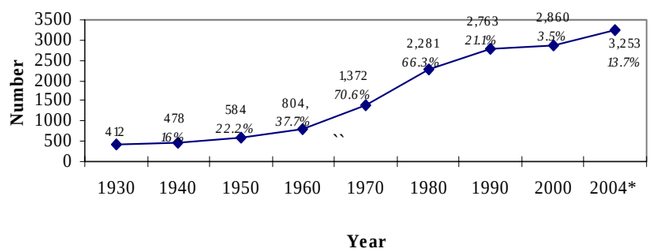
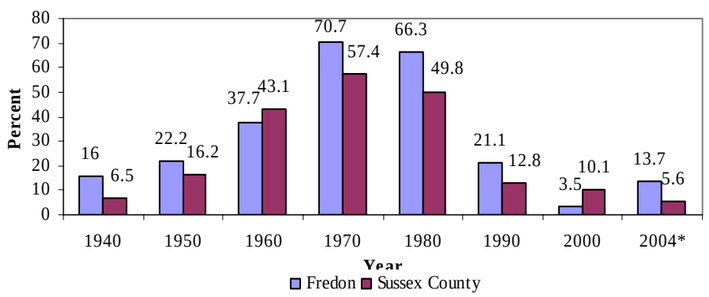


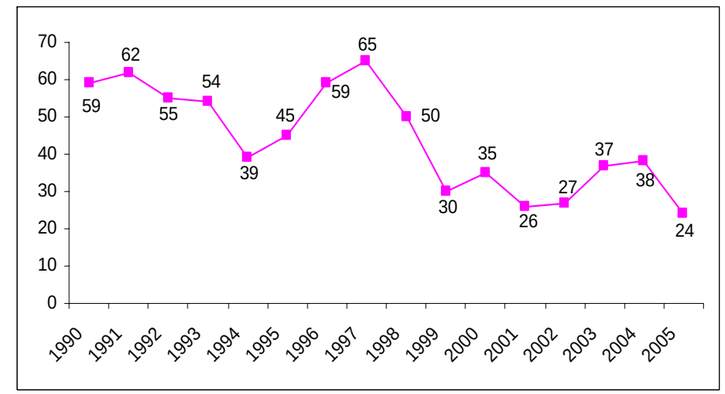
Table 20
Growth Rate



* denotes population estimates, New Jersey Department of Labor.
Source: Fredon Township Master Plan Update 1992-93, U.S. Bureau of the Census, New Jersey Department of Labor.

Birth Statistics. Data on the number of births helps a community to assess its future needs for community facilities and services, particularly with respect to the school system and recreational facilities. Table 21 identifies the birth statistics for Fredon between 1990 and 2005.

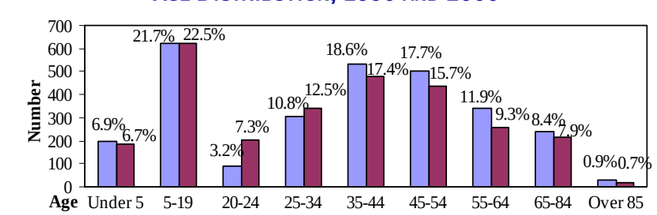
Table 21
Births 1990-2005



Source: State of New Jersey Department of Health and Senior Services.

Age Distribution. The age distribution of township residents changed slightly between 1990 and 2000. As shown in Table 22, there was growth in all age cohorts above age 35, while the largest drop in population was experienced in the population between the ages of 20 and 24. The number of school-aged children remained relatively steady over the decade. The median age of Fredon residents, 39.3, is more than two (2) years older than the county median (37.1).

Table 22
Age Distribution, 1990 and 2000



Age	Under 5	5-19	20-24	25-34	35-44	45-54	55-64	65-84	Over 85
Yr 2000	197	622	92	308	531	505	339	239	27
Yr 1990	186	621	202	344	481	435	257	217	20

Percent of total population shown above bars.
Source: US Bureau of Census.

Housing Characteristics

Household Size. The average household size in Fredon is 2.89, which is slightly higher than the County average of 2.80. Following the trend experienced nationwide, the average household size in Fredon fell between 1990 and 2000.

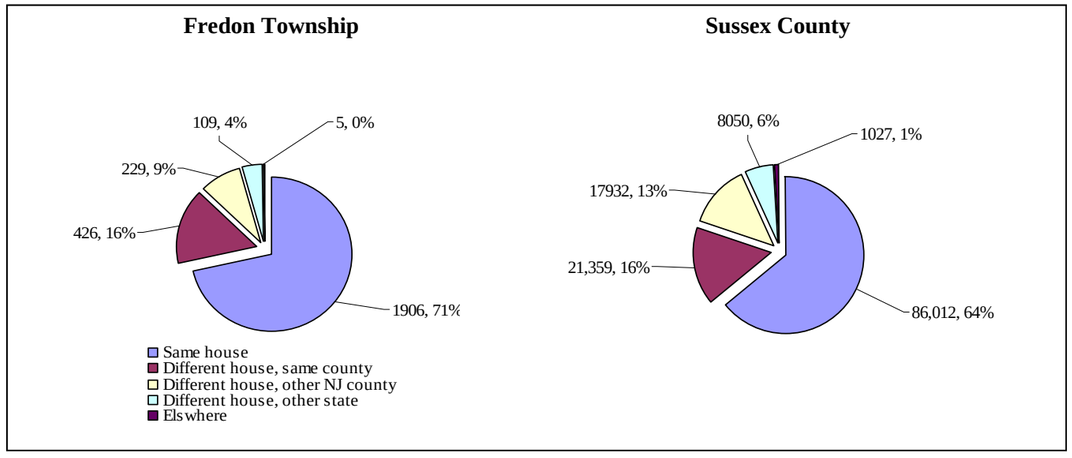
Table 23
Average Household Size, 1970 - 2000

Year	Population	Number of Households	Household Size: Fredon	Household Size: Sussex County
1980	2,281	691	3.30	n.a.
1990	2,763	891	3.10	2.91
2000	2,860	982	2.89	2.80

Source: U.S. Bureau of the Census.

Place of Residence in 1995. Table 24 provides information on where Fredon residents resided in 1995 versus 2000. As shown below, residential mobility within the township is more stable than at the county level. More than seventy (70) percent of Fredon's population resided in the same house in 1995, compared to 64 percent of Sussex County residents. The state average is sixty (60) percent.

Table 24
Place of Residence in 1995 (Population 5 years and over)



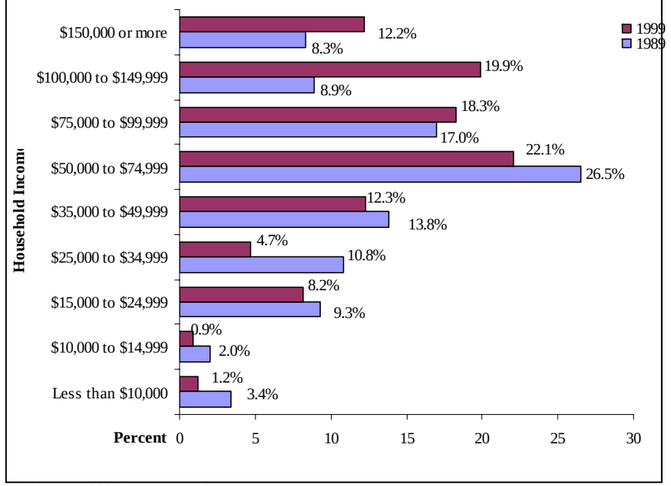
Source: U.S. Bureau of the Census.

Income Characteristics

Median household income in Fredon rose from $58,124 in 1989 to $75,710 in 1999. This increase corresponds roughly to the rate of inflation during that period. Using the consumer price index (CPI) to adjust for inflation, $58,124 in 1989 is roughly equivalent to $78,100 in 1999 dollars. Fredon's 2000 median income level is almost $10,000 greater than the Sussex County median of $65,266. It is the sixth (6th) highest median income of all Sussex County municipalities.

There has been a significant increase in the percent of households with income greater than $100,000, rising from approximately seventeen (17) percent of the population in 1989 to roughly one-third of the population in 1999. Five (5) percent of households have incomes greater than $200,000.

Table 25
Household Income, 1989 and 1999

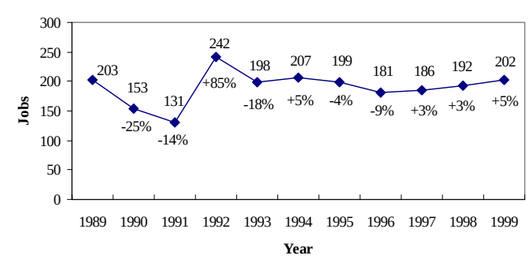


Source: US Bureau of Census.

Employment Characteristics

Covered Employment Trends. Table 26 details the covered employment trends (private sector) in Fredon between 1989 and 1999. In 1999, there were 202 private sector jobs in the township. Private employment has held relatively steady since 1993, after experiencing a large increase in 1992. The graph below shows both the number of jobs and the percent change over the previous year.

Table 26
Covered Employment Trend, 1989-1999



Source: 2000 Township of Fredon Housing Element and
NJ Department of Labor: New Jersey Covered Employment Trends

Type of Work. The 2000 census indicates that 75.5 percent of the township's working-age population (16 years and over) is in the labor force, with approximately one percent unemployed. Table 27 identifies resident employment by occupation. Table 28 details resident employment by industry.

TABLE 27
EMPLOYED RESIDENTS AGE 16 AND OVER, BY OCCUPATION

Occupation	Number	Percent
Management, professional, and related occupations	678	41.7
Service occupations	234	14.4
Sales and office occupations	434	26.7
Farming, fishing, and forestry occupations	5	0.3
Construction, extraction, and maintenance occupations	144	8.9
Production, transportation, and material moving occupations	132	8.1
Total	**1,627**	**100.0**

Source: U.S. Bureau of the Census.

TABLE 28
EMPLOYED RESIDENTS AGE 16 AND OVER, BY INDUSTRY (2000)

Industry	Number	Percent
Agriculture, forestry, fishing and hunting, and mining	59	3.6
Construction	136	8.4
Manufacturing	140	8.6
Wholesale trade	112	6.9
Retail trade	122	7.5
Transportation and warehousing, and utilities	94	5.8
Information	43	2.6
Finance, insurance, real estate, and rental and leasing	120	7.4
Professional, scientific, management, administrative, and waste management services	146	9
Educational, health and social services	354	21.8
Arts, entertainment, recreation, accommodation and food services	133	8.2
Other services (except public administration)	77	4.7
Public administration	91	5.6
Total	**1627**	**100.0**

Source: U.S. Bureau of the Census.

Place of Work. As shown in Table 29, more than half of the township's employed residents work in either Fredon (including at home) or elsewhere within Sussex County. Table 30 details the place of employment for Fredon residents, as well as the place of residence for those employed in Fredon. Newton is the most common destination for employed residents. The mean travel time to work was 34.7 minutes.

TABLE 29
PLACE OF WORK, FOR EMPLOYED RESIDENTS 16 YEARS AND OVER,

Place of Work	Number	Percent
Worked in New Jersey	1,537	95.4
Worked at home	78	4.8
Work in Fredon, (not at home)	106	6.6
Worked elsewhere in Sussex Co.	622	38.6
Worked outside Sussex Co.	731	45.4
Worked outside New Jersey	74	4.6
Total	**1,611**	**100.0**

TABLE 30
TOP TEN PLACES OF EMPLOYMENT AND RESIDENCE, 2000

	Residents of Fredon		Employees Working in Fredon	
	Work Place	Count	Residence	Count
1	Newton	203	Fredon	184
2	Fredon	184	Newton	37
3	Sparta	101	Blairstown	31
4	Andover	62	Frankford	13
5	Parsippany-Troy Hills	45	Lafayette	12
6	Dover	42	Wantage	11
7	Hampton	42	Middle Smithfield	9
8	Mount Olive	41	Green	8
9	Branchville	33	Hopatcong	8
10	Hackettstown	33	Manhattan, NY	8

Source: U.S. Bureau of the Census.

Means of Transportation to Work. Table 31 details the means of transportation to work for employed residents. Nearly 95 percent of residents traveled to work in a private automobile, either alone or in a carpool.

Table 31
Means of Transportation to Work, 2000

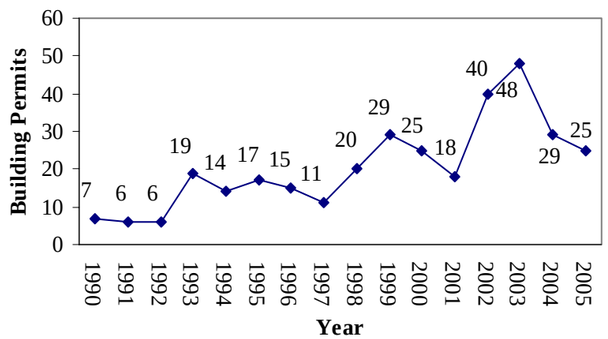
Means of Transportation to Work	Number	Percent
Drove Alone	1,366	84.8
Carpooled	135	8.4
Public transportation	16	1.0
Walked	16	1.0
Other means	0	0.0
Worked at home	78	4.8
Total	**1,611**	**100.0**

Source: U.S. Bureau of the Census.

11.3 Recent Development Activity

Table 32 summarizes residential development activity in Fredon between 1990 and 2005. During the fifteen (15) year period, a total of 329 single-family residential building permits were issued, for an average of 20.6 permits annually. As seen below, the number of permits issued annually in Fredon follows a cycle of peaks and valleys, but generally rose throughout the time period. For example, whereas the average number of permits issued annually in the first half of the period (1990-1997) was twelve (12), the second half of the period (1998-2005) saw an average of 29 permits issued annually. No multi-family residential permits were issued over the period. Data available for 2006 indicates that four (4) permits have been issued through March.

Table 32
Number of Residential Building Permits, 1990-2005



Source: New Jersey Department of Labor.

Table 33 reports the non-residential development activity in Fredon since 1990.

Table 33
Non-Residential Development Activity, 1990-2005

Block	Lot	Development	Type
404	10.03	R-World	Industrial
1801	8	Southway	Commercial Farm
2005	1	Ednie Flower Bulb	Commercial Farm
404	17	Fredon Farms	Commercial Farm
404	10.02	American Automotive	Industrial
2002	4	Grateful Valley	Industrial
404	10.05	Fredon Plaza	Retail
1802/1803/1807	8.02 & 71/5/6	Bear Brook Golf Course and Clubhouse	Recreation/Retail
104	18	The Tea Hive	Retail
404	19	GC Landmarks	Retail/Office
1402	11	Crown Atlantic	Cell Tower
801	26.01	Fredon Wine and Spirits	Retail

Source: Township of Fredon