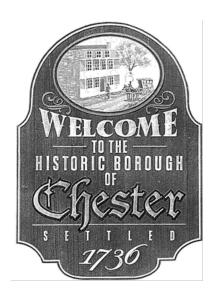
2011

Master Plan



Borough of Chester

Morris County, New Jersey

The Borough of Chester

Morris County

New Jersey

Master Plan

September 2002

Adopted on: November 14, 2002

Amended: December 12, 2002

Prepared By:

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License No. 2826

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ACKNOWLEDGEMENTS

The author wishes to acknowledge assistance received from Christopher Hellwig in connection with the graphics contained in the document. In addition, the staff of the Morris County Planning Board was also very helpful in providing assistance relating to census and natural resource information.

The Board of Health, the Recreation Commission, the Chief of Police and James Woodfuff, the Borough Historian, also provided valuable contributions in developing the Master Plan.

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GOALS AND OBJECTIVES

INTRODUCTION

The New Jersey Municipal Land Use Law (MLUL) requires that all municipal master plans contain a statement of objectives, principles, assumptions, policies and standards upon which the comprehensive Master Plan is to be based. The individual Master Plan elements provide the means of implementing the established goals. These goals guide the development of the Borough in terms of physical, social, and economic development as well as the development of the community regarding other aspects such as, but not limited to, historic, environmental, transportation and circulation, and community facilities. Taken together these goal statements provide a planning framework on which to focus the Master Plan. Ultimately, the quality of life in the Borough can be directly related to the planning process and the public policies generated by the plan.

The goals and objectives section represents an evaluation and refinement of the goals of past Master Plans. These goals are of general and qualitative nature, providing an overall framework for future development or redevelopment, regardless of whether it is sponsored by private or public action. An objectives section was prepared to provide a more specific means to realize these Borough goals.

METHODOLOGY

On June 13, 2001, the Planning Board conducted a public meeting to receive citizen input about critical issues and concerns of residents, taxpayers, and other interested parties. Twenty—nine participants joined in a dialogue to identify a total of thirty—one issues which were then consolidated into a "short list" of seven concerns as shown on the following table. The participants were then asked to identify the top four items and record them on individual index cards. See the list of concerns listed in descending order according to the greatest number of votes received.

CONCERNS # OF VOTES RECEIVED % OF TOTAL VOTES

Table 1

Borough's Quality of Life	21	80.7
Preserve Historic Character of Downtown Area	17	65.4
Circulation	16	61.5
Municipal Facilities	14	53.8
Update Zoning and Codes	13	50.0
Tax Base Rate	12	46.2
Growth Evaluation	8	30.8

In preparing the 2001 Master Plan, the goals established in previous plans were reexamined and incorporated as appropriate into this plan. Many of these goals are reflected in this plan; however, this plan supplements and refines them, reflecting the current consensus of the Planning Board after reviewing and discussing this topic in substantial detail.

The goals of the plan, not listed in any priority order or special sequence, are as follows:

- 1. To promote an attractive quality of life for all residents, visitors, merchants, and others residing, conducting business, or involved with leisure time activities in the Borough.
- 2. To recognize the special qualities of the Main Street downtown area and preserve its historic character.
- 3. To maintain a balance between the land use, infrastructure, and circulation elements of the plan thereby protecting existing residential neighborhoods.
- 4. To permit development in a manner so as to protect environmentally sensitive areas and features.
- 5. To provide regulations permitting a varied selection of housing types.

- 6. To provide appropriate types, quantities, and quality of municipal facilities to serve the needs of the community.
- 7. To maintain a balance between residential and nonresidential uses to ensure a stable and sound community tax base and local employment opportunities.
- 8. To promote the conservation and preservation of the Borough's existing and potential historic sites and districts to ensure consistency with the Borough's architectural heritage.
- 9. To avoid inappropriate and inconsistent development, while preserving the community's traditional design.
- 10. To encourage open communication between the Borough government and all parties with an interest in the private sector for the purpose of exploring common issues.
- ll. To encourage recycling, resource recovery, and the use of energy efficient development.
- 12. To encourage the stabilization of all neighborhood areas by updating and enforcing codes.
- 13. To ensure the development of adequate infrastructure to support existing and future needs of the Borough.
- 14. To ensure that the Borough's land use plan is compatible with those of adjacent municipalities, Morris County, and the State.

OBJECTIVES

The following planning objectives, which are generally defined in each Master Plan element, are summarized according to element. These objectives provide specific means to ensure that future development will be compatible with the Borough's planning goals. The following objectives are presented so that future land use goals can be achieved.

A. Land Use

Residential Development

1. Provide a variety of housing opportunities for all income levels in appropriate locations, in consideration of environmental conditions.

- 2. Relate the density of housing development to the carrying capacity of the land, roads, and utility infrastructure.
- 3. Encourage cluster or open space residential development to minimize environmental disturbance and secure significant open space areas, especially with regard to the Borough's Open Space Plan.
- 4. Encourage the development of senior citizen housing to meet future needs of the aging Borough population.
- 5. Consider properly designed, mixed uses, which could include residential and commercial uses in close proximity to the Main Street / Route 206 area.
- 6. Encourage the development of explicit design standards for high quality single family and multifamily development.
- 7. Discourage large—scale conventional multi-family projects in outlying areas of the Borough.
- 8. Consider instituting additional bulk standards such as floor area ratios for residential uses.

Non-Residential Development

- 1. Concentrate intensive non-residential development in the Main Street area and within commercial areas along Route 206.
- 2. Design non-residential development to be compatible with and not adversely impact residential development.
- 3. Encourage the development of explicit design standards in regulations which will promote high quality non-residential development.
- 4. Confine less intensive commercial uses to the areas east of Collis Lane.

B. Circulation

- 1. Traffic demand generated by new development should not exceed the existing and planned capacity of the Borough's circulation system.
- 2. Future road improvements identified in the

capital improvement program and be developed in conjunction with new development as part of the development's pro rata share of the required improvement.

- 3. Multi- modal transportation systems should be explored for applicability to the unique characteristics of the Borough.
- 4. Pedestrian circulation facilities (sidewalks & bikeways) serving as connections between community facilities, commercial areas, residential neighborhoods, and employment sites should be provided as indicated in the Circulation Plan.
- 5. Methods to improve Main Street parking should be considered in the context of providing a realistic balance of site elements and to ensure the vitality of the Main Street area.
- 6. The Route 206 / Route 513 intersection should be carefully designed to insure pedestrian safety and to facilitate efficient, effective pedestrian crossing.
- 7. Pedestrian crossings within intensive activity centers should be delineated with special pavement markings.

C. Utilities

- 1. Extend public water and sewer utility service in accordance with the Utility Plan Element.
- 2. Connections to public sewer and water systems should be required for all intensive developments. High risk activities should be carefully evaluated.
- 3. Developers should pay their pro rata fair share of utility costs.
- 4. Explore the feasibility of underground utilities in the historic Main Street area.
- 5. Develop a new Wastewater Management Plan after the Master Plan is adopted based on the policies in this plan.

D. Community Design

1. Enhance the Route 206 / Route 513 area as a critical "gateway" focus for the Borough through the use of quality visual imagery relating to signage,

architecture, site design, and street furniture elements.

- 2. Maintain the sense of the Borough's building typology along the Main Street area as well as within the immediate "downtown" area.
- 3. Evaluate older buildings for renovation and preservation to complement the historic, architectural character of the Borough.
- 4. Encourage creative planning and development in non-residential areas to maintain and contribute to visual harmony and identity, preserve special physiographic features and protect natural features.
- 5. Develop design guidelines to promote the desired character of the community.
- 6. Consider flexible standards and the creation of incentives/disincentives to encourage desirable development which is consistent with the Master Plan.
- 7. Promote the use of quality shade trees along the Main Street area as well as within the immediate "downtown" area.

E. Community Facilities

- 1. Accommodate anticipated future population growth, in terms of numbers of persons and anticipated age, so that community facilities are properly related to the Borough's future population characteristics.
- 2. Coordinate construction and installation of improvements with the Borough's capital improvement program to ensure that community facilities and infrastructure are available when needed.
- 3. Assess development its proportionate share of any required off—tract improvements for community facilities and infrastructure to the maximum extent practical and permitted by law.
- 4. Plan for and provide adequate emergency services for Borough residents, especially during the day.
- 5. Ensure that adequate community facilities are available to foster appropriate social and cultural opportunities for residents and visitors alike.

F. Parks, Recreation, and Open Space

1. Provide a full range of recreation facilities to meet the needs of all age groups. Particular emphasis should be placed on developing recreational facilities that serve the needs of

senior citizens, young children and the handicapped.

- 2. Acquire through dedication, purchase or other means additional areas of active parkland and open space in accord with the Recreation/Open Space Plan. Particular emphasis should be placed on providing recreational opportunities in those areas not currently served by parks and open space.
- 3. Provide athletic fields and other active recreational facilities to meet the unsatisfied needs of Chester's future population.
- 4. Encourage the development of new recreational facilities in all future residential subdivisions of greater than ten lots and in all multi-family housing development.
- 5. Create linkages between existing recreation, public open space/recreation areas and greenway connections along natural corridors and pathways, including stream corridors.
- 6. Develop non-motorized pathways for pedestrians and bikers between major residential areas, parks, and the Main Street area.
- 7. Link the Borough's pathway system with Patriot's Path.

G. Conservation / Energy Conservation

- 1. Protect environmentally sensitive areas such as wetlands, groundwater, stream corridors, steep slopes, flood plains and mature forested tracts as passive open space. Prohibit development in environmentally critical areas.
- 2. Provide a continuous network of open space greenways along streams, slopes, and critical environmental areas.
- 3. Encourage development which preserves natural amenities and does not aggravate Borough drainage problems or negatively impact surface or ground water resources.
- 4. Protect sensitive areas through the use of conservation easements.
- 5. Encourage the preservation of existing vegetation to minimize erosion.
- 6. Reexamine land use densities and adjust them where required to avoid environmental degradation and improper use of land.
- 7. Use replacement plantings in areas of disturbance

that reflect the natural vegetation patterns and types within these areas.

8. Encourage energy conservation, design flexibility to promote passive solar design, and the use of renewable thermal energy resources.

H. Historic Preservation

- 1. Promote the rich historic heritage of the Borough by continuing to identify historic sites, buildings, structures and areas.
- 2. Develop appropriate design criteria to guide new development within historic districts.
- 3. Promote the preservation, maintenance and appearance of historic properties through the use of incentives.

I. Economic

- 1. Promote an appropriate balance of land uses to ensure the economic well being of the Borough.
- 2. Be mindful of the long-term market forces which can effect land use patterns and concentrate intensive development in the "downtown Route 206/Route 513 location."
- 3. Recognize the significance of the tourist industry and cultivate a diverse commercial mix of appropriate uses to enhance its economic base.

J. Farmland Preservation

- 1. Recognize that farming has been an important part of the Borough of Chester's heritage.
- 2. Preserve where possible any working farms through the purchase of development rights.

K. Recycling

- 1. Increase the percentage of materials recycled to reduce the solid waste stream.
- 2. Provide for convenient recycling containers in the "downtown" areas.
- 3. Mandate resource recovery and recycling through appropriate design standards and site plan review.

MUNICIPAL LAND USE LAW

In addition to the goals and objectives identified above, the Master Plan hereby incorporates the legislated purposes of the Municipal Land Use Law as set forth in C.40:55D-2.

ASSUMPTIONS AND POLICIES

The MLUL requires each municipality preparing a Master Plan to identify any underlying assumptions and policies upon which the plan is to be based. In consideration of this requirement the following is offered:

Assumptions:

- There will be no catastrophic man—made or natural disasters which will greatly affect the existing natural and/or cultural development of the Borough or the Borough's ability to implement the Master Plan.
- The Borough of Chester will be able to guide its growth and redevelopment in accordance with the MLUL and will have meaningful input into any proposed County, regional, State and/or Federal development plans, which affect the Borough or its immediate environs.
- The future growth during the next ten—year period will not exceed the capacity of the Borough to provide essential community facilities, utilities and/or services.
- The Borough will continue to function as an important tourist destination and will maintain its rural, historic atmosphere.
- Modifications will be made to the Route 206/Route 513 intersection.

Policies:

The Borough's Master Plan is based upon policies that have been developed by the Mayor and Council, the Planning Board and other land development review agencies. The following policies are offered;

• The Master Plan and the Borough's overall planning policies will provide for a variety of residential and non-residential uses which will encourage continuation and enhancement of Chester Borough as a quality small Borough.

- Land developments should be designed to protect and enhance the quality and diversity of the Borough and to protect neighborhoods from the intrusion of inappropriate or incompatible uses.
- The Borough will consider and evaluate innovative development and zoning proposals which would enhance and protect the Borough's diverse character, economic vitality and overall high quality of life.
- The Borough will emphasize a balancing of concerns in establishing land use and zoning policies throughout Chester Borough seeking to ensure economic stability, retention of employment opportunities and neighborhood preservation.
- The Borough will encourage and provide for a review of development proposals of issues which promote social, welfare, cultural, recreational, service, and religious activities within Chester Borough to serve present and future residents.
- The Borough will continue its program of regularly updating and reexamining the Master Plan as needs dictate.

LAND USE ELEMENT

INTRODUCTION

The Land Use Plan Element is designed to guide the future development of Chester Borough by recommending appropriate land use categories for various areas of the Borough. The Land Use Plan is based on a synthesis of the existing land use patterns in Chester, the goals and objectives of the Borough, an analysis of remaining vacant land and all other elements of the Master Plan. The Land Use Plan provides a logical framework for future Borough decisions relating to land use and projected community needs for housing, commercial and industrial development, infrastructure, schools, parks, various other community facilities, and open space.

LOCATION

The Borough of Chester is located in southwestern Morris County and is completely surrounded geographically by the Township of Chester. The Borough is located approximately ten miles due west from the County seat, Morristown.

The Borough's 1.45 square mile land area is located at the crossroads of State Route 206 and County Route 513. The Borough is characterized as a well—established, small residential community that is well known for its historic, commercial Main Street area. This unique area of the community provides a distinctive feature which should be recognized as an important component of this plan.

Of interest is the regional context of the Borough. Directly to the north of the Borough is the Black River Wildlife Management Area. This is an important regional open space facility which protects and buffers the Black River. Chubb Park, located in the western corner of the Borough, has a direct link to the Black River Wildlife Management Area.

EXISTING LAND USE PATTERN

The existing land use pattern is a product of more than two centuries of growth and development. Much of the early development occurred along downtown Main Street which continues to be a very active section of the Borough. This area was the commercial core of the community until the shopping centers were developed on Route. 206.

The original residential development in the Borough occurred along Main Street and branched out along side streets away from the commercial core area. There has been a significant demand to convert housing within the core area to commercial uses. As the Borough has evolved into a major tourist destination, additional market pressure has been brought to bear on residential uses to convert them to commercial uses. The pressure to convert residential areas to commercial uses will continue in the future. This can be damaging to the integrity of residential areas and must be carefully considered in the context that unchecked expansion will have a long-term negative effect on being able to retain the residential neighborhoods of the community. Therefore, it is important to recognize the need to properly manage land use to achieve the desired community goals set forth in the first element of this plan.

One of the concerns related to land use is the potential for a major change to the character of the Borough resulting from the demolition of older, free-standing structures. As noted in the Community Character Element of the plan, these structures are very important to retain so that the identity and special sense of place of the Borough is maintained. Replacement structures and property modifications can result in changes which are counter to the goals and objectives of the plan. Often change is subtle and incremental. However, over time, cumulative change can have negative impacts if there is deviation from the principles outlined in the Master Plan. Outlying areas of the Borough were originally used for agricultural purposes; however, these areas were gradually converted into housing development after World War II as suburban residential expansion occurred. Currently, residential uses are the major use of land in the Borough as shown in Table 1.

Table 1
LAND USE DATA

Land Use	Acreage	% of	Acreage	% of	Acreage
Category	in 1992	Total	in 2001	Total	Change
Single Family	307.0	33.0	361	38.84	54.0
Mobile Home	6.3	.7	6.3	.7	0
Multi-Family	19.5	2.1	23.4	2.52	3.9
Comm.Retail/ Industrial	46.6	5.1	128	13.77	81.4
Mixed Use	28.9	3.1	28.9	3.11	0
Office	20.1	2.2	27.1	2.92	7
Public	96.4	10.4	106.9	11.50	10.5
Semi-Public	27.3	2.9	32.6	3.51	5.3
Utilities	90.9	9.8	90.9	9.78	0
Vacant	230.5	24.7	80.5	8.65	-150
Agriculture	55.8	6.0	43.7	4.70	-12.1
Total	929.3	100.0	929.3	100.0	

Residential Uses

There are four types of predominate residential uses in the Borough; namely, single family uses, a mobile home park, multi-family uses, and mixed uses which contain a mixture of commercial and residential uses. These four categories comprise the major land use in the Borough, consisting of 419.6 acres or 45.17% of the Borough's land mass.

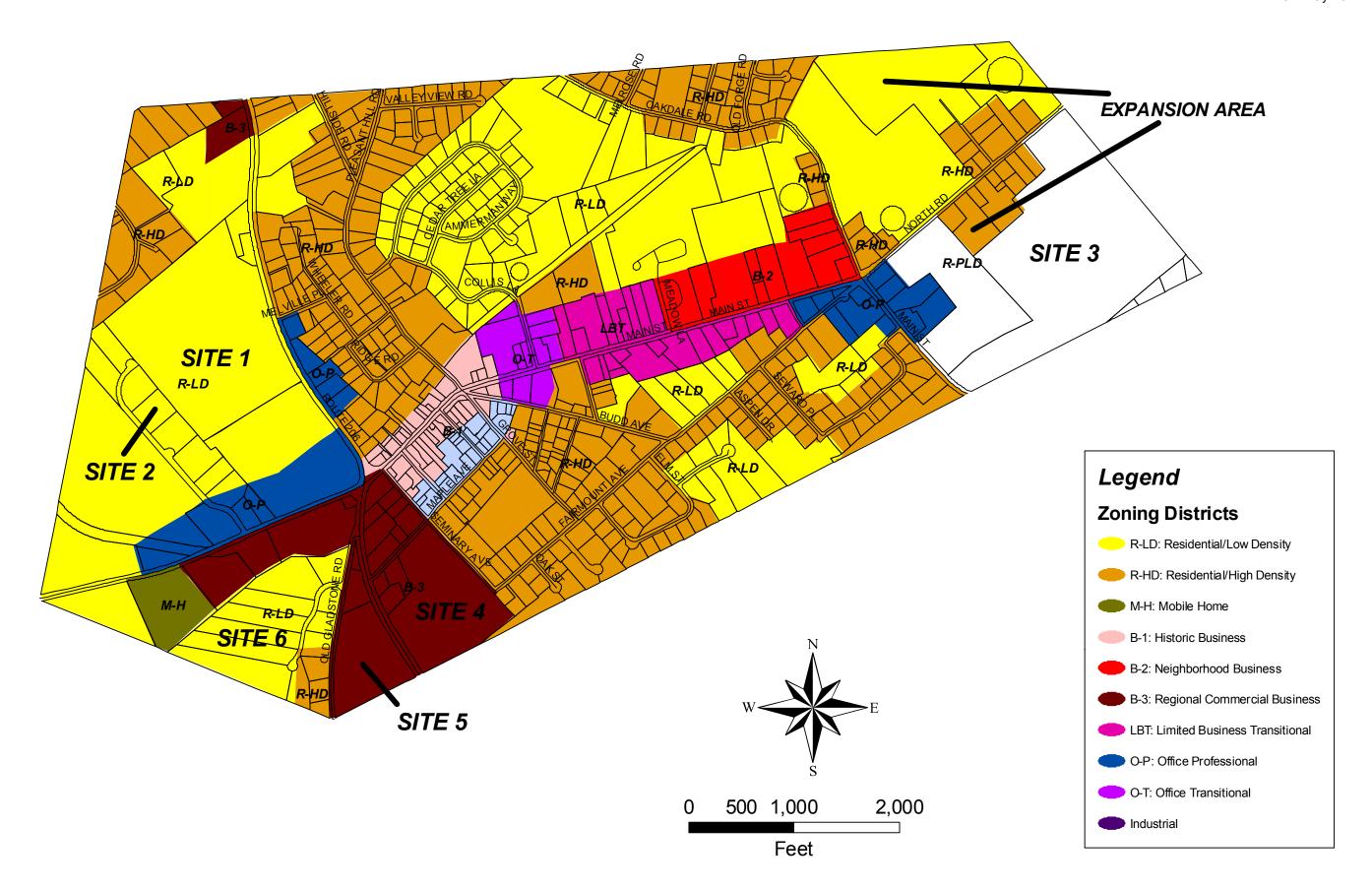
Single family uses are primarily concentrated in two distinct areas; the first is located east of Route. 206 and north of the downtown Main Street area, while the second area is located east of Seminary Avenue, south of Maple Avenue, within the triangular area formed by Grove Street, Budd Avenue and Fairmount Avenue, 'and along the southern length of Fairmount Avenue. Refer to the map entitled "Existing Land Use, Chester Borough."

Generally, these single-family areas have been developed in accordance with the zoning standards of the Residential Low Density Zone (RLD) and the Residential High Density Zone (RHD). There are some exceptions to this relating to bulk non-conformity; however, the overall bulk standards are consistent with the bulk standards for these zones. The standards for the residential zones are set forth in Table 2.

Existing Land Use Master Plan Update

Borough of Chester Morris County, New Jersey

> September 2002 Rev. May 2011



Data Sources:

Morris County

Maser Consulting

 $\frac{B \quad A \quad N \quad I \quad S \quad C \quad H}{\underset{\textit{Planning and Design}}{\text{$\mathsf{ASSOCIATES, INC}}}}$

Table 2
BULK STANDARDS FOR RESIDENTIAL ZONES

Standard	RHD	RLD	MR	
Mm. lot area	1 acre	2 acres	8 acres	
Mm. lot width	150 ft.	175 ft.	200 ft.	
Mm. lot depth	150 ft.	150 ft.	150 ft.	
Max. density	1 D.U./lot	1 D.U./lot	N/A	
Max.% of coverage by	10%	10%	15%	
Bldgs.& Struct.	10%	10%	10%	
Max. % Impervious	25%	25%	40%	
Coverage	250	250	400	
Front Yard	50 ft.	75 ft.	50 ft.	
One side yard	15 ft.	30 ft.	15 ft.	
Both side yards	40 ft.	60 ft.	30 ft.	
Rear yard	75 ft.	75 ft.	30 ft.	

The multi-family category of residential uses consumes the next largest amount of residential land in the Borough. There are two developments located in the central area of the Borough, north of Main Street, which comprise these two uses. The C.A.S.H. Chester Area Senior Rousing) site is located to the rear of the recently converted Williamson School property. This development provides housing for 36 households. To the east of this site is the Chestertowne townhouse complex, consisting of 40 dwelling units. The zoning regulations currently permit senior citizen housing for low- and moderate-income persons as a conditional use in the RHD zone district along with other institutional uses. There are currently no conventional zone districts for multi-family uses.

The Borough has one mobile home park located in the western section of the community. It consists of a land area of 6.3 acres with a total of 50 units located thereon. Table 3 provides the bulk standards for the MR zone district.

Commercial Retail / Industrial Uses

Commercial Retail / Industrial uses comprise a total of 128 acres or 13.77% of the Borough's land area. These uses are located in four general areas. The most distinctive area is the downtown Main Street/Route 206 area. This section of the community has given the Borough its unique character and is an important tourist destination. Main Street is a busy, pedestrian—oriented place with a tremendous variety

of attractive boutiques and shops arranged along the historic, tourist-orientated shopping district of the Borough. The majority of the uses within downtown are generally compatible with the area; however, there are some uses which appear to be inconsistent with the downtown Main Street area. For example, there are several automobile uses within the core area which seem to be unrelated to the shopping district. It is noted that some of the structures within the Main Street area showed signs of aging and should be considered for rehabilitation. It is also interesting that there were some signs of rehabilitation being undertaken by new business tenants. The Route 206 area is also noted as an active shopping area for local residents. There are two large, conventional strip shopping centers located in close proximity to the Route 206 intersection, and a third center is planned on land directly across from the Chester Springs Shopping Center.

A second area is located in the northern section of the Borough on Route 206. This consists of individual commercial, highway—orientated uses. A third area depicted on the Existing Land Use map is Block 6, Lots 5 and 5.01, located in the eastern sector of the Borough. While this area is classified as commercial, much of the property is either vacant or underutilized. The last area is located along Main Street between Collis Lane and Oakdale Road. This area is substantially different from the Main Street shopping district and is a transitional business area. The uses located along this portion of Main Street are not intensive commercial retail uses but are characterized as more service—orientated uses. Table 3 provides the details of the zoning standards for the various commercial zone districts in the Borough.

Mixed Uses

Mixed uses consisting of commercial and residential uses located in the same building are generally found along the Main Street area. In June of 2001 a field survey of the buildings between Route 206 and Hillside Road on the north and south sides of Main Street found 36 residential living units located in 15 different structures.

These residential uses were typically located on the second floor of the structure with retail uses located on the first floor. It is noted that visual inspection of the exterior of some of the mixed-use buildings indicated that some of the housing units may be substandard in terms of having code violations. For example, stairways, doors,

windows and other structural components of the buildings appeared to be in need of repair in some cases. The majority of the mixed uses are located in the Historic Business Zone District (B-1). The bulk standards for this zone are shown in Table 3.

Table 3
BULK STANDARDS FOR COMMERCIAL ZONES

Standard	B-1	B-2	B-3	LBT
Min. lot area	.25 acre	.5 acre	1 acre	.5 acre
Min. lot width	100 ft.	125 ft.	200 ft.	100 ft.
Min. lot depth	75 ft.	100 ft.	150 ft.	150 ft.
Max. density	N/A	N/A	N/A	N/A
Max.% of coverage by Bldgs.& Struct.	50%	30%	30%	30%
Max. % Impervious Coverage	70%	65%	65%	60%
Front Yard	10 ft.	50 ft.	50 ft.	50 ft.
One side yard	N/A	15 ft.	20 ft.	15 ft.
Both side yards	5 ft.	30 ft.	50 ft.	30 ft.
Rear yard	20 ft.	30 ft.	30 ft.	30 ft.

Office Uses

Office uses occupy 27.1 acres of land in the Borough, comprising a total of 2.9% of the community's land area. Since 1992 there has been an increase of 7 acres in this category as shown in Table 1. The majority of office development has occurred along the Main Street corridor in the vicinity of Collis Lane and the five—corner intersection with Oakdale Road where a distinct cluster of office uses exists. While office uses are permitted in all general commercial and business zone districts, the two primary zone districts established to specifically permit office uses are the Office Transitional Zone (O—T) and the Office Professional COP) district. The bulk standards for these districts are set forth in Table 4.

Table 4

BULK STANDARDS FOR OFFICE / INDUSTRIAL ZONES

Standard	OP	ОТ	I
Min. lot area	1 acre	.5 acre	5 acres
Min. lot width	150 ft.	125 ft.	200 ft.
Min. lot depth	150 ft.	100 ft.	300 ft.
Max. density	N/A	N/A	N/A
Max.% of coverage	30%	20%	30%
by Bldgs.& Struct.	30%	20%	30%
Max. % Impervious Coverage	60%	60%	60%
Front Yard	50 ft.	50 ft.	100 ft.
One side yard	15 ft.	15 ft.	15 ft.*
Both side yards	30 ft.	30 ft.	150 ft.*
Rear yard	30 ft.	20 ft.	50 ft.*

^{*}Subject to special requirements of Industrial zone.

Public Uses

The third largest land use category in the Borough is public land use which comprising 106.9 acres or 11.50 percent of the community's land area. Any public use such as parks, the municipal building, open space, or the fire house is classified as a public use. Since the last land inventory in 1992, this category has increased by 10.5 acres.

Semi-Public Uses

Semi-public uses occupy 32.6 acres or 3.51 percent of the Borough's land. These uses typically are institutional type uses such as private schools, churches, or similar uses. There has been a slight increase in this category of land use from 1992 to 2001 of 5.3 acres.

Utility Uses

This category of land use has not changed since it was first identified in 1984. 90.9 acres of land are classified as utility uses. This includes utility corridors and street right-of-ways.

Vacant.

The vacant land category represented the largest change in land use from 1992 to 2001. This was in part due to an adjustment made to this land use category made to compensate for inconsistencies found in the 1992 base data. The 1992 data included substantial areas of vacant land which should have been classified as other uses. An example of this is Block 6, Lots 5 and 5.01, which is not entirely vacant and should not have been classified as entirely vacant in 1992. The 2001 data showing 80 acres or 8.65% of the Borough's land mass as vacant is a more accurate assessment of the vacant land in the Borough. It should be noted that there was a substantial amount of land converted from the vacant category to residential uses. The remaining vacant land in the Borough will experience pressure to develop in the coming years.

Agriculture

This category of land use has decreased slightly from 1992 with a reduction of 12.1 acres. It is important to note that the Loewensteiner Farm became permanently preserved in perpetuity as a result of selling development rights to the County of Morris.

FUTURE LAND USE

One of the primary purposes of this plan is to provide a framework for the management of future land use changes. There is no doubt that change will occur in the future. Accepting this premise and recognizing that market forces have a powerful influence on how land is used is the first step in developing a realistic plan for the future. Longrange planning efforts are often unsuccessful because of the desire to hold onto the existing conditions present in a community rather than recognizing that change will occur irrespective of our good intentions to limit growth.

Generally, long-range master planning should have a time horizon of twenty years. This does not mean that short-term issues should be avoided. However, the primary focus should involve issues which the community may be faced with in the future. Based on this consideration, it is recommended that this plan be related to the year 2020 for

purposes of establishing a particular time period as a reference point.

The planning process has provided an opportunity to identify various issues which should be addressed on both a short-term and a longer-term time frame. Where appropriate, specific recommendations are offered to deal with these issues in relation to specific time frames.

Several areas of the Borough have vacant property or underutilized areas and should be examined for appropriate future use. In evaluating property, a number of critical questions should be addressed. Access to infrastructure, the ability of the land to accommodate the use or its carrying capacity, environmental conditions of the land, compatibility with adjacent uses, and relationship with other planning policies such as the State Plan of Development and Redevelopment (1) should all be considered as well as how a proposed use fits with the goals and objectives and other policies established by this plan.

Table 5 identifies six different key properties in the Borough that are either vacant or underdeveloped. These properties have been examined as part of this Master Plan process and recommendations are provided for in the future land use section of this element. Appendix A of the Master Plan contains a detailed memo with recommendations for each of these six sites.

Table 5
Key Tracts with Development Potential

Site #	Block/Lot	Common Name	Acreage	
1	Bk 1/L7, 8,10&10.1*	Larison's Turkey	70.1	
		Farm		
2	Bk 1/ L12**	Mill Ridge Farm	24.4	
3	Bk 6/L5, 5.01	Lucent	79.5	
4	Bk 7/L13	Shopping Center	21.5	
5	Bk 18/L2**	Flea Market	9	
6	Bk 19/L4.01,	Amery Property	28.23	
	5,5.01,6&8	Amery Property	20.23	

^{*} Currently in litigation

^{**} Development approval received

⁽¹⁾ The New Jersey State Development and Redevelopment Plan, adopted March 1, 2001 by the New Jersey State Planning Commission is by reference incorporated into and nade a part of this Master Plan.

Residential Uses

The existing residential use pattern in the Borough should be continued as the basic foundation for future residential uses. This pattern has been well established over the years, and it is important to protect and conserve these established uses. The Future Land Use Plan shows the different residential categories and the spatial distribution of the uses within the Borough.

The residential high density, typically associated with the R-HD Zone and the low density designation, related to the R-LD district should be maintained and respected. The plan introduces a new, lower density designation in the eastern portion of the Borough to be identified as residential rural. The recommended density for this area is one unit for every three acres. This area includes Block 6, Lots 5 and 5.01, and extends north across North Road. Land to the east of the Loewensteiner Farm as well as a small land area to the west across Oakdale Road is recommended for this designation.

The Future Land Use Plan creates a new designation of Farmland Preservation which is used to classify the Loewensteiner Farm.

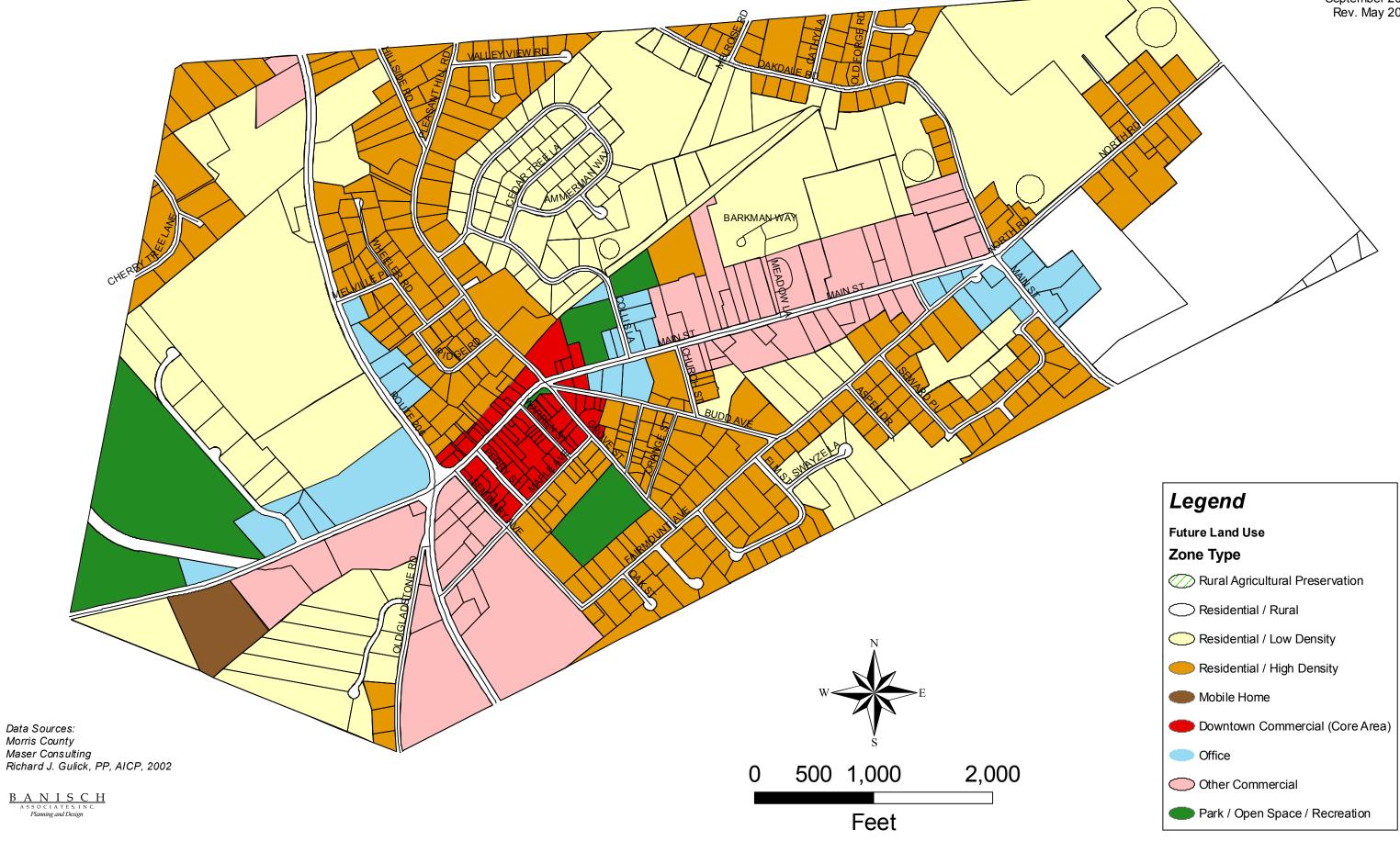
The Plan also shows the location of residential high-density uses classified as multi-family and the location of the Mobile Home park on Route 513.

In addition it is recommended that the Amery tract, now adjacent to two shopping centers, be considered for some form of alternative residential use which would blend with the historic character of the downtown area. Whether the housing is age—restricted or free market housing, the development form and design must relate in a positive fashion to the historic, village character of the downtown area. In addition an affordable housing component should be integrated into the development.

Commercial Uses

Future commercial land use patterns in the Borough must be considered in the context of long-range economic forces which will have a tendency to direct and shape commercial land-use patterns. All too often communities have not considered the strength of these forces in determining the direction of future land use related to commercial areas. The first step in the managing and responsibly controlling

Future Land Use Plan Master Plan Update Borough of Chester Morris County, New Jersey September 2002 Rev. May 2011 Legend **Future Land Use Zone Type** Rural Agricultural Preservation Residential / Rural Residential / Low Density Residential / High Density Mobile Home Downtown Commercial (Core Area) Office Other Commercial Park / Open Space / Recreation



commercial uses is to understand the critical need to integrate the planning goals and objectives with the establishment of long-range, future commercial land-use patterns.

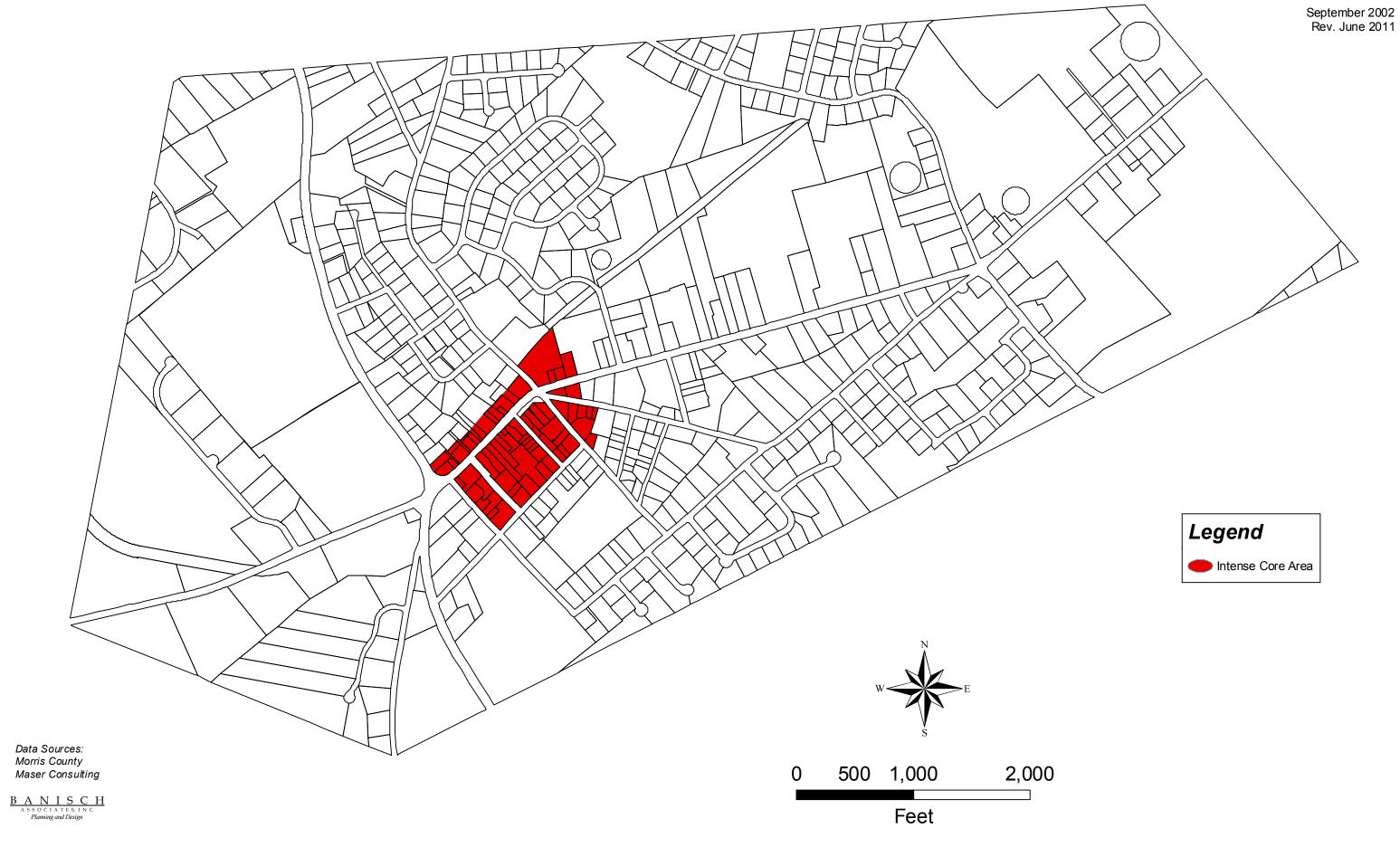
As discussed in the existing land use section, the Borough's commercial land-use pattern is very clearly evident and is characterized by the unique historic downtown area. The community should strive to accentuate and focus on this area as the core of the Borough's commercial center. See map of core area on following page. This area provides the primary character and identity for the community and should be protected to insure its long- term viability and success. Other portions of the Borough having commercial uses play an important secondary role in the land-use hierarchy relating to overall commercial land- use patterns. The other areas outside of the core downtown area should be developed in a fashion which contributes to, rather than detracts from, the core area. Achieving this concept will assure a strong central core and a long-range strategy which will support the goals and objectives of this plan.

During the planning process, there has been discussion about the five different activity centers which are interrelated and are key to the success of the Borough as an important destination location. Currently, three of the locations are developed, and the Flea Market site is on the verge of being started in accordance with the approved site plan. The Turkey Farm property is in litigation. However, hopefully a satisfactory solution will emerge. These activity centers are encouraged to build upon the theme of historic Chester. By strengthening and building on this concept, all the component parts of the commercial market will be functioning together and could have the potential to benefit from each other. Connecting each site with an integrated transportation system would further reinforce the uniqueness of the Borough's character and would tend to centralize the commercial area in the vicinity of the downtown and the Route 206/Route 513 intersection. Diagram A illustrates this concept.

The Chester Springs Mall and the Chester Mall have the potential to be retrofitted into mixed uses which would complement the existing centers while also enhancing the identity and image of the community. This would require the introduction of flexible design regulations and incentives to encourage the upgrading of these complexes. While this would be a desirable long—term concept to implement, there is no immediate need to change

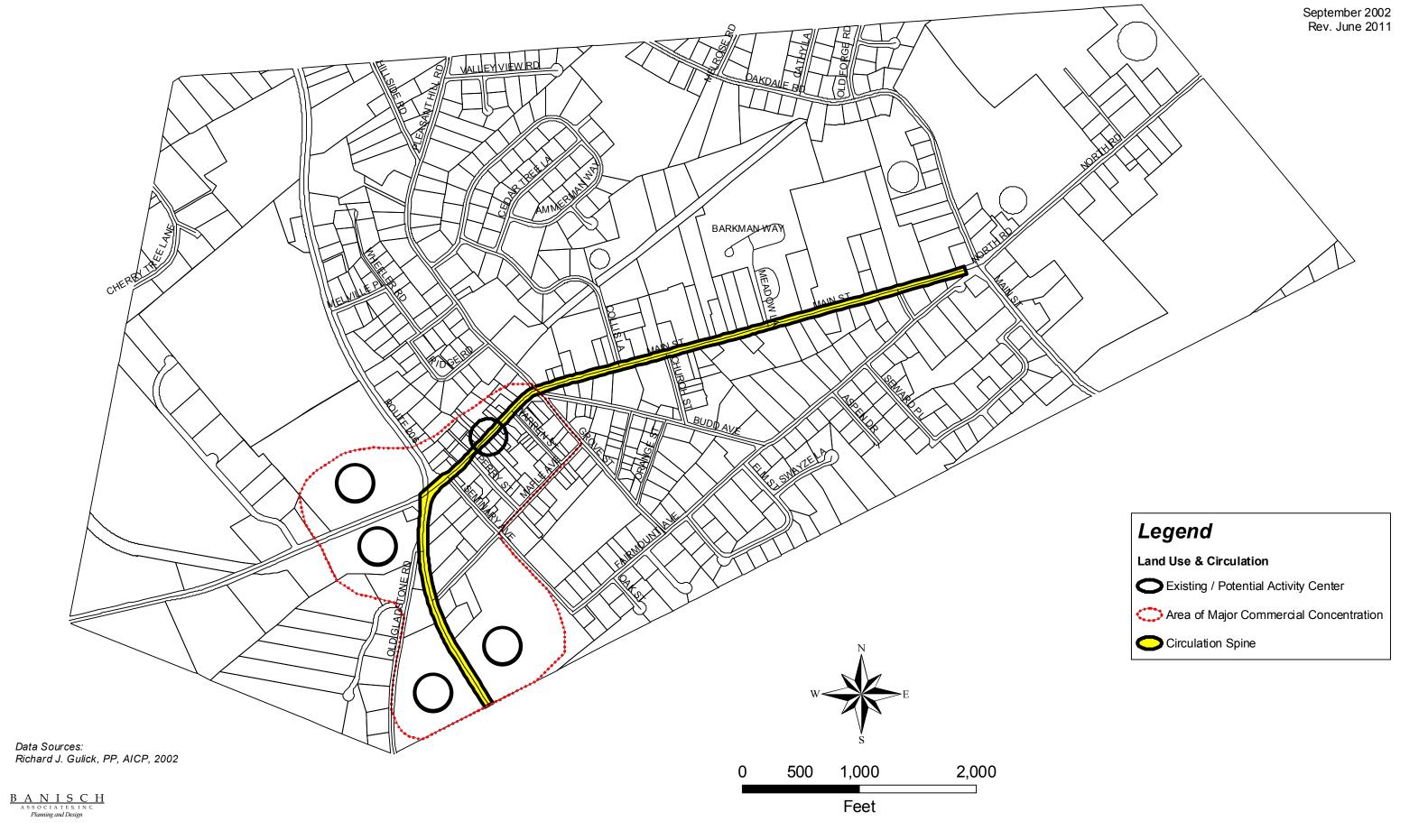
Historic Downtown Commercial Core Master Plan Update

Borough of Chester Morris County, New Jersey



Land Use / Circulation Analysis Master Plan Update

Borough of Chester Morris County, New Jersey



regulations. Furthermore, it would be highly desirable to conduct a visioning exercise to identify appropriate design concepts which could be considered for future, long-range applicability.

As part of future commercial land—use strategy, it is recommended that the Borough continue to encourage the development of bed and breakfast residential/commercial uses which would support and strengthen the tourist destination concept. An important factor in developing this is to encourage longer—term visits to the Borough. This requires opportunities for short weekday or weekend visits. The area along Main Street, east of Collis Lane, is ideally suited for this type of use. Intensive commercial uses should be discouraged east of Collis Lane to reinforce the concept of the core center area.

The commercial areas east of Collis Lane area act as the eastern gateway entrance area into the downtown area. Therefore, their future character and use is closely tied to the success and image of the entire downtown area. These areas are subject to change in the future, and there should be incentives developed to enhance the streetscape and the structures relating thereto.

The industrial use associated with the Block 6, Lots 5 and 5.01, property is recommended for reclassification to a residential use which is consistent with the concept of focusing the primary nonresidential uses in the vicinity of the Route 206/Route 513 intersection area.

Mixed Uses

Mixed Uses are one of the basic building blocks of the commercial, historic downtown district. Smaller apartment rental housing is found on the second floor areas of several buildings. These units offer affordable housing. However, there is concern with possible overcrowding, structural conditions, and code violations. Correction of safety and health concerns are short—term issues which should be addressed on a priority basis.

Office Uses

The office use areas are dispersed in three primary areas and appear to offer reasonable locations to serve the needs of the community. Several different zones permit these

uses. There appears to be sufficient land designated for office use during the planning period. The area east of downtown on Main Street is not fully developed for this type of use which appears to be a logical use for the area.

Public and Semi-Public Uses

Public lands, including fire stations, rescue squads, churches, and the municipal building are included on the Future Land Use Plan. The Community Facilities Element will explore the need for these types of uses in more detail.

Park/Open Space/Recreation

The park/open space/recreation land use category includes existing Borough lands devoted to this use as well as recommendations for future areas to be set aside as development occurs. A linear open space system to buffer streams is recommended for water quality enhancement purposes. In addition, any major wetland system should be protected as future open space.

RECOMMENDATIONS

- 1. Introduce the opportunity to use cluster or open-space development techniques as a method for preserving large areas of open space. Clustering is the transferring of development potential of a single site to an area on the same site that is capable of supporting higher densities. Generally, the gross development density for the parcel is unchanged from a conventional plan, but the minimum lot size for individual lots is reduced to enable development to be concentrated in one area. The remaining part of the site can be preserved as open space, and would normally include environmentally sensitive areas, woodland areas, scenic vistas or other areas deemed worthy of preservation. Compared with conventional single family large lot development, cluster development is more environmentally friendly and requires fewer public services, such as infrastructure maintenance and routine snow removal services. Clustering should only be permitted on tracts of twenty acres or larger.
- 2. Introduce design standards for age-restricted and other forms of multi-family development as well as for single family residential development. This should include design standards to assure high-quality development which complies with the stated goals of the plan.

- 3. Modify existing zoning to manage auto-related uses such as garages as conditional uses in the B-l and B-2 zones. Special design standards should be developed to prevent garage doors from facing public rights-of-ways on Main Street. This is necessary to protect the integrity of the core area and Main Street which acts as an entrance from the east to the downtown area.
- 4. Continue controls to manage outdoor display in the area east of Collis Lane. Enforcement of this is critical to confine the primary, intensive commercial activity to the downtown area and areas associated with the five activity centers.
- 5. Continue to provide for bed and breakfast facilities along Main Street, east of Collis Lane.
- 6. Examine the bulk and design standards (including floor area ratio and coverage standards) of all zones for modification as appropriate. Consideration should be given to upgrading standards relating to site development, buffering, general architectural design guidelines, and streetscape design.
- 7. Consider the submission of a Smart Growth Planning Grant to evaluate long-range solutions to downtown parking problems. This should include a feasibility study of alternative transportation solutions and mechanisms to implement it. The grant should also include a visioning component to identify concept designs for the activity centers which unify and build on the historic Chester village theme. Methods to implement recommendations should also be included in the project.
- 8. Structures fronting on Main Street are especially critical to maintain and retain for streetscape integrity. Within the core area there should be consideration given to upgrading structures through rehabilitation as needed. Grants should be pursued as part of an economic development strategy to upgrade the downtown core area.
- 9. Small infill parcels in the O-T, LBT, and B-2 zones could be considered for limited, low density attached multi-family uses under strict conditional use design guidelines. The purpose of this concept is to achieve high quality compatible residential uses while retaining the original frontage structures to maintain the Main Street streetscape image.

10. Consider the submission of the Master Plan to the State Plan Commission for plan endorsement.

APPENDIX A

In connection with the six key sites identified as having development potential in the land use element, the following information is offered as a basis for land use modifications:

Site #1 - Larison's Turkey Farm (70.1 acres): No comment as this property is in litigation.

Site # 2 — Mill Ridge Farm (24.4 acres): O-P designation is reasonable, however no linkage or orientation to properties to the east.

Recommendation — Retain existing land use designation, Office Professional; encourage redesign to integrate with uses to the east if opportunity arises.

Site #3 — Lucent (79.5 acres): This parcel is located in the eastern section of the Borough and has frontage on both Rt. 513 and Rt. 24. Sewer services are not available. Soil types vary with two predominate types present. The Edneyville series does not present any severe limitations for development, however the Parker series does present a hazard of ground water pollution according to the Morris County Soils Survey. The two other soils present at the site (PfE-Parker & CaA-Califon) present severe limitations for septic tanks.

In terms of future land use, the property is not well suited for industrial use or other non-residential commercial uses because of lack of sewer infrastructure. The State Plan of Development and Redevelopment classifies the site as PA-5, Environmentally Sensitive.

Recommendation - Redesignate the property to a new low density district having a density of one unit per 3 acres. The new district would encompass Site #3 as well as property on the north side of Rt. 513 encircling and including the Loewensteiner Farm which has been preserved in perpetuity through the Morris County Agricultural Preservation program. Consider the use of open space development or clustering as an option to conventional development.

Site # 4—Chester Springs Shopping Center (21.5 acres): This property is currently developed with a regional type shopping center. Preliminary evaluation of the center indicates that it is not developed in a manner which is consistent with the long range goals and objectives of the Master Plan. In addition it appears that there is excess parking capacity at the site which could be used to support additional development. The site is currently sewered by a package treatment plant.

Recommendation — Retain the current land use designation but permit flexible development which encourages design concepts consistent with the historic nature of the downtown Main Street area. Integrate long range transportation and circulation concepts into any retrofit design of the center.

Site # 5 — Flea Market (9 acres): This site has received approval for an "outlet" style shopping center. The arrangement of the structure eliminates the opportunity for pedestrian generated movement from the west towards Chester Springs Center. Should the opportunity for a redesign of this center arise, consideration should be given to the possibility of abandonment of the northern leg of Old Gladstone Road with a new road connection from Rt. 206 to Old Gladstone Road providing for improved vehicular and pedestrian circulation to the west.

Recommendation - Retain land use designation, but consider a new pedestrian and vehicular possibilities if the opportunity arises. Also integrate long range transportation and circulation concepts into any future site modifications.

Site #6 - Amery property (28.23 acres): - This property is being considered for an age restricted residential development or some other form of multi family housing. The property is not sewered and would utilize a large septic bed. The soils in the vicinity of the proposed bed are Parker/Edneyville, and this soil has a moderate limitation for septic tank absorption fields because of moderate stones and bedrock at 4-10 feet. The proposal is generally consistent with the goal of providing a variety of housing types and to provide senior citizen housing. The site is suitable for higher density residential uses since it is immediately accessible to a variety of services and facilities. There is concern with the configuration of the northern intersection of Old Gladstone Road with Route 206, however the modification of the Rt. 206 intersection will offer some improvement to this difficult intersection. The design of the development is a critical factor relating to the consistency with the master plan. The form and design of any multi-family housing should blend in with the character of the historic village scale of the nearby downtown area. **Recommendation** — Modify the current land use designation by creating a transitional residential zone based on design standards to insure compatibility with the historic downtown area.. As part of the proposal require the applicant to provide a minimum of 10% of the units as affordable housing.

Major Land Use Recommendations Master Plan Update Borough of Chester Morris County, New Jersey September 2002 Rev. June 2011 **EXPANSION AREA** BARKMAN-WAY SITE 3 SITE 1 SITE 2 SITE 4 SITE 6 Legend **Major Land Use Recommendations** Data Sources: SITE 5 Richard J. Gulick, PP, AICP, 2002 Sites 400 800 1,600 2,400 Expansion Area $\frac{B \quad A \quad N \quad I \quad S \quad C \quad H}{\textit{Planning and Design}}$ Open Space Preservation Feet

UTILITIES ELEMENT

INTRODUCTION

The Utilities Element provides information about existing and future facilities related to the infrastructure of the Borough. These facilities are critical considerations relating to the health and general welfare of the community because of the direct dependency residences and businesses have on these systems. Planning for the needs of the Borough requires a realistic assessment of the future requirements that must be identified and implemented to sustain future growth of the community.

This element deals with issues relating to water supply, wastewater management, storm water management, electric utilities and communication systems.

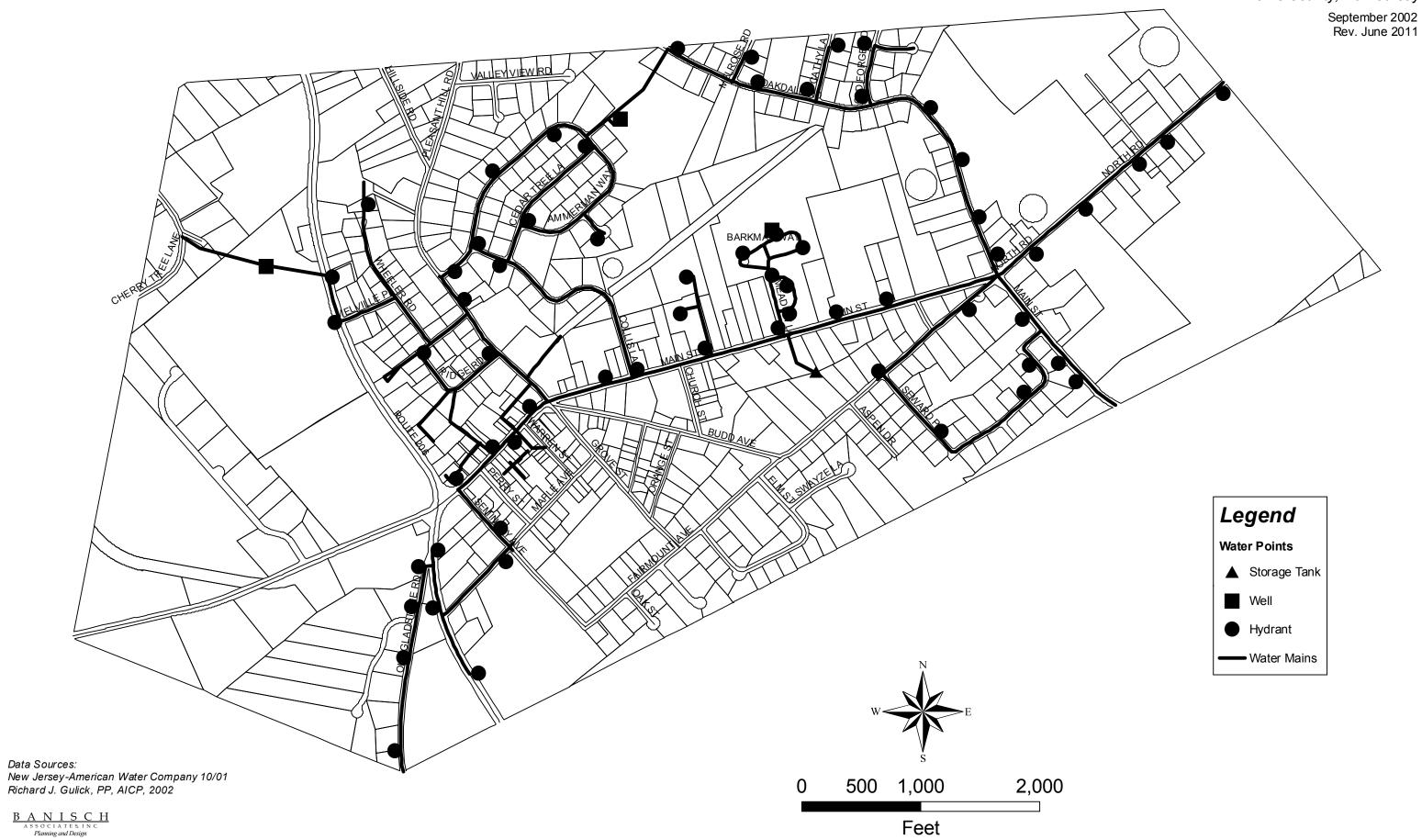
WATER SUPPLY

Potable water is supplied to the Borough by two sources. The New Jersey American Water Company (NJAWC) provides a central water distribution system, which was originally owned by the Borough. In 1998 the system was purchased by NJAWC. At the time the system was purchased there were 175 customers. As part of the purchase agreement, the water company was obligated to undertake certain capital improvements including extending and upgrading the distribution system. A second requirement was to provide an alternate water source to connect to the Borough system by 2002. As of this writing it has been confirmed by NJAWC that the line will come from Mendham with completion in the spring or summer of 2002.

A total of five wells, four of which are operational, provide water to the Borough. The four operational wells are located in two locations. Water is stored in a 200,000 gallon tank located in the rear area of the municipal building site. Water pressure ranges from 35 to 75 psi, which is within the acceptable range of the rating system of the Insurance Services Organization (ISO). The water distribution system is shown on the Map entitled, "Water Distribution System."

Water Distribution System Master Plan Update

Borough of Chester Morris County, New Jersey



Water quantity issues have recently been identified as an item to be monitored. In the early fall of 2001 there have been indications that the yields of several wells have fallen off from their normal levels. Leaks have been detected from many of the valves that were installed under the NJ DEP Spill Fund Protection Program. These connections should be corrected. It is expected that the well yields will recover during the winter months according to the representatives of the NJAWC. Typically, the winter months are wetter months compared with the summer season.

A program to conserve potable water is desirable. This is a resource that is often taken for granted. During drought conditions it may be necessary to monitor the use of water so that it can be conserved for essential purposes.

The quality of the water in the public system is monitored on a consistent basis in accordance with the requirements of the New Jersey Department of Environmental Protection (NJDEP). Monitoring is computerized and is connected to a sophisticated communication system designed to provide advance information about water quality to safeguard water customers.

The majority of the households and businesses in the Borough continue to be served by individual wells, which provide the community's primary source of potable water. This is the second method of obtaining potable water in the Borough. A 1976 report on hydrogeologic data referenced in the 1981 Geraghty & Miller, Inc. report entitled "Hydrogeologic Assessment, Chester Borough, New Jersey" reported well yields ranging from 4 to 57 gpm(gallons per minute). There have been problems in the past regarding groundwater pollution, and there is a potential for this to recur.

Contamination from intensive developments using septic systems as well as other forms of contaminants associated with problematic land uses should be carefully evaluated to protect groundwater resources. Even if the Borough is ultimately fully served with public water, it is critical to protect groundwater as an important natural resource.

The Borough Council is working with the NJAWC to identify options to expand the existing system. Currently, the area south of Main Street along Grove Street, Cherry Street, Orange Street, Swayze Lane, and portions of Budd Avenue, Fairmount Avenue, and Elm Street are being considered for public water service.

As part of the preparation of this document, representatives of NJAWC were consulted about the company's

future ability to supply water for the Borough's future needs. They advised that projections for future water demand had been developed and the company is confident that future needs can be met.

Regarding capital facilities expansion programs, the company indicated they would work with the Borough on an assessment basis to ensure that the costs of improvements are supported by revenues generated from future infrastructure expansion programs. The NJAWC emphasized the need for mandatory hook—up requirements to ensure the required generation of revenues to support expansion programs.

In addition to the community water system, the Chester Springs Shopping Center has its own private system, which is classified as a non-transient, non-community system. This system disinfects the groundwater and uses an average of 35,000 gallons per day (gpd). The existing permit stipulates that a copper and lead abatement system will be installed by January of 2002. The Chester Mall uses a private well for its water supply. The proposed Outlet Mall will tie into the water line recently installed on Old Gladstone Road.

Eventually, it would be desirable to connect the large commercial users into the municipal system. This would be beneficial from a public safety standpoint and would assure high quality service.

WASTEWATER MANAGEMENT

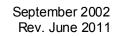
The majority of households in the Borough are served with individual septic systems used for on—site disposal. Approximately 75% of the Borough's households fall into this category.

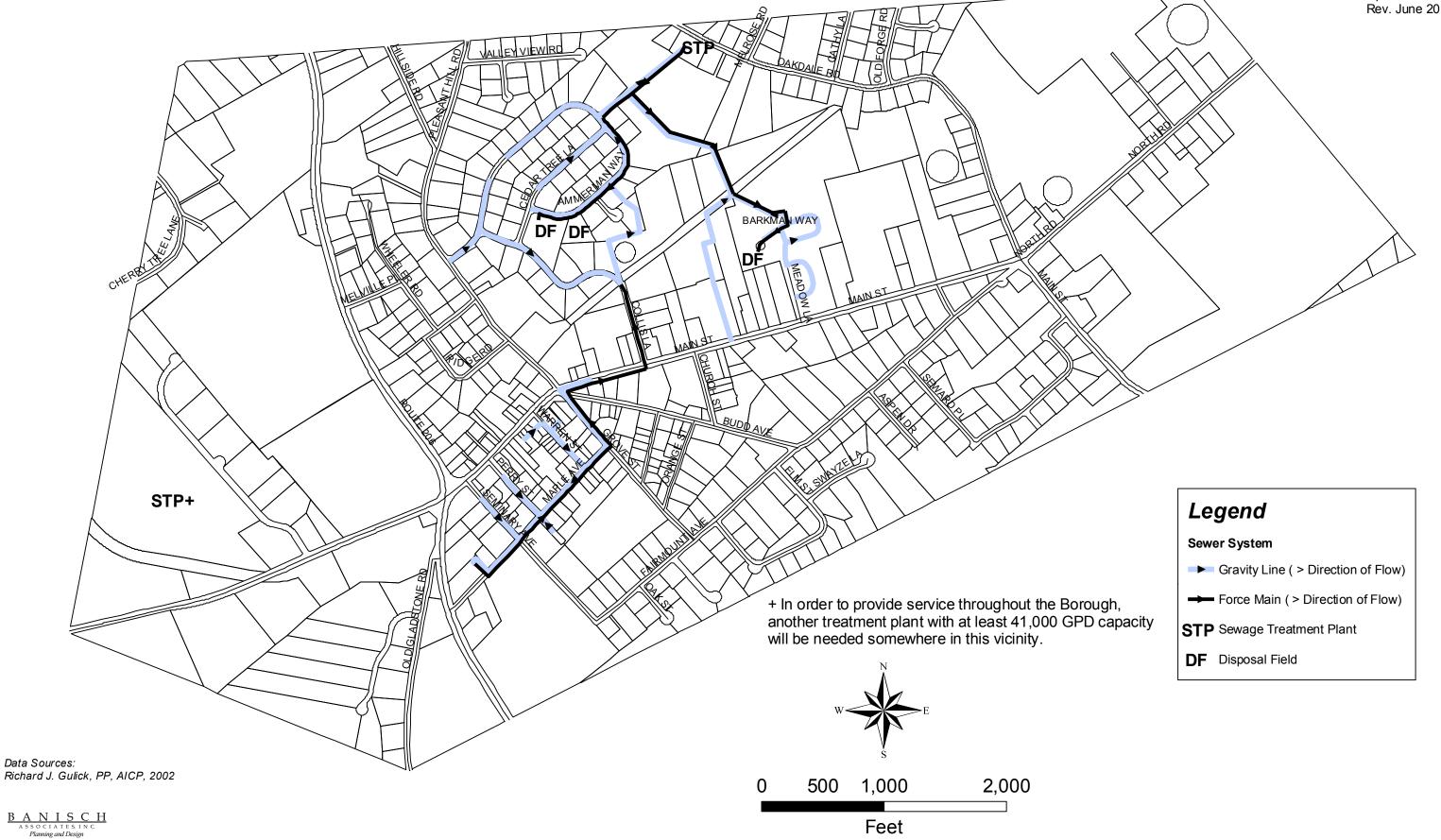
The balance of the households and approximately 60 businesses are served by the municipal wastewater collection and treatment facility. The sewer locations and the other components of the system are shown on the Map entitled "Sanitary Sewer System."

The components of the system consist of gravity sewers, a pump station at Maple Avenue which pumps effluent from the downtown area via force main to Collis Lane, a central treatment plant and subsurface disposal fields. The system was initially constructed in 1987 with several additions

Sanitary Sewer System Master Plan Update

Borough of Chester Morris County, New Jersey





and improvements made in 1997. The existing system is permitted to discharge a maximum of 75,000 gpd.

The treatment system components, in sequential order, consist of:

- Influent Pump Station
- Flow Equalization Tank (aerated)
- "Orbal" biological treatment tank (modified extended aeration design) , consisting of two circular concentric oxidation ditch channels and a clarifier in the center
- Secondary Clarifier
- Chlorine Contact Basin
- Dechlorination Chamber
- Effluent Pump Station

In addition, there are two aerated sludge holding tanks, chemical storage and feed facilities, emergency generator, a sludge thickener unit, and an operations building

There are a total of fourteen disposal beds: twelve are located off of Ammerman Way/Collis Lane(the "Shadow Ridge Disposal Beds") and two are located off of Barkman Way(the "Old Chester Towne Disposal Beds")

The public system is operated by the municipality under contract to a licensed operator. The Borough has a relationship with a wastewater engineering consulting firm who provides design guidance and technical assistance relating to all aspects of the sewer system.

In addition to the public system, there are two existing private sewage treatment facilities, which serve the Chester Mall and the Chester Springs Shopping Center. The Chester Mall's treatment facility discharges an average of 7,000 gpd of treated, disinfected, domestic wastewater into a drainage ditch located south of the center. The monthly average design flow of this facility is 11,000 gpd, which is its permitted rating. The Chester Springs Shopping Center has a secondary activated sludge treatment facility that currently discharges an average of 24,000 gpd to groundwater. This system was initially installed with the construction of the center in the early 1970's and was recently upgraded in 2000. The permitted rating of this system is 30,000 gpd based on a monthly average use.

A third private disposal system is planned for the shopping center having dual frontage on Route. 206 South and Old Gladstone Road known as Block 18, Lot 2. This facility has

received a permit from NJDEP as a discharge to groundwater facility.

SEWER SERVICE AREAS

The Borough's plan for wastewater management which identifies sewer service areas is a part of the larger area wide Water Quality Management Plan for the Raritan Basin. The drainage basin for the Borough is the Raritan Basin; therefore all wastewater planning must be done in the context of this larger basin. While local wastewater planning is accomplished at the local level, the NJDEP has jurisdictional authority to approve local plans.

A new wastewater management plan will be developed after the Master Plan has been adopted. The development of the plan after the adoption of the Master Plan will insure consistency with land use policies and wastewater facility development necessary to support the anticipated future land use in the Borough.

The existing sewer service area within the Borough is shown on the small map entitled, "Sewer Service Areas." This map shows the existing sewer service areas. It should be noted that an amendment to the existing local Wastewater Management plan is pending before the NJDEP. The proposed amendment to the plan involves expanding the Borough's sewer service area to include areas to the south of Route 513 and east of Grove Street. In addition, lands in the vicinity of the Lucent property have been more carefully delineated to relate to the property line configurations in the eastern part of the Borough. The configuration of the proposed area is shown on the larger fold out map entitled "Sewer Service Areas."

WATER AND WASTEWATER ISSUES

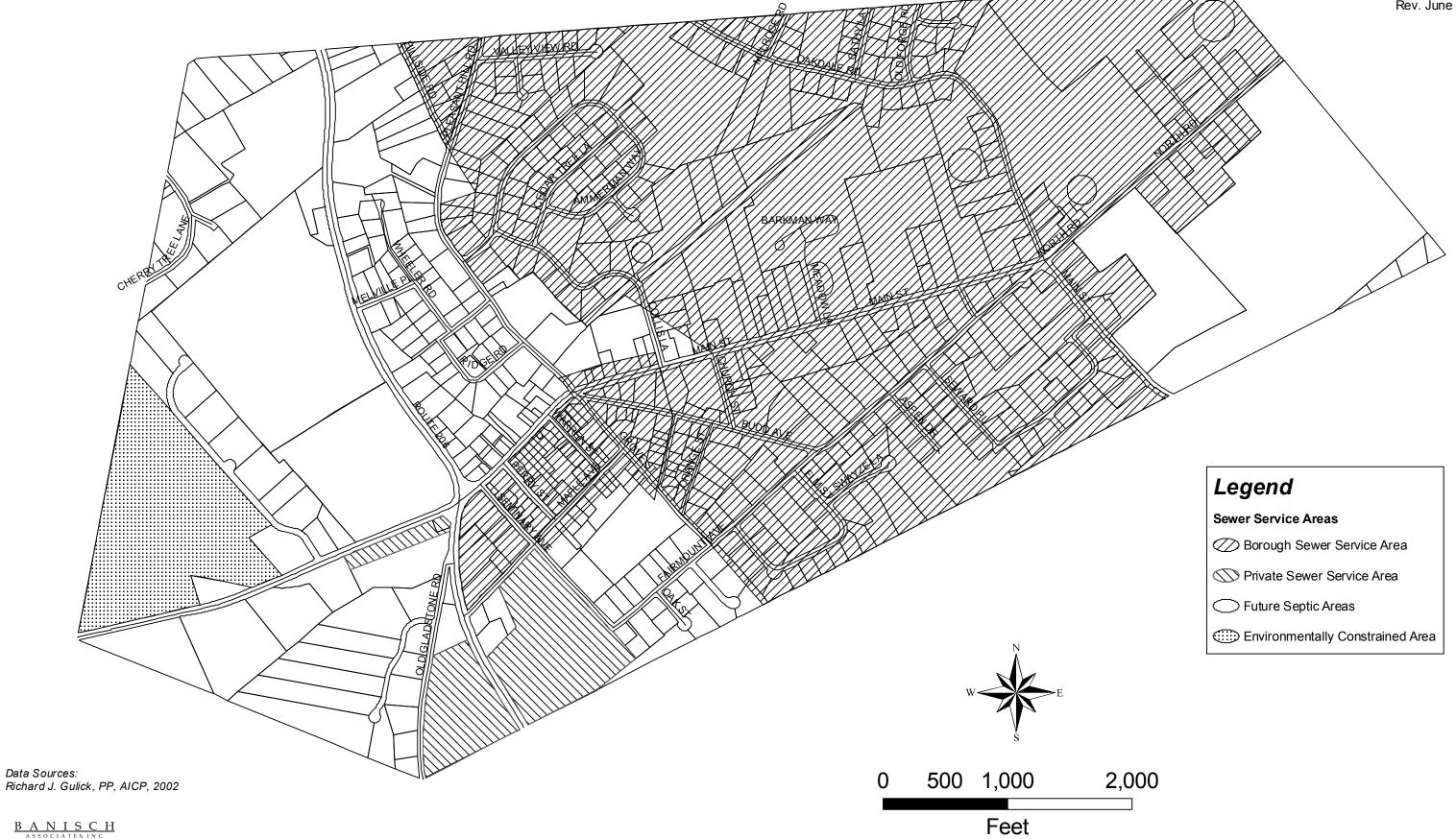
The expansion of the sewer service area will necessitate an expansion of the treatment plant serving the area. This is currently being considered by the Borough Council. At the earliest, it is anticipated that the expanded plant will be operational by the end of 2003, if it is determined that an expansion of the plant is possible.

Existing septic systems in the Borough are and will continue to be an important method to dispose of household wastewater. The maintenance of existing systems is critical to ensure their longevity and to prevent groundwater contamination and other public health problems.

Sewer Service Areas Master Plan Update

Borough of Chester Morris County, New Jersey

> September 2002 Rev. June 2011



The septic service areas are not currently planned for incorporation into the Borough's sewer system.

The development of property within the septic service areas must be undertaken carefully. The potential for groundwater contamination should be considered in connection with all new systems and, care should be exercised in the system design and construction to insure proper functioning.

The question of whether it is desirable to plan for the ultimate expansion of the existing sewer system based on the expansion capability of the plant and disposal system, is important to consider. A major area of the Borough not served by sewer is located north of Main Street, east of Route 206 and west of Hillside Drive. This area consists of older homes and is characterized by smaller lots. A survey of this area was undertaken by the Health Department to identify the incidence of septic failures over a five— year period. Generally, if there are high numbers of failures, it would indicate an immediate need to consider providing sewers. Of the approximate 95 records checked, there were only five reported failures or 5% of the homes,

On the surface it would appear that there is no significant problem which would warrant the development of a community sewer system. However, the size of commercial lots fronting on Main Street creates a difficult situation for septic use considering that there are some private wells used for potable water. In addition, the character of the residential area ultimately will benefit from sewer installation in the long run. It should be stressed that this does not appear to be a short—term issue, however, it should be considered in the context of other undeveloped property in the area so that a comprehensive approach can be considered when other properties are developed. A partnership approach should be negotiated when other undeveloped lands are being considered for development to ensure that long—term wastewater needs are addressed.

The use of package treatment facilities should be considered for use in the septic areas suitable for these types of community systems. The Borough should only encourage the use of these systems when development is consistent with the goals of the Master Plan and an area— wide approach can be used to provide long—term wastewater management solutions.

It should be noted that there is concern about certain types of automotive uses which have the potential to pollute groundwater resources. Oil leaks from auto engines

or crankcase oil has the ability to contaminate water resources if operations are not properly managed. Modifications to existing facilities or the establishment of new auto uses or other uses which could potentially be a contamination problem should be permitted with controls to monitor impacts to groundwater. The existing groundwater supply sources should be protected and maintained.

Unfortunately, the Borough has experienced groundwater pollution from gasoline additives in several locations. A series of groundwater tests were performed in 1992 and again in 2000. There were several areas identified within the Borough where three pollutants were located in quantities which exceeded the permitted tolerance level. The pollutants were benzene, M.T.B.E., and trichloroethylene. The map entitled "Groundwater Pollution" identifies the properties where testing indicated pollution levels exceeded acceptable levels.

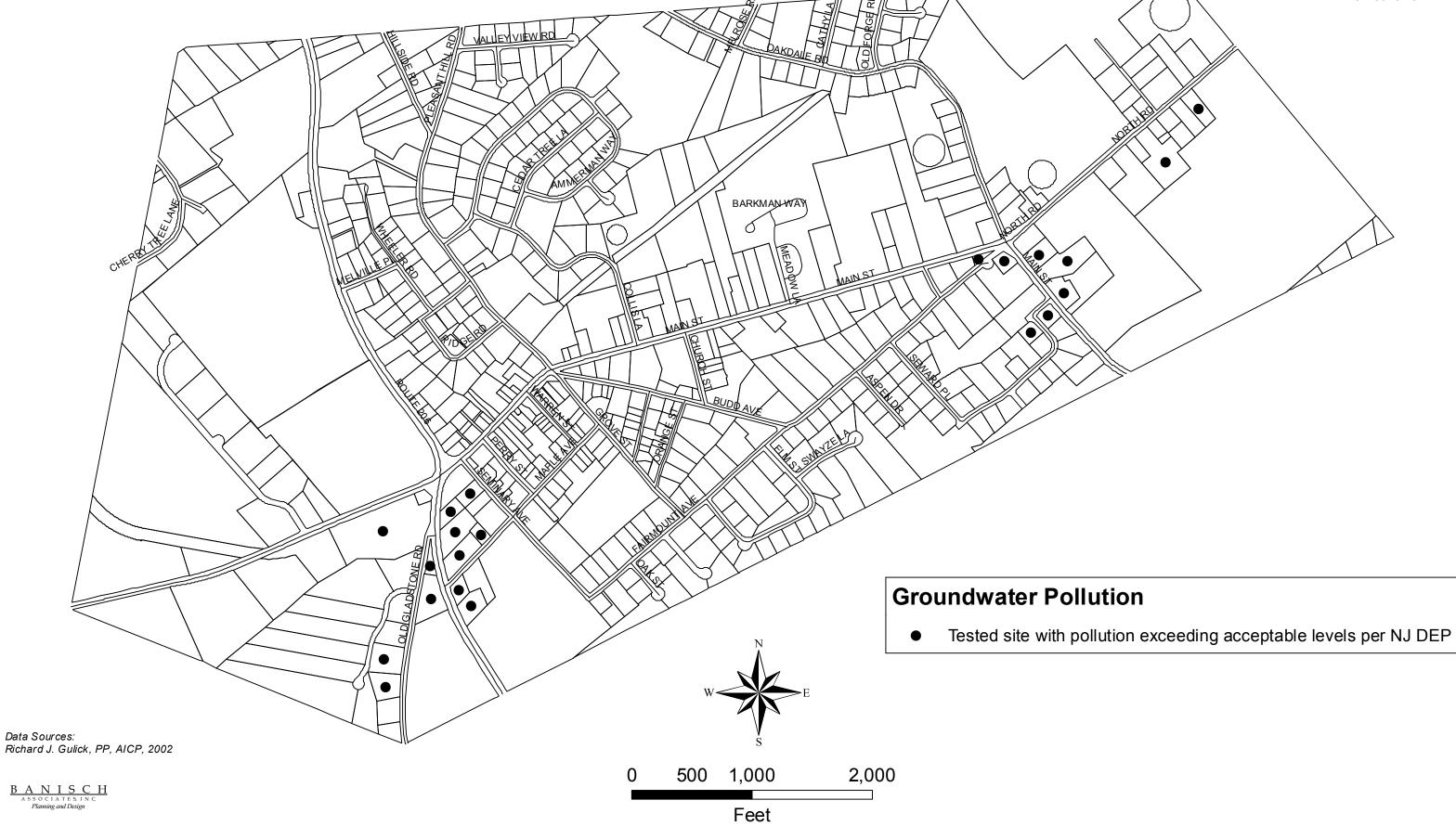
STORMWATER MANAGEMENT

The Borough's regional location within the Raritan Basin is an important aspect relating to stormwater management issues. This basin is a major source of regional potable water supply; therefore, water management is a critical factor to be considered in all development, whether it exists or is related to future development. Minimum standards for designing solutions to stormwater management in new residential development are contained in the Residential Site Improvement Standards which mandate both quantity and quality requirements. This is a mandatory set of standards. Non-residential development should be required to meet or exceed the same standards.

Stormwater directly impacts downstream conditions and is an important ingredient in the health of watersheds. The Conservation Element provides detailed discussion of the relationship of stormwater to environmental considerations.

The Borough's practice of requiring detention and water quality management measures for development should be continued, unless development can be determined to have a negligible effect in terms of runoff volume and impacts on water quality. Where possible, developers and commercial owners of older properties should be encouraged to upgrade their drainage systems to bring them into better compliance with current standards. Retrofitting parking lots using Best Management Practices (BMP's) is an important factor when reviewing proposals to modify projects in the Borough.

Groundwater Pollution Master Plan Update Borough of Chester Morris County, New Jersey September 2002 Rev. June 2011



BMP's are policies, procedures and techniques that can help to reduce the impacts of nonpoint source pollution, or even reduce the amount of pollution that reaches the water. These practices can include the construction of structures, like filters or basins, which trap the pollutants found in storm water or which permit storm water to recharge ground water. BMP's can also include practices, such as cleaning up pet waste or the managed use of fertilizers. Education can also be a BMP. Teaching people about the damage that can be done by nonpoint source pollution and the lifestyle changes they can make for pollution prevention is a form of the of nonpoint source pollution management.

There are a number of BMP's, which. can be applied to various projects. Both structural and non-structural solutions should be explored to ensure the most appropriate approach. Generally, it is recommended that shallow swales, surface groundwater recharge basins, depressed landscape islands designed to detain runoff from the first flush of small storm events should be used in tandem with the standard stormwater management techniques used to manage the larger storm event. The small storms are the major contributors to non-point source pollution. When sites are initially designed, the grading and development plan can be tailored to minimize the potential for first- flush non-point pollution.

New technology is available to separate solids and oils from parking lot runoff by using specially designed catch basins. A number of communities are using these systems in certain situations where they are appropriate. One such design, termed a Stormceptor, has been used in several locations in Randolph Township. The system does require periodic maintenance for proper functioning. It has been demonstrated to be effective in reducing non-point source pollution. It is not a water quantity management measure but merely collects sediments and oily wastes from parking lots. Such a system might be considered for use in the large Shopping Center lots.

New rules relating to stormwater management are being considered which will impose new requirements on the Borough. By early 2003 the Borough will be eligible to obtain a New Jersey Pollution Discharge Elimination System Permit (NJPDES). By 2006 the proposed rules state that all municipalities must be permitted. There are two components associated with the permit:

• An educational component to be provided to all residents and businesses in the community.

• An ordinance relating to stormwater management for non-residential uses must be adopted.

ELECTRIC UTILITIES

The Borough is served by overhead electric utilities in the older areas of the community. Newer subdivisions have underground wiring, which is very appealing from an aesthetic standpoint.

In keeping with the objective to promote the historic downtown area of the Borough, it is recommended that the utilities along Main Street be buried. This would enhance the streetscape and would truly allow the creation of Main Street as a unique place. This would be consistent with the Borough's economic strategy and the vision established in the New Jersey State Plan of Development and Redevelopment.

COMMUNICATIONS SYSTEMS

Conventional telephone systems using wire technology have recently been impacted by wireless technology associated with cellular technology systems. These new advanced systems are capable of transmitting voice messages and other data. The systems depend on line of sight transmitting technology. A number of antenna have been established in the Borough.

A wireless telecommunications facilities ordinance was adopted in 2000 to regulate the development of these facilities.

RECOMMENDATIONS

- 1. Both structural and non-structural BMP's should be considered for use with existing and proposed development projects.
- 2. A stormwater management ordinance for non-residential uses should be considered and adopted by the Borough.
- 3. A septic management educational program should be implemented to stress the need for proper septic maintenance.
- 4. Water conservation should be stressed as part of plan review procedures.
- 5. underground utility installation should be considered in conjunction with Main Street rehabilitation or improvement projects. Grants should be sought to

build an improved image by burying utilities in the Main Street area within the downtown core area.

- 6. The Borough should continue to work towards completion of the alternate water source as part of the contractual obligation of the NJAWC.
- 7. Long-range wastewater plans should be developed so that each developer will pay its pro rata share towards the implementation of the plan. The cost of the study should be factored into the fair share of the overall project so that the burden is distributed evenly to all parties.
- 8. A revised wastewater management plan should be developed after the adoption of the Master Plan to ensure consistency with future land use policies.

TRANSPORTATION/CIRCULATION ELEMENT

INTRODUCTION

The Transportation/Circulation element focuses on the mobility system of the Borough. As part of this review factors related to internal and external considerations will be examined so that the subject is approached on a comprehensive basis.

The primary system of movement has been and will continue to be the automobile. Therefore, it is necessary to evaluate existing patterns and conditions so that an analysis can be made to determine future needs and constraints. It is important to understand that the transportation system of the community has a significant bearing on the structure of the community in terms of land use, the economics of the community and how the community will evolve and ultimately develop.

While it is important to recognize the role of the automobile in the Borough of Chester, it is also critical to be aware of the issues related to the exclusive dependence upon this single mode of transportation. Therefore, this portion of the Master Plan will deal with various forms of transportation and circulation related to different modes. Bus, bicycle, pedestrian and other modes will be examined.

As previously indicated in the land use section, circulation and transportation must be viewed in the context of existing and future land use considerations. Moreover, the establishment of public policies and recommendations are the methods by which the community will achieve goals and objectives established by this Master Plan.

ROADWAY CLASSIFICATION

Streets and roads are typically classified according to their function. The functional system of streets provides a graduated system of traffic flow. Efficient and safe operation of the system requires that specific facilities be designed to serve a specific purpose within the street hierarchy. At one extreme is the freeway/expressway which carries no local traffic, while at the other extreme is the local cul-de-sac, which carries no through traffic. Access control ranges from complete control in the case of a limited access highway, to no control in the case of a cul-de-sac.

Classification of roadways should be made according to the movement served by that roadway and not according to traffic volumes on the roadway. While higher classes of streets, as a group, carry larger traffic volumes than lower classes, traffic volumes should not be an element in the functional classification of those roadways. The functional classifications with respective definitions are summarized in Table 1.

Table 1 FUNCTIONAL CLASSIFICATION OF ROADS

Freeway/Expressway - Primary function is to serve through traffic and provide high-speed mobility. Access provided from major streets at intersections. Limited or no access to abutting land uses.

Major Arterial - Intended to provide a high degree of mobility and serve longer trips than minor arterials. Principal function is movement, not access. should be excluded from residential areas.

Minor Arterial — Interconnects and augments the major arterial system. Accommodates trips of shorter lengths. Operating speeds and service levels are lower than major arterials. Should be excluded from identifiable residential neighborhoods.

Collector — Provides both land access and movement within residential, commercial and industrial areas. Penetrate but should not continue through residential areas.

Major Collector - Primary function is to collect and distribute traffic between local streets and the arterial system.

Minor Collector - Primary function is to provide land access.

Sub Collector — Primary function is to provide inter—neighborhood traffic movement.

 ${f Local}$ — Provide land access and can exist in any land use setting. Movement is incidental and involves travel to and from a collector facility.

Source: Institute of Transportation Engineers (ITE)

Table 2 presents the ITE roadway classifications for major

roadways in the Borough and Table 3 illustrates the characteristics of its major roadways. In addition, each arterial and collector is briefly described with a short narrative of the function and present traffic conditions of each roadway. The Map entitled "Circulation System Plan" shows the geographic relationship of the street network and identifies problem areas, which are recommended for improvement.

Table 2
CHESTER BOROUGH STREET CLASSIFICATIONS

Road Name NJ Route 206	Classification Major Arterial	
Main St. (Rts.513, 510) North Rd. (Rt.513)	Minor Arterial Minor Arterial	
Fairmount Ave. Hillside Rd. Oakdale Rd. Pleasant Hill Rd. Seminary Ave.	Major Collector Major Collector Major Collector Major Collector Major Collector	
Budd Ave. Old Gladstone Rd.	Minor Collector Minor Collector	

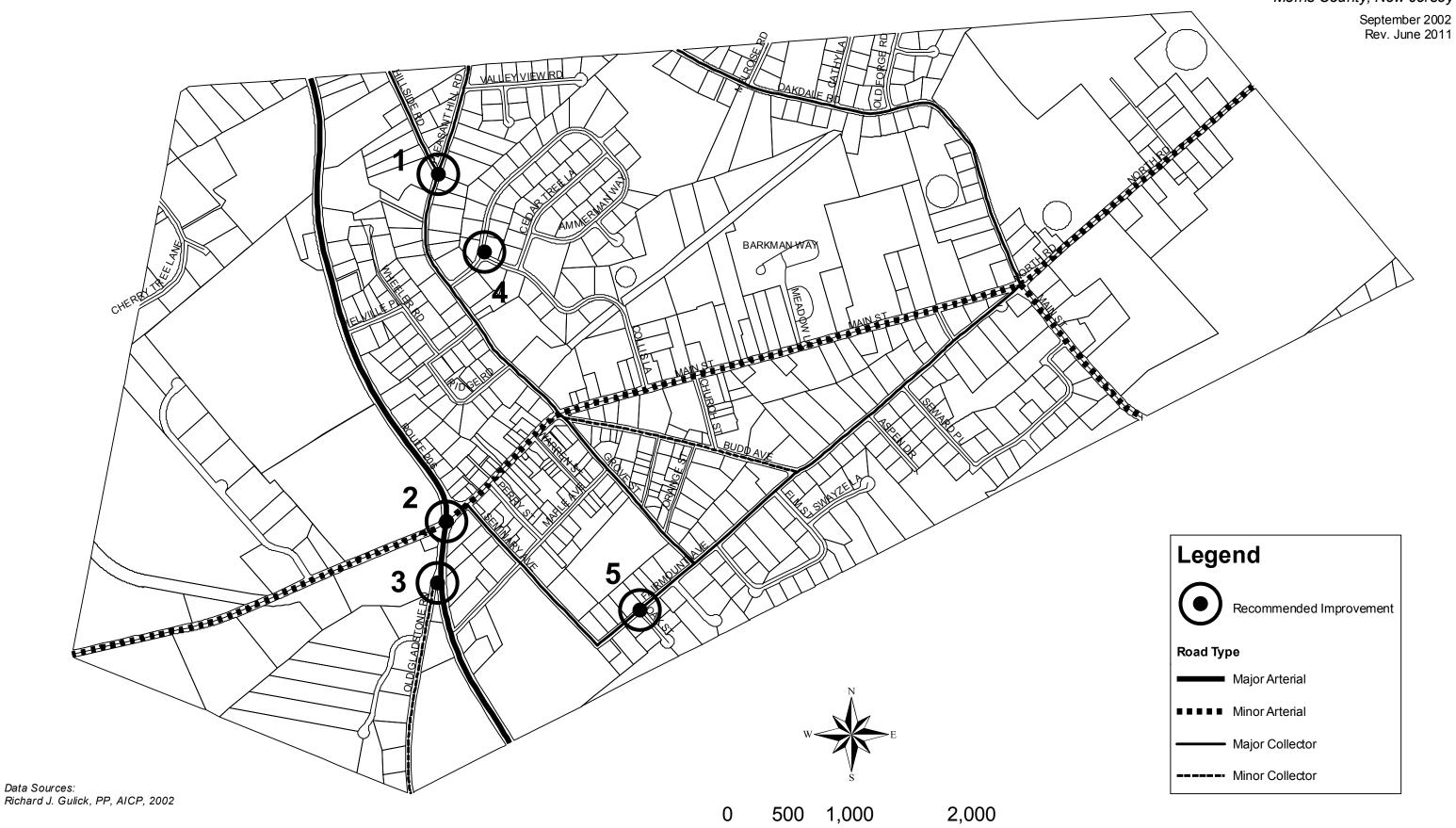
Table 3
CHARACTERISTICS OF MAJOR ROADWAYS

Road Name	ROW Width Feet (1)	Speed Limit Miles per Hr.
NJ Route 206	80	35,40,50
Main St. (Rts. 513,510 North Rd. (Rt. 513)) 66 50	30,40,45 45
Fairmount Ave. Hillside Rd. Oakdale Rd. Pleasant Hill Rd. Seminary Ave.	50 50 50 50 50	30 35 30 35 25
Budd Ave. Old Gladstone Rd.	50 50	25 40

(1) Excludes intersection ROW widths

Circulation System Plan Master Plan Update

Borough of Chester Morris County, New Jersey



Feet

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Major Arterial

Route 206 is the only major arterial in the Borough of Chester. It is a four—lane facility traversing the Borough in a north—south direction; however, in its northern segment it has two lanes northbound traversing into one lane northbound at Melville Place. It provides direct access to Interstate 80, a freeway located in Mt. Olive Township to the north. Traffic count data is limited to one count within the Borough taken in November of 1998 in front of the Chester Springs Shopping Center. The Average Daily Traffic (ADT) count for a twenty—four hour period was 22,980. An additional count was taken by New Jersey Department of Transportation (NJDOT) at the Colby Farms Rd. intersection with Route. 206 yielding an ADT count of 21,940. A peak hour count was available at the site during 5—p.m., and it registered 1,842.

At the present time there is one signalized intersection with Route 513. This intersection is scheduled for improvement. Final design plans are being completed. The modification will include a decorative median, improved geometrics, pedestrian activated signalization, and enhanced signal hardware designed to be consistent with the Borough's historic character. Because of the importance of this intersection as a gateway entrance into the Borough's downtown area, special design treatment is essential to visually reinforce the sense of arrival into this area. This will be dealt with further in the Community Character - Element of the plan.

A second signal is planned at the entrance into the Chester Springs Shopping Center. This will also provide traffic control for the shopping center approved on the west side of Route 206, known as Chester Commons.

It is critical that both signals be coordinated and synchronized for optimum traffic flow.

Development patterns along Route 206 can be characterized into two different types and are different depending on whether the area is north or south of the Route 513 intersection. These patterns have direct implications for traffic flow.

North of Route 513, on the west side of Route. 206 the frontage is occupied by a small number of parcels. This parcel pattern generally will result in better traffic ingress and egress movement. On the east side the area is

characterized by individual small parcels, primarily of a residential nature, each with direct access to the roadway. This condition is less than desirable from a traffic safety standpoint. Where possible, access should be consolidated to eliminate multiple curb cuts.

South of Route 513, there are large tracts with extensive frontage on the roadway. Generally, access has been controlled effectively in these areas. However, where individual small parcels exist, there are multiple curb cuts, which pose difficult traffic turning movements and create safety concerns. While driveways may be signed for right turn only, motorists often do not adhere to these controls. Inter—connected parking lots and shared driveways can be useful in limiting multiple accesses and should be considered when possible through site plan review. Through the use of requiring access easements along common property lines, future access connections can be made when adjacent property is developed.

Minor Arterials

The minor arterials are Main Street and North Road. Both roads are under the jurisdiction of the County of Morris. The character and function of Main Street changes depending on the segment of roadway. West of Route 206, West Main Street is a four—lane road, transitioning to two lanes approximately halfway between Route 206 and the Borough/Township boundary line. This facility provides through movement to Washington Township and Route 517, a north-south arterial.

East of Route 206, Main Street takes on a unique character with limited on street parking serving the commercial core of the historic downtown. From Route. 206 to the five—corner intersection with Hillside Rd., Grove St. and Budd Ave., the roadway carries slow moving traffic because of heavy pedestrian activity. The north and south sides of the roadway are intensely developed with shops, boutiques, and stores attracting substantial volumes of pedestrians. There are striped crosswalks at street intersections to permit movement to the opposite side of the street. None of the walkways are controlled with signals. However, motorists are generally courteous and permit pedestrians in the crosswalks to walk without being rushed. This is due largely to the Borough's effort to mark the crosswalks with road cones.

East of the five corner intersection on Route 513 to the intersection with Oakdale Rd., North Rd. and Route 510 Main Street continues to function as a minor arterial with two travel lanes and a wide shoulder capable of being used for on—street parking. Because of the nature of land use in the area, the area is rarely used for regular parking except during special events.

Major Collectors

Fairmount and Seminary Avenues function as major collectors to collect and carry traffic from residential neighborhoods within the Borough. These streets carry traffic to the arterial system where traffic can be moved to longer distance destinations.

Hillside, Oakdale, and Pleasant Hill Roads carry residential neighborhood traffic from within the Township to areas within the Borough of Chester.

Minor Collectors

Budd Avenue and Old Gladstone Road provide land access and are classified as collectors because their function is more important than a sub-collector or a local road.

Table 4
CIRCULATION SYSTEM IMPROVEMENTS

Improvement Location*	Improvement Description
1	Realign intersection
2	Improve geometrics, lane configuration and signalization
3	Realign and control intersection
4	Remove sight obstruction
5	Remove sight obstruction

^{*}The improvement locations are keyed to map entitled "Circulation System Plan."

TRAFFIC COUNTS

In December 2001 the Morris County Department of Transportation in cooperation with the Borough of Chester

Police Department conducted traffic counts for a four-day period at three different locations in the Borough. Counts were taken on Friday, December through Monday, December 10th The results of these counts are provided in Table 5.

Table 5
TRAFFIC COUNT DATA

LOCATION	WEEK DAY COUNTS		WEEKEND COUNTS	
	Peak Hour	ADT*	Peak Hour	ADT*
Main St., West of Collis Lane	1,450(4:00pm)	19,649	1,268(12:00pm)	14,495
Maple Ave., West of Warren Street	430(4:15pm)	3,255	131(12:00pm)	1,150
East Main St., West of Village Road	1,252(4:30pm)	14,859	867(12:00pm)	9,131

^{*}ADT means Average Daily Traffic for 24-hour period.

While a traffic analysis was not completed at these locations, the data suggests that the capacity of the roadways has not been reached. The roads are operating at reasonable levels.

MASS TRANSIT

The only transit service available to the Borough at the present time is bus service provided by the Morris County Department of Transportation bus system. Morris County Bus #4 provides regular daily service from the following six locations: 1) the Burger King site, 2) Seminary Avenue and Main Street, 3) Public House, 4) Borough Hall, 5) between Sentry Lane and Oakdale Road, and 6) at Village Road and Route 24. A ¾ size bus provides service, having a capacity of 36 passengers.

The bus route provides service to Dover, Randolph, Mendham, Morris Township, Morristown and the Honeywell Corporation, located at the intersection of Columbia Turnpike and Park Avenue in Morris Township near the Morristown Municipal Airport.

Wheels #966 bus located at Honeywell provides an opportunity to transfer to trains. In addition, there are transfer opportunities at several other destinations to locations both within and outside of the county.

A second Morris County Bus Route #5 which operates on Mondays and Wednesdays also provides limited bus service. This route originates in Morristown and traverses through Morris Twsp., the Mendhams, the Chesters, Washington Twsp., Mt. Olive Twsp., Netcong, Roxbury Twsp., Mine Hill Twsp., Wharton, and terminates in Rockaway Twsp. At the termination point the trip is reversed. The bus stop locations in the Borough of Chester for Bus Route #5 are the same as the locations for Bus Route #4, except that there is an additional stop located in front of the Chester Mall along West Main Street.

It should be noted that there is a flexible routing policy for both bus routes. In the event that there are special needs for the bus to detour to pick up a passenger, a phone call is required to arrange for the special routing.

In general, bus service for commuter purposes is not the preferred mode of transportation. This may be due to several factors including convenience, frequency of service, and the fact that automobile use has been subsidized to a greater degree compared with other forms of mass transit.

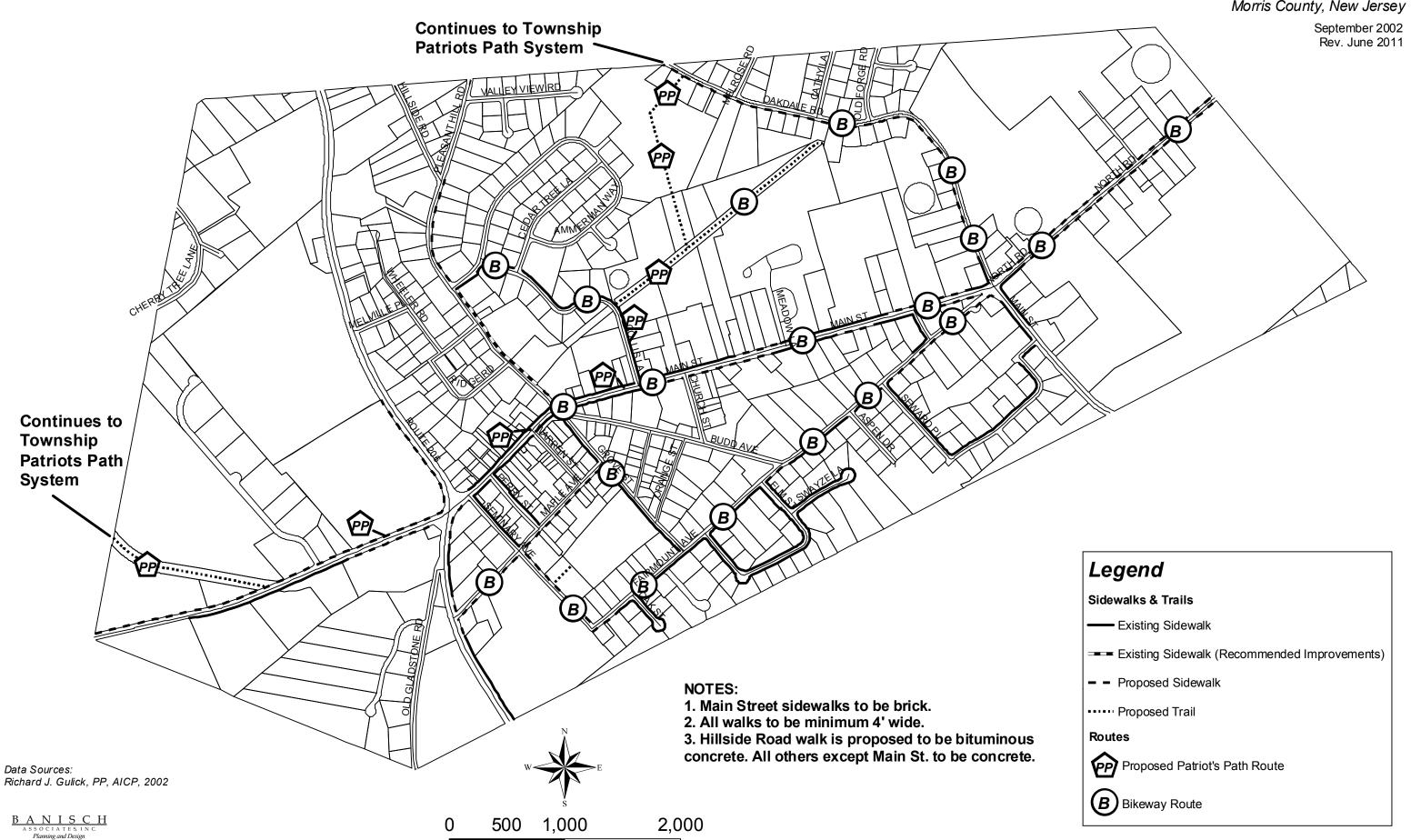
Consideration should be given to providing bus shelters to encourage ridership and offer patrons a minimum level of comfort during inclement weather. In addition, a designated park and ride facility where commuters could meet to van pool or car pool should be considered. Tour buses could use this facility on weekends and special events in conjunction with a long-range downtown business expansion effort to promote and reinforce the Borough as an important tourist destination.

PEDESTRIAN / BIKEWAY CIRCULATION SYSTEM

The relatively compact nature of the Borough's business center clearly lends itself to a well-defined pedestrian system along Main Street. Radiating out from the core area, the community is relatively built-up. Many residential areas, which feed into the core area, have sidewalks, however the system is not complete. The Borough has expanded the system in recent years and should continue to complete the key segments serving major residential neighborhoods. The Map entitled 'Pedestrian / Bikeway Circulation Plan" identifies the existing walks in the Borough and identifies areas where additional sidewalk installation should take place. Also identified is a

Pedestrian / Bikeway Circulation Plan Master Plan Update

Borough of Chester Morris County, New Jersey



Feet

bikeway route layout plan, which can be used as an initial basis for developing a bikeway system for the Borough.

Within the core area along Main Street the sidewalk system should provide for six— to eight— foot walks to accommodate the large volumes of pedestrian traffic. In other locations four—foot walks are adequate.

Because of the high pedestrian volumes in the downtown and the potential demand to cross Route 206 to gain access to the Turkey Farm, it is essential to include a pedestrian friendly crossing zone to facilitate access to and from these two important pedestrian generators. Improvements to the intersection being considered by the NJDOT should address this issue to the full satisfaction of the Borough.

The plan identifies proposed trail systems for future installation. The trail at the western end of the Borough connects with the Black River Wildlife Management Area, a significant regional resource of potential recreational importance. The other trail extends from Collis Lane east along the abandoned rail bed. Ultimately, the trail should link into the extended walk on Oakdale Road, forming a loop trail system of some significance.

The Borough is small and lends itself to non-automobile oriented mobility system, which is highly "walkable and bikeable." Reducing dependence on the automobile is beneficial for a variety of reasons. Generally, a circulation system which is not completely dependent on the automobile is beneficial for the residents from a public health and welfare standpoint. In addition there are environmental benefits by reducing auto emissions and improving air quality. Therefore, this plan stresses the need to focus on developing a circulation system, which promotes non-automobile modes of transportation. The Borough is uniquely positioned to promote this type of system based on the compact nature of the commercial core and the relationship of the residential areas surrounding the core. The Pedestrian/Bikeway Circulation Plan provides a basis for future improvements designed to connect the majority of the residential areas to other residential areas and the commercial areas of the Borough. This integrated approach to circulation has benefits which extend beyond the need to move people and goods from one point to another. The health and welfare of the Borough will be enhanced, and the community will become more livable with such a system in place.

OFF-STREET PARKING

During the initial Master Plan meeting to obtain citizen input, one of the areas of concern identified was lack of parking in the downtown area. The Master Plan is not intended to provide a detailed study of this issue. However, during June 2001 fieldwork was conducted within the core area to determine land use. As part of this work certain observations were made about the parking. It was noted that there were several unpaved lots. In an unpaved lot what typically occurs is that cars are not parked efficiently and maximum utilization is not achieved. It was also noted that there were a number of isolated individual lots. By integrating and connecting lots, greater efficiency can be achieved and more spaces can be provided.

The Borough has one municipal parking lot on the north side of Main Street in the mid-block area in Block 20 on Lot 32. This provides excellent parking for the core commercial area and is maintained in very good condition. The concept of providing municipal parking should be considered for expanded use in the core area.

A survey was conducted on the Saturday after Thanksgiving 2001 at the shopping centers to determine the extent of parking utilization. Generally, this day is considered one of the busiest shopping days of the year. Car counts were made and the results are found in Table 6.

Table 6
PARKING UTILIZATION AT SHOPPING CENTERS

Location	Total Spaces at Center	Number of vacant spaces	Percent of Total
Chester Springs Shopping Center	1,163	331	29%
Chester Mall	414	293	71%

It is noted that there appears to be an excessive number of spaces at the centers. The possibility of modifying the parking areas should be considered to introduce more pervious surfaces to reduce run—off and filter stormwater and to improve the appearance of the area.

ON-STREET PARKING

On—street parking within the core along Main Street could be better defined. At the present time signage is used exclusively to define the on—street parking areas. Streetscape modifications along Main Street could provide improved definition of on—street parking areas and pedestrian zones and crossing areas. Streetscape improvements would also serve to define the cartway width, thereby improving public safety within the active core area.

As was noted in the public information session, there is concern with on-street parking within residential areas. It is recognized that this represents a potential problem. Adequate parking facilities or innovative solutions to solve this problem must be provided to reduce pressure on residential areas.

RECOMMENDATIONS

The primary and overall objective of the Circulation and Transportation Plan Element is to provide for the movement of people and goods to, from, and within the Borough. The following recommendations are offered in conjunction with the others outlined in this element to meet this objective:

- 1. A parking study should be conducted which is broad enough to examine the feasibility of using a jitney system for special event weekends. In addition, consideration of developing a business expansion program with the Historic Chester Business Association where bus service is available for special event activities should be a part of the study. A "Smart Growth" grant should be considered for this project.
- 2. The Main Street area within the commercial core should be considered as a special design district with a detailed streetscape design plan prepared. Specially delineated pedestrian crosswalks should be a component of the streetscape, which should be consistent with the Route 206 pavement treatment. A special assessment district should be considered to fund a portion of the improvements.
- 3. The intersection of Main Street and Route. 206 should be the western gateway and the intersection of Main Street with Grove St., Budd Ave. and Hillside Rd. should be the eastern gateway. A decorative rotary could be developed at the eastern location to define this entry point.

- 4. The Borough should continue to develop the sidewalk system.
- 5. A bikeway route should be developed with signage, striping, and bike rack facilities at certain destination points to encourage the use of bicycles as a viable transportation mode.
- 6. Interconnected parking lots should be considered so that vehicles can move laterally between parking lots without using public roads. This will result in lessening of road congestion and more direct movement to the desired destination.
- 7. A trail system should be developed along the abandoned rail beds, and linkage to the Black River Wildlife Management area should be encouraged.
- 8. In cooperation with NJDOT discussions should be initiated about a park and ride facility for commuter purposes. Such a facility should be located on Route 206 in an appropriate location such as the property south of the Fleet Bank, in the Township of Chester.

COMMUNITY FACILITIES ELEMENT

INTRODUCTION

The quality and adequacy of community facilities and services represents a significant factor in making a community a desirable place to live. An analysis of existing community facilities is important in determining current adequacy of facilities as well as future needs. Facilities and services addressed include public schools, administrative services, library, and public works and public safety services including fire department, rescue squad and police department.

PLANNING BASIS

The MLUL indicates that a Master Plan may contain a Community Facilities Plan "showing the existing and proposed location and type of educational or cultural facilities, historic sites, libraries, hospitals, fire houses, police stations and other related facilities, including their relation to the surrounding areas." While the inclusion of a Community Facilities Plan Element in a Master Plan is not mandatory, it is an important component of a comprehensive plan.

In addition to affecting important quality of life issues, adequate Community Facilities Plans play an important role in public safety. Appropriately supplied and staffed public services such as police, public works, fire and first aid are critical to the overall public health, safety and general welfare.

INVENTORY AND ANALYSIS

The community facilities in the Borough are identified on the map entitled "Community Facilities Plan." The specific facilities are listed in Table 1.

Community Facilities Plan Master Plan Update

Borough of Chester Morris County, New Jersey

September 2002 Rev. June 2011

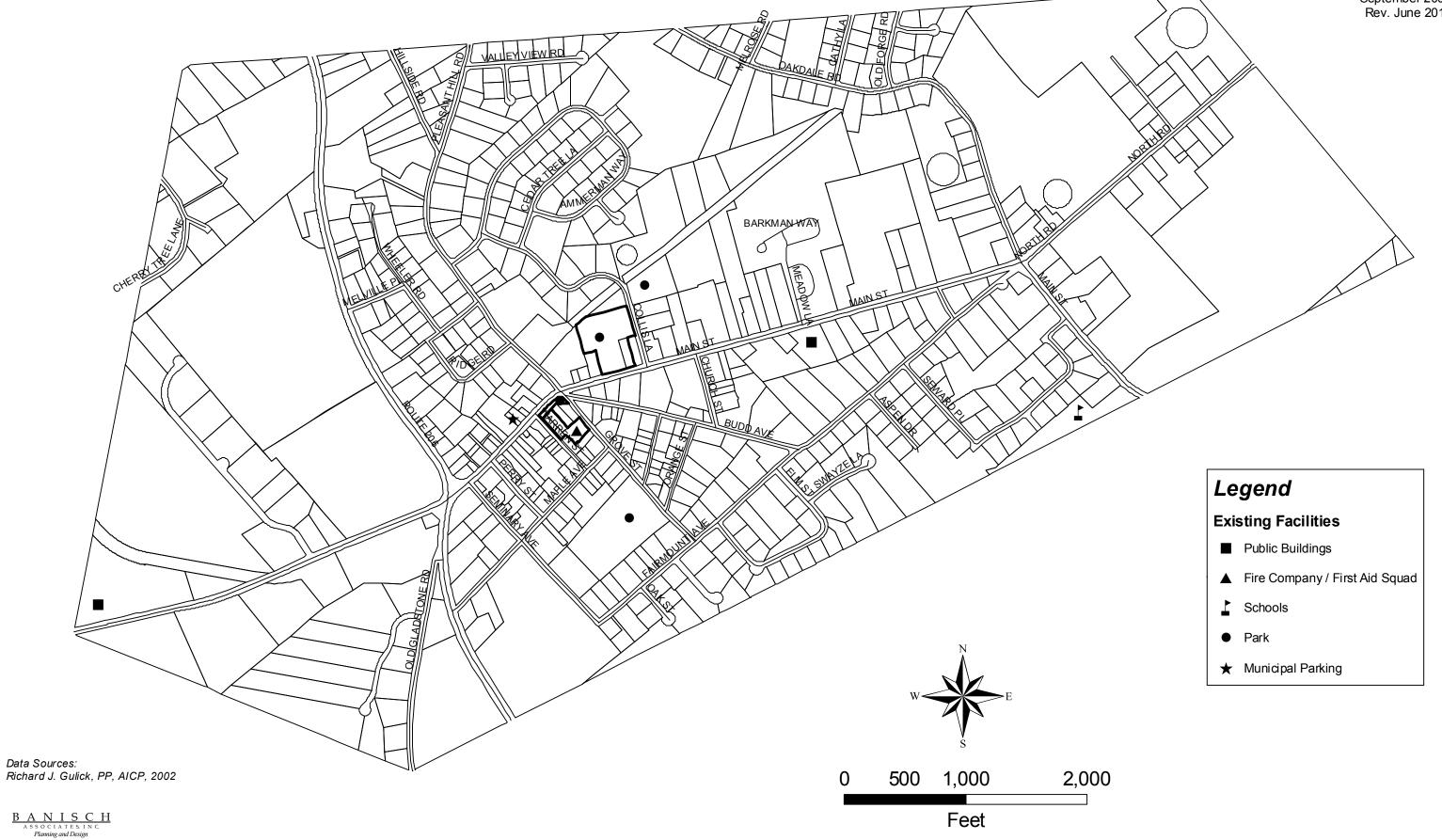


Table 1

COMMUNITY FACILITIES

List of Facilities	Block/Lot	Size (acres)
1. Library	1/15	10.7
2. Municipal Parking	20/32	.13
3. Memorial Park	14/1	.03
4. Volunteer Fire Co.	14/2,3,7	1.33
5. Grove Street Park	13/5	8.4
6. Municipal Field	4/16,17	4.12
7. Borough Park	4.01/43	2.22
8. Municipal Building	8/7	2
9. Bragg/Dickerson Schools	27/9	.51
10. Chester area pool*	located at Black Ri	ver School

^{*} Utility owned and operated by the Borough of Chester on property leased from Chester Township Board of Education.

MUNICIPAL ADMINISTRATIVE FACILITIES

The municipal administrative facilities for the Borough are located at 300 Main Street in the Municipal Building on the south side of Main Street. This facility is located on a 2 acre parcel and the following offices/facilities are located at this site:

Administrator/Borough Clerk	Police Department
Health Department	Public Works
Planning and Zoning Board	Recycling Facility
Municipal Court and Court Clerk	Finance Department
Building Department	

At the present time the Borough has five full—time employees performing general administrative duties. The full—time employees include the Administrator/Clerk, the Court Clerk/ Planning/Zoning Secretary, the Chief Financial Officer, the Tax Collector/ Recycling Coordinator/ Utility

Billing person, and the Control Person for the Building Department. All these personnel are located in offices at the municipal building.

In addition to the full-time personnel, there are six part-time employees. These include the Zoning Enforcement Officer, the Assessor, the Building Official, the Fire Official, the Plumbing Official, the Construction Official, and the Health! Deputy Clerk. The Borough also hires seasonal workers during the summer to operate the swimming pool.

POLICE DEPARTMENT

The Police Department is also located in the municipal building. There are a total of nine members of the department including the Chief, two sergeants, a detective, four patrolmen, and a police matron! secretary. The dispatching function is currently handled by Washington Township. It should be noted that there is a systematic vehicle replacement program which is currently in effect.

PUBLIC WORKS

The Public Works Department consists of five full—time personnel who perform all required functions to maintain the Borough's physical condition. The Borough's three—bay garage is located at the site of the municipal building along with a small salt shed and an area for recycling.

The municipal building is generally recognized to be inadequate to meet the needs of the community. Additional space is required for the offices, and meeting and conference rooms should be provided. Expanded Police facilities are also critically needed. The Public Works function is inadequate and should be expanded for more efficient operation. A committee has been formed to explore alternative sites. Ideally, a centralized, consolidated site would be preferable where all municipal functions were located. A site of S to 10 acres would be ideal for this purpose.

LIBRARY

The joint municipal library serving the Borough and the Township is officially known as "The Joint Free Public Library of Chester Borough and Chester Township." Currently the facility consists of 7,500 square feet of floor area. An expansion to 15,000 square feet has been authorized which will serve the needs of the communities through the 20 year planning period. The expansion will entail a doubling of off—street parking, a new meeting room, a young adult room, a Chester history room, expanded shelving and expanded administrative work area.

The existing 43,000 book collection will be expanded to 60,000, and there will be appropriate space for audio-visual materials. Currently, there is one full time librarian and thirteen part-time workers which equates to approximately six full-time persons. The facility is open 64 hours per

week. Once the expansion takes place additional hours may be provided. It should be noted that the Library is intended to function as a community center once the expansion occurs.

CHESTER VOLUNTEER FIRE COMPANY NO. 1

The volunteer fire company is located on the south side of Main Street between Warren Street and Grove Street. The facility provides coverage to both the Borough and the Township and is supported by revenues from each community based on the percentage of equalized valuation promulgated by the State of New Jersey on October of each year.

There are a total of approximately forty-five members who participate in the fire fighting function. All apparatus is housed at the fire house on Main Street. The apparatus consists of the following:

- 1. 1996 GMC Suburban Command Vehicle
- 2. 1994 Pierce Lance 1500 gmp 500 gal water on board
- 3. 1971 Mack/Pierce 1250 gmp 1000 gal water on board
- 4. 1997 E-One 1250 gmp Class A Foam 1000 gal water on board
- 5. 1990 Pierce Dash Rescue truck with cascade system
- 6. 1999 Western Star/Pierce Tanker 500 gpm 4500 gal water
- 7. 1959 Dodge Power Wagon Brush truck 250 gal water
- 8. 1997 Ford F-350 4x4 Brush/Utility 400 gpm 250 gal water/foam

The Company has identified two vehicles which are needed as follows:

- A new 1250 gpm pumper
- An aerial ladder truck

CHESTER VOLUNTEER FIRST AID SQUAD

The first aid squad leases space from the fire company and is located on Main Street. It is funded in the same fashion as the fire and library operations.

The squad has three ambulances as follows:

- 1. A 1994 Ford
- 2. A 1996 Ford
- 3. A 1998 Ford

A vehicle replacement program has been established over the years and revenues are regularly set aside for replacement vehicles.

The existing location consists of a double bay and one single bay which accommodates three vehicles. However, overhead clearance is insufficient and the garage is not properly sized for the vehicles. In addition, there

is limited storage and office space, lack of training areas and working space. An alternative location for the squad is being pursued.

SCHOOLS

Chester Borough has a joint elementary school district combined with the Township of Chester. There are three schools which serve the Borough and Township. These schools are identified in Table 2 along with current capacities of the schools.

Table 2
Chester Elementary Schools

School	Grade Levels	Capacity (pupils) *
Dickerson	K-2	360
Bragg	3-5	335
Black River Middle	6-8	475

*Based on Report entitled, "A study of the Feasibility of Reorganizing the West Morris Regional High School District," prepared by Dr. Donald Beineman and James Kirtland, dated 12/6/01.

In early December of 2001 a draft report was released which studied the feasibility of reorganizing the West Morris Regional High School District. This report provides important data relating to school facilities and projected needs. School student enrollments and student projections were incorporated into the report and were used as a basis for facility needs.

The Appendix to this element contains information extracted from the report which is useful in examining the grade school enrollment trends and future projections for the Chester School District. It should be noted that the report used five—year enrollment projections from two different sources, Sara Weissman and Averbach Associates. In addition one projection included a ten year forecast. Both projections used the cohort survival method to project the future school age population.

An analysis of the existing facilities and the projected enrollment data has been provided in the report which states: "Chester will need approximately 300 additional student spaces within the next five years Capacities will vary depending upon use to which classrooms are put and the number of pupils scheduled into each classroom."

The ten-year projection of Averbach & Assoc. suggests an increase from the period 05-06 to 10-11 to be only a total of twenty-six pupils. This represents a significant reduction in the enrollment trend compared with the previous five-year period.

High school students in the Borough attend the West Morris Mendham High School along with students from Chester Township and the Mendhams. This school is one of two high schools in the West Morris Regional High School District. The other school is the West Morris Central High School which serves Washington Township.

It should be noted that the elementary enrollment trends in the five communities sending high school students to the two high schools will create pressure on the ability of the high schools to handle the increase in enrollment.

The high schools and their capacities are identified in Table 3 below.

Table 3
West Morris Regional High School District Schools

School	Capacity	5 yr. projection*	10 yr. projection+
W. Morris Mendham	1020	1300	1584
W. Morris Central	1350	1338	1452

^{*} Weissman, 11/01

The report concludes that an addition would be needed to house the projected enrollments associated with the Mendham school. Also, an addition may be required at the Central school. The report indicates that there are reported problems at both the Mendham and Central sites in terms of being able to accommodate additions to the existing schools. It states, "It is also reported that a third high school could be located in Chester Township and, therefore, draw on the surplus enrollment from any or all of the constituent districts. The decision of where, and how large, a school should be is a discussion and decision beyond this report."

The report should be consulted for detailed discussions of the feasibility of modifying the West Morris Regional High School District. The basic conclusion of the report is that there does not appear to be sufficient impetus at this time to cause a reorganization of the district. Financially, there is no significant incentive to reorganize for all the communities. This may be a major stumbling block that would prevent any attempt to reorganize.

Multi-use of school facilities for after school programs is an increasingly important consideration. Because of the high ratio of dual family wage earners, many school—age children leave school and are unsupervised until parents return home from work. Having children and

⁺ Averbach & Assoc., 12/00

adolescents actively involved is important not only for their proper development but is also an important community responsibility.

RECOMMENDATIONS

- 1. Consideration should be given to the acquisition of available property which is adjacent to existing municipal property.
- 2. Consider the formation of a joint Borough/Township group to formulate after school programs for the benefit of youth.
- 3. A Senior Community center should be considered for development at the end of the planning period as the current population ages.
- 4. An adequate municipal complex should be provided as soon as possible to relieve current conditions.

APPENDIX

- A. Table 1 5 Year Enrollment History, Chester
- B. Table 2 10 Year Enrollment Projection, Chester
- C. Table 2a 5 Year Enrollment Projection, Chester School District
- D. Table 9 5 Year Enrollment History, West Morris Regional School District & Table 10 10 Year Enrollment Projection, West Morris Regional School District
- E. Table 11-10 Year Enrollment Projection, West Morris Central H.S. & Table 11a 5 Year Enrollment Projection, West Morris Central High School
- F. Table 12-10 Year Enrollment Projection, West Morris Mendham H.S. & Table 12a 5 Year Enrollment Projection, West Morris Mendham H.S.

RECREATION AND OPEN SPACE ELEMENT

INTRODUCTION

The quality of life of a community is in part determined by the recreational and leisure time facilities available to residents and visitors. Today more than ever the provision of a variety of recreation and open space opportunities is important to offset the stress of daily living.

The MLUL indicates that a Master Plan must consider the physical, economic and social development of the municipality. In this regard, the Recreation and Open Space Element of the Plan should be viewed broadly in the context of fostering the social and cultural development of the community. The availability of a variety of facilities contributes to a positive, healthy lifestyle for residents and visitors. Because of the Borough's unique relationship and dependence on tourism, it is important to integrate programs and facility development so that both residents and visitors can benefit from a creative approach to recreation and open space development.

INVENTORY

The existing facilities in the Borough form the backbone of the recreation and open space system. Table 1 identifies both public and private recreation and open space in the Borough. Each facility is identified by an identification number (ID No.) which is keyed to the map entitled, "Recreation / Open Space Plan." Public parkland in the municipality comprises a total of 57.54 acres, while public open space consists of 29.63 acres. Private recreation and open space areas consist of 55.89 acres. The total combined public and private acreage devoted to recreation and open space consists of 143.06 acres or 15.4% of the Borough's land mass.

An important factor in assessing recreational facilities in the Borough is the actual inventory of facilities located at various sites used by residents. Table 2 identifies those public facilities by type, location and condition. In addition the facilities were ranked with input received by the Recreation Commission on a scale of 1 through 5. A score of 1 was the best score representing that the facility is thought to be in excellent condition.

Table 1
BOROUGH RECREATION / OPEN SPACE FACILITIES

Facility	Block/Lot	Acreage	ID No.
Bragg/Dickerson Schools*	27/9	.51	11
Blackriver Playhs.+	13/1	.37	3
Chubb Park*	1/13,15,16	42.26	1
Fox Chase Tennis Club. +	6/4	2.1	10
Municipal Field	4/16,17	4.12	5
Grove St. Park	13/5	8.4	4
Borough Park	4.01/43	2.22	6
Memorial Park	14/1	.03	2
Open Space	4.01/12,20,21.01,23	26.21	8
Open Space(Disposal Fids)	4.01/1,5	3.42	7
Open Space (Loewensteiner) +	5/2,10.02	53.42	9
Borough Pool	Located in Chester Twsp Black River Sch.		

^{*}Facilities partially located in Township of Chester.

Table 2
PUBLIC RECREATION FACILITY INVENTORY

Name	Facility	Upgrade Required	Yes	No
Black River School	Soccer Flds.	1		Χ
	Basketball	1		Χ
	Rest Rooms	1		Χ
Bragg/Dickerson School	Play apparat. (2)	1		Х
	Baseball Fld.	4	X	
Chubb Park	Lighted pond	1		Х

⁺Facilities are privately held.

Recreation / Open Space Plan Master Plan Update

Borough of Chester Morris County, New Jersey

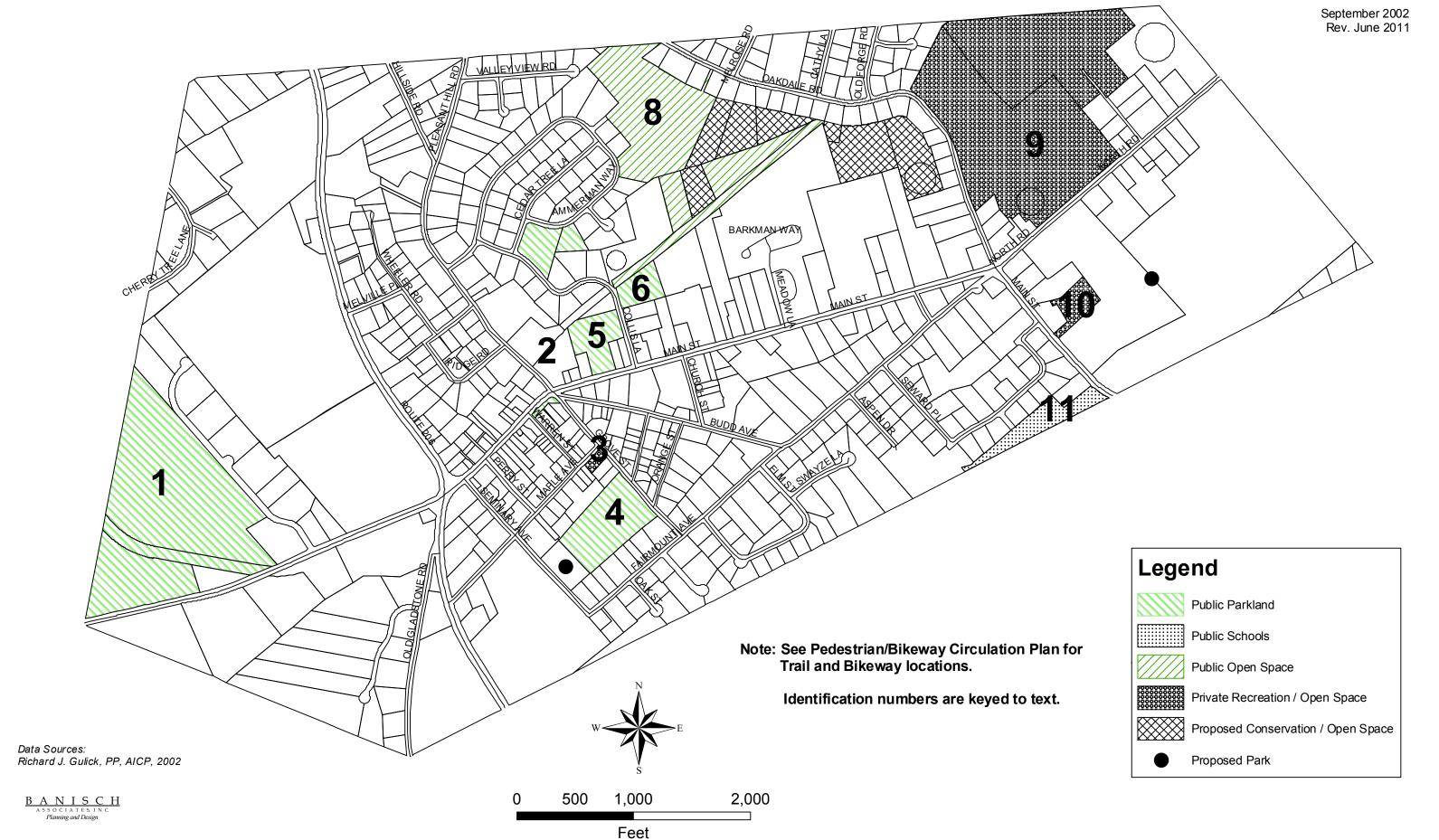


Table 2 (Cont' d)

PUBLIC RECREATION FACILITY INVENTORY

Name	Facility	Condition	Upgrade Required	l
			Yes	No
Chubb Park	b Park Baseball Flds. (5)			X
	Tennis Cts. (2)	3		X
	TotLot	2		X
	Soccer Flds. (4)	2		X
	Lighted fenced arena	2		X
	Patriot's Path	2		X
Collis Lane Baseball Flds. (2)		1		х
	Rest Rooms	2		X
Grove Street Park	reet Tot Lot Play area		X	
	Basketball Cts. (2)	1		X
	Tennis Courts (2)	1		X
	Volleyball	2		X
	Passive seating	1		X

It should be noted that the Black River Middle School and the active play area of Chubb Park are physically located in the Township. Because of their close proximity to the Borough, the sites were included as facilities, which should logically be included as an important component of the Borough's recreation facility inventory.

In addition to the facilities listed above, special mention should be made of the streetscape area within the core area of the historic downtown area. This commercial area provides an opportunity for leisure time activity for neighbors to socialize and meet. The Borough is truly fortunate to have such a distinctive area which provides an important social gathering location for residents and visitors to the Borough.

RECREATION ISSUES

Those facilities identified in Table 2 as being in need of upgrading should be prioritized from a timing perspective and should be considered as capital improvements to be programed for implementation in the next five-year period. In terms of new facilities, the Recreation Commission should consider holding an annual meeting to receive public input on what new facilities or programs are desired by members of the community. Once this is obtained, the input should be evaluated to determine if the suggestions can be realistically accommodated given operational, financial and other constraints. These programs and facilities can then be programmed into the general budget or the capital budget as appropriate. It should be noted that the Recreation Commission is responsible for all parks in the Borough as stipulated by the Code of the Borough. Therefore, the Commission is free to develop maintenance and development programs which are in the best interest of the Borough.

In terms of facility development, there are no universally recommended standards to determine the specific recreational needs for the community. Generally, demand can be gauged by obtaining input from the public. If there is strong support for certain programs or facilities, then it should be recognized that there is a need to evaluate whether the program or facility should be provided. Citizen focus groups and questionnaires can be useful in determining level of demand. The Recreation Commission will generally have a good feel for community needs in relation to what new facilities and programs are needed.

The Recreation and Open Space Plan identifies two proposed public park areas. The first area is located west of Grove Street Park on Block 13, Lot 15, consisting of 2.1 acres. The second proposed park is located in Block 6 on Lot 5.01 or Lot 5. Both park areas are positioned to serve existing or future residential areas.

It is important to stress the need to address the requirements of special needs groups, such as the elderly, the disabled or young adolescents who may have specific needs, which in some cases may be inadvertently unrecognized. Often a concerted effort is necessary to identify and draw out these groups in the community because of their reluctance to come forward. While the Borough is small in size, the possibility exists that some of these groups could be bypassed, to the detriment of the community. Programs should be fashioned to be inclusive, broad based and meaningful to all segments of the community. In this way the social development of the community can be addressed in a positive, proactive manner.

OPEN SPACE ISSUES

The Recreation and Open Space Plan identifies several areas of both existing public and private open space. In addition there are three major areas of proposed conservation/open space identified on the plan. These areas are identified either because of environmental constraints or because of their relationship to lands owned by the Borough. In the event of a land development application, which includes these properties, it is recommended that a conservation easement or fee dedication of the land be considered as part of the approval. The properties considered are relatively large and provide a reasonably large land mass. The preservation and conservation of open space is beneficial from an environmental standpoint to offset the largely developed nature of the Borough.

The Borough should consider submitting an open space application to the County of Morris to acquire selected properties. In addition, the Mayor and Council should consider the possibility of adopting an ordinance to provide for an open space tax for open space property acquisition.

RECOMMENDATIONS

The following recommendations are offered in connection with recreation and open space issues for the Borough:

- 1. Additional parkland and open space acquisition should be considered by submitting grant applications to the County of Morris.
- 2. The Recreation Commission should continue to evaluate existing programs to obtain maximum benefit for the community and should also consider new programs for implementation.
- 3. New development projects should be required to provide appropriate recreation facilities commensurate with the size of the project.
- 4. Special needs groups in the community should be included in the development of recreation programs.
- 5. After school programs are especially critical with many families having dual incomes, several kids (DISK) . This population requires supervision and involvement.
- 6. The Borough should consider an open space tax for open space conservation easement acquisition or outright purchase.

CONSERVATION PLAN ELEMENT

INTRODUCTION

The Conservation Plan for the Borough provides information about the natural resources which make up the physical profile of the community. John Muir, the famous conservationist, once said:

"When you try to pick out anything by itself, you find it attached to everything in the universe."

This largely holds true for the items discussed in this element. In one way or another, they are all related to each other. Ultimately, they are connected directly to the Borough and the health of its residents. This information forms the underpinning and rationale for many decisions about the development of this Master Plan and future land use and development strategies for the community. Basic natural resource information is useful in formulating appropriate public policy and decisions relating to land development, land use and other subjects relating to the future of the Borough. The ability of land to accommodate development depends on a number of factors related to the character of the property in question. Having natural resource information available enables decision makers to make more informed decisions, which ultimately will have a positive effect on the Borough in many ways.

The data assembled for this element has been obtained from a variety of sources including the New Jersey Department of Environmental Protection (NJDEP), the County of Morris, the United States Geological Society (USGS), the New Jersey Geologic Society (NJGS) and the Morris County Soil Conservation District. This information is useful to provide for the protection, preservation, conservation and utilization of the resources. The proper use and conservation of resources contributes to the quality of life in the Borough by promoting the health, safety, and public welfare of the Borough.

As previously described in the Utility Element, the Borough is unusual in the respect that there is no centralized, conventional sewage treatment facility. This is a major

limiting feature, which has implications for increased density of development. Striking an appropriate balance between development and the natural resources' ability to accommodate the impacts of development represents one of the most serious challenges to the community in the long run.

EXISTING CONDITIONS

The existing physical conditions of the Borough form the structure of the natural resource base of the community. When identifying and describing the details and character of the resources, it is important to place the Borough in proper context.

TOPOGRAPHY

Morris County is located in one of four major physiographic provinces, the New Jersey Highlands, which are part of the Appalachian Mountains. This province is an erosional remnant of the Appalachian Mountains, characterized by a series of alternating flat—topped ridges and deep valleys. The Highlands has been recognized by the recently adopted State Plan of Development and Redevelopment as a "Special resource area" because of its critical importance to the State of New Jersey.

The topography of the Borough ranges from a high point associated with Seward Hill of 940 feet to a low point of 760 feet in the northern most point of the Borough where Route. 206 intersects with the Chester Borough/Township boundary line.

The overall character of the Borough's topography can be characterized as being relatively moderate. Slopes exceeding 15% are generally considered to be severe, and there are only a few isolated areas where these conditions exist. Generally, severe slopes are confined to small geographic pockets; however, the exception is in the area of Seward Hill where severe slopes occupy an area of approximately acre.

A map showing the topography from the USGS Chester Quadrangle is entitled "Topographic Map, Chester Township." This shows the topography of the Borough at a contour interval of 20 feet. This map indicates the elevation information for the municipality, and how it relates to adjacent land forms surrounding the Borough. Also shown, as dashed lines, are the sub-watershed boundaries, which will be discussed in more detail under the Water Resources section of this element.

SOILS

Soils information has been obtained from the Morris County Soil Conservation Service, which has conducted a detailed mapping of soils for the County. Each soil is rated according to certain factors, which are useful in determining suitability for development. In addition the soil characteristics are described in sufficient detail to provide a basis for determining how a site should be considered from a stormwater management standpoint. Permeability should be a consideration in selecting the appropriate type of BMP's to be used in site development. All too often, however, sites are designed without consideration for the natural capabilities associated with the soil properties.

The Borough is classified as being within the Edneyville—Parker—Califon soil association. According to the Soil Survey, "A soil association is a landscape that has a distinctive proportional pattern of soils. It normally consists of one or more major soils and at least one minor soil, and is named for the major soils. The soils in one association may occur in another, but in a different pattern." A detailed description of this association is found in Appendix A of this element. The soil survey summarizes the characteristics of the association as follows: "Deep, well drained and moderately well drained, strongly sloping to very steep very stony and extremely stony sandy loams that overlie granitic gneiss, and strongly sloping to very steep rock outcrops; on uplands."

Soil characteristics play an important part in determining the development suitability of the Borough of Chester's remaining vacant land, especially in those areas where public water and sewer is unavailable. Major constraints to development include soils with shallow depth to water table (Hydric soils), soils severely restricted for septic use and soils associated with steep slope conditions.

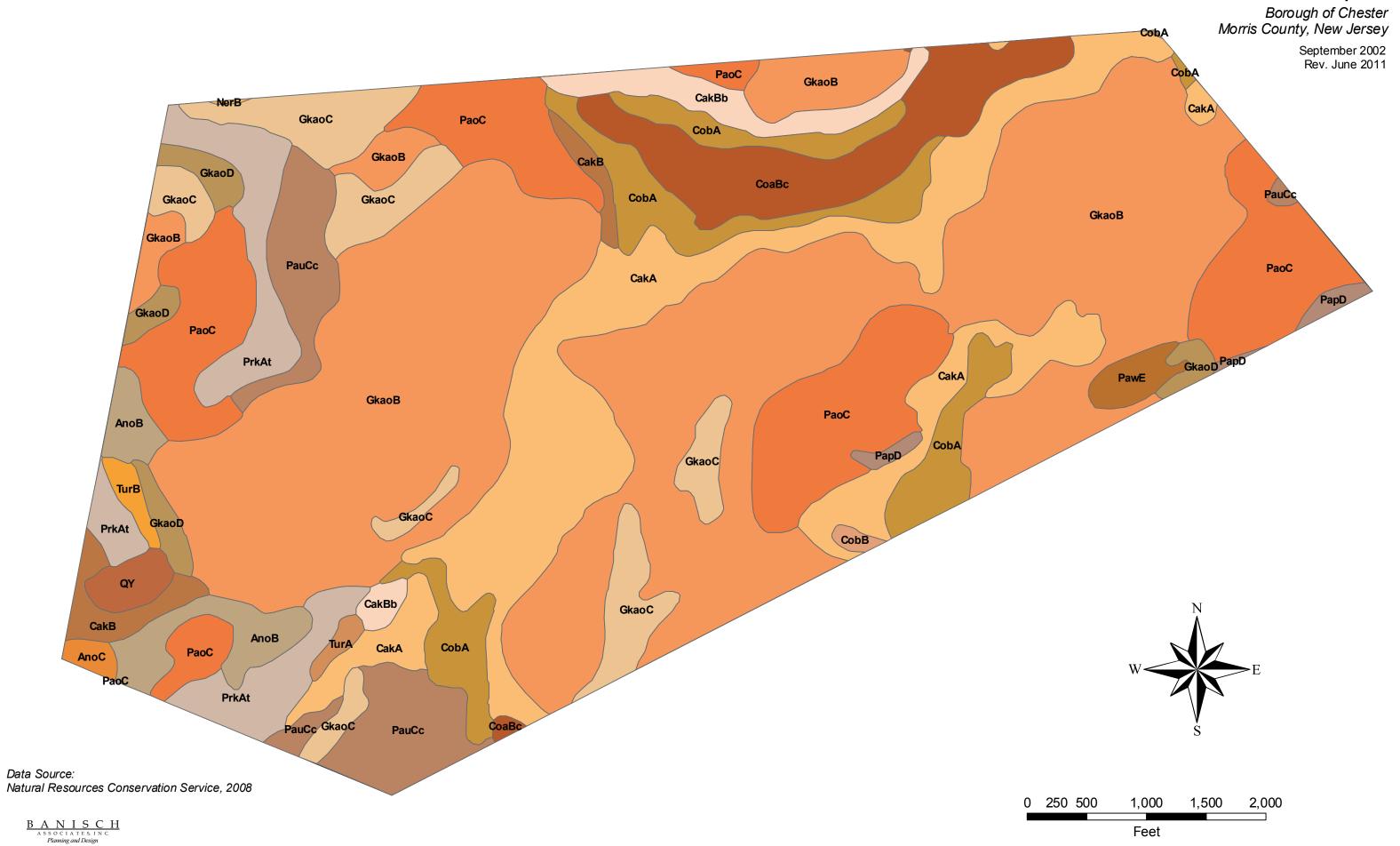
There are sixteen different soils within the municipality. These soils are shown on the Map entitled, "Borough of Chester, Soils Map." The soils are listed with some of their important characteristics in Table 1.

In addition to this information, there is another factor which should be considered particularly in selecting appropriate methods to manage stormwater. Each soil type is classified according to different hydrologic soil groups. Appendix B provides a detailed description of each soil group. Those soils which have good infiltration rates should be used to recharge the groundwater where feasible. Conversion of land to

Table I SOIL SURVEY OF CHESTER BOROUGH

Map Symbol & Soil Series	Founda tion w/ Baseme nt	Founda tion w/o Baseme nt	Septic Tank Absorp tion Fields	Depth to Seasona l High Water (ft.)	Local Roads Stree ts, and Parki	Athle tic Field s	Picni C and Play Areas	Lawn, Landscap ing, Golf Fairways
AnB Annanda le	Slight	Slight	Modera te	> 10	Moder ate	Sever e	Sligh t	Slight
CaA Califon	Severe	Modera te	Severe	.5 to 4	Sever e	Sever e	Sligh t	Moderate
СаВ	Severe	Modera te	Severe	.5 to 4	Sever e	Sever e	Sligh t	Moderate
СоВ	Modera te	Modera te	Severe	.5 to 4	Sever e	Sever e	Moder ate	Severe
CoA Cokesbu ry	Severe	Severe	Severe	0 to 1	Sever	Sever	Sever	Severe
СоВ	Severe	Severe	Severe	0 to 1	Sever e	Sever e	Sever e	Severe
CsB	Severe	Severe	Severe	0 to 1	Sever e	Sever e	Sever e	Severe
EdB Edneyvi lle	Slight	Slight	Slight	> 10	Moder ate	Sever e	Sligh t	Moderate
EdC	Modera te	Modera te	Modera te	> 10	Moder ate	Sever e	Moder ate	Moderate
EdO	Severe	Severe	Severe	> 10	Sever e	Sever e	Sever e	Severe
NtB Netcong	Slight	Slight	Slight	Haz. of groundw ater polluti on.	Sligh t	Sever e	Moder ate	Moderate
PaC Parker	Modera te	Modera te	Modera te	Haz. of groundw ater polluti on.	Moder ate	Sever e	Moder ate	Moderate
PeC	Modera te	Modera te	Modera te	> 10	Moder ate	Sever e	Moder ate	Severe
PfE	Severe	Severe	Severe	> 10	Sever e	Sever e	Sever e	Severe
PvA Preakne ss	Severe	Severe	Severe	0 to 1	Sever e	Sever e	Sever e	Severe
TuB Turbotv ille	Severe	Severe I	Modera te	.5 to 1.5	Sever e	Sever e	Moder ate	Moderate

Soils Map Master Plan Update



coverage. This condition can prevent recharge of groundwater. Using the natural characteristics of the soils to filter stormwater and recharge groundwater is beneficial for a variety of reasons such as maintaining stream flow during dry periods, replenishing groundwater used for potable water supplies and maintaining the general integrity of water resource systems. The maintenance of water resource quality is a critical concern because of its relationship to the public health, safety and welfare of the community and region.

Table 2 provides permeability rate information for each soil type based on the ratings of high, moderate, slow and very slow. In addition, percent of slope is also shown. Typically, slopes in excess of 15% are considered steep slopes and require special consideration from a development perspective.

Table 2
SOIL TYPE PERMEABILITY / PERCENT SLOPE

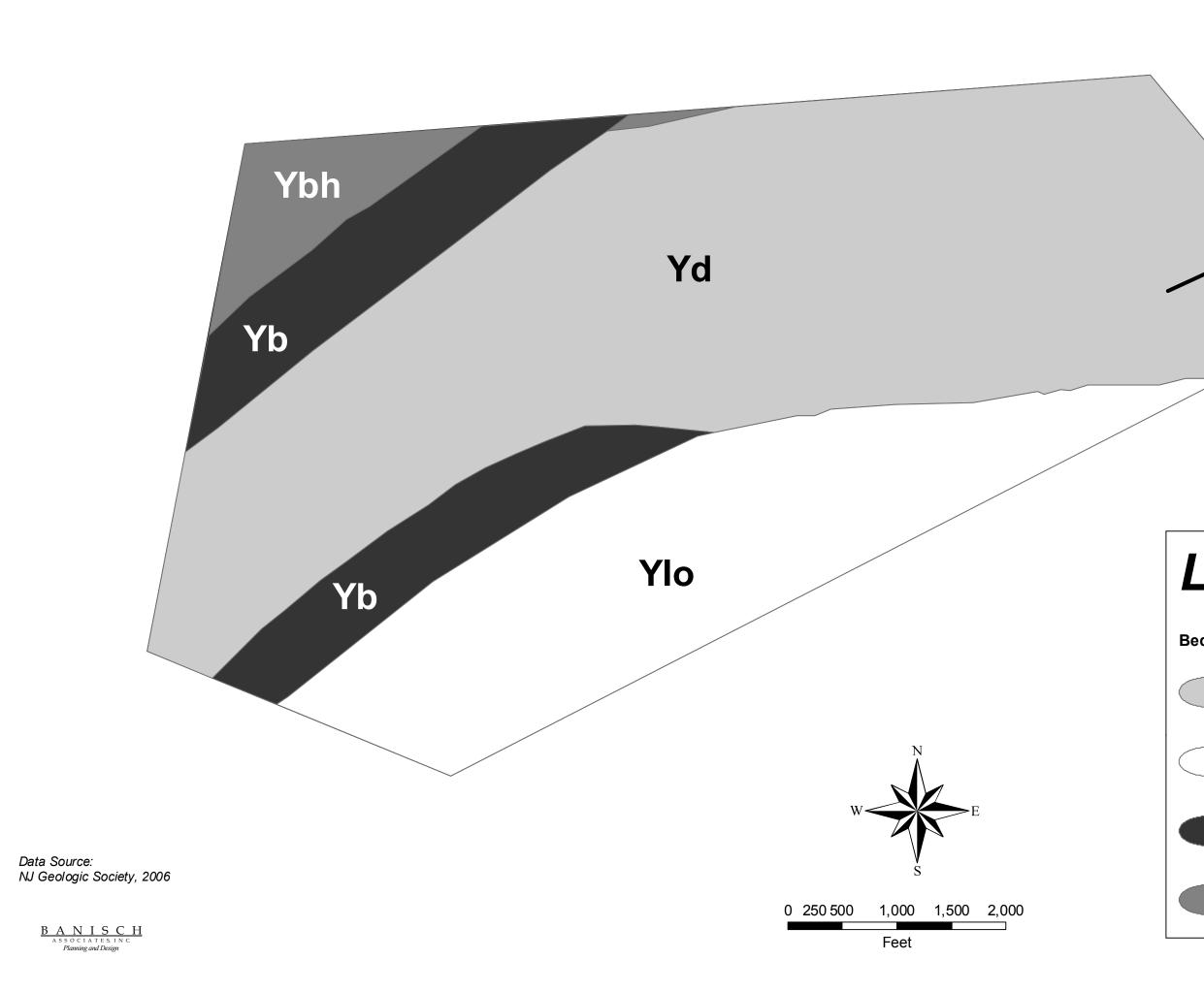
SOID TIPE PERMEADIBITY / PERCENT SHOPE					
Soil Symbol	Permeability Rates				% Slope
_	<u>A</u>	<u>B</u>	<u>C</u>	D Very	_
AnB	High	Moderate	Slow	Slow	3-8
CaA			X		0-3
CaB			X		3-8
СсВ			X		2-8
			X		
CoA				Х	0-3
СоВ				X	3-8
CsB				X	0-8
EdB		X			3-8
EdC		Х			8-15
EdD		X			15-25
NtB		X			3-8
PaC		X			3-15
PeC		Х			3-15
PfE		X			20-25
PvA				X	0-4
TuB			X		3-8

Information related to water table conditions and hazards of groundwater pollution have been identified on the map entitled "Depth to Seasonal High Water/Hazard of Groundwater Contamination." This information relates to the soil characteristics of the Borough's land and is useful in determining appropriate land use.

GEOLOGY

Surface geology deals with the earth's surface conditions, whereas VII - 7

Bedrock Geology Master Plan Update Borough of Chester Morris County, New Jersey September 2002 Rev. June 2011 Fold Legend Bedrock Type Yd Diorite Ylo Quartz-Oligoclase Gneiss Biotite-Quartz-Feldspar Gneiss Ybh Hornblende Granite



sub-surface geology deals with conditions below the surface. The previous sections in this element have largely dealt with surface conditions.

Sub—surface conditions have a strong influence on decisions related to community development, land use and public policies related to how the community should develop. Previous work undertaken in the Borough has dealt with geologic formations and their relationship to the land's carrying capacity (1) (2). Information in these reports provides a good basis for understanding the geology of the Borough, which has been taken into account in formulating the future land use plan.

The underlying formation in the Borough is a Precambrian crystalline rock, which includes large amounts of granitoid gneisses and pegmatites and smaller amounts of amphibolite, diorite, and magnetite according to the 1981 Geraghty and Miller Report.

Updated information was obtained from the County of Morris Natural Resource Management Guide, dated 2000. The Bedrock formations for the entire County were mapped by the New Jersey Geologic Society (NJGS) in 1992. The map entitled "Chester Borough, Bedrock Geology" illustrates the various categories of formations within the Borough. All the bedrock geology was formed during the Precambrian Period, which extended from the beginning of earth, more than four billion years ago, to the beginning of the Paleozoic Era, 570 million years ago.

The majority of the Borough is underlain by Diorite formations shown as the "Yd" symbol. These are rocks of uncertain or mixed origin and resulted in a very rich complex of mineral deposits. Mineral prospecting and mining, particularly of magnetite iron ore, were basic economic activities in the early history of the Borough. This formation has an east—west orientation running through the central part of the Borough.

The second largest formation was also formed during the Precambrian Period and is known as the Quartz-Oligoclase Gneiss. This map symbol is "Yb." It is defined as a coarsegrained, metamorphic rock commonly composed of bands of

⁽¹⁾ Application of A Nutrient Dilution Model to the Hills of Chester Development in Chester Borough, New Jersey, Robert N. Horton, August 5, 1980.

⁽²⁾ Hydrogeologic Assessment, Chester Borough, New Jersey, Geraghty &

mineral components, which may include quartz, feldspar, mica and hornblende. This is a dominant rock type of the Highlands area and is classified as Losee Metamorphic Suite.

The third formation is the "Yb" or the Biotite-Quartz-Feldspar Gneiss, which is a Metasedimentary Rock. The last category is the "Ybh" or Hornblende Granite, which is classified as Byram Intrusive Suite.

In the eastern section of the Borough the Bedrock Geology Map identifies a Synform fold, which relates to the geologic plates. In this case the fold shows a troughline and direction of plunge according to the NJGS.

Lastly, the NJGS has reported two earthquake occurrences in the western portion of the Borough. The general location is west of Route. 206 and north of West Main Street. Both incidents were recorded in 1979 and did not exceed an intensity of 1.9. This level of intensity is usually imperceptible.

WATER RESOURCES

Water resources can be equated to the blood in the human body in terms of importance to the community's natural resources. Similar to the geologic profile of a municipality, water resources are related to surface conditions and also to subsurface factors. Each is dependent on the other, and this relationship is often overlooked by developers when projects are proposed.

Concerns related to this resource have been underscored this year because of the serious drought conditions, which began in 1998. The last three months of the winter of 2002 have been the driest of any corresponding period in the last 107 years of recorded weather conditions. At this writing a drought emergency has been declared in the state. As consumers we need to rethink how we use this resource. Conservation must become a cornerstone of our approach, and we should encourage gray water reuse as part of major project development.

As a critical resource for the community, it is important to protect the resource from degradation. The surface water

condition is easier to evaluate by the casual observer. Litter, debris, oil slicks and the like are obvious

indications of pollutants which can foul our waterways. These items are considered non-point source pollutants, which will be discussed in more detail later in this section.

Several detailed studies have been conducted for the Borough as were mentioned earlier in this element. This information provides details about the geologic conditions which affect the subsurface water resources. The Geraghty & Miller report indicated that the average rate of groundwater recharge underlying rock formation in the Borough varies between 100,000 gpd/sq. mi. (gallons per day per square mile) and 150,000 gpd/sq. mi. Included in this estimate is the recharge associated with the use of septic systems. Further it was reported that the recharge rate could be as high as 300,000 gpd/sq. mi. due to the highly fractured nature of Precambrian rock.

Groundwater use can also be a source of heating and cooling structures. This is not used regularly as a source of energy in project design at this time. In the future, however, as non-renewable energy sources become scarce, these concepts may gain more acceptance and should be encouraged.

A great deal of emphasis has been placed on the importance of maintaining and improving the water resources throughout the State of New Jersey. Efforts to accomplish this stem from the Federal Clean Water Act, which establishes guidelines and regulations that must be followed by states. The state has established a major program of watershed planning. Chester is located in the North and South Branch of the Raritan Watershed Management Area 48. This area consists of a total of 468 square miles and is a part of the larger Raritan River Basin. A basin management plan is currently being prepared by a number of collaborating agencies, which is expected to be adopted in 2003/2004.

Watershed Protection

The NJDEP has recognized that watershed pollutant loads, water withdrawals and land uses were creating new management issues that could not be addressed by regulatory programs alone. NJDEP created a watershed management process to address these issues modeled on programs elsewhere in the nation. NJDEP and the New Jersey Water Supply Authority developed a partnership to implement this

process in the Raritan River Basin. Additional information concerning the details of the program can be obtained on the web at: www.raritanbasin.org.

The Topographic Map located in the beginning of this element indicates the sub-watersheds within the Borough. Each is numbered and ultimately drains into the North Branch of the Raritan River. The sub-watersheds are shown in Table 3 as follows:

Table 3
SUB-WATERSHED DESIGNATIONS

Map #	Name / Description
1	Lamington River (Furnace Road to Hillside Road)
2	Burnett Brook (above old Mill Road)
3	Peapack Brook (above/including Gladstone Brook)
4	Lamington River (Pottersville Gaging Station-Furnace Rd.)

A considerable amount of research has been conducted in recent years concerning the relationship of development to the health of watershed systems. A direct correlation between the health of a watershed and the percentage of impervious surface within the watershed has been established. Generally, when impervious surface coverage exceeds 10 percent, the watershed begins to degrade.

Table 4 shows how the Borough ranks among several Morris County communities. Generally, the Borough has a low percent of impervious coverage, which has been important because of the reliance of the Borough on its own undergroundwater sources. Continued emphasis to minimize coverage not only benefits groundwater conditions but also directly improves stream flow conditions and the stream ecology of the stream corridor.

Table 4
PERCENT IMPERVIOUS SURFACE COVERAGE

Municipality	Percent Coverage
Chester Borough	3
Chester Township	1
Chatham Borough	31
Mendham Borough	9
Dover Town	35
Morristown Town	42

Stormwater runoff has been cited as one of the leading causes of impaired water quality in the United States, including sources of drinking water, such as streams, lakes and underground wells. One of the major contributors to impaired water quality is non-point pollution. This is defined as water pollution, which results from a variety of sources such as floating debris, fertilizers and pesticides, oil drips from automobiles, or from erosion generated from a construction site.

When stormwater runs over paved and other impervious surfaces, it picks up pollutants, such as bacteria, viruses (pathogens), toxic chemicals, and heavy metals, that have been deposited on these surfaces and carries them into waterways. Treating stormwater to remove these pollutants is important for public health and safety reasons. During the summer months, storms of short duration (first-flush storms) will superheat the water running off paved surfaces. Thermal pollution is a serious concern because of its effects on the biotic life in streams. Planting shade trees in parking lots provides shade, which in turn lowers the temperature of summer runoff from large parking lots.

The Borough's practice of recharging groundwater where possible should be continued and expanded if feasible. A good example of this is collecting clean roof runoff and discharging it into drywells to replenish groundwater. This is a positive practice. Another innovative example is to encourage small bioretention gardens to retain small storm events, which ordinarily would be directed to storm sewer systems. The use of non-structural BMP's such as grassed swales, bio-basins and depressed islands within parking lots provides alternative methods to be considered when sites are presented for development. These methods of treating stormwater have proven to be effective in capturing bacteria, heavy metals and other contaminants, which degrade water quality.

Streams

The Borough has a limited number of brooks and streams and no rivers located within its boundary. Even though there are no significant streams within the Borough, it is important to note that the headwaters of Oakdale Creek and Tiger Brook are in the Borough. Headwater areas of a watercourse are important because the character of the upstream headwater area strongly influences the condition of the watercourse. Since all waters within the Borough eventually drain into the Raritan Basin, which is an important source of potable water, efforts should be made

to maintain water quality and, if possible, improve its quality.

All waters of the State of New Jersey are classified by the NJDEP according to established criteria. The map entitled "Woodlands and Streams" identifies the two streams within the Borough and their classifications. The NJDEP controls activities related to streams and wetland systems associated with a stream corridor.

Wetlands

Wetland systems associated with water resources are important to be carefully considered in connection with community development decisions. The map entitled "Wetlands Plan" identifies the available information from the NJDEP for the Borough. Generally, the stream corridors have wetland systems associated with low—lying land, which eventually drains into one of the streams flowing from the Borough. The NJDEP has exclusive jurisdiction over the regulation of these wetland areas.

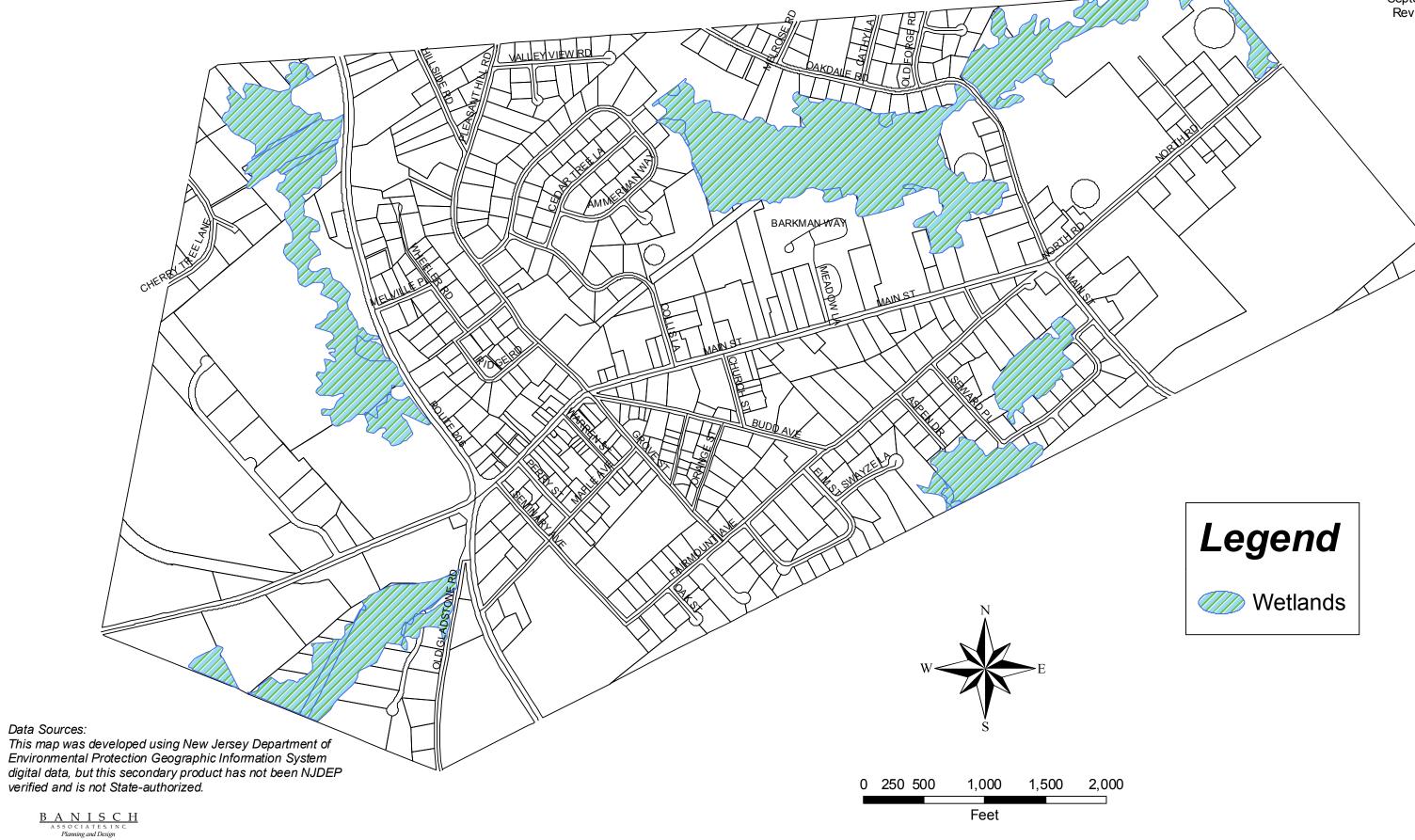
These natural areas, identified by soil type and vegetation characteristics, are critical components of the community's water resource system. The wetland areas act as natural sponges to absorb runoff from impervious surfaces and other areas within the community. As such these areas are important for moderating high runoff volumes from storms. The natural filtering qualities of wetlands are also important to maintain water quality and recharge groundwater levels.

Another feature associated with the Borough's water resources is information pertaining to seasonal high water table shown on the map entitled "Depth to Seasonal High Water." This information is useful in making land use judgments and was compiled from the Morris County Soil survey.

AIR QUALITY

Morris County, along with the entire State of New Jersey, is classified as a non-attainment area based on the standards of the Clean Air Act. An air quality monitoring station is located on the Lucent property west of the Borough, and it measures ozone, sulphur dioxide, and nitrogen oxide levels in the air. There have been incidents of high ozone levels recorded at this location, which can contribute to problems. for individuals with respiratory

Wetlands Plan Master Plan Update Borough of Chester Morris County, New Jersey September 2002 Rev. June 2011



problems. Ozone is produced as a reaction in part from auto emissions.

It should be noted that motor vehicles emit carbon dioxide, which traps heat within the earth's atmosphere. These

greenhouse gas emissions are by far the single largest source of carbon emissions to the atmosphere. According to the U.S. Department of Energy, in 1999 vehicle emissions contributed to 60 percent of the total carbon emitted by the transportation sector. It is felt that these greenhouse gases are a factor in climate change. (1)

VEGETATION

Vegetation patterns are created by the interaction of geology, topography, soil type, hydrology, light, temperature, wind, and atmosphere conditions. Variations in these factors affect plant diversity and the rate of succession, both of which contribute ultimately to the end product of land cover.

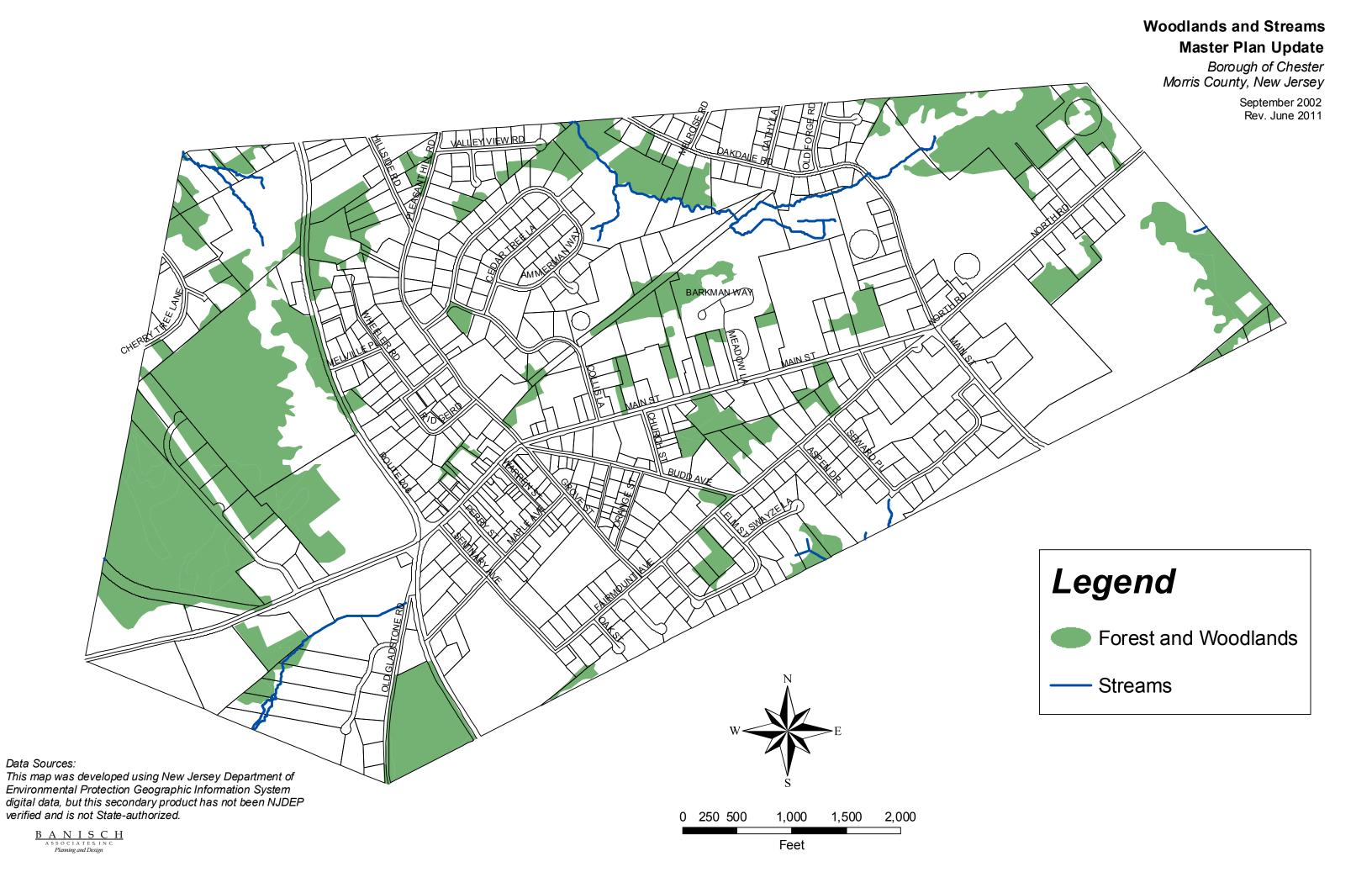
There are two broad categories of natural vegetative communities within the municipality:

Palustrine System - This includes various vegetated wetlands and associated open waters such as floodplains, marsh, swamp, bogs, pond, lakes, etc.

Terrestrial System - This corresponds to vegetation associated with drier, land—based areas such as uplands and mountains.

The wooded areas of the Borough are shown on the map entitled "Woodlands and Streams." This map depicts wooded areas that approximate an area of five acres or more. Smaller isolated areas may be of some significance; however, the larger areas generally are more important to sustain wildlife and contribute to the rural character of the community. Therefore, these areas are important to identify so that they can be considered at the time of initial land development application preparation.

One of the major benefits of having vegetative cover is that soil is stabilized by the root structures of plant life. With today's emphasis on eliminating non-point source pollution, one of the best methods to accomplish this is to limit land disturbance to small areas. While sediment and erosion control measures are standard operating procedure, erosion associated with a major storm event cannot



(1) "Federal Incentives Could Help Promote Land Use That Protects Air and Water Quality," Report to Congressional Requesters, GAO, October, 2001.

effectively be controlled with conventional measures. Partially opening a large site is an effective method to control erosion, and this should be practiced where appropriate. Using nature's built—in system provides the maximum protection for the preservation of soils and water resources.

Planting indigenous trees should be encouraged for a variety of reasons, and the benefits to the Borough in the future will be considerable. Trees offset the buildup of CO2 in the air and reduce the "greenhouse" effects that are of concern from a health standpoint.

Wildlife

Much of the habitat required to sustain wildlife is associated with forested stream corridors. Within these areas wildlife populations consisting of white tailed deer; small mammals, such as rabbits, squirrels and field mice; birds; small reptiles and amphibians are concentrated. These areas, rich in wildlife, are linked to larger areas such as the Black River Wildlife Management Area. The remaining area of the Borough, which serves to provide shelter and habitat for wildlife, is relatively small. Consideration should be given to the protection and conservation of these areas to promote biodiversity of wildlife and at the same time retention of the rural character of the community.

There are threatened and endangered species which possibly could be located within the Borough. The bog turtle, red shouldered hawk and the Hibernia bat are among some of the species that could be found in the Borough.

CLIMATE

The Borough's climatic conditions can be characterized as humid and temperate, generally having a continental climate. The average annual rainfall in the County of Morris is 52 inches, while the average annual temperature is 49.45 Fahrenheit.

The availability of the sun's solar power should be a factor in development projects. Designing structures with a

south facing orientation can reduce heating and cooling costs if the design is developed to consider this factor. Additionally, harnessing wind power should not be discounted. These factors are given further consideration in the Energy Conservation element.

RECOMMENDATIONS

- 1. Subdivision and site plan standards should be reviewed to determine if additional natural resource mapping information should be required as part of the standard submission checklist items. For example, soils data and percolation information would be useful in designing the stormwater system.
- 2. Water conservation should be strongly encouraged, and the use of gray—water recycling should be encouraged by providing incentives.
- 3. Development standards should incorporate requirements for applicants to demonstrate plans for addressing water conservation.
- 4. The development of property should be consistent with the natural capacity of the natural resource base to accommodate the development without stressing the natural system.
- 5. A tree preservation ordinance should be considered for implementation.
- 6. Solar orientation should be a consideration in project design as well as the use of thermal heating systems.
- 7. Cluster zoning should be considered in low density and rural density areas because of the beneficial effects on the natural resource system.
- 8. Development with excessive pavement should be discouraged because of the environmental impacts of impervious surface on stream and drainage systems.
- 9. An education program about the hazards of household hazardous waste disposal and the potential negative impacts on groundwater pollution should be initiated.
- 10. The reduction of automobile use should be considered as a strategy to improve air quality. The Borough may have a unique opportunity to provide mass transit service for

tourists within the downtown area, which will provide for non-auto transportation options.

APPENDIX A

Detailed Description of Edneyville-Parker-Califon Soil Association

The Borough of Chester is classified entirely within the Edneyville—Parker— Califon soil association. The soils in this association formed in granitic material weathered in place from bedrock or moved a short distance and redeposited in waterways. Bedrock is below a depth of 10 feet in most areas but crops out in a few places, particularly in steep soils.

This association consists of 50 percent Edneyville soils, 40 percent Parker soils, five percent Califon soils, and five percent minor soils. This particular association covers approximately 15 percent of Morris County.

Edneyville soils are on the tops and sides of ridges. The soils are gently sloping to steep and well drained. Parker soils are on the tops and sides of ridges. The soils are gently sloping to steep, excessively drained, and very gravelly. Califon soils are in depressions, drainage ways, and seepage areas at the base of slopes. The soils are nearly level to strongly sloping and moderately well drained to somewhat poorly drained. They have a fragipan in the lower part of the profile.

Minor soils are in the Annandale, Cokesbury, and Bartley series and the Califon series, friable subsoil variant. Annandale soils are on the ridgetops. Cokesbury soils and the Califon friable soil variant are in drainage ways and depressions and at the base of steep slopes. Bartley soils are on terraces adjacent to floodplains.

The well-drained and excessively drained soils in this association are limited for farming and community development by course fragments, steep slopes, and the hazard of erosion.

This association, particularly the gently sloping soils, is suited to farming and most community development. The strongly sloping to steep soils are not well suited to farming and intensive community development, but they are well suited to open space and wildlife habitat.

Most of this association has been cleared for farming or has been developed for urban uses. The steep and very stony to extremely stony soils are wooded. Some old fields are now in trees, either by natural seeding or by planting of pines and other conifers.

Source: Soil Survey of Morris County, New Jersey, Reissued By Morris County Soil Conservation District, United States Department of Agriculture Soil Conservation Service, In Cooperation with New Jersey Agricultural Experiment Station Cook College, Rutgers University and the New Jersey Department of Agriculture State Soil Conservation Committee, issued in 1976, reissued in 1999.

APPENDIX B Hydrologic Soil Groups¹

General

The Hydrologic Soil Group, designated A, B, C, or D, is a group of soils that, when saturated, have the same runoff potential under similar storm and cover conditions. Soil properties that influence runoff potential are those that influence the minimum rate of infiltration for a bare soil after prolonged wetting and when not frozen. These properties are depth to seasonally high water table, intake rate, permeability after prolonged wetting, and depth to a very slowly permeable layer. The influences of ground cover and slope are treated independently—not in hydrologic soil groups.

In the definitions of the classes, infiltration rate is the rate at which water enters the soil at the surface and is controlled by surface conditions. Transmission rate is the rate at which water moves in the soil and is controlled by properties of the soil layers.

Hydrologic Soil Group A

Soils having high infiltration rates even when thoroughly wetted and consisting chiefly of deep, well- drained to excessively drained sands or gravels. These soils have a high rate of water transmission (low runoff potential)

Hydrologic Soil Group B

Soils having moderate infiltration rates when thoroughly welled, consisting chiefly of moderately deep or deep, moderately well or well drained soils with moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission.

Hydrologic Soil Group C

Soils having slow infiltration rates when thoroughly wetted, consisting chiefly of (1) soils with a layer that impedes the downward movement of water, or (2) soils with moderately fine or fine textures and slow infiltration rate. These soils have a slow rate of water transmission.

Hydrologic Soil Group D

Soils having very slow infiltration rates when thoroughly wetted, consisting chiefly of (1) clayey soils with high swelling capacity or potential, (2) soils with a high permanent water table, (3) soils with a claypan or clay layer at or near the surface, and (4) shallow soils over nearly impervious materials. These soils have a very slow rate of water transmission (high runoff potential).

Please refer to the hydrologic soil groups column in the table located in Appendix A.

1st National Soil Survey Handbook"

HISTORIC PRESERVATION PLAN ELEMENT

INTRODUCTION

Historic preservation in the Borough is an extremely important planning factor related to Master Plan development. Historic preservation is important in its own right. Moreover, in Chester Borough's case it is even more critical because of the economic aspects of carefully managing historic resources and creating a climate where visitors want to spend more time in the Village. The success of the downtown shopping area is largely dependent on the image perceived by visitors to the area. Sense of place is directly related to the demand of the downtown as an important destination place. Because tourism is fundamental to the economic viability of the community, attention to visual, cultural and historic resources is a matter of special significance.

Maintaining the image of this area is key to retaining and protecting the Borough's identity. Having appropriate management tools available to control exterior changes to structures is an important consideration to be explored in this section of the plan.

PLANNING BASIS

Several of the Purposes contained in the MLUL relate indirectly and directly to this element, which are identified in N.J.S.A. 40:55D-2 entitled, "Purpose of the act." They are as follows:

- i. To promote a desirable visual environment through creative development techniques and good civic design and arrangements.
- j. To promote the conservation of historic sites and districts, open spaces, energy resources and valuable natural resources in the state and to prevent urban sprawl and degradation of the environment through improper use of land.

Guidance relating to the preparation of a historic preservation plan element is also contained in the MLUL. There are three items referenced:

- (a) Indicate the location and significance of historic sites and historic districts.
- (b) Identify the standards used to assess worthiness for historic site or district identification.
- (c) Analyze the impact of each component and element of the master plan on the preservation of historic sites and districts.

BACKGROUND

Chester Borough was first incorporated in 1930. From 1799, when it was set off from Roxbury, to 1930, Chester was made up of both the Borough and the Township. It is reported that settlers first entered the area in the 1730's. These settlers were farmers and were relocating from Long Island primarily.

The Borough was initially developed as a rural, agricultural village and was expanded as a commercial center with the development of roadway systems providing access into the area. The discovery of iron ore deposits and the development of the mining industry was a significant factor, which influenced the character of the community.

The Borough has been recognized for its historic resources for a number of years. The earliest information compiled about historic properties was The Historic American Buildings Survey, which was conducted as a WPA project in the 1930's. Since that original study was concluded, the Borough has had a number of important documents, policy statements and ordinances developed which relate to the history and preservation efforts related to the community. Appendix A provides a listing of these documents.

HISTORIC SITES AND DISTRICTS

Historic sites are dispersed throughout the Borough; however, the primary concentration is within the village downtown business area and along Main Street. The primary source of identifying important historic sites is the comprehensive work entitled "New Jersey Historic Sites Inventory, Morris County Cultural Resources Survey," prepared by Acroterion, Historic Preservation Consultants in 1986/1987. This document identifies the Borough's historic resources and recommends that a historic district be established.

The report identifies 113 properties, which are located within the historic district. There are other sites of

significance outside the district. The map entitled, "Historic Sites and District Preservation Plan" identifies the major sites in the community. It should be noted that some of the sites have been listed in several studies. The designations noted on the map for sites are listed in descending order of importance. For example, if a site is eligible for placement on the National Register of Historic Places and was also listed in the Historic Element of the Morris County Master Plan, it would be designated as being eligible for placement on the National Register. The most important classification designation is used to describe the site.

The map identifies the significant resources in the Borough, which are described in Table 1 entitled "Historic Resources." These items are keyed to the map entitled, "Historic Sites and District Preservation Plan."

MANAGEMENT OF HISTORIC RESOURCES

In 1998 a Historic Preservation and Architectural Review Ordinance was adopted to establish a historic preservation review committee. The purpose of the committee is "to safeguard the architectural design and style as well as the historic heritage of the Borough by preserving structures which reflect the elements of its cultural, social, economic, and architectural history and by ensuring that new buildings constructed within designated districts shall harmonize with and complement the architectural and historic heritage." This ordinance formally established the review of development by the Historic Preservation Committee within the designated historic zones.

The district created in 1998 was expanded by Ordinance 2001-2 to include all Office Professional zone districts.

Based on an evaluation of the districts as part of this Master Plan process, it is noted that the small isolated district on the east side of Route 206, north of Route 513, bears no relationship to the Main Street area, and there are no noteworthy historic or architectural structures located within the area. Retaining this area as a part of the historic district does not appear to be warranted based on its relationship to the Main Street orientation of the district and the fact that there are no noteworthy buildings within this portion of Block 20.

Currently, the management of historic resources is the joint responsibility of the Planning Board and the Historic

Table 1
HISTORIC RESOURCES*

Map Key#	Bk/Lot	Name	Comments
1	1/9	Isaac Corwin House	Constructed c. 1800 as Federal style home as 5-bay center-hall,"L" plan with rear kitchen wing. Gambrel roof with Victorian-era porch added and altered.
2	3/7	Ming-Morton Cottage and Studio	Possibly built as part of 18 th century farmstead; cottage once housed lace-making equipment, a cottage industry resulting from the larger lace factory,
3	2/7	Bungalow	Constructed c. 1890 as 3-bay rectangular shingle style cottage with 8/1 sash windows. Steep gable roof covers porch.
4	2/8	Bungalow	Constructed c. 1890 as 3-bay rectangular, centered entrance shingle style cottage with paired 6/1 windows. Entry façade faces north.
5	4.04/3.05	W.J. Topping House	Constructed late 18 th & early 19 th century. Vernacular style with minimal Italianate detailing.
6	4/5	Jacob Cramer House	Constructed in 1874 in vernacular Italianate style. Patterned slate gable, center chimney, bracketed and paneled cornice, gable-end returns.

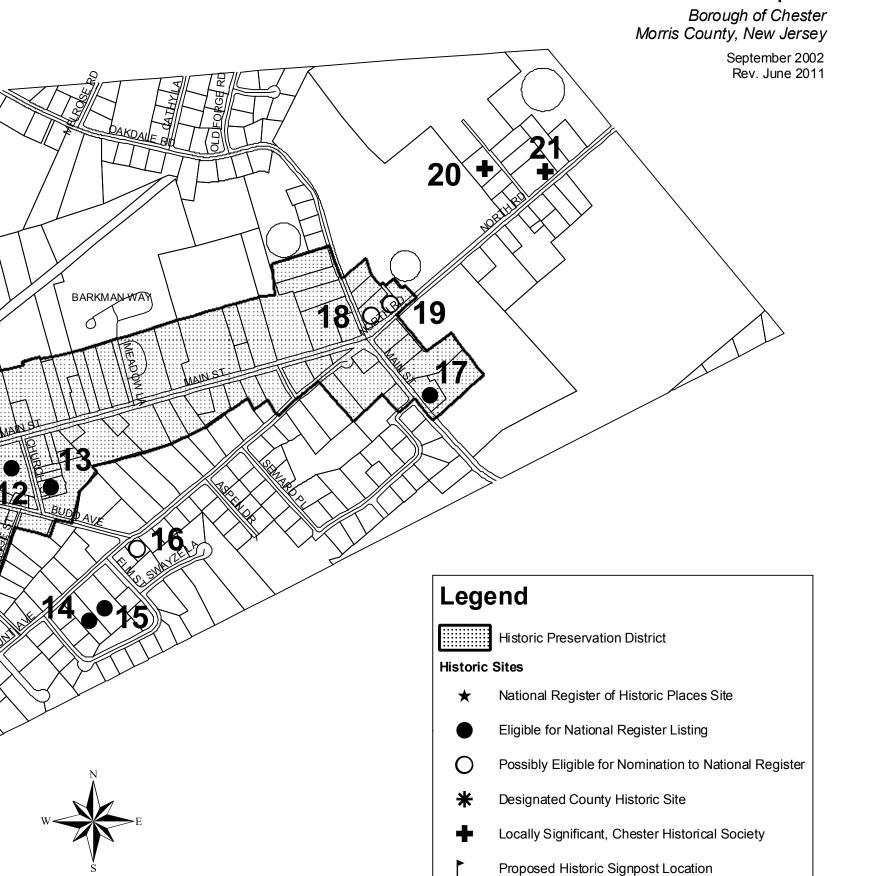
7	20/38	Gardner House	Constructed in two parts (east section: 1780; west section: 1804). East Jersey Cottage with central door, 5-bay façade, gable roof, central chimney, 9/6 sash windows. Because of age, good architectural integrity and associative history, it is key building.
8	20/21	Dr. Hedges House	Constructed c. 1810. Vernacular and vernacular Federal style, gable roofs with brick end-chimney in each wing, 6/6 and 9/6 sash with blinds and shutters.
9	4/9	Chester Congregational Church	Constructed in 1856 as a Greek Revival Temple form church having a full portico with pediment and four Greek Doric columns. Of special note is the interior art work and the Opius 128 pipe organ.
10	4/12	Publick House	Constructed as tavern in 1810 by Jacob Drake, Jr. on the "Washington Turnpike." Hotel/tavern was a stage coach stop, and the building was later used as a school known as the "Chester Institute."
11	11/3	John Drake-Van Arsdale House	Constructed c. 1830 in Vernacular Greek Revival style, 5-bay center hall with 6/6 sash windows. Flat roof portico is Greek Revival style.

12	11/6	Presbyterian Church of Chester	Constructed in 1851 in vernacular Greek Revival style. Gable roof with enclosed façade pediment; multi-pane triple sash windows.
13	8/19	Tredway House	Constructed in 1873 in Gothic-Italianate vernacular style. "L" plan, gable-end façade, 3-bay side-hall plan.
14	29/1	Langdon- Hayter-Moke House	Constructed in 1868 in Italianate vernacular style. "L" plan house with entry in "elbow." Gable roof with paired and single 1/1 and 2/2 sash windows.
15	29/2	Langdon- Hoffman- Hopping House	Constructed in 1868 in Italianate vernacular style. "L" plan house with entry in "elbow." Gable roof with paired and single 1/1 and 2/2 sash windows.
16	22/12	Luce-Emmons- Budd-Guerin Farm	Constructed in 1740 as a Jersey cottage. 3-bay side hall plan with 2-bay wing to side. Broad gable roof with 1/1 sash windows.
17	6/3	Seward- Overton- Seward House	Constructed in 1740's with later alterations in 1836 in Greek Revival vernacular style. 5-bay center hall, double pile; rear lean to wing.
18	5/15	Brown- McCourry- Swaezy- Jacobson House	Listed as possibly eligible for nomination to National Register but no detailed description.
19	5/16	School No.2	Constructed in 1830 in vernacular style. 4 bays long with 2-over-3 bay façade(gable-end

			-to-road). 6/6 and 9/9 sash with blinds.
20	5/7	Williamson- Rodeman House	Construction date uncertain but shows on 1853 map. Vernacular house faces south. 3 over 4 bay façade with wide clapboards and gable roof.
21	5/9.01	1813 House	Appears to have been a 1½ story 3-bay single-pile cottage, however it has been altered.

^{*} For complete description, consult Morris County Cultural Resources Survey, Acroterion, 1986/1987.

Historic Sites and District Preservation Plan Master Plan Update



 $\underbrace{\frac{B \ A \ N}{A \ S \ S \ O \ C \ I \ A \ T \ E \ S, \ I \ N \ C}_{\textit{Planning and Design}} \underbrace{H}}_{\textit{A S S O C } \ C \ A \ T \ E \ S, \ I \ N \ C}$

Richard J. Gulick, PP, AICP, 2002

Data Sources:

06

***11**

1,000

Feet

500

2,000

Preservation Committee (HPC). Development applications are referred to the HPC for their consideration as part of the application review and approval process. The Planning Board then considers the advisory report of the HPC at the time of the hearing. This process is working well at the present time. When a building permit application is submitted for a property in the historic district, which does not involve site plan review, the zoning enforcement officer evaluates the proposal and contacts the HPC if there is a question about the impact of a change to the property. In this case the proposed change may be referred to the Planning Board if the change warrants further consideration.

It should be noted that the MLUL does provide for the establishment of a Historic Preservation Commission, which is constituted in much the same way as the Historic Preservation Committee. There is one major difference. A Historic Preservation Commission does have the power to review and approve minor applications which do not involve site plan review. This would mean that small items would be handled exclusively by the Commission. In fact, the MLUL recognizes the need to expedite the review of minor applications and provides that the Chairman may act in place of the full Commission. This provision is important to insure the timely flow of application processing for minor items within the historic district. Considering the advantages of having a commission, consideration should be given to a modification of the management structure.

As part of the research for this element the Glen Ridge Historic Commission was contacted, and the procedure used by that Commission is to expedite as many minor applications as possible. If an applicant objects to a decision, an appeal is taken to the Planning Board.

EVALUATION CRITERIA

Criteria used to assess the worthiness for inclusion in the historic sites listing for locally significant sites and the Morris County survey are based on standards developed by the National Park Service. These standards guide the selection of properties included in the National Register of Historic Places which was developed as a result of the National Historic Preservation Act of 1966.

The local architectural vernacular of Chester is represented in the architectural styles illustrated in Appendix B. It is important to preserve and maintain these styles when rehabilitation or new construction is proposed in any Historic District.

RELATIONSHIP TO OTHER MASTER PLAN ELEMENTS

It is important to review other Master Plan elements to make sure that planning policies of these elements do not conflict with the intentions of the Historic Preservation element. The Land Use, the Community Character and the Circulation and Transportation elements have the greatest potential to impact historic preservation efforts. The Land Use element influences the compatibility of adjacent land uses and densities in historic areas, while the Community Character element helps to protect the visual integrity of a historic site or district. The policies in the Circulation element have the potential to threaten historic sites or districts if the recommendations are made without regard to the importance of the historic resources.

The area of most sensitivity is within the historic district area of Main Street. Because of the area's unusual nature where a majority of structures have been maintained in their original condition, it is important to develop policies to encourage rehabilitation of structures and retention of original structures wherever possible. Additions to original buildings may be necessary to support structural rehabilitation.

Where substantial rehabilitation is proposed to bring the structure up to full code compliance and the addition is designed to conform to appropriate architectural detailing, full compliance with all zoning standards, such as compliance with parking requirements, should be moderated. For example, the parking standards for the Borough do not differentiate between the different commercial districts. From a planning standpoint what is an appropriate parking requirement in a B-3 zone may not be appropriate for the 8-1 area. It is important to remember that the uniqueness of the historic area is the architectural character and the physical relationships of the buildings to each other in the area. The fact that parking may not fully accommodate the needs of all patrons desiring to park within 50 feet of the front door of a shop is the nature of the area. Furthermore, removing old barn like accessory buildings or other buildings to further accommodate an expansion of parking lots can begin to change the character of the area, converting acreage into large parking areas reminiscent of the conventional suburban shopping center. Before these types of steps are taken, a comprehensive parking study of the entire downtown area should be made.

HISTORIC PROMOTION OPPORTUNITIES

The community is unique from the standpoint that many of the original structures in the Main Street area have been retained over the years. This provides a glimpse into the past and an opportunity to maintain the remnants of the physical and visual characteristics that make the Borough different from many of today's suburban communities. The existence of these structures truly is unusual. When coupled with the commercial downtown area, a special planning opportunity emerges which can give further meaning to the Borough in terms of its historical heritage.

The concept involves the identification of the Borough's history through a series of visual signposts positioned at important locations within the downtown village center. These markers would be designed to be consistent with the Borough's historic village theme and would tell the story of the Borough for visitors. Markers would be positioned in locations where seating is available to view the details of the signpost. This would result in providing an expanded opportunity for tourists to stay in the community and visit for longer periods of time. The concept would benefit the businesses in downtown and would contribute to establishing a clear identity for the Borough relating to its rich cultural and historic heritage.

To be effective, such an approach must involve the business community as well as the public agencies involved with plan review and consideration. Cooperation by businesses in the development and execution of an historic identification program will provide substantial benefits to lengthen the average time spent in the Borough shopping, browsing, and taking in the ambiance available in the Borough.

Development applications under review should be viewed as an opportunity to institute such a program. Identifying the historic details of a particular building in downtown using a uniform sign format to tell the story is substantially more meaningful than just indicating the date of construction for the structure. This approach begins to tell the story, build on the historic theme, and reinforce the unique qualities of the community. With a carefully developed signage program integrated with special events, the community has an unparalleled opportunity to be in the forefront of providing a special tourist destination.

In preparing this element contact was made with the Morris County Planning Board to obtain input. It should be noted that there is consideration to expand the County's open space program so that money might become available for historic preservation purposes. The Borough should position itself by adopting this plan so that there is a positive foundation to pursue funding for historic preservation programs.

RECOMMENDATIONS

The following recommendations are offered in connection with promoting the historic preservation element:

- 1. Create a working committee composed of representatives from the business community and the Borough officials to explore grant opportunities promoting an expanded historic/cultural effort involving but not limited to a historic sign program.
- 2. Reviewing agencies should make provision for applicants to more comprehensively identify their buildings from a historic perspective.
- 3. The existing historic district should be considered for modification in the area on the east side of Route 206, north of Route 513.
- 4. The Borough should aggressively monitor funding opportunities for all types of historic preservation, including the development of façade improvements for structures within the historic district.
- 5. Because of changes within the Borough to several historic resources, the Morris County Cultural Resources Survey, 1986/1987 should be updated.
- 6. Technical guidelines should be established to guide redevelopment! new construction within any historic district.

APPENDIX A

CHRONOLOGY OF HISTORIC SURVEYS AND DOCUMENTATION FOR CHESTER BOROUGH

1930'S

The Historic American Buildings Survey — This was a nation wide survey conducted as a WPA project in the 1930's. Architectural drawings were done for selected sites along with documentation as to previous owners and events associated with the site. Three sites in Chester Borough were included in the survey.

1976

Morris County Master Plan, Historic Preservation Element - 7 historic sites of the Borough are identified and brief description provided as to the significance of the sites.

1986/87

New Jersey Historic Sites Inventory, for the Morris County Heritage Commission, by Acroterian, 1986/87. A Borough wide survey was performed in cooperation with the Chester Historical Society. All properties were surveyed and information provided for those sites older than about 50 years. An assessment as to historical and architectural significance is provided along with any prior or potential future historic designations. This document is the most comprehensive historical work that the Borough has at its disposal and currently used as the primary reference by the Historic Preservation Review Committee in its review of development applications.

1986

<u>Chester Borough Master Plan, 1986</u> — There was no historic element but reference is made to preserving the architecture of the central business district and Main Street corridor.

1993

 $1993~{\rm Master~Plan~Reexamination}$ — A historic plan element was included which recommended establishment of a historic review committee and endorsed the $1986/87~{\rm Historic}$ Site Survey by Acroterian, making it a part of the Historic Element of the Borough Master Plan.

1998

Chapter XIII, 13-11, Historic Preservation and Architectural Review Ordinance is adopted establishing historic preservation committee, review procedures, and historic zones.

1999

1999 Master Plan Reexamination - No significant proposals regarding historic preservation.

2001

2001 Chester Borough Historic Preservation District Master Plan Element — February 8, 2001. Recommends expansion of historic zone district and expands the proposed historic district of the master plan beyond that originally delineated in the Historic Site Survey by Acroterian. Also identifies and updates historic sites outside the district. Includes language and provisions to form a basis to strengthen historic regulations.

2001

Ordinance 2001-1 amending Chapter XIII is adopted. This ordinance establishes a historic preservation district.

2001

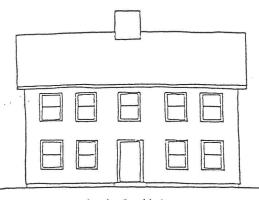
Ordinance 2001-02 amending Chapter XIII, Subsection 13-9.6 Office Zones. This ordinance expands the Historic Zoning District to include all of the Office Professional Zone.

2001

Ordinance 2001-09 amending and supplementing Section 13-2 Definitions, 13-11.1 Purpose and Scope, Section 13-11.2 Designated Districts, Buildings and Sites and 13-11.3 Historic Preservation Committee and adding new subsection 13-11.5 Demolition or Moving of Structures and Section 13-7.11 Design Standards.

Jim Woodruff, Borough Historian 02/19/02

HISTORIC BUILDING STYLES



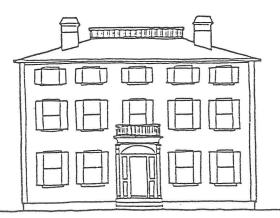
COLONIAL (1700-1720)



EARLY GEORGIAN



(1760-1780)



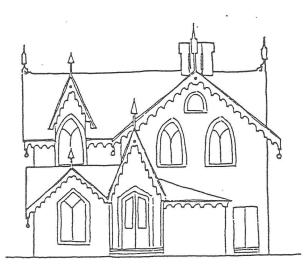
FEDERAL (1780-1820)

HISTORIC BUILDING STYLES

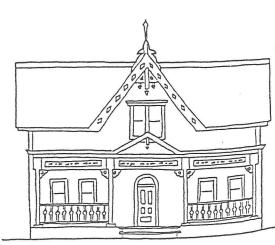




VICTORIAN (1830-1850)



VICTORIAN GOTHIC (1850-1880)



CARPENTER GOTHIC (1880-1910)

COMMUNITY CHARACTER ELEMENT

INTRODUCTION

The purpose of this element is to establish design guidelines for future development and redevelopment in the Borough of Chester which are responsive to the character, aesthetic and functional needs of the Borough. These guidelines are to be used in conjunction with the Land Use element of the Master Plan and land use regulations governing subdivision and site plan development to provide the Borough representatives and developers with guidelines to aid the review and development of appropriate and acceptable projects. Subtle design guidelines already exist in the zoning and subdivision ordinances in the form of building heights, setbacks, street layout concepts, etc. Additional and more specific community design guidelines are given herein to help retain, promote and enhance the desired character of Chester's built environment.

Community design guidelines can encourage aesthetic and functional linkages between residential, nonresidential and mixed—use areas and help define and enhance community focal points. The use of design guidelines also help to: minimize land use conflicts; encourage quality architectural and landscape design; clarify the objectives of the Borough; reduce delays in the approval process and promote dialogue between the Borough decision—makers, planners, residents and developers. In this manner, they support and are integrally linked to the successful implementation of the land—use plan and can be included in the Borough's development regulations to bring about and maintain the desired types of development and land use patterns.

This section of the plan will describe common community design considerations for future development. The primary area to be focused on is the downtown historic business section of the Borough along Main Street. This area is unusual in many respects and this element of the plan will provide specific recommendations relating to this primary activity center within the Borough.

The focus of this element is on visual aspects of design to promote the community character. The sketchbook of graphic images is offered as a method of conveying appropriate design concepts. The old adage, "a picture is worth a thousand words" is used throughout this element to offer ideas and concepts to create an enduring, positive sense of place for the Borough. These concepts are suggested for

their use to influence development so that the end product will reflect positively on the Borough and will continue to promote an image, which is highly attractive to the tourist industry.

PLANNING BASIS

The MLUL sets forth the basic purposes of the act that justify the development of information related to a community's character. The following purposes in Section 40:55D-2 directly or indirectly relate to this element:

- a. To encourage municipal action to guide the appropriate use or development of all lands in this State, in a manner which will promote the public health, safety, morals, and general welfare.
- c. To provide adequate light, air and open space.
- i. To promote a desirable visual environment through creative development techniques and good civic design and arrangements.
- j. To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land.

BACKGROUND

Chester's sense of place is unique. This has been documented in the Historic Preservation element. One of the certainties in our society today is the pressure for change. This is brought about by a variety of different forces and can have either a positive or a negative effect on our communities and the lifestyles associated with this change.

One of the challenges of long-range planning is to confront change and channel it creatively to benefit the Borough. The policies of the Master Plan offer an opportunity to achieve this. It is important to recognize that the plan should be viewed as a flexible document, rather than a rigid blueprint which can only be interpreted one way. The value of the document is to foster positive development. The authors have no crystal ball but must rely on anticipating change from the perspective of our current point in time. Because change is constant, it therefore is necessary to use the plan in a flexible way. It is

important to understand that each decision relating to the community or a development proposal is unique and special because of the specific set of circumstances involved, the particular geographic location of the site, the timing of the decision, and the relationship to many other factors. The Master Plan is a public policy guide which should be consulted regularly as part of any decision— making process.

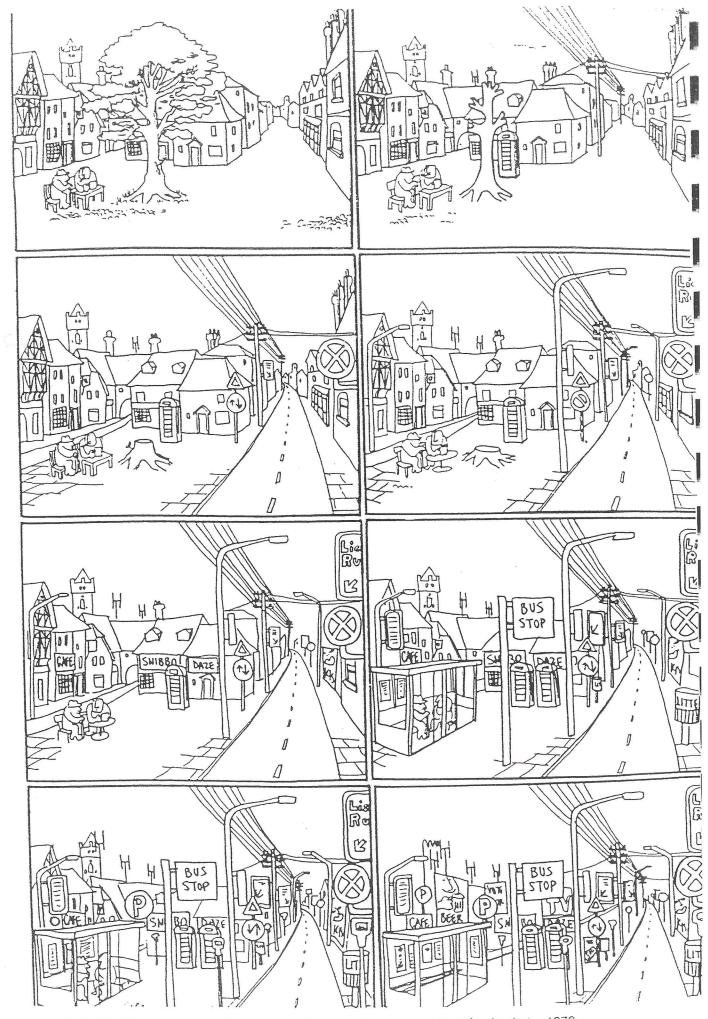
It is important to note that the Borough's character has been determined and defined by a series of decisions relating to the built environment that have taken place over a long period of time. Equally important to consider is the fact that inappropriate decisions relating to the built environment can affect the community's image. The decisions can be very subtle and can occur slowly or rapidly. Under any circumstances, these changes can have profound long—term effects that impact quality of life issues, the image of the community and its economic dynamics. The graphic images on the page that follows demonstrate how subtle change can gradually erode a quality image over time.

COMMUNITY CHARACTER ISSUES

As indicated in the Introduction to this section, there are standards in place today in the Borough that influence the design of structures. However, these controls contained in ordinances are not a guarantee that development will successfully achieve a high quality. The key to the creation of places that are distinctive and have a recognizable identity is to assure that an appropriate design process has been used to develop a specific project. There are many factors that should be considered, but are not limited to the following:

- Provide locational and historical context
- Provide human scale as a fundamental design element
- Provide continuity of scale, mass, horizontal elements, vertical rhythms, etc.
- Encourage the use of local community vernacular
- Define public and private space
- Create visual interest and variety
- Improve legibility
- Provide demarcation and appropriate relationships between public and private spaces

These design—oriented concepts often are not considered by the project team or by the reviewing agencies engaged in evaluating, developing and executing a project. Moreover, many times a project team may not be qualified to conceive of plans that address these factors. It is important for



SOURCE: "Streets Ahead." Design Council and the Royal Town Planning Institute, 1979

any reviewing authority to be comfortable and satisfied with the credentials of the professional team engaged in a particular project. It should be noted, however, that credentials do not necessarily guarantee a properly designed project.

The design process involves the use of creativity, the consideration of alternatives and final selection of concepts to be refined into a detailed plan. Applicants often invest considerable resources developing detailed, specific plans for a given property only to find that the proposal is not well received for a variety of reasons. Instead of submitting a final application with detailed plans and specifications, applicants should be encouraged to discuss their project with the approving authority before detailed plans are drawn from a broad conceptual standpoint. Such a procedure is a problem-solving orientated approach where the focus and dialogue can take place in an informal workshop setting. The applicant has not committed major funding at this point and is more likely to be receptive to suggestions and ideas. By using such an approach, the applicant receives early input and can tailor the plan to meet community guidelines relating to design considerations. Generally, this approach will work to the benefit of both the Borough and the applicant by producing superior development in an efficient, cost-effective basis. Savings can be used to improve construction quality which will benefit the community in the future.

This approach of having informal discussion should be reviewed by the Planning Board Attorney before it is considered for implementation. Recent court cases have indicated there may be liability associated with the approach. If a method can be found to prevent liability, such as providing notice, then it is recommended that the approach be considered for complex applications involving different design options.

An issue of concern is the common practice of corporations desiring to incorporate their corporate image into development projects. In many instances a project has a generic design module that is used as a standard for all situations. This approach is in sharp contrast to a properly designed "custom" project which fits contextually within the community and enhances and reinforces the community's image and identity. The latter approach often requires a specialized architectural approach and truly creates a product which is reflective of a detailed design approach.

It is possible to take the generic approach and adapt it to local thematic architectural styles. Using certain selected elements relating—to the façade and exterior treatment it is possible to adapt the building to local conditions so that it fits from a contextual standpoint. Treatment of columns, cornices, rooflines, fenestration, colors, building materials and other elements can be used to provide a design which fits local conditions and can still maintain the corporate image. Here again, the informal design process is the key to creating a product that satisfies all parties who have a major stake in the project.

DESIGN GUIDELINES

Design considerations relating to new buildings and redeveloped projects are currently influenced by input from the Historic Preservation Committee. This group has been effective in promoting an improved visual environment by offering recommendations to the Planning Board/Board of Adjustment. However, the Committee has not adopted standards to guide their decisions. These guidelines should be developed and adopted by the Committee in addition to including design guidelines in the zoning ordinance.

General design guidelines can best be illustrated visually to convey approaches which are to be encouraged and required. Many of the concepts relate to site design, building relationships, exterior architectural design, and similar elements of a project. These items can and should be integrated into ordinance provisions to provide guidance for reviewing agencies and applicants. Specific ordinance standards are needed to support and guide decisions so that claims of arbitrariness and capriciousness are not sustained when a decision is challenged.

Design guidelines relate to various items that affect the perception of a given project and how the project relates to the general area in which it is located. Construction of properly designed projects will set the tone for future projects which will benefit the community's image. Conversely, inappropriate design or land use can create negative impacts, which are difficult to overcome, and may seriously compromise the community's character and sense of identity.

Several items described below should be considered as part of project formulation so that the community's character is enhanced and protected. These items should be referenced in the Site Plan section of the Zoning Ordinance so that they can be offered as site plan standards for the benefit of applicants and others who desire information and guidance on preferred design guidelines.

Off-Street Parking

- 1. The design of parking lots should avoid conflicts between vehicular and pedestrian traffic while creating visual attractiveness within and around the site.
- 2. Cross Easements should be provided between nonresidential uses to collector streets to minimize disruption of traffic flow, reduce access points and reduce conflict with pedestrian traffic. Encourage the use of shared parking and access between complementary adjacent land uses.
- 3. Wherever possible locate parking to the rear or sides of buildings. Parking in front of buildings should be avoided. Locate parking areas in close proximity to the proposed use.
- 4. Reduce the visual impact of parking lots through the use of landscaped buffers and berms designed to screen vehicles. In no case should a buffer be less than 6 feet in width.
- 5. The paved areas of parking lots should be interspersed with landscaped islands containing shade trees to reduce summer reflective heat effects. Islands should be a minimum of 6 feet in width where possible and should be landscaped with shrubbery and mulched with appropriate surface material.
- 6. All vehicular maneuvering requirements for entry and exit to and from individual parking spaces should be executed entirely on site.
- 7. Parking spaces should have wheel stops or curbs to assist in orderly parking and to separate parking from pedestrian walkways.

Landscape Design

- 1. Landscape materials should be selected which are indigenous to the area and which are relatively maintenance free.
- 2. Specific shade trees should be used along Main Street to establish a consistent visual image. Spacing along Main Street is recommended at 40 feet on center.
- 3. Tree replacement should be considered for all development.
- 4. The preservation of large specimen trees should be a priority in designing projects.
- 5. A minimum width of four feet is recommended for any

landscape planting strip immediately adjacent to a building.

- 6. Walkways along a building should be separated from the building by a landscape planting bed having a minimum width of four feet.
- 7. Quality beautification efforts should be encouraged in the Main Street area such as providing window boxes, planters, trellis plantings, etc. This will serve to unify the area visually.

Pedestrian Circulation

- 1. Secure and efficient pedestrian walkway systems should be integrated in all site plans. Connections between sites should be provided.
- 2. Walks adjacent to parking areas where vehicles overhang the walkway should be six feet in width.
- 3. Ideally, walkways in the downtown area should be sized appropriately given the pedestrian volume.
- 4. Pedestrian crosswalks should be identified with paver blocks to differentiate the crosswalk from the road.
- 5. All pedestrian circulation systems should be barrier free.
- 6. Pedestrian safety in the downtown area is critical considering the volume present and the crossing activity. Traffic calming should be considered to reduce speed along Main Street within the crossing areas.

Lighting

- 1. Lighting within the Borough shall conform to the standard fixture detail contained in the Sketchbook portion of this element.
- 2. The lighting used shall be high pressure sodium.
- 3. Light shields shall be used to prevent glare and intense light from spilling onto adjacent properties.
- 4. Flood lights from utility poles should be prohibited.
- 5. Architectural lighting shall be used only to accent buildings in a sensitive manner.
- 6. The external illumination system for signs shall be designed so that the source is visually screened from all roadways.

Signage

1. Signs should be compatible with a building's style in terms of location, scale, color and lettering. Where attached to a building, signs should be an integral design element of the building's architecture.

- 2. Signs should be considered within their setting and designed according to the scale, texture, and proportion in which they will ultimately be viewed. Sign materials should be compatible with related building architecture. Signs made of natural materials such as wood and stone or masonry are encouraged.
- 3. Signs should be legible and appropriate to the image of the community.
- 4. Simplicity, clarity and attention to design detail is essential. Lettering, detail and color should be easy to read and should be historically appropriate.
- 5. Lighting of signs should not over power the sign and should be directed without shedding glare on the roadway.
- 6. Internally illuminated signs should only be permitted on buildings in the B-3 district.

Architecture

- 1. The exterior appearance of a building should complement the character of existing development within the surrounding area. This is especially important when the new building is constructed adjacent to a historic building or in a historic district. New development should relate to the surrounding environment with regard to: height, scale, massing, directional expression, setback, sense of entry, roof shapes, rhythm of openings, rhythm of solids to voids, and building materials, rhythm of spacing of buildings on streets, rhythm of entrance/porch projections, texture, color, and exterior features.
- 2. Architectural forms should be used which create interesting visual impressions, particularly when visible from the public view. In new developments, the use of complementary textures and colors, detailing and contrasting shapes to create an appealing façade is strongly encouraged. The use of single colors and blank walls is discouraged.
- 3. Each phase of a phased development project should be able to stand alone as architecturally complete.
- 4. Mechanical equipment should be screened with walls or architecturally compatible materials.
- 5. Storefronts should be restored to approximate their original appearance, including such details as the entries, display and transom windows and other details. These elements will tie together the other elements of the structure in a uniform fashion.
- 6. Inappropriate materials such as concrete blocks, stucco or aluminum siding with visible seams should be avoided. Replacement materials should replicate original materials as closely as possible.

- 7. Properly selected and applied paint and color can be effective in enhancing a building's façade. Color should be selected to tie together the elements of the structure and should be compatible with the adjacent uses. Color schemes should be simple and historically appropriate. Color and material boards should be provided for all new or renovation projects.
- 8. Storefronts and entrances to stores should be visually stimulating, attractive, and inviting to patrons.

RECOMMENDATION

It is recommended that the concepts and principals offered in the preceding pages be implemented by amending the Zoning Ordinance.

VISUAL SKETCHBOOK

The illustrations contained in the Sketchbook are related to the section entitled "Design Guidelines."

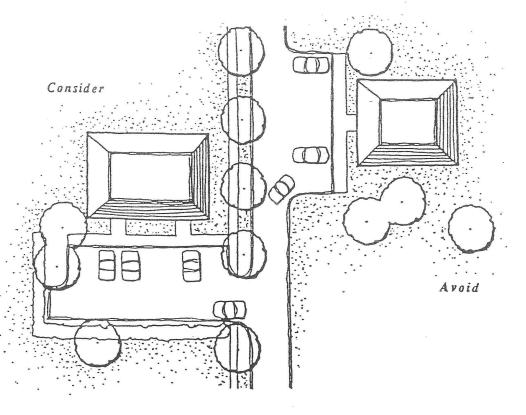
SKETCH BOOK

The graphic concepts contained herein convey certain architectural and design principals which can be understood and applied more easily through the use of graphic representation.

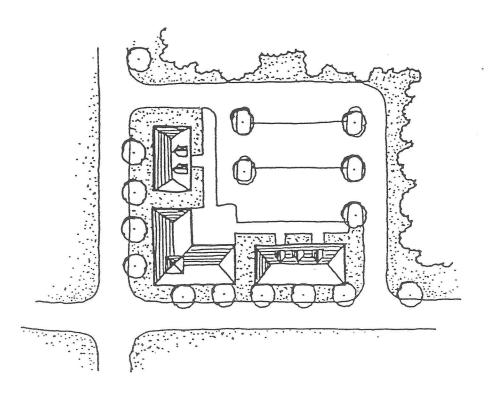
CREDITS:

Streets Ahead, Design Council and the Royal Town Planning Institute,1979.

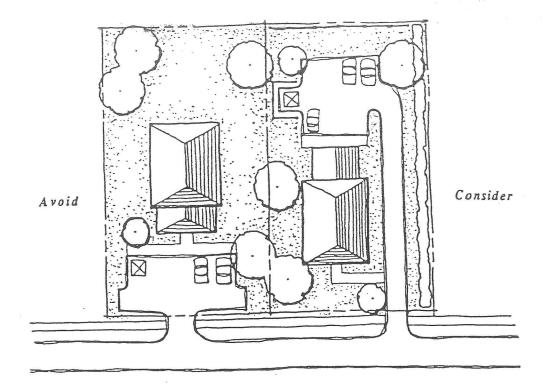
The New Illustrated Book of Development Definitions, Harvey S. Moskowitz and Carl G. Lindbloom,1993. Township of Randolph Master Plan, Moskowitz, Hyer, Gruel, P.A. & Madden/Kummer, Inc., 1992.



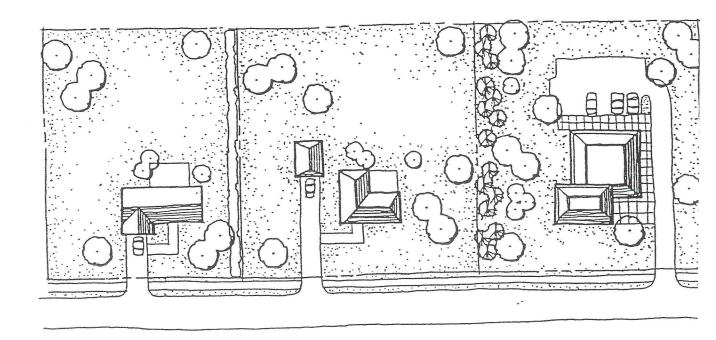
Provide adequate turning room on site for all parking spaces. Cars should not have to back out into traffic.



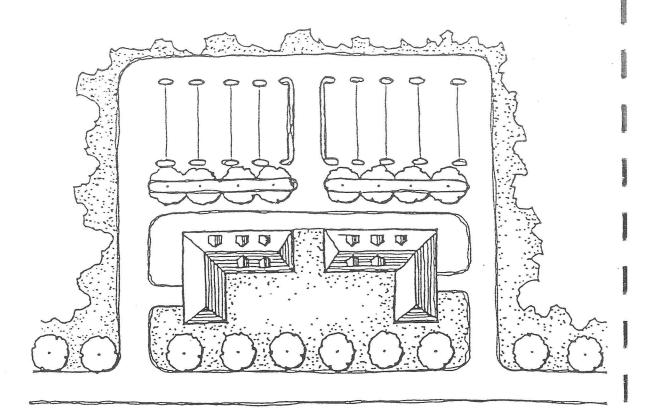
Curb cuts should be minimized and shared cross access and parking in retail and commercial areas should be encouraged.



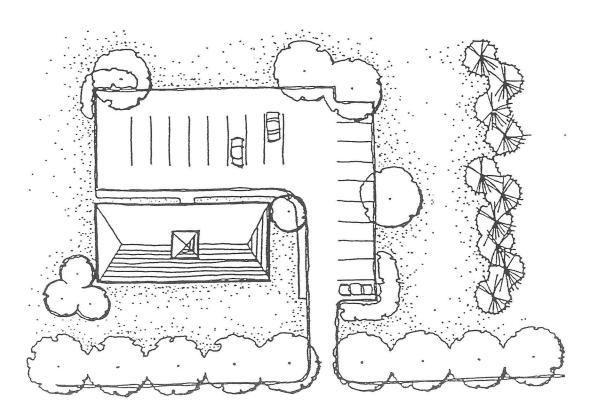
Site design should minimize the visual impact of parking and storage areas. Avoiding parking in the front yard prevents potential traffic hazards and aesthetic intrusions.

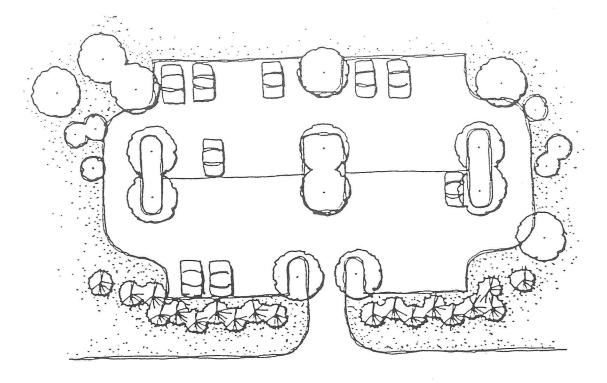


Setbacks and landscape buffers should be used to lessen adverse visual impacts and create a transition area between buildings of different scale and character.



Wherever possible, nonresidential parking should be located to the rear or side of buildings. It should be the building and not the parking which present the primary view from the public right-of-way. This is equally applicable to large scale (above) and small scale (below) nonresidential uses. Where practical, parking in the rear is favored over side yard parking.

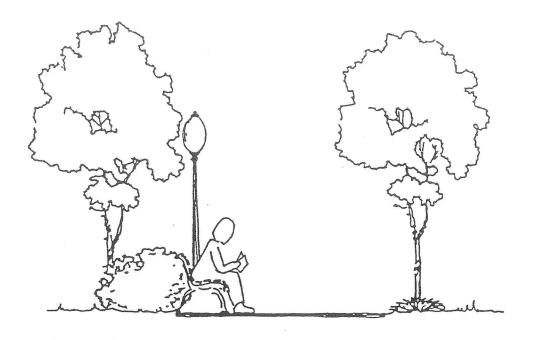




Planters and curbed planting beds help control traffic movements and contribute to the overall attractiveness of nonresidential developments.



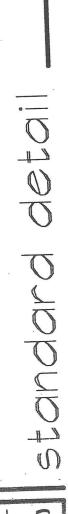
Where parking is located in the public view, planting buffers should be used to improve views on to the site.

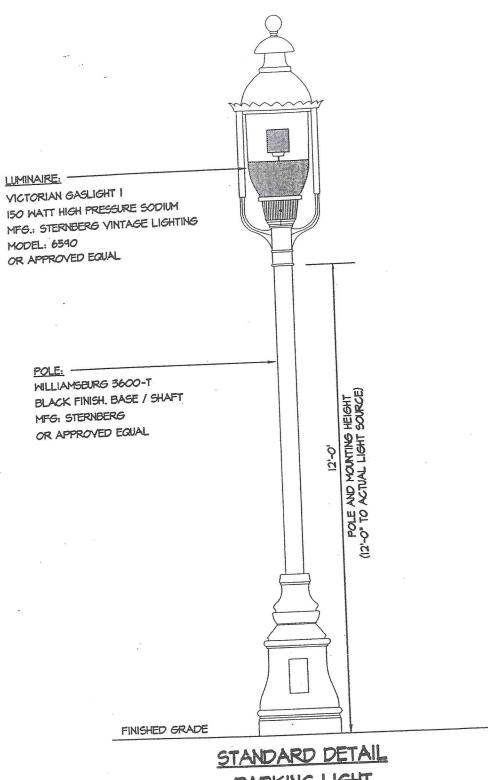


Landscape plantings, benches, and lighting should be used to create pleasant community areas, shade and a pedestrian scale.



Signage should be compatible with a building's architecture. It should be of a size and scale respective of the building's scale and appropriate to the message being conveyed.





PARKING LIGHT

NOT TO SCALE

NOTE:

- I. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION
- 2. MANUFACTURER: STERNBERG, NILES ILLINOIS, OR APPROVED EQUAL
- 3. LIGHT SHIELDS SHALL BE ADDED TO MINIMIZE GLARE TO ADJACENT PROPERTIES OR AS DIRECTED BY THE BOROUGH ENGINEER



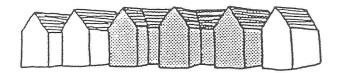
ulting, Municipal & Environmental Engineers ners = Surveyors = Landscape Architects

FLANDERS OFFICE Flanders Office and Research Park 230 Route 208, Building 1 Flanders, N.J. 07836 Phone (973) 252-8600 Fax (973) 252-6606 E-mail - solutions@maserconsulting.com

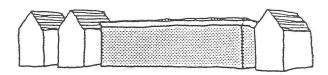
LIGHTING DETAILS BOROUGH OF CHESTER MORRIS COUNTY, NEW JERSEY 07930

1999

DIRECTIONAL EXPRESSION

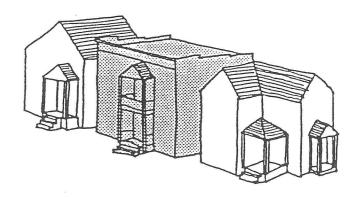


Relate the vertical, horizontal or non-directional facade character of new buildings to the predominant direction expression of nearby buildings. Horizontal buildings can be made to relate to the more vertical adjacent structures by breaking the facade into smaller masses.

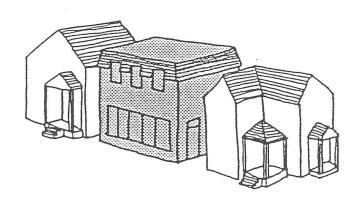


Avoid horizontal or vertical facade expressions unless compatible with the character of structures in the immediate area.

SENSE OF ENTRY



Articulate the main entrances of building with covered porches, porticos and other architectural forms. The primary entry should be raised above grade and made a prominent visual feature where this is the dominant form in the surrounding area except in those instances where disabled and handicapped access cannot be otherwise accomplished.

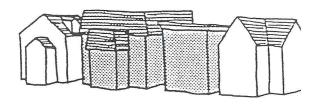


Avoid facades with no strong sense of entry.

ROOF SHAPES



Relate roof forms of new buildings to those found in the surrounding area. The use of traditional roof shapes, pitches and materials on new construction makes new structures more visually compatible.

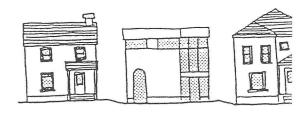


Avoid introducing roof shapes, pitches or materia not traditionally used in the area.

RHYTHM OF OPENINGS

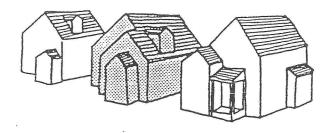


Respect the recurrent pattern concerning the number and spacing of windows and doors in a facade. Also consider the width to height ratio of bays in the facade. New construction should show the predominant rhythm of buildings in the surrounding area.

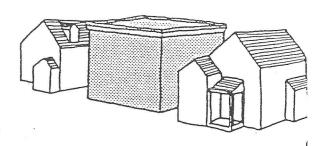


Avoid introducing incompatible facade patterns was upset the rhythm of opening established surrounding structures.

MASSING



Break up uninteresting boxlike forms into smaller, varied masses. Variety of form and massing add interest to the streetscape and are elements essential to preserving the character of historic streetscapes.

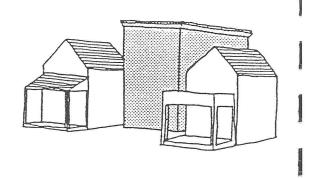


Avoid single, monolithic forms which are not relieved by variations in massing. Such structures are especially intrusive when placed in a streetscape of older buildings which have varied massing and facade articulation.

SETBACK



Where appropriate, maintain existing facade lines of streetscapes by locating front walls of new buildings in the same plane as the facades of adjacent buildings. Where there are varied setbacks, the maximum setback of new construction should harmonize with the average setbacks of existing adjacent buildings except where increased and/or varied setbacks are necessary to preserve street trees or rural character along roadways.

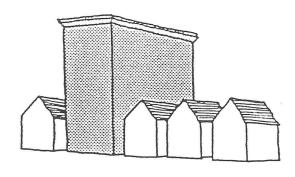


Avoid violation of existing setback patterns especially in village or historic district areas. Avoic placing buildings at odd angles to the street, unless in an areas where diverse siting already exists.

HEIGHT

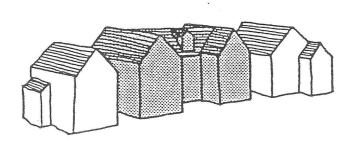


Relate the overall height of new construction to that of adjacent structures. The height of new construction should be roughly equal to the average height of existing buildings in the surrounding area.

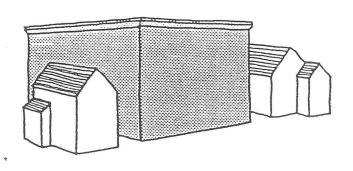


Avoid new construction which greatly varies in height from older buildings in the surrounding area.

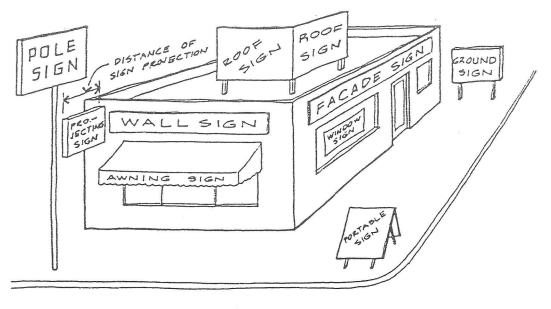
SCALE



Relate the size and proportions of new structures to the scale of adjacent buildings. Although larger in square footage than the adjacent properties, the depiction illustrates how a larger building can maintain the same scale and rhythm as structures in the surrounding area.



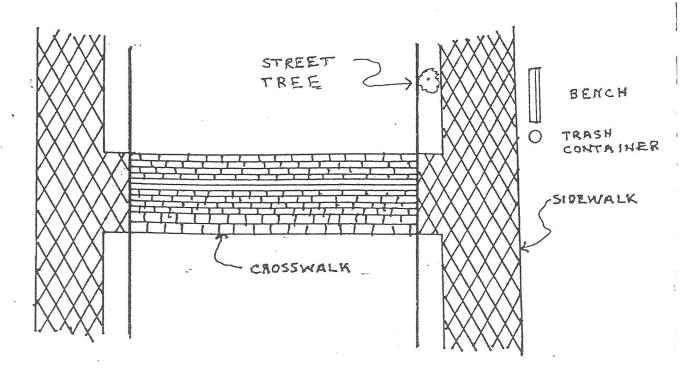
Avoid buildings which in mass, width or height violate the existing scale of the area.



SIGN TYPES

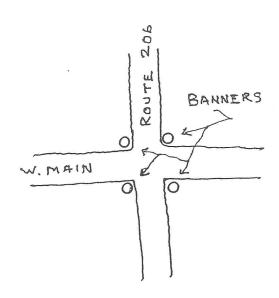
Signs for single or multiple use properties should be coordinated

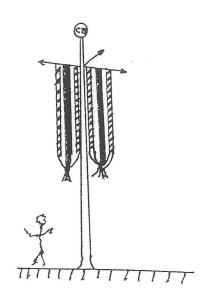
Aesthetically and be proportionate to the character of the surrounding area. Signs should be designed in a manner which enhance the desired image of the community.

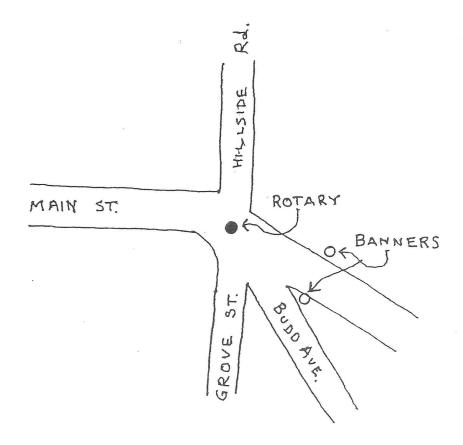


Cross walks should be constructed with pavers or material which has a different texture than the sidewalk. This provides a visual distinction between the two pedestrian areas and offers visual interest.

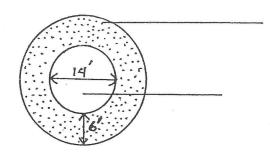
GATEWAY IDENTIFICATION CONCEPTS







GATEWAY IDENTIFICATION CONCEPTS



PAVED AREA FLUSHWY ROADWAY - USE DE-CORATIVE PAVERS

RAISED CENTER ISLAND
WITH PLANTER OR
SCULPTURE

The rotary at the intersection of Budd Avenue, Grove Street, Hillside Road, and Main Street would be designed as a visual terminus of Main Street on the east. It would serve as a major focal point and orientation for visitors to the Borough. It could be as simple as a tree within the an appropriately designed planter or could be a sculpture such as a Chester Iron Miner or some other concept. The design would have to be carefully coordinated with a County of Morris who controls the roadway. The above concept is offered as a possible starting point for discussion.

RECYCLING AND ENERGY CONSERVATION ELEMENT

INTRODUCTION

This section of the Master Plan describes the Borough's recycling program and touches on concepts related to other recycling initiatives. In addition, energy conservation is considered as well because of the close relationship to the subject of recycling.

PLANNING BASIS

The MLUL provides that a Master Plan may contain a section dealing with recycling. At the time the MLUL was drafted in 1975, solid waste disposal and management was becoming a serious issue for many communities. Recycling was thought of as a method to reduce the waste stream, and therefore, the concept of including a recycling element in the Master Planning process was important. Today, virtually all communities are required to recycle, and each community has a designated recycling coordinator who is responsible for each municipal program. Ultimately, however, decisions related to recycling are made individually by the governing body of each community.

The Planning Board and the governing body of the community establish policies and standards related to energy conservation. Typically, these standards would be contained in development ordinances of the community. While some might argue that standards and requirements related to energy conservation are nice but are not necessary, the energy used to heat our homes and run our businesses are derived from non-renewable energy sources. These sources are available today but may be limited in the future. Rethinking how we design and lay out projects from an energy standpoint may prove to be very important in the long term considering the useful life of many structures being constructed today.

RECYCLING

Background

In 1994 the Borough passed an ordinance mandating residential recycling. Since that time, the program has

been effective in reducing tonnage of solid waste that must be collected and disposed of in accordance with the standards required by the State of New Jersey. A sticker system for the collection of solid waste has been instituted. Each household is required to purchase stickers for household garbage or bulky waste to be collected. The cost of disposing of household garbage is directly related to the amount of garbage placed at the curb. Each homeowner saved by minimizing the amount of garbage placed at the curb and by maximizing the quantity of recyclables. The sticker system is an incentive for the homeowner to recycle, which saves the household money.

The Morris County Municipal Utility Authority (MCMUA), who contracts with the Borough for residential weekly pick up and disposal of recyclables, collects glass or plastics bottles, aluminum or metal cans and newsprint or mixed paper. This material is taken to one of several locations in the county depending on the type of material which is being processed.

In addition to curbside pick up of recycling materials, there is a recycling center located to the rear of the Borough Hall. Used clothing can be deposited at this location, The Boy Scouts also operate a collection location at Memorial Field on Collis Lane.

Bulky waste items such as refrigerators and couches are picked up monthly at curbside. Residents are required to place stickers on the item.

Commercial recycling is privately contracted to haulers by individual businesses. The large businesses such as Shop Rite or Staples are heavily involved in recycling. Smaller stores do not appear to be committed to recycling to the same degree as the larger businesses. It is important to ensure that appropriate facilities are initially set up to encourage recycling. This can be mandated when a new certificate of occupancy is obtained or at the time a project is reviewed for site plan approval.

The recycling program also requires that construction debris be recycled and the tonnage must be reported to the recycling coordinator. Stumps, asphalt pavement, and wood are required to be trucked to appropriate locations which accept the material.

The Borough provides for annual brush and leaf pick up in the fall. Residents may take material meeting the specifications of the program to the curb for pick up. The Borough has received some revenue from the recycling program in the past. This has been based on the quantity of tonnage recycled. Last year the Borough received \$1.50 per ton for recycled materials. There were 797 residential and 827 commercial tons of recycled material generated in the Borough according to the MCMUA. This generated \$1,624 of revenue for the municipality. The Borough has been notified that there will be no revenue from the recycling program for the year 2002.

It is interesting to note that some jurisdictions, in particular New York City, have decided to discontinue some components of their recycling program because it represents a financial expense. While the concept of recycling is a good idea, the city's financial crisis as a result of 9/11 has dictated that some components of the city's recycling program will be temporarily suspended until further notice.

In Morris County revenue from recycling is determined by the market value for the different materials collected. The county attempts to maximize the value of recycled products for the benefit of participating municipalities.

ENERGY CONSERVATION

Using simple design principles, such as orienting glass and rooflines to take advantage of passive solar gain, development projects can be laid out to take advantage of solar energy. Using deciduous shade trees on the south side of buildings provides shade in the summer months and allows sun to warm buildings during the winter months.

Solar collectors can easily be adapted to homes and businesses with south facing roof orientations without creating objectionable architectural problems. However, if the orientation is not initially considered in the project design, often a solar retrofit results in awkward placement of the solar panels, which can detract from the architectural integrity of the structure. The payback period for solar panel installation is approximately ten years.

In the Conservation Element there is discussion about limited, non-renewable energy sources. This is a subject which will probably experience substantial change in future

years. Technological change will undoubtedly provide for solutions to a variety of problems facing communities. For example, the technology to heat and cool our buildings using heat pumps and passive solar systems may prove to be very important.

Tree planting in the community is to be encouraged to moderate high summer temperatures. Large shade trees function as nature's air conditioners and also provide other important environmental benefits.

Wind power is an overlooked resource that can offer benefits in relation to energy conservation. Windmills have the capacity to generate power and should be considered at high points of the community such as the high elevation associated with Seward Hill on Block 6, Lot 5. This type of energy system is used in areas where wind patterns can provide adequate velocities to propel windmills at sufficient rates to generate electric power. Typically, a wind energy system would supplement conventional energy systems.

RECOMMENDATIONS

The following recommendations are offered in connection with this element:

- 1. Proposals to utilize passive solar design in project developments should be encouraged.
- 2. A tree protection ordinance mandating specific planting requirements should be considered for adoption.
- 3. Provision for accommodating recycling materials in commercial and multi-family development should be required in the zoning ordinance.
- 4. Windmills should be considered at high points of the community where wind patterns could generate electricity.

FARMLAND PRESERVATION PLAN ELEMENT

TNTRODUCTION

Chester Borough's early economic focus directly related to agriculture. The New Jersey Historic Sites Inventory referred to in the Historic Preservation element states: "Chester's agricultural economy relied upon lumber, apple jack whiskey, cattle and sheep." This agricultural activity dominated the community until the late 1860's when iron ore mining became an important aspect of the local economy.

Today, the agricultural and farm areas have largely been developed and converted into housing. Because of the Borough's small size, agricultural activity does not play a dominant role in the current economic aspect of the municipality; however, the presence of one important farm is noteworthy and provides a substantial benefit to the community.

PLANNING BASIS

The basis for the preservation of farmland is found in the MLUL, Section C. 40:55D-2, Purpose of the act. Specifically, the following purposes support a farmland preservation element as a component of a comprehensive Master Plan:

- a. To encourage municipal action to guide the appropriate use or development of all lands in this State, in a manner which will promote the public health, safety, morals, and general welfare.
- c. To provide adequate light, air and open space.
- e. To promote the establishment of appropriate population densities and concentrations that will contribute to the wellbeing the of persons, neighborhoods, communities and regions and preservation of the environment.
- g. To provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial and industrial uses and open space, both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens.

j. To promote the conservation of historic site and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of land.

PROTECTED FARMLAND

The one surviving working farm of any substance in the Borough is the Loewensteiner Farm located on North Road in the eastern area of the municipality. This property, consisting of 53.42 acres, has been preserved in perpetuity in cooperation with the program offered by the County of Morris Agriculture Development Board. On December 14, 1999, the transaction to purchase development easements was consummated which legally protects the property from being developed. This action ensured the protection of the agricultural land by offering benefits or compensation in return for a landowner's agreement to accept agricultural deed restrictions prohibiting non-farm development.

The property owner has the right to continue to farm the property and can sell the land to another party who must abide by the legal restrictions of sale. Agricultural activities permitted under the local zoning are permitted and encouraged.

Under certain circumstances housing for farm laborers can be constructed on the property; however, this would require approval of the county to insure it met the intent of the program. Moreover, the housing must comply with all local zoning and local ordinances.

If a farm is protected under this program, the general public has no right of access to the farm. If a farm stand were established in accordance with local codes, of course, the public would be welcome.

FARMLAND PRESERVATION ISSUES

One of the critical issues facing the agricultural community is the disappearance of other farms, which form a critical mass necessary to support the agricultural industry. With the continued reduction of farms, the market for agricultural suppliers begins to erode and before long farmers have to travel very long distances to obtain basic products to sustain their businesses.

The marketing for agricultural products also becomes problematic in an area where farming activity is being adversely affected.

While there have been successful efforts to preserve farmland in adjacent communities, the overall trend has been to convert much of the valuable land into housing and other suburban uses, contributing to the low density sprawl patterns which consume large quantities of outlying land. This issue needs to be dealt with on a broader scale than a Town—by—Town basis to achieve effective results.

PROMOTION OF FARMLAND PRESERVATION

Many of the original farms in Chester were dairy farms. This business has changed considerably over the years and is being phased out in many areas. Farmers are being forced to develop alternative practices selling vegetables, developing u-pick operations, and other activities to maintain revenues in light of the declining agricultural industry.

The Loewensteiner Farm has effectively adapted its agricultural business into agricultural activities that have an appeal to today's market. It no longer is the "traditional dairy farm," characteristic of the early days of the Borough's history. Efforts should be made to accommodate in a flexible fashion uses that will perpetuate the farm's success so that it can continue to adapt to the challenges of today's demands related to this sector of the economy.

RELATIONSHIP TO OTHER MASTER PLAN ELEMENTS

The reinforcement of the local economic base with creative activities related to agriculture is especially important in a community like Chester. While the agricultural component of the community is not a major community focus it is, nevertheless, an important consideration relating to quality of life issues.

DEMOGRAPHIC ELEMENT

INTRODUCTION

This element presents general demographic information for Chester Borough. It describes population characteristics and provides information concerning changes that have taken place over time.

This information is important because it paints a picture of the residents of Chester and is useful to understand the community. The data is helpful when formulating programs and policies which potentially benefit and/or impact the community. By analyzing this information, it is possible to determine trends which might affect the community and its residents in the long run.

The timing of this Master Plan is especially fortunate because the census data from 2000 has just been released and is now available. The data contained herein has been extracted from the census. The Morris County Planning Board has provided tabulated data for comparison purposes for all municipalities within the county. This information has been relied upon in the preparation of this document.

The population data obtained by the U.S. Bureau of the Census is reflected in this chapter of the Master Plan. The data was obtained through two different procedures. The first procedure is the count of all persons, which took place on April 1, 2000. This count was a simple count to determine the place of residence and number of people residing in any given community. A detailed count based on a sample of one out of every six households was taken to determine housing, economic, and other social economic indicators which are contained in the census. This data was then extrapolated so that a complete picture for each community and geographic region could be established.

POPULATION

From 1950 to 1960 the Borough experienced its greatest growth in population as shown in Table 1. However, the last decade between 1990 and 2000 ranked second, with the population increasing by 34.7 percent or 421 persons. Of note is the small increase in population growth between 1980 and 1990 which is attributable to an undercount by the census. Local conditions reflected in voter rolls and school enrollment records suggest there was growth during this period. To rectify this undercount the census would require the Borough to do a complete survey of the population in the community. Considering the costs required

to perform the tabulation which would be acceptable by the Census Bureau, a decision was made to not make a confirming count.

The County of Morris routinely develops population estimates each year. In 1986 the county's estimate for the year 1990 was 1,470. This number was used in Table 1 instead of the census population figure of 1,214. This appears to be more realistic and may still be somewhat low given the housing growth rate of forty new units between 1980 and 1990.

Compared with Morris County population growth rates, except for the flat growth between 1980 and 1990, the Borough's growth was similar to the county's growth in the early 60's and 70's with relatively high growth rates. During the most recent period from 1990 to 2000, the Borough's growth rate was the same as the county rate. From a percentage increase standpoint, the Borough had the highest population percentage increase of any municipality in the county between 1990 and 2000. While the percent increase was high, the Borough ranked 26 of the 39 towns in Morris County in terms of actual numerical population change.

Table 1
POPULATION CHANGE - Chester Borough & Morris County

Chester Borough

Year	Population	Net Change	Percent
1950	754	_	_
1960	1074	320	42.4
1970	1299	225	20.9
1980	1433	134	10.3
1990	1470	37	.03
2000	1635	165	11.2

Morris County

Year	Population	Net Change	Percent
1950	164,371	_	_
1960	261 , 620	97 , 349	59.16
1970	383 , 454	121,834	46.57
1980	407,630	24,176	6.30
1990	421,353	13,723	3.37
2000	470,212	48,859	11.60

POPULATION COMPOSITION BY AGE

Table 2 compares the Borough's population to the county. The cohort groups are generally consistent from a percentage standpoint and compare favorably. It is interesting to note that the Borough has a higher percentage of persons aged 55 and over when compared with the county. In terms of actual percentages, the Borough has 24.9 percent compared with 21.6 percent in the county in this age category. This translates into 405 persons. The Borough's overall age composition as reflected by the median age information is slightly greater then the county as shown in Table 3. Also shown in Table 3 is the fact that the Borough's population is aging to a degree slightly higher when compared with the county as shown by the information relating to median age. It is significant that the population in both the Borough and the county have aged considerably between 1980 and 2000. This may indicate that many residents have made a choice to remain in their communities rather then move to a retirement location away from their home town.

Table 2

POPULATION DISTRIBUTION BY AGE

CHESTER BOROUGH AND MORRIS COUNTY

Age B		ugh	County
Category	Number	Percent	Percent
Under 5 5-9 10-14 15-19 20-24 25-34 35-44 45-54 55-59 60-64 65-74 75-84	120 119 100 88 72 206 285 240 101 81 111	7.3 7.3 6.1 5.4 4.4 12.6 17.4 14.7 6.2 5.0 6.8 4.8	7.0 7.3 6.9 5.7 4.4 13.5 18.4 15.3 5.9 4.1 6.3
85+	34	2.1	1.4

Table 3
TRENDS IN MEDIAN AGE

CHESTER BOROUGH AND MORRIS COUNTY

	1980	1990	2000
Chester Borough	31.4	35.9	39.1
Morris County	31.8	35.3	37.8

POPULATION PROJECTION

The population projection for the year 2010 has been developed by using the base 2000 Census population of 1,635 and applying the annual average building permit number (7.5 units) which is then multiplied by the average household size of 2.66 persons per household. This is projected out for the ten-year period from 2000 to arrive at the population for 2010. The calculation yields a total population of 1,815 persons or an increase of 11 percent over the ten-year period.

RACIAL CHARACTERISTICS

The 2000 Census indicates 94.7 percent of the Borough's population was classified as white. Blacks or African American people accounted for only .9 percent of the total population. The census also tabulated those people who described themselves as Hispanic or Latino. This group represented 6.9 percent of the total population. The Census Bureau has advised that this figure may represent an under count because of confusion regarding the question on the census form.

EDUCATIONAL ATTAINMENT

Table 4 shows the educational attainment information for the Borough compared with the county and state as a whole. The Borough's resident population is well—educated and has comparable education levels compared with the county. Of the 1,138 persons aged 25 and over in the Borough, 90.2 percent were high school graduates or had achieved a degree beyond the high school level. In terms of persons with a bachelor's degree or higher, the Borough has a slightly higher percentage of residents with this degree. Compared with the state, the level of educational attainment is substantially higher with the

greatest disparity showing up in the relatively low percentage of state residents with a college degree.

Table 4
EDUCATIONAL ATTAINMENT AS OF 2000

	Percent Less than 9 th grade	Percent High School Grad. or higher	Percent Bachelor's or higher
Chester	3.5 (40)*	90.2	48.3
Morris	3.5	90.6	44.1
County			
State	6.6	82.1	29.8

^{*} Number in parenthesis is actual number.

INCOME

Income levels are an important consideration in determining the population characteristics of a community. Table 5 compares data for the Borough and the county. In every category the Borough's income characteristics exceed the county. It is interesting to note the disparity between the income data for males and females. This has important implications related to housing issues when single parent households are considered. The segment of the population raising children with lower income levels creates a special challenge especially if the household head is female with no husband present. In the Borough's case there are sixteen female householders with no husband present with children under 18 years of age.

It has been noted that women represent a unique group compared with men because they live longer but earn less, save less, and are less likely to have a pension. (1) As a result, the problems women face as they age are very different from the problems encountered by men. This difference does have implications relating to public policies pertaining to housing issues and the provision of social services.

In terms of poverty status, the census counted a total of nine families which fall below the poverty level in the Borough. (2)

^{(1) &}quot;Her Next Step?" Washington Post, June 2, 2002.

⁽²⁾ In 1999, a family of four was said to be living in poverty if its income was less than \$16,954.

There were a total of eighty—four individuals which were counted as falling below the poverty level threshold or 5.1 percent of the Borough's residents.

Table 5

INCOME CHARACTERISTICS — CHESTER BOROUGH & MORRIS COUNTY

	Chester Borough	Morris Co.
Per Capita Income	42,564	36,964
Median Household Income	80,398	77,340
<pre>Male full-time, year round worker*</pre>	76 , 772	60 , 165
Female full-time, year round	45,833	40,065
worker*		

^{*} Represents median earnings.

VEHICLE USE

The 2000 Census provided information about commuting time. The average time spent commuting to work is 25.5 minutes in the United States, about three minutes more than in 1990. Fewer people walked to work or took public transportation. However, it is interesting to note that more people chose to avoid all commuting. In 2000, 23 percent more people worked at home than at the beginning of the decade in 1990. This is a substantial change in lifestyle and has implications relating to land use planning and how communities should be providing for future growth and development.

It is interesting to note that 11 percent of Chester Borough's occupied housing units did not have any vehicles available to the household. This is in sharp contrast to the county data which indicates approximately 5 percent of the households did not have vehicles. For those households who depend upon the local economy for employment, it is not essential to have a vehicle because many of the essentials for the home and family can be obtained without depending on a private vehicle. The Borough of Chester is very unique in this respect compared with many communities that are characterized by sprawling, low-density development located far from business services and facilities.

HOUSING ELEMENT

INTRODUCTION

This element presents general housing information for Chester Borough. It describes housing characteristics and provides information concerning changes that have taken place over time.

This information is important because it provides information about the housing patterns in the Borough of Chester. This serves as a basis for an improved understanding of the community and can also be used to identify housing needs. The data is helpful when formulating programs and policies, which potentially benefit and/or impact the community. By analyzing this information, it is possible to determine trends that might affect the community and its residents in the long run.

The timing of this Master Plan is especially fortunate because the census data from 2000 has just been released and is now available. The data contained herein has been extracted from the census. The Morris County Planning Board has provided tabulated data for comparison purposes for all municipalities within the county. This information has been relied upon in the preparation of this document.

This element is needed to develop the Fair Share Housing plan, which will be required by the New Jersey Council on Affordable Housing (COAH). At the present time this agency is in the process of determining the allocation to be applied to all New Jersey communities. Once the information is released, it will be necessary for the Borough to develop a fair share housing plan to demonstrate that the municipal obligation can be met.

It should be noted that the Borough has previously been notified that it must make up two units of affordable housing. The Planning Board has discussed how this could be handled; however, there have been no ordinance changes to address this issue. Once the Master Plan has been adopted, it would be appropriate to proceed with this change.

EXISTING HOUSING CHARACTERISTICS

According to the 2000 Census, the Borough has a total of 627 housing units, of which 609 were occupied at the time the census was conducted. Table 1 classifies the different types of units and the number of units in each type. This information confirms the fact that the Borough's housing stock is largely made up of detached single—family dwellings. It is interesting to note that Norris County's percentage of single—family attached housing represented 69.3 percent compared with the Borough's percentage of 69.7.

Table 1
HOUSING UNITS IN STRUCTURE BY TYPE

Structure Type	Number	Percent
1-unit detached	437	69.7
1-unit attached	25	4.0
2 units	19	3.0
3 or 4 units	44	7.0
5 to 9 units	8	1.3
10 to 19 units	_	_
20 or more units	43	6.9
Mobile home	50	8.1
TOTAL	627	100.0

The age of the Borough's housing stock is shown in Table 2. It is interesting to note that the majority of housing units, 64.6 percent, were constructed prior to 1970. The age of the housing stock usually bears some relationship to general physical conditions of the stock. In the Borough's case, there does not appear to be any obvious signs of serious physical deterioration based on the windshield survey, which was conducted at the time of the land use survey. One exception to this was the area of housing located in and adjacent to the downtown area. Based on the survey, it appeared that there might be signs of limited deterioration.

Table 3 shows the value of owner occupied housing units and the median value of the units.

Table 2

AGE OF HOUSING STOCK

Year	Structure Built	Number	Percent
1999	to March 2000	27	4.3
1995	to 1998	32	5.1
1990	to 1994	111	17.7
1980	to 1989	52	8.3
1970	to 1979	102	16.3
1960	to 1969	81	12.9
1940	to 1959	100	15.9
1939	or earlier	122	19.5

The data in Table 3 clearly show that the greatest concentration of high value housing is in the range of housing valued between \$200,000 and \$499,999. This cluster of housing represents 67.3 percent of the housing stock in the Borough. only 13.9 percent of the housing stock is valued below \$200,000.

Table 3

VALUES OF OWNER OCCUPIED HOUSING UNITS

Value	Number	Percent
Less than \$50,000	2	0.5
\$50,000 to \$99,000	_	_
\$100,000 to \$149,999	9	2.3
\$150,000 to \$199,999	43	11.1
\$200,000 to \$299,999	126	32.5
\$300,000 to \$499,999	135	34.8
\$500,000 to \$999,999	4	1.0
Median value	\$313,600	

The cost of housing is a concern if the homeowner or renter pays an unusually high percentage of their income for basic shelter, and there is little or no disposable income available for other living expenses. Generally, if more than 33 percent is being used to pay for housing expenses then it is considered to be an excessive amount for housing. Table 4 provides information relating to housing expenses as a percentage of income for both owners and renters.

Table 4
HOUSING COSTS AS A PERCENT OF INCOME

Percent of Household Income		Owner Renter		
N	umber 1	Percent	Number	Percent
Less than 15.0 percent	116	29.9	20	14.8
15.0 to 19.9 percent	62	16.0	29	21.5
20.0 to 24.9 percent	55	14.2	17	12.6
25.0 to 29.9 percent	63	16.2	18	13.3
30.0 to 34.9 percent	29	7.5	3	2.2
35 percent or more	63	16.2	43	31.9

Almost 25 percent of homeowners are paying 30 percent or more for housing, and almost 35 percent of renters are paying 30 percent or more. It should be noted that in all of New Jersey one in five homeowners or 20 percent carry a "housing burden" meaning they must spend more than a third of their income on housing. New Jersey's burden rate is the fourth highest among the 50 states. Only California, Hawaii and Nevada are worse off. (1) This has implications for the development of appropriate policies related to housing.

Occupancy status of housing in the Borough is another indicator of the general character of housing. Table 5 shows some comparative data relating to vacancy rates for selected jurisdictions. There are no inferences which can be drawn from this information other than there is no large quantity of housing available for occupancy.

Table 5
HOUSING OCCUPANCY STATUS FOR SELECTED JURISDICTIONS

Jurisdiction	Total:	Occupied	% Occupied	Vacant	% Vacant
Morris Co.	174,379	169,711	97.3	4,668	2.7
Chester Boro.	627	609	67.1	18	2.9
Chester Twsp.	2,377	2,323	97.7	54	2.3
Morristown	7,615	7,252	95.2	363	4.8
Mt. Arlington	2,039	1,918	94.1	121	5.9
E. Hanover	3,895	3,843	98.7	52	1.3

The tenure of occupied housing units is shown in Table 6 for selected jurisdictions. The information presented shows a consistent relationship with the percentages relating to the County of Morris. The other information for other towns was presented to show that some communities do not have a balanced relationship of owner/renter characteristics as a part of their housing stock.

Table 6
TENURE OF OCCUPIED HOUSING UNITS FOR SELECTED JURISDICTIONS

To	otal # Owne	r Occupied	occ. Re	enter Occ.	% Occ.
Morris Co.	169,711	129,039	76.0	40,672	24.0
Chester Boro.	609	474	77.8	135	22.2
Chester Twsp.	2,323	2,159	92.9	164	7.1
Morristown	7,252	2 , 865	39.5	4,387	60.5
Mountain Lakes	1,330	1,281	96.3	49	3.7

The census long form questionnaire asked about when the housing unit was occupied by the current householder. Table 7 provides this information. This information clearly shows the transient nature of the housing that is located in the Borough and in many other jurisdictions. In the Borough's case, according to the data, the householder occupied 65 percent of the occupied housing units after 1990. This means that more than half of the residents of the community are probably new residents of the Borough, which may hold true for Morris County as a whole and for the majority of communities in the county. Clearly, many residents have

moved into new homes within the last ten years, whether they moved from within or outside of the county or from

within the same community within the county. The pattern of regularly moving into a different residence appears to be a relatively new phenomenon compared with the patterns of geographic stability, which existed fifty or more years ago.

Table 7
YEAR HOUSEHOLDER MOVED INTO UNIT BY PERCENT

Area	1999 to March 2000	1995 to 1998	1990 to 1994	1980 to 1989	1970 to 1979	1969 or earlier
New Jersey	15.9 %	27.7%	16.3%	17.4%	10.7%	12.3%
Morris Co.	14.1%	28.2%	17.1%	17.4%	11.3%	12.0%
Chester Boro.	15.6%	27.4%	22.0%	16.9%	9.4%	8.7%
Morristown	19.7%	35.8%	16.7%	12.3%	6.6%	8.9%
Montville	11.4%	32.8%	17.1%	16.1%	12.7%	9.9%

The average household size was determined as part of the 2000 Census. Table 8 provides data pertaining to this housing characteristic.

Table 8

AVERAGE HOUSEHOLD SIZE BY SELECTED JURISDICTION AND TENURE

Jurisdiction	Owner Occupied	Renter Occupied	<u>Total</u>
Morris County	2.88	2.21	2.72
Chester Borough	2.83	2.07	2.66
Chester Township	3.10	2.39	3.05

It is interesting to note that the household size of renter-occupied housing units is actually smaller than for owner-occupied units. It will hold true that rental units may exert less pressure for services compared with owner-occupied units based on the household size perimeter.

Within the last decade between the 1990 and the 2000 Census, Chester Borough experienced the third highest growth rate in housing units by percentage in the county. Table 9 provides information relating to this. While the

Borough's absolute growth numerically in housing numbers is not substantial, the percentage increase is rather significant. The municipalities listed in Table 9 represent the top five municipalities having the greatest growth rates between 1990 and 2000.

Table 9

GROWTH RATES FOR SELECTED JURISDICTIONS BETWEEN 1990 AND 2000

Jurisdiction	<u> 1990 Census 2</u>	000 Census	90-00	90-00
			Change 5	& Change
Morris Co.	155,748	174,379	18,631	12%
Montville	5,126	7,541	2,415	47.1%
Mt. Arlington	1,470	2,039	569	38.7%
Chester Boro.	492	627	135	27.4%
Roxbury	6,799	8,550	1,751	25.8%
E. Hanover	3,112	3,895	783	25.2%

CONCLUSIONS AND RECOMMENDATIONS

- 1. Chester Borough's housing stock appears to be well maintained and is reasonably well balanced.
- 2. Future development of vacant property in the Borough is limited to a small number of parcels as indicated in the Land Use element.
- 3. The development of these areas should occur in a fashion which will contribute to maintaining a well-balanced housing profile for the Borough.
- 4. Large lot, sprawling development will not provide the optimum balance of housing type and variety of housing diversity which will complement the existing stock and address the future housing needs in an adequate manner.
- 5. Affordable units should be required in all remaining large—scale development and in any redevelopment projects to ensure a balanced housing stock for the future. This will result in a sustainable community.

Footnotes:

(1) New Jersey Future Facts, May 17, 2002 Edition, Sources: National Association of Realtors, U.S. Census

ECONOMIC PLAN ELEMENT

INTRODUCTION

This element presents information for Chester Borough about the economic conditions affecting the community. It provides information about employment and job-related information that have taken place over time.

This information is important because it provides information about the economic conditions in the Borough of Chester. This serves as a basis for an improved understanding of the community and can also be used to identify areas of special needs. The data is helpful when formulating programs and policies, which potentially benefit and/or impact the community. By analyzing this information, it is possible to determine trends that might affect the community and its residents in the long run.

ECONOMIC CENSUS

The last economic census was conducted in 1997 and the results were tabulated by zip code. Table 1 shows the results of this effort. Establishments were classified by a standard industrial code for purposes of the census.

As expected, the retail category had the largest number of reporting establishments (77) and the greatest sales or receipts and employees. This category was followed by the professional, scientific, and technical service group, which had a total of 67 establishments. This business group had a payroll that was equivalent to the retail group, indicating that this group is a large contributor to the local economy. Health care and social assistance was the third largest group in terms of number of establishments. This group along with the two previously mentioned groups contributed the greatest payroll of all groups considered.

EMPLOYMENT TRENDS AND ESTABLISHMENTS BY SECTOR

Table 2 shows comparative information for 1993 and 2000 relating to jobs and number of establishments by sector for the Borough and Morris County. It is interesting to note that the service sector is the largest employment sector in the Borough.

Table 1
1997 ECONOMIC CENSUS BY ZIP CODE 07930

NAICS Code*	Description	# of Estm'ts	Sales or Rec'pts (\$1,000)	Ann. Payroll (\$1,000)	Paid Empl.
31-35	Manufacturing	5	N	N	N
44-45	Retail Trade	77	100M249**	10M- 24999	500- 999
54	Prof., scientific, & technical services	67	25M-49999	10M- 24999	250- 499
56	Admin. & Support & waste management& remediation services	14	10M-24999	5000- 9999	100- 249
61	Educational Services	3	1000-2499	100-249	10-19
62	Health care & social assistance	42	25M-49999	10M- 24999	250499
71	Arts, entertainment, & recreation	3	1000-2499	1000- 2499	100- 249
72	Accommodations & food services	31	10M-24999	2500- 4999	250499
81	Other services (except public administration)	27	10M-24999	2500- 4999	100- 249

NAICS Code means the North American Industry Classification System. N= not reporting; M= millions (sales and payroll figures are already in thousands), ** This translates to the range of \$100,000,000 to \$249000,000.

Source: Bureau of the Census

Table 2

1993/2000 EMPLOYMENT TRENDS AND ESTABLISHMENTS BY SECTOR

Chester Borough							Morris County					
1993			2000		1	1993		2000				
Secto rs	Uni ts	Job s	Uni ts	% Ch	Jo bs	% Ch.	Unit	Jobs	Unit s	% Ch	Jobs	% Ch
AGFFM U	9	28	9	0	30		454	2,194			*	
Const	28	183	30	7. 1	31 9	74. 5	1,58 0	7,878	1,60 4	1. 5	11,08 5	40.7
Manfc tr	*	*	*		*		732	36 , 44	723	1. 2	37 , 03	1.
TCPU	*	*	*		*		538	18 , 94	605	12 .5	21 , 08	11 .3
Whole -sale	16	74	21	31	52	- 29. 7	1,50 8	16 , 20 5	1,59 3	5. 6	22,22	37 .1
Retai 1	77	822	71	- 7. 8	78 0	- 5.1	2,79	34 , 31	2,74 0	1.	40,72	18 .7
FIRE	18	87	21	16 .7	10	14. 9	1,05 8	19 , 97	1319	24	24,31 4	21 .7
Servi ces	96	858	110	14	99 5	15. 9	5,65 4	66 , 68	6,60 4	16 .8	89 , 36 5	34
TOTAL PRIVA TE	250	2,0 72	268	7. 2	22 96	10.	14,3 15	202,6 42	15,6 85	9. 6	249 , 5 38	23

Units represents establishments.

AGGFFMU (Agrlculture, forestry, fishing, mining, unclassified); TCPU (Transportation, communications, public utilities); FIRE (Finance, insurance, real estate).

* Non-disclosable or non-represented data.

Unit counts for 1993 for Chester are third quarter unit counts. Unit counts for 2000 for Chester are annual average unit counts. Unit counts for Morris Co. are annual average counts. Annual average unit counts for Chester by sector are not available.

Wholesale trade comprises establishments involving wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. Examples are auto pads, farm supplies, and building products dealers and lumberyards.

Retail trade comprises establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise.

Other services not covered by other classification system items are primarily engaged in activities such as repair and maintenance of equipment and machinery, personal and laundry services, religious and grant making, civic, professional and similar organizations.

Establishments providing death care services, pet care services, photo finishing services, temporary services, and dating services are Included.

Source: NJ Department of Labor

EMPLOYMENT TRENDS AND ESTABLISHMENTS BY SECTOR

Table 2 above shows comparative information for 1993 and 2000 relating to jobs and number of establishments by sector for the Borough and Morris County. It is interesting to note that the service sector is the largest employment sector in the Borough.

The retail sector followed closely; however, there was a decline in the number of establishments (-7.8%) and employees (-5.1%) between 1993 and 2000. It is difficult to pinpoint the reasons for this decline; however, it is an

important factor to be aware of since the Borough's economic base is largely related to the retail sector.

Between 1993 and 2000 there was a 74.5 percent increase in construction related jobs in the Borough. This was the greatest increase in job growth reported for any sector in both the Borough and Morris County. The wholesale sector experienced a major decline in jobs from 1993 to 2000.

When compared with the County of Morris for the period between 1993 and 2000, the number of establishments in the Borough increased by 7.2 percent, while the establishments in the county increased by 9.6 percent. This is not a significant difference. However, the increase in the Borough's jobs during the same period, 10.8 percent, is significantly less than the increase for the county, 23.1 percent.

PLACE OF WORK

One of the desirable strategies to promote appropriate community development is to provide a reasonable balance of jobs for residents in a community. This is important for a variety of reasons ranging from basic economic considerations to lessening traffic congestion by reducing commuting from the community. A ratio of population to jobs in the community is used to measure this factor. Table 3 provides data for selected areas.

Table 3
POPULATION TO JOB RATIOS

	9 Population Estimates	1999 Private Sector Emplm't	Population to Jobs
New Jersey	8,359,592	3,247,983	2.57 to 1
Morris County	463,545	242,762	1.91 to 1
Chester Borough	1,520	2,136	.71 to 1
Chester Twsp.	6 , 991	1,074	6.50 to 1
Denville Twsp.	15,846	7 , 356	2.15 to 1
Mendham Borough	4,999	769	6.50 to 1
Morristown Town	16,472	31,520	.52 to 1

Source: NJ Department of Labor

Note: Employment estimates do not include public employees.

Generally, a higher job ratio indicates the community is a bedroom community where jobs are scarce and residents travel outside the community to their jobs.

OTHER CONSIDERATIONS

It is important to avoid viewing Chester's economy in isolation from the larger economic picture associated with Morris County and the larger New York/New Jersey metropolitan area. The Borough's tourist industry is the mainstay of the local economy, however, it has not been developed to its maximum potential. Some of the ideas contained in this Master Plan are offered for the purpose of advancing the basics associated with the tourist industry.

There are other possibilities that should be explored in order to promote a balanced level of economic activity. For example, the Borough should explore a partnership with the Morris County Tourist Center to open and staff a tourist information center near the intersection of Route 206 and County Route 513. Not only would the Borough benefit from this facility, but the county as a whole would benefit by introducing the county facilities to visitors not familiar with the rich historical and cultural activities and facilities located within the county. Improving tourist facilities would encourage longer visits to the Borough. The business community in the Borough and county would benefit from increased economic activity.

Careful coordination with the County and the State Chamber of Commerce to attract tourists from outside of the immediate New Jersey area should be explored. This should include developing package bus trips and working with tour companies to bring travelers to a very walkable, historic community. The concept of "leaving the driving to us" solves many related problems for the Borough and works well in today's environment with concerns related to air pollution, traffic congestion and the ever present issue related to lack of parking.

Economic development grants should be pursued to promote and encourage these ideas with the Borough partnering with the Historic Chester Business Association. This organization is poised to participate with the Borough to develop innovative programs which will benefit the downtown area.

SMART GROWTH

Smart growth is development that serves the economy, community and the environment. Smart growth makes it possible for communities to grow in ways that support economic development and jobs; create strong neighborhoods with a range of housing,

commercial, and transportation options; and achieve healthy communities that provide families with a clean environment.

The concept of smart growth involves the development of compact neighborhoods and an integration of mixed uses which are carefully designed according to models of community development which resemble the village core area of Chester Borough. This type of development occurs on small lot areas and is designed as an overall, interrelated development. Typically, these smart growth areas are pedestrian oriented, and the automobile is not given primary consideration as a dominant site design element.

Recently, a coalition of organizations, the Smart Growth Network, has identified 10 principles, which are felt to be critical in order to achieve smart growth. These principles are as follows:

- 1. Mix land uses.
- 2. Take advantage of compact building design.
- 3. Create a range of housing opportunities and choices.
- 4. Create walkable neighborhoods.
- 5. Foster distinctive, attractive communities with a strong sense of place.
- 6. Preserve open space, farmland, natural beauty, and critical environmental areas.
- 7. Strengthen and direct development towards existing communities.
- 8. Provide a variety of transportation choices.
- 9. Make development decisions predictable, fair and cost effective.
- 10. Encourage community and stakeholder collaboration in development decisions.

The Smart Growth Network noted: "Perhaps most critical to successfully achieving smart growth is realizing that no one policy or approach will transform a community. The policies described here should be used in combination with each other to better achieve healthy, vibrant communities. A first step in the process of evaluating and determining how communities want to grow is for communities to recognize the importance

and value of modifying the way they grow." (1)

It is also interesting to note that the State Plan of Development and Redevelopment has identified Chester Borough as a Town Center which <u>already</u> exists. The Borough generally fits the criteria established in the plan for this type of center.

It should be noted that the Borough has not been officially recognized as a designated center. There is a distinction between being identified and actually receiving recognition as a designated center. The process for center designation has been changed to a procedure known as plan endorsement. Once a plan has been endorsed, then the center within any jurisdiction essentially receives center designation as part of the endorsement process. Endorsement is costly and can be time- consuming, especially for a small community such as the Borough of Chester. It is recommended that the plan be submitted as is to the State Plan Commission for endorsement consideration with a hope that the plan will satisfy state concerns. This will enable the Borough to pursue grant opportunities which are consistent with the Master Plan and represent an opportunity to advance new programs and projects to benefit residents and visitors to the community.

CONCLUSIONS AND RECOMMENDATIONS

- 1. Enhance the downtown area through balanced, sensitive development, which will contribute to the sustainability of the area and the community.
- 2. Encourage a partnership between the Borough and the business community including the Historic Chester Business Association with a formalized structure to advance mutual interests.
- 3. Pursue grant opportunities focusing on enhancing the tourist industry.
- 4. The Morris County Tourist Center should be a full partner in promoting the Chester tourist industry. Efforts should be made to establish a relationship to promote mutual interests.

^{(1) &}quot;Getting to Smart Growth," 100 policies for Implementation, www.smartgrowth.org

COORDINATION WITH OTHER PLANS

INTRODUCTION

The MLUL states that the Master Plan include a specific policy statement, "indicating the relationship of the proposed development of the municipality as developed in the master plan to (1) the master plans of contiguous municipalities, (2) the master plan of the county in which the municipality is located, (3) the State Development and Redevelopment Plan. . . (4) the district solid waste management plan..."

RELATIONSHIP TO LOCAL PLANS

The Township of Chester surrounds Chester Borough, and the uses and the zoning of both jurisdictions are compatible. The map entitled, "Surrounding Land Uses and Zoning, Chester Borough" shows how property is designated immediately adjacent to the Borough. In all cases, the uses are compatible, and there are no conflicts relating to either type or intensity of use.

RELATIONSHIP TO COUNTY PLANS

The County of Morris Master Plan relating to land use was last adopted in 1975. This plan designated the Borough as a center of intense uses and recommended that the intensity of uses should be reduced as one moves away from the geographic center of the community. The plan did not make specific recommendations about types of land use or intensity of uses. Therefore, the Borough's plan is consistent with the county's master plan.

RELATIONSHIP TO STATE PLANS

The State Plan of Development and Redevelopment has designated virtually the entire Borough as a Planning Area # 5 category. This designation indicates the area is classified as an environmentally sensitive planning area. The intent of the state plan for this planning area is to:

- Protect environmental resources through the protection of large contiguous areas of land;
- accommodate growth in centers;
- protect the character of existing stable communities;

- confine program to sewers and public water services to centers;
- · revitalize cities and towns.

In addition to the Planning Area #5 designation, there are two small areas designated as Planning Area #4B. These areas are located in the southwest area of the Borough in the quadrant west of Old Gladstone Road and south of Route 513. Planning Area #4B is designated as a Rural/Environmentally Sensitive Planning Area. The intent of PA4B is the same as its underlying planning area, rural planning area PA4 for existing uses of the land.

The goals and policies of the Borough's plan are consistent with these concepts. As previously indicated in the Economic Plan Element, the Borough is designated in the state plan as an identified center. This recognition is important and is an obvious statement of current conditions. The Borough's Master Plan is consistent with the state plan.

RELATIONSHIP TO DISTRICT SOLID WASTE MANAGEMENT PLAN

As indicated in the Recycling Element, the Borough adheres to the guidelines established by the County of Morris and the State of New Jersey in relation to solid waste disposal and management.

CONCLUSION

Based on the foregoing analysis, the Borough has developed its Master Plan to be consistent with other plans. Not only does this represent thoughtful, progressive planning, but, it will result in a community which is on the forefront of developing in a sustainable fashion consistent with concepts of smart growth and livable community development.

The Borough hopes that the document will qualify as a plan, which can be endorsed by the State Plan Commission. Not only would this reflect positively on the State of New Jersey as demonstrating and encouraging innovative planning at the local level, but it would also demonstrate the state's willingness to accept and endorse a plan which is highly consistent with the principles in the state's own blueprint for the future.