

*Master Plan*  
**TOWNSHIP OF CHESTERFIELD**

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**TOWNSHIP OF CHESTERFIELD  
BURLINGTON COUNTY, NEW JERSEY**

*October, 1997*

*Master Plan of the*

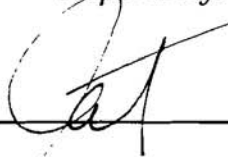
**Township of Chesterfield  
County of Burlington**

October, 1997

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

□      □      □

*Prepared By:*



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

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300 Bordentown-Chesterfield Road  
Trenton, New Jersey 08620

### **Planning Board**

Deborah Kelly, Chairperson

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□      □      □

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Carl E. Hintz, PP, AICP, CLA, ASLA, Planner

Planning Board of the  
Township of Chesterfield

RESOLUTION # 16 - 1997

A RESOLUTION ADOPTING AN AMENDED MASTER  
PLAN AND SUPPORTING HOUSING ELEMENT, AND  
CIRCULATION PLAN FOR THE TOWNSHIP OF  
CHESTERFIELD AND RECOMMENDING A 208  
AMENDMENT AND CENTERS DESIGNATION

BE IT RESOLVED by the Planning Board of the Township of Chesterfield,  
County of Burlington and State of New Jersey, that:

Section 1. ADOPTION The Board adopts after due notice and a public hearing held on October 28, 1997 the "Master Plan of the Township of Chesterfield" dated October, 1997 prepared by Carl E. Hintz of Clarke -Caton-Hintz setting within it the receiving and sending areas under its voluntary Transfer Development Rights Plan including the adoption of the Township's Housing Element and Fair Share Plan previously considered and adopted by the Board after a duly noticed hearing held on September 16, 1997 and the incorporating as part of its circulation plan "Chapter 1. Executive Summary of the Chesterfield Township Historic Preservation Study Final Report" dated April 30, 1997, prepared by Lehr Associates, Inc. which was the subject of a duly noticed hearing held on July 22, 1997. The combined documents cited shall be the Master Plan for the Township of Chesterfield provided for and required under the Municipal Land Use Law of the State of New Jersey, N.J.S.A. 40:55D-1, et seq .

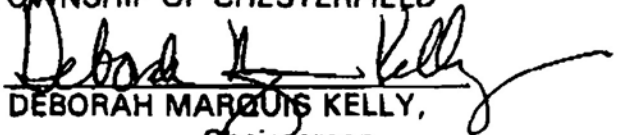
Section 2. 208 AMENDMENT. The Board recommends that Township Committee take the necessary steps to amend the Township's 208 Plan to include the entire receiving area and adjacent isolated properties within a sewer service area.

Section 3. CENTER'S DESIGNATION: The Board directs its staff to apply to the Office of State Planning and the State Planning Commission for center designation of Crosswicks and the TDR receiving area.

Section 4. FILING The Board Secretary is directed file copies of the documents referenced with all appropriate County Planning Board and State agencies as required by law.

PLANNING BOARD OF THE  
TOWNSHIP OF CHESTERFIELD

Dated:

By   
DEBORAH MARQUIS KELLY,  
Chairperson

ATTEST:

  
BERNADETTE LASKE, Board Secretary

## ACKNOWLEDGMENTS

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*This report is the result of the collaborative efforts of many people. In particular, the Burlington County Land Use Staff, including Susan Craft and Alan Buchan, need to be acknowledged. The assistance of other Burlington County staff and the professionals retained by the Burlington County Board of Chosen Freeholders are thanked for their cooperation and the data they provided, as well as their input in the preparation of the policy issues of this Master Plan*

*William Queale, PP, AICP, of Queale and Lynch, Inc., previous planning consultant, also contributed extensively to portions of this document.*

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# A Report on the Reexamination of the Master Plan & Development Ordinance

In compliance with the Municipal Land Use Law (MLUL), this report represents the reexamination of the Township's Master Plan and Land Development Ordinance. The MLUL requires municipalities to reexamine their master plans and ordinances at least every six years. The purpose is to have regular reviews in order to provide current information and respond to changing conditions in the interest of keeping the planning and zoning policies as up-to-date as possible.

C.40:55D-89a *"The major problems and objectives relating to land development in the municipality at the time of such adoption, last revision or reexamination, if any."*

The major problems and objectives confronting the Township during the 1970s were the efforts to create and adopt the Township's first master plan and implementing ordinance. The revisions during the 1980's, dealt with efforts at preserving agriculture via mechanisms that were fair to property owners while recognizing the unique needs of agriculture, environmental constraints, and the desire to provide a variety of housing.

In developing and implementing the 1976 Master Plan the voluntary transfer of development credits was created. This transfer concept was devised to comply with four main objectives: meeting the purposes of *N.J.S.A. 40:55D-2g* and *i*; applying clustering and lot size averaging techniques to non-contiguous properties; providing the option to transfer development as one choice among several development choices; and keeping the credits attached to the land to

avoid the question of whether rights separated from the land were taxable. In the 1985 Master Plan the issues centered around updating background data and reducing the development density to be more consistent with soil conditions and the growing impact of development on commercial farming.

Since that time, the Township Committee and Planning Board have been exploring issues related to creating a viable "receiving area", using a voluntary transfer of development credits (TDC) program. With assistance from the Burlington County Land Use office, they have been analyzing infrastructure needs, alternatives, financing of such facilities, and other needs including roads, sewer and water. The Committee and Board have also been examining architectural and design features relating to the "receiving area".

C.40:55D-89b *"The extent to which such problems and objectives have been reduced or have increased subsequent to such date."*

Farmland preservation has remained a constant policy in the Township for at least two decades. The Township has been a leader in the State in this regard. During the 1980s a state-wide effort to preserve agriculture emerged. Regional plans proposed directing growth toward the urban areas and identified agricultural regions and environmentally sensitive areas to be protected from development. In addition, the Legislature adopted the "*Burlington County Transfer of Development Rights Demonstration Act*" in 1989 (TDR Act) giving the Township additional legislation to advance its goal of farmland preservation in an equitable manner consistent with sound local and regional planning objectives. Moreover, amendments to the Municipal Land Use Law (MLUL) enacted in 1996 to allow cluster development using non-contiguous properties

further helped the Township to advance farmland preservation goals.

Notwithstanding some scattered development since the 1985 Master Plan, the Township is still a relatively undeveloped, agricultural community. There have been no significant changes in such basic aspects of the community as utility services, highways, population growth, and school construction. The emphasis on farming has continued. However, development pressures have increased and, in particular, scattered residential development along highway frontage has emerged, posing a threat to long-term highway safety, and increasing the areas of conflict between new housing and existing farm operations. The current ordinance has resulted in new development which has wasted land resources and has raised increased awareness of appropriate land development.

The interest in farmland preservation also increased. Through 1990, the permanent preservation of 15 farms took place involving about 2,538 acres through the State/County farmland preservation program. This acreage was in addition to the 608 acres acquired in 1985 with State/County/Township funds. Continuing these preservation efforts through the voluntary TDC program is an attempt to expand the acreage preserved in large contiguous blocks of farmland in order to strengthen the Township's agricultural industry. Coupled with this preservation effort is a growing concern to protect from development the land that is adjacent to the preserved farmland. Developers are often attracted to properties adjacent to dedicated farmland because the new homes will abut property that will not be developed. The voluntary TDC program is part of an effort to protect the public's investment in the farms that have already been deed-restricted.

There has been increased through traffic as a result of growth of housing and employment outside of Chesterfield. The present road system may not be sufficient to handle existing and future traffic demands. In fact, the Township's *Historic Preservation Transportation Study, Draft Final Report*, dated April 30, 1997, concludes that three intersections in the Township under their current unsignalized configurations would fail (meaning level of service (LOS) F) under an existing zoning build-out scenario. These intersections are Church/Main, Church/Ward Avenue, and CR528/CR677. Two other intersections would operate at LOS C, CR528/CR660 and Main/Ellisdale-CR660. Under a TDC development build-out scenario, the report concludes that the operations at only two of these same intersections would decrease. At Church/Main and Church/Ward operations would decrease to LOS E overall; and operations at CR528/CR677 would decrease to LOS B overall. The report also concludes that all other intersections would operate at LOS A under the TDC scenario.

C.40:55D-89c *"The extent to which there have been significant changes in the assumptions, policies and objectives forming the basis for such plan or regulations as last revised, with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, and changes in State, county and municipal policies and objectives."*

#### DENSITY AND DISTRIBUTION OF POPULATION AND LAND USES

This new Master Plan anticipates future development to occur based on the voluntary TDC concept. As a result, low density development that might otherwise have been sprawled across farmland is instead to be directed to a

"receiving" zone and two potential future receiving zones (Chesterfield and Sykesville), where new villages and hamlets are to be developed at modest densities. In this manner, the future population and land uses will be concentrated in designated areas in an effort to preserve major blocks of farmland while reducing infrastructure and the costs of public services.

#### HOUSING CONDITIONS

The Township now has more than 800 dwelling units. They are located in three villages, a variety of subdivided lots, and on scattered farms. Major subdivisions in the Township include Crosswicks Chase, Crosswicks Knoll and Chesterfield Hunt. Deteriorated housing is not a problem of consequence, and where a home has code violations, the Township should seek ways to encourage rehabilitation of the structure.

#### CIRCULATION

The proposed voluntary TDC program, by concentrating development into the designated "receiving" zone and possibly into two future receiving zones, will reduce the mileage of new streets needed to serve future development and the total number of trips generated within the Township. The proposed circulation system coordinates vehicular and pedestrian/bikeway traffic between villages and hamlets and from residential neighborhoods to retail centers, schools, parks, and other public places. As a result, this new Master Plan recommends significant changes in the circulation system of the Township. It identifies a coordinated street system within the areas to be developed, and correspondingly reduces the street classifications throughout the agricultural areas.



## CONSERVATION OF NATURAL RESOURCES AND ENERGY

Through a direct effort to preserve major blocks of land for agriculture, the proposed Plan will conserve the resource of prime farmland that presently dominates the character of the Township. This effort will direct new development away from farming activities and into designated areas where housing, businesses, and a variety of public and quasi-public uses are to be developed. As a result, the street system is more efficient and people are within walking and biking distance of various public and business services. The result is less street mileage and less long-term maintenance costs for streets and drainage systems compared to the same development being spread across the entire Township. Public service vehicles will not have to travel as far to serve the same number of people, hence greater efficiency can be expected such as less fuel consumption and less wear and tear on vehicles. In addition, to the extent the concentration of development encourages people to walk or ride a bike, less energy is wasted on fuel for daily needs.

## HISTORIC RESOURCES

The Township has many historic sites and structures since the first settlers arrived in the late 1600's. Preservation of these buildings, sites and districts will require preparation and implementation of an historic plan element. The Township has commissioned the preparation of the *Chesterfield Township Historic Preservation Transportation Study* to further the goals of historic preservation with respect to growing traffic pressures. Consideration should be given to buffering the Village of Crosswicks to preserve its historic integrity.

## CHANGES IN STATE, COUNTY AND MUNICIPAL POLICIES AND OBJECTIVES

In 1983, the N.J. Supreme Court decided the Mt. Laurel II litigation concluding that any Municipality within part of the State's designated "growth area" was to make provision for that municipality's fair share of the region's low and moderate income housing need. As a result of that decision, the Township acquired a 33 acre site and devised a plan to implement the Court's decision in conjunction with its agricultural preservation goals.

In 1985 the New Jersey Legislature passed the Fair Housing Act creating the Council on Affordable Housing (COAH) and also, under separate legislation, created a State Planning Commission. The legislature also adopted Burlington County's TDR Act in 1989. The Township's proposed voluntary TDC program follows the spirit of the 1989 TDR Act.

The State Planning Commission's first draft plan was discussed during 1988 and 1989. The 1990 revision to the State Development and Redevelopment Plan went through the cross-acceptance process where counties and municipalities reviewed and commented on the Plan. The State Plan was adopted in 1992. The State Planning Commission has identified Chesterfield as an area for agricultural preservation.

The State Plan also urges the use of the TDR concept to remove development from agricultural areas and direct it into villages and hamlets. The purpose is to direct growth to areas where services can be provided, while preserving major blocks of land for farming.

As to local policies, there were no significant changes in the broad assumptions and objectives formed in Chesterfield's 1976 and 1985 Plans and the implementing ordinances. However, the new Plan proposes changes as a result of the Mt. Laurel II decision, Chesterfield's commitment to spend \$2.0 million to preserve farmland in conjunction with state and county funds, the preservation of 3,146 acres of farmland by 1990, the 1989 passage of the TDR Act, amendments to the MLUL in 1996 permitting cluster development using non-contiguous properties, and the County's creation of a TDR Bank to assist the local TDC program.

Although the Township is still primarily a very low density, farming community with a policy to preserve agriculture, several subdivision applications in the 1980s indicated that the zoning regulations adopted in 1987 would not preserve agriculture in an effective manner. Under those regulations, the pattern of housing development would have been too scattered, the remaining farmland too fragmented, and the continuation of both patterns would be disruptive to the remaining farm tracts. In an effort to achieve farmland preservation, this Master Plan recommends re-zoning in coordination with a voluntary TDC plan.

C.40:55D-89d *"The specific changes recommended for such plan or regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulations should be prepared."*

The intent of this Master Plan is to strengthen the farmland preservation efforts in an equitable manner and following the spirit of the provisions of the TDR Act. Under the proposed program, the bulk of any future development is to be concentrated in the "receiving" zone, and possibly into two future "receiving"

zones (Chesterfield and Sykesville) where utilities and other infrastructure and services can be located to serve the future population. The remainder, and bulk of the Township, will be left in agriculture. The number of development credits assigned to each property are based on the prior zoning as applied to soil conditions. As a means of compensation, the program allows the owner to sell the development credits in lieu of developing the land. "Sending" and "receiving" zones are delineated. The "receiving" zone and future "receiving" zones are limited in area so major blocks of contiguous land can be preserved for farming in the "sending" zone. The "receiving" zones are intended to be developed in a manner creating new villages and hamlets while the remainder of the Township is to retain its rural character and implement regional plans to provide the opportunity for farmland preservation and the industry of agriculture. These new villages and hamlets are not intended to represent future "growth areas" or some similar designation that would imply they are an extension of a regional growth area or some form of continued sprawl development.

The voluntary TDC program has also been reviewed to determine if it can be used to preserve environmentally sensitive areas, to protect and preserve historic sites and structures, and to provide land for passive and active recreation.

It is recommended the Planning Board continue to study, revise and eventually adopt a revised Master Plan. The assistance of the county and state in this process has been invaluable in achieving a plan which best serves the future of Chesterfield.

## Introduction

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The fundamental change in this Master Plan from previous Plans is the implementation of a voluntary Transfer of Development Credits (TDC) program which is consistent with the spirit and intent of the "Burlington County Transfer of Development Rights Demonstration Act" (TDR Act). Under this program, a "sending" zone is created in which development is permitted to be transferred to a separate growth area known as the "receiving" area. Upon such transfer, "sending" area land becomes significantly restricted. The primary intent is to preserve major blocks of contiguous land for farming as part of the broader agriculture preservation program. In exchange for this restriction, the owner may sell the development credits to someone who may use these credits to develop property in the "receiving" zones. This Master Plan recommends one "sending" and one "receiving" zone plus two possible future "receiving" zones (Chesterfield and Sykesville). Under the proposed program, the number of development credits assigned to each property are based on the zoning in effect in 1996 in accordance with *N.J.S.A. 40:55D-115*, definition of "development potential".

Several basic features continue to have a major influence on the Township's agricultural policies and the manner in which future development occurs. First among these are the existence of good farming soils and the fact that most of the Township continues to be agriculturally productive. Others include the limited, rural highway network, the scattered pattern of existing development, limited water and sewer services, no commercial or industrial base other than farming, and regional plans that direct development and the associated infrastructure

toward the Rt. 130/206 and the Interstate 295 and 195 corridors west and north of the Township. The major drainage patterns, wetlands, flood plains, scattered existing development, and the need to plan for water and sewer systems in the "receiving" zone establish some parameters that will guide the design of future development in the Township.

The Master Plan establishes written and mapped goals and objectives to serve as a guide for the future of the Township. It is adopted only by the Planning Board and is used by the Board and other agencies when reviewing matters referred to them such as zoning regulations and capital improvements programs. A Master Plan must be regularly reviewed and is most valuable when used and regularly updated. As development takes place and new forces emerge, there may be new construction techniques and different zoning and planning policies established -- such as the case with the 1989 TDR Act for Burlington County, and the 1996 amendments to the Municipal Land Use Law which permit cluster development using noncontiguous properties. When basic conditions change in the future, a re-examination of the adopted Plan may be in order. Modification of the original plan may be a logical result.

For these reasons, the Master Plan cannot be static, but must change as the Township changes and as new laws, revisions to regional plans, and new planning techniques emerge. At the same time, the Planning Board is the appropriate agency to distinguish between long-term advantages and short-term expediencies. The Planning Board should be devoted to the soundest community needs and work toward broad policies that will not be readily judged inadequate in the years ahead. These policies should be established in cooperation with various interest groups, the county, regional trends, and adjoining communities.

The final effectiveness of the Master Plan will depend in part upon the relationship established between the Township and these other agencies.

The Master Plan consists of several elements. The elements are contained in the respective maps and accompanying text. Because of the limited size of the maps it is impractical to include detailed information on all proposed land uses and other changes on one map, or in many cases on a series of maps. Therefore, in order to better determine site-specific information and the interrelationship of various components of the complete Master Plan, the text concerning the various elements must be consulted. The maps and text should be interpreted together. It is the intent of the Plan that the different elements are related even though shown on individual maps and discussed separately. The specifics of the total Plan have some flexibility in order to remain realistic and applicable to alternate development designs and agriculture preservation techniques. However, the concepts behind the Plan are basic and firm. Flexibility is offered because the Plan can be implemented in more than one way without altering the concepts.

## Summary of the Master Plan

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The Master Plan has been organized into a number of components, or elements that specifically describe the various facets and policies for articulating the Township's vision for future development.

### GOALS

The goals have been placed at the beginning of the Master Plan. The goals determine the direction of the Master Plan over the time period of the plan, which is at least six years. At the end of six years, the Master Plan will be formally reviewed to determine the magnitude of change and the extent to which the Master Plan should be revised. The goals provide the basis for determining whether the Master Plan has met its purpose.

### LAND USE PLAN ELEMENT

The Land Use Plan Element synthesizes years of development and fine tuning that have resulted in the Transfer of Development Credits (TDC) concept for the Township of Chesterfield. Existing land uses including agricultural areas in the Township are classified and mapped. The Element includes an in-depth discussion of the "sending" and "receiving" zones which implement the TDC program. Also described are the development potentials within the "sending" and "receiving" zones. Based on the TDC concept, land development is recommended by the Land Use Plan Element at varying densities designed to bring about the goals of the Master Plan.



Under the proposed TDC program, the number of development credits assigned to each property are based on the zoning in effect in 1996 in accordance with the statutory definition of "development potential" as defined by the NJ Municipal Land Use Law. The "receiving" area is planned to accommodate a total of 1,220 housing units and will include a 5% affordable housing set-aside to address the Township's *Mt. Laurel* obligation.

All municipalities in the State of New Jersey are required to have an adopted and current Master Plan in order to validate zoning and to provide protection from litigation. This will thus permit no greater future development in the Township than permitted by the zoning in effect in 1996.

#### SITE REQUIREMENTS/DESIGN GUIDELINES

The Site Requirements/Design Guidelines section details the potential costs of lot improvements under the TDC program. The section also recommends a variety of housing types and lot sizes for the "receiving" area. Also recommended for the "receiving" area are new community services and facilities such as a new school site, possible new rescue facility, houses of worship and daycare facilities.

#### CIRCULATION PLAN ELEMENT

The Circulation Plan Element consists of the Executive Summary of the Chesterfield Township Historic Preservation Transportation Study, Final Report, dated April 30, 1997, prepared by Lehr & Associates, Inc. The study identifies current traffic conditions, projects future traffic volumes, identifies

transportation issues related to the new village design, conducts an origin and destination study, and finally offers a series of recommended improvement strategies.

#### UTILITY SERVICES, FACILITIES & STORMWATER MANAGEMENT PLAN ELEMENT

This plan element discusses and recommends preservation techniques for flood plains, wetlands, wetland buffers, areas of erodible soils and aquifer recharge areas in the context of stormwater management in conjunction with future development under the TDC concept. In addition, the element discusses existing and proposed public water and sewer franchise areas within the Township and their relationship to proposed development under the TDC program.

#### COMMUNITY FACILITIES PLAN ELEMENT

The Community Facilities Plan Element examines public buildings and services from a land use perspective. In this section the Township's schools, library, municipal building and emergency services facilities are reviewed in the context of anticipated development under the TDC program.

#### RECREATION PLAN ELEMENT

The Recreation Plan Element offers recommendations regarding the provision of open space, active recreation, passive recreation, and village greens and squares in the context of future development of the Township under the TDC program.

## CONSERVATION PLAN ELEMENT

The Conservation Plan Element describes the physical nature of Chesterfield Township. Specifically, the element discusses several environmental characteristics of the Township including stream valley corridors, wetlands, hydric soils, vegetation links, aquifer recharge areas and wildlife corridors, as well as other characteristics such as public lands and easements.

## HISTORIC PLAN ELEMENT

The Historic Plan Element recommends the appointment of a Historic Preservation Commission with the intention of reaching the goal of preserving the historic villages of Chesterfield, Crosswicks and Sykesville as well as individual historic sites throughout the Township.

## HOUSING ELEMENT

The Housing Element responds to the Township's obligation under *Mt. Laurel* to provide its fair share of affordable housing. The Element begins with a demographic profile of the Township that analyzes the population, housing characteristics and employment information. The history of the Township's efforts in providing affordable housing is reviewed. The Element concludes with a fair share plan which provides for the Township's full affordable housing obligation.

## RELATIONSHIP OF MASTER PLAN TO SURROUNDING MUNICIPALITIES, COUNTY, STATE PLANS

This section examines the relationship of the Township's proposed Land Use Plan under the TDC program to the land development policies of the surrounding municipalities. It compares the type of use and density of development for adjacent land areas. The Land Use Plan is also compared with the development policies of Burlington and Mercer Counties. Finally, the Land Use Plan is analyzed for conformance with the State Development and Redevelopment Plan for consistency with its goals and objectives.

## RECYCLING PLAN ELEMENT

The Recycling Plan element examines the Township Master Plan in the context of the New Jersey Statewide Source Separation and Recycling Act and the Burlington County District Solid Waste Management Plan.

## Goals

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State and regional plans show Chesterfield to be predominantly part of an agricultural area. As of 1992, the Township was designated for agriculture in the State Development and Redevelopment Plan (SDRP) with three existing "centers" and one larger, proposed "planned regional center" (the "receiving" zone). This is consistent with the Township's sizeable area, its on-going farming industry, and its location outside the central cities and older built-up suburbs. The agricultural designation is consistent with the 1984/85 decisions by state, county and local officials to use state and county agricultural bond money plus Township appropriations to preserve 608 acres for agricultural use. As of August 1997, 3,186 acres have been preserved through the State and County Farmland Preservation Program using the NJ Agriculture Retention and Development Program. In addition, 218 acres have been submitted for preservation and are pending approval indicating continued interest in a preservation program through state, county and local funding. The Township has committed \$2.0 million to that effort.

### BASIC GOAL

The basic goal of the Master Plan is to promote the "industry" of agriculture while providing a balance between farming and a reasonable level of development, including low and moderate income housing. A related goal of the Plan is to direct future development to the designated "receiving" zone and possibly to two future "receiving" zones where higher intensities of residential development, some businesses, open space and a variety of public services can

be provided without interfering with agriculture. With respect to the Transfer of Development Credits (TDC) program, the overall goals are to balance growth and preservation, protect landowner equity and providing an opportunity for growth which reflects the "Communities of Place" concept as embodied within the State Plan.

#### CHARACTER OF DEVELOPMENT

Protecting the right-to-farm and encouraging the continuation of commercial farming in the agriculture "sending" zone are integral goals of this Plan. An agricultural character exists in the Township and it is planned to be protected. The concept of transferring development away from the farms and into new and old "centers" is consistent with the State's goals as set forth in the 1992 SDRP 'Communities of Place', and the mapping recommended by the County in 1992 as part of the cross-acceptance process. The rural character and the concentration of agricultural interests in Chesterfield is reflected in the number of acres either purchased or for which application has been made under the easement purchase program. Protecting the existing rural character is to be achieved by directing non-farm development to the "receiving" zone and possible future "receiving" zones where residential and non-residential projects can be accommodated in tightly designed "centers" of villages and hamlets. This approach will minimize the acreage needed to accommodate development while maximizing the preservation of agricultural areas in the "sending" zone. Achieving these goals will not only preserve more acreage for commercial farming, but will provide visual pleasure for residents and non-residents from nearby urban areas as well. The design standards for the villages and hamlets will create a new character, compatible with the existing character of the

Township, as this development takes place with its mixture of housing, jobs, public uses, business services, and recreation facilities coordinated with street, storm water management, and utility services. Another goal is to preserve the historic character of the Township, including the historic settlements of Chesterfield, Crosswicks and Sykesville.

#### FARMLAND PRESERVATION AND COMMERCIAL FARMING

Another goal is to preserve the opportunity for continued commercial farming in the Township consistent with state, regional, county and local plans. Continued agricultural activities are consistent with the pattern of existing agricultural activities, major areas of prime agricultural soils, few topographic problems, a rural character, significant masses of contiguous agricultural land (some already permanently dedicated to agriculture), and minimal non-farm development. As part of the agricultural preservation program, it is intended to encourage agricultural production and a positive agricultural business climate while preserving reasonable equity in the land. The Plan proposes to transfer development out of the agricultural "sending" zone based on soil conditions and the prior zoning. One credit per 2.7 acres is proposed on the good soils (rated "slight" constraint to development, depth to seasonal high water table >5 feet) where on-lot wells and septics could be readily approved. On poorer soils, fewer dwellings are proposed based on subdivision experiences in the Township where fewer lots resulted in areas of these poorer soils. As a result, one credit per 6 acres is recommended in the soil conditions rated "moderate" constraint to development (depth to the seasonal high water table at 3 to 5 feet) and one unit per 50 acres in the soils rated "severe" constraint to development where development is seriously constrained (depth to seasonal high

water table less than 3 feet, or wetlands, or in floodways, or on slopes >10 percent). The formula that was used to assign the development credits to each property was based on these factors and is set forth in the report prepared by Burlington County titled *Allocation of TDR Credits, Chesterfield Township, July 1990*. Subsequent to the publication of that report, additional subdivisions and other activities occurred in the Township. Therefore, the actual number of credits assigned to each property may vary from that 1990 report, but the method of calculating more recent numbers is based on the formula in that report. Under the credit transfer program, non-farm development is directed to the "receiving" zone in order to separate farming from non-farming activities, minimize the conflicts between the two types of uses, and leave an agricultural area with sufficiently large tracts to sustain our agricultural industry. In the agriculture "sending" zone, the goal is to allow housing at only a very low density (one unit per 33 acres) with all other development being transferred to the "receiving" zone. Another goal is to encourage agricultural service uses.

## ENVIRONMENT

The goal is to embody state-of-the-art plans to protect the environment. The southern portion of Chesterfield is in the Critical Water Supply Area #2 which is an area affected by the large drawdown of ground water resources from Camden and its immediate urban area. The proposed transfer program directs most of Chesterfield's growth away from this critical area to a location which relies on water supply from the Consumers New Jersey Water Company (CNJWC). This company is regulated by New Jersey Department of Environmental Protection (NJDEP) concerning water diversion rights. In addition, water-related environmentally critical areas such as flood plains,



wetlands, and erodible soils on steep slopes require protection. The Plan for the "receiving" zone avoids these areas other than a few road crossings that are needed to maintain coordinated public services and road systems. The total area of these soils has not been counted as acreage to generate dwelling units since these areas cannot support homes and their related wells, septic systems, and other site improvements. Where housing and other uses may be constructed adjacent to environmentally critical areas, the minimum lot size and yard areas should be met on "upland" areas, or outside the environmentally critical areas. The intent is that critical areas be preserved as open space to provide buffer areas between neighborhoods or to separate conflicting land uses. In the agricultural areas, the environmentally critical soils may be retained for agricultural and/or buffer purposes. In the "receiving" zone, if critical areas must be encroached upon in exceptional cases, such as roads connecting villages and hamlets, the intrusion should be minimal with design features incorporating methods to deal with the natural limitations. Whether the issue is soil management on steep slopes, designs to avoid development in wetlands or the wetland buffer areas, or in flood plains and other sensitive or problematic soils, the storing, handling and disposing of solid and toxic wastes, or developing programs to comply with the recycling of solid wastes, the goal is to develop appropriate ways to properly handle these issues in a safe and environmentally sensitive manner without diminishing the opportunities for agriculture. For example, it is not intended that farmland be viewed as undeveloped land available for solid waste disposal, or a toxic/hazardous disposal area, any of which would temporarily or permanently remove the acreage from agricultural production. While this Plan is directed primarily at land use and related environmental issues, the Township's Environmental Commission has prepared material on many environmental matters. The goal is to coordinate the

activities of the Environmental Commission and the Planning Board to give greater assurance that as development takes place there will be a proper balance between a property owner's right to use the land with the public's right to expect that environmental degradation will be minimized or nonexistent. It is anticipated that the magnitude of environmental problems will vary from site to site. Therefore flexible solutions are needed to fit each situation. Where proper environmental solutions cannot be provided, it may be necessary to reduce the scale or intensity of development, or prohibit a project that potentially threatens the public health and safety, or incorporate unique design and monitoring requirements as a condition of approval.

## HOUSING

This goal is to provide a cross section of housing ranging from very low density, single family detached housing in the agriculture areas to higher density, small lot detached and multi-family housing in the villages and hamlets in the "receiving" zone. The higher densities are intended to be located near the centers of the village, with lower densities as one moves outward from the center. Lower densities are also intended adjacent to existing, detached single family homes. The Township's constitutional and legislative obligations for low and moderate income housing are to be met completely within the "receiving" zone. Rehabilitation, accessory apartments, mixed uses, and a variety of inclusionary new construction housing types are intended in order to meet these obligations. It is expected that the development of the housing will occur in phases as highway improvements and water and sewer services are provided. The lower income housing goals are to be met both through new construction as well as options for developers to make contributions to a housing trust fund in

lieu of constructing low and moderate income units. The trust fund is intended to assist in funding the rehabilitation of deteriorated structures in the Township, and/or the possible financing of a Regional Contribution Agreement and/or other programs as permitted by the N.J. Council on Affordable Housing (COAH).

#### JOBS AND RETAIL SERVICES

This goal anticipates space within the "receiving" zone for some office and retail services. The intensity and types of uses are expected to be local in nature, not regional shopping and business centers. Use of the transfer concept is intended to be required in order to construct additional square footage for businesses in the village. Convenience retail and business services are intended in the center of a selected village or hamlet. Sidewalks and bicycle paths are to tie the business and public uses into the nearby residential areas and the municipal facilities.

#### ROAD SYSTEM

In early 1997, the Township commissioned the preparation of a "Historic Preservation Transportation Study" for the purpose of developing recommendations for maximizing transportation efficiency in the Township while minimizing the negative effects of future growth. The study's objectives were twofold: (1) to identify methods to effectively manage transportation needs created by growth under existing zoning and alternatively under a transfer of development credits (TDC) program that would create a new village; and (2) to identify methods to mitigate the impacts of through traffic movements upon the

Township and particularly upon the historic villages of Crosswicks, Chesterfield and Sykesville. Although the Historic Preservation Transportation Study has been incorporated as a plan element of the Master Plan, the recommended improvement strategies have been summarized herein.

The study presents recommendations for infrastructure improvements and traffic management strategies to mitigate current transportation problems in the historic villages and to identify future infrastructure needs in the Township as necessitated by existing conditions and under the two build-out development scenarios (existing zoning vs. TDC program).

Recommended improvements under all future development scenarios include sidewalks, crosswalks, traffic signals, turn lanes, the reconstruction of Harker Road/Iron Bridge Road as a by-pass, and the widening of shoulders on arterial roads.

The overall goal of the Master Plan with respect to the road system is to retain the 2-lane, rural road network throughout the Township while planning selected road improvements to provide adequate capacity and the safe movement of traffic. For example, pavement widening at a limited number of intersections where multiple lanes can provide separate lanes for left-turn, through, and right-turn traffic. Overall, the 2-lane system will minimize costs and retain the rural character. Although a paved 2-lane road system is the objective, the plan calls for wider rights-of-way for the collector and arterial roads than are necessary for a 2-lane system. This extra width will provide a margin of error for the distant future in case pavement widening is needed. In the meantime, it will provide extra area for shade trees and other landscaping features for the

foreseeable future.

Providing a by-pass around Crosswicks is a goal to be pursued in order to better handle regional traffic volumes. To maintain the 2-lane system, another goal is to prevent strip, frontage development along the designated arterial and collector roads and along most existing streets, regardless of their classification. This pattern of strip, frontage development has been a continuing problem, but the problem is expected to be reduced with the realization of the TDC program and transferring new housing to the "receiving" zone rather than along highway frontage in the agriculture "sending" zone. Controlling access to major roads will avoid the need for wider road pavements. Another goal is to provide a new street system within the "receiving" zone. For the most part, these interior streets are expected to have frontage development. The rights-of-way are wider, but the houses are located closer to the road. Curbside parking is anticipated on most streets in the villages and hamlets, hence wider pavement widths are also recommended to accommodate the parked vehicles. The streets in the hamlets and villages are aligned to create vistas and views. The road and sidewalk system are extended from one hamlet and village to another in order to provide convenient access for the residents to business services and public uses as well as reduce the cost of on-going public services such as trash collection, school buses, future police patrols, snow plowing, etc.

#### WATER AND SEWER SERVICES

The goal is to anticipate and provide the opportunity for water and sewer services to be available in the "receiving" zone where the concentration of development will require these utilities. Water and sewer services are not

anticipated in the potential future "receiving" zones in the hamlets of Chesterfield and Sykesville although these areas may be served by community septic systems. It is intended that the existing utilities will be upgraded in the Village of Crosswicks. Since the Township has vast areas for farming that consume large quantities of water for irrigation, and because the Township is in proximity to the Pinelands groundwater reserves, another goal is to encourage groundwater recharge to assist the region's ground water supply. With regard to sewers, the ability to construct a "tight" system will minimize infiltration into the system and thereby minimize the design capacity of the system, and hence the cost. It is expected that the collection and treatment system will be phased over a period of time in order to spread out the capital outlays and to coordinate the expansion of the system with the rate of development. As a result, it is expected that community wastewater systems will serve the receiving area and Crosswicks. Additionally, an alternative may ultimately utilize an upgraded sewer plant at the Wagner facility. With regard to water, Consumers New Jersey Water Company (CNJWC) is expected to provide water service to the "receiving" zone. Adequate supply and pressure for domestic needs as well as fire protection will be necessary. Issues concerning the overall supply of water are of a regional nature concerning approvals for new wells, obtaining diversion permits from the State, or completing one or more parts of a regional system. These will be dealt with by the water company and the appropriate governmental agencies.

#### SCHOOL, RECREATION AND OTHER INFRASTRUCTURE

Only a modest expansion of public facilities is expected at any one time with the services being limited to the level of population as it grows. Even if the

expansion of the school system, or providing new recreation areas, or providing expanded emergency services, or libraries, might not be needed for several years, reserving or acquiring sites to assure that these services can be provided must be considered prior to or at the time development takes place. Since the goal is to provide land for these facilities close to the concentration of new development in the "receiving" zone, options are limited. As a result, one new school site has been shown on the Plan in the "receiving" zone. It is recommended that land be set aside for a future library and municipal building, and possibly a sub-station of the rescue squad and new fire house. Designing a park in the municipal complex as well as integrating various park areas and public services into and around all the hamlets and villages in conjunction with retail uses, a pedestrian system, and a coordinated road network are intended. Locating emergency facilities is intended to provide efficient service considering the response time for members to get to the fire station or rescue squad and the location of the facilities in relation to population and housing concentrations.

#### HISTORIC PRESERVATION

The goals of historic preservation are to safeguard the heritage of the Township by preserving those resources that reflect social, cultural, economic and architectural significance. The intent is to encourage their continued use and re-use while discouraging their demolition. Isolated farmsteads and their outbuildings are proposed to be preserved on oversized lots in the "receiving" zone as part of the historic rural character of the Township. These buildings are intended to be used either as residences or for various public purposes. The major historic areas are the hamlets of Crosswicks, Chesterfield and Sykesville. On any of the oversized lots, and on sites such as the Friends open space in

Crosswicks, the development that the zoning allows on those sites is expected to be transferred to other sites in the "receiving" zone in order to retain the oversized site, or open space, or similar condition to be preserved. Other goals of the historic plan are to develop and adopt an historic preservation ordinance which will encourage appropriate alterations and renovations consistent with change so that old and new buildings are compatible with and complement one another. It is a further goal to promote civic pride in and appreciation of Chesterfield's historic resources while fostering rehabilitation and private reinvestment in historic sites and districts. This goal is being implemented by the requirement to design the new villages and hamlets according to this Master Plan and the design elements of the implementing ordinance. All are directed at recreating small villages and hamlets in a rural setting consistent with Chesterfield's historic and rural past. The Township is urged to create an Historic Preservation Commission under the Municipal Land Use Law in order to generate further documentation and to recommend appropriate ordinances to assure a reasonable preservation program.



## Land Use Plan Element

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### INTRODUCTION

The main thrust of the Master Plan is to implement a growth management program designed to balance the preservation of agricultural resources with the promotion of clustered growth while preserving landowner equity. To achieve this, the Plan proposes using a voluntary system to transfer development from the "sending" zone into the "receiving" zone. The agriculture "sending" zone is an area in which only farming and a development density of only one dwelling unit per 33 acres is proposed. The "receiving" zone is in the northwest portion of the Township south and east of the N.J. Turnpike. This is where a variety of single family lot sizes and some multi-family housing are intended together with commercial services, jobs and public uses. Two smaller, less dense, "receiving" zones may be proposed in the future around the hamlets of Chesterfield and Sykesville for only detached single family homes and limited retail and business uses, all on wells and septic systems. These "receiving" zones should be reviewed in 3 to 5 years after implementation of this Plan.

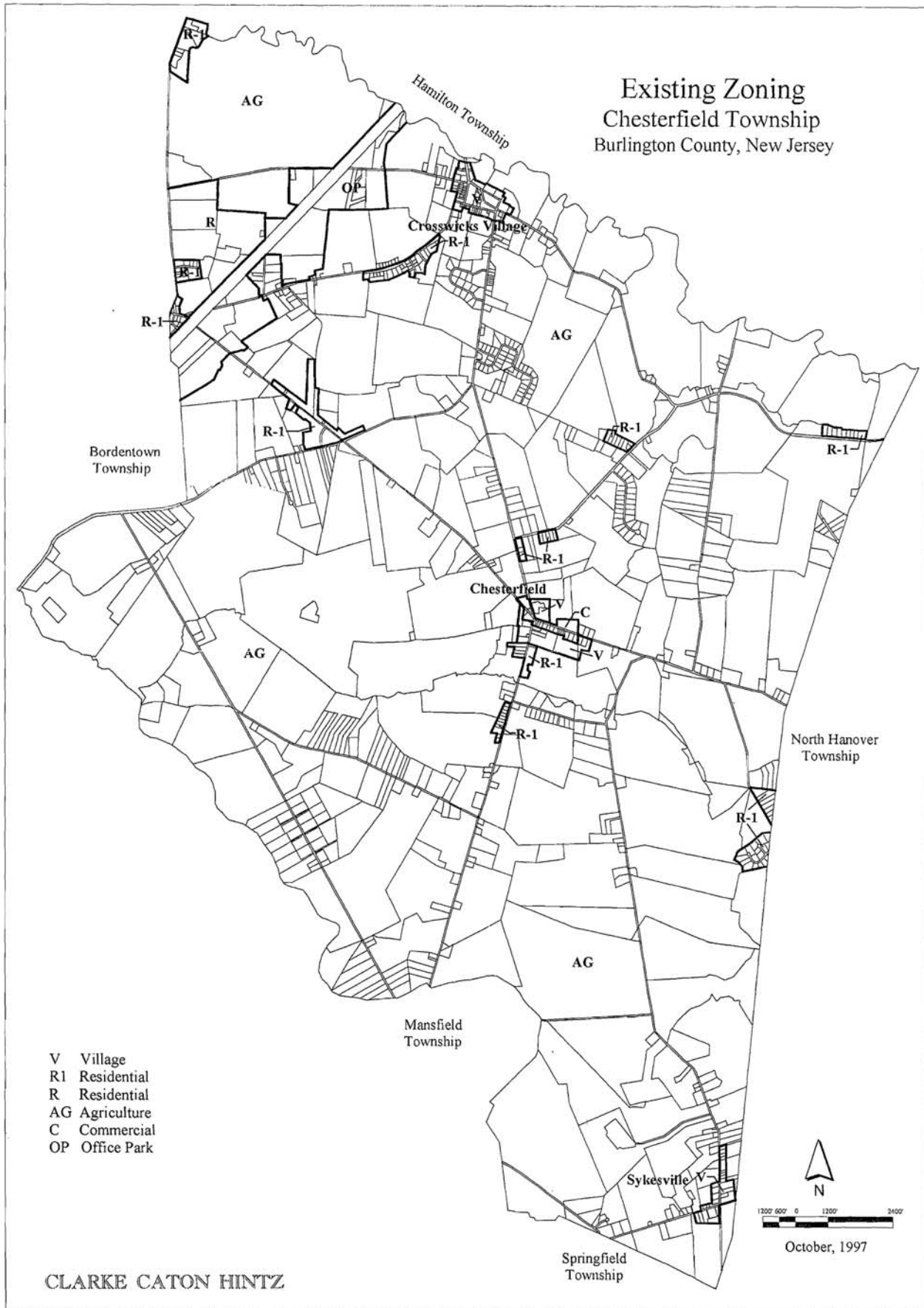
The goal of preserving the existing agriculture/rural character of the Township is consistent with certain of the Township's characteristics such as a lack of services, narrow country roads, lack of a piped storm water system, lack of sidewalks, good farming soils, active farms, and various state and regional goals for preserving and further developing the industry of agriculture.

## **EXISTING ZONING**

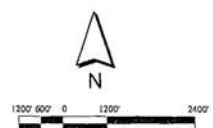
The existing zoning in the Township of Chesterfield is shown on Map 1, Existing Zoning. As a precursor to the implementation of a Transfer of Development Credits (TDC) program, it is necessary to understand the existing zoning structure of the Township and its relationship to the proposed transfer of development credits concept. The Township currently is divided into six zoning districts including the V - Village, R-1 - Residential, R - Residential, AG - Agricultural, C - Commerce, and OP - Office Park. The AG - Agricultural district is the largest zone in the Township and is comprised of the Township's agricultural land areas. Under the TDC program, the AG zone (exclusive of the area proposed for the "receiving" area) will be the "sending" area. The land areas of the Township zoned V - Village which are comprised of the villages of Crosswicks, Chesterfield and Sykesville will retain their existing zoning and will not be eligible to participate in the TDC program. Future development in the V - Village districts will be governed by the existing zoning regulations. Likewise, the land areas within the R-1, R, C and OP zones will retain their existing zoning and will not participate in the TDC program.

Map 2, Land Development Status, shows some 6,354 acres devoted to agriculture. They represent 45% of the entire Township and 66% of the undeveloped area in the "sending" zone. Other properties not shown on this map are also devoted to agriculture making the percentages of the Township actually used for agriculture even higher. These existing characteristics together with goals consistent with state and regional planning efforts for agriculture preservation make Chesterfield a reasonable community to adopt an agricultural preservation policy.

# Existing Zoning Chesterfield Township Burlington County, New Jersey



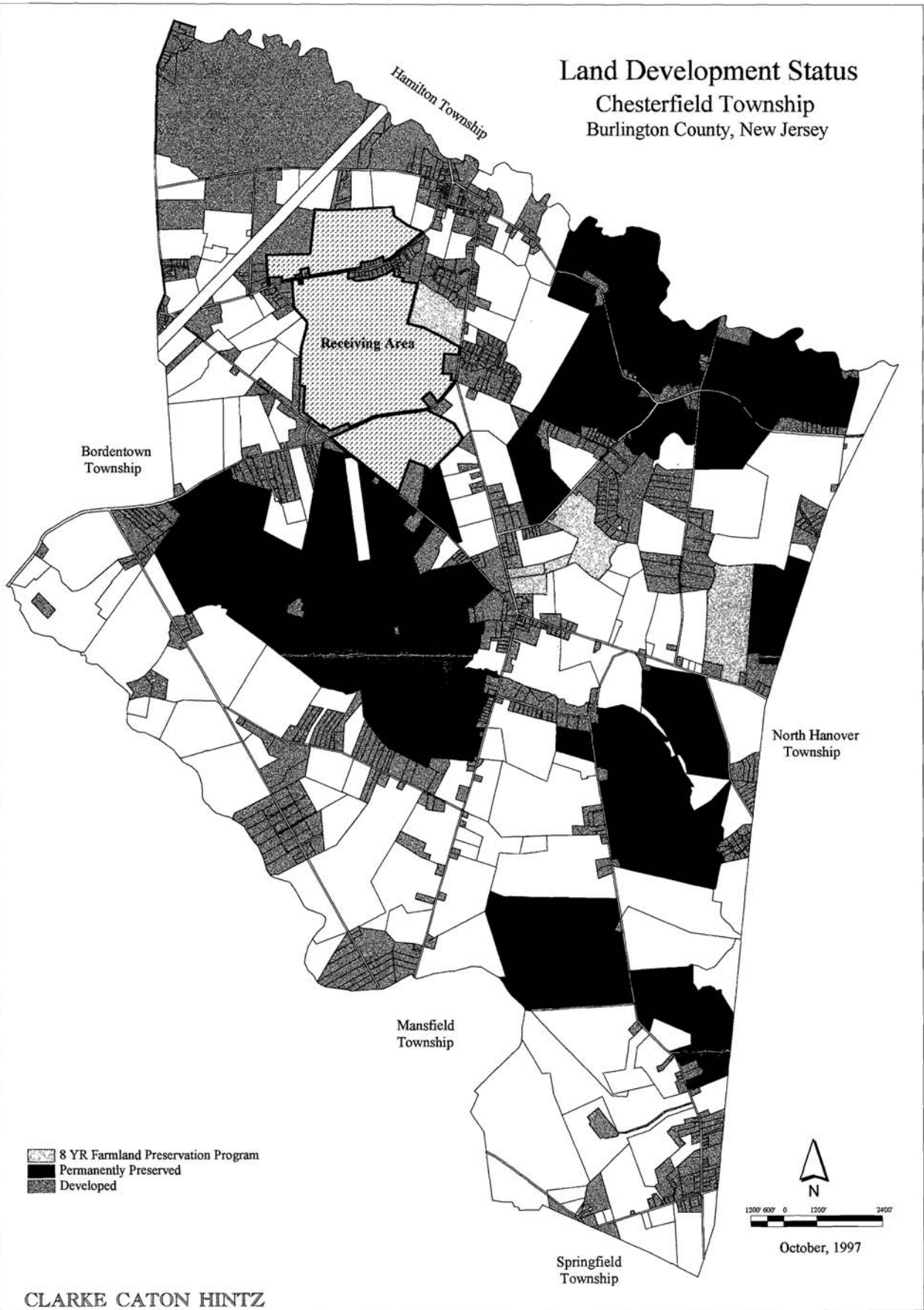
- V Village
- R1 Residential
- R Residential
- AG Agriculture
- C Commercial
- OP Office Park



October, 1997

CLARKE CATON HINTZ

# Land Development Status Chesterfield Township Burlington County, New Jersey



CLARKE CATON HINTZ

The process of transferring development away from the farms and into new "centers" is intended to create a village and possible future expansion of hamlets in the designated "receiving" zone. This new center is not intended to result in a new "growth" area designation within the region when future county, regional or state plans are reexamined. Even though the "receiving" zone will require utility services, roads, storm water management, and a variety of public services consistent with suburban development, this concentration of development is the result of implementing a very low density agricultural preservation policy designed to preserve large blocks of farmland. The overall Plan is not intended to create an impetus for further sprawl development or additional "growth areas" within the region. Nor is this Plan intended in some other way to serve as a focus for more development or some other activity that goes beyond the intensity of development allowed by the number of available development credits and the level of development intended as a means of preserving an agricultural community and its rural character.

Since Chesterfield is undeveloped and has active farming operations, it is in a position to adopt policies to assist the preservation of agriculture. Towns that are already developed do not have that option. The Township is in a position to direct development to the "receiving" zone and to devise plans in the "receiving" zone that will guide and coordinate the development of various residential, commercial, industrial, and public uses.

It is recognized that planning and zoning policies are only part of the effort needed to maintain New Jersey's farmland. While planning and zoning can provide the opportunity for continued agricultural uses and can provide flexible land development techniques to preserve agricultural activities, they have no

authority in other important areas such as labor laws, agriculture support services, environmental restrictions, property taxation, inheritance tax laws, and farm prices. While an effort to preserve farmland cannot be brought into complete focus by planning and zoning alone, the effort to encourage the continuation of agriculture and preserve those areas best suited for farming has a proper place in long-range planning. An agriculture preservation program where the development rights are removed from the land provides a stable land base to encourage the continuation of farming, and for the sale of land to future farmers at a lower cost compared to land that still has development potential. To ignore the agriculture preservation issue can result in continued, costly suburban sprawl across land that should be retained for food production and other agricultural pursuits.

Retaining agricultural uses now may not guarantee that farming will be viable forever, but at least the options are retained while state and federal actions to benefit farming can be explored, such as taxing, environmental, labor and similar laws. Hopefully, through local planning and zoning efforts in conjunction with county and regional planning efforts, continued agricultural use of the better agricultural soils can be achieved. Toward this end, any new zoning techniques, assessment incentives, and similar ideas, some of which may require further amendments to state statutes, should be weighed by the Township as they emerge.

Perhaps the most fundamental issue in farmland preservation is the perception over the past 30+ years that farmland was an interim use of land, eventually to be available for development. Yet for farming to be successful, it needs large tracts of land without interference from non-farm development. In a state like

New Jersey there is good farm soil to grow crops, proximity to major transportation systems to deliver the products, and major markets in nearby suburban and metropolitan areas to sell the products. On the other hand, there has been a growing demand for more housing and related support services as metropolitan areas enlarged and intensified during the ebb and flow of changing land use patterns, vacating the decaying inner cities, and abandoning mass transit in favor of the convenience of the private car. As a result, land values increased in rural areas as the perimeter of the metropolitan area expanded and the interest to sell land at inflated prices increased.

Unfortunately agricultural economics have not been as good as the economics of development; hence the conflict. This voluntary TDC program is an effort to preserve the equity in land while avoiding the loss of farmland to development. In the past, as the development of rural areas continued, the impact of sprawl development took its toll. The broad pattern of sprawl development resulted in the need for inefficient and costly road and utility systems and other public services across larger and larger areas of low density development. Sprawl development also weakened the agricultural economy by removing land from production and placing conflicting land uses next to the remaining farms. It resulted in negative ecological consequences by filling wetlands, blacktopping the land, and encroaching upon forests. The problems and concerns created by this regional pattern of development gradually spawned various reports by the Department of Agriculture, the 1980 State Development Guide Plan (SDGP), the 1992 State Development and Redevelopment Plan (SDRP), and the acceptance of the principles of the State Plan and the lower income housing requirements in the Supreme Court's *Mount Laurel II* decision. In addition, during the 1980s, the State Legislature adopted farmland legislation,

freshwater wetlands legislation, created a State Planning Commission to guide state-wide development, adopted the Burlington County Transfer of Development Rights Demonstration Act, and is dealing with larger issues of mass transit and solid and hazardous waste disposal to handle the consequences of development. The State Planning Commission published its draft recommendations in November 1988 and in 1992 adopted the first State Development and Redevelopment Plan (SDRP) titled *Communities of Place*. The State Planning Commission and its Office of State Planning in September 1997 issued a Reexamination Report of the 1992 SDRP and a refined Preliminary Plan. The cross-acceptance process for the refined Preliminary Plan begins in September 1997 and will continue through September 1999. In addition, the Legislature enacted in 1996 amendments to the Municipal Land Use Law permitting cluster development using noncontiguous properties.

Agriculture is a legitimate land use. It is distinctly different from other uses and has been recognized as one of the "purposes" in the Municipal Land Use Law. It is a use treated with special "exempt subdivision" status. Agriculture also has special tax concessions under the Farmland Assessment Act, protection under the Right to Farm Act, various building code concessions for farm buildings, assistance for conservation programs under the Agriculture Retention and Development Act (§4:1C-1), a program for the acquisition of development rights under the Farmland Preservation Bond Act of 1981, and is a goal of the State Development and Redevelopment Plan. Since 1989, it is one of the purposes of the Burlington County Transfer of Development Rights Demonstration Act. In Gardner v. New Jersey Pinelands Commission, decided July 23, 1991, the New Jersey Supreme Court held that the preservation of agriculture and farmland constitutes a valid governmental goal and that the



deed restriction regulation 1) substantially advances the ... purposes of ... preserving farmland, and 2) does not deny ... an economically beneficial use of ... property because the owner may continue to farm the land and/or may develop part of the land, and because they would receive the development credits.

Farming is also an industry that requires large tracts of land. "Critical masses" of land are important to reduce the nuisances and incompatibility between the industrial characteristics of commercial farming and nearby housing. While some farm tracts and certain farming operations can be done on modest sized tracts of perhaps 25 acres, fragmenting the farmland by mixing suburban housing development among the farms creates an incompatible land use system. Each use impedes the ability of the other to realize its full potential. A community that develops with tracts of 25 acres alternating between farms and housing developments will not preserve agriculture.

In relating these trends and policies to Chesterfield, it is noted that agriculture represented over 75 percent of the Township in 1989 and almost half the entire Township acreage was involved in either approvals of, or applications for, the easement purchase program to preserve agriculture. The pace of farmland preservation through the easement purchase program was limited only by a lack of funds, not a lack of interest. It is proposed that the transfer program set forth in this Plan will inject private, developer funds into the preservation program thus supplementing the limited public funding available from State, County and municipal sources.

Agriculture can still be retained in Chesterfield whereas it cannot be recreated

in already developed areas of the county and state. The present agricultural activities are part of the character of the Township and the larger region at a time when there are major state-wide and county efforts to preserve New Jersey agriculture as a means of preserving jobs and continuing the production of fresh food and other agricultural products. Since 1984, a total of 3,300 acres have been purchased for agricultural preservation and represent two-thirds of the undeveloped land in the "sending" zone. Another 2,923 acres have been submitted as part of applications for future easement purchases.

The TDR Act is specifically applicable to Burlington County as a means of firming up a State-wide agriculture preservation policy. It is a means of using developers' land acquisition money to preserve farmland since, realistically, there is not enough State and County money to acquire all the farmland in Chesterfield, or Burlington County, or the State when one looks at all of New Jersey's other needs. The agricultural designation in the Township is consistent with the State Planning Commission's 1992 *Communities of Place, The State Development and Redevelopment Plan for the State of New Jersey*, the mapping generated in 1992 under the State Planning Commission's cross-acceptance process, the Delaware Valley Regional Planning Commission's Direction 2020 Plan, and the County's planning goals.

The amount of the new residential development proposed for the receiving area is based on the zoning that existed in 1992. The 1987 ordinance allowed the first 10 percent of a tract to have one unit per acre with the remainder permitted to have 0.3 unit per acre, provided at least half the tract would be dedicated to farming. This converts to one unit per 2.7 acres. There were several subdivision applications that illustrated that continued development

under the 1987 zoning would not preserve agriculture, nor would developments based on one unit per 5 or 10 acres. While larger lots (lower densities) would produce fewer homes, the pattern of development that would be created would still inject a checkerboard pattern of housing into an agricultural setting, usually creating scattered, smaller farms rather than major blocks of useable farmland. As such, the critical mass of land needed to continue commercial farming would not be preserved and the remaining farmland would get intermixed with housing.

One dwelling unit per 10 acres comes closer to balancing the two issues, but not if the farm is broken up into 10-acre residential lots, and not even necessarily when the lots are clustered at 1 to 1.5 acre lots. The State Development and Redevelopment Plan, Vol. II (4/87) suggested a development density of one unit per 20 acres with an alternative of one unit per 5 acres provided the development is clustered onto lots of less than 0.5 acre (or larger lots if required by septic regulations), or if the site is developed by Planned Unit Development (SDRP, p.73). However, the broad-based industry of agriculture will not be preserved while development is sprawled across the land at a density of one unit per 5 acres. In unique circumstances, such as one or two developments where all the dwelling units are constructed on very small lots of 5,000-7,500 square feet, or as triplexes or apartments, it might work, but on a broad scale, clustering the housing into many separate developments will still result in fragmented farmland and will require scattered, small, sewage treatment facilities.

Because of the TDR Act, and 1996 amendments to the Municipal Land Use Law permitting cluster development using noncontiguous properties, Chesterfield

has a unique opportunity to implement a state-of-the-art agriculture preservation program. Instead of reducing individual developments to small clusters of homes scattered throughout the Township, under the voluntary TDC program a limited number of areas can be identified where all future development should take place, thus reserving major areas for farming.

The proposed "sending" and "receiving" zones and the areas of existing development are shown on Map 2, Land Development Status. Because there are some areas already developed, it is the intent of this Plan that areas with a sufficient concentration of existing housing be delineated as separate zones, being neither a "sending" nor a "receiving" zone. This will minimize the pattern of non-conforming lot sizes and dimensions. As shown later, the acreage in the "sending" and "receiving" zones generates 1,710 development credits, 1,387 of which are expected to be transferred for use in the "receiving" zone.

In compliance with the spirit of *N.J.S.A. 40:55D-118b*, the "sending" zone is substantially undeveloped or unimproved farmland, woodland, floodplain, wetlands, and/or aquifer recharge areas. Portions of the three existing villages represent modest portions of the Township that are improved and developed with unique and distinctive aesthetic, architectural, or historic qualities. The "sending" zone as a whole is unimproved and should remain at low densities inasmuch as the area is intended to remain agricultural, the area is served by only a modest, rural road system, there are no utility services and none are planned, and the agriculture preservation goal is consistent with state, county and regional goals.

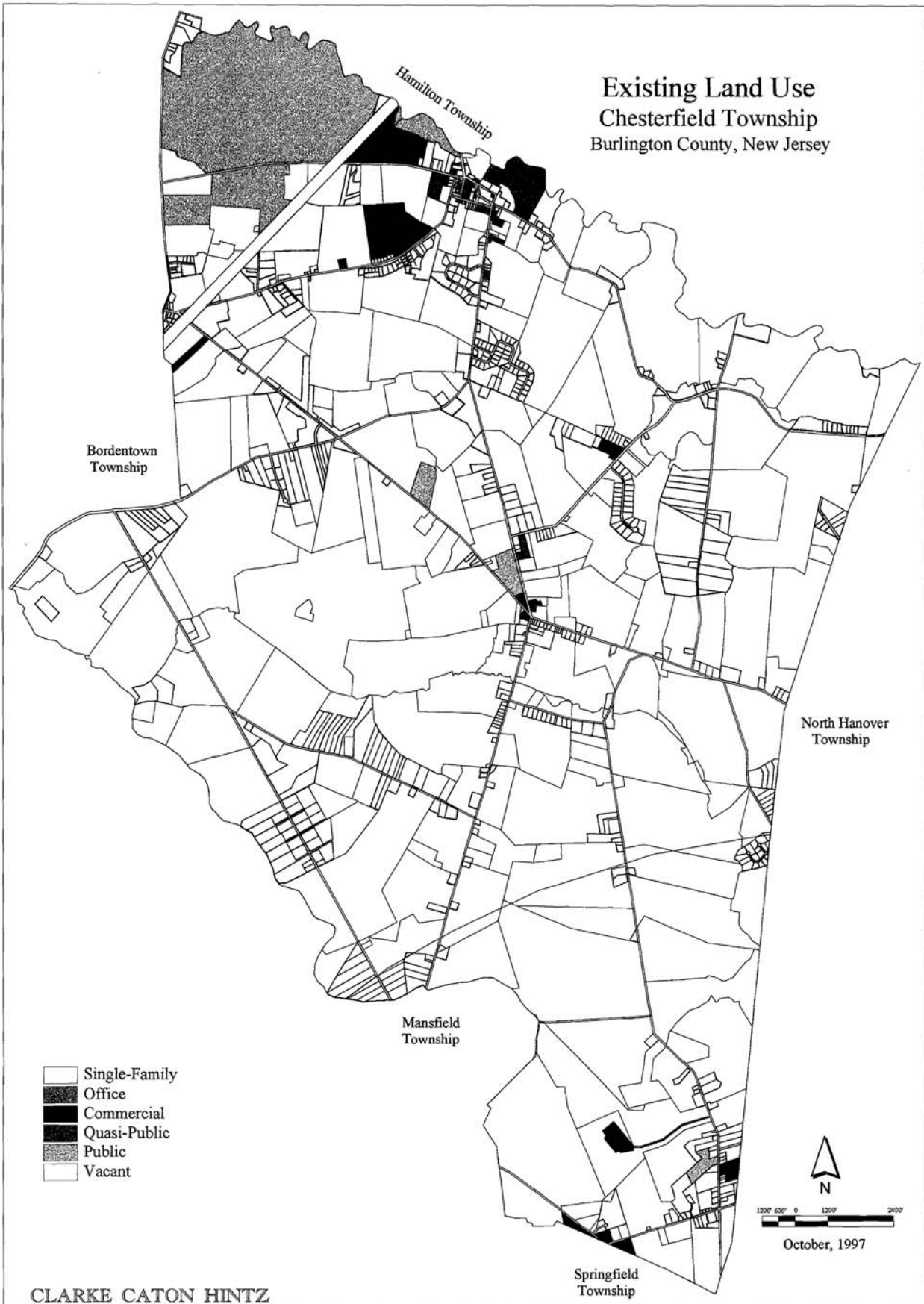
Map 3, Existing Land Use identifies residential, commercial, office, public and vacant land areas. It is the intent of this Plan that the "receiving" zone be developed consistent with basic principles of this Master Plan such as the major road system, the major open space network, non-residential areas, designs that will create vistas and views by the design and placement of parks, churches, and public buildings, and providing a mix of housing types and a variety of single family lot sizes. Deviations from specific local road alignments and other design details of the plan can be anticipated based on site-specific soil conditions, engineering refinements, or similar situations when converting a schematic plan into a specific development plan.

The TDR Act requires that the Master Plan identify and describe the "sending" and "receiving" zones, estimate their development potential, estimate population and economic growth over the next 10 years, estimate the land values in the "sending" zone, identify the infrastructure needs in the "receiving" zone, and propose a procedure and method of conveying development from one zone to another (*N.J.S.A. 40:55D-117*). This Master Plan recommends a voluntary TDC program which is consistent with the spirit of the TDR Act requirements and permitted by the recent amendments to the MLUL permitting cluster development using non-contiguous properties.

#### IDENTIFICATION AND DESCRIPTION OF "SENDING" AND "RECEIVING" ZONES (*N.J.S.A. 40:55D-117a(2)*)

The location of the "sending" and "receiving" zones are shown on Map 4, Land Use Plan. These particular boundaries have been delineated because they have certain locational advantages meeting the goals of this Plan. The "receiving"

Existing Land Use  
Chesterfield Township  
Burlington County, New Jersey



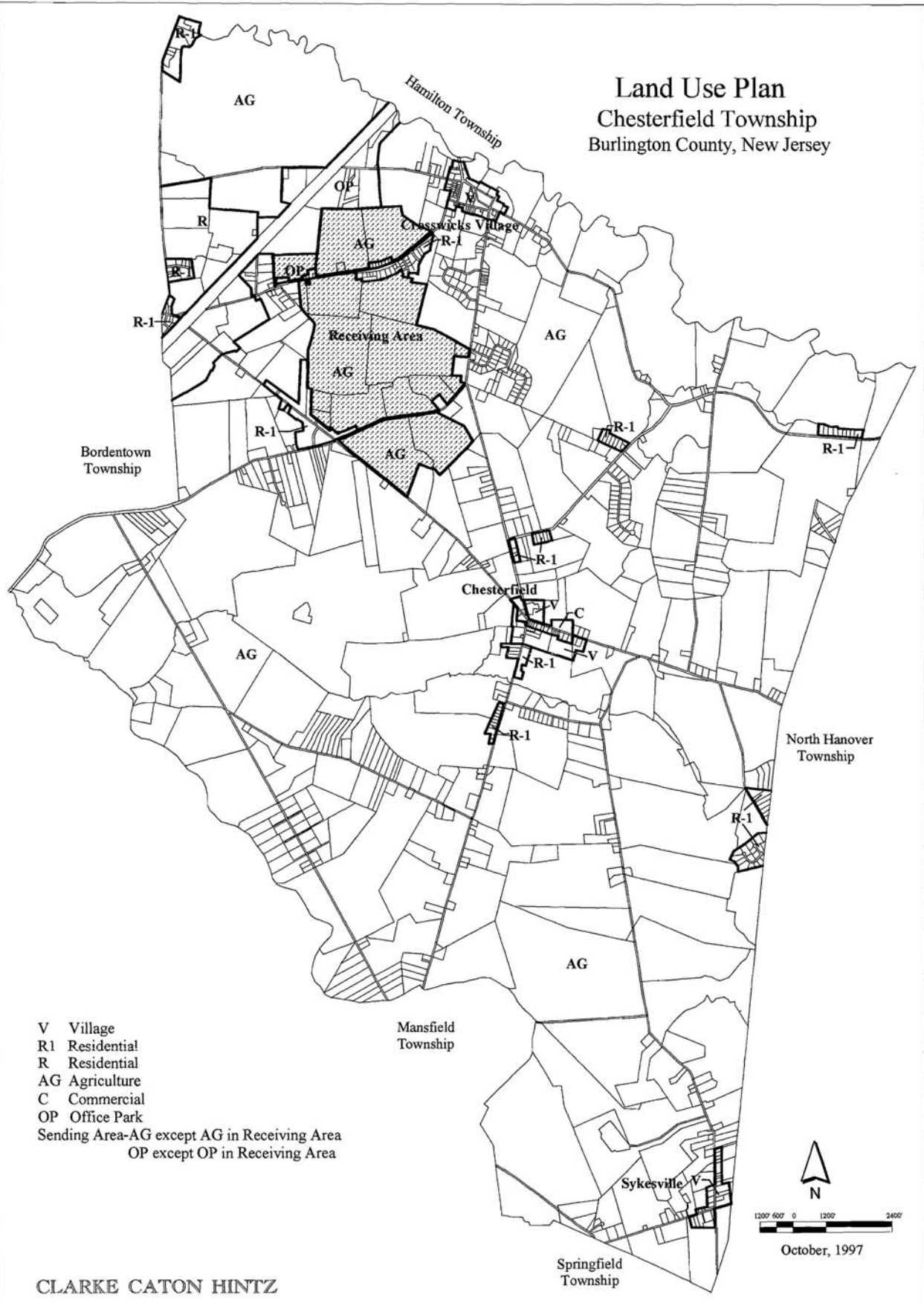
CLARKE CATON HINTZ

October, 1997

# Land Use Plan

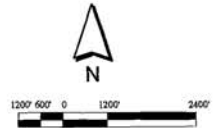
## Chesterfield Township

### Burlington County, New Jersey



- V Village
- R1 Residential
- R Residential
- AG Agriculture
- C Commercial
- OP Office Park
- Sending Area-AG except AG in Receiving Area
- OP except OP in Receiving Area

CLARKE CATON HINTZ



October, 1997

zone is intended as a new "center" designed to accommodate future development. It is located in the northwest corner of the Township. It abuts the Turnpike and is the closest portion of the Township to the growth corridor in Bordentown and the Route 130/206 and I-295 corridors. This area has more than sufficient land area to accommodate the development generated from the agriculture ("sending") zone. The area is also designated for a sewer service area using either the State Correction's sewage treatment plant or a series of several community septic systems. Consumers New Jersey Water Company (CNJWC) services can be extended into the area. The "receiving" zone is also able to separate the more intense housing development from agriculture and is able to create distinct villages and hamlets while fostering a feeling of neighborhoods. By using such features as wetlands, stream corridors, public streets, and existing development as boundaries to separate one village or hamlet from another, or to separate industrial uses from residential development, or to separate the new development from agriculture operations helps reduce the nuisances and problems one group of uses imposes on another. The location of the "receiving" zone is also relatively self-contained. That is, the new street system is compact and not strung out across the countryside. This reduces construction and maintenance costs. Several sites for parks, schools, and municipal facilities can be accommodated and are recommended as focal points for roads and to assure adequate community services. These public facilities are located in proximity to existing roads so they can be constructed prior to the entire new street system being in place and to be in locations convenient to the remainder of the community outside the "receiving" zone.

It is noted that the "receiving" area will be developed as proposed only if current landowners within the receiving area are willing to make their properties



available for such development. Otherwise, receiving area landowners are entitled to apply for subdivision of their land based on the current, underlying zoning ordinance. Likewise, participation in the TDC program from landowners within the “sending” zone is required in order for the “receiving” area to be developed as proposed. If “sending” area landowners choose not to sell their development credits to developers, they too retain the ability to apply for subdivision of the land based on the current, underlying zoning ordinance.

It should also be noted, however, that Burlington County, after request by Chesterfield Township, may be able to purchase at least a portion of the TDC’s from “sending” area landowners. In order for this to occur, it is anticipated that receiving area(s) of sufficient size to accommodate all TDC’s purchased by the County will be required to be designated as “mandatory” to ensure the County’s ability to eventually sell the TDC’s to an interested developer interest. In such a case, owners of such designated receiving area land would be entitled to subdivide a portion of their property to build the same number of dwellings for which they are currently eligible, while leaving the remainder of the property open to accommodate future development.

The new “receiving” area meets the criteria of a new village as defined by the State Development and Redevelopment Plan (SDRP):

*“(1) It is planned to function primarily as a compact, mixed-residential community with a core of mixed uses (e.g., commercial, resource-based industrial, office, public) offering employment, basic personal and shopping services and community activities for residents of the Village and its Environs; and*

*(2) It meets all the Policy Objectives of the Planning Area within which it*

*is located; and*

- (3) *It is identified as a result of a municipal planning effort conducted with the participation of the county; and*
- (4) *It is identified in municipal and county master plans; and*
- (5) *It is located on an arterial highway on which the additional traffic load will not exceed NJDOT level-of-service standards, or will be accessible by other modes of transportation (e.g., transit line), and it will be served by a secondary street system; and*
- (6) *It is an area capable of being served by a community wastewater treatment system using existing technology to meet applicable standards; and*
- (7) *It has an expected population and employment corresponding to existing Villages in the area."*

One or two smaller "receiving" zones may be proposed in the future to expand the existing hamlets of Chesterfield and Sykesville. Both of these areas have the potential to be served by community septic systems, which would require authorization by the Township Committee. Development should be concentrated on lots as small as possible in order to create a village design concept while still supporting wells on each lot. To the extent site specific conditions require changes in the concept plan shown in this Master Plan, changes can be made provided the principles of no strip frontage lots, having interior streets to serve the lots, and having a village design are still met. To do this without sewers, flexible zoning criteria such as a maximum density with lot size averaging is recommended. This will allow lots and houses to be more easily sited to meet septic approvals rather than be restricted to artificial lot area and dimensional requirements. It may also permit a small complex of senior citizen housing to be designed in order to address the specific needs of the

elderly. While on-lot wells and septic systems are expected to restrict the amount of development in these two hamlets, the purposes of the hamlets are to allow some expansion of housing in these two areas, provide an area where development credits can be used prior to the availability of sewer service in the "receiving" zone, and provide an alternative to the "receiving" zone. Where septic systems may not work on some smaller lots, the Plan anticipates that larger lots will be created, but the street system, parks and recreation areas will remain. To the extent on-site septic systems may be a problem, common septic systems or other alternatives should be explored in order to maximize the opportunity to realize the village concept.

In conjunction with the Goals set forth earlier, it is the intent that the planning objectives set forth in each section of this Master Plan be coordinated with the design standards of the "receiving" zone as set forth below and elsewhere in this Plan. These design standards concern land use types, densities of residential development, non-residential floor area ratios, roads, public uses, infrastructure, vistas and views, recreation, protection of wetlands and floodplains, preservation of historic resources, and similar issues. The total Plan is intended to be a coordinated document setting forth the planning objectives and design standards of this "receiving" zone as called for in *N.J.S.A. 40:55D-117c*. Within all villages and hamlets, it is intended that certain design criteria be met. These will be detailed in the zoning ordinance, but include design features that generate the feeling of a small village and encourage a sense of neighborhoods. In this regard, it is intended that the report titled *Community Image Preferences, A Guide to Future Development in Chesterfield Township*, dated January 1990, be used to assist in establishing the layout and design features of the villages and hamlets. In accordance with *N.J.S.A. 40:55D-28b(11)* this

report is incorporated in this Master Plan as if written herein.

The types of design issues intended to be carefully reviewed include wider streets with sidewalks along both sides. In accordance with the Township's Historic Preservation Transportation Study, wider streets are intended in order to allow curb-side parking for guests and overflow parking needs. Streets are intended to have shade trees along both sides, and the alignment of streets is intended to create vistas and views through the placement of curves, bends, and the strategic location of parks, schools and the other public or quasi-public uses. Neighborhood parks are intended to be scattered throughout the villages and hamlets and neighborhood stores, businesses, and home occupations are planned in specific locations for the convenience of the residents. Reduced setbacks of houses are intended, with even less setbacks for houses with front porches. The intent is to create more of a pedestrian orientation, rather than focusing on motor vehicles, and to place people in a better position to interact with neighbors. Garages are not intended to be seen from the street. The goal is to locate all garages in the back yards so motor vehicles are not a dominant view. In the alternative, where there may be attached garages the doors are to face the rear or side so the garage doors cannot be seen from the street. In some locations, alleys behind the homes are proposed in order to provide more direct access to the garages in the rear yards. In this way, the main body of the lot and the street frontages are not divided by driveways.

Lots are intended to have varying widths, but generally the lots are proposed to have narrow widths in order to create a concentration of homes, yards, people and activities in relation to one another. In order to avoid too many large lots that will consume too much land and deplete the capacity of the "receiving" zone

before all the development credits can be used, it is proposed that a range of lot sizes be established in the ordinance. A maximum lot size of 20,000 s.f. for a single family home is recommended. A village house can vary from 5,000 to 6,000 s.f. lots, with perimeter village houses slightly larger, or 6,000 s.f. lots. Attached units, such as duplexes or triplexes should have 3,000 s.f. lots. In order to assure a mix of lot sizes, it is recommended hamlets be similar in capacity to the concept prototype shown herein to assure the capacity of the "receiving" zone. It is anticipated that each village will have a maximum density of about 2 dwelling units per acre and that each village will have at least one park of 2+ acres together with one or more other public uses (fire, rescue, school, park) or quasi-public uses (churches, cemeteries). Examples of a typical village prototype and prototypes of proposed units are illustrated as Figures 1 through 5 on the following pages.

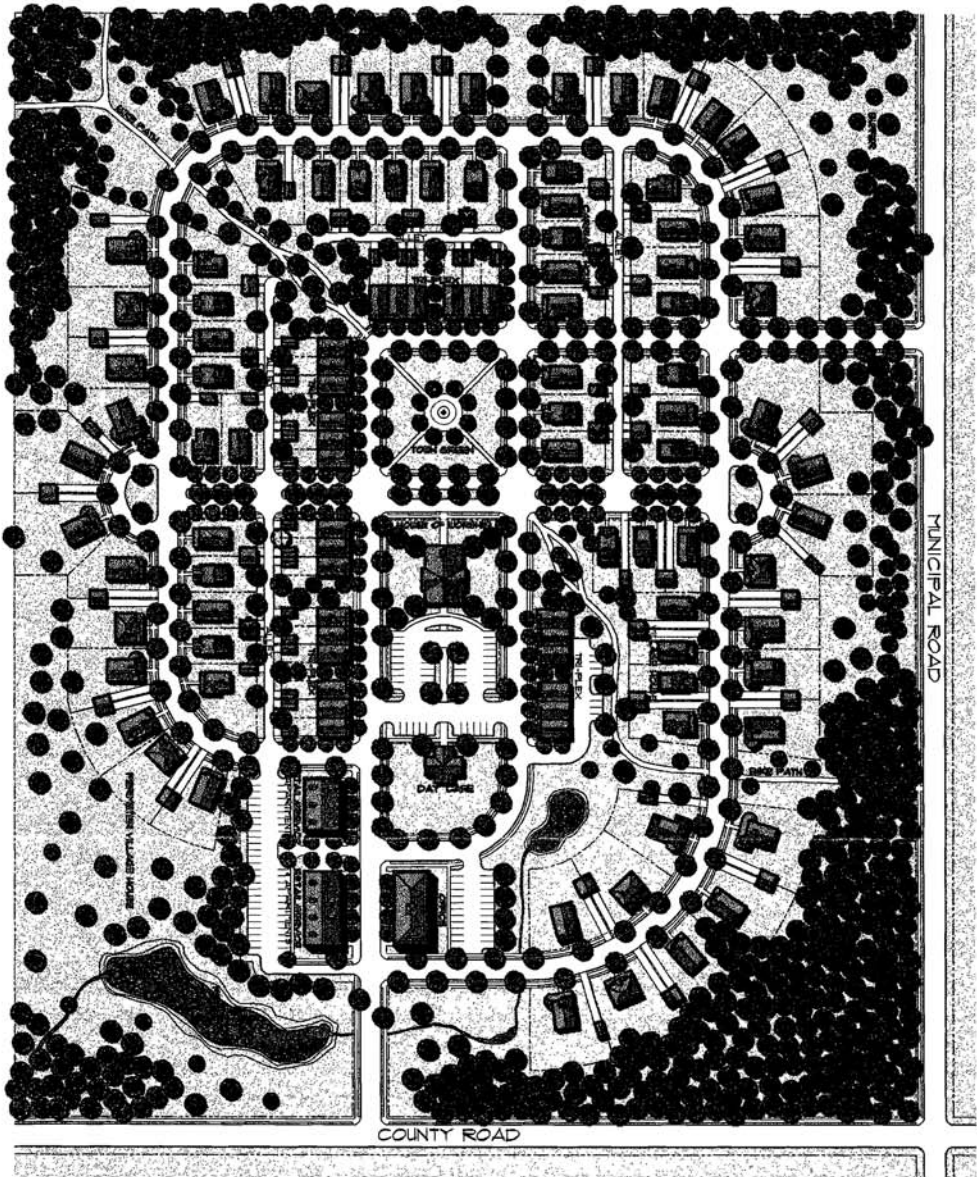
In the case of lots in the hamlets, or in the case of the lots in the "receiving" zone that are developed before sewers are available, the lot sizes will have to be sufficient to accommodate septic systems, probably no smaller than 17,000 sf. In the case of these larger lots, future re-subdivision is anticipated provided the lot has the appropriate number of development credits.

#### DEVELOPMENT POTENTIAL OF "SENDING" AND "RECEIVING" ZONES

(*N.J.S.A. 40:55D-117a(3)*)

As to the capacity of the "sending" and "receiving" zones, it is proposed that on-site development in the "sending" zone will be limited to a density of one dwelling unit per 33 acres, assuming a property owner is selling development credits. The purpose is to retain large blocks of agricultural land for farming.

Figure 1  
 TOWNSHIP OF CHESTERFIELD  
 VILLAGE PROTOTYPE

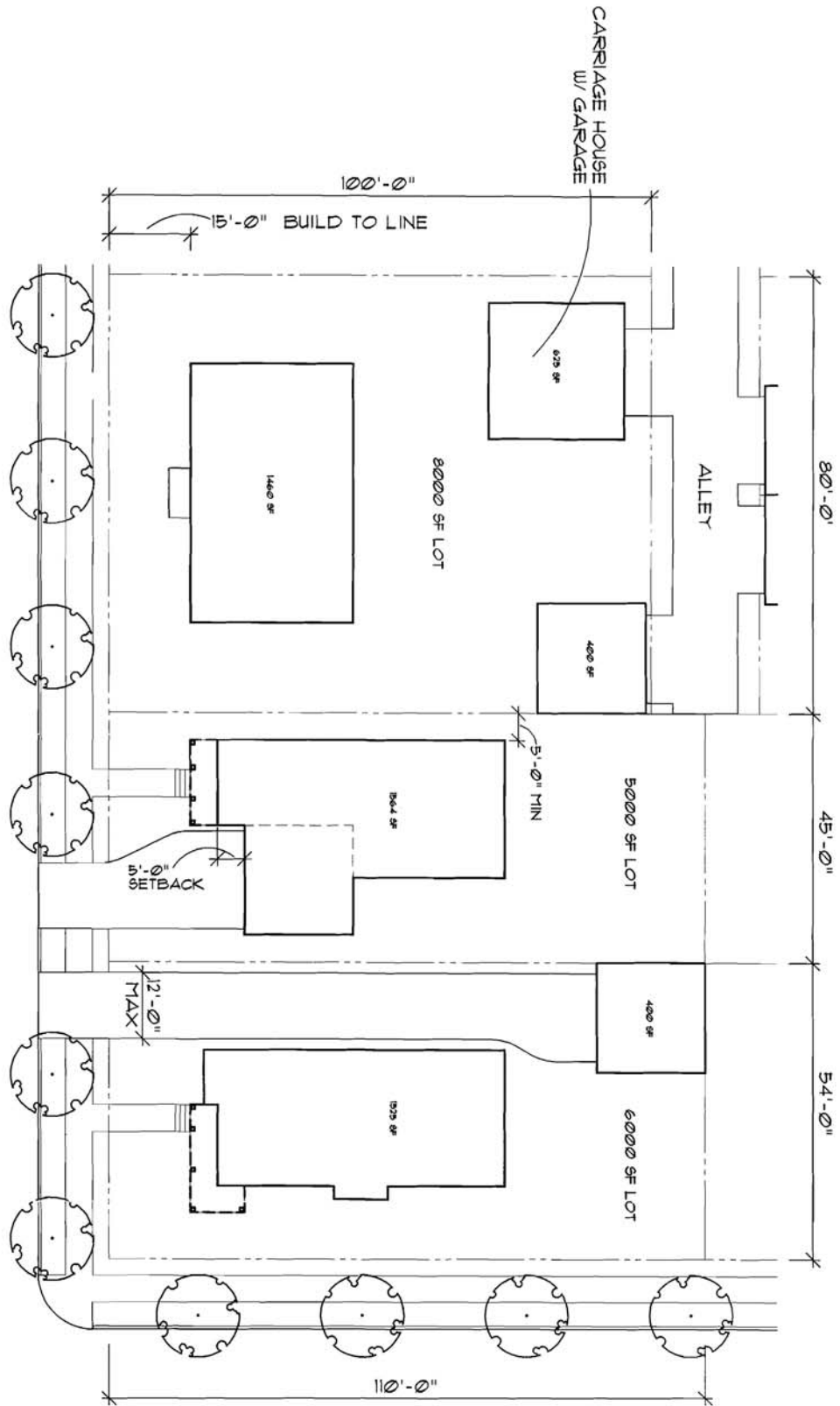


AMOUNT	LOT TYPE	LOT SIZE
21	TRI-PLEX	2500 SF LOT
39	VILLAGE HOUSE	5000 SF LOT
41	FERIMETER VILLAGE HOUSE	8000 SF LOT
15	APARTMENTS	900 SF EACH
6	CARRIAGE HOUSE	900 SF (APT)
128	TOTAL UNITS	
	OFFICE/RETAIL/SERVICE	18,340 SF



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FIGURE 2A  
 TOWNSHIP OF CHESTERFIELD  
 VILLAGE HOUSE PROTOTYPES-PLAN VIEW

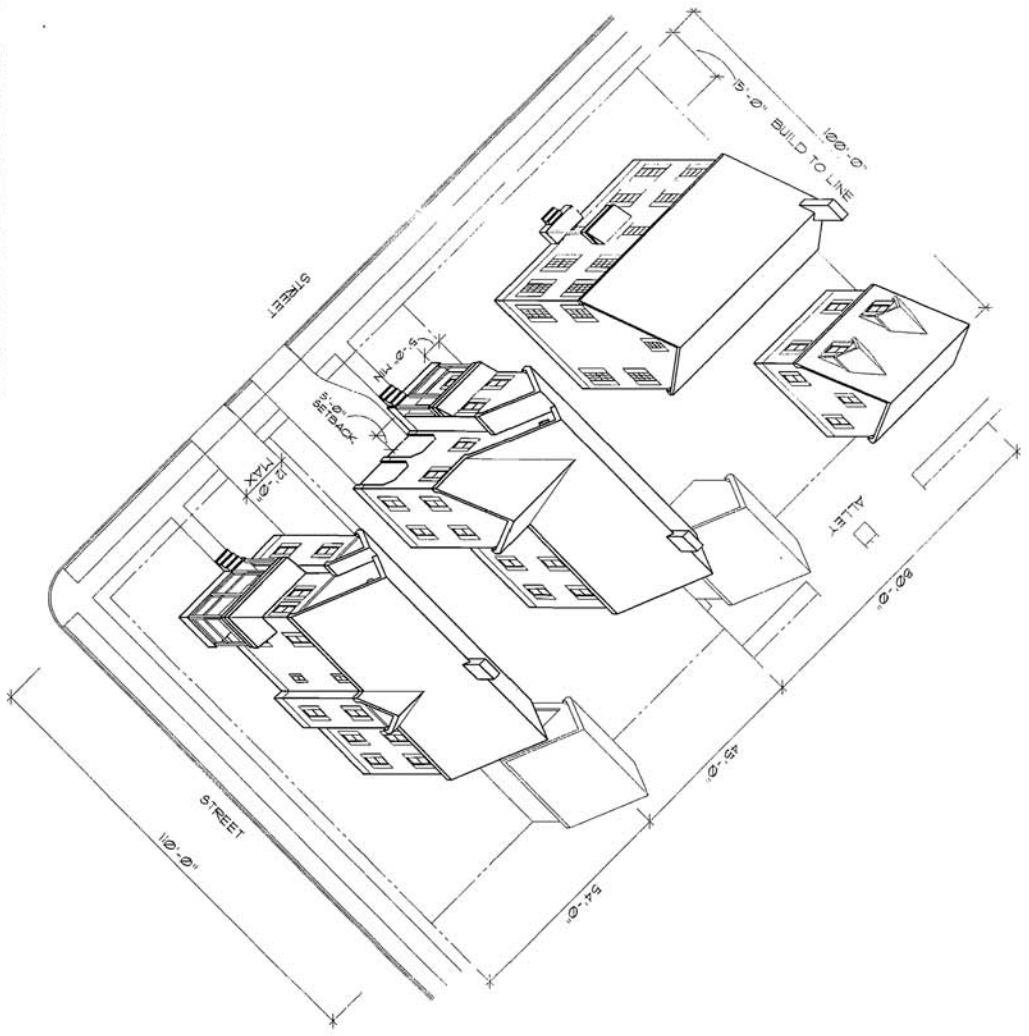


1" = 20'-0"



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FIGURE 2B  
 TOWNSHIP OF CHESTERFIELD  
 VILLAGE HOUSE PROTOTYPES - ISOMETRIC VIEW



1" = 30'-0"



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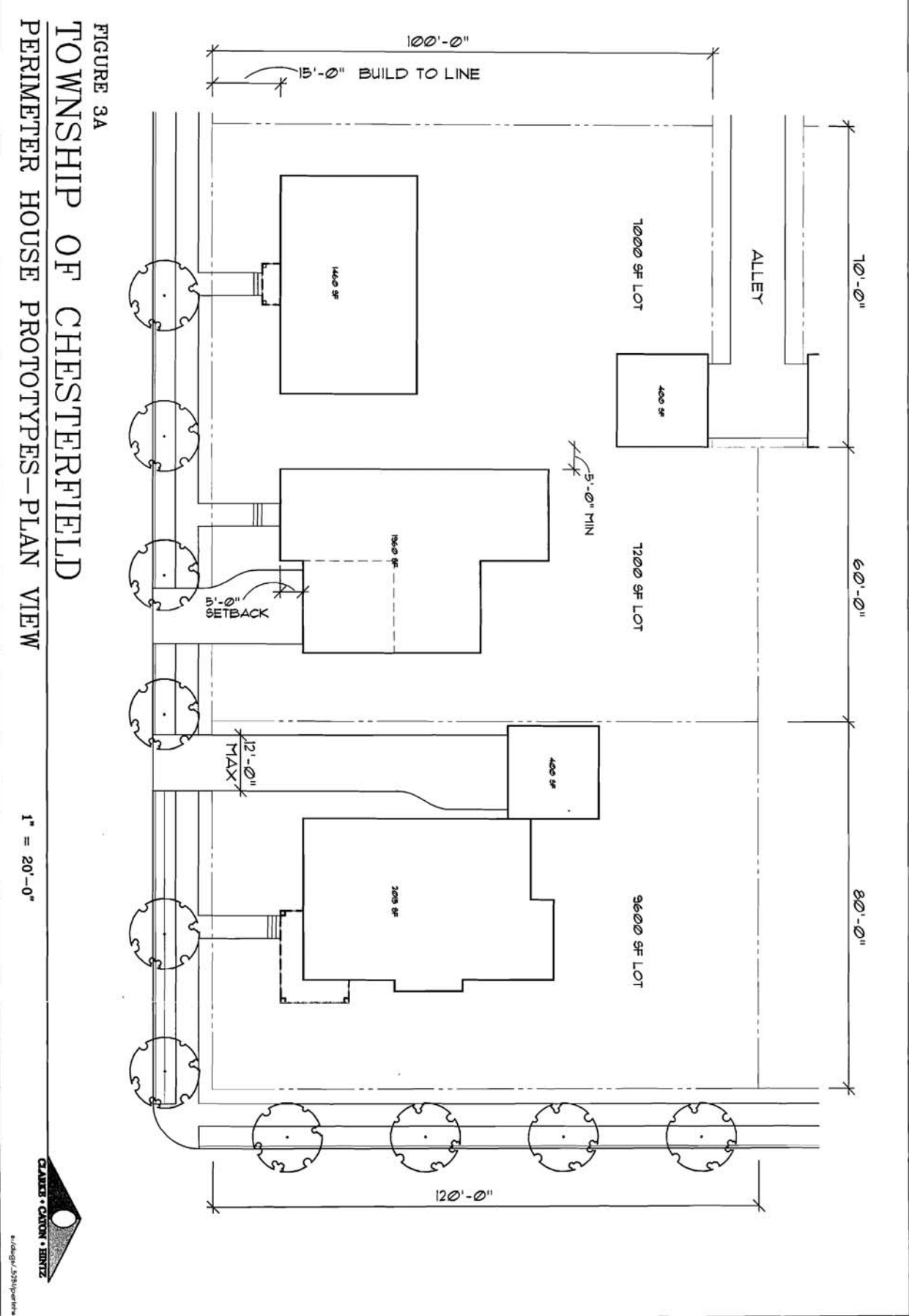
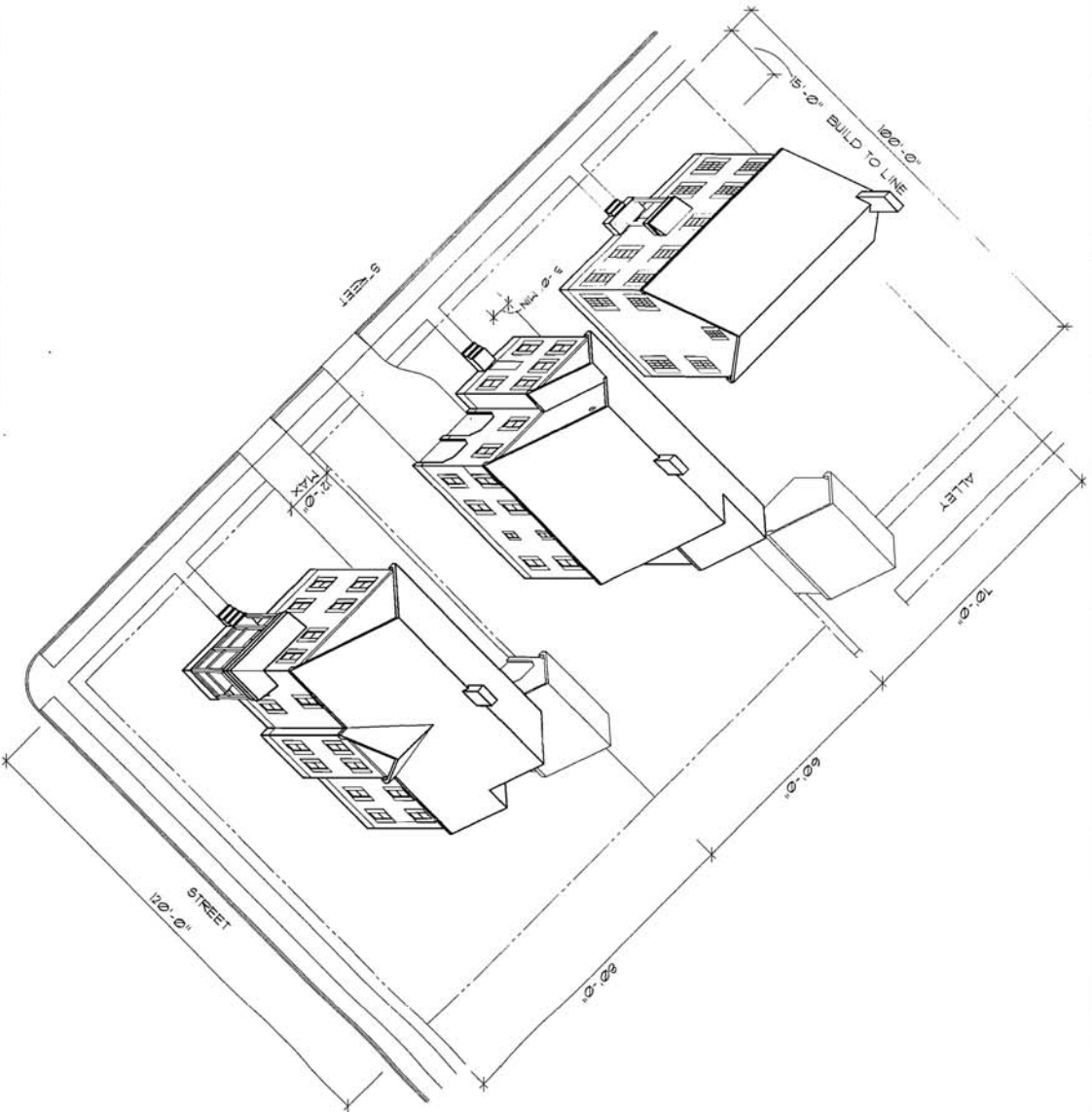


FIGURE 3B  
 TOWNSHIP OF CHESTERFIELD  
 PERIMETER HOUSE PROTOTYPES - ISOMETRIC VIEW



1" = 30'-0"



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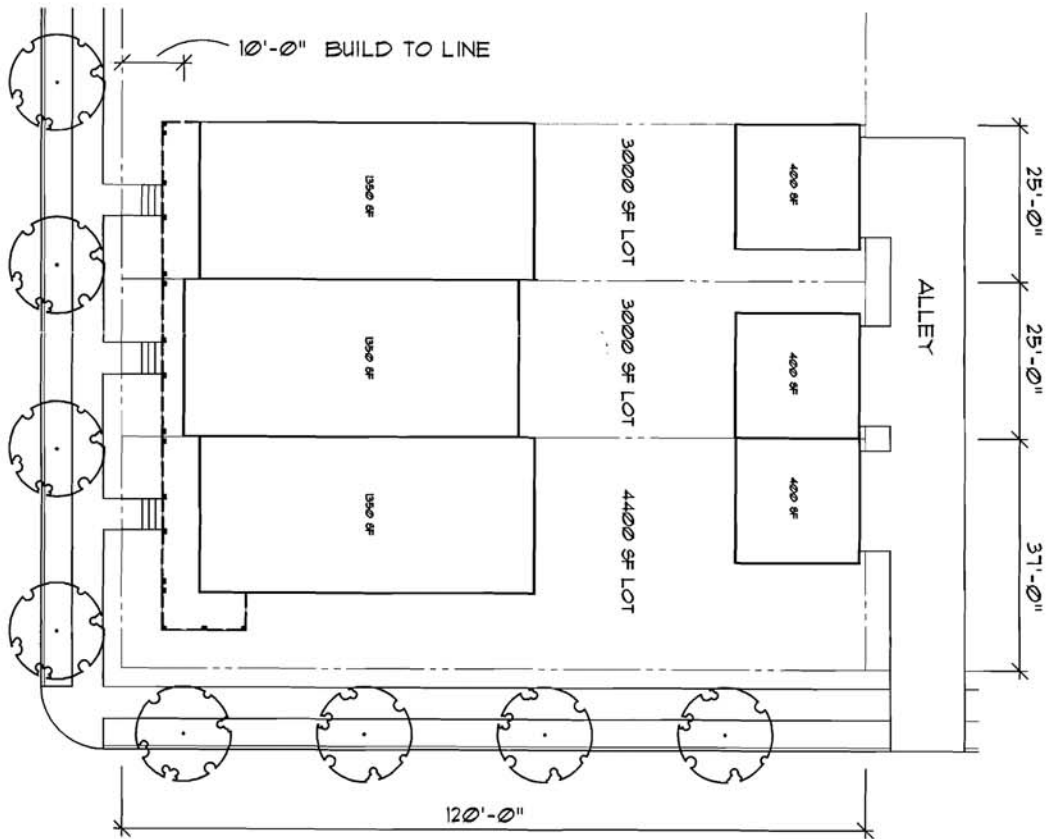


FIGURE 4A  
 TOWNSHIP OF CHESTERFIELD  
 TRI-PLEX PROTOTYPE-PLAN VIEW

1" = 20'-0"



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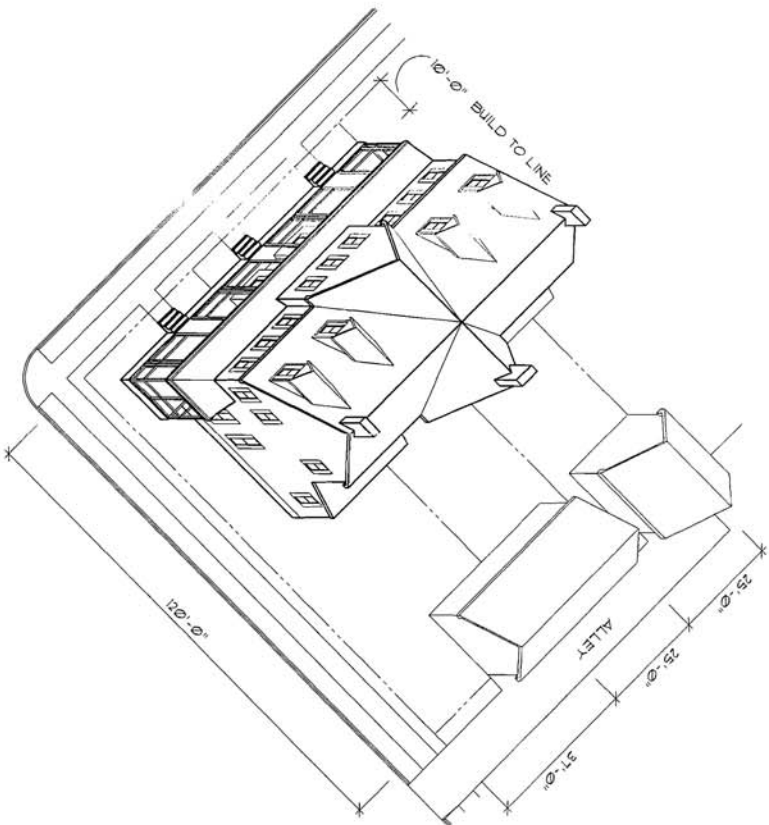
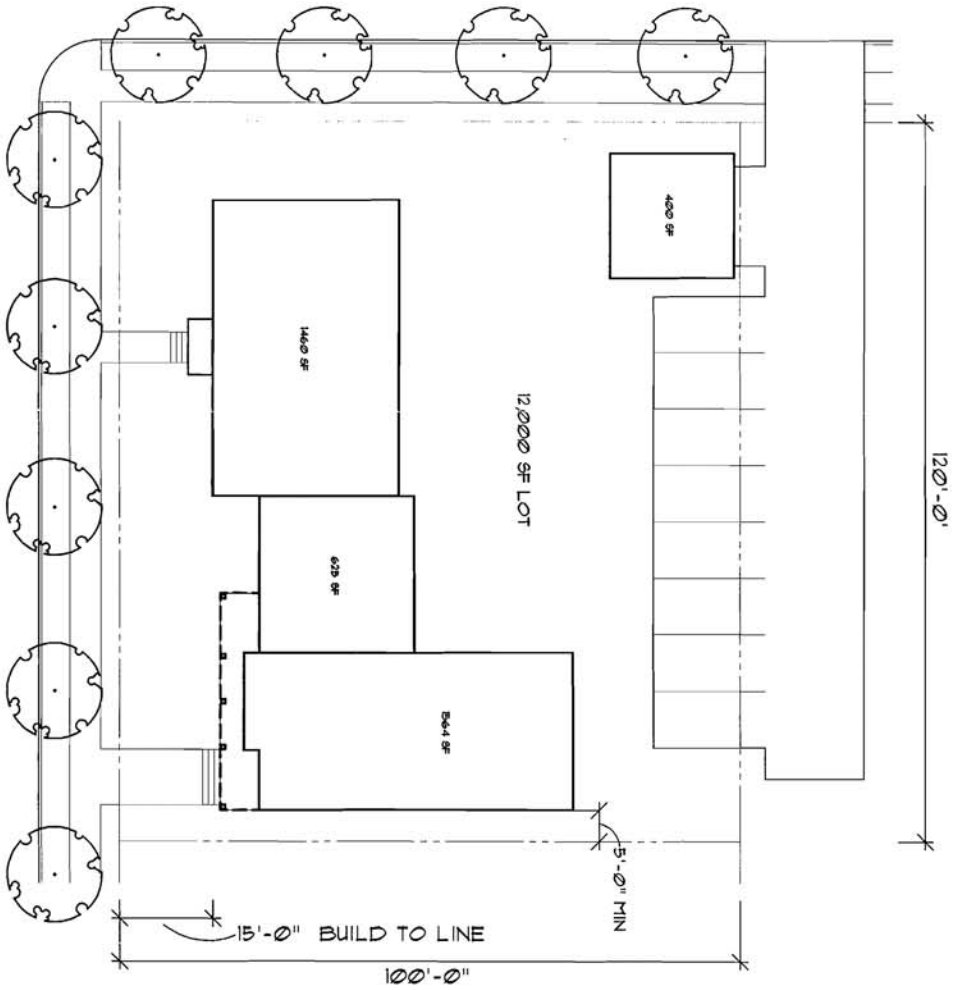


FIGURE 4B  
 TOWNSHIP OF CHESTERFIELD  
 TRI-PLEX PROTOTYPE-ISOMETRIC VIEW

1" = 30'-0"

FIGURE 5A  
TOWNSHIP OF CHESTERFIELD  
APARTMENT PROTOTYPES - PLAN VIEW



1" = 20'-0"



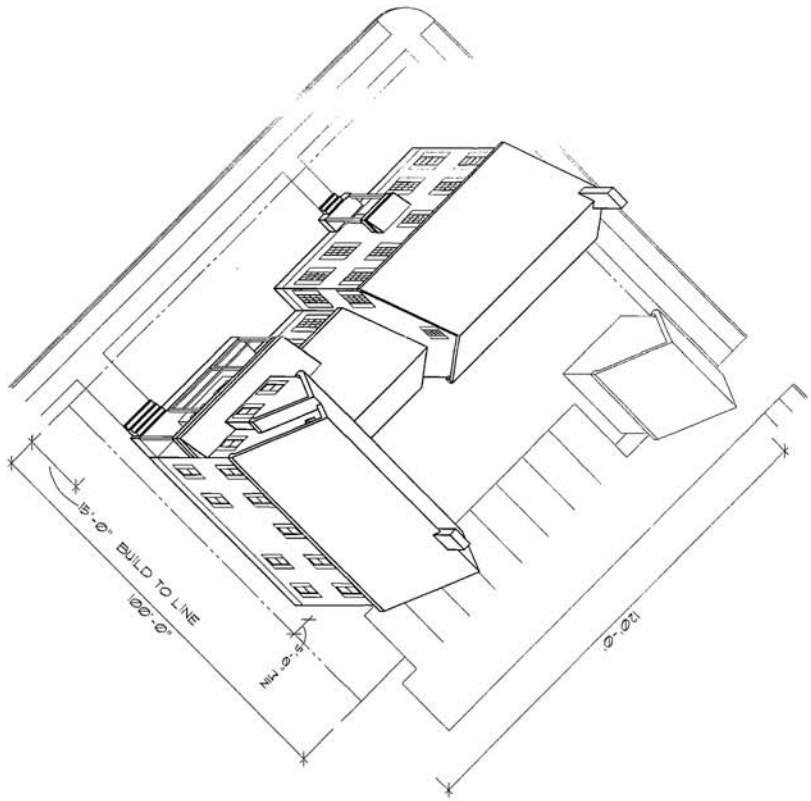


FIGURE 5B  
TOWNSHIP OF CHESTERFIELD  
APARTMENT PROTOTYPES-ISOMETRIC VIEW

1" = 30'-0"



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A minimum of 33 acres is consistent with the goal of retaining a "critical mass" of agricultural land to avoid interference from suburban or scattered housing. Notwithstanding the policy of the N.J. State Agricultural Development Committee for 50 acre tracts as well as the findings in the State of Oregon for minimum 50 acre tracts (*Is Oregon's Farmland Preservation Program Working?*, Daniels and Nelson, APA Journal, Winter 1986), this Master Plan recommends housing in the agriculture area at a density of no more than one dwelling unit per 33 acres. In adopting this goal, it is expected that actual farm tracts will be 50+ acres since it is intended that actual house lots can be as small as 1 or 2 acres and abutting houses would result in multiples of 33 acre tracts. Where more than one home is built on a farm, the intent is to require the new homes to be clustered on a small portion of the farm, sharing a common access drive to avoid strip frontage development along the existing roads. Where smaller lots occur, other, larger tracts would have to be deed restricted so that no housing would be permitted on them in order to maintain the overall average of one dwelling unit per 33 acres. For example, a 100 acre farm with three homes (one per 33 acres) would develop about 6 acres for the three houses (at 2 acres each) leaving a 94 acre farm.

The "sending" zone has major blocks of farmland with farming activities. Some 608 acres were acquired and dedicated to farmland through the use of Township, county and state funds in 1984/85. Another 2,538 acres were purchased in 1989/90. This totals 3,146 acres. Under the transfer provisions, the Plan proposes to transfer development credits out of the agricultural "sending" zone based on soil conditions and the prior zoning. Each tract was measured using the following criteria and was then assigned a specific number of development credits. One credit per 2.7 acres is proposed on the good soils, (rated "slight"

constraint to development, depth to seasonal high water table >5 feet) where on-lot wells and septic systems could be approved. On poorer soils, fewer dwellings are proposed based on subdivision experiences in the Township where fewer lots resulted in areas of these poorer soils. As a result, one credit per 6 acres is recommended in the soil conditions rated "moderate" constraint to development (depth to the seasonal high water table at 3 to 5 feet) and one credit per 50 acres in the soils rated "severe" constraint to development where no development could otherwise be located (wetlands and floodways).

Using these soil factors, development credits were assigned to each property. The formula is set forth in the report prepared by Burlington County titled *Creation and Allocation of TDR Credits, Chesterfield Township, July 1990, Revised October 1991*. In accordance with N.J.S.A. 40:55D-28b(11), this report comprises a portion of this Master Plan as if written herein. Subsequent to the publication of that report, additional development and other activities occurred in the Township. Although these activities were minor in nature, the actual number of credits assigned to each property may vary from that 1991 report, but the method of calculating more recent numbers is based on the formula in that report. This formula will be modified based upon any analysis such as engineering or wetlands studies of individual properties, and submitted at the time of credit allocation and adoption of the Zoning Ordinance.

Developable lots greater than 10 acres in the agriculture "sending" zone would generate 1,494 credits and the "receiving" zone would generate another 216 credits for a total of 1,710 credits. However, since the Planning Board determined that land permanently preserved under the State/County farmland preservation program with 80% State funding would not be allocated



development credits, 323.5 potential development credits must be subtracted from the "sending" zone. This produces a net of 1,387 development credits (rounded) available for transfer into the "receiving" zone. A bonus of 10% is to be added to the credits of landowners in the sending area only, adding another 137 credits to be transferred, for a total of 1,524 credits for transfer. However, new applications have been submitted to the County for purchase of development credits. These applications, if approved, will reduce the number of development credits generated. Assuming also that there will be about one unit per 33 acres left in the "sending" zone (est. 167 units), the total number of credits that need to be accommodated in the "receiving" zones is estimated to be 1,220 (rounded). Nevertheless, the capacity of the receiving area and the number of potential credits in the sending zones will have to be reexamined from time to time.

Based on about 63-75% of the dwelling units being single family homes (needing one development credit each), about 20% being triplexes/duplexes (0.75 credit each), and 10% apartment/carriage house units (0.5 credit each), approximately 1,337 dwelling units would be generated<sup>1</sup> (see Figure 6 - Required Number of Development Credits). Retail and business uses would create a demand for up to 151 additional credits to develop about 226,500 square feet of office and retail space. Because certain lots in the "sending" zone do not fit the required zoning standards, it is recommended that lots less than 10 acres that are already developed with a house receive no further credits to sell and cannot be resubdivided to allow a second house. Any lot equal to or greater than 10 acres

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<sup>1</sup> These numbers will vary depending on marketing decisions made at the time of development approvals.

Figure 6

**Required Number of Development Credits**  
Chesterfield Township  
October 1997

<u># Credits Required</u>	<u>Type of Development Permitted</u>
1.0	Detached Perimeter Village House; >8,000 sf to 24,000 sf; >70 ft lot width
0.75	Detached Village House; <8,000 sf and <70 ft lot width, and Tri-Plex Dwelling Units
0.5	Apartment Units and Carriage Houses (except 2nd floor options noted below)
1.0	Ind./Office floor area at 2,000 sf/credit Warehouse floor area at 4,000 sf/credit Max. floor area ratio of 0.25 in the IOP District.
1.0	Retail/Office per 1,500 sf 2-story building required (2.5 story for roof design permitted) 2nd floor options:           1 credit/1,500 sf non-residential use 1 credit/2 market-level apartment units 0 credit/1 market plus 1 low income unit 0 credit/2 moderate income units
0.5	Home Office Note: Max. 1 employee (not a resident). Max. 900 sf, or 30% of principle bldg, whichever is less located in principle bldg., or accessory bldg., but not both office only, no retail or manufacturing. Medical allowed if on main road with rear access to alley.
1.0	Institutional per acre Church, Private School, Cemetery, Private Recreation, etc.

with one or more existing houses is proposed to receive the appropriate number of credits. The remaining credits allocated to a site less than 50 acres may be sold. Where there is a vacant lot 10 to 33 acres in size the credits can be sold.

Landowners who have already sold the development rights under the State/County easement purchase program have no additional credits that can be sold under the Township's zoning. A total of 536.75 credits were allocated to the 20 farms preserved through this easement purchase program. The 323.5 credits associated with the farms preserved with 80% State funding through early 1990 are intended to be retired, with the remaining credits (213.25) being available for transfer through the County TDR Bank. These remaining credits can be sold and have been included in the 1,387 development credits.

In calculating the total number of development credits in the Township, each lot in the Township was evaluated based on its soils data. The number of development credits for each lot were then added together for the Township total. It is recommended that this list of development credits, by lot, be published as part of the ordinance. Since some development activity may occur between the adoption of this Plan and the adoption of the Ordinance, the data in the Ordinance should be updated based on the most current information at that time. If an owner disagrees with the number, the ordinance should provide an appeal process where the owner may submit site specific soils data and wetlands analysis by a qualified professional. This right of appeal is recommended to be available up to the time the owner sells any portion of the development credits. It is also recommended the number of development credits be rounded to the nearest quarter of a "credit" in order to be consistent with the number of development credits needed for certain land use types.

The agricultural area is intended to encourage, first, continued agricultural activities, including voluntary participation in the State's Agriculture Retention and Development Act, use of the funding provided through the Farmland Preservation Bond Act of 1981 and 1989, and other subsequent programs which may become available, and coordination with the Burlington County Agriculture Development Board and the Board of Chosen Freeholders.

The Plan proposes that development in the "receiving" zone is to be designed in accordance with the concept of this Master Plan in order to accommodate approximately 1,220 development credits in the "receiving" zone. In the case of development around the existing villages of Chesterfield and Sykesville, additional flexibility is needed in order to assure the future of the potential receiving areas.

As to the design elements, the Plan proposes a broad concept of having higher density housing and retail/business services in the core of the village. Densities should decrease further away from the core. New single family homes are proposed adjacent to existing concentrations of single family homes in order to have an appropriate transition from the existing development to the new development. The village prototype which illustrates a 44 acre receiving site would hold a variety of units, including single-family homes, "village houses" (single-family homes on smaller lots), and triplexes/duplexes. Apartments are intended to be limited to units above stores and offices, or in carriage houses as shown in Figures 2 through 5.

A buffer exists in a natural stream corridor that abuts Crosswicks along the south and west sides, and buffers between other villages and hamlets are also

proposed. The existing buffer area of about 50 acres along the stream, adjacent slopes, and along the top of the bank is proposed to remain. With the combination of the buffer area, and intervening sending "preserved lands", Crosswicks will not blend and merge with new development. A school site and associated recreation area will provide additional services to the residents of the receiving zone (village) and the immediate surrounding area. The open space associated with the Friends Meeting House is intended to remain open space. Any development potential associated with this area is intended to be transferred into the new village.

The amount of floor area permitted in the industrial/office park zone is recommended to be increased where a developer acquires additional development credits. As noted above, it is proposed that an industrial or office developer be permitted a floor area ratio (FAR) of 0.15 by right, e.g. without using any development credits, then allowing the FAR to increase to 0.25 with the use of credits. The use of development credits for various non-residential uses will result in fewer dwelling units being transferred into the residential portion of the "receiving" zone. The development of extra floor area in the industrial/office park zone could therefore either reduce the number of housing units and leave more open space or parks, and/or provide unused capacity in the residential portion of the "receiving" zone for future design options. The use of development credits for non-residential purposes also expands the market for the sale of the credits. However, in order to avoid over-development on a site, an FAR higher than 0.15 is only to be approved if the setbacks, coverage, parking, building heights, and other design criteria can be met.

In the "receiving" zone, business and retail services are proposed in some of the

hamlets and villages. The purpose is to encourage a variety of convenience retail uses, business services, and occupations at a neighborhood scale. Apartments on the second floor over the business uses are proposed as are a limited number of carriage houses in the rear of oversized lots. Business uses are expected to come and go in these buildings as market conditions change. These business uses are to have access from pedestrian systems in order to encourage people to either walk or use bicycles rather than cars. They are also concentrated in or near the center of the villages and have defined boundaries. These uses are not to be stripped along the frontage of the roads.

## Site Requirements/Design Guidelines

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### **COST OF LOT IMPROVEMENTS**

Those items which constitute lot improvement costs include, sewer, water, recreation, off-site improvements, per lot hard costs (grading, streets/sidewalks, landscaping, utility connections) and per lot soft costs (borrowing expenses, construction financing interest, engineering escrow, fees, etc.) With the per lot hard costs accounting for approximately 50% of the total lot improvement costs. The recreation, off-site improvement and the per lot hard costs are primarily a direct function of the Township's development requirements as specified in the ordinance.

As the cost of lot improvement increases, money available for land or credit acquisition decreases. Therefore, a balance is required within the development ordinance that ensures the construction of a community that is compatible with the Township's goals and vision yet does not require overly onerous lot improvement costs. Those items which escalate costs typically include overly wide lot fronts, extraordinary landscape requirements, overly wide streets, excessive curb and sidewalk requirements and the adoption of pavement construction specifications beyond normal requirements. It is recommended that the Township engineer and planner draft a development ordinance that meets the objectives of the Township with requirements that are not overly onerous to the lot improvement costs.

## **HOUSING VARIETY**

Although previous Township surveys have indicated a strong preference for only single family detached housing, with townhouses being acceptable, there will probably be some need for apartments. This need would most likely be generated by the same population eligible for low and moderate income housing, i.e., senior citizens, adult children of Township residents and young families just getting started. It is important for a community to provide for people at various levels of income much the same as the older villages did in past years. A variety of home sizes and types which would draw people from different levels of income and with different needs should serve to stabilize the provision of governmental services including education, emergency services, etc.

The type of house that is offered by developers is primarily a function of the market demand as well as interest rates and changes in tax laws and can tend to be somewhat cyclical. Not many apartments are being built today in this region, because of the inability to make a satisfactory return on the investment, as the market for people willing to pay the necessary rents (\$700-\$900) is low. One method to accommodate the apartment need, while minimizing construction costs, is to permit the construction of a percentage of "granny flats" as either separate quarters within a single family detached unit, over a garage or as an out-building. Construction of housing units above retail units can also accommodate the market demand for apartments at a reduced construction cost.

A potential problem with mixing housing types in a relatively small area is the buyer's expectation that their eventual return on investment might be diminished if all the houses in the immediate vicinity are not a similar type.



However, it is believed that this can be accommodated by both design and placement. The placement of multifamily units in proximity to each other and in closer proximity to a village center should tend to overcome some of the perceived stigma. Small one/two bedroom multifamily apartments (three or four family units) can be architecturally designed to resemble a large single family unit with each apartment having a separate entrance on a different facade. A building style such as the New England connected farm building<sup>2</sup> could also be used to accommodate multifamily units. However, the use of this design on too many units would be overpowering and out of place. The zoning regulations should be so written that not all of the multifamily units are concentrated in one area adjacent to each other. The zoning regulations should also permit the construction of some "executive" housing on larger lots in or near the areas of higher density.

Although these design solutions are valid they do not necessarily fit with the current philosophies of developer-builders who offer relatively standard buildings, with many of the components being manufactured off-site. This developer-builder philosophy can lead to visual monotony by having too many similar looking multiple family units within a development. These problems can be mitigated through zoning regulation that requires a variety of density and housing types within each district and through the architectural control of facades.

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<sup>2</sup>Hubka, Thomas C. *Big House, Little House, Back House, Barn-The Connected Farm Buildings of New England*. Hanover, NH, University Press of New England, 1984.

In as much as each developer brings a different visual look and layout presentation to their buildings, one method to ensure the visual variety of dwelling units of the same type is the construction by different developers. However, this is something typically beyond the control of planning boards.

To ensure the construction of a variety of housing types the Board should consider dividing the receiving area into zones of varying density requirements and within each density zone specify a range of house type mixes (see Figures 1 through 4 - Unit Prototypes). It is also recommended that the Board consider permitting a specific percentage of single family units be developed with "granny flat" provisions and that residential uses be permitted over retail units. Further it is recommended that architectural standards be incorporated into the development regulations to primarily control facade appearance.

### **LOT SIZES**

Although the overall goal of a TDC program is to cluster the development of the Township into a specific area, thereby maximizing open space and minimizing infrastructure requirements within the Township, development within the receiving area should also be clustered to maximize community open/recreation and further minimize infrastructure costs. The receiving area clustering can be accomplished through specification of lot sizes in the zoning regulations.

The receiving area should be sized to achieve an overall level of desired gross density. However, the actual area to be developed within the receiving area should be sized to permit sufficient open/recreation space within the community. The specific size of the receiving area to be developed should probably not exceed

60%, leaving 40% for open/recreation/civic space, development would take place on 900 acres (60% of the receiving area). This would yield an approximate gross density of 1.66 units/acre within the construction area.

Buying decisions in the current market are somewhat driven by the buyer's desire for longer/wider homes. This buyer desire is a conundrum in as much as wider homes require wider lots which increase lot improvement costs. However, narrower lots can work for larger homes if done in moderation. One method would be to reduce side yard setback requirements.

The Planning Board should consider:

1. Clustering development within the receiving area, requiring at least 40% of the receiving area land be left clear for open/recreation uses.
2. Permitting single family lot sizes to vary between 6,000 sq. ft. (60' x 100') to 12,000 sq. ft. with some smaller or larger lots possible allowed (see prototypes).
3. Giving some flexibility to developers in developing lot sizes and side yard setbacks.

## **COMMUNITY SERVICES**

Because of the projected population of the receiving area, a future school site, a location for a new municipal center and an additional fire station should be included within the receiving area. Other community service facilities such as churches and medical facilities should be considered as appropriate uses within the development area.

## **Circulation Plan Element**

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The Circulation Plan Element of the Master Plan consists of the Executive Summary of the Chesterfield Township Historic Preservation Transportation Study, Final Report, dated April 30, 1997, prepared by Lehr & Associates, Inc. Following is a reproduction of the Executive Summary.

Refer to the full text of the Chesterfield Township Historic Preservation Transportation Studies - Final Report and Technical Appendix dated April 30, 1997 - which are made part of this Master Plan.

## **Chapter 1 Executive Summary**

### ***Introduction***

The purpose of conducting the Chesterfield Township Historic Preservation Transportation Study was to develop recommendations for maximizing transportation efficiency in the township while minimizing the negative effects of future growth. The Study had two main objectives:

1. To identify methods to effectively manage transportation needs created by growth under two scenarios: a) continuing development under the existing zoning code, or, b) implementing a transfer of development credits program that would result in the development of a new village in a receiving area.
2. To identify methods to mitigate the impacts of through traffic movements upon the township, particularly in the historic villages of Crosswicks, Chesterfield and Sykesville.

The study was comprised of six major tasks. This final report presents the results of the first five tasks in the project:

1. Identifying Current Conditions,
2. Projecting Future Traffic Flows,
3. Identifying Transportation Issues Related to New Village Design,
4. Conducting an Origin and Destination Survey, and,
5. Recommending Improvement Strategies.

The remaining task in the project consisted of a public meeting on the findings from tasks 1-5 and preparation of a final report.

This chapter of the report constitutes an Executive Summary. Following the Chapter 1 Executive Summary are chapters presenting the results from each of the five major tasks. A separately bound Technical Appendix accompanies this report and provides technical information and data from each task in the study.

### ***Project Summary***

The Chesterfield Township Historic Preservation Study was comprised of five major tasks. These tasks were to:

1. Identify current traffic conditions in the township - traffic volumes, speed of traffic percentage truck, and accident data review;
2. Forecast future traffic flows in the township based on two different development scenarios: build-out of the township under existing zoning or build-out of the township under a transfer of development credits program (TDC) where development would occur within a new village in a receiving district;

3. Identify transportation issues related to the new village design;
4. Conduct an origin and destination survey to understand travel patterns as they occur in the township; and,
5. Recommend improvement strategies for: existing conditions in the township, conditions under the existing zoning scenario and conditions with a new village.

The study was conducted under the guidance of a Study Advisory Committee (SAC) consisting of representatives from the Burlington County Office of Land Use Planning, the Burlington County Engineer's Office, planning officials from Hamilton Township, Mercer County, planning and municipal officials from Chesterfield Township and planning officials from Mercer County. Also, the Planning Board of Chesterfield Township was briefed on the status and findings of the study at two of their work sessions and numerous meetings were held with the Township Planner.

Importantly, the general public of Chesterfield was also involved in the study. Immediately after the initiation of the study, the SAC and the project consultant conducted a public meeting at the municipal building in Chesterfield Township. At the public meeting, the consultant described the study, its objectives and the tasks in the study. The county project manager then facilitated a discussion of current transportation issues and needs as perceived by residents of the township. During the course of the project, members of the public also attended and asked questions at Study Advisory Committee meetings.

After review of the draft report by the SAC, a public meeting was held to describe the major findings of the study and following to the public meeting, the final report was produced. These two activities comprised the sixth or final task in the project.

## Study Findings

### *Task One: Identify Current Conditions*

Current traffic volumes on the township's main roads are generally lower than those found in a previous study conducted in 1988. Factors for the decreased traffic volumes may include economic factors, particularly armed forces employment reductions at Fort Dix and the completion of the Trenton Complex (I-295, I-195, SR23, SR129). Traffic volumes have shown slight increases at two locations: Chesterfield-Crosswicks Road (CR677) north of the village of Chesterfield and Bordentown-Chesterfield Road (CR528) west of Chesterfield.

The main corridor for north-south travel in the township is comprised on CR677 and (Chesterfield-Crosswicks Road), extending along Main and Church Streets, through the village of Crosswicks. Of the traffic data collected in Chesterfield Township the highest volumes were found on Church Street. This corridor provides connections to US Route 130, I-195, and the New Jersey Turnpike Exist 7A with points to the south and east and can provide an alternative for to US Route 206 for travel into Trenton. Turning movement count data collected shows that nearly 90% of the traffic traveling west along Main Street bears right onto Church Street to cross the creek into Mercer County.

The data collected showed that traffic entering Crosswicks village on CR660 (Chesterfield-Crosswicks Road) during the morning peak hour comes from two main approaches. The leading approach is CR528 – slightly over one-third (35%) of traffic westbound on CR528 turns right onto CR677 in Chesterfield village. The second main approach is northbound

Chesterfield -Georgetown Road. This road becomes CR677 at its intersection with CR528 in Chesterfield village. Two-thirds of the traffic in the morning peak hour heading north on Chesterfield-Georgetown Road continues through the intersection with CR528 onto CR677.

The main corridor for east-west traffic is CR528. The volumes along CR528 were second only to the volumes found on Church Street. This route runs through Chesterfield village, and it connects US Route 130 and 206 with points to the south and east. Slightly under two-thirds of the westbound traffic in the morning peak hour on CR528 at CR677 in Chesterfield village continues west on CR528.

Vehicle classification counts were conducted at two locations in the township to determine the truck volumes as a percentage of total volumes. The percentage of trucks along Church Street is higher than that found on CR528 (7.2% vs. 4.3%).

Capacity analysis was conducted for 10 intersections in the township. Capacity analysis ascertains the level of service (LOS) at intersections by determining the average amount of delay experienced by motorists. The capacity analysis found that *all movements* at the studied intersections have a LOS of B or better during the peak hours and that the overall intersection LOS was A for all studied intersections. LOS B indicates that the average total delay for motorists on minor approaches at these intersections is 10 seconds or less, a very acceptable level of service.

The geometry at some intersections in the township create approaches that intersect at an acute angle, limiting sight distance. CR528 and CR677 has an unusual geometric layout which creates limited sight distance and the intersection of Old York Road (CR660) and CR677, as well. The intersection of CR528 and CR677 is currently under engineering design for re-alignment.

The speed of traffic is a concern to township residents. Spot speed surveys found two locations at which over 70% of the traffic exceeded the posted speed limit. These locations were Chesterfield-Georgetown Road in the village of Chesterfield (35 MPH zone) and Sykesville Road in the village of Sykesville (40 MPH zone). In Crosswicks village, along Main Street, 62% of the traffic was found to exceed the posted speed limit.

Most motor vehicle accidents in the township are single-vehicle accidents that occur outside the village areas. Two leading factors in the single-vehicle accidents were wet/icy road conditions and collisions with deer. Few accidents were found to have occurred between two or more vehicle at the major roadway intersections.

### *Task Two: Project Future Traffic Volumes*

The objectives for work completed under Task 2 was to determine traffic impacts on roadways in Chesterfield Township and on the historic villages from growth in the township based on two different development scenarios. The first scenario was to assume full build-out of the township under existing zoning regulations. The second scenario was to assume a transfer of credits program whereby new development in the township would occur in a new village within a receiving district. Figure 1 provides a map showing the general location of the TDC receiving area.

Trip generation for existing zoning build-out and build-out under a new village would be similar for the AM peak hour. For the PM peak hour, trip generation for the existing zoning scenario would be much higher than for the new village scenario.

Few, if any, internal trips would be expected under the existing zoning build-out scenario. In contrast, internal trips would result under the new village scenario because of two factors:

1. Higher density development is expected within the village, thus shorter trip distances would result; and,
2. Mixed use development is expected within the village, thus internal connections would be available between different land uses and trips would be less likely to enter the regional roadway network.

Village style development would also provide a greater ability to complete some trips by biking or walking as compared to an existing zoning build-out scenario.

Traffic in Chesterfield Township will grow regardless of which development scenario is ultimately implemented due to growth in regional traffic from development external to the township. However, there are no capacity needs at existing intersections in the township due to this external growth because level of service does not deteriorate – all intersections would remain at an overall level of service A (LOS A) and no particular movement at an intersection would have an LOS lower than LOS C.

Importantly, traffic impacts would be much greater in the two villages of Crosswicks and Chesterfield under an existing zoning build-out as compared to a new village build-out scenario. The table below shows the comparative volumes forecasted for each development scenario.

**Table 1-1 Comparison of Estimated Daily Traffic Forecasted on Existing Village Roadways For Each Development Scenario**

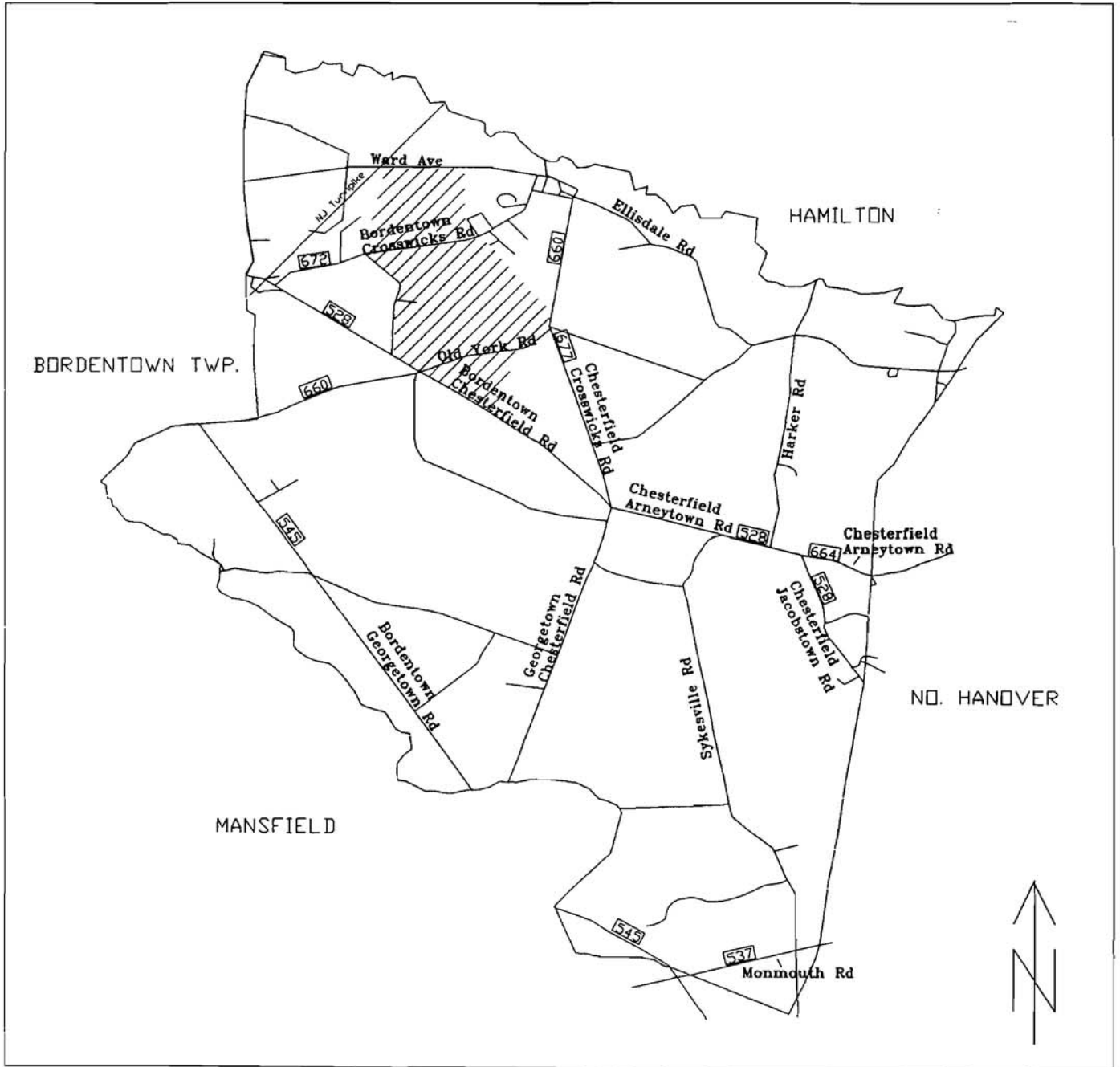
Roadway	ADT Under Existing Zoning	ADT Under New Village
Main Street at:		
Ellisdale/CR660	13,350	5,990
Ward/Church	13,530	6,190
Church at:		
Crosswicks Creek Bridge	14,590	10,280
Ward at:		
CR672 (Bordentown-Crosswicks Rd)	4,590	6,230
Georgetown Road at:		
CR528	7,210	2,910
CR677 (Chesterfield-Crosswicks Rd) at:		
CR528	9,160	3,690

Three intersection, in their current configuration as unsignalized intersections, would fail under the existing zoning build-out scenario (LOS F): Church/Main and Ward Avenue, and CR528 and CR677, while two other intersections (CR528 and CR660, and Main/Ellisdale-CR660) would operate overall at LOS C but the minor approaches would either fail (LOS F) or operate at LOS E. Under the village scenario, the operations at only two of these same intersections would decrease. At Church/Main and Ward operations would decrease to LOS E overall, with LOS F eastbound and LOS B westbound, and at CR528-CR677 (as a "T")

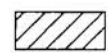


# FIGURE 1

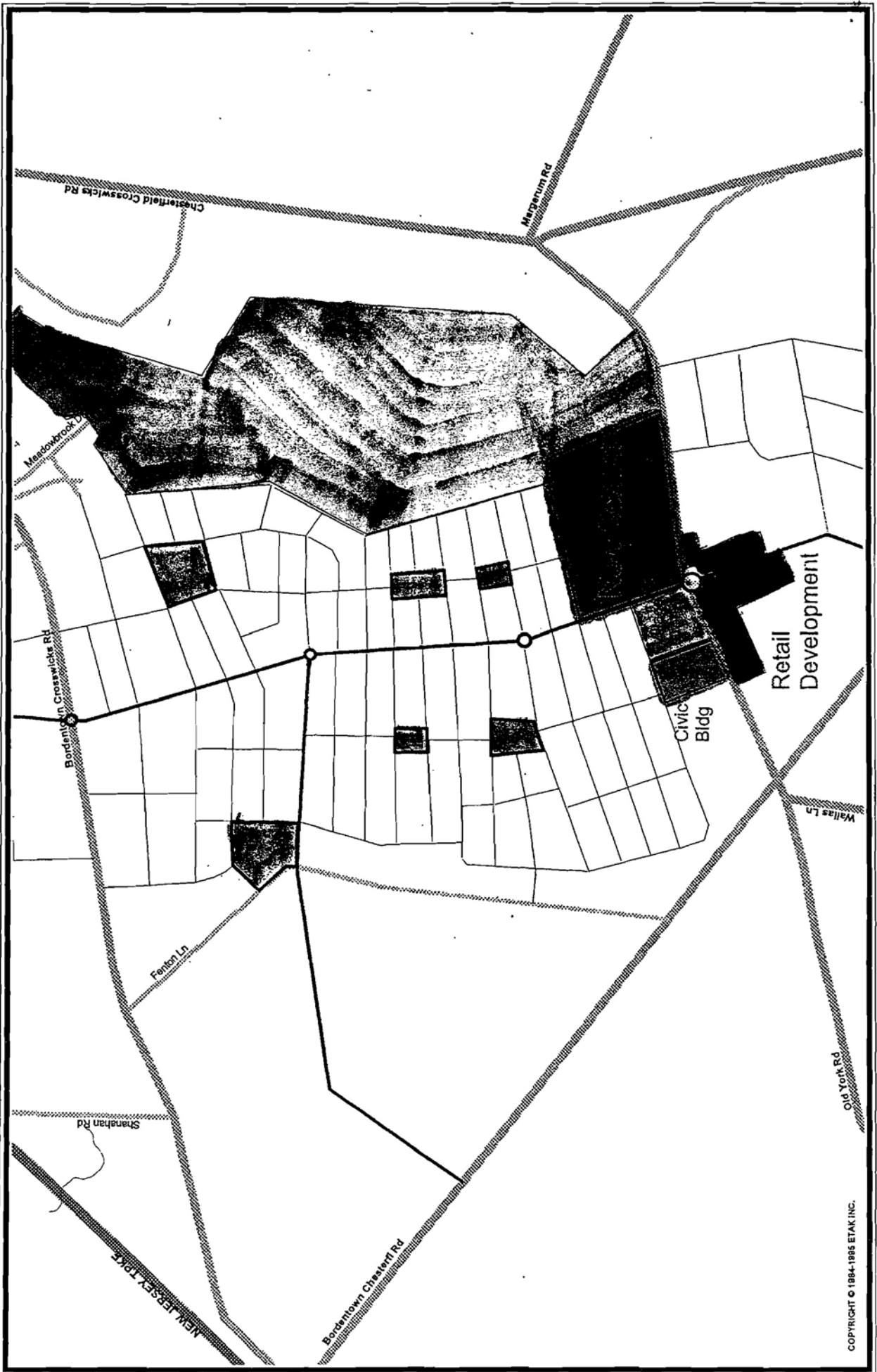
## MAP OF TDC RECEIVING AREA



LEGEND:

 TDC AREA

# Hypothetical New Village Design Concepts



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intersection operations would decrease to LOS B overall and LOS E for the southbound movement. All other intersections would operate at LOS A under this development scenario.

*Task Three: Identify Transportation Issues Related to the New Village Design*

The objectives of this task were to discuss traffic flows within the new village, to identify methods to encourage non-motorized travel within the village, and to identify roadway, bicycle and pedestrian facility design standards for the new village.

Because of the clustered, multi-use design, the new village would generate substantially fewer vehicle trips compared to construction of an equivalent number of dwelling units throughout the township under existing zoning.

Over 25% of the trips generated in the PM peak hour in the new village would be internal trips and would not leave the village.

A substantial portion of these village trips would be short enough to become walking trips. Land use design and planning can help to maximize the potential of converting trips to walking trips. Actions to accomplish this include:

- Concentrating retail development within a traditional village center with shop fronting directly on a collector street served by on-street parking;
- Locating the new school in the village center;
- Providing sidewalks on both sides of village streets and a buffer between sidewalks and moving vehicles;
- Creating short blocks oriented to make trips within neighborhoods and to the village center direct and convenient; and,
- Concentrating residential development near the village center and reducing the density of development with distance from the center.

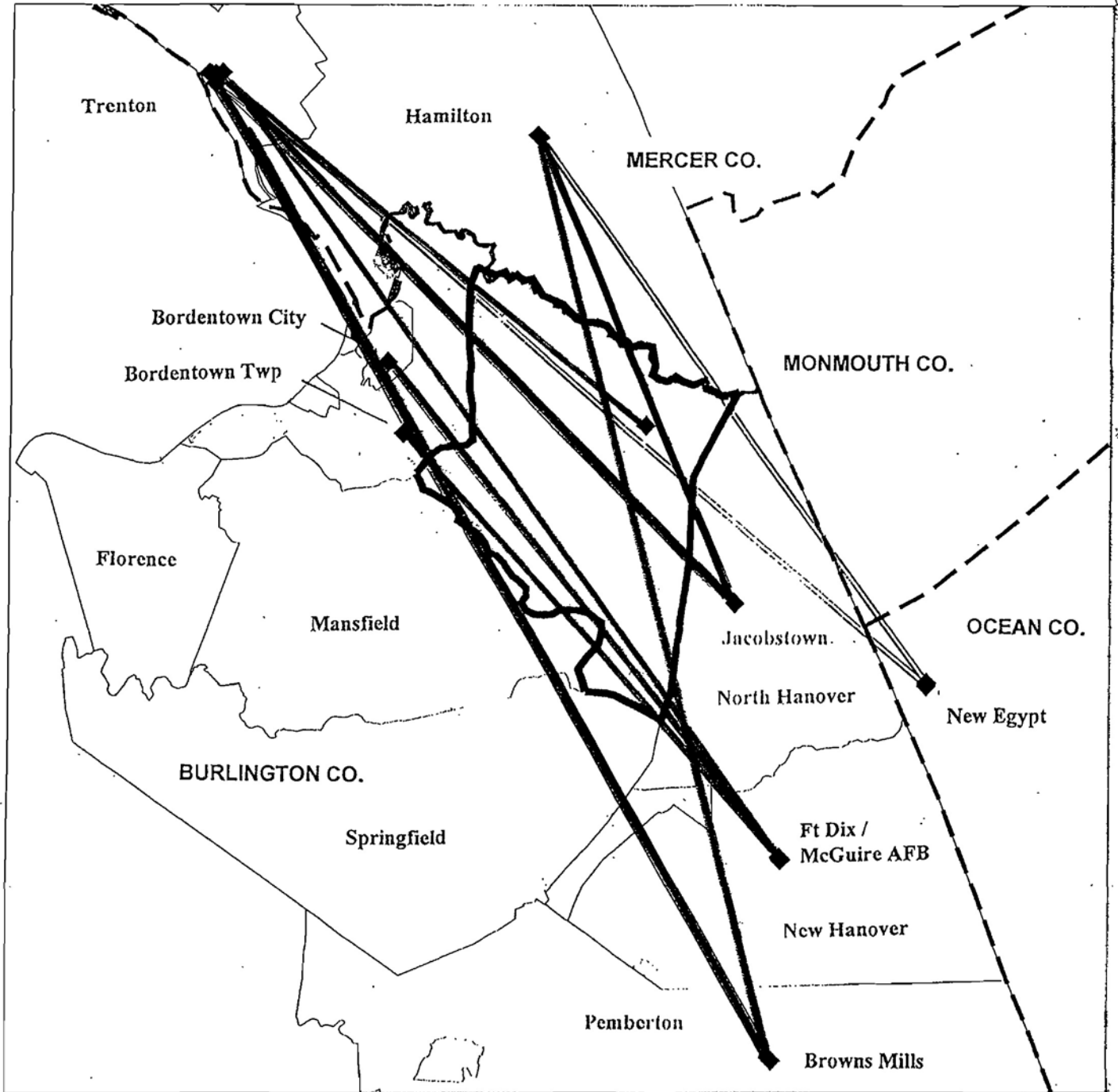
A new collector road is recommended to be constructed to serve as the village's Main Street. It would extend from Route 528 to Ward Avenue along the proposed path for the "by-pass arterial" described in the November 1995 report of the Chesterfield Township Infrastructure Committee. However, its function would be different than that advocated by the Infrastructure Committee: to connect the portions of the village together and distribute traffic to intersecting roadways.

Old York and Bordentown-Crosswicks Roads would serve as intersecting collector streets for the new village. An additional minor collector street is recommended between these two roadways in order to link Fenton Lane to the village center and also remove through trips from Fenton Lane. Figure 2 provides a map of the TDC receiving area and the new village's proposed collector street network.

All collector streets should have rights-of-way of 66' and provide effective buffers between pedestrians and moving vehicles in developed areas of the village.

No new roadway connections are recommended to Chesterfield-Crosswicks Road. As a result, the new village would generate little additional traffic on Main Street in Crosswicks village.

FIGURE 3  
TOP TEN ORIGIN AND DESTINATION PAIRS



Top Ten Origin and Destination Pairs (with number of trips)

Color Key

Trenton - Browns Mills	113	Ft Dix / McGuire - Bordentown Twp	59
Trenton - Jacobstown	90	Ft Dix / McGuire - Bordentown City	50
Hamilton East - Jacobstown	71	Trenton - Chesterfield NE	41
Trenton - New Egypt	60	Ft Dix / McGuire - Trenton	40
Hamilton East - New Egypt	60	Hamilton East - Browns Mills	35

40 trips or fewer	
40-49	
50-59	
60-69	
70-79	
80-89	
90-100	
over 100	

A greenbelt is recommended between Crosswicks and the new village, and a multi-use trail should be constructed within the greenbelt to provide a pedestrian and bicycle linkage. A similar trail should be planned between the new village and Chesterfield village north of Route 528.

The recommended design guidelines prepared as part of this study should be adopted as part of the planning for the new village. These guidelines would have to be approved as "special area standards" by the New Jersey Department of Community Affairs' Site Standards Advisory Board.

#### *Task Four: Conduct of an Origin and Destination Study*

An origin and destination survey was conducted on October 9, 1996, during the evening peak-period from 3:30PM until 6:15PM at four locations in Chesterfield Township: Church Street bridge in Crosswicks village, Main Street in Crosswicks village, CR528 near the Chesterfield Elementary School, and CR545, near the township border with Mansfield Township. A total of 2,895 postcards were distributed to motorists by survey personnel. A total of 821 cards were returned, of which 779 were sufficiently complete to enter into a database, yielding a usable response rate of 27%.

The results from the survey showed that almost three-quarters (72%) of the vehicles surveyed were completing a work or school trip (either to or from work or school).

Corresponding to the dominance of work or school trips, slightly over two-thirds (69%) of respondents reported making the surveyed trip on average 5 or more days a week.

Respondents that were returning from work or school were asked if they had made the same trip earlier in the day. An overwhelming 83% indicated that "yes" the same trip had been made in the morning.

The City of Trenton was the most frequently mentioned trip origin. Fifteen percent of the respondents cited Trenton as their trip origin.

The combined municipalities of Bordentown City and Bordentown Township were the most frequently mentioned trip destinations at 15%, followed closely by Chesterfield Township at 13% and the area of North Hanover Township bounded by Chesterfield-Arneytown Road to the north and the Township boundary to the south at 12%. Figure 3 provides a map showing the ten largest origin-destination pairs found in the survey.

When the geographic information was examined by survey station, the results showed that trip origins and destinations are highly focused in defined areas. The top ten origins for each survey station accounted for at least 83% of all origins at each station. Similarly, the top ten destinations accounted for at least 77% of all destinations at each station.

The survey found that Church Street southbound was predominantly serving traffic with eastern Mercer County origins such as Hamilton and Trenton and destinations in North Hanover Township (largely the area south of Arneytown Road), Chesterfield Township, New Egypt, Wrightstown as well as the Bordentowns. Chesterfield Township accounted for 40% of the destinations at Church Street (with Crosswicks village at about 20%) in the PM peak period. This station recorded the highest percentage of Chesterfield traffic – at all other stations the share of Chesterfield traffic was much lower.

The results showed that all roadways surveyed were serving predominantly regional traffic.

The survey also showed that 30% of the PM peak period traffic could be considered local – that is with either an origin or a destination within Chesterfield Township.

### ***Task Five: Recommended Improvement Strategies***

The objectives of this task were to present recommendations for infrastructure improvements and traffic management strategies to mitigate current transportation problems in the historic villages and to identify future infrastructure needs in the township necessitated by the two development scenarios: build-out under existing zoning or build-out in a traditional village under a Transfer of Development Credits program. The descriptions below are the recommended improvements emanating from the study.

The roadway improvements recommended in this report utilize typical roadway cross-sections that are narrower than those currently recommended by the Burlington County Engineer's Office but wider than the actual cross-sections provided on existing county roadways in the township. In general, the recommendations for roadway widenings are being made to improve the safety of rural highways in the township by reducing the risk of vehicles running off the roadway and by better accommodating bicyclists. All the shoulder widths recommended in this report are compatible with NJDOT's *Bicycle Planning and Design Guidelines* that are based on traffic volume, traffic speed and road section. Additionally, both the lane and shoulder widths recommended are compatible with AASHTO (American Association of State Highway and Transportation Officials) standards and recent research by the Transportation Research Board (TRB).

In rural areas we have recommended a 34' wide typical section which would provide an 11' travel lane and 6' shoulder in each direction. In villages, we recommend a 28' typical section which would provide a 10' lane and 4' shoulder in each direction. In contrast, Burlington County currently recommends that roadways be 40' wide, providing a 12' travel lane and 8' shoulder in each direction.

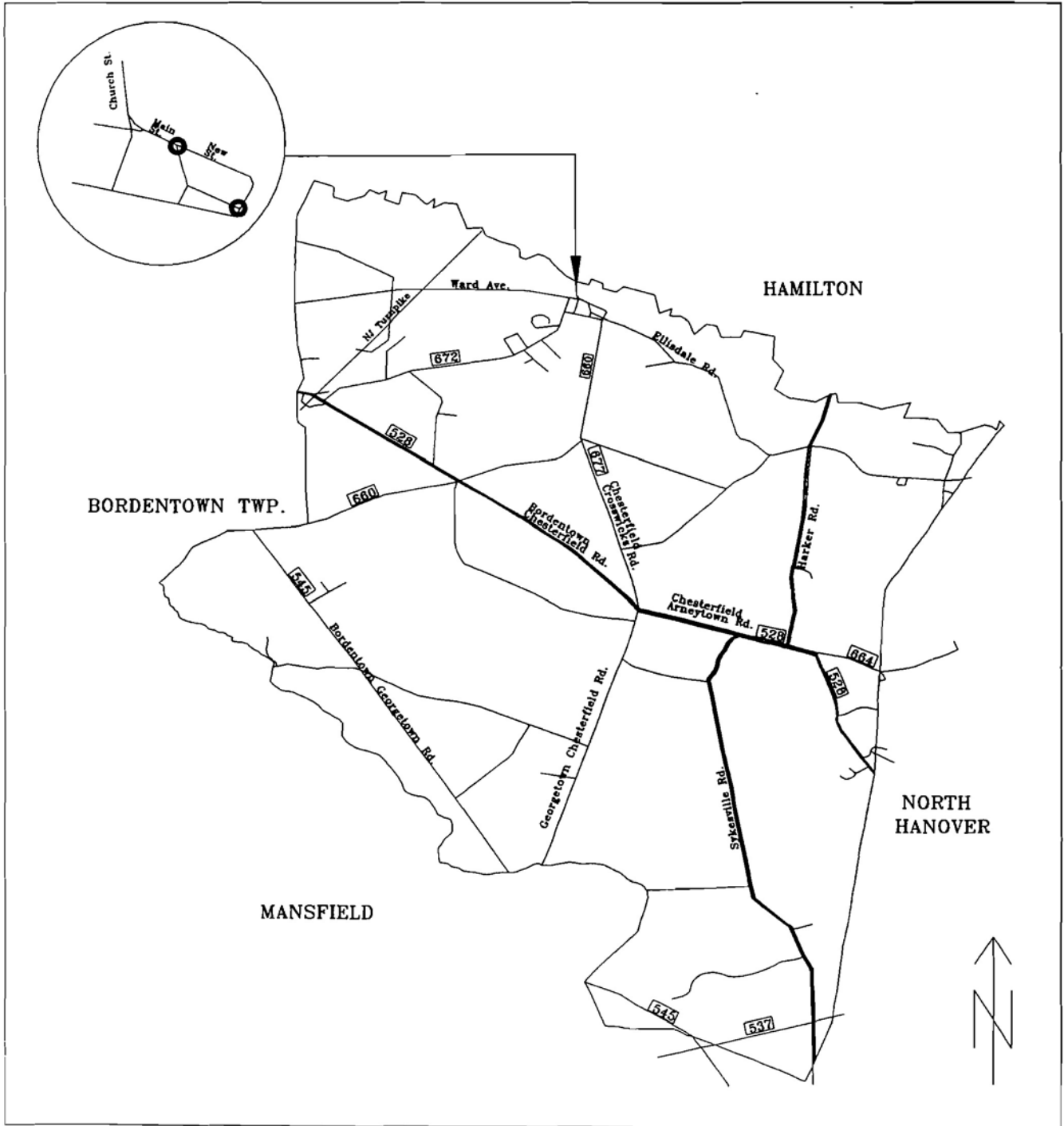
Our recommendation for the use of a narrower typical section and lane width in the villages would provide drivers with a psychological message that they are in an area where travel speeds should be slower. This is consistent with the philosophy behind traffic calming, an approach to roadway design which argues that physical features which reduce a roadway's design speed are far more effective in reducing travel speeds and other negative impacts from motor vehicles than reductions in speed limits alone. Outside of villages, the 34' roadway section recommended by the report would provide drivers with a very safe roadway width and would safely accommodate bicyclists. Wider widths, as recommended by the current county typical roadway section, would tend to promote even faster driving speeds, diminishing any safety benefits gained through the application of wider pavement widths.

### **Summary of Improvements Needed for Existing Conditions**

- Village traffic control, intersection and pedestrian improvements
- Reconstruction of Iron Bridge Road and improvements to Harker Road to serve as a by-pass for Crosswicks and Chesterfield Villages, in an effort to preserve the two historic villages
- Minor roadway widenings

# FIGURE 4

## IMPROVEMENTS NEEDED FOR EXISTING CONDITIONS



**LEGEND:**

- Intersection Improvement
- Roadway Widening

The section below provides details on the improvements recommended and Figure 4 provides a map showing the required improvements.

### **Description of Improvements**

#### **Crosswicks Village:**

- Ellisdale Road intersection improvements
- New Street intersection improvements
- Sidewalks - New Street
- Sidewalks - Missing Links: Main, Ward, Buttonwood, Front
- Crosswalk - New Street & Main Street intersection at STOP
- Mid-block crosswalk - Main Street
- Crosswalk - Ward, Church and Main - the three legs controlled by STOP
- Create 4-Way STOP at Main, Ellisdale, New and CR660 (Chesterfield-Crosswicks Rd)
- Crosswalks - across Main Street and across CR660 (Chesterfield-Crosswicks Rd)

#### **Chesterfield Village:**

- T intersections (already programmed)
- Sidewalks in village limits - along Georgetown Road, along CR528, along CR677

#### **Harker Road/Iron Bridge Road By-Pass**

- Reconstruct Iron Bridge Road
- Resurface and improve Harker Road

#### **Widen arterial highways to provide improved shoulders**

- Route 528 from 31' to 34' - 6' shoulders in all sections of roadway outside of Chesterfield village. The widening of CR528 is recommended by 3' to allow 6' shoulders on each side and 11' lanes for its entire length in the township with the exception of the section recommended for lower speed (35MPH) in Chesterfield village. For the posted 50MPH sections, actual speeds are in excess of 50MPH(85th percentile speed was 55MPH). Six foot shoulders are required in these high speed sections. This increase in pavement width is necessary to safely serve motor vehicle traffic, to accommodate bicyclists, and to better serve vehicles entering and exiting existing driveways.

In the village, 10' lanes and 4' shoulders should be provided since lower speeds are to be encouraged within the village. As an alternative design, where curb and sidewalks are present, edge lines (shoulder pavement markings) need not be marked. By not marking the shoulder, visual cues are given to motorists of entering a developed and settled area and thus, can encourage lower vehicle speeds.



- Route 667/660 should have 4' shoulders in Crosswicks and Chesterfield villages and should increase to a width of 34' with 6' shoulders in 50MPH sections. This widening of the section of CR677 north of Waln Road and the section of CR660(Chesterfield-Crosswicks Road) north until boundary with Crosswicks village for 6' shoulders on each side and 11' lanes is due to the 50MPH zoning. This increase in pavement width is necessary to safely serve motor vehicle traffic and to accommodate bicyclists.

CR677 south of Waln Road should have 4' shoulders and 10' lanes. CR660 (Chesterfield-Crosswicks Road) north of Crosswicks village boundary should have 4' shoulders and 10' lanes. Only 4' shoulders are required where speeds are at or under 40MPH. Where curb and sidewalk are present, the alternative design described for CR528 is also recommended.

- Widening of Georgetown Road for 4' shoulders in the village and outside the village. Travel lanes should be 10' within the village and 11' outside the village. The speeds are in excess of 50MPH (this is a posted 35MPH zone; however the 85th percentile speed in the village was 56MPH). Again this increase in pavement width is necessary to safely serve motor vehicles and to accommodate bicyclists. In the village area, the alternative design is also recommended, where curb and sidewalk are present.
- Sykesville Road widened from 24' to 30' with 10' travel lanes and 4' shoulders within Sykesville village and 11' lanes outside the village. Again this increase in pavement width is necessary to safely serve motor vehicles and to accommodate bicyclists. The alternative design could also be used in the village where curb and sidewalk are present.

### **Staging and Implementation**

Reconstruction of Iron Bridge Road needs to be expedited to permit reconstruction of roadway to county standards at the same time that the Iron Bridge is closed for replacement. The target year for bridge replacement is 1999.

Chesterfield village intersection improvements are now under design by county. The new design will replace current four way intersection with two T-intersections.

Crosswicks village improvements can be implemented as funds become available.

Roadway improvements should be implemented when roadway is scheduled for re-surfacing.

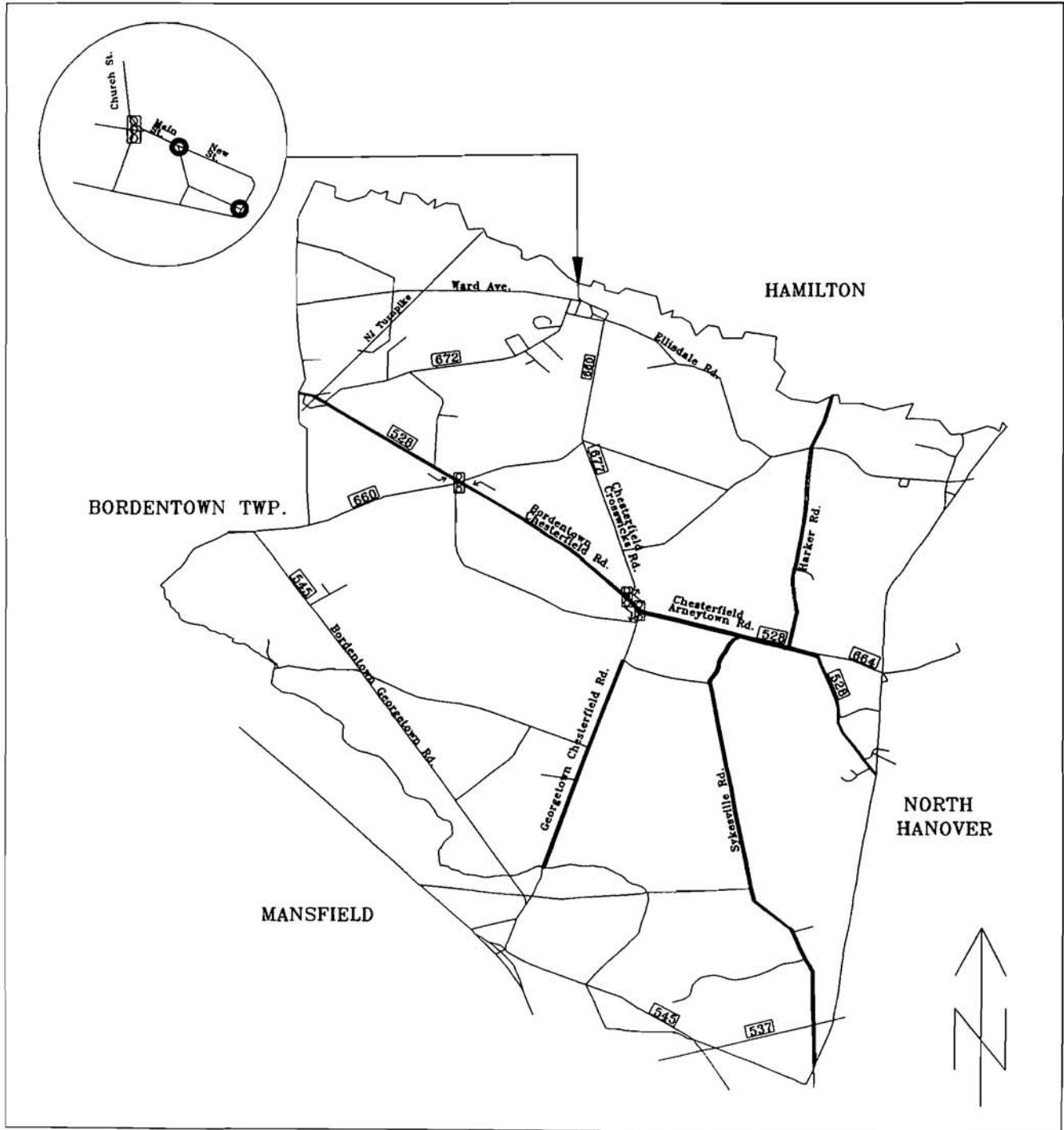
### **Funding**

The intersection improvement in Chesterfield village at Georgetown Road, CR528 and Chesterfield-Crosswicks Road is currently under engineering design by a consultant to the county and is part of on-going county roadway improvements undertaken to remedy safety problem at intersections.

Sidewalks in Crosswicks village and Chesterfield village can be funded by the township as a general improvement or as a special improvement. In the latter case, property owners would be assessed for the cost of the improvements based on the improvement costs and the benefits received.

# FIGURE 5

## IMPROVEMENTS NEEDED FOR EXISTING ZONING BUILD-OUT



**LEGEND:**

- Intersection Improvement
- Roadway Widening
- Turning Lane
- Traffic Signal

Intersection improvements in Crosswicks could be funded by the township as general expense or by the county as an operational expense on a county roadway. Alternatively, the county and township could apply to the New Jersey Department Of Transportation (NJDOT) for Transportation Enhancement funding under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). However, given competition for these funds, the county and township may prefer to use local funds for these relatively minor improvements.

#### *Harker Road/Iron Bridge Road*

The need to improve Iron Bridge Road by 1999, when the bridge will be replaced, requires expediting the preparation of construction design. It is recommended that project be funded by a township bond issue if possible. Use of federal funds would require scoping through DVRPC and would subject the project to intense competition from other projects and subsequent delays.

#### *Shoulder widenings*

The improvements should be programmed as part of routine resurfacing program by the county on county roads and the township on township roads. These improvements are also eligible for ISTEA Transportation Enhancement funding as a bicycle improvement.

### **Improvements Required for Zoning Build-Out Scenario:**

#### ***Summary of Improvements***

Base assumptions for this transportation system improvement scenario include

- the construction of the Harker Road/Iron Bridge Road by-pass as described for current conditions,
- village traffic control, intersection and pedestrian improvements as described for current conditions, and,
- minor road widenings as described for current conditions.

Additionally, traffic signals and turning lanes are required at certain intersections and further roadway widenings due to higher volumes of traffic. The section below describes the improvements required beyond the base assumptions and Figure 5 provides a map of the required improvements.

#### **Crosswicks Village**

- Traffic signal at Church Street intersection

#### **Chesterfield Village**

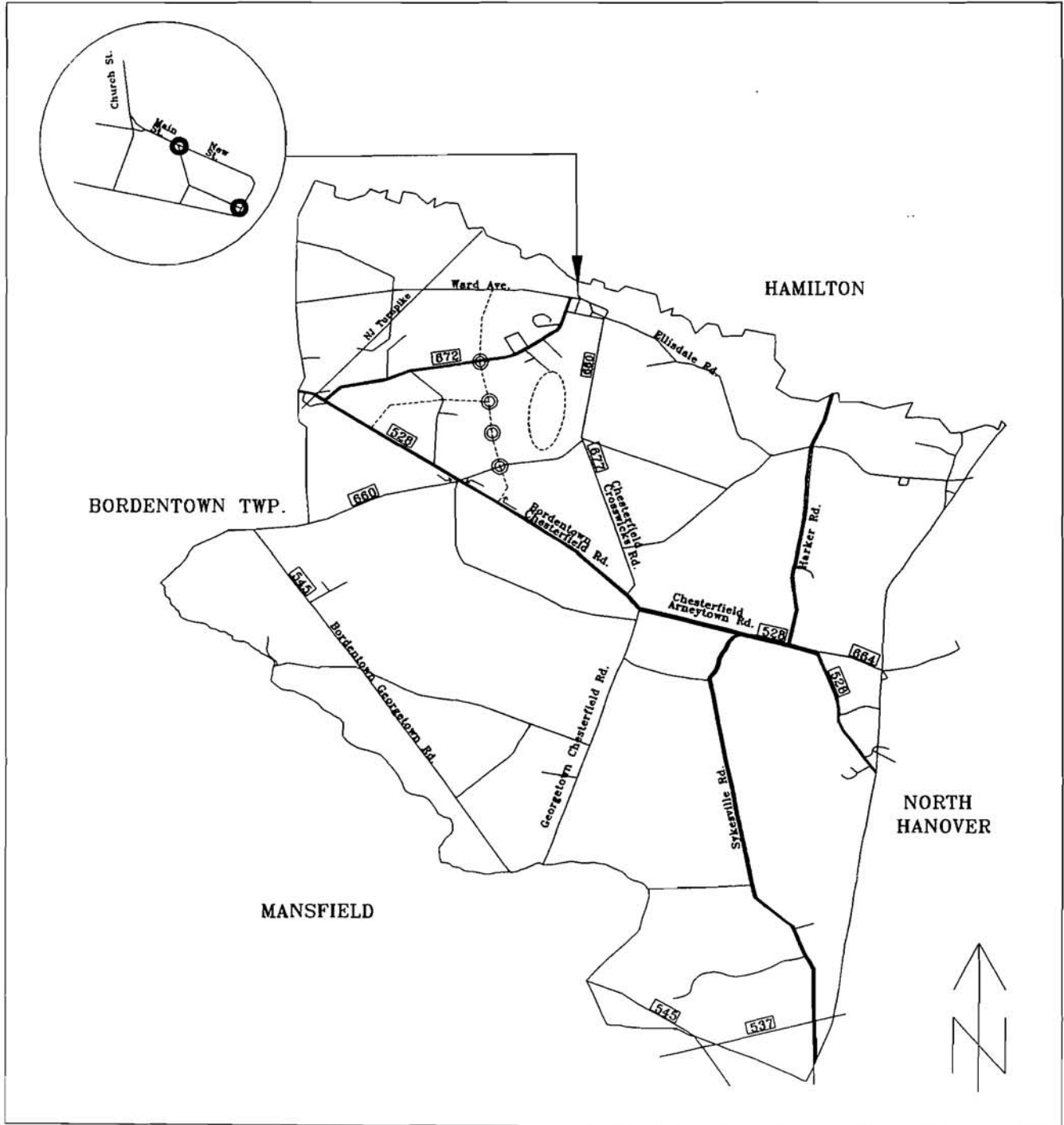
- Traffic signal at Georgetown Road
- Provide right turn lane on eastbound CR528 at Georgetown Road
- Traffic signal at relocated CR 677
- Provide right turn lane on westbound 528 at CR 677

#### **Route 528/Old York Road (CR 660)**

- Traffic signal required at intersection; left turn lane for safety

# FIGURE 6

## IMPROVEMENTS NEEDED FOR NEW VILLAGE BUILD-OUT



**LEGEND:**

- Intersection Improvement
  - Roadway Widening
  - - - New Road
- ⊙ Traffic Circle
  - ↪ Turning Lane
  - Greenway Corridor

### **Additional arterial highway widening**

- Widening of Georgetown Road for 6' shoulders outside of village area. This increase in pavement width is necessary to safely serve motor vehicles due to the substantial increase in traffic under this development scenario.

### **Staging**

Intersections would have to be routinely analyzed to determine when signal warrants were met. Wider width on Georgetown Road should be planned as part of roadway resurfacing. Right turn lanes at Chesterfield intersections should be installed as part of signalization.

### **Funding**

Funding for signalization would come from county capital budget for roadways. Roadway improvement should be programmed as part of routine resurfacing program.

### **New Village Scenario:**

#### ***Summary of Recommended Improvements***

Base assumptions for this transportation system improvement scenario include

- the construction of the Harker Road/Iron Bridge Road by-pass as described for current conditions,
- village traffic control, intersection and pedestrian improvements as described for current conditions, and,
- minor road widenings as described for current conditions.

Additionally, sidewalks should be constructed near the new village on CR528, the village collector street system should be constructed, a multi-use pathway within a greenway should be established and turn lanes constructed on CR528 to serve the new village.. The section below describes the improvements required beyond the base assumptions for build-out under the new village development scenario and Figure 6 provides a map of the required improvements.

#### **Crosswicks Village**

- No additional improvements required.

#### **Chesterfield Village**

- No additional improvements required.

#### **Fenton Lane**

- Sidewalks constructed on CR528 northbound side from CR660 to Fenton Lane.

#### **New Village**

- Construct new collector road from CR528 to Ward.
- Construct minor collector past Fenton Lane to CR528.
- Construct multi-use path to Crosswicks.

- Widen intersection of County Route 528 and Old York Road to provide left turn slot.
- Right turn lane on CR528 and new Main Street.
- Traffic circles at intersecting collector streets.

#### **Additional arterial highway widening**

- Widen CR672 (Bordentown-Crosswicks Road) to 30'.

#### **Staging**

Construction of new collector streets in advance of construction could help expedite the new village project. Alternatively, the township could require the road be constructed by developers during the development process. However, this could result in piecemeal construction, with critical gaps in the roadway unless phased properly.

Multi-use path should be planned and constructed at same time as new school to assure walking access between Crosswicks village, the new village and the school.

Widening at Old York Road and Route 528 is required for retail development and should be provided by developer.

#### **Funding**

- Options for funding new collector roads:
  - Township funding as general expense through bonding.
  - Township up front funding with bonding, developers required to reimburse township based on a percentage of the value of building permits or similar technique.
  - NJDOT funding using centers funds if available.
  - Require developers to fund and construct roadway as part of approvals.

Funding by the municipality would help to remove uncertainty and risk from developers and could help to expedite new village development process. This in turn would support farmland preservation objectives, especially if a voluntary Transfer of Development Credits system is employed.

- Options for funding new multi-use path:
  - ISTEA funding as a critical element in the township's bicycle/pedestrian circulation system.
  - As an integral element of the bond issue for the new school. (Note: pathway could help to reduce future operational and capital funding needed for busing of school students.)
  - Green Acres bond funding or loan for recreational purposes.
  - Developer reimbursement funding as part of a general package of transportation improvements required for the new village.
- Funding for open space for greenbelt:

- Funding from Green Acres
- Funding as part of general package of village improvements to be reimbursed by developers
- Funding for left turn lane at Old York Road and Route 528/right turn lane at new Main Street and CR528:
  - To be provided by retail developer at time of development approval.

The table on the following page provides the recommended transportation improvements for current conditions in the township along with each development scenario. Improvements in the table are only those which will physically alter the current transportation system and thus, do not include changes in speed zones and such that are also recommended.

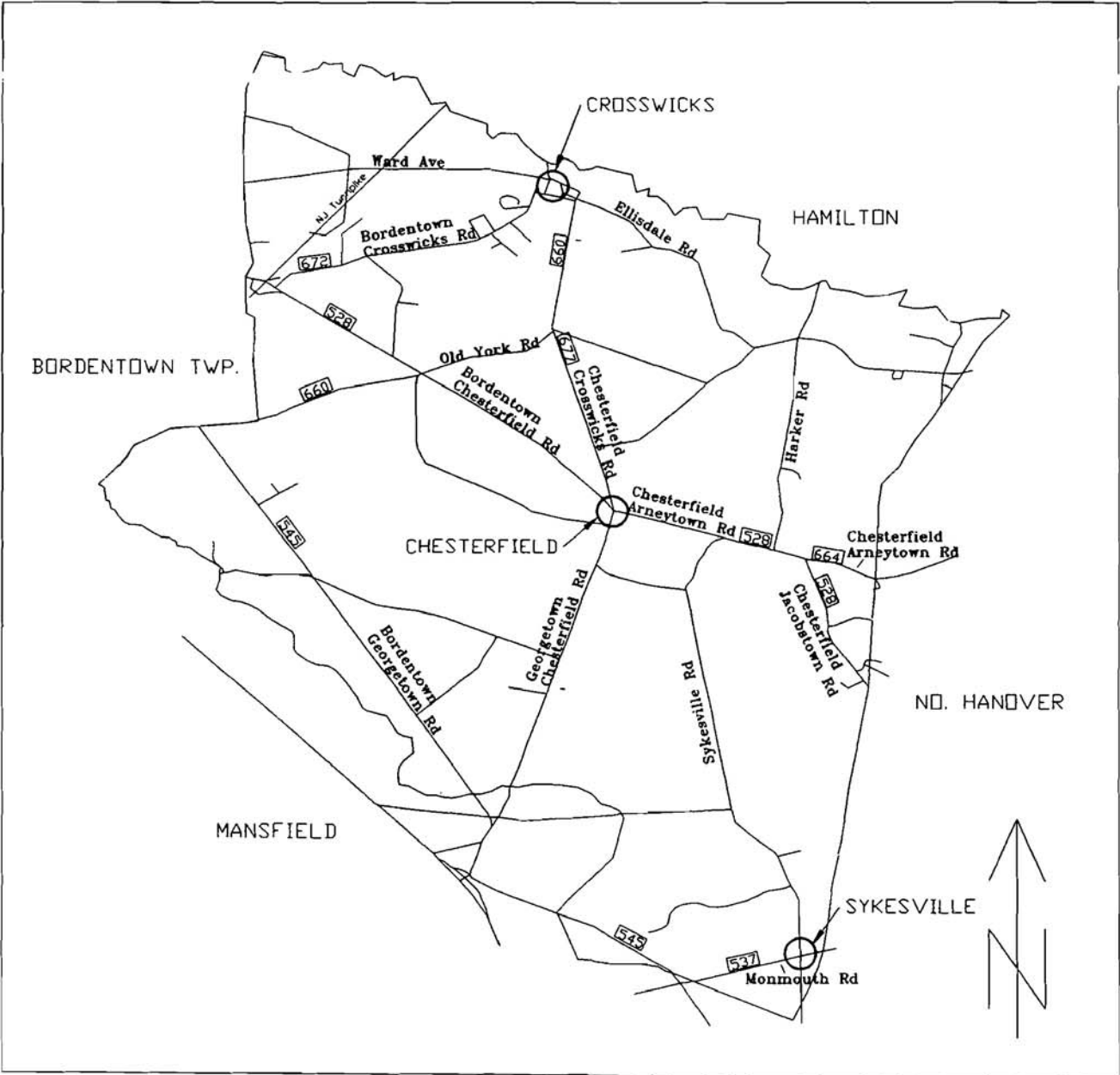
Table 1-2 Recommended Physical Transportation System Improvements

Location	Current Conditions	Existing Zoning	New Village
<b>Crosswicks Village</b>			
Ellisdale Rd intersection calming	✓	✓	✓
Main Street crosswalk	✓	✓	✓
New Street island and crosswalk	✓	✓	✓
New Street sidewalks	✓	✓	✓
Missing link sidewalk construction	✓	✓	✓
Church St traffic signal		✓	
<b>Chesterfield Village</b>			
T-intersections at Georgetown, Rte 667	✓	✓	✓
Sidewalks within Village limits	✓	✓	✓
Traffic signal at Georgetown Road		✓	
Traffic signal at CR 677		✓	
Provide right turn lanes at intersections		✓	
<b>Sykesville Village</b>			
Sidewalks within Village limits	✓	✓	✓
<b>CR 528 and Old York Road</b>			
Traffic signals		✓	
Install left turn lanes		✓	✓
<b>Harker Rd/Iron Bridge Rd Reconstruction as By-Pass</b>	✓	✓	✓
<b>Widen shoulders on arterial roads</b>			
(outside village) Route 528 to 34'	✓	✓	✓
(in village) Route 528 to 30'	✓	✓	✓
(in villages) Chest-Crosswicks Rd to 30'	✓	✓	✓
(outside villages) Chest-Crosswicks Rd to 34'	✓	✓	✓
(in village) Georgetown Rd to 30'	✓	✓	✓
(outside village) Georgetown Road to 34'		✓	
(in village) Sykesville Road to 30'	✓	✓	✓
<b>New Village Improvements</b>			
(Main Street)New Village Collector Rd			✓
Fenton Rd connector			✓
Multi-use path			✓
Sidewalk on Route 528 to Fenton Lane			✓
CR672 (Bordentown-Crosswicks Road) to 30'			✓
Turn lane - CR528 and New Main Street			✓



# FIGURE 7

## CHESTERFIELD TOWNSHIP ROADWAYS



**LEGEND:**  
 ○ Historic Village

## Utility Services, Facilities & Stormwater Management Plan Element

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One of the purposes of this Plan is to plan multiple uses for flood plains, wetlands, wetland buffers, areas of erodible soils, aquifer recharge areas, and similar features. For example, they are designed to serve stormwater management functions as well as open spaces and boundaries between neighborhoods in the "receiving" zone. At the same time they can provide some area for recreation and aesthetic purposes, or sites for various municipal services. It is noted that the NJDCA adopted on December 5, 1996 the Residential Site Improvements Standards (*N.J.A.C. 5:21-1 et seq.*) which become effective on June 3, 1997. The RSIS promulgates regulations on a statewide basis covering water supply, sanitary sewers and stormwater management for all residential development. The recommendations within this Plan Element are consistent with the requirements of the RSIS.

Drainage rights-of-way should also be preserved. Homes and other uses which back up to these corridors, (flood plains, and wetlands), should not encroach upon them. A minimum number of roads should cross flood plains and wetland areas. This will result in reduced environmental degradation; fewer, costly bridge construction projects; and less costly long-range bridge and road maintenance. Where the proposed roads in the "receiving" zone cross streams and wetlands, the goal is to create a coordinated transportation system for more efficient public services and alternative emergency access. The road alignments across streams and wetlands should follow existing farm roads rather than

create new crossings.

The preservation of flood plains and ground water recharge areas also offers the opportunity to integrate stormwater management practices in areas proximate to where development is taking place while simultaneously generating recreation areas convenient to homes. Retaining stream corridors and water resources in the agriculture "sending" zone will also serve farm irrigation needs as well as opportunities to recharge underground aquifers in a region dependent upon ground water supplies.

Because sizeable portions of the Township are environmentally sensitive, road locations, grading, and structural siting must be carefully selected. By avoiding environmentally sensitive areas, homeowners and the Township will minimize maintenance resulting from wet basements, erosion, and frost action on foundations and paving, while experiencing the benefits of preserving the water-related areas for agriculture, major tracts of open space, woods and topographic relief.

In 1983, the N.J. Department of Environmental Protection, Division of Water Resources, set forth Flood Hazard Area Regulations (*N.J.A.C. 7:13-1 et seq.*). Included were various processes for issuing stream encroachment permits. In addition, there are parallel requirements in the Municipal Land Use Law (*N.J.S.A. 40:55D-93*) concerning the requirement that municipalities develop stormwater management plans in conjunction with NJ DEP Stormwater Management Regulations adopted in March, 1983.

The State's 1983 Stormwater Management Regulations include several key

points: 1) no plan is required to be prepared until 90 percent of the funding is available from the state to the municipality; 2) if funding is available, the plan must be done within one year or by the next master plan reexamination, whichever is later; 3) the completed plan shall be submitted to the county for review and the plan will not take effect without county approval or unless the county takes no action within 60 days; 4) the plan shall be coordinated with other storm water management plans prepared by other municipalities and the county; 5) flood and erosion control standards for detention require that the site, after development, will generate no greater peak runoff than prior to development; and 6) any "major agricultural development" must be submitted to the Soil Conservation Service.

Within these regulations, "agricultural development" means land associated with the production of food, fiber and livestock for sale, except such uses do not include the development of land for the processing or sale of food and the manufacture of agriculturally related products. A "major agricultural development" is defined by the State as one resulting in one or more acres of additional impervious surface or a variety of environmentally sensitive uses such as feeding and holding areas for more than 100 head of cattle or 15,000 hens, 500 swine, 4,000 turkeys, 10,000 ducks, or an equivalent number of other animals.

In recognition of the Township's plan to encourage the "industry" of agriculture, the possibility exists that new agricultural structures and site improvements will require plan reviews under these storm water management and water quality regulations.

It is noted that the recently adopted RSIS at Subchapter 7 promulgates

stormwater management regulations which cover all residential development in the State. Much of these new regulations supersede requirements of the 1983 Stormwater Management Regulations of the DEP as applicable to residential development.

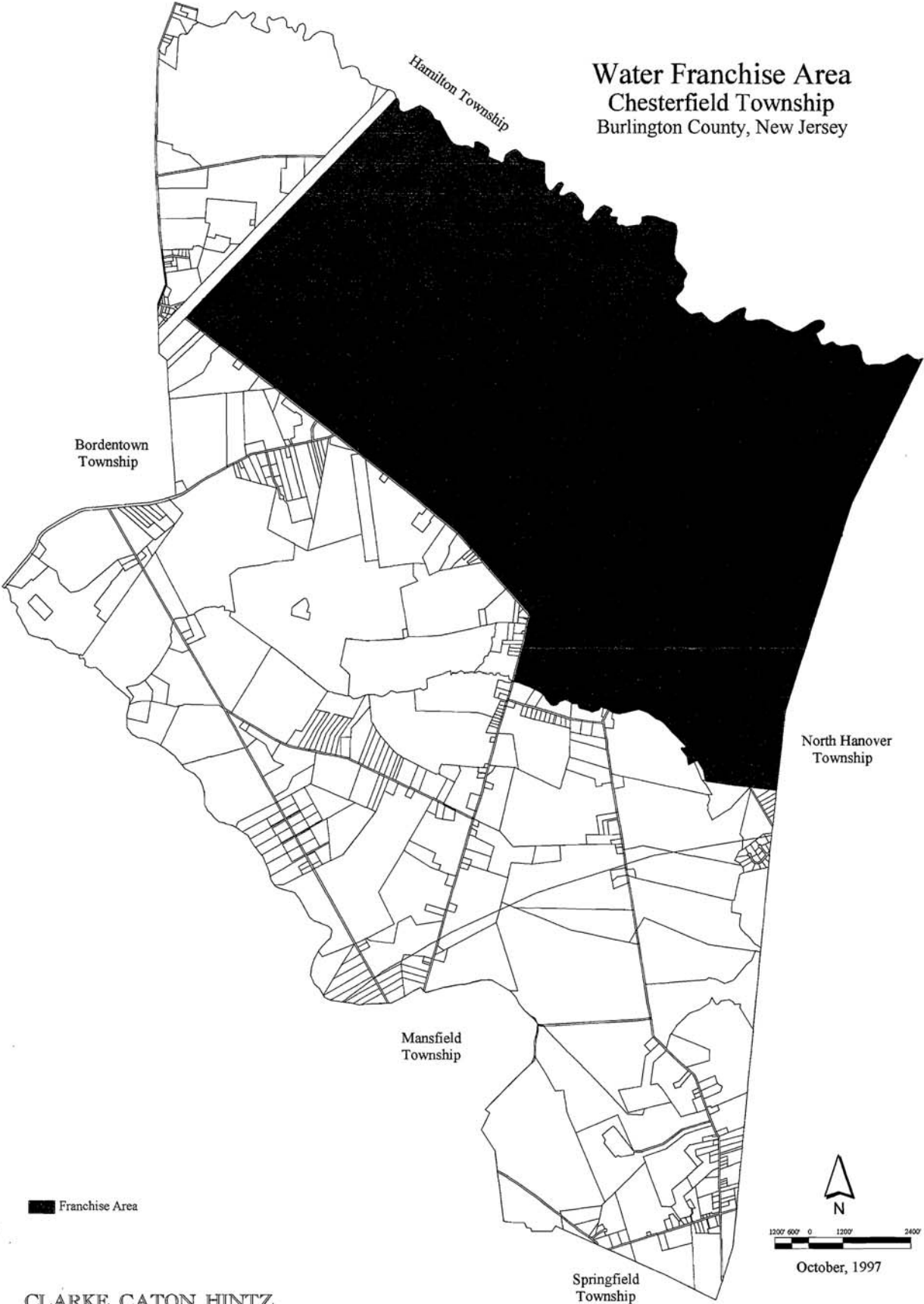
Where appropriate, stormwater structures should be used to accommodate either passive or active recreation uses. However, care must be taken in the design to ensure proper grading/drainage, so that the playing fields are only flooded in higher design year storm events (e.g. 10 year/20 year), not during one and two year storms. Structures designated for multi-use will require higher levels of grounds maintenance (several mowings per growing season).

Those structures not used for recreation purpose should be planted with appropriate wetland multi-layered vegetation and scheduled for low or medium levels of grounds maintenance (annual or biannual mowing). Some stormwater structures, because of their location, should be planted and released to succession, with the only maintenance being a periodic cleaning of litter from outlet and spillway devices.

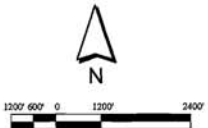
## **WATER SERVICE**

Water supply is provided by Consumers New Jersey Water Company (CNJWC) to customers generally located in the Crosswicks Village area under a franchise granted by the Township to the Crosswicks Water Company on/or about 1956. The franchise area and current service area is as shown in Map 5 - Water Franchise Area. The existing boundaries of the franchise area do not exactly correspond to what has heretofore been considered the boundaries of the TDC

Water Franchise Area  
Chesterfield Township  
Burlington County, New Jersey



Franchise Area



October, 1997

CLARKE CATON HINTZ

“receiving” area. However, this can be easily identified in the Master Plan Utilities Element and modified through Ordinance by the Township Committee. All other water supply in the Township is provided by private wells.

CNJWC has recently installed a 1 million gallon supply tank on high ground east of the Crosswicks-Chesterfield Road (CR677) and north of Margerum Road. CNJWC has advised this Committee that the new supply tank, in conjunction with other off-site supply facilities, would be adequate to service the anticipated addition of 1,500 dwelling units in the TDC “receiving” area.

During a meeting of this Committee George Powell, PE, Vice President-Operations, CNJWC, a preliminary plan and a cost estimate for installation of a water supply system for the “receiving” area was presented. The estimated water main improvements to service the “receiving” area was \$9,588,126 not including \$1.2 million in improvements to the existing grid that CNJWC would finance. The break down of this estimate was as follows:

Installation in existing roads	\$2,305,375
Installation in new roads	\$3,939,160
FIT Gross Up (assuming a 51.5%)	<u>\$3,343,591</u>
Total	\$9,588,126

Developers who finance the water mains would receive refunds of about \$1.5 million, leaving them financing about \$8.0 million. With an assumed 1,500 units this equates to \$5300/unit (lot).

This estimate is believed to be on the high side because it is likely that some of the mains could be downsized while others could be eliminated. The estimate

also includes three crossings of the New Jersey Turnpike at \$135,000 each. However, the plan is credible and provides a point of beginning for water service planning.

### **SEWER SERVICE ALTERNATIVES**

The lack of what appears to be a viable alternative to the provision of sewer service has been the largest technical stumbling block to development at higher densities and thus the progression of TDC in the Township. Alternatives have been discussed and analyzed including the use of the nearby Department of Corrections sewage treatment facility. Township officials have visited sewage treatment facilities and presentations have been made to both the Planning Board and Township Committee regarding alternatives. Essentially, the alternatives presented include connecting to completely new facilities. The new facilities options include stream discharge or spray irrigation or a community septic tank with a subsurface disposal system.

The Township Committee has authorized a wastewater franchise option to Applied Watershed Management. This enables the collection of information on potential flows, and to contract with the utility. The Committee has the right under the franchise to review potential costs to users prior to submitting the final wastewater plan to the NJ Board of Public Utilities (BPU).



## Community Facilities Plan Element

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### SCHOOLS

As indicated earlier, the Plan identifies the existing school plus two additional sites in the "receiving" zone. Locating the two new schools in the northwest area of the Township is done to locate them closest to the bulk of the population in order to encourage connecting the sites to a pedestrian system. In this way, while some bussing of children will always be part of the system, "walkers" can also be part of the transportation planning as a means of minimizing school bussing costs. The school sites will also provide a major portion of the active recreation needs, thus minimizing the cost to duplicate sites for recreation purposes.

Apartments will generate fewer school-aged children than detached single family homes. For example, apartments can be expected to generate 0.08 student per unit (K-8) while detached single family homes can be expected to produce 0.5 per unit (K-8).

In 1988, there were 750 homes in Chesterfield and a K-6 enrollment of 237. This was an average of 0.32 elementary school child per single family home, or 60 percent of the average K-8 enrollment found throughout New Jersey. Assuming all unit types would generate 60 percent of the K-8 averages in order to estimate the K-6 enrollment, apartments can be expected to generate 0.05 child per unit and detached single family homes continuing at 0.32 child. Assuming the following mix of unit types, a total of 2,262 units are estimated

for the Township at saturation development. If the future units in the "receiving" zone are divided among detached single family homes (75%), duplexes and triplexes (15%), and apartments (10%), and all the other units in the Township are detached single family homes, the total enrollment would be about 646 pupils. Should the birth rate change and the number of K-6 school-aged children enrolled in the public school system increase by 20% to almost 0.4 child per home, enrollment at saturation development would be about 775.

	<u># Units</u>	<u>Pupils per Unit</u>	<u># of Pupils</u>
Single family homes			
Proposed	1,128	0.32	361
Existing	813	0.32	260
Tri- & Duplexes	192	0.1	19
Apartments	<u>129</u>	<u>0.05</u>	<u>6</u>
	2,262	0.28	646

The two areas proposed for school sites are expected to be for elementary grades, whether retained as a K-6 system or expanded to a K-8 system. The present system busses the junior and senior high school students to Northern Burlington County Regional High School. The locations of the proposed new elementary schools are located with access to an existing major road and are near the future population concentrations.

## **LIBRARY**

The existing library is in the Village of Crosswicks. Assuming the need for a larger library in the future, the new library is proposed to become part of Village 3. This location in the center of the "receiving" zone will place the facility close

to a concentration of homes and people as well as being in proximity to retail uses, businesses and other civic uses making it convenient for people to do several errands on a single trip.

### **MUNICIPAL BUILDING AND EMERGENCY SERVICES**

The existing municipal complex containing the municipal administrative offices, police department, road department, and rescue squad on Bordentown-Chesterfield Road is central to the entire Township. Although some expansion of municipal facilities are proposed in the “receiving” zone, it is expected that the existing municipal building complex and its site can continue to serve municipal functions into the future. However, with the concentration of new housing, population and related services in the “receiving” area there will be a need for new freestanding facilities for the rescue squad, a library and a new school. While the completion of the municipal facilities in the “receiving” area will emerge over a long period of time, having one or more designated areas of sufficient size will enable the design of a coordinated plan for those uses. The purpose is to develop the “receiving” area or village according to the concepts shown in this Plan. This will assure appropriate site sizes, locations, and an interconnecting road and pedestrian system.

While the existing fire stations and the rescue squad are convenient to most volunteers' homes today (an important factor for response time), the vast portion of the future population will be in the northwest portion of the Township. Locating future facilities in this area is appropriate in order to be closest to the bulk of the anticipated calls and volunteers. The Plan shows the two existing fire houses. The Chesterfield station is planned to remain in its relatively new

facility in the Village of Chesterfield. It is proposed that the Crosswicks station anticipate being moved to a new and larger facility in the "receiving" zone about the time development in the "receiving" zone is half completed. This is not expected for the next 15 years or so, but when the more dense development pattern is set, a new location will provide a larger site and a building closer to the future concentration of buildings and people. At the time an expanded rescue squad is needed, consideration has to be given to response time, including highway access, where the squad members live, and where the most calls originate. It is felt that most of these issues have been considered in this Plan, but in the event development results in modifications to this Plan, alternate sites may have to be evaluated.

## Recreation Plan Element

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Open space in the "receiving" area will eventually result in approximately 40% of the total land area. The purpose of this Plan Element is to make recommendations regarding the provision of open space, which should include active recreation, passive recreation, village greens/squares, buffers between uses (greenbelts), stormwater management facilities, environmentally sensitive lands, stream corridor and wetland buffers and other greenways.

With the potential to develop a community of about 1,220 units there is a great opportunity to create a positive community of place, which includes both open space and gathering/recreating places. These amenities can be positive selling features.

### **VILLAGE GREENS**

Village greens should act as a destination, focal point, place for community activities and recreation and should not just be indiscriminately placed patches of green. Village greens should satisfy the passive recreation and gathering needs in areas where the lots are sufficiently small, usually less than a quarter acre, so as to preclude these activities. In areas where larger back yards can function as informal gathering places and recreation areas for younger children, usually one-half acre and larger, village greens might be considered as a desirable amenity but not an absolutely necessary requirement.

In areas of higher density the village green would add natural forms, textures,

color and shade, thus softening the landscape, diffusing the density and providing places to gather and recreate. The village green should be designed to preclude active recreation but be of sufficient size to accommodate an occasional informal holiday pickup ball game for local residents. Village greens should have street trees, some street furniture and maybe a gazebo, (benches, trash receptacles, etc.). The village green should be sized such that as many homes as possible face the green.

#### **DEVELOPED (ACTIVE) RECREATION AREAS**

The Township currently has a more than adequate inventory of developed active recreation facilities on three different sites. These three facilities combined provide 7 soccer/playing fields, 4 little league/softball fields, 1 regulation baseball field, 2 tennis courts, 1 volleyball court, 1 tot lot, 1 play equipment area and 1 walking trail. The Municipal Building Complex contains 2 soccer fields, 1 softball field, 2 tennis courts, 1 volleyball court, 1 tot lot and 1 walking trail. The Township Public School facility on Chesterfield-Crosswicks Road contains 3 soccer/playfields, 2 Little League/softball fields, 1 regulation baseball field and 1 play equipment area. The Margerum Road recreational facility contains 2 soccer fields and 1 Little League field. A comparison of these existing facilities with the recommendations of the National Recreation and Park Association (NRPA) (based on a build-out population of approximately 4,500 persons) indicates that the Township has a surplus of facilities with the exception of the need for 1 basketball court and 1 additional tennis court. Figure 7 below shows the NRPA recommendations for recreational activities and facilities.

**Figure 7, NRPA Recommended Recreational Facilities**

<b>Activity/Facility</b>	<b>Units per Population</b>	<b>Existing Facilities</b>	<b>Requirement for Future Chesterfield Population</b>
Basketball	1 per 5,000	0	1
Tennis Court	1 per 2,000	2	2-3
Volleyball Court	1 per 5,000	1	1
Baseball (Official)	1 per 5,000	1	1
Baseball (Little League)	1 per 5,000	4*	1
Soccer	1 per 10,000	7	1
Softball	1 per 5,000	4*	1
Trail System	1 system per Region	1	1

Source: National Recreation and Park Association (NRPA).

\* The Softball and Little League fields are the same facilities.

However, these existing facilities are all located outside of the proposed receiving zone and therefore, are not convenient for the future development of the zone. Consequently, although the Township currently provides more recreational facilities than the recommended standards of the NRPA for the Township's build-out population of approximately 4,500 persons, it is recommended that a major centralized active recreation complex be planned within the receiving zone for the convenience of its future residents.

Based on discussions of this committee the following recommendations are made which should serve to maximize the return on investment yet provide adequate levels of recreation throughout the community. In addition to requirements for adult recreation, there are needs for different levels of facilities for children of different ages. These different needs are best met at different locations with different facilities.

There is a need for a major centralized active recreation complex to serve the organized recreation activities of the community. This facility would have formal playing fields for softball/baseball, football and soccer as well as walking/jogging, tennis and other passive recreation facilities. The construction of the major facility would be undertaken by the Township through contributions from developers. Doing as much as possible in one place provides the largest return on investment for parking and lighting expenditures. These larger sites are also favored by athletic directors and associations and minimize maintenance and security problems.

In addition to the major recreation facility a series of "secondary", smaller, non-equipped or modestly equipped, open recreation fields, spread throughout the developed area, for 8+ year old children to play after-school unorganized, pick-up, games are required. These areas might be developed in conjunction with local tennis courts and/or basketball courts. They can also serve as street hockey arenas and would include limited play equipment. The construction of these scattered satellite facilities would be the responsibility of the developer, but would fit into the overall Township recreation plan.

Play lots (a.k.a. tot-lots), as stand-alone facilities, make sense in high density



areas where back yards are very small. However, they are not necessarily useful in areas with homes that have larger back yards in which younger children can play. Play lots also appear to be practical in conjunction with some type of adult active recreation facility such as tennis courts. Other than a major playground type facility, tot-lot construction would be the responsibility of the developer.

The "secondary" recreation areas should be visible amenities not hidden behind development. Gathering and recreation areas should be exposed, an integral part of the initial design which adds to the aesthetics of the streetscape, not hidden behind houses. Exposing recreation areas will also serve to minimize nuisance problems from people gathering in these places after dark for other than recreation reasons.

The "receiving" area will probably also need to have land set aside for schools, library and a fire house and that required recreation facilities should be designed in conjunction with school fields to maximize their use. When school is open, facilities would be used for recess and school athletic programs. During evening and weekends, facilities would be used for non-school, general and organized athletic programs. School recreation fields may be counted as part of the 40% open space requirement.

Requirements for swimming pool facilities along with club/meeting rooms in areas of higher density, such as townhouses, should be the responsibility of a developer and ultimately a homeowner's association.

## **UNDEVELOPED (PASSIVE) RECREATION AREAS**

The undeveloped passive recreation areas will generally be defined by the existing hedgerows and stream corridors that are typically found along parcel boundaries. Environmentally sensitive areas such as ponds, floodplains, wetlands and wetland transition areas will also define these areas. It is recommended that all of these areas be left in their natural state with minimal intrusion and become part of a Township greenway corridor system. These corridors would facilitate passive recreation and the movement of wildlife and should also connect larger passive recreation and natural area nodes. Minimum distances from the resource to lot lines and building envelope lines should be established where appropriate.

Where lot sizes are less than  $\frac{1}{2}$  acre in size, the land around streams, riparian buffers, as well as other bodies of open water and environmentally sensitive areas, should be preserved as an amenity for the community at large. Ownership and maintenance should rest with either the Township, a homeowner's association or a qualified conservation organization. In areas of small and medium sized single family lots (up to  $\frac{3}{4}$  acre), stream corridors should also be preserved as an amenity for the community, typically in Township or conservation organization ownership. However, where stream corridors occur in areas of larger lots (over  $\frac{3}{4}$  acre), boundaries should run to the stream centerline with the landowners having deed restrictions with a conservation easement which permits the Township the right to inspect and specify required maintenance. However, if a pedestrian/bike path were to be included in any greenway or greenbelt the ownership should not be private.

## Conservation Plan Element

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### **STREAM VALLEY CORRIDORS, WETLANDS, HYDRIC SOILS**

From a regional point-of-view, both Doctors Creek in Mercer County and Crosswicks Creek at the Burlington/Mercer County line represent the major stream corridor systems in the region. Doctors Creek is the major drainage system that extends up to Allentown and further into Mercer County. Crosswicks Creek generally parallels Doctors Creek, and extending into Monmouth County.

Both Crosswicks Creek and Doctors Creek are "fourth order" stream corridors carrying in excess of 125 cfs (cubic feet per second) average as compared to Blacks Creek which carries approximately 15-25 cfs. Both of these regional streams extend from 300 feet in width to 800 feet in width, with a flat bottom land and some steep slopes along their banks.

These stream corridors provide an ideal buffer to the pristine farmland between the two streams. The land between the Crosswicks and Doctors Creek should be a priority for preservation. All of the land from the New Jersey Turnpike to Allentown on the northeast and at least Extonville in the southeast is a fabulous upland area protected by these two stream corridors. This entire land area would be ideal for a regional open space area or for continuation as a farm with preservation. In any case, this recommendation would partially preserve thousands of linear feet of these stream corridors. In addition, significant buffers should be used to protect these water courses.

In Chesterfield Township a major ridge line extends along Fenton Lane, meanders along Bordentown-Chesterfield Road, to Chesterfield where it continues north of Wallace Pond paralleling Chesterfield-Arneytown Road to the North Hanover Boundary. All stormwater falling to the north of this ridge line travels to Crosswicks Creek. All stormwater falling to the south of this ridge travels to Blacks Creek and/or Bacons Creek.

North of the ridge line there are three small headwater-intermittent stream areas that drain into Crosswicks Creek. The first extends south of Crosswicks Village and extends south through the Wilkinson Farm. The Environmental Commission suggested this tributary be named "Wilkinson Run." The second and third tributaries begin on the west side of Iron Bridge Road. When the tributary comes just north of Ellisdale Road, it splits. One stream parallels Ellisdale Road and the other meanders southerly between Waln Road and Iron Bridge.

These finger corridors are the natural drainage course and are currently protected by floodplain, wetlands, and wetlands buffer restrictions. Additional adjacent land areas should be protected to allow for a continuous connection to these natural corridors. The tributary systems and Crosswicks Creek represent 19 miles of watershed length.

The major stream system in the southern watershed of Chesterfield is Blacks Creek. Blacks Creek has a dendritic stream pattern with the major tributary of Bacons Creek, and an extensive headland watershed (4,680 acres) serving Wallace Pond. Intermittent swales and tributaries which include areas mapped as freshwater wetlands, constantly feed these water systems.

These corridors represent over 32 miles (Blacks Creek, 22 miles, Bacons Run, 10 miles) of streamways. Assuming a minimum of 300 feet in width, these corridors represent 1,163 acres of protected habitat areas within the Township. These streams and tributaries are the initial component of an environmental corridor. Water is generally always available, development is curtailed by dimensional regulation and wetland buffers, which give an added measure of protection. A variety of habitats exist in these stream corridors for deer, fox, muskrat, raccoon, as well as numerous bird species. By adding other environmentally sensitive land to these natural corridors is how the Township will form its environmental corridor system.

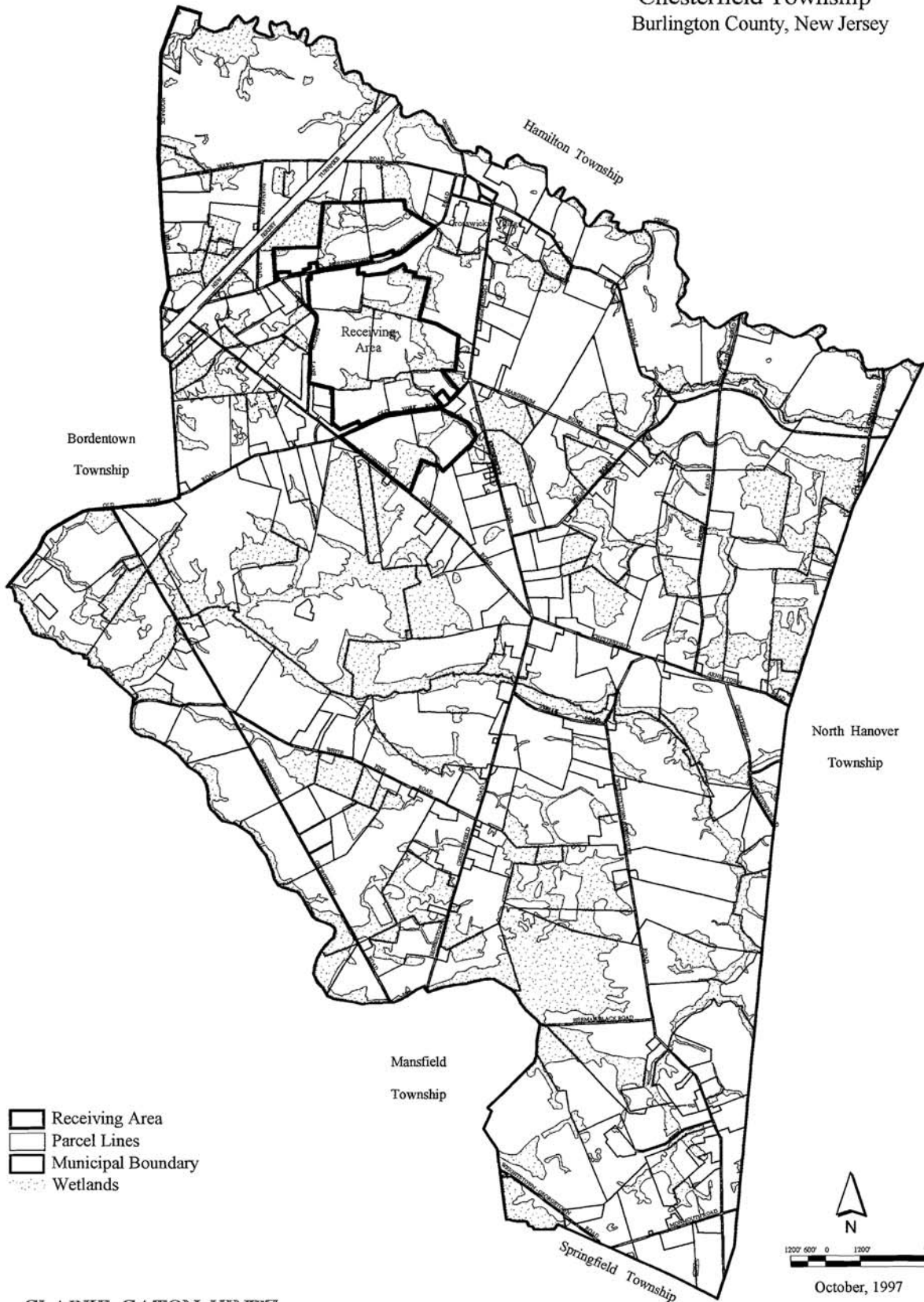
#### **WETLANDS**

The map developed by the U.S. Fish and Wildlife Division of the National Park Service illustrates the wetlands along the stream corridors most vividly. In addition, there are isolated freshwater wetlands which usually occur in the headwater areas. Map 6 - Wetlands, illustrates areas delineated as wetland areas in Chesterfield. Typically, a fifty (50) foot buffer is also a requirement from the edge of any wetland to the edge of any physical improvement.

The wetland areas, as identified, are areas which will largely be included in the stream corridor plan.

The headwater areas are small tributary drainage basins which connect to and supply larger streams. The width of headwater streams is usually less than three feet. The importance of the headwaters is the amount of aquatic food that is generated for the entire stream area. There is usually a high retention of leaf

Wetlands  
Chesterfield Township  
Burlington County, New Jersey



CLARKE CATON HINTZ

October, 1997

litter, allowing biotic activity all year. Detritus feeding organisms also feed on the leaf matter. These organisms produce fine particulate matter used by other organisms in the streams. This matter is easily transported down stream for use throughout the system.

It is therefore important to the health and vitality of Chesterfield's streams, that headwaters and adjacent contributing wetland areas be protected.

Wetland areas are synonymous with high water tables, i.e. where the water table is at the surface for at least three months of the year and within one foot of the surface at peak dry periods.

### **HYDRIC SOILS**

Hydric soils are soils that are saturated, flooded or ponded long enough during the growing season to develop anaerobic conditions and support hydrophytic vegetation. Since these soils are not suitable for septic systems, and usually marginal for farming, they have been included in the "preservation potential" category. Naturally, they are coincidental with the streams and wetlands areas.

### **VEGETATION LINKS**

Vegetation is a conspicuous aspect of the natural landscape and one of Chesterfield Township's most valuable resources. It is the basic biotic component of the ecological system of any area, and is also the resource most easily subject to modification or destruction. As integral parts of oxygen, nutrient, and energy cycles, plants maintain life. As scenic resources, natural

filters, and soil stabilizers they act as control agents for runoff, erosion, climate, air quality, and nutrient and chemical contaminants, while providing green texture in our visual environment. Precise knowledge of the vegetation of a site allows the planner to preserve existing stands for visual and acoustical screening, as wind breaks, traffic barriers, and for their intrinsic aesthetic or scientific value. Furthermore, vegetation types are often indicators of other site conditions, including ground water depth, soil texture and chemistry, land use history, and frequency of disturbance. Because of the dependency of animals on vegetation for food and cover, the distribution of animals and the populations that can be maintained can be inferred from vegetation data.<sup>1</sup>

Chesterfield Township is a mosaic of agricultural fields and forests. Forest land is limited principally to areas that are too wet or steep to be easily cultivated or developed. For the most part the forests follow streams and drainageways. Some upland forests occur where the soils are well drained; however, the largest forested areas are on poorly and somewhat poorly drained soils.<sup>2</sup> These forested areas parallel the stream corridors mentioned above. Blacks Run, Bacons Run, and any low wetland areas remain in forest largely due to the poor soil conditions for farming. Agriculture has clearly defined the vegetation patterns as much as the stream corridors have.

For the purpose of a Greenway plan it is interesting to note that the wooded areas between stream corridors add to the search for a continuous link.

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<sup>1</sup> Chesterfield Township Natural Resource Inventory and Land Capability Analysis, Rogers and Golden, 1976.

<sup>2</sup> Ibid.



The Township has previously identified at least seven significant vegetation areas that should be incorporated in the Greenway Plan. They are:

1. Large forest (over 100 acres) northeast of Georgetown.

When all the vegetation types in this area are considered together, this is the most diverse stand of vegetation in the Township. The area exhibits both upland and lowland vegetation, as well as early successional and mature forest. This area is an excellent wildlife habitat in its present condition.

2. Large forest (over 100 acres) west of Chesterfield.

Similar to the large forest northeast of Georgetown, though with somewhat less diversity, this area is an excellent wildlife habitat and wooded area.

3. Oak-Beech Stand on southern edge of Wallace Mill Pond.

Here, mature Beech and Oak trees are mixed with Gray Birch, creating an uncommonly aesthetic setting in the Township. The area also contains a small tributary to Blacks Creek which is apparently spring fed.

4. Oak-Beech Stand traversed by Fern Brook, south of White Pine Road, one mile west of Chesterfield-Georgetown Road.

The well-groomed appearance of the stately Beech mixed with Oaks, Sweetgums, and Hemlocks provides an interesting and tranquil setting. Ferns are abundant.

5. Tulip Poplar-Maple Stand along White Pine Road north of Kuser Pond on Fern Brook.

This area contains many large, planted White Pine trees which are uncommon to the Township.

6. Oak-Beech Stand south of Newbold Road, 3/4 of a mile west of Chesterfield.

This stand is almost purely Beech. Among Beech trees found here are several which have taken on twisted forms, with the result that the branches and trunks are like natural sculpture.

7. Oak-Beech Stand 1/2 mile west of end of Newbold Lane.

The topography and open understory of this area, and the maturity of trees in this stable plant community, make this an unusually scenic area.

## **PUBLIC LANDS**

Public land and quasi public lands are limited in Chesterfield Township. For the purpose of this study, lands that could be incorporated into a Greenway Plan should either be relatively open (meaning little development) or a major destination point, such as a school.

The largest public land owner in the Township is the Prison Farm located on the northwest side of the Turnpike along Ward Road. This land area is restricted, and is therefore not being considered as part of the study. However, the Prison Farm certainly does protect the southern portion of Crosswicks Creek, and provides protection and conservation to approximately 6,000 linear feet of stream edge. The Township also owns 33 acres of land along Hogback Road.

This land is being reserved for development.

The Township owns 13+ acres adjacent to Newbold Lane, a major preservation parcel. Recreation or other open space uses may be considered for this Township land. Across Chesterfield Road is the 21 acre Board of Education property. Most of the open land is already in school/recreational use.

Just a half mile toward Bordentown from Chesterfield is the 18 acre church-school site. The Property is in close proximity to an area of "animal crossings." Animals moving to Crosswicks Creek from Blacks Creek use this route now.

Another open area is the Friends Meeting area in Crosswicks which serves as a town green.

#### **EASEMENTS**

There are two rights-of-way that traverse the Township. The first right-of-way is a dual gas line easement to Public Service Electric & Gas and Sinclair Gas that parallels the NJ Turnpike. This easement area provides a continuous route for wildlife to traverse from Blacks Creek in Bordentown (near the NJ Turnpike) to Crosswicks Creek at Ward Road.

The second major easement is the AT&T Coaxial Cable which extends from Georgetown to Extonville. The buried cable is generally not a detriment to development, nor is the easement of significant size (20 feet). Fortunately, about half of the cable in Chesterfield is located on farms where easement rights have been purchased.

## **AQUIFER RECHARGE**

A major portion of Chesterfield consists of aquifer recharge areas for the Englishtown Formation and Wenonah Sand Formation. Generally, all land east of the NJ Turnpike acts as an aquifer recharge area. The Englishtown Formation is the major aquifer recharge area in the Township, followed by the Marshall Town Formation, the Wenonah Sands, and then the Hornerstown Formation in Sykesville.

A program that continues to preserve farmland will provide an extensive aquifer recharge area. If 9,000 +/- acres were retained in their current farmland/natural condition, recharge would be continuing as it has for hundreds of years.

If development occurs, then a series of solutions should be incorporated into an aquifer recharge program.

1. Recharge as much water on-site at its source as possible. For example, placing drain tiles underground and extending them out into the lawn would be a very positive action toward continuing ground water recharge.
2. If detention is required, extend the time of concentration to encourage more percolation at the basin. Place a 4' x 4' stone bottom extending 3 feet below the basin for additional "wicking" action. This will accelerate basin recharge (except when frozen). Surface/oil skimmers may also be recommended if a great deal of roadway water is entering a basin. However, if water is discharged directly at the source the need for basins would decrease.

3. Return well water back into an aquifer recharge area after saline reduction from softener products.
4. Minimize storm drainage systems and maximize on-site stormwater infiltration.
5. Retain any headwater drainage directly on site. Establish a standard of no storm discharge off-site greater than pre-development for rate of flow and quantity.
6. Limit impervious coverage significantly. On a three acre lot, a 10% impervious coverage would result in 13,000 sq. ft. of impervious coverage and therefore, 90% pervious.
7. Plant additional vegetation in the low areas to slow and maintain the water prior to being transported off-site.

### **WILDLIFE CORRIDOR**

The wildlife habitats in the Township are numerous and diverse. Wooded areas, stream crossings, wetlands, open fields, successional fields and hedgerows all abound in Chesterfield.

The quantity of mammals is higher now, as the farm community can attest. Well-protected habitats have plenty of food with 6,000 to 7,000 acres being in some form of agriculture. Wildlife in some instances pose a threat to farming because of crop damage.

Deer, fox, raccoon, muskrat, groundhogs and field mice are all resident species of Chesterfield. A number of endangered bird species, including the vesper sparrow, grasshopper sparrow, bobolinks, osprey and the long-eared owl are found in Chesterfield. Other declining species of bird observed here are the eastern king bird, eastern meadowlarks, the whip-poor will, brown thrasher and white eyed vireos.

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## Historic Plan Element

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Further consideration by the Township to preserve the three villages should include the appointment of a Historic Preservation Commission under *N.J.S.A. 40:55D-107*. The goal should be to preserve the three villages and individual sites after proper study by this Commission. Regular newspaper articles, having a special section on the Township's history in the library, working local history into the elementary school curriculum, and sponsoring public events may be some of the on-going efforts to maintain a high degree of public interest and a spirit of cooperation.

Even though an ordinance to implement an historic preservation program might be a logical result, the real implementation should be through cooperation with property owners. An historic preservation ordinance can be as flexible or as stringent as the Commission desires. Simple review procedures and reasonable time periods will eliminate unnecessary bureaucracy and help gain cooperation. Since the basic public goal is to maintain the character and appearance of the historic villages, only those features visible from a public way should require approval. Interior alterations can be exempt. General terminology in the ordinance can set the tone so that certain exemptions are allowed such as replacing an item to its original state, or routine maintenance and repair.

On the other hand, many detailed architectural features on the buildings are what establish the character of the area. While detailing a complete list of these features would be impractical, the intent could be clear by referring to illustrations published in a report which a citizens' committee could produce.

Examples of work completed in other towns are available for reference. This book could list many of the features as examples, but not as a definitive list.

A significant item will be the manner in which the review committee deals with an application. An awareness of the history of the villages, familiarity with its significant architectural features, and working with citizens in reaching quick solutions to areas of conflict are some practical items useful to such a committee. Sensitivity to practical needs and an ability to separate meaningful concerns from unimportant ones, cost considerations, and some knowledge of the building materials in relation to the unique features of historic and architecturally sensitive buildings will be important. Being able to assist in selecting alternate materials, knowing shops and lumber yards handling material appropriate for the job, offering references to craftsmen familiar with historic elements, and being open to less expensive ways to achieve the desired result will be important qualities in fostering cooperation.



## Housing Element

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### INTRODUCTION

The Fair Housing Act (*N.J.S.A. 52:27D-301 et seq.*), enacted by the New Jersey State Legislature in 1985, created the Council on Affordable Housing (COAH) within the New Jersey Department of Community Affairs. COAH is responsible for determining each municipality's allocation of low and moderate income housing, establishing guidelines for implementing the Fair Housing Act and evaluating proposed municipal compliance strategies.

The Council on Affordable Housing divided the state into six housing regions and established a formula which assigns each municipality a "fair share" of its region's need for affordable housing. Chesterfield is located within the Southwest region which includes the counties of Burlington, Camden and Gloucester.

COAH's initial formula was developed for a six year period, from 1987 through mid-1993. That formula has been superseded by 1994 COAH regulations (*N.J.A.C. 5:93-1.1 et seq.*) which recalculated a portion of the 1987-1993 fair share obligation for each municipality and computed the additional municipal housing need through 1999. This Housing Element has been prepared in accordance with the substantive and procedural regulations of the Council on Affordable Housing<sup>1</sup>.

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<sup>1</sup> - *N.J.A.C. 5:91-1 et seq.* and *5:93-1.1 et seq.*

Once the Housing Element is adopted, the municipality has the option to file the Element and a Fair Share Plan with COAH and also to request COAH's review and approval, called "substantive certification". The Fair Share Plan is a document that contains proposed implementing ordinances and administrative procedures designed to provide the opportunity for affordable housing construction and rehabilitation in the municipality. The COAH filing and substantive certification provide municipalities with a measure of legal protection from suits alleging that their land use regulations are invalid or unconstitutional because of a failure to provide sufficient opportunity for affordable housing development.

#### **PRIOR FAIR SHARE PLANNING**

The Township of Chesterfield initiated fair share planning in response to the *Mt. Laurel II* decision which was handed down by the New Jersey Supreme Court in 1983. Although the Township did not file a Housing Element and Fair Share Plan with COAH during the first fair share cycle, it did prepare and adopt a Housing Element to the Master Plan in May 1985.

The 1985 Housing Element predates the NJ Fair Housing Act and the creation of COAH and relies on a fair share allocation methodology which was developed through other municipal cases being litigated in Superior Court. It sets forth a fair share for Chesterfield for the first cycle of 75 units comprised of 23 indigenous need units and 52 present and prospective need units.

Chesterfield Township is predominantly agricultural and generally unsuitable for higher density residential development. However, the northwest corner of

the Township was designated for growth in the NJ State Development Guide Plan (1976) and is relatively close to major highway and utility services in nearby Bordentown and Hamilton Townships.

Consequently, the 1985 Housing Element identified a small district between the NJ Turnpike and Hogback Road as a growth area. The designated growth area totaled approximately 900 acres of which 47 acres were developed, 628 acres were used by the Garden State Youth Correctional Facility, and 6 acres were in the right-of-way of the New Jersey Turnpike. Of the balance of approximately 230 acres, 26 acres were in the floodplain, leaving 204 acres for residential development.

At the time of the 1985 Master Plan, the Township was considering the creation of a public agency having the authority to acquire land, provide infrastructure and construct the required low income units. It was anticipated that the private sector would develop units addressing the moderate income housing need. The Township subsequently acquired a 33 acre tract of land on Hogback Road (Block 103, Lot 20.02) for these purposes. Development of 38 low income units on the site would have resulted in a density of less than 1.2 units per acre. Development of both the low and moderate income units (the entire fair share of 75 units) would have resulted in a density of approximately 2.3 units per acre on the site. These numbers included the 23 unit indigenous need which could alternatively have been addressed through a housing rehabilitation program.

In order to attract private sector developers to build moderate income units, the 1985 Housing Element conceptualized a density bonus of 1 unit per acre added to an underlying density of 1 unit per acre. Consequently, a total density of 2

units per acre would have been permitted on the remaining 171 acres of non-municipally owned residential land within the growth area. A 25% set-aside for moderate income units would have resulted in a maximum potential of 86 moderate income units (more than twice the Township's fair share requirement). The Element also recommended that the density bonus expire once the Township's fair share obligation was met.

An alternative to the creation of a public development agency which was also described in the 1985 Housing Element was rezoning the 171 acres of non-municipally-owned vacant land to provide a realistic opportunity for private developers to produce the entire 75 unit low and moderate income obligation. The Element recommended a density of not more than 5 units per acre generating a theoretical total of 855 units, 20% of which would be set aside as low and moderate income units. This density, which could have yielded as many as 171 affordable units (2.25 times the Township's fair share) was recommended to create overzoning and thus expand opportunities for the construction of low and moderate income housing. As with the first option, the increased density would expire once the Township's fair share obligation had been met.

A third option contained in the 1985 Housing Element was to permit certain large, single-family homes to be converted to two-family homes with a requirement that the new units must be occupied by a low or moderate income household.

Following the adoption of the 1985 Master Plan the Township Committee enacted a new Development Regulations Ordinance (No. 1986-13, revised by Ordinance No. 1987-7). The Chesterfield Development Ordinance, as it is

known, included provisions implementing key sections of the affordable housing production alternatives described in the Master Plan.

The Ordinance established the R - Residential District which was "intended as an area for higher density development because of its designation as a growth area in various regional plans" (Section 710A Purpose). The district, which is still in effect, is bounded generally by Hogback Road, Ward Road and the NJ Turnpike and includes the 33 acre lot purchased by the Township for affordable housing.

Construction of low and moderate income housing based on the conventional 20% set-aside is required on sites of 5 acres or more in the R zoning district until such time as the Township's fair share obligation has been met (Section 619D). The maximum gross density is 8 units/acre which requires the transfer of development credits from the agricultural area. Development without transfer is permitted at a gross density of 4 units/acre. A variety of housing types are permitted, including garden apartments, townhouses, duplexes, quadplexes, patio homes, atrium houses and single family detached homes on 5,000 square foot lots.

In the AG - Agricultural District the Ordinance permits accessory apartments to be created within existing detached single family dwellings provided that one of the two units is occupied by and affordable to a low or moderate income household (Section 619D3).

The Development Ordinance contains an array of affordability, phasing, unit size and related controls which closely parallel the substantive regulations of

COAH which were in place in 1986 and 1987 (*N.J.A.C. 5:92*). In addition, it permits waivers for inclusionary developments from the strict application of the design standards for street width, curbs, piped storm water systems, street lighting, off-street parking, shade trees and sidewalks (Section 619E). This waiver provision is consistent with the thrust of Subchapter 10 (Cost Generation) of COAH's current regulations (*N.J.A.C. 5:93-10*). However, it is noteworthy that the Township's ordinance enactment predates the COAH regulations by almost 7 years.

Following the passage of the Burlington County Transfer of Development Rights Demonstration Act in 1989 (*N.J.S.A 40:55D-113-129*), the Township's planning consultant in 1992 prepared a draft Master Plan which would institute a transfer of development rights (TDR) program in order to preserve valuable agricultural lands. The approach would create one "sending" zone and three "receiving zones". The largest of the three receiving zones was also intended to accommodate the development of low and moderate income housing in order to meet the Township's fair share. The draft Master Plan recommended a 10% density bonus across all residentially-zoned land with a 5% affordable housing set-aside requirement. One TDR alternative suggested by the draft Master Plan recommended a mix of land uses that would generate 1,282 new housing units from the "sending" and "receiving" zones, including the 10% bonus. The 5% set-aside requirement would generate 64 low and moderate income units.

The Township in 1992 decided to table the draft Master Plan in order to permit Township officials and citizens an opportunity to develop a better understanding of the nature and planning implications of TDR.

On May 23, 1995 the Chesterfield Planning Board adopted a Report on the Reexamination of the Master Plan & Development Ordinance prepared by Carl E. Hintz of Clarke Caton Hintz. The Reexamination Report cites the extensive work on TDR which the Planning Board has undertaken in recent years with assistance from the Burlington County Land Use Office. This work has been motivated by an abiding commitment to farmland preservation over the past two decades and an interest in furthering this policy in an equitable manner consistent with sound local and regional planning objectives.

The Reexamination Report notes that while development pressure is increasing and notwithstanding some scattered development since the 1985 Master Plan, Chesterfield remains a relatively undeveloped, agricultural community. In the period 1984 through August 1997 a total of 3,185 acres of farmland have been preserved in Chesterfield through outright purchase or purchase of development rights with local, county and state funds. The Report anticipates that farmland preservation efforts will continue, both through additional purchase of development rights and through the institution of Township-wide TDR.

One of the challenges of implementing TDR in Chesterfield is to devise an equitable system which serves the dual public policy goals of preserving farmland and providing affordable housing for low and moderate income households consistent with the requirements of the Fair Housing Act.

During late 1996 and 1997 the Planning Board and Township Committee revisited the issue of TDR with assistance from the Burlington County Land Use Office. A draft Master Plan for the Township was issued in June of 1997. The 1997 draft Master Plan proposes a voluntary Transfer of Development Credits

(TDC) program which is consistent with the spirit of the "Burlington County Transfer of Development Rights Demonstration Act" and advances the goal of preserving major blocks of farmland while reducing infrastructure and the costs of public services. The draft Master Plan recommends an expansive "sending" area and one "receiving" area (southwest of Crosswicks) plus two possible future "receiving" areas (Chesterfield and Sykesville). Under the proposed program, the number of development credits assigned to each property are based on the zoning in effect in 1996 in accordance with the statutory definition of "development potential" *N.J.S.A. 40:55D-115*. The "receiving" area is planned to accommodate a total of 1,220 housing units. In order to address the Township's affordable housing obligation, the Land Use Plan recommends that the "receiving" area be implemented with a 5% affordable housing set-aside requirement.

## **HOUSING STOCK INVENTORY**

In 1990, there were 973 housing units in Chesterfield, of which 28 or 2.9% were vacant. Of the 945 occupied units, 88.6% were owner occupied and 11.4% were rented. Table 1, Housing Units by Occupancy Status, illustrates this occupancy status in 1990.



**Table 1. Housing Units by Occupancy Status, 1990**

	<u>Housing Units</u>	<u>Owner Occupied</u>	<u>Renter Occupied</u>
Occupied	945	837	108
Vacant	<u>28</u>		
<b>Total</b>	<b>973</b>		

Source: 1990 US Census

Most of the housing stock, 94%, is single-family, either attached or detached. Duplex units comprise 2.8% of the total housing units, 3 or 4 unit structures comprise 1.3% and 1.8% of the total are classified as "other". See Table 2, Housing Units by Number of Units.

**Table 2. Housing Units by Number of Units in Structure, 1990.**

<u>Number of Units</u>	<u>Owner Occupied</u>	<u>Rental</u>	<u>Vacant</u>	<u>Total</u>
1, Detached	809	92	0	901
1, Attached	0	0	14	14
2	10	3	14	27
3 or 4	0	13	0	13
5+	0	0	0	0
Mobile Home/Trailer	0	0	0	0
<u>Other</u>	<u>18</u>	<u>0</u>	<u>0</u>	<u>18</u>
<b>Total</b>	<b>837</b>	<b>108</b>	<b>28</b>	<b>973</b>

Source: 1990 US Census

Table 3 below illustrates the aging of the Township's housing stock. While 35% of the housing units were constructed prior to 1950, the 1970's saw the largest numeric increase in the municipality's housing stock. A majority of the Township's housing stock, or 62.4%, was 20 years old or more in 1990; the

median year built was 1961.

**Table 3. Housing Units by Age, 1990.**

<u>Year Built</u>	<u>Total Units</u>	<u>%</u>	<u>Owner Occ.</u>	<u>Rental Occ</u>	<u>Vacant</u>
1980-March, 1990	154	15.8%	154	0	0
1970-1979	212	21.8%	177	35	0
1960-1969	128	13.1%	117	110	0
1950-1959	135	13.9%	15	0	0
1940-1949	57	5.9%	57	0	0
Before 1940	<u>287</u>	<u>29.5%</u>	<u>197</u>	<u>62</u>	<u>28</u>
<b>Totals</b>	<b>973</b>	<b>100.0%</b>	<b>837</b>	<b>108</b>	<b>28</b>

Median year built: 1961

Source: 1990 US Census

Building permit data since March, 1990 when the U.S. Census was taken may be used as a surrogate to determine the construction of housing units, since historically there is a close correlation between permit data and actual construction. From 1990 through May of 1997, 112 permits were issued for housing units in Chesterfield and 18 residential units were demolished for a net increase of 94 units. Assuming completion and occupancy of each of these units, the Township's housing stock totals 1,067 units (973 + 94).

Table 4, Housing Units by Number of Rooms, shows that in 1990 more than 78% of the housing units had 6 rooms or more, indicating that large residences predominate in the Township.

**Table 4. Housing Units by Number of Rooms, 1990.**

<u>Rooms</u>	<u>Number of Units</u>	<u>Percentage of Total</u>
1	0	0.0%
2	0	0.0%
3	13	1.3%
4	67	6.9%
5	129	13.3%
6+	<u>764</u>	<u>78.5%</u>
<b>Totals</b>	<b>973</b>	<b>100.0%</b>

Mean rooms per unit: 7.0

Source: 1990 US Census

Table 5, Housing Values, shows the change in housing values from 1980 to 1990. Median housing value in Chesterfield increased by 189%, from \$64,600 in 1980 to \$187,000 in 1990. This exceeds by 1.5 times the 126% increase in median housing value for units in Burlington County between 1980 and 1990. The increase is more than 3 times the rate of increase in the cost of living, which rose 62.4% over the decade (C.P.I.-U, for the Philadelphia CMSA, 1980 and 1990).

**Table 5. Housing Values, Chesterfield Township, 1980.**

<u>Owner-Occupied Housing Units</u>	<u>1980 Number</u>	<u>Percent</u>
Less than \$10,000	1	0.2%
\$10,000 - \$14,999	4	0.9%
\$15,000 - \$19,999	5	1.1%
\$20,000 - \$24,999	4	0.9%
\$25,000 - \$29,999	12	2.6%
\$30,000 - \$34,999	10	2.1%
\$35,000 - \$39,999	23	5.0%
\$40,000 - \$49,999	62	13.4%
\$50,000 - \$79,999	226	48.9%
\$80,000 - \$99,999	63	13.6%
\$100,000-\$149,999	41	8.9%
\$150,000-\$199,999	10	2.2%
\$200,000 or more	1	0.2%

**1980 Median Value: \$64,600**

**Table 5. Housing Values, Chesterfield Township, 1990.**

<u>Owner-Occupied Housing Units</u>	<u>1990 Number</u>	<u>Percent</u>
Less than \$15,000	0	0.0%
\$15,000 - \$19,999	0	0.0%
\$20,000 - \$24,999	0	0.0%
\$25,000 - \$29,999	0	0.0%
\$30,000 - \$34,999	0	0.0%
\$35,000 - \$39,999	0	0.0%
\$40,000 - \$49,999	0	0.0%
\$50,000 - \$74,999	10	1.5%
\$75,000 - \$99,999	65	9.7%
\$100,000-\$149,999	140	20.8%
\$150,000-\$199,999	169	25.2%
\$200,000-\$249,999	134	19.9%
\$250,000-\$299,999	75	11.2%
\$300,000-\$399,999	66	9.8%
\$400,000-\$499,999	13	1.9%
\$500,000 or more	0	0.0%

**1990 Median Value: \$187,000**

Source: 1980, 1990 US Census

In 1990, Chesterfield Township had no housing units that lacked complete plumbing facilities. This is a significant decrease from 1980 when 9 year-round units, or 1.2% lacked complete plumbing facilities. See Table 6, Selected Quality Indicators.

**Table 6. Selected Quality Indicators, Occupied Housing Stock, 1990.**

	<u>Overcrowded</u>	<u>Lacking Complete Plumbing</u>	<u>Combined Overcrowded and Lacking Complete Plumbing</u>
No. Units	0	0	0

Source: 1990 US Census

Units which are overcrowded are defined as having 1.01 or more persons per room. Within the Township there are no units which are overcrowded, and therefore no units which are both overcrowded and lacking complete plumbing facilities. These factors indicate that the housing stock in Chesterfield is generally in good condition with virtually no indication of seriously substandard units.

## **HOUSING STOCK PROJECTIONS**

As previously noted, building permit data provides a reasonable surrogate for housing constructed. Over the past fifteen years, the number of permits issued has closely followed the business and mortgage rate cycle. All of the permits issued during this period were for single-family detached housing. Table 7, Residential Building Permits Issued, presents building permit data from 1982 to the present.

**Table 7. Residential Building Permits Issued, 1982-1997.**

<u>Year</u>	<u>Total Number of Permits</u>	<u>Number of Single-Family Permits</u>	<u>Demolitions</u>
1982	6	6	1
1983	6	6	0
1984	13	13	0
1985	16	16	0
1986	35	35	1
1987	44	44	0
1988	16	16	0
1989	8	8	1
1990	10	10	0
1991	1	1	0
1992	2	2	0
1993	11	11	0
1994	24	24	0
1995	33	33	7
1996	23	23	11
1997*	<u>8</u>	<u>8</u>	<u>0</u>
Total (1982-'96)	256	256	21
Average	17	17	1

\* 1997 building permit data through May; number not included in total.

This data clearly illustrates the cyclical nature of the housing industry. The rate of residential construction in Chesterfield was sluggish at the beginning of the 1980's then rose to the historical peak in 1987. With the recession in the late 1980's and early 1990's housing construction plummeted to a low of 1 unit in 1991 before beginning a gradual recovery. This recovery peaked at 33 units in 1995, followed by a decline to 23 units in 1996. Through May of 1997, permits for 8 residential units have been issued. At this rate it is likely that

1997 permits will not exceed the 23 permits issued in 1996. Over the past 15 years the lowest rates of housing production occurred in 1991 and 1992 while the highest rates were in 1986 and 1987. Most analysts are predicting a continuation of this cyclical pattern but with less radical swings than occurred through the 1985-1990 period. If this is the case the rate of residential development in Chesterfield during 1997 to 2000 should continue at an average rate comparable to the average historical rate of 17 units per year.

### **GENERAL POPULATION CHARACTERISTICS**

The population of Chesterfield increased 33.2% between 1980 and 1990, rising from 3,867 to 5,152 people. This is much greater than the 9.0% growth experienced by Burlington County. The 1980's saw a significant increase in the Township's population growth rate, which was 21.2% in the previous decade (*see* Table 8, Population Growth).

It is important to note however, that demographic trends in the Township are greatly influenced by the presence of the Garden State Youth Correctional Facility. The inmates at the facility are counted by the Census as residents of Chesterfield living in group quarters. In 1990 there were 2,364 inmates, which accounted for nearly half (46%) of the Township's population. This represents an increase of 830 persons over the inmate population in 1980 and accounts for 65% of the Township's population growth during the decade. Residential population growth in the balance of the Township during the decade amounted to 455 persons, which represents a 19.5% increase over the 1980 non-inmate population of 2,333.

**Table 8. Population Growth, 1970-90**

	<u>1970</u>	<u>1980</u>	<u>% Growth</u>	<u>1990</u>	<u>% Growth</u>
Chesterfield	3,190	3,867	21.2%	5,152	33.2%
Inmate*	--	1,534	--	2,364	54.1%
Resident	--	2,333	--	2,788	19.5%
Burlington Co.	323,132	362,542	12.2%	395,066	9.0%

Source: 1970, 1980 and 1990 US Census

\* Persons in institutional group quarters.

Furthermore, the inmate portion of the population accounts for the Township's low median age of 26.6 (*see* Table 9, Age Distribution). Although the ages of inmates within the Garden State Youth Correctional Facility range between 15 and 39, the majority are between 18 and 27 years old causing the Township's 15 to 24 and 25 to 34 age cohorts to be artificially high.

**Table 9. Age Distribution, 1980-1990.**

<u>Age Group</u>	<u>1980</u>	<u>Percent</u>	<u>1990</u>	<u>Percent</u>	<u>Percent Change</u>
Under 5	127	3.3%	203	3.9%	0.6%
5-14	463	12.0%	371	7.2%	-4.8%
15-24	1,338	34.6%	1,717	33.3%	-1.3%
25-34	781	20.2%	1,364	26.5%	+6.3%
35-44	414	10.7%	512	9.9%	-0.8%
45-54	255	6.5%	436	8.5%	+2.0%
55-64	289	7.5%	263	5.1%	-2.4%
65+	200	5.2%	286	5.6%	+0.4%
<b>Totals</b>	<b>3,867</b>	<b>100.0%</b>	<b>5,152</b>	<b>100.0%</b>	<b>33.2%</b>

**Median Age:** 26.6\*

Source: 1980 & 1990 US Census

\* The low median age reflects the large youth population within the Garden State Youth Correctional Facility.



The number of residents age 65 and over increased by 43% between 1980 (200 persons) and 1990 (286 persons). However, it is notable that the number of Township residents in the 55 to 64 age cohort decreased by 26 persons between 1980 and 1990. In all likelihood, the over-65 population in the next decade will not increase as dramatically as a percentage of total population. Conversely, the 45 to 54 age cohort increased by 71% over the past decade foreshadowing a substantial increase in the next decade in the Township's 55 to 64 age cohort.

The aging of the resident (as distinguished from inmate) population in Chesterfield reflects national trends. One of the most significant factors contributing to this trend is the aging of the baby boom generation (1946-1964 birth years). Another factor is the larger number of persons surviving past the age of 65, which further raises the median age. The housing stock is predominantly large, single-family detached housing with four or more bedrooms. This housing attracts older, more established families as opposed to single persons or young households which need smaller, less expensive units.

## **HOUSEHOLD CHARACTERISTICS**

A household is defined by the U.S. Census Bureau as those persons who occupy a single room or group of rooms constituting a housing unit; however, these persons may or may not be related. By comparison, a family is identified as a group of persons including a householder and one or more persons related by blood, marriage or adoption, all living in the same household. In 1990 there were 919 households in Chesterfield, with an average of 3.0 persons per household and 779 families with an average of 3.6 people per family. It should

be noted that in 1990, 2,364 persons or 46% of the Township's population resided in "group quarters" in the Garden State Youth Correctional Facility. This population is not included within the household size and family size figures above.

Table 10, Households by Household Type, breaks down the different household types. Approximately 78% of the households are comprised of married couples. Of those, 45% have children. Another 3.5% are headed by a woman with no husband present, while 3.1% of households are headed by a man, with no wife present. A significant proportion (15.2%) of the households are "non-family" households, of which the majority are comprised of one person, male or female, living alone.

**Table 10. Households by Household Type.**

<u>Family Households</u> (2+ Person Households)	<u>No. Households</u>	<u>Percent</u>
Married Couple	719	78.2%
Single Male Head	28	3.1%
Single Female Head	<u>32</u>	<u>3.5%</u>
<b>Subtotal:</b>	<b>779</b>	<b>84.8%</b>
<u>Non-Family Households</u> (Living alone)		
Male	55	6.0%
Female	<u>62</u>	<u>6.7%</u>
<b>Subtotal:</b>	<b>117</b>	<b>12.7%</b>
<u>Non-Family Households</u> (Not living alone)		
Male	9	1.0%
Female	<u>14</u>	<u>1.5%</u>
<b>Subtotal:</b>	<b>23</b>	<b>2.5%</b>
<b>Total:</b>	<b>919</b>	<b>100.0%</b>

Source: 1990 US Census

## **INCOME CHARACTERISTICS**

Persons residing in Chesterfield have on average higher incomes than in Burlington County as a whole. Median income in 1989 in Chesterfield was \$51,155 for households and \$56,720 for families. Comparable figures for the County were \$42,373 for households and \$47,641 for families. Chesterfield had the eighth highest municipal median household income out of 40 municipalities in the County. Burlington County incomes are eighth highest in the state below Morris, Somerset, Hunterdon, Bergen, Sussex, Monmouth and Middlesex counties. The Township and County median household incomes are both above the State figure of \$40,927.

Table 11 further illustrates these findings by noting the number of families and households in each of the income categories. Within the Township, 26.6% of all households and 30.5% of all families have incomes of \$75,000 or more. The largest income bracket, comprising approximately one quarter of all Township families and households, is the group which earns between \$50,000 and \$75,000 per year.

**Table 11. Household and Family Income by Income Brackets**  
**Chesterfield Township, 1990**

	<u>Households</u>	<u>Percent</u>	<u>Families</u>	<u>Percent</u>
less than \$4,999	7	0.8%	7	0.9%
\$5,000 - \$9,999	35	3.8%	8	1.0%
\$10,000 - \$14,999	39	4.2%	26	3.3%
\$15,000 - \$19,999	62	6.8%	49	6.3%
\$20,000 - \$29,999	72	7.8%	46	6.0%
\$30,000 - \$39,999	115	12.5%	98	12.6%
\$40,000 - \$49,999	117	12.7%	92	11.8%
\$50,000 - \$74,999	228	24.8%	215	27.6%
\$75,000 - \$99,999	130	14.2%	135	17.3%
\$100,000- \$124,999	47	5.1%	42	5.4%
\$125,000- \$149,999	25	2.7%	25	3.2%
\$150,000 +	42	4.6%	36	4.6%
<b>Total</b>	<b>919</b>	<b>100.0%</b>	<b>779</b>	<b>100.0%</b>
Median income	\$51,155		\$56,720	
Average income	\$61,078		\$65,612	

Source: 1990 US Census

Based on a median household income of \$42,373 for all households in Burlington County for the 1990 Census, the moderate income threshold was \$33,898 (80% of \$42,373). At that time, a total of 260 households, or 28.3% of all households in Chesterfield were within the low and moderate income category.

Table 12, Distribution of Persons and Households Below Poverty Level, shows that in 1990 only 1.8% of all Chesterfield residents and 2.6% of households lived below the poverty level as defined by the 1990 U.S. Census.

**Table 12. Percent Distribution of Persons and Households Below Poverty Level, 1990**

	% Below Poverty Level	
	<u>Persons</u>	<u>Households</u>
Chesterfield	1.8%	2.6%

Source: 1990 US Census

**EMPLOYMENT CHARACTERISTICS**

Table 13, Distribution of Employment by Industry, shows the distribution of employment by industry for Chesterfield residents in 1990. A large number of residents, 29.1%, were in service industries; that is, business and repair or personal services, or professional services like health, education or other similar disciplines. Another 18.8% were involved in retail or wholesale trade; 13.8% were in public administration, while 11.0% worked in manufacturing.

**Table 13. Distribution of Employment by Industry, Chesterfield Township Residents, 1990**

<u>Sector Jobs</u>	<u>No.</u>	<u>Percent</u>
Agriculture, Forestry, Fisheries & Mining	90	5.8%
Construction	121	7.9%
Manufacturing	170	11.0%
Transportation, Communications, Utilities	124	8.1%
Retail and Wholesale Trade	289	18.8%
Finance, Insurance, Real Estate	85	5.5%
Services	448	29.1%
Public Administration	<u>212</u>	<u>13.8%</u>
<b>Total</b>	<b>1,539</b>	<b>100.0%</b>

Source: 1990 US Census

Table 14, Employment by Occupation, identifies the occupations of employed persons in 1990. While Chesterfield residents work in a variety of industries, the data in Table 14 indicates that a majority of Chesterfield's residents worked in managerial, professional and administrative/clerical support occupations in 1990.

**Table 14. Employment by Occupation, Chesterfield Township  
Residents, 1990**

<u>Sector Jobs</u>	<u>No.</u>	<u>Percent</u>
Executive, Administration, & Managerial	236	15.3%
Professional Specialty	302	19.6%
Technicians	68	4.4%
Sales	144	9.4%
Administrative & Clerical Support	276	17.9%
Services	138	9.0%
Farming, Forestry & Fishing	76	4.9%
Manufacturing	197	12.8%
Others	<u>102</u>	<u>6.7%</u>
<b>Total</b>	<b>1,539</b>	<b>100.0%</b>

Source: 1990 US Census

The number of employed people residing in Chesterfield greatly exceeds the number of jobs located within the Township. The New Jersey Department of Labor tracks covered employment throughout the state. Covered employment data includes only those jobs for which unemployment compensation is paid. By definition it does not cover public employees (federal, state, county and municipal), nor the self-employed, unpaid family workers, most part-time or temporary employees, and certain agricultural and in-home domestic workers.

The largest employer in Chesterfield is the Garden State Youth Correctional Facility which employs 670 persons. The jobs at the Correctional Facility are public and therefore are not included within the covered employment statistics. Table 15 compares covered employment for several years in Chesterfield and Burlington County. Approximately 52 covered jobs per year have been added since the mid-point of the recession in 1990 through 1993. However, between 1993 and 1995 approximately 10 covered jobs per year have been lost in the Township.

**Table 15. Covered Employment Estimates, 1985-1995**  
**Chesterfield Township & Burlington County**

<u>Year</u>	<u>Chesterfield</u>	<u>Burlington</u>
1985	386	105,029
1990	218	125,919
1991	268	122,453
1992	280	122,577
1993	373	126,280
1994	358	130,878
1995	352	132,662

Source: New Jersey Department of Labor, Division of Planning and Research, Office of Demographic and Economic Analysis, NJ Covered Employment Trends. Data are as of September of each year.

Neither the New Jersey Department of Labor nor Burlington County project employment for the Township or the County. However, the Delaware Valley Regional Planning Commission (DVRPC) has projected employment based upon the U.S. Department of Commerce, Census Transportation Planning Package (CTPP) which is derived from the 1990 Census. DVRPC adjusted the CTPP to

account for multiple job holders and those temporarily absent from work, resulting in a 1990 employment total for Chesterfield of 1,034. The large discrepancy between the State of New Jersey Covered Employment figure of 218 in 1990 and the CTPP figure of 1,034 is principally due to the fact that the CTPP data includes public employees, such as the 670 employees at the Garden State Youth Correctional Facility and other local, county and state employees.

The DVRPC projects future employment in Chesterfield at 1,121 in the year 2000, 1,244 in 2010 and 1,333 in 2020 for a modest average annual growth rate of approximately 1%. Currently there are no approved but unbuilt commercial developments in the Township that would generate employment, so it is likely that non-public employment growth in the foreseeable future will be incremental.

### **FAIR SHARE ALLOCATION**

On June 6, 1994, COAH adopted a new set of substantive regulations (*N.J.A.C. 5:93-1 et seq.*) which replaced the regulations under which the Council has administered the Fair Housing Act since 1986. These regulations allocate municipal affordable housing obligations through 1999 and establish a new policy framework for fair share compliance during the next six year period.

Municipal housing allocations remain composed of three components: indigenous need, reallocated present need, and prospective need. However, COAH has modified the method of calculating the statewide and regional housing need and the method of allocating that need among the constituent municipalities. A tabular summary of the Township's affordable housing



obligation is presented in Table 16.

**Table 16. Chesterfield's 1987-1999 Affordable Housing Allocation**

<u>Formula Category</u>	<u>Number of Units</u>
Indigenous Need	15
Reallocated Present Need	<u>6</u>
Present Need 1993	21
Prospective Need 1993-1999	<u>29</u>
Total Need 1993-1999	50
Prior Cycle Prospective Need	<u>24</u>
1987-1999 Total Need	74
Demolitions	1
Filtering	-4
Conversions	-1
Spontaneous Rehabilitation	<u>-2</u>
Housing Market Adjustments	-6
<b>Pre-Credited Need</b>	<b>68</b>
Reductions	0
Credits from First Round	0
20% Cap on Vacant Land	<u>0</u>
<b>Calculated Need</b>	<b>68</b>

Source: New Jersey Council on Affordable Housing, October 11, 1993

The components of calculated housing need are outlined as follows:

*Indigenous Need* is the number of dwellings that are substandard and inhabited by a low or moderate income household. Indigenous Need is a part of Present Need. This number is calculated from U.S. Census surrogates that stand in for the actual count since data at the minor civil division level is not available.

Chesterfield's Indigenous Need number is 15 units.

*Reallocated Present Need* is equal to the dwelling units assigned to municipalities from a regional pool of indigenous need. Each housing region has a regional average of all of its indigenous need units. If a municipality has more than the regional average, then the amount above the average is placed in a regional pool and reassigned to other municipalities within the region. The Reallocated Present Need number for Chesterfield is 6 units.

*Present Need 1993* is the total of Indigenous Need and Reallocated Present Need. Both Reallocated Present Need and Prospective Need (*see below*) are distributed to municipalities through a formula that includes the municipal share of the regional undeveloped land, equalized non-residential property valuation, change in equalized non-residential property valuation, and aggregate household income differences. For Chesterfield, Present Need 1993 equals 21 units (15 + 6).

*Prospective Need 1993-1999* is the share of future households of low and moderate incomes allocated to Chesterfield Township which will require affordable housing not provided by the normal housing market. The Prospective Need 1993-1999 number is 29 units.

Present and Prospective Need 1993-1999 together are called *Total Need* and equal 50 units. The Total Need is then added to Prospective Need from the first round, which is 24 units, for a two round cycle (1987-1999) of 74 units. This number in turn is modified by several factors intended to account for normal housing market adjustments. These factors are:

*Demolition* which is the number of units that are expected to be removed from the housing stock in the second round. In Chesterfield, one unit is expected to be demolished.

*Filtering* is an adjustment that assumes over time the typical household will move up in price in the housing market, thereby selling a lower priced house to another household. In turn, the second household sells a still lower priced house to a third party, and so on. This process of filtering creates housing opportunities for low and moderate income households. Filtering subtracts four units from Chesterfield Township's total.

*Residential Conversion* is the process of providing affordable housing by the conversion of larger single family homes to two or more dwellings or the conversion of previously non-residential buildings to residential uses. In Chesterfield, one conversion is expected.

*Spontaneous Rehabilitation* is the reconstruction of the existing substandard housing stock to meet building and housing code requirements outside of governmental programs. This adjustment is based on per capita income. Spontaneous Rehabilitation removes two units from the Township's total housing need.

*Pre-Credited Need* is the sum of all of the preceding components and is equal to 68 units. Reductions from this number are permitted to account for affordable housing construction and fair share planning during the first cycle, as well as certain other credits to arrive at the second cycle *Calculated Need*. Chesterfield's *Calculated Need* is 68 units.

## **CHESTERFIELD TOWNSHIP'S HOUSING PLAN**

As described in "Prior Fair Share Planning" above, Chesterfield Township has finalized its analysis of TDR program alternatives and expects to adopt a new Land Use Element of its Master Plan during the Fall of 1997. The new Land Use Element, this Housing Element and the Fair Share Plan will provide a realistic opportunity for the provision of the municipality's 68 unit share of the region's need for housing affordable to low and moderate income households.

The Township's Housing Plan consists of a rehabilitation program for a maximum of 12 units, an accessory apartment program for a maximum of 10 units, inclusionary zoning within the "receiving" area for up to 61 affordable units, and an optional Regional Contribution Agreement for the transfer of a maximum of 33 units whereby developers of housing within the "receiving" area may contribute funding in lieu of constructing set-aside units. The inclusionary zoning within the "receiving" area will provide for the Township's rental component obligation and also provide an opportunity for the construction of affordable senior citizen units.

The State Development and Redevelopment Plan (SDRP) classifies all of Chesterfield as Planning Area 4 - Rural. It identifies three existing "centers": Crosswicks (village), Chesterfield and Sykesville (hamlets) and one "planned regional center" in the northwest corner of the Township.

A Memorandum of Agreement between COAH and the Office of State Planning states that affordable housing and market rate housing associated with it should

be directed to centers. Consistent with this policy COAH rules require that inclusionary development within Planning Areas 4 and 5 be located within centers (*N.J.A.C. 5:93-5.4(c)*).

The Township's proposed receiving area has been relocated slightly since the SDRP was drafted; consequently it is no longer located within an area of the Township designated as a planned center by the SDRP. The Township will either secure official center designation for the receiving area from the State Planning Commission or seek a waiver for such designation from COAH.

#### **HOUSING REHABILITATION**

The maximum number of units in Chesterfield's fair share allocation which can be addressed through housing rehabilitation is calculated as follows:

Indigenous Need (1993):	15 units
Less Spontaneous Rehabilitation:	<u>-2</u>
Rehabilitation Component:	13 units

Under COAH regulations the Township is entitled to take a credit against the 13 unit rehabilitation component for every qualified unit that is rehabilitated between April 1, 1990 and the date that the Township receives substantive certification of its next fair share plan (*N.J.A.C. 5:93-3.4*). A unit is eligible for credit only if the average capital expenditure is at least \$8,000 per unit, the unit has been brought up to habitability code standards and the unit was at the time of rehabilitation and is currently occupied by a low or moderate income

household.

One housing unit in Chesterfield Township has been rehabilitated and qualifies for credit. Funding for the rehabilitated unit was provided through the Burlington County Home Improvement Loan Program which is described in greater detail below. The rehabilitation cost for the unit was \$9,827 and included window replacement, railings, sliding door replacement and a new oil-fired boiler. The property was and still is occupied by a 4 person moderate income senior citizen household. The unit received final inspection in November, 1993. This credit reduces the Township's rehabilitation component from 13 to 12 units.

The Township will address the 12 unit indigenous need through a housing rehabilitation program administered through either the Burlington Community Action Program (BCAP), the Burlington County Home Improvement Loan Program, a Township-managed program or through a private consultant. The Township will provide sufficient funding to meet one-third (4 units) of the net rehabilitation component within one year of substantive certification (*N.J.A.C. 5:93-5.2(h)1*). At the COAH standard of \$10,000 per unit (which includes the capital cost plus administrative cost) this requirement translates to an initial funding commitment of \$40,000. Thereafter, the Township must provide sufficient funding for 2 units, or \$20,000, per year for each of the following four years.

The total funding commitment for a rehabilitation program during the six year period of certification is \$120,000. The Township may seek funding for

rehabilitation from other sources, such as the Burlington Community Action Program, the Burlington County Home Improvement Loan Program, the N.J. Department of Community Affairs, the U.S. Department of Housing and Urban Development or the Township's development fee ordinance in accordance with *N.J.A.C. 5:93-8*. However, the \$120,000 cost of the entire rehabilitation program must be incorporated in the Township Committee's Resolution of Intent to Bond in order to meet COAH's requirement for a commitment for rehabilitation funding.

#### **BURLINGTON COUNTY HOME IMPROVEMENT LOAN PROGRAM**

The Board of Chosen Freeholders of Burlington County has designated a portion of the County's annual allocation of federal Community Development Block Grant (CDBG) program funds to be channeled through the County's Home Improvement Loan Program. The program provides technical assistance to income-qualified homeowners and makes low-interest property improvement loans of up to \$20,000 to correct substandard housing conditions and to eliminate health and safety hazards. Loans are made available for the improvement of owner-occupied single-family houses only.

Eligibility requirements include the following: (1) the applicant must be the legal owner of the property in need of repair; (2) the applicant must reside in the house as a principal residence; (3) the property must be located within a participating municipality; and (4) the total gross annual household income must be within current limits established by COAH.

## ACCESSORY APARTMENTS

COAH rules permit municipalities to include up to 10 units of affordable housing to be provided through the creation of accessory apartments (*N.J.A.C. 5:93-5.9*). These apartments are defined as “a self-contained residential dwelling unit with a kitchen, sanitary facilities, sleeping quarters, and a private entrance, which is created within an existing home, or through the conversion of an existing attached accessory structure on the same site, or by an addition to an existing home or accessory building (*N.J.A.C. 5:93-1.3*).

An analysis of the Township’s housing stock in 1981 identified approximately 215 large houses on lots of 1.5 acres or more in the “AG” Agricultural zoning district. COAH regulations favor a large older housing stock for the creation of accessory apartments (*N.J.A.C. 5:93-5.9(a)1*). This segment of the Township’s housing stock is clearly adequate in size to create 10 accessory apartments.

The Township proposes the implementation of an accessory apartment program as part of its 1987-1999 Fair Share Plan for the creation of up to 10 accessory units. The Township’s program to facilitate creation of these units will be consistent with the following requirements:

1. Funding in the amount of \$10,000 per unit will be provided to subsidize the physical improvements needed to convert a portion of qualified structures into accessory apartments. A total of \$100,000 for the accessory apartment program will be incorporated in the Township Committee's Resolution of Intent to Bond in the event funds are not



available from an outside source or from development fees in a timely manner.

2. Rents for the units will be structured, to the extent possible, so that they will average 57.5 percent of median income, including utilities; and
3. The accessory apartments will be affirmatively marketed and will have controls on affordability for a minimum of 10 years (*N.J.A.C. 5:93-5.9*).

### **INCLUSIONARY ZONING WITHIN THE RECEIVING AREA**

The Township's 1997 Land Use Plan establishes a Transfer of Development Credits (TDC) program whereby one sending and one receiving area are established along with two potential future receiving areas. The receiving area is planned to accommodate a total of 1,220 units of housing. In order to address the Township's 1987-1999 affordable housing obligation, a 5% set-aside will be required on development of the 1,220 planned units within the receiving area. The 5% set-aside requirement will yield 61 affordable housing units. Developers of 10 units or less within the receiving area will be permitted to contribute a pro-rated share based on \$20,000 per unit in lieu of construction. For example, a development of 10 units would be required to contribute \$10,000. Unlike development of market rate units, which will require development credits (either from the land in the receiving district or from the purchase of credits from the sending district), the construction of affordable housing units will not require development credits. Consequently, the affordable units will carry no land cost. The imposition of the set-aside should be approximately equivalent

to the affordable housing development fee of one half of one percent which COAH permits on residential development.

The Township also proposes an optional Regional Contribution Agreement (RCA) in conjunction with the implementation of inclusionary zoning within the receiving area. Specifically, developers of housing within the receiving area will be given an option to contribute funding at the rate of \$20,000 per unit in lieu of construction of up to 33 set-aside units. As described below, the Township is limited by the COAH rules to a maximum transfer of 33 units of housing.

## **REGIONAL CONTRIBUTION AGREEMENTS**

During 1995, Chesterfield Township explored the option of entering into a Regional Contribution Agreement (RCA) through telephone inquiries to several municipalities within the Southwest region. The City of Camden (Camden County), Gloucester City (Camden County) and Pemberton Township (Burlington County) all indicated interest in participating in an RCA with Chesterfield. The Township has decided to establish an RCA as an option to developers of housing within the "receiving" area. Developers will be given the option to contribute funding in lieu of constructing up to 33 set-aside units. The transfer would be limited by COAH regulations to a maximum of 33 units as prescribed in *N.J.A.C. 5:93-6.1(a)* and set forth in relevant part below:

$$\begin{aligned} \text{RCA} &= .5 \text{ (municipal pre-credited need - credits pursuant to} \\ &\quad \text{N.J.A.C. 5:93-3.4 (rehabilitation credits)) - previously} \\ &\quad \text{transferred units} \\ &= .5 (68-1)-0 = 33 \text{ units (rounded)} \end{aligned}$$

COAH rules set a minimum price at \$20,000 per transferred unit with payment to be scheduled within the sending (Chesterfield) municipality's 6 year period of substantive certification (*N.J.A.C.* 5:93-6).

Chesterfield will not be in a position to commit to an RCA unless and until development within the receiving district commences consistent with the TDC strategy set forth in the draft Land Use Element. Accordingly, any RCA which is proposed during the forthcoming period of substantive certification will be submitted to COAH as a plan amendment. In the meantime, the affordable housing obligation will be imposed upon receiving district developers and the on-site construction option will be available as a permitted use.

## **SENIOR CITIZEN AND RENTAL HOUSING**

### **SENIOR CITIZEN HOUSING**

COAH regulations limit the proportion of affordable units within a municipality's plan which can be restricted to occupancy by income qualified senior citizens (*N.J.A.C.* 5:93-5.12). The formula limits Chesterfield to 17 senior citizen units, as shown in the following calculation:

Pre-credited Need:	68 units
Less 1987-1993 Senior Citizen Housing:	0 units
Less Rehabilitation since 1990:	<u>-1 unit</u>
Maximum Age-Restricted Housing:	$67 \times .25 = 17$ units (rounded)

The Township will provide an opportunity for the development of affordable senior citizen units through inclusionary zoning within the receiving area.

### **RENTAL HOUSING**

COAH regulations require each municipality to provide a realistic opportunity for a proportion of its affordable housing to be for rent rather than for sale (*N.J.A.C. 5:93-5.13*). Chesterfield Township did not incur a rental housing obligation under its 1987-1993 Fair Share Plan since its fair share number did not exceed 125 units. However, under current COAH rules the rental component is set forth in the following calculation:

Pre-Credited Need	68 units
Less Rehabilitation Component	<u>-13 units</u>
Rental Component	$55 \times .25 = 14$ units (rounded)

Under COAH regulations Chesterfield will receive 1 unit of bonus credit for each affordable rental unit available to the general public and .33 units of bonus credit for affordable rental units restricted to senior citizens. The COAH regulations further provide that no more than 50% of the rental units restricted to senior citizens within Chesterfield's rental component can receive rental

bonus credits unless one of three conditions is met (*N.J.A.C.* 5:93-5.14(d)2). Chesterfield does not meet any of the three conditions. Consequently, if the maximum permitted number (17) of affordable senior citizen units were constructed as rental units only 50% of them (9) would be eligible for rental bonus credits.

Developers desiring to construct rental housing available to the general public will be required to build only half (50%) the normal set-aside. In that manner, a realistic opportunity is created for the construction of up to 14 units of affordable rental housing in place of 28 units of for-sale affordable housing. The Township and the developer(s) will still receive credit for the full 28 units. Likewise, developers desiring to construct rental housing restricted to senior citizens will be required to construct only three-fourths (75%) of the normal set-aside. In that case, the .33 unit rental bonus credit will bring the effective count of affordable units back to parity for both the Township and the developer. However, this incentive will apply to the development of only the first 9 senior citizen rental units - the maximum permitted for rental bonus credit under the COAH rules.

## **CONCLUSION**

Through this Housing Element and its Fair Share Plan Chesterfield Township meets the municipal obligation to provide a realistic opportunity for the production of its fair share of the regional need for housing affordable to households of low and moderate income. Chesterfield's pre-credited need for 1987-1999 is 68 units as is its calculated need for the second fair share cycle.

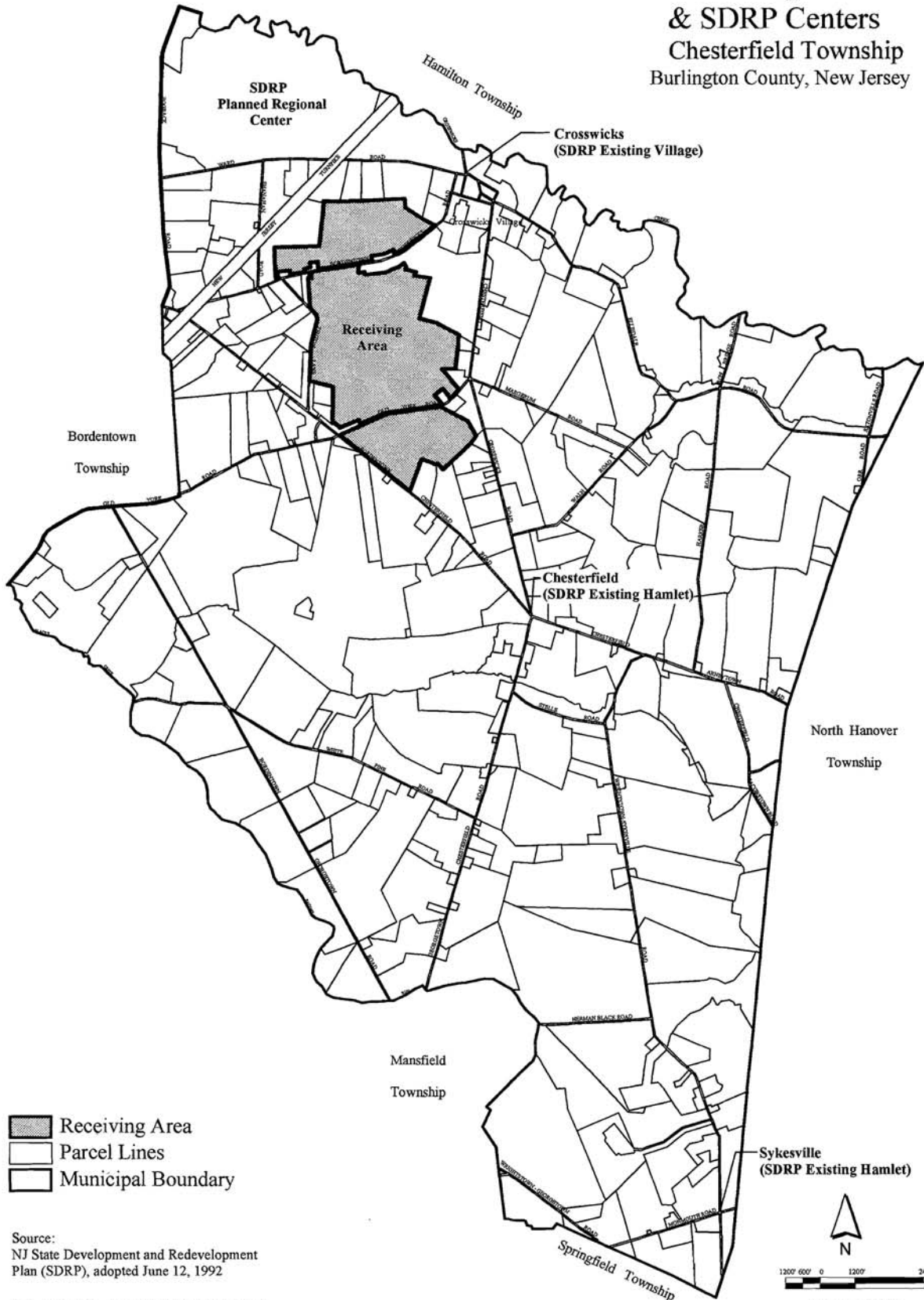
The Township of Chesterfield proposes to meet its fair share obligation through a combination of techniques including a rehabilitation program, an accessory apartment program, inclusionary zoning within a Transfer of Development Credits zone plan and an optional Regional Contribution Agreement (RCA) for the transfer to another municipality of up to 33 affordable units. In addition, a development fee ordinance is proposed. Fees collected shall be used to fund the Township's rehabilitation and accessory apartment programs as well as to fund other uses approved by COAH. If each of the Township's affordable housing production techniques are fully utilized -- rehabilitation, accessory apartments and inclusionary zoning/RCA -- a surplus of 16 affordable units will be produced. Any surplus of affordable units will be credited to the Township in a future fair share cycle.

Chesterfield's pre-credited need and calculated need for 1987-1999 is 68 units. The capacity of the Township's Housing Element is 84 units as presented in Table 17 below:

**Table 17. Chesterfield's Fair Share Plan**

<b><u>Fair Share Need</u></b>		<b><u>Units</u></b>
Chesterfield's 1987-1999 pre-credited need:		68
<b><u>Fair Share Plan</u></b>		
Rehabilitation:		
Credits for post-1990 Rehabilitation:	1	
Housing Rehabilitation Program:	<u>12</u>	
Subtotal:		13
Accessory Apartment Program:		10
Inclusionary Zoning Within the Receiving Area: (5% set-aside)		61
Regional Contribution Agreement (Optional):	33	
<b>Total Units in Plan:</b>		<b>84</b>

# Receiving Area & SDRP Centers Chesterfield Township Burlington County, New Jersey

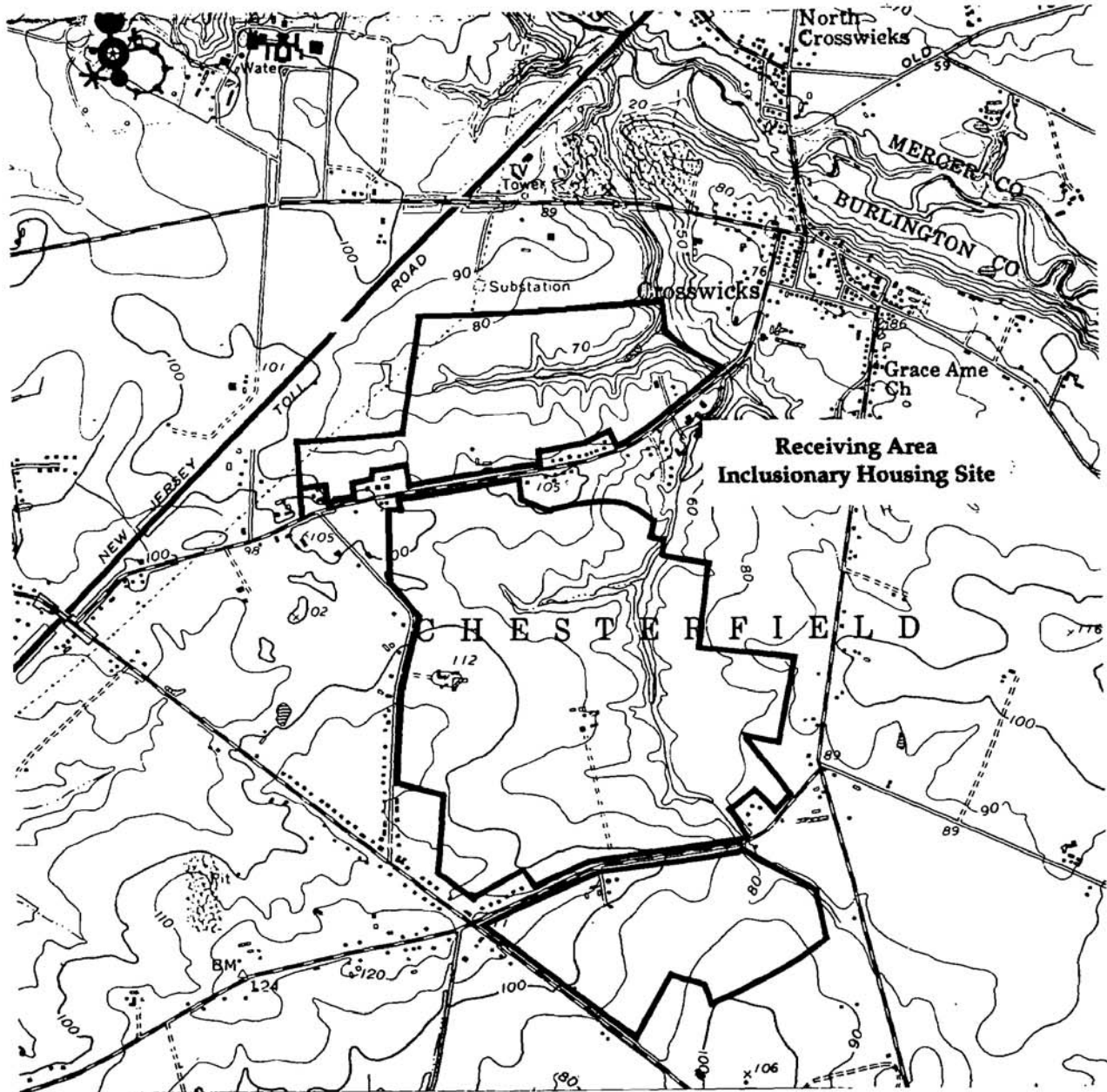


Source:  
NJ State Development and Redevelopment  
Plan (SDRP), adopted June 12, 1992

CLARKE CATON HINTZ

October, 1997





TRENTON EAST, N. J.-PA.  
40074-B6-TF-024

Mapped by the Army Map Service  
Edited and published by the Geological Survey

Control by NOS/NOAA, USCE, and New Jersey Geodetic Control Survey

Topography from aerial photographs by photogrammetric methods.  
Aerial photographs taken 1947. Planimetry revised from aerial photographs  
taken 1955-1956. Field checked 1957.

Polyconic projection. 1927 North American Datum 10,000-foot  
grid based on New Jersey coordinate system and Pennsylvania  
coordinate system, south zone. 1,000-meter Universal Transverse  
Mercator grid ticks, zone 18 shown in blue.

Revisions shown in purple compiled by the Geological Survey  
from aerial photographs taken in 1975 and other sources. This  
information not field checked. Map edited 1981.

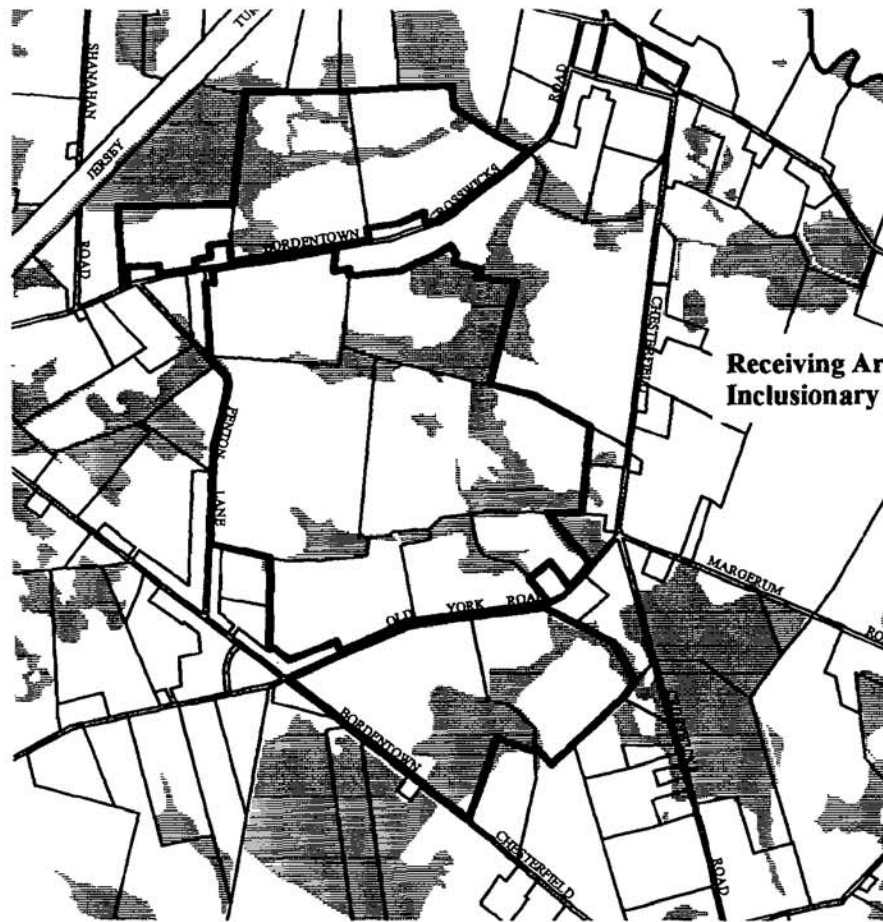
To place on the predicted North American Datum 1983,  
move the projection lines 6 meters south and 33 meters  
west as shown by dashed corner ticks.

Receiving Area  
USGS Topography  
Scale: 1:24,000

Chesterfield Township  
Burlington County, New Jersey

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A Professional Corporation






Receiving Area  
Inclusionary Housing Site

Source:

1986 Freshwater Wetlands Quarterquad Maps

New Jersey Department of Environmental Protection  
Office of Information Resources Management  
Bureau of Geographic Information Analysis

The passage of the Freshwater Wetlands Act of 1987 required the DEP to produce a composite map of the freshwater wetlands for the state. The Department recommended and subsequently produced a set of 624 chronoflex photo quarterquads for the entire state from the March 1986 overflight. The quarterquads meet NMAS. The maps represent a good source for both photo-interpretation and recompilation at a county, municipal or site level.

 Freshwater Wetlands

Receiving Area  
Freshwater Wetlands  
Scale: 1:22,000  
Chesterfield Township  
Burlington County, New Jersey

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# **RELATIONSHIP OF MASTER PLAN TO SURROUNDING MUNICIPALITIES, COUNTY AND DVRPC MASTER PLANS, AND STATE DEVELOPMENT AND REDEVELOPMENT PLAN**

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## **INTRODUCTION**

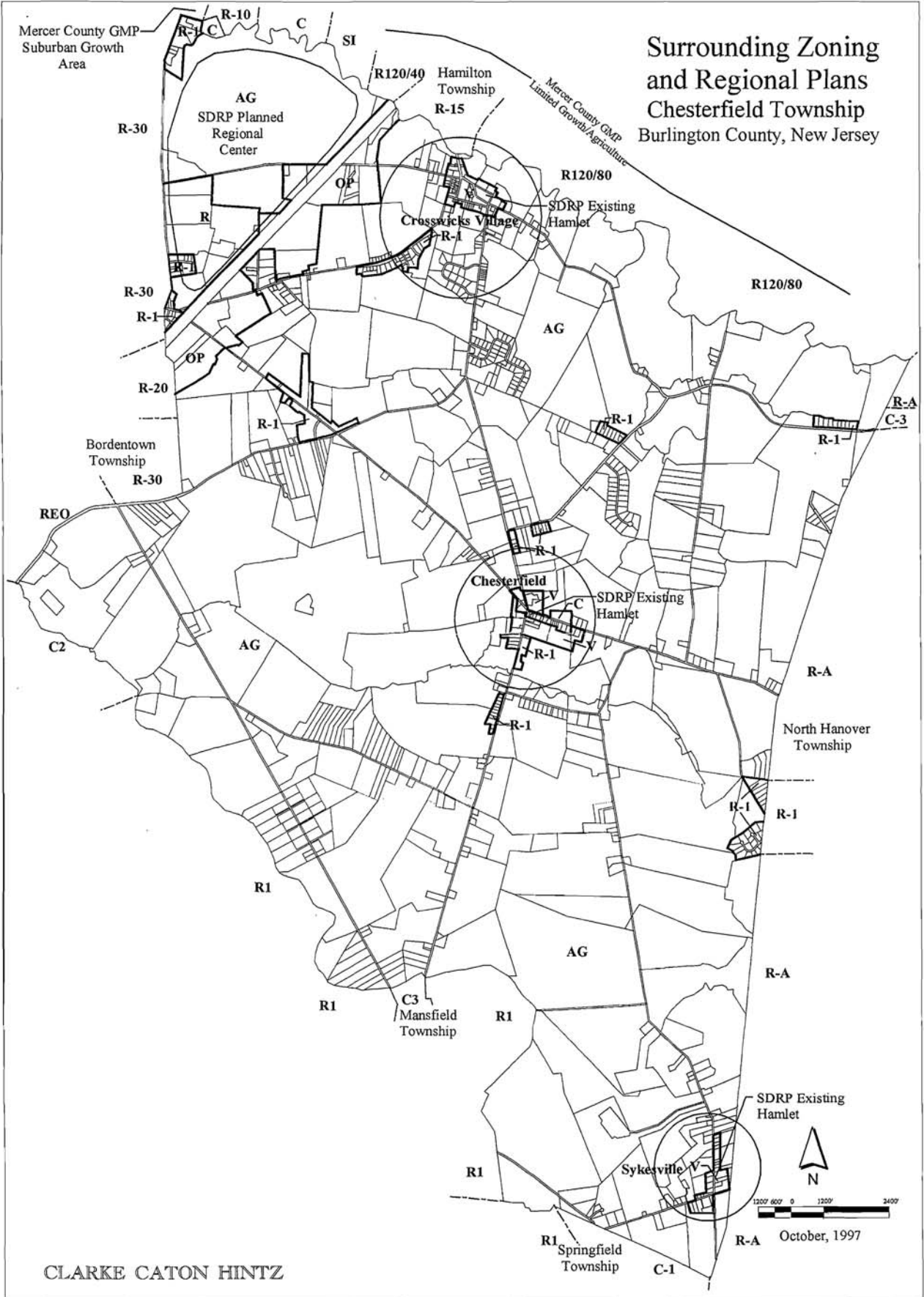
Pursuant to the Municipal Land Use Law (*N.J.S.A. 40:55D-28d.*), this section of the Master Plan analyzes the relationship of the proposed development of Chesterfield to the Master Plans of contiguous municipalities, the Master Plans of Burlington and Mercer Counties, plans of the Delaware Valley Regional Planning Commission (DVRPC) and the State Development and Redevelopment Plan (SDRP). Map 10 - Surrounding Zoning & Regional Plans illustrates the zoning in neighboring municipalities as well as the relationship of Chesterfield's Plan to the County Master Plans, plans of the DVRPC and the State Development and Redevelopment Plan (SDRP).

## **SURROUNDING MUNICIPALITIES**

The Township of Chesterfield is surrounded by five different municipalities. The northern boundary of the Township abuts Hamilton Township in Mercer County. To the east is North Hanover Township, to the south is Springfield

Mercer County GMP  
Suburban Growth  
Area

# Surrounding Zoning and Regional Plans Chesterfield Township Burlington County, New Jersey



CLARKE CATON HINTZ

Township, to the southwest is Mansfield Township and to the west is Bordentown Township, all of which are within Burlington County. Following is a description of the zoning which abuts Chesterfield in each of these surrounding municipalities. Particular attention is given to the compatibility of the zoning between Chesterfield and the surrounding municipalities.

### **Hamilton Township, Mercer County**

The northern boundary of the Township abuts Hamilton Township in Mercer County. The zoning in Hamilton Township along the entire common boundary with Chesterfield is residential and agricultural in nature and is compatible. The majority of the zoning in Hamilton along the boundary is the R120/80 Single Family Residential district which permits farms and single family residences on lots of 120,000 s.f. or 80,000 s.f. with specifically approved septic system designs. Other zoning along the boundary includes the R120/40 Single Family Residential district which permits farms and single family residences on lots of 120,000 s.f. or 40,000 s.f. with specifically approved septic system designs; the R15 Single Family Residential district which permits single family residences on lots of 15,000 s.f.; the R10 Single Family Residential district which permits single family residences on lots of 10,000 s.f.; the C Conservation district which permits farms and detached dwellings on lots of 5 acres; and the SI Special Housing Zone I which permits detached single family dwelling units on lots of 7,000 s.f. or zero lot line single family detached dwellings on lots of 5,000 s.f.

### **North Hanover Township**

The eastern boundary of Chesterfield Township abuts North Hanover Township. The zoning in North Hanover Township along the common boundary with Chesterfield is R-1 Residential, R-A Residential/Agriculture and C-3 Commercial-Convenience Stores. The R-1 Residential and R-A Residential/Agriculture zoning in North Hanover is compatible with Chesterfield's AG Agriculture, V Village and R1 Residential zones which abut these areas. However, there is a small area of incompatibility in zoning between the two Townships along Ellisdale Road where North Hanover's C-3 Commercial-Convenience Stores zone abuts Chesterfield's AG Agriculture zone. North Hanover Township's R-A zone represents the majority of the Township's land area and permits agricultural uses and detached single family dwellings on lots between 2 and 5 acres. The Township's R-1 zone permits detached single family dwellings on minimum lots of 2 acres.

### **Springfield Township**

The southern boundary of the Township abuts Springfield Township. The zoning in Springfield Township along the common boundary consists of a compatible R1 Residential zone which abuts Chesterfield's AG Agriculture zone and an incompatible C1 Highway Commercial zone which also abuts Chesterfield's AG Agriculture zone. Springfield Township's R1 Residential zone permits single family detached dwellings on minimum lots of 3 acres which is compatible with Chesterfield's AG zone. However, Springfield's C1 Highway Commercial zone permits a variety of retail, commercial, service, shopping

center and office uses which are not compatible with Chesterfield's AG zone.

### **Mansfield Township**

The southwestern boundary of Chesterfield Township abuts the Township of Mansfield. The majority of zoning in Mansfield along the border with Chesterfield is single family residential with a small area of office residential zoning between Bordentown-Georgetown Road and Georgetown-Chesterfield Road and a highway commercial zone between White Pine Road and Old York Road. The single family residential zoning along the common boundary is compatible with Chesterfield's AG Agriculture zoning designation. However, there are two areas of inconsistency. The first area is the C-2 Highway Commercial zone between White Pine Road and Old York Road which abuts the AG Agriculture zoning in Chesterfield. The second area is the C3 Office Residential zone between Bordentown-Georgetown Road and Georgetown-Chesterfield Road which also abuts the AG Agriculture zoning in Chesterfield. The C3 zone allows single family detached residential development on lots of 3 acres but also permits a variety of office uses which are incompatible with Chesterfield's AG Agriculture zoning.

The predominant zone in Mansfield along the common boundary is the R1 Residence district which permits single family detached dwellings on minimum lots of 3 acres or a residential cluster development option which permits a maximum density of 0.9 units per acre with a minimum lot size of 40,000 s.f. A portion of Mansfield's R1 zone is designated by the Township's 1995 Land Use Plan and Fair Share Plan for low and moderate income housing. This land area

is an overlay zone designated as "LMH - Low and Moderate-Income Housing" and is subject to a June 1990 final consent order with amendments which permits a developer to construct a yet to be determined number of total housing units on 577 acres in a variety of types including single family, garden apartments, townhouses, multiple dwellings and age restricted housing. Regardless of the final total number of units currently being negotiated between the developer and the Township, the developer must provide an affordable housing set-aside of 97 units on the tract.

### **Bordentown Township**

The western boundary of Chesterfield Township abuts the Township of Bordentown. The zoning in Bordentown along the majority of the common boundary with Chesterfield is single family residential with the exception of a research, engineering and office zone along the southernmost portion of the common boundary. The zoning in Bordentown is generally compatible with Chesterfield's with the exception of two areas. The first area of incompatibility is the OP Office Park zone in Chesterfield just south of the NJ Turnpike which abuts an R-20 Medium Density Single Family Residential zone in Bordentown. The second area of incompatibility is along the southernmost portion of the common boundary where Chesterfield's AG Agriculture district abuts an REO Research, Engineering & Office zone in Bordentown.

The predominant zones in Bordentown along the common boundary with Chesterfield are the R-20 and R-30 Medium Density Single Family Residential districts which permit farms and single family detached residential dwellings



on lots ranging between 20,000 s.f. and 60,000 s.f. depending on the availability of water and sewer infrastructure. In addition, these zones permit residential clusters on lots of 10,000 s.f. and 15,000 s.f. respectively, and planned community developments at a density of six (6) units per acre. The Planned Community Development option has a twenty percent (20%) affordable housing set-aside requirement.

### **BURLINGTON COUNTY PLAN**

While the Burlington County Land Use Office does not have a current plan for the development of the County's land area, a Consensus Planning Committee for Planning Area I was convened in late 1990 and 1991 to provide a forum for a regional perspective in the local planning process. Planning Area I consists of the following northern Burlington County municipalities: Bordentown City, Bordentown Township, Chesterfield Township, Florence Township, Mansfield Township, North Hanover Township, Pemberton Borough, Pemberton Township, and Springfield Township.

The Committee reviewed existing land use conditions and analyzed future conditions under the existing municipal zoning ordinances, the fiscal impacts of growth and the regulatory powers of local planning boards and governing bodies. In addition, the Committee evaluated eleven (11) growth management tools and ranked them according to their ability to achieve master plan goals and municipal objectives. The result of these discussions was the final report of the Committee entitled "Consensus Planning, Growth Management Report, Planning Area I", dated October 28, 1991.

The report draws conclusions and develops recommendations for action by the nine (9) municipalities in Planning Area I as follows:

**Conclusions:**

- Increased regional planning is necessary to protect natural resources and assure efficient use of infrastructure. This will require increased cooperation among townships and increased participation in the local planning process on the County level.
- Our existing zoning ordinances fail to implement the worthy goals of our Township's master plans.
- In order to prevent decimation of the existing community character and agricultural lands, the existing zoning ordinances must be amended.
- There are many alternatives to existing zoning which are more effective in achieving Township goals.
- If a Township wishes to accommodate growth and preservation, the most effective and equitable tool is Transfer of Development Rights.
- Challenging the status quo can be difficult and often many reasons are stated for "why it can not be done". While there are difficulties, there are no legitimate reasons why townships can not more effectively manage growth.

- Township leaders have the legal authority to manage growth in a manner which will achieve the master plan goals.
- Now is the time for townships to begin to plan pro-actively.

**Recommendations:**

- Township leaders must establish a vision for the future character of the Township. Every ordinance must be designed to be consistent with that vision.
- Agricultural land must be permanently preserved through the local zoning ordinances.
- Agriculture as an industry must be encouraged through all Township ordinances provided "best management practices" are not compromised.
- Growth must be channeled to designated growth areas.
- Growth areas must be located in and around areas which have some infrastructure or the greatest potential for infrastructure.
- Townships must determine the environmental limitations to the amount of growth that can be accommodated.

- Landowner equity should be protected to the greatest extent possible, provided good planning is not compromised.
- Preservation areas must be identified and protected against further development.
- Preservation areas must be identified and protected against further development.
- Preservation areas must not have infrastructure that is suitable for growth.
- Preserved land should be in large tracts that are suitable for agricultural uses.
- Townships must, to the greatest extent possible, involve and educate the public in developing a Township master plan.
- Townships must consider regional impacts of growth, this regional perspective can be provided by the County.
- Townships in Planning Area I need to permanently establish a committee whose function is to foster intermunicipal communication and coordinate planning efforts in the best interest of the region.

## **MERCER COUNTY GROWTH MANAGEMENT PLAN**

The Mercer County Growth Management Plan was adopted by the Mercer County Planning Board on January 15, 1986. The County Plan designates most of the portion of Hamilton Township which abuts Chesterfield to the north as "Limited Growth/ Agricultural". In addition, a small area of Hamilton Township known as Groveville which abuts the northwestern corner of Chesterfield is designated as "Suburban Growth Area". The land use designations in the portion of Hamilton Township which abuts Chesterfield are consistent with the Township's Master Plan and zone plan.

The County Plan describes the Limited Growth/Agricultural Areas as lands in generally suburban and rural areas in which land development is constrained by the absence or limited additional capacity of public infrastructure and the presence of sensitive environmental features, extensive agricultural activity or other conditions that render the provision of public facilities or services undesirable or impractical. The stated general policy for these areas is to limit development to uses which will not overburden existing resource functions or existing infrastructure capacity, or otherwise conflict with existing neighboring land uses. Recommended development intensity for these areas is 0.5 residential dwelling units per acre and 8,000 s.f. of non-residential development per acre. The portion of Hamilton Township abutting Chesterfield is also designated as a County Agricultural Development Area. The County Plan has established management policies for the designated Agricultural Development Areas designed to enhance and maintain agricultural land.

The Suburban Growth Areas are described in the County Plan as developed and developing areas characterized by single family residential housing, limited areas of farmland, neighboring shopping centers, small professional offices, and some highway commercial strips. The stated general policy for the Suburban Growth Area is to guide land development and associated public and private investments in improving public facilities to optimize the use of the existing system of infrastructure as a whole. Recommended development intensity for this area is 0.5 to 4 residential dwelling units per acre and 8,000 to 32,000 s.f. of non-residential development per acre.

#### **DELAWARE VALLEY REGIONAL PLANNING COMMISSION**

*Guiding Regional Growth, Land Use Element of the DVRPC Year 2020 Plan*, adopted by the Delaware Valley Regional Planning Commission (DVRPC) in July 1995 is structured into three chapters which address the future land use of the region in terms of development, open space and agriculture. The goals of the 2020 Plan support the concept of concentrating new development within a hierarchy of existing and emerging centers. The 2020 Plan identifies four different types of development centers based on existing physical size, forecasted growth and social and economic conditions. These center types include regional, county, growth and revitalized centers. The 2020 Plan does not identify any of these centers within Chesterfield Township; however, nearby Bordentown City is identified as a county center.

The 2020 Plan has also developed a Land Use Plan which designates all land area of the region into five categories of future land use including 1990

Developed, Future Growth Area, Existing Park, Proposed Open Space, and Rural or Agricultural. The Plan proposes a regional growth boundary which contains the identified centers and lands designated as future growth areas where the most intense future suburban development is encouraged. Areas within the regional growth boundary are or will be served by public water and sewer systems, highway capacity and transit services. The 2020 Land Use Plan designates an area of Chesterfield to the east of and parallel to the NJ Turnpike and a small area in the northwest corner adjacent to Bordentown as "Future Growth Area". The 2020 Land Use Plan also identifies the areas of Chesterfield along watercourses as "Proposed Open Space" and shows the scattered existing development and development within Crosswicks, Chesterfield and Sykesville as "1990 Developed".

The 2020 Plan further states that outside of the service areas comprising the urban growth boundary, "future land uses should remain primarily as farmland or rural in character. Areas in Agricultural Development Areas should continue to expand the purchase of conservation easements as well as initiate other agricultural land use controls such as special zoning districts. New development should occur either within or adjacent to existing villages or hamlets, or as limited subdivision to support existing farms. New infrastructure investments that would trigger further growth in these areas should be limited." The Chesterfield Master Plan is compatible with the DVRPC Year 2020 Plan.

## **NEW JERSEY STATE DEVELOPMENT AND REDEVELOPMENT PLAN**

The New Jersey State Development and Redevelopment Plan was adopted on June 12, 1992 in response to the State Planning Act of 1985 (*N.J.S.A. 52:18A-196 et seq.*). The State Plan is intended to serve as a guide for how public policy decisions should be made at all levels of government to achieve the goals of the State Planning Act. The State Plan identifies the following goals and strategies to help achieve the intent and purpose of the State Planning Act: (1) revitalize the State's urban centers and areas; (2) conserve the State's natural resources; (3) promote beneficial economic growth, development and renewal; (4) protect the environment; (5) provide adequate public services at a reasonable cost; (6) provide adequate housing at a reasonable cost; (7) preserve and enhance historic, cultural, open space and recreational lands and structures; and (8) ensure sound and integrated planning statewide.

The general strategy of the State Plan is to achieve all state planning goals by coordinating public and private actions to guide future growth into compact forms of development and redevelopment, located to make the most efficient use of infrastructure systems and to support the maintenance of capacities in infrastructure, environmental, natural resource, fiscal, economic and other systems. Statewide coordination of planning under the State Plan is achieved through the application of the statewide policies designed to improve both the planning and the coordination of public policy among all levels of government.

In order to achieve the goals of the State Planning Act the State Plan has created a Resource Planning and Management Structure which identifies the



types of compact forms of development that are desirable and necessary to assure efficient infrastructure and protection of natural and environmental resources in the various regions of the State. The State Plan identifies the compact forms of development as "centers" and "planning areas". There are five types of centers envisioned by the State Plan: urban centers; towns; regional centers; villages and hamlets. In addition to the center types, there are five planning areas: PA1 Metropolitan; PA2 Suburban; PA3 Fringe; PA4 Rural; and PA5 Environmentally Sensitive.

The entire area of Chesterfield Township has been designated by the State Plan as PA4 Rural. The Rural Planning Area is sparsely developed and contains most of the State's prime farmland with the greatest potential for long-term agricultural viability. The Plan encourages future rural development in a form that supports, rather than conflicts with the rural character and agricultural land base of the Rural Planning Area. The Plan recognizes that in order to sustain a viable agricultural industry prudent land development practices are required that protect water resources and retain large, contiguous tracts of agricultural land. The Plan also recommends strengthening the economic capacities of existing centers and the strategic location of new centers to minimize the negative impacts of growth on present and future farming operations. The Plan proposes among other planning tools the use of Transfer of Development Rights (TDR) to preserve the critical land areas needed for a viable agricultural industry. The Plan also urges new centers to be created and to serve as receiving areas for transfers of development rights.

The State Plan has identified the northwest corner of the Township as a

Planned Regional Center and TDR Receiving Area. In addition, Crosswicks has been identified as an Existing Village, and Chesterfield and Sykesville have been identified as Existing Hamlets.

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## Recycling Plan Element

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### **INTRODUCTION**

The recycling of discarded materials has grown in importance in the past decade as the cost of disposing of solid waste has increased in the State of New Jersey and elsewhere in the nation. The cost has risen primarily because of more stringent environmental regulations for the disposal of solid waste and the greater distance of new landfills from population centers. Other factors include higher capital costs for new landfills and the political difficulty in siting new facilities which adds costs in delay.

The economic pressures of increasing disposal costs has led to the investigation of alternative methods of waste disposal at all levels of government. The response in New Jersey has been in three directions; reducing the waste stream so that fewer items need to be discarded, developing resource recovery facilities, and recycling items that do become part of the waste stream. This Element is concerned with recycling policy rather than with issues of waste reduction or resource recovery.

A uniform public policy for solid waste recycling has been set by the state government through the 1987 legislation, The New Jersey Statewide Source Separation and Recycling Act (P.L. 1987, c.102, hereafter "Recycling Act"). The Recycling Act instituted mandatory recycling for the municipalities that did not already have a recycling program in effect and set uniform standards to be followed. Municipal recycling plans are required to be in conformance with

District Solid Waste Plans. In this instance, the district is Burlington County.

Chesterfield Township, like other municipalities in Burlington County, has an agreement with the County government to pick up recyclable material at curbside in residential developments. The Burlington County program is described in further detail below.

The Recycling Act requires municipalities to incorporate the state's recycling goals and objectives, including implementation, into their Master Plans. The Act further mandates that site plan and subdivision ordinances incorporate the recycling goals of the Master Plan, including the periodic reexamination requirements. The purpose of this Element of the Master Plan is to comply with the requirements of the Recycling Act by setting forth the recycling policy of the Township in relationship to the development and redevelopment of land within its boundaries.

The County's District Solid Waste Management Plan dates from 1986, prior to the adoption of the State Act. Therefore, the Township's Recycling Plan must be consistent with the State's recycling goals. Recycling has been seen at the state level as a method of reducing the need for new landfills, reducing or controlling disposal costs and as a way of generating revenue from the sale of collected items. It was also viewed as bringing environmental benefits such as the reduction in product consumption involving non-renewable resources and the reduction in the need for additional landfilling.

Occasionally, depending on the market for the materials, it is necessary to pay to dispose of the recyclable materials. Recycling is cost effective only so long as

the cost of collecting and disposing of the recyclable materials is less than the cost of disposing of the solid waste in a landfill or in a resource recovery facility. It is in the long term interest of policy makers to encourage the market for items made from recycled materials, a fact recognized in the State Recycling Act.

In conjunction with the need to control disposal costs, state, local and county officials, along with the general populace, have become increasingly aware of the effects of improperly disposed solid waste and the environmental consequences such disposal may have. In short order, recycling has become a normal function of governmental operations.

#### **BURLINGTON COUNTY'S RECYCLING PROGRAM**

Recyclable materials are collected at curbside by the County's contractor, the Occupational Training Center of Burlington County, Inc., a private non-profit organization. The collected materials are processed and sold by this group. Apartment complexes, condominium complexes and mobile home parks are required to recycle the same materials and utilize the private drop-off program. Non-residential operations must also recycle the same types of materials.

Autumn leaf recycling is handled by the Township's Public Works Department. Several collections are made through the Fall season and deposited for composting purposes at the Township's Municipal Building on County Route 528.

**CONSISTENCY OF CHESTERFIELD'S RECYCLING POLICY WITH THE DISTRICT  
SOLID WASTE MANAGEMENT PLAN OF THE COUNTY**

The recycling element of the County's Solid Waste Management Plan was adopted in 1986 prior to the adoption of the State Mandatory Source Separation and Recycling Act. Consequently, the Township's Recycling policy follows the State Act.

**STATE GOALS**

In 1990 the New Jersey Solid Waste Emergency Task Force was created to re-examine the original goals of the Recycling Act and to make new recommendations. These recommendations included, among others, setting two goals for recycling. The first of these is to recycle a minimum of 50% of the municipal and vegetative waste stream by the end of 1995. The second is to recycle a minimum of 60% of the total solid waste stream, both municipal and other waste, by the same date. In general, this would require institutional and commercial establishments to recycle a greater percentage of their solid waste than municipalities in order to meet the goal. These recommendations have been adopted as the official policy for the State.

## List of Appendices

**Appendix A - TDC Credit Mechanics**

**Appendix B - Historic Resources**

**Appendix C - Historic Inventory**

## **Appendix A - TDC Credit Mechanics**

### **Credit Severance:**

1. Township adopts credit allocation list as part of the TDC ordinance.
2. Landowner submits Declaration of Enrollment, proof of clear title and TDC Easement to Township (Easement contains information regarding block and lot of credit origin, number of credits, landowner name, etc.).
3. Township reviews and approves Declaration and Easement, assigns serial numbers to each TDC credit allocated to the property, signs TDC Easement, returns TDC Easement to landowner.
4. Landowner records Easement at County Court House; supplies proof of recording to Township.
5. Property is deed restricted, credits severed from land.

### **Credit Sale:**

1. Landowner submits Application for Assignment and proposed Assignment to Township (contains information regarding the seller, buyer, consideration, serial number's of TDC credits being transferred, etc).
2. Township reviews and certifies accuracy of information; returns Assignment to landowner.
3. New credit owner records Assignment at County Court House; supplies proof of recording to Township.
4. TDC credits are thereby transferred to new owner.

### **Credit Extinguishment:**

1. Final subdivision approval given to developer conditioned upon proof of ownership of the appropriate number of credits.
2. Developer submits Application for TDC Use and Deed of Credit Transfer along with copies of recorded Assignments demonstrating ownership of TDC credits.
3. Township reviews all information to ensure serial number's of TDC credits to be used for development are correct.
4. Township signs Deed of Credit Transfer; returns same to developer.
5. Developer records Deed, thereby permanently retiring those particular TDC credits, and provides proof of recording to the Township.
6. Township issues building permits.



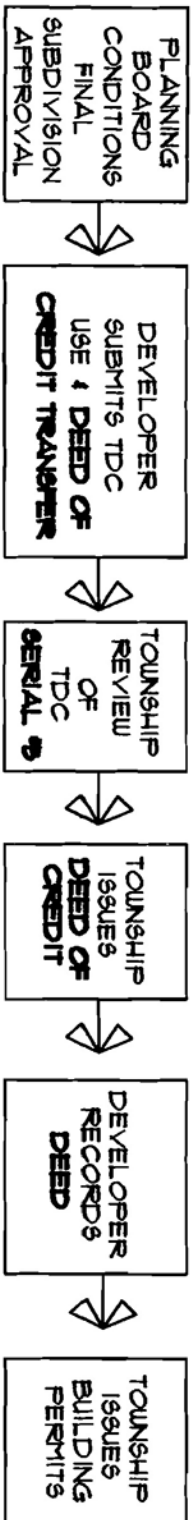


# Sale of Credits



17


# Extinguishment of Credits



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## **Appendix B - Historic Resources**

The Villages of Crosswicks and Chesterfield are historic districts outlined on the State and National Register of Historic Places.

Chesterfield was one of the original Townships settled by the Society of Friends around 1678. During the next two centuries it was known as "Alias Crosswicks Township". It was incorporated as a Township in 1688 and defined as the area bounded on the north by Crosswicks Creek, on the east by North Hanover Township, on the southeast by Black's Creek and Bacon's Run, and on the west by Bordentown Township. Through 1849, Chesterfield Township was part of Bordentown Township.

Crosswicks was settled in 1678 by Samuel Bunting who gave a deed of trust to the Society of Friends for 6 acres on which was built a Meeting House in 1691. Through 1710, twelve families had settled in the village. The village hosted three meetings of importance. The first was in 1716 when the Governor, Robert Hunter, was in office and the General Assembly met in Crosswicks instead of Burlington due to a smallpox epidemic. The second was in 1756 when the Indians presented grievances against the whites to the Commissioners from West Jersey. At issue was the use of large steel traps to collect deer, building dams across streams, selling rum to the Indians then cheating them when they were intoxicated, and using land for which the Indians had received no remuneration. This meeting resulted in laws passed in 1757 and an additional meeting in 1758 between the Indians and the Legislature at the "Great Meeting House" at Crosswicks to discuss the purchase of land.

During the Revolution, American General Cadwallader moved 2,100 troops into Crosswicks on December 29, 1776 under the command of Colonel Silas Newcomb at a commend post in the Meeting House. On January 1, 1777 these New Jersey militiamen were ordered to join Washington's forces in Trenton. A year and a half later, one, or possibly two, skirmishes between the British and Continental Armies took place in Crosswicks as part of the British retreat. During the retreat of the British forces from Philadelphia to New York, the British forces were divided into three detachments. One, the last consisting of 15,000 men, arrived in Crosswicks June 23, 1778. They had to cross the creek to continue their journey, but the Continental Army was camped on the north side of the creek resulting in the skirmishes.

Other local considerations indicate the library was incorporated in 1817 and the Union Fire Company No. 1 was established in 1822. The company's first fire truck is still in their possession with the leather buckets dated 1744. The first post office was established in 1823. While the original settlers were Quakers and the split in the Society in 1828 into two factions resulted in five Friends Meeting Houses in Crosswicks, the Methodist Church was established in Crosswicks in 1745 with a mission to the Indians. The first church was erected in 1790 followed by a "new" one in 1884 which is still in use.

The original transportation network serving Crosswicks was the Delaware River and two trails: the Indian Trail between Bordentown and Crosswicks (Pennsauken Trail) following the creek; and the Assinpink Trail running from Northeast New Jersey to the falls at Trenton (roughly Rt. 27) and then over to the Yardville area and on to Crosswicks. It crossed the creek at the point of the present bridge. From Crosswicks, this trail continued south to intersect the

Burlington Trail which led from Burlington and Bordentown through Crosswicks east to Middletown and Shrewsbury. This network of trails allowed Crosswicks residents to travel from northern New Jersey through Crosswicks to the Delaware and points south and east.

As a result of this system of trails, Crosswicks became a stopping point for stage coaches traveling between Philadelphia and New York. With the crossroads, commercial enterprises were established with four grist mills between 1679 and 1736. In 1860 a drain-tile and brick works was established by George Deur which was converted to the production of hollow brick in 1867. Edgar Brick operated a general store in 1859, but expanded into the mincemeat business by 1874. The mincemeat business was expanded again by 1879 and continued in operation until the mid-1960s.

Another business was the "The New Jersey Association for the Insurance of Houses and Other Buildings from Loss by Fire" established in Crosswicks in 1823. In addition, the first of three taverns was established in 1681. Later the Douglas House was opened in 1776, now the Hilltop Tavern. The third was the "Bird in Hand" formed in 1762, but was converted to a private residence in 1840. Ivins Tavern is the newest. Established in 1789, it was moved a few feet to straighten the junction of Back Street at the Turnpike as shown on an 1834 map.

The Village of Chesterfield (Recklesstown) was the result of John Wright's immigration from England in 1677. He settled in Peppler's Mill near Recklesstown and became a member of the Assembly of West Jersey in 1682. The mill along the tributary to Black's Creek south of the village was eventually

bought by Joseph Reckless in 1712. By 1830, the village had a post office, but by 1925 it was closed. By 1834 it contained a tavern, store and 10 or 12 dwellings.

The name of Recklesstown remained until 1888 when it was changed to Chesterfield as a result of ridicule directed at Anthony Bullock, the area's U.S. Congressman. In 1875 the population of the Township was 1,520, while a year later Recklesstown had a general store, lumber mill, carriage manufacturer, inn, tailor, blacksmith, and two millers. By 1883 a shoe shop was added and a Baptist Church was recorded by that time.

In 1834 the surrounding area was agricultural. By 1883 the farmers had acquired a reputation as being enterprising, thrifty, proud of their occupations, having good fences, and spacious farm buildings which were rarely excelled. One resident, Charles Newbold, invented a new and radically different plow in 1797. It was a one piece, cast iron plow that was treated with suspicion at the time. The result was a forerunner of things to come, but a financial loss to Mr. Newbold.

Newbold's Lane was the first road from Recklesstown to Black Horse (Columbus). This road was abandoned when the Crosswicks-Bordentown Pike was built in 1783. Route 528 (New Egypt-Bordentown Pike) was started through Recklesstown in 1802 and opened in 1806.

The Baptist Church in Recklesstown began by Sunday School teachings in 1839. A movement to start to build a church began in 1847 and the building dedication was held in 1848. During 1888-1889, a parsonage was erected on land donated

*Chesterfield Township Master Plan*  
*October 1997*

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by Anthony Bullock.



## **Appendix C - Historic Inventory**

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### **CROSSWICKS-ELLISDALE ROAD**

414 This impressive Pre-Revolutionary Georgian-style home has three types of brickwork: Flemish bond on the front; English bond; and American bond, with a stretcher row every seven rows. Notice the gable-end chimneys. The interior is trimmed in fine woodwork and has the original pine floors.

420 Located on the Francis Davenport tract, this house was the home of Frank Jones, resident farmer for the DeCou farm.

428 The house includes part of the Francis Davenport home. The Society of Friends used this home as a meeting place ci. 1684 before the CROSSWICKS Meeting House was built. Charles Chapman, also a farmer for the DeCous, resided here. His son, Harry, was the only area World War I casualty.

441 Much older than it appears because of modernization over the years, this house probably dates to the early 1850s. It was once the residence of Garret Hunter, of Security Electric, who wired CROSSWICKS for electricity in 1921.

442 The land upon which this house stands originally was granted by Mahlon Stacy to Thomas Foulkes. Note the pent eaves on the ends of the house, as well as beaded clapboards. During the 1778 skirmish with the British, the house became headquarters for the British general and a hospital for the wounded.

443 The front of this house is ci. 1910 while the back is of much older vintage, having been moved to the newer section when it was constructed. Former owners were Elizabeth Watkins Stead, a school teacher in town for thirty-eight years, and John Stead, who operated a hatchery during the late 20s and 40s, supplying baby chicks for all of the local farmers.

445 Walter Clark and his family lived here. Clark built and operated the garage next door. The facilities at this location always serviced modes of transportation. Businesses ranged from coach shop, wheelwright and blacksmith to an automobile shop when the new garage was built in 1930.

446 This two-family house is considered to be older than 1850. Notice the early

nine over six paned windows. Always maintained in good condition, it is a charming sight in the community.

447 Prior to the Revolution, this house was composed of only the small two-story western end. Over the years it has been enlarged and modernized to the present structure. It was the home of William Kelly, a blacksmith and trapeze acrobat.

### **MAIN STREET**

451 Located in the Thomas Foulkes tract, this is presumed to be an early 1700s house. It was once the home of S. S. Ellis who was General Supervisor of billing at Public Service Electric. Note the wrought iron fence around the property and the elegant simplicity of the door surround.

452 This is only bilevel-style house in the Village, it was built in 1964.

453 This elegant Second Empire Victorian-style house has a Mansard roof with dormers and a three-story bay window on the east end. It was erected in 1876 by a member of the Ellis family and has remained in this family. The garage was once an ice house, wood house and tool shed. The house is surrounded by an interesting wrought iron fence. Notice the floor-to-ceiling windows on the first floor.

454 This two-and-a-half story Gothic Revival dwelling was built in the early 1850s. Notice the fine wood details, and the arched window in the center gable. It later became the home of Howard Rogers, who was the local milkman during the early 1900s. He delivered milk every day in quart-and-pint-sized glass bottles.

455 The two-and-a-half story Colonial Revival-style house, built in 1936, replaced a very old house ci. 1770 on the Thomas Foulkes tract. The older house was of hand hewn timbers and mortise and tenon-pinned joints, with brick nogging and a fireplace in every room.

456 Originally built in the 1850s with a gable roof, this house became the home of T.B. Anderson. Anderson, a well known local builder, modified the house regularly, with additions and renovations to the roof, wrap-around porches and bay windows. In about 1945, new owners removed the porches and made further renovations.

457 Beaded clapboards are evidence to date this as an early house. A small notions business was located here by 1858. It later became a shoemaker shop, and in 1876 it was a butcher shop.

458 This early 1850s home has been changed both inside and out, from time to time since its construction. At one time there were two doorways on the front of the structure. In 1985 an addition was included on the back and west end.

459 This house, predating 1860, is located close to the street as are most of the houses along this route. In 1908 the front porch was added by William Ellis, an expert auctioneer as well as a specialist in caponizing chickens. By 1953 the upstairs was converted to an apartment and remained so until 1970.

460 The building was erected as a store ci. 1847. It has had numerous commercial occupants: T. Woodward, Edgar Brick, Paul Smith, Applegate's Market and the CROSSWICKS Country Deli. It is now a charming country store and restaurant, "The Thistle Stop". In 1859, when Edgar Brick operated the store, he introduced the sale of mincemeat for which he became well known. By 1874 he was making 73 pounds per year and decided a separate building was needed for this purpose. (See Mincemeat Factory at 45 Chesterfield Road). There are two apartments over the store.

462 This house has been a barber shop, a doctor's office and an apartment since its construction ci. 1850. The library was once here with an entrance on the west front corner.

463 An 1858 atlas shows two houses at the front of this lot. In 1934, Paul Smith had them moved to the present position, with one adjoining the other in the back, thus creating more space on the lot.

464 Deeds trace this lovely frame house from April 14, 1841, and show that it has always been a dwelling. The house for years rested on the grounds of the Society of Friends. Note the wrought iron fence, and the fine door surround and entry porch.

465 This house is believed to be one of the three oldest in CROSSWICKS and could possibly be one of the Thomas Foulkes houses. Although updated outwardly, the interior does retain early details such as hand hewn beams and batten doors. It has served many purposes, among which are: J. Coward's Tailor Shop; Oliver Prickett's "Racket Shop" selling ice cream and post cards;

Ann Hanold's millinery shop; Charles Lee's Pool Hall and barber shop; Josh Coulter's Radio Shop; and the post office, as well as a dwelling place.

466 This delightful little house has stood the test of time with few, if any, changes, except for the removal of a white picket fence along the street. It is believed to date back to the early 1830s.

467 Among the oldest house in CROSSWICKS, this is favored to be one of the Thomas Foulkes family houses of ci. 1680 to 1702. Details of its 1740 remodeling and of its restoration in 1968-9 are fully documented. The hand hewn beams are in evidence as are the hand forged nails, the corner fireplace foundations and blown glass window panes. A true gem of Americana.

Also a part of this property is the shop next door. The building, dating to ci. 1750, has served as a general store, a post office, an ice cream parlor, a yarn shop, a lawyer's office and, at present, an antique shop and furniture refinishing business.

468 This house, built before 1850, has an attractive rear addition. It was completely restored during the 1980s, and has been lived in by some noted personages: Norman C. Reeves, a celebrated artist, and Reverend Frank C. Leemings, a school headmaster and the rector of Christ Episcopal Church in Bordentown.

469 One of two examples of Greek Revival architecture in the village, this building was erected by the Franklin Hall Association with the purpose of having a place to present lectures and discussion groups on literary and scientific subjects of the day. The I.O.O.F. Lodge occupied the second floor when it opened in November, 1851. It has been a barber shop, a pool hall, cigar store, ice cream shop, post office and the show room of Trent Antiques.

470 In the 1830s, a cabinet shop stood in the side yard of this property, where it is reported they made caskets. The building burned, however, and was never rebuilt. The present Gothic Revival-style house on this lot was built ci. 1855 and has served as the offices of Dr. Dey and Dr. Mitskas.

474 This early home as shown on the 1878 atlas but is no doubt older than this. It served as the residence of Henry Stout, who operated a grocery store at 1 New Street, and a Mrs. King who was of the family of King Confectioners in Trenton. It was also a barber shop and pool hall and two apartments.

476 The early braced-frame, mortise and tenon pin construction home was undoubtedly the property of one of the Thomas Foulkes family, for it was he who gave the burying ground located immediately behind this to the Friends Meeting. The post office was once located in the east front corner when George Goodenough was postmaster. He also served as Tax Collector for eighteen years.

477 This house was once "The Bird in Hand Tavern", a stage coach stop on the "Old Yorke Road". It was converted to a dwelling in 1840. Jervis Woolman lived here when he operated the general store next door. The Inn's blacksmith shop is part of the present post office.

480 The CROSSWICKS Community House was built and dedicated in 1923 for approximately \$12,485. Built as a Prairie-style structure, the front of the building was changed from an open second floor porch, with outside front access steps, to its present closed appearance. The building is managed by the CROSSWICKS Community Association, which sponsors various community activities.

"Old Timers" will remember the Quaker and Indian burial ground located at the junction of Main and Church Streets. In 1937, the road was widened to eliminate the blind corner at the intersection and the land was graded to the gentle slope of today. The headstones were moved to a spot in North CROSSWICKS Cemetery. "Old Timers" will also recall the horse watering trough at that corner, there to serve the horses after their climb up the steep hill. And they will remember the lamp post at this junction which was lighted each evening prior to electricity.

481 This little house is known to have existed since ca. 1833 and is often referred to as the Robert Clayton House. Clayton, who lived here from about 1866 to 1961, was a carpenter by trade, but kept a small store at 467 Main Street. He was also part owner in the former concrete block factory located on New Street.

483 The CROSSWICKS Library, incorporated May 14, 1817, has been located in many homes and buildings in the Village. The Library, served by numerous dedicated volunteers, hired a professional staff in the 1970s. The collection is supplemented with books from Burlington County Library. The building was dedicated as a fire house in 1922 in memory of Edgar Brick by his sons. In 1968, when the fire company moved to the CROSSWICKS School building, this

building was conveyed to the Library.

485 This early colonial structure has been researched to 1773. It was a combination general store and residence over the years, and has served as a creamery, bakery, pool hall, ice cream parlor, butcher shop and the general store of Issac Hutchinson. In 1956, it was converted exclusively to a residence.

### **CHURCH STREET**

4 This house, built ca. 1876, was once the home of Charles Lee Swem, the former confidential secretary and stenographer to President Woodrow Wilson, and a court reporter for the New York Supreme Court. He was also the private secretary to John R. Gregg, originator of the Gregg Shorthand system.

6 A plaque on this house dates it to ca.1800.

8 This is an early house, probably dating to the first quarter of the 1800s. It is known as the John Ivins house. Ivins may have been the owner of Ivins Tavern on Front Street. It was also the home of Edward Chapman, one of the few ice-men who delivered ice in this area in the 1910-1920s.

10 This house was purchased in 1884 by the Methodist Church as a parsonage for its minister. It continued to serve as a parsonage until the late 1970s, when a new home was purchased for that purpose.

12 This property, known as the Lippincott house, was built around the 1850s. In 1942, it was converted to two apartments.

14 Once the site of the village's post office, this house has been known since the 1940s as the residence and former office of a popular local doctor. Over the years, several additions were made to accommodate the doctor's growing practice.

16 Known as the Rudolph Middletown house, this building dates to ca. 1880. It later became the home of William Wallace, the Township Tax Assessor for 40 years. Mr. Wallace was also the owner of a meat market on Main Street, featuring his blend of sausage and scrapple. He was one of the last butchers to deliver meat by truck and to cut your order from a side of beef or pork as you desired.

18 In existence prior to 1858, this house was known as the John Tantum House. Members of the Tantum family lived in the house until 1955.

26 This two-and-one-half story building is known as the Dr. George S. Duer house. It was shown on the 1858 Atlas, so it is assumed that it was built before that date. This very large house was divided into two apartments in the early 1920s and further into three apartments in the 1970s, with an entrance on both Ward Avenue and Church Street.

28 This ranch-style house was built in 1952 on this tree-shaded hillside.

31 This house was converted ca. 1948 from a barn located on the property. It was completely renovated in 1984.

32 This house dates to before 1850, and was moved to this location from further up the hill when this road was built. It was once the property of Dr. G. S. Duer, but is also remembered as the residence of Walter Smith, an excavating contractor.

At this point in the walking tour, there is a narrow road to the right that joins with Church Street. This is the original road down to the old covered bridge. This bridge, built in 1833, was replaced in 1910 by an upper bridge at the location of the present bridge. The old stone abutments are still visible on both sides of the creek.

33 This house is located on the old road to the bridge. Built ca. 1723 by Isaiah Foulkes, this house then became the home of William Cooke, Esq., Judge of Common Pleas Court of Burlington County and a member of the New Jersey General Assembly from 1738-1748.

34 Originally built before 1858, this house had to be rebuilt in 1876 when it collapsed after the support planking slipped as it was being moved down the hill to this location. The house was once owned by Dr. Duer, but is best remembered as the residence of Oscar Harvey, who used to pump the organ and ring the steeple bell on Sundays at the Grace Episcopal Church.

37 This nearly square, flat-roofed house was built ca. 1850 on the old road to the covered bridge. Its sturdy post and beam construction has helped it stand the test of time.

## **FRONT STREET**

2 This exceptional house is known as the Stacy Taylor property and was in existence prior to 1855. It is a delightful house with a most attractive stairway. It was once the residence of Samuel Pasternack, a noted musician who performed at the Metropolitan Opera House.

3 This quaint saltbox-type house was in existence in the early 1800s, and was known as "The Old Red Tavern" or "Ivins Tavern". It was once located at the junction of Front and Buttonwood Streets, and was probably moved when the road (turnpike) was laid out to Bordentown. This building housed a cobbler's shop around 1876.

4 This saltbox-type house was built in 1874 and is delightfully in character with the surrounding houses. A wheelwright shop stood on this spot sometime before 1920, when a concrete building was erected to house an early automobile agency that sold Reo and Oakland autos. Later, the building was used as a candy and ice cream shop, and as a workshop for two different cabinetmakers. This building burned and was then demolished in 1973.

6 This saltbox house dates to ca. 1870. It was the residence of the wheelwright whose shop was next door.

8 This early colonial saltbox house was built ca. 1720, and is attached to the nearly identical house next door.

10 This saltbox adjoins #8 and was also constructed ca. 1720.

12 This is another saltbox-style house, but is of more recent-ca. 1858-construction date. This house was built following a disastrous fire in which all of the houses on this street between numbers 10 and 30 were burned.

14 This house dates to ca. 1858 and is also a saltbox type. It originally had wooden clapboards, but was reshingled with cedar shakes in 1981. The front porch is also a recent addition.

Notice the open space between this house and #16. This was once the location of Thomas B. Anderson's lumber yard. Anderson was a noted local contractor who maintained his lumber yard until ca. 1910.



15 This is the Society of Friends Meeting House. Volumes could be written concerning this important structure, which is the third building on the premises. The first, of small wooden log construction, was built in 1692 and was followed by a brick building in 1706. The third and present building was erected in 1773, costing the equivalent of about \$3750. Note the Flemish bond brick pattern and the two sets of double doors. The interior is finished in Jersey Cedar panels and has never been painted. The nails are hand wrought and the handmade doors are of deep panel, laminated construction. The benches are of White Oak.

During the 1778 skirmish with the British, a cannon ball was lodged in the bricks on the opposite side of the building. It can still be seen in the wall, cemented into place.

The Friends, early believers in public education, built the adjacent brick schoolhouse in 1784. The building served as a school until 1910, and is now used for meetings and as a First Day School for lower grades.

The CROSSWICKS Oak stood on these grounds at the corner of Front and Church Streets. It was present at the time of the early settlers and survived until 1975 when it was struck by lightning and felled.

16 This delightfully simple house was built ca. 1878, and has wood clapboard siding. A change has been made in the front entry porch.

18 This wood frame house was built after the fire in the early 19th century that destroyed many of the original houses on this street.

20 This interesting Victorian house was built ca. 1895. Notice the patterned wood shingles and decorative trim in the front gable. The front porch has been modernized and a large addition was built in the back.

22 Known as the Hoffman house, this house was built ca. 1875. In the 1970s, it was operated as a day care center and a school.

24 This house was built ca 1858, after the 19th century fire, to replace the original building that stood on this property.

26 This Victorian home was built ca. 1876. It has been altered with the addition of vinyl siding.

28 This house was built ca. 1858 on the site of a small wooden building that had housed a woodworking shop.

30 This house was one of those saved from the fire. It was once the home of Miller Anderson who operated a "stage" between CROSSWICKS and Bordentown. In 1964, the Victorian porch was removed.

31 This fine Victorian house was built ca. 1876 and has been altered several times by additions. This residence was once the home of Arthur Brick who was the owner and operator of Brick's Mince Meat Factory (now the Hamilton Uniform Company) on Chesterfield Road. Please note the lovely little building on Brick's Alley which is now used as a garage. This very early building was originally a house, at one time known as "Germany" after the old German couple who resided here.

34 This majestic Victorian home was erected ca. 1888 and is known as the Joseph Middleton House. In 1957, it became the CROSSWICKS Country Day School with the addition of school rooms in a building at the back of the property.

38 This was a small cabin-style house built ca. 1850s. It served at one time as a blacksmith shop. This building fell in disrepair and was renovated in 1970. The property was sold in 1986 and a complete modernization took place.

### **CROSS WICKS-CHESTERFIELD ROAD**

2. Currently the Upper Crust Pub, this building was probably the earliest tavern in the village. It is also referred to as the Joseph Douglas Tavern or the Star Tavern from a sign once located in the north east corner. It is believed to date to the early 1700s or to the even earlier times of Joseph Brainerd when the owner lost his license for selling liquor to the Indians. Time has taken its toll on this structure. Even though the exterior clapboards have been covered with stucco, earlier window and door openings are visible. The long front porch, the old hitching posts and horse watering trough have been removed. It now features a genuine 18th century pub bar, imported from England, with elaborately carved wood. Note the fascinating tavern sign on the corner.

3. This building was once the blacksmith and wheelwright shop for the Joseph Douglas Tavern. It has been remodeled. Note that the sliding door track has been retained even though the original door has been bricked in.

5. Currently owned by Hamilton Uniform Company, this building is the former Brick Mincemeat Factory. This industrial establishment came into being ca. 1874 when founded by Edgar Brick. He had been operating a general store on Main Street since 1859, and realized that he could make a better grade of mince meat than could be purchased. He produced 73 pounds during his first year of business. By 1964, under the direction of his son Arthur, the factory produced 9 tons in one day during the operating season. The building has grown over the years, requiring 9 additions including a cold storage facility. In 1972, the property was sold to Whitehall Distillers. The building was acquired by Hamilton Uniform in 1980.

11 The Grace African Methodist Episcopal Church was organized in 1868. The building was erected in 1878 at a cost of about \$500. The original construction had wooden clapboards which are now covered by aluminum siding. The stained glass windows are an addition. The church rectory is an 18th century structure that was once located in what is now the parking lot of The Thistle Stop on Main Street. In 1916, it was moved to this location to become the Rectory of Grace AME Church. An addition was made to the building at this time.

23 This early cabin, known as the Cooper Shop, is among the first houses in the area known as Beckersville. It is of post and beam construction with a very artistic pattern of field-sandstone work on the south east end. It was once the home of a cooper, or barrel maker, which was a most important occupation in the late 1690s.

## **NEW STREET**

1 Known as the Issac & Jervis Woolman grocery store, this building was erected ca.1860. Mary Woolman once operated the local post office here. Originally, it had a front entrance with a double door and two large bay windows. A metal overhanging roof once protected a wide front porch.

3 This building was built as the blacksmith and wheelwright shop for the Bird in Hand Tavern on Main Street. It was a wood frame structure with a large sliding door in front and a shed lean-to attached to the west end. In September, 1966, a contract was awarded to Barbara and Herb Gill to renovate the building for use as a Post Office. In 1978, a commemorative envelope was issued here to celebrate the 200th anniversary of the "Skirmish at CROSSWICKS". The postage at that time was 15 cents.

6 In 1910, a concrete block factory was located on this site, operated by Anderson & Clayton. It was in operation until 1925. In 1928, the present residence was built for Mr. and Mrs. David Clayton. Dave operated a barber shop in Franklin Hall and later in his basement, where haircuts were 25 cents. Florence was clerk for the Township Committee for 33 years.

7 This Cape Cod style home was erected in 1948 on land overlooking the valley of CROSSWICKS Creek. Many alterations have been made to the house and grounds over the years. There is not a more beautiful view of the valley than from this vantage point.

15 This Cape Cod style home was built ca. 1958 on land purchased from Ann Ellis, whose husband once operated a trotting track on this site.

17 This modern Cape Cod rancher was built in 1957, also on land that was formerly the trotting track. Mr. Ellis used to run his 5 gait horses here for exercise.

18 This red brick building was originally built for the CROSS WICKS Public School. It was contracted in 1909 for \$6200 as a four room schoolhouse, serving beginners through the eighth grade. There was a water bubbler and two outhouses, one for boys and one for girls. In 1930, a new section was added to the front. Plans weré initiated in 1966 to transfer the property to the Union Fire Company, and the move was completed in 1968.

The Union Fire Company was formed in 1822. The first fire engine was purchased for \$100 and may still be seen in the small building in front of the firehouse. The original engine is a 1744 hand-drawn and hand-pumped model that was once used in Philadelphia. Note the leather buckets used to fill the water chest. The equipment was formerly housed on Main Street at the site of our present library.

## **WARD AVENUE**

Ward Avenue was once known as Maple Street.

517 This mansion of Empire architecture was built ca. 1842 for Jacob P. Bunting. It is often referred to as the Charles P. Camp, Jr. house or as "Lakeside". In 1900, the adjacent valley was blocked by a dam, creating a large pond. It was fed by Bunting's Run and was home to many swans, ducks and

goldfish. In the 1850s, Lakeside was the summer home of the Bouvier family. Several statues and fountains from that time can still be seen in the front yard.

518 This residence is know as "Beechwood" after the many large beech trees once located in the yard. The building was erected ca. 1849 on part of the Bunting tract. The Buntings were one of the first families to settle in CROSSWICKS.

519 This house was the gate house to the former Charles P. Camp, Jr. estate at 517 Ward Avenue.

520 Known as the John Braislin house, this was the residence of the owner of Braislin Brick and Tile Works. The brick yard was located adjacent to Bunting's Run, a few hundred yards towards Bordentown ca. 1867.

522 This beautiful center hall house built ca. 1870 is known as the Isaac L. Woolman home. Mr. Woolman once operated a general store located at what is currently 477 Main Street.

523 This was at one time the tenant house for the Benners-Wilson farm at 529 Ward Avenue. The property was renovated in 1988-89.

524 This house was once the Grace Episcopal Rectory. The Grace Episcopal Church, once located in the eastern side yard, had a tall spire and was of Gothic architecture. It was built in 1865 and torn down ca. 1958. The ground for the parsonage building was broken on August 4, 1883. The contract was given to Thomas B. Anderson, a local builder, for a price of \$2665.

525 This Cape Cod-style house was built in 1955 on the garden area of the Benners-Wilson farm at 529 Ward Avenue for Mr. and Mrs. Wilson's daughter, Mrs. Charles Bradley.

526 Known as the Edward Thorne house, this home was built ca. 1860 as a center hall Victorian with a mansard roof and seven dormer windows. Note that the front windows reach to the porch floor level as a means of better ventilation in the summer.

528 Known as the Jacob Bunting house, this structure was built in the Italianate style of the 1850s. Note the "eyebrow windows" under the roof overhang.

529 A Pre-Revolutionary War structure was found within the main section of the house, which was built ca. 1830. The newer section reflects the Victorian style due to renovations made in the late 1800s.

530 This building was formerly the Orthodox Friends meeting house of the Society of Friends. It was erected in 1853 after the first building on this site was converted to a school house. The original frame building was built in 1831 and is no longer standing. In 1981 the current building became the headquarters for the Chesterfield Township Historical Society.

533 Known as the Jacob P. Bunting house, this structure was built ca. 1750. The eastern end is the oldest section. This was the location of the first Post Office in CROSSWICKS, with Mrs. English as the postmistress.

535 The CROSSWICKS United Methodist Church celebrated its 200th anniversary in 1989. This building was built in 1884 after the church moved from a smaller structure on Ellisdale Road. The previous building was erected in 1790 on the southeast corner of the Old Methodist Cemetery on Ellisdale Road and is no longer standing.

## **BUTTONWOOD STREET**

2 The Joel H. Middleton house was built ca. 1850. Earlier photos show a hood portico over the lovely front doorway, as well as a side entrance on the north end. A wrap-around porch was added to the front and south sides at a later date, but has also been removed. At one time there was a lattice-enclosed summer house at the rear of the property.

The back yard of this property has an interesting history of its own. Samuel Bunting, one of the early settlers of the township, built his home here ca. 1685. It was demolished in 1860.

5 It is believed that his house was built ca. 1787. Over the years porches were added and removed. The pent roof on the facade is also an addition.

6 This house was built by Thomas B. Anderson, a contractor, ca. 1906 for Nathan Middleton. The cost of the house was \$3200.

7 This house, built ca. 1740, is known as the Amos Middleton House. During

7: the Revolutionary War, in 1778, General Clinton used this house as his headquarters. A photograph at the Chesterfield Historical Society Museum shows that a beehive oven was once located in the kitchen. Note the large Buttonwood tree in the front yard-the street is named for this tree. While this house has been altered over the years, efforts have been made to preserve the appearance of the original facade.

9 This house was built before 1858, and is known locally as the Dickson house, after some of its first residents. The home was later owned by the Anderson family from 1885 to 1968, and during this time two large barns for Anderson's building business were constructed. One of the barns still remains. The front porch of the house has been enclosed, and a bay window was added to the south side.

10 This lovely house was built ca. 1865 on part of the Bunting tract of land, and is known locally as the Wilson Parry House. It is a fine example of mid-19th century architecture.

11 This property was sold by William Cooke to Jediah Hance, a carpenter, in 1793. Hance built this house a few years later. Although several additions have been made over the years, the original parts of the house remain intact. A late 19th century inventory of the estate of resident Mary Brown lists the small shed to the side of the house as a "wood house". In 1905, Joseph Middleton sold this house to Joseph Hendrickson for only \$1400. Around the turn of the 20th century, the Victorian-style porch and two-story bay addition to the south were added.

15 This house, known as the John Lippincott house, was built ca. 1850 and has had several additions. At the household sale of Miss Helen Robbins in 1973, a box was sold that was used to ship early "fractional currency" to member banks. This box is now in the American Numismatic Museum in Colorado Springs.

16 This impressive Queen Anne Victorian house was built in 1904 for less than \$10,000. The beautiful interior woodwork is made of golden chestnut. The original owners were Josiah and Emma Brick. Mr. Brick was instrumental in organizing the CROSS WICKS Water Company, as well as the CROSSWICKS Community Association. The house is still owned by the Brick family.

21 Built ca. early 1850s, this house is known as the Stacy Taylor house. It was

once the home of George Cole, a prominent prize fighter.

25 This quaint, early side-hall colonial house was renovated around 1972 with an addition that doubled the size of the house. At that time, a front porch was also removed. A rear addition was completed ca 1979.

28 This lovely brick structure was built in 1938 on land purchased from a farm owned by S. A. Wilson.

29 This much-altered house was built ca. late 1850s and was the home of Charles W. and Alice Brick. Mr. Brick was the founder of several feed mills in central Jersey. He also brought electricity to CROSSWICKS in 1921. He first generated electricity in conjunction with the feed mill in CROSSWICKS.

41 This is one of the newer houses in town, built in the 1980s. It is adjacent to Bunting's Run.

45 This beautiful Victorian mansion is known as "Shady Brook Lawn", once the home of Mr. and Mrs. Albert Satterthwait.

50 This brick ranch-style home was built ca. 1977 to replace an earlier frame dwelling, which was moved further out on the Bordentown Road.

### **THE CROSSWICKS OAK**

CROSSWICKS is as proud of its Oak Tree as of its Meeting House. They have stood together these many years, pleasuring the eye and giving solace to the passer-by. Generations of children have played beneath its generous branches. Today a swing hangs hospitably low to the ground welcoming the happy child. A plaque on the tree trunk reads:

1682            1932  
This tree was living when  
William Penn  
Came to Pennsylvania  
1682

White Oak *quercus alba*  
Girth, breast height, 1932, 17 feet, 5 inches



This Oak was entered in the Hall of Fame for Big Trees in Washington, D.C., March 1, 1921. In 1964 its circumference is 19 feet, 2 inches. D.B.H., 73 inches diameter, 100 feet height, 148 feet spread. Under the supervision and care of Winston E. Parker, Professional Arboriculturist.

Joseph Middleton, local historian, wrote in 1900 of this silent sentinel and survivor of the original forest: "Could it but reveal to us what has passed beneath and around it, what history would be unfolded! How the Indian papooses were perhaps hung upon its branches, the war-whoop resounding in the air, how the Friends, in their ancient garb, gathered beneath its grateful shade, how in Revolutionary days the cannon roared about it, the balls crashing into the Meeting House, how the soldiers tramped beneath it when using the Meeting House for barracks."

Certainly the old tree has won the loyal protection of CROSSWICKS citizens. When it was struck by lightning the gash made by the bolt was cemented to prevent further damage. In 1962 when a 50-foot limb was blown down by a strong wind, falling across power and telephone wires, reaching to front yards across the street and blocking traffic, devoted residents stood guard over it in icy March winds. They zealously watched to see that repair men did not hack the branch to pieces. They arranged to have Township authorities remove it. A tree surgeon was called in to give the famous tree proper treatment. Then a persevering lady-as Chairman of the Chesterfield Tercentenary Committee-had the branch removed to the shop of Gerald S. Hulick, CROSSWICKS cabinet maker.

He has made the ancient wood into attractive lamps, gavels, protective table mats and other souvenirs to be sold through his office on Front Street, CROSSWICKS, and at other places in the Township, as well as at the New Jersey Pavilion of the World's Fair as a Tercentenary project of Chesterfield Township. By the aid of a magnifying glass the rings in these souvenirs can be counted to determine the actual age of the limb. The darker outer rim indicates the last 50 years.