



2010 Master Plan  
for the Township of Cranbury,  
Middlesex County, New Jersey

**Prepared for the Cranbury Township Planning Board**



**Phillips Preiss Grygiel LLC**  
Planning and Real Estate Consultants

with Shropshire Associates LLC  
and Van Cleef Engineering Associates

Adopted December 16, 2010

**2010 MASTER PLAN FOR  
THE TOWNSHIP OF CRANBURY  
MIDDLESEX COUNTY, NEW JERSEY**

**Prepared for  
The Cranbury Township Planning Board**

**Prepared by**

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**In Association with**

**Shropshire Associates LLC, Traffic Consultants  
Van Cleef Engineering Associates, Engineers**

**Adopted: December 16, 2010**

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# 2010 Cranbury Township Master Plan

## CHAPTER 1. INTRODUCTION

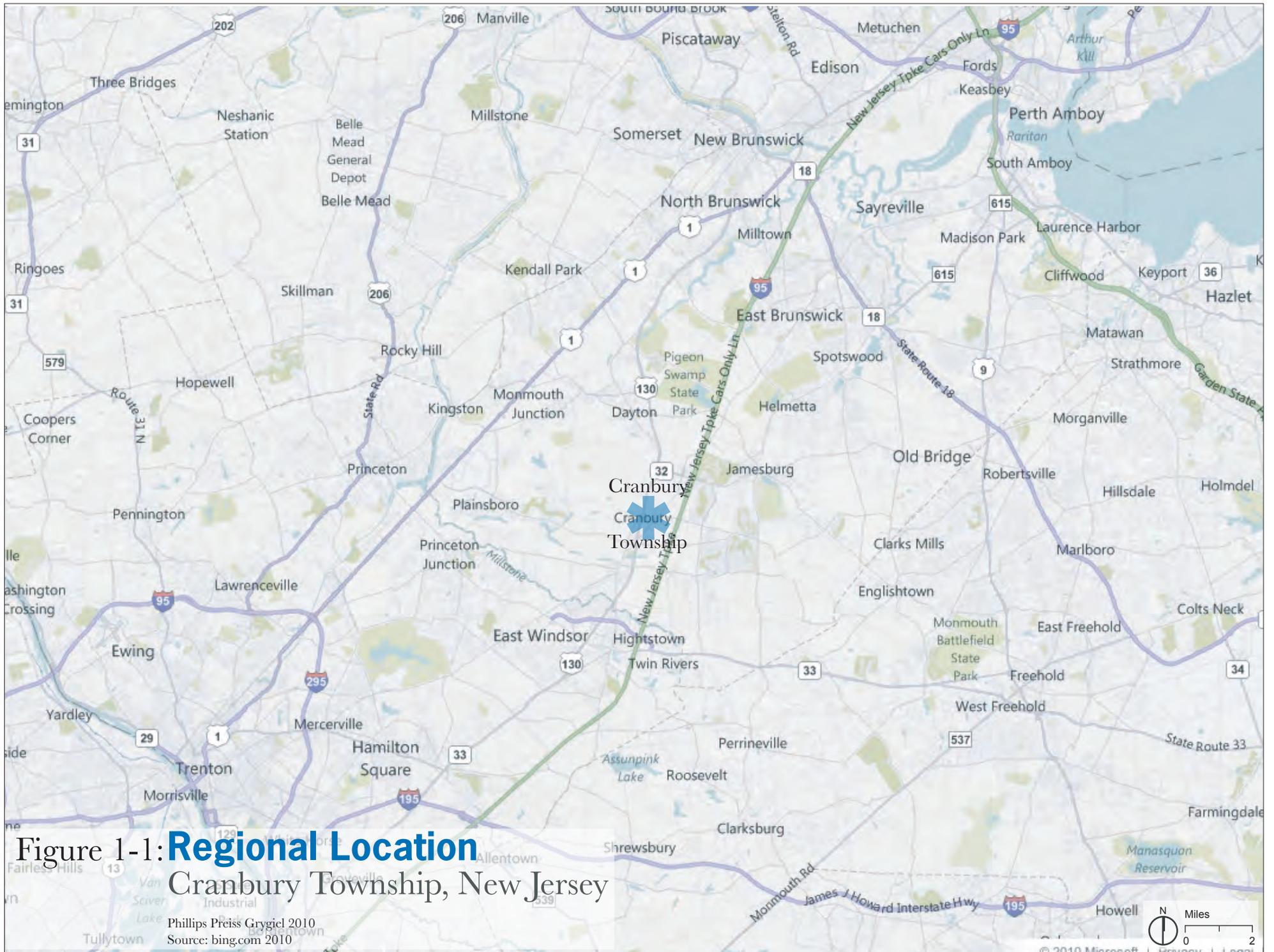
### A. INTRODUCTION

The Township of Cranbury is a 13.42 square mile mostly rural community located at the southern end of Middlesex County, adjacent to Mercer County (see **Map 1, Regional Location**). The Township is bordered by four other municipalities: Plainsboro Township to the west, South Brunswick Township to the north, Monroe Township to the east and East Windsor Township to the south.

State Highway Route 130 traverses Cranbury Township and provides regional access to other central New Jersey municipalities. The New Jersey Turnpike also travels through the Township and provides interstate access to New York City and Philadelphia. Land to the east of the Route 130 is developed for industrial warehouse and other highway commercial uses. Land to the west of Route 130 is made up of mostly residential uses, as well as active farms and woodlands. A state- and nationally-recognized historic downtown area, Cranbury Village, runs along Main Street and consists of small retail and service establishments and densely developed residential lots surrounding the commercial core. The historic ambiance of the Village center is augmented by preserved farmland along its edges which denotes the Township's historic, agricultural character. Cranbury is characterized by relatively flat terrain. Several water courses pass through the Township, including Cranbury Brook (which drains into Brainerd Lake), Cedar Brook and the Millstone River. In 2009 the total population of Cranbury was estimated to be 3,921 persons, an increase over the year 2000 population of 3,227.

### B. PURPOSE

The purpose of this Master Plan is to provide the Township of Cranbury with a comprehensive guide for the future growth and development of the community. The Township of Cranbury last adopted a comprehensive Master Plan in 1993. The 1993 Master Plan of Cranbury Township contained eleven elements, including: goals and objectives; a land use plan; a community design plan; a conservation plan; a parks, open space and recreation plan; a circulation plan; a community facilities plan; an historic preservation plan; an economic plan; a utilities plan; and a recycling plan. Subsequent revisions to the 1993 Master Plan were made over the next six years, until it was reexamined in 1999. These include: amendments to the Land Use Plan Element in 1995; an amended Utility Plan and the Circulation Plan in 1998; and the adoption of a new Housing Element and Fair Share Plan in April 1995.



**Figure 1-1: Regional Location**  
 Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
 Source: bing.com 2010

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In 1999, the Township of Cranbury reexamined the 1993 Master Plan. Following the adoption of the 1999 Master Plan Reexamination Report, certain master plan amendments were adopted. These included the adoption of a Farmland Preservation Plan and Open Space and Recreation Plan on December 7, 2000; a Municipal Stormwater Management Plan on July 21, 2005; and a new Housing Element and Fair Share Plan, to address COAH's third-round housing obligation, on November 3, 2005.

In 2005 the Township adopted a Master Plan Reexamination of the 1999 Reexamination Report, as well as those amendments to the Master Plan which had been adopted thereafter. Since 2005, the Township has adopted an Open Space and Recreation Plan (in 2007) and an Amended Third-Round Housing Element and Fair Share Plan (in 2008). The Housing Element was granted third round substantive certification from the Council on Affordable Housing in April 2010.

This Master Plan has been prepared for the Cranbury Township Planning Board by the Township's planning consultant, Phillips Preiss Grygiel LLC (PPG), a planning and real estate consultant, with the Circulation Element having been prepared by Shropshire Associates LLC and the Utilities Element has been prepared by Van Cleef Engineering Associates. The Plan was prepared under the direction of the Cranbury Master Plan Committee, consisting of: three members of the Planning Board (Chairman Jim Golubieski, Vice Chair Allan Kehrt, and Tom Harvey, the Master Plan Committee Chair); two members of the Township Committee (Mayor David Stout and Win Cody); and two members of the Zoning Board of Adjustment (Chairman Dale Smith and Vice Chair Frank Shea).

### **C. BRIEF HISTORY OF CRANBURY**

Prior to setting forth the goals and objectives and recommendations for guiding growth and development for Cranbury for the next 10 to 15 years (a realistic future time horizon for a comprehensive master plan), it is useful to understand and appreciate the history of the community, notably the people, as well as the social, economic and political forces and the major developments that spurred its growth and shaped its physical form. Cranbury has a long history, and much of Cranbury's physical form is attributable to land use and development decisions made over the past two centuries.

Cranbury, one of the oldest towns in New Jersey, was settled in 1697 on land formerly home to the Lenape Indians, a Native American Delaware tribe. The Village of Cranbury developed as a result of early transportation routes which followed the trails of the Lenape. Located between the two major colonial cities of New York City and Philadelphia, Cranbury was a convenient stop for stagecoaches where food and lodging could be found.

In 1737, Thomas Grubbs erected the Cranberry mill on the south side of Cranbury Brook, which formed the nucleus of the Village. The name may have derived from cranberries growing in marshland near the mill. On 18<sup>th</sup> century maps, the name appears as Cranberry and Cranberry Town. A Presbyterian Church was built in 1740, and by 1789,

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the village contained approximately twenty-five houses, an inn, a blacksmith shop, and a store.

During the American Revolution (then Cranberry Town) saw armies rest and pass on. Here, the Marquis de Lafayette and Colonel Alexander Hamilton with their troops quartered on June 25, 1778, and here George Washington and his staff established headquarters on June 26, 1778, issuing dispatches, orders and plans that shaped the Battle of Monmouth. Cranbury is now in the Crossroads of the American Revolution National Heritage Area. Later, Aaron Burr passed through Cranbury as he fled to Philadelphia after his duel with Alexander Hamilton.

By 1834, Cranbury contained an academy, a gristmill, two tanneries, three taverns, two stores and 60 to 80 dwellings. A second Presbyterian church was established in 1838, followed by a Methodist church in 1845. An African Methodist church was formed in Cranbury in 1855 to serve a community of both slaves and free blacks.

The opening of the Camden and Amboy Railroad in 1832, which ran east of the Village, led to some industrial growth in the area. The community of Cranbury Station developed around the railroad stop. In December of 1869, the town's name was changed from Cranberry to Cranbury. On March 7, 1872, Cranbury was recognized as a political subdivision of Middlesex County. This area included the Village of Cranbury and areas within South Brunswick and Monroe Townships at the time.

Beginning in the latter half of the nineteenth century, Cranbury has expanded considerably as first the 1896 Old School building (current Town Hall) was built and was followed by a growth of business and commercial enterprises developed in Cranbury.

Once a center of a potato-growing district, Cranbury retains much of the charm of a farming community's village center. From its early history, Cranbury has consisted of mixed residential and commercial areas. Farmers used the village to sell produce and relied on the Village for services. Many historic residences and farm buildings are located on large farm tracts outside of the Village boundaries. The surrounding rural community was dependent on the Village for provisions, while the Village was dependent on the economic support of the farmers. The surrounding rural landscape defines the Village and is a necessary part of the historic integrity of both the Village and the historic structures outside of the Village area.

The land development pattern in the Township grew around Cranbury Village. Small retail and service establishments form the core of the Village with smaller, more densely developed residential lots surrounding the commercial center. Larger lot development, more typical of post World War II suburban development, occurred outside of the older Village center. New residential development has occurred largely around Cranbury Village, on the west side of Route 130. Highway commercial uses, intended not to compete with commercial establishments in the Village, are located along Route 130.

Beginning in the 1980s, due to its proximity to Exit 8A of the New Jersey Turnpike and its accessibility to the New York and Philadelphia metropolitan regions, industrial ware-

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house/distribution, office, research and development uses developed to the east side of Route 130. These land development patterns are the result of deliberate land use policy decisions begun in the 1980s, affirmed in the 1993 Master Plan, and continued until the present.

In the post World War II years, the New Jersey Turnpike opened Exit 8A just north of Cranbury. In the 1990s, the Turnpike between Exit 8A and Exit 9 was widened. This development, coupled with the growth of Route 1 between Princeton and New Brunswick as a research and office corridor, and the potential for Builders' Remedy lawsuits resulting from the Mt. Laurel II Supreme Court decision (1984), placed tremendous development pressures on Cranbury and the adjacent, historically rural, communities. These development trends, coupled with zoning requirements which failed to protect farmland and allowed residential development at relatively high densities that existed during this time, typically resulted in suburban sprawl patterns of development.

Cranbury's leadership recognized that the preservation of farmland and other agricultural activity was essential to preserving the rural character of Cranbury Township. To protect farming as a viable economic activity, regulations were put in place which encouraged cluster or lot averaging development in the A-100 zone, while also maintaining the existing six-acre minimum lot size for conventional subdivisions. The six-acre base density was coupled with lot averaging requirements and the purchase of development rights so as to allow farmers to profit from high land values without having to sell their land, and to continue farming. A 25 percent development bonus was provided to encourage developers to use the lot averaging option and locate development within the delineated "potential development areas". The Township was able to raise considerable revenue from both State and local sources, including ratables from its warehouse and distribution development east of Route 130. Such resources were used to purchase both farmland and open space and to encourage continued participation in the Farmland Preservation program. A considerable amount of farmland was saved. Land use regulations were also introduced in order to reinforce a "hard" edge around the Village center by maintaining an abrupt transition in land uses and density between residential development and farmland, and also by emphasizing the maintenance of hedgerows and rural roads.

At the same time, in an effort to increase the tax base and generate funds for acquiring development rights and purchasing land for permanent open space to the west of the Village, Cranbury encouraged development of industrial, office, research and warehouse uses on the east side of Route 130. This area was especially suited for office-research and warehouse uses by virtue of its accessibility to Exit 8A of the New Jersey Turnpike. Tax revenues from this development helped subsidize the purchase of open space and the preservation of farmland to the west of Route 130. In addition, highway commercial uses were encouraged in a limited area along Route 130 to serve passing highway traffic and to meet regional needs. Design standards for office and warehouse development to ensure good quality development were also adopted and implemented.

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As a result of these policies, the Township has successfully separated the preserved farmland, open space, and the pedestrian-friendly mixed residential and commercial uses of Cranbury Village, all of which lie west of Route 130, from its warehouse and distribution center developments, all of which lie to the east of Route 130.

### **D. PROCESS FOR PREPARING THE MASTER PLAN**

Preparation of this Master Plan involved contributions from Cranbury's administration and staff, as well the Township Committee, Planning Board, Zoning Board of Adjustment, as well as representatives of other boards and agencies who were consulted and interviewed. Table 1-1 provides a list of those interviewed either via phone, email or fax. A survey of all land uses in Cranbury was undertaken and maps prepared. Inventories of community facilities, utilities and roads were undertaken or updated. A Master Plan Committee was convened to provide guidance and input over the course of the master plan preparation.

**Table 1-1: List of Interviewees for Master Plan**

Steve Benner,	Tax Assessor
Mark Berkowsky,	President of Cranbury Housing Associates
Kathleen Cunningham,	Township Clerk
Greg Farrington,	Construction Official/ Building Sub-code Official/ Housing and Community Development Committee
Jim Gallagher,	Chair of Environmental Commission
Jeffrey Graydon,	Zoning Officer
Art Hasselbach,	Zoning Board of Adjustment
Glenn Johnson,	Zoning Board of Adjustment
Mike Kervan,	Fire Chief
Bobbie Marlowe,	Chair of the Historic Preservation Commission
Linda Scott,	Administrator Officer of Historic Preservation Commission/ DPW Assistant/ Recycling Coordinator
Christine Smeltzer,	Township Administrator
Daryl Stevenson,	Commercial Realtor
Bill Tanner,	Township Engineer
Jerry Thorne,	Public Works
Rickey Varga,	Police Chief
Betty Wagner,	Chair of the Cultural and Heritage Committee and Township Historian
Dee Wahlers,	Development Review Committee/ Environmental Commission/ Planning Board

The Planning Board held a public (or community) meeting to discuss major issues and recommendations for the Master Plan on April 13, 2010. The attendees were broken into groups of six to eight people and discussed topics indicated below for approximately 10 minutes apiece. At the conclusion of these discussions, the results of each group's

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discussion were recorded. This Master Plan's scope, direction and policies were subsequently adjusted, and the Master Plan itself has incorporated the input it received from Cranbury residents who attended the April meeting.

### Results of the Public Meeting

Cranbury's Master Plan Committee drew up six topics for discussion at the Community Meeting aimed at dealing with Cranbury's most pressing land development issues, and also as a means of reexamining Cranbury's prior Master Plan Reexamination Report from 2005. They also provided an opportunity for an open-ended discussion on whatever issue residents wished to be heard. The topics and the results of the group discussion are set forth below.

- *Should retail be allowed in Cranbury outside the Downtown? If so, where? The Village, Route 130 Corridor, East of Route 130?*

Most groups agreed that retail uses should be permitted in Cranbury outside of the downtown. Three of the five groups specifically mentioned Route 130 as being an appropriate location for retail development, though with limits on permitted uses and design, such as prohibiting big box retail or fast food chains. Two groups said that retail should be allowed outside of the downtown as long as it did not detract from and/or compete with existing downtown retail establishments. South Main Street ("The Hagerty property") was also mentioned by two groups as a location that would be appropriate for future development, which could include retail or a mix of retail and office space.

- *Are you happy with the current status of Downtown Cranbury? What are the downtown's current weaknesses and what improvements or changes should be made?*

While most groups indicated that they were generally happy with the downtown area at present. Three major concerns were raised at the public meeting; four of the five groups cited parking as a weakness of the downtown area<sup>1</sup>, particularly during lunchtime and around Hot Wok. One group indicated that noise from sirens was a problem and one group noted that there is no place for youth to congregate downtown outside of the school and library. There were a wide range of suggestions for ways in which to improve the downtown area. Suggested improvements included: streetscape and circulation improvements, such as sidewalk improvements, lighting, curbing and historic lampposts; placing overhead cables underground or on back streets; creating design standards such that franchise businesses can fit into the historic area; incorporating bike trails into the downtown and creating connections to neighboring towns to increase accessibility; and finding a location within the downtown for a new standalone library.

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<sup>1</sup> As a result of this input, the Township's traffic consultant was asked to undertake a parking study of the downtown as part of the preparation of the Circulation Element. The results of this analysis can be found in Chapter 5, the Circulation Element.

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- *What are Cranbury's greatest challenges from a traffic viewpoint? Congestion on Route 130? Through traffic in the Village? Others?*

Traffic "hot spots" cited by groups in the public meeting were Route 130 and the area around the Cranbury School and parking lot. Three groups suggested implementing and/or revisiting the Liberty Way Bridge, a plan to connect traffic on Route 130 south of Old Trenton Road, the northern end of Cranbury South River Road, while several groups noted that general improvements to circulation in and around the Cranbury School were needed.

- *Should Cranbury try to be a more "green" and sustainable community? If so, what kinds of actions should the community be taking?*

The general consensus amongst all groups was that use of alternative/renewable energy was a good thing as long as it did not compromise Cranbury's historic and rural character, particularly the historic district, or become visually intrusive, generally. Several groups noted that there may be opportunities to "green" municipal buildings or operations through efficiency upgrades, or through the use of renewable energy.

- *Should Cranbury regulate the size and/or design of single-family homes, and in particular, discourage bulky houses and knock-downs?*

Two of the five groups did not favor additional regulations with regard to size and/or design of single-family homes, and thought that there were sufficient regulations regarding design in Cranbury. The remaining three groups favored limited regulation, stating the desire to preserve smaller homes for young families or restricting regulations to the historic district only.

- *Should Cranbury take steps to increase ratables? If so, what should Cranbury do?*

All but one group indicated that Cranbury should take steps to increase ratables. For the most part, residents felt ratables could be generated by more intensive development on Route 130, while there was widespread agreement that farmland preservation or the village's character not be compromised as a result. Two groups said that COAH implications should be considered when discussing and considering increasing ratables.

The first draft of the Master Plan was circulated amongst the Master Plan Committee for review. After making several changes, the draft was circulated amongst all of the members of the Planning Board, the Township Committee, and their professionals and legal counsel. Certain additional changes were made, and on October 28, a draft was released to the public and published on the Cranbury website. A second Community Meeting for public input was held in Cranbury on November 9. After a brief PowerPoint presentation, a question and answer session was held and many in the audience provided their comments. The Master Plan Committee convened a meeting the following evening to discuss this input, as well as a number of written comments that had been submitted. A revised draft was released on November 16<sup>th</sup>, with a full Planning Board

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meeting scheduled for November 18<sup>th</sup> to review the revised draft, and to which the public was also invited.

Additional comments were solicited, and further refinements were made to the draft and presented to the Planning Board at a subsequent meeting on December 2<sup>nd</sup>. The public hearing for consideration of the Master Plan's adoption was held on December 16, 2010, upon which date it was adopted.

### **E. SCOPE OF MASTER PLAN**

Consistent with the requirements of the Municipal Land Use Law (MLUL), the Township's Master Plan is comprised of a number of plan elements. One of these plan elements—the **Housing Element and Fair Share Plan**, adopted in 2008—is published in a separate document, and is incorporated by reference into this Master Plan. In addition, in 2007, the Township adopted the **Open Space and Recreation Plan** which serves as the Open Space and Recreation Plan Element of the Master Plan, and is also incorporated by reference in this Master Plan. The **Stormwater Management Plan**, recently updated and adopted as required by law is incorporated by reference.

While this Master Plan contains most of the elements of a traditional municipal master plan in New Jersey, there are two notable differences. The first is that, like the 1994 Master Plan, this Master Plan has a Community Design Element. Additionally, while most master plans set forth the major land use policy changes in the Land Use Element, this master plan has them contained in four separate elements: the existing underlying land use policies and the potential buildout based upon them is in Chapter 3, the Land Use Element. Future strategic economic policies which underlie changes in land use policy are set forth in Chapter 9, the Economic Development Element. An explanation of the major changes in the types of uses permitted in Cranbury's commercial zones, as well as changes in area and bulk regulations and with respect to design controls and requirements, are set forth in Chapter 4, the Community Design Element. Finally, a summary and comprehensive description of the Future Land Use Plan is found in Chapter 14, the Future Land Use Plan.

Chronologically, however, the Elements of the Master Plan contained within this document are as follows: Goals and Objectives (Chapter 2), the Land Use Element (Chapter 3), Community Design Element (Chapter 4), the Circulation Element (Chapter 5), Conservation and Environment Element (Chapter 6), Historic Preservation Plan Element (Chapter 7), Community Facilities Element (Chapter 8), Economic Development Element (Chapter 9), the Utility Services Element (Chapter 10), Agricultural Preservation Element (Chapter 11), the Green Buildings and Environmental Sustainability Element (Chapter 12), and the Recycling Element (Chapter 13). As noted above, for ease of reference, the Future Land Use Plan of Cranbury is described in Chapter 14, along with a reexamination of Cranbury's prior Master Plan Reexamination (2005) and a summary of all of the recommendations of this master plan.

# 2010 Cranbury Township Master Plan

## CHAPTER 2. GOALS AND OBJECTIVES

### **A. INTRODUCTION**

The New Jersey Municipal Land Use Law requires that all municipal Master Plans contain a statement of the goals, objectives, principles, assumptions, policies and standards upon which a Master Plan is to be based. The individual Master Plan elements provide the means of implementing the established goals. These goals are intended to guide future development of the Township, as well as help to preserve the Village's historic character and Cranbury's farmland and open space.

### **B. GOALS**

The overriding goal in Cranbury Township is preservation of the Township's rural character. Preservation of rural character was a consistently mentioned goal and overriding concern of all residents, stakeholders and Township officials throughout the Master Plan preparation process. Cranbury's rural character is defined by a variety of elements, including scenic views, country roads, open space, farmland, hedgerows and tree lines, barns, streams and ponds, and historic structures. Historic Cranbury Village is also an important element in preserving the rural character, but it has a vitality and distinctive development pattern of its own. The primary features defining the Village include a distinctive, well-preserved historic district, a compact development form, a mix of residential, commercial and civic land uses, a distinguishable border or "hard edge," a pedestrian orientation, and varied lot and building sizes. The preservation of these features is integral to maintaining the character and quality of life that identifies Cranbury Township. A secondary goal is to provide Cranbury with sufficient ratable base to sustain Cranbury's fiscal and community needs in the long term, but to focus such efforts on the Route 130 Corridor and areas east of Route 130.

### **C. OBJECTIVES**

The objectives detailed below, derived primarily from the 1993 Master Plan and supplemented and revised as appropriate, are summarized according to each of the Master Plan Elements, but are not listed in order of priority. These objectives provide the specific means to ensure that future development will be compatible with the Township's planning goals. As is often the case with Master Plans, some objectives may not be altogether consistent with other objectives (e.g., increasing ratables through more intensive development and reducing traffic congestion). The Master Plan has attempted to balance the objectives that may be in conflict, where possible. The reconciliation requires thoughtful consideration and measured judgment on the part of the elected and appointed officials, as well as those Boards charged with reviewing and approving applications for development.

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### 1. Land Use

The Land Use Plan discusses four separate planning areas, each of which has different objectives.

#### *a. Area West of Cranbury Village*

- (1). Preserve farmland and maintain agricultural uses as viable industries.
- (2). Protect scenic vistas and preserve natural resources.
- (3). Minimize the visual and environmental impacts of new development.
- (4). Create and maintain identifiable neighborhoods that do not conflict with farm operations.
- (5). Establish a greenway network that provides linear open spaces connecting neighborhoods and community facilities, and facilitating passive recreational opportunities.
- (6). Prohibit utilities and institutional uses that compromise the integrity of Cranbury's agricultural area and which is incompatible with the land use and visual character of this area.

#### *b. Cranbury Village*

- (1). Preserve the historic Village character.
- (2). Maintain a "hard" Village edge.
- (3). Maintain the residential/commercial use mix within the Village.
- (4). Maintain the viability of commercial enterprises within the Village.
- (5). Maintain a walking village that provides pedestrian connections and linkages with adjacent residential areas.
- (6). Encourage development patterns that reflect the characteristics of Cranbury Village.
- (7). Allow for a greater variety of housing and shopping opportunities on the few remaining parcels of accessible vacant land in the Township.

#### *c. Route 130 Corridor*

- (1). Maintain the warehouse-office character of land on the east side of Route 130, but improve the image and visibility of the Route 130 highway commercial corridor.
- (2). Encourage larger properties in the HC Zone, GC Zone and PO/R District<sup>2</sup> with frontage along Route 130 to redevelop with a stronger retail focus, but not to the detriment of the Village's downtown.

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<sup>2</sup> As suggested in this Master Plan, the HC Highway Commercial zone is to be re-designated as the C-C Community Commercial district, the GC General Commercial zone is to be re-designated as the C-R Re-

## 2010 Cranbury Township Master Plan

- (3). Capitalize on economic opportunities from pass-by traffic on Route 130 to increase Cranbury's tax ratable base and improve the appearance of existing businesses along Route 130.
  - (4). Provide for traffic improvements to ease traffic congestion on Route 130 and intersecting arterial and collector roads.
- d. Area East of Route 130*
- (1). Maintain a strong non-residential ratable base.
  - (2). Encourage a mix of uses in planned industrial parks, and allow for limited accessory retail uses associated with warehouse/office uses.
  - (3). Establish use and bulk requirements which reflect the availability of infrastructure and recognize different environmental conditions, by allowing higher development intensity on unconstrained land and lower intensities on environmentally-constrained land.
  - (4). Provide outdoor recreation opportunities and pedestrian improvements, including benches, sitting areas and courtyards.

### **2. Community Design**

- (1). Continue to enforce design standards to ensure good visual quality and design for all land use categories.
- (2). Ensure that new development is visually and functionally compatible with the physical character of the Township, especially west of Route 130.
- (3). Improve the visual and physical appearance of nonresidential areas while protecting residential neighborhoods from encroachment by incompatible uses.
- (4). Ensure that all development west of Route 130 is designed to respect the architectural heritage of the Township.
- (5). Establish design standards which preserve the streetscapes of the Village and rural roads within the Township.

### **3. Circulation**

- (1). Ensure adequate parking facilities for both residential and commercial uses in Cranbury Village, especially within the downtown and around the school.
- (2). Reduce through-traffic in Cranbury Village.
- (3). Provide a network of pedestrian paths within the Village area which link residential neighborhoods with community facilities and commercial areas.

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gional Commercial District, and the PO/R Professional Office/Residential zone is to be re-designated as two new districts, the M-C Community Mixed-Use district and the M-R Regional Mixed-Use district (see Figure 4-1).

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- (4). Maintain or improve levels of service and improve traffic safety along the Route 130 Corridor by working with the State to implement improvements to remedy deficient intersections, and to build the bridge linking Liberty Way with Cranbury-South River Road, and to carry Liberty Way south to Route 130 in a configuration which will enable it to serve as a bypass for both northbound and southbound traffic.
- (5). Work with other communities in the region to promote transportation management strategies to reduce peak-hour trips from nonresidential development.
- (6). Match development growth potential with traffic improvements and roadway capacity.

### **4. Conservation**

- (1). Provide a continuous network of open spaces along streams, scenic areas and critical environmental areas and connect with the open space network in Plainsboro.
- (2). Minimize the impacts of development on environmentally sensitive areas including wetlands, stream corridors and aquifer recharge areas.
- (3). Limit or prohibit development in critical environmental areas such as wetlands and stream corridors.
- (4). Encourage lot averaging or cluster development techniques which preserve natural amenities, farms, woodlands, scenic views and open space.
- (5). Require replacement plantings in areas of disturbance that reflect the natural vegetation in these areas.
- (6). Preserve and protect open space areas having scenic views and/or important historical, cultural or agricultural significance.
- (7). To preserve stands of mature trees to the maximum extent possible.

### **5. Historic Preservation**

- (1). Protect and preserve Cranbury's historic sites and districts to maintain the Township's unique rural character.
- (2). Protect the integrity of the Township's historic structures and the cultural setting in which they exist.
- (3). Encourage development patterns immediately adjacent to Cranbury Village that complement the character of the historic Village.

### **6. Community Facilities**

- (1). Review Township facilities for compliance with the requirements of the Americans with Disabilities Act (ADA) and make improvements where necessary.
- (2). Plan community facilities to accommodate anticipated future population growth.

## 2010 Cranbury Township Master Plan

- (3). Maintain appropriate emergency services for Township residents.
- (4). Identify and reserve a location for a new standalone library within the downtown, and the expansion of the existing school for future educational purposes.

### **7. Economic Development**

- (1). Promote nonresidential development that is consistent with the natural capacity of the land and the availability of water and infrastructure to ensure the economic well-being of the Township.
- (2). Direct retail and service commercial development to appropriate locations within the Village and encourage redevelopment at appropriate locations along Route 130 so as to strengthen its viability, to provide for the shopping needs of Cranbury residents and employees, and to generate additional tax ratables.
- (3). Increase the Township's non-residential ratable base by permitting a greater variety of retail uses along the Route 130 corridor and within the Township's professional office/residential district.
- (4). Increase development intensities in industrial zones and lower minimum lot sizes to encourage both expansion and smaller warehouse-office opportunities.
- (5). Streamline and simplify the Township's development approval process for small businesses and residents.

### **8. Utility Services**

- (1). Encourage/require all new developments to locate utilities underground;
- (2). Coordinate the construction and installation of improvements to insure utility services are available when needed;
- (3). Protect the quality of Cranbury's groundwater resources, including the Potomac-Raritan-Magothy aquifer;
- (4). Reduce artificially induced flood damage to public health, life and property;
- (5). Minimize increased stormwater runoff from any new land development;
- (6). Maintain adequacy of existing and proposed culverts, bridges, dams and other related structures;
- (7). Promote groundwater recharge;
- (8). Decrease non-point source pollution, to the greatest extent feasible;
- (9). Maintain the integrity of existing drainage ways for their natural and ecological purposes;
- (10). Reduce soil loss and stream channel erosion resulting from impacts of development and regulate the quantity and quality of soil importation/exportation on all individual development parcels to minimize adverse environmental impacts;

## **2010 Cranbury Township Master Plan**

- (11). Reduce soil and/or wind erosion resulting from development activities;
- (12). Reduce the levels of runoff pollution due to development activities which would otherwise degrade the quality of water and may render it unfit for human consumption and detrimental to biological life.

### **9. Agricultural Preservation**

- (1). Maintain Cranbury Township's agricultural heritage through the preservation of large, contiguous areas of farmland.
- (2). Preserve the natural amenities that contribute to the Township's rural character, including scenic vistas, historic structures and farmland.
- (3). Protect and preserve environmentally sensitive areas.
- (4). Retain open space areas having important historical, cultural or locational significance.

### **10. Green Building and Environmental Sustainability**

- (1). Increase awareness of area residents and implement best practices for mitigating and adapting to global climate change.
- (2). Reduce the energy consumption and the carbon footprint of the Township-owned and managed properties and resources.
- (3). Encourage Sustainable Design and Construction in the Township.
- (4). Reduce the energy consumption and the carbon footprint of Township residents.
- (5). Encourage wind, solar and other renewable energy generating facilities to be located in Cranbury's industrial areas east of Route 130, but not within the preserved farmland area west of the Village.

### **11. Recycling**

- (1). Continue Cranbury's participation in Middlesex County's recycling program.
- (2). Encourage increased recycling efforts and, where possible, increase the types of waste or refuse that are recycled.

## 2010 Cranbury Township Master Plan

### CHAPTER 3. LAND USE

#### **A. INTRODUCTION**

As per the Municipal Land Use Law (NJSA:40:55D-28), the land use element of the master plan is required not only to identify and describe land uses, as well as the future land use plan for the community, but must also provide an inventory of natural conditions, including topography, soil conditions, drainage, floodplain areas, and other features.<sup>3</sup> In addition, the plan must include policy statements indicating the relationship of the Township Master Plan to the State Development and Redevelopment Plan, the master plan and solid waste management plan of the county in which it is located, and the relationship to plans of adjoining municipalities. This information is provided in the following sections below.

#### **B. EXISTING USES**

The Township of Cranbury is located in Middlesex County, and abuts Monroe Township to the west, South Brunswick Township to the north, Plainsboro Township to the west—all in Middlesex County—and East Windsor Township in Mercer County to the south. Cranbury is traversed by State Highway Route 130 and the New Jersey Turnpike, which provides regional access to the greater New York and Philadelphia metropolitan areas. The Township is a partly a rural community with an historic, locally-oriented downtown area and large areas of preserved farmland and open space to the west, and partly a more modernized suburban community with a highway convenience corridor along Route 130, with large warehouse-office uses to its east. (See Figure 3-1, Existing Uses.)

Cranbury Township offers a mix of residential, commercial and professional office uses within the downtown. Land development in the Township has historically been centered around this downtown and the surrounding “hard edge” residential areas, referred to collectively as “Cranbury Village.”

The western portion of the Township has been largely preserved for agricultural uses, where farmland is interspersed with primarily larger-lot, single-family residential uses or clusters of smaller lot single-family subdivisions surrounded by open space or farmland. Smaller, more densely developed historic residential dwellings are located closer to and within the village center. Single-family residential subdivisions, similar in form to typical post World War II suburban development, radiate outward from the village center along Cranbury’s arterial roads, such as South Main Street, Old Trenton Road, Plainsboro Road and Cranbury Neck Road. Highway-commercial uses are found at intervening intervals along Route 130. East of Route 130 is a concentration of warehousing and office/research uses.

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<sup>3</sup> In this Master Plan, the inventory of natural conditions is more appropriately examined in Chapter 6, the Conservation Element.



## **2010 Cranbury Township Master Plan**

Natural features that define Cranbury include three watercourses, Cedar Brook, Cranbury Brook and the Millstone River. The Township's terrain is relatively flat (i.e., lacking slopes greater than 10%) and a large proportion of its soils have been classified as highly suitable for farming. Cranbury's existing land use pattern can be divided into four distinct areas: the rural, agricultural area west of the Village; the downtown and residential uses clustered around it within the Village; the Route 130 commercial corridor; and the warehouse office area east of Route 130.

### **1. Area West of Cranbury Village**

Western Cranbury has been designated as the Township's Farmland Preservation Area and land use in this area is made up primarily of preserved and qualified farmland. There are some large-lot residential developments scattered throughout this portion of Cranbury. Since 1996, four new residential developments have used lot averaging and received a density bonus in exchange for preserving open space. This includes Cubberly Court, the Woods at Cranbury, Applegate Court and the Updike Tract. All of the preserved open space was retained in private ownership, with the exception of the Updike Tract, whose open space was deeded to the Township. In recent years, approximately 70% of the land area within parcels proposed for residential development has been preserved as open space under the lot averaging provision of Cranbury's Land Development Ordinance.

There is some additional permanent open space along the Millstone River, which complements the preserved and qualified farmland tracts.

See Chapter 11, Farmland Preservation, for further description of farmland in the western portion of Cranbury.

### **2. Cranbury Village**

Cranbury's approximately 11 acre village center is characterized by mixed-use development and a more compact design than is found elsewhere in the Township. Many of its buildings date back to the 18<sup>th</sup> and 19<sup>th</sup> centuries, and the entire downtown area was designated as an historic district on the New Jersey Register of Historic Places in 1979 and the National Register of Historic Places in 1980. Land use in the village is comprised primarily of small retail and service establishments, restaurants that permit outdoor dining, professional offices and a mix of single- and multi-family residences. The village has sidewalks and an attractive streetscape with trees and planters.

Retail uses are concentrated along both sides of North Main Street; they are mostly small in size, are situated at the property line or close to the sidewalk, and have limited on-site parking. Parking in the village is provided primarily through the use of on-street parking, with limited rear-yard parking.

Cranbury also accommodates a variety of institutional land uses, ranging from governmental and educational facilities, to houses of worship and civic uses, most of which are concentrated in the village center. Cranbury has one school, the Cranbury School off

## 2010 Cranbury Township Master Plan

North Main Street, which is described more fully in Chapter 8, Community Facilities. Governmental uses include Town Hall, which houses Cranbury's administrative offices, the Board of Education and Senior Center. Town Hall was formerly the Cranbury School Building, which opened with four rooms in 1897. In 1998, ownership of the building was transferred from the Board of Education to the Township of Cranbury; the building was subsequently renovated and dedicated as the municipal building in 2001. Cranbury School is located to the rear of Township Hall, and also houses the Cranbury Public Library, a facility the Township shares with the school. The United States Postal Service is also located at the northern end of the downtown; it is one of the few buildings in the downtown that is set back from Main Street, thus providing a small public green space in front.

Several houses of worship are located in the village, including: St. David's Episcopal Church at 90 South Main Street; Cranbury United Methodist Church at 21 North Main Street; and the First Presbyterian Church at 22 South Main Street. There are two cemeteries in Cranbury: the Brainerd Cemetery is associated with the First Presbyterian Church, and is located behind the church buildings at 22 South Main Street, while the Westminster Cemetery, associated with the former Second Presbyterian Church (demolished in 1935), is located between North Main Street, Westminster Place and Maplewood Avenue.

There has not been any significant development activity in Cranbury Village in recent years; the sale of the former PNC Bank site and associated surface parking lot at 32 North Main Street, and the subsequent plans to redevelop the property, represents the last large developable site in the downtown area. Most real estate activity in the Village in recent years has been confined to changes of occupancy in the downtown's businesses and the provision of outdoor dining at several of the downtown's restaurants.

### **3. Route 130 Corridor**

The Route 130 corridor is comprised primarily of highway-oriented retail uses, including automotive uses (i.e. car and refrigerated trailer rentals, automotive repair and towing, car dealerships); limited retail establishments (e.g. Buy Rite Liquors, California Closets); light industrial uses (e.g. J.S. Paluch, publisher and distributor of religious worship aids; Samson Metals, producer of metal and plastic products); and restaurant uses (e.g. Zinna's Bistro, Cranbury Station Restaurant). There are two hotels along the corridor, the 87-room Staybridge Suites on Cranbury South River Road and the 108-room Marriott Residence Inn on Route 130.

The Township has sought in recent years but has not been successful in either revitalizing or increasing rates along Route 130 through the development or redevelopment of land or marginal businesses. Cranbury's zoning policies have not been able to capitalize upon the large volume of potential customers traveling along the corridor.

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### **4. Area East of Route 130 Corridor**

Taking advantage of Cranbury's location proximity to Exit 8A of the New Jersey Turnpike, this area south of the Exit 8A Interchange and east of Route 130 has been developed with a mix of uses, including office, warehouse/distribution and research and development type uses. This area has been dominated by large warehouse/distribution developments. In fact, the high demand for warehousing as opposed to office space led to an amendment of the Township's Master Plan in 1995 to change the ratio of warehouse to office space within industrial developments, to allow more warehousing space in this area. As described more fully in the Buildout Analysis below, this change has been very successful, leading to the development of millions of square feet of warehouse space in the Township in the past 15 years. Office/research uses are located primarily in a large development known as "Cedar Brook," a planned research-office park located between Route 130 and Cranbury South River Road on Cedar Brook Drive. It has attracted a number of biotechnology companies, such as Abbott Laboratories, Vax Innate and Palatin Technologies.

### **C. BUILDOUT ANALYSIS**

#### **1. Development in Cranbury Since the Adoption of the 2005 Master Plan Reexamination Report**

Development within Cranbury in the last 5 to 6 years, since the last Master Plan Reexamination Report was adopted, has included a significant amount of warehouse/office space (approximately 4.5 million square feet), sizable amounts of office/research and prime office space (half a million square feet and 125,000 square feet respectively), but lesser amounts of retail/restaurant and hotel space ( $\pm 70,000$  square feet) and civic/community space ( $\pm 20,000$  square feet). (See Table 3-1 for specific projects, their parcel identification, the zone in which they are located, the developer and total floor areas.) In total, the amount of non-residential space added to Cranbury since 2004 is in the range of 5,125,000 square feet.

It is noteworthy that most of this development occurred 4, 5 or 6 years ago, with much less having been built in the last 2-3 years, a reflection of the downturn in the real estate market in the region, and the economy nationally and internationally.

On the residential side, the number of added residential dwellings in Cranbury has been far less. Aside from a few scattered single-family homes being built on large parcels on the west side of Cranbury, four projects are responsible for having added a majority of growth in the community. They are the age-restricted, small-lot, single-family residential community called "Four Seasons," developed to the west of Old Cranbury Road south of Old Trenton Road. Within the past 6 years, 103 homes were completed and occupied. Just to its east, with frontage on Old Cranbury Road, is the 20-unit, 100% affordable townhouse development, built by Cranbury Housing Associates. Just across the road from Four Seasons is the 16-unit clustered single-family residential development known as the Sharbell project, located on the Updike parcel. Very large traditional-looking

## 2010 Cranbury Township Master Plan

**Table 3-1: Non-Residential Development Built in Cranbury Over the Last 6 Years**

<u>Land Use</u>	<u>Block</u>	<u>Lot</u>	<u>Zone</u>	<u>Developer</u>	<u>Floor Area (s.f.)</u>
<b>A. OFFICE</b>					
	4	10	RO/LI	Gordon Exit 8A	100,000
	2	10	LI	JenDar Realty	20,000
	7.01	20.02	I-LIS	Stasi	<u>4,000*</u>
	Total				124,000
<b>B. OFFICE/RESEARCH/LAB</b>					
	1	5.01	RO/LI	Eastern Properties	77,500
	1	7.01	RO/LI	Eastern Properties	90,000
	1.01	1	RO/LI	Eastern Properties	250,000
	1.02	5	RO/LI	Eastern Properties	<u>90,000</u>
	Total				507,500
<b>C. OFFICE/WAREHOUSE</b>					
	1.02	3	RO/LI	Eastern Properties	23,500
	2.01	2.01	LI	Kerzner	95,500
	2.01	2.02	LI	Kerzner	55,000
	2.01	3.01	LI	Kerzner	54,000
	2.01	3.02	LI	Kerzner	73,500
	3	1.01	LI	Keystone/Kraft	515,000
	4	1.03	LI	Rockefeller-A	237,000
	4	1.03	LI	Rockefeller-C&B	1,060,000
	5	2.07	LI	Sudler-Ford	300,000
	7	8.02	LI	Pro Logis-5	137,500
	7	18	I-LIS	Pro Logis-Home Depot	771,500
	8	1.01	I-LIS	Rockefeller-Mid-Campus	679,000
	8	5.01	I-LIS	Rockefeller-73 Station Road	<u>427,500</u>
	Total				4,428,000
<b>D. RETAIL/RESTAURANT/HOTEL</b>					
	1.02	4&5	RO/LI	Eastern Properties (Restaurant)	3,500
	5	16.01	HC	R&W Holding (Training Center)	5,500
	6	14.03	HC	American Properties (Restaurant/Bank)	6,000
	23	109	VC	Blue Rooster** (Café/Bakery)	1,000
	35	7.01	V-HR	Cranbury Inn (Banquet)	<u>10,000</u>
	Total				71,500
<b>E. CIVIC/COMMUNITY</b>					
	7.01	20.03	I-LIS	Cranbury Township (Police Station)	15,000
	20.12	1.01	RAR	K-Hov (Community Building)	<u>6,500</u>
	Total				21,500
<b>TOTAL</b>					<b>5,125,500 s.f.</b>

\* Adaptive reuse of historic home, moved to the site.

\*\* Addition to adaptive reuse of existing residence.

## 2010 Cranbury Township Master Plan

single-family homes located on lots of over an acre in size are clustered in the northeast corner, with a large expanse of preserved open space remaining. This open space has been dedicated to the Township and has been earmarked for future active recreation, if and when needed (see Cranbury's Open Space and Recreation Plan, adopted in January 2007). Finally, at the far western end of Cranbury, on a short cul-de-sac known as Shady Brook Lane off George Davidson Road, the remaining seven single-family homes on the 30-unit cluster single-family development were built. In total, the number of residential units added to Cranbury in the past 6 years is approximately 160 units.

### **2. Developments under Construction, Approved or in the Pipeline**

How much development can Cranbury anticipate coming online in the next 10 to 15 years? Obviously such a question is difficult to answer, because so many factors can influence a projection of this type. For example, had this question been asked back in 2006 or 2007, when the real estate boom was at its height, a straight-line projection of the amount of development which had occurred in the previous 5 years would have put this projection at another 10 million square feet of non-residential space. With the slow-down in the economy and the uncertainty of the real estate market, such projections must be lowered.

For master plan purposes, the time horizon is initially the next 10 to 15 years, but also ultimately of full buildout, when all available, developable land is developed. It is incumbent in a buildout analysis to examine a number of aspects. The first is development that is under construction and which presumably would be completed and occupied in the near future. The second are those developments which are approved and are therefore likely (but not inevitably) to be developed in the next 10 to 15 years. The third are those developments "in the pipeline," that is, somewhere within the approval process, i.e., undergoing conceptual review or actually having a pending application before one of Cranbury's review boards—the Planning or Zoning Board—which also are likely to be developed in some fashion in that time span.

The final aspect is necessarily a more long-term outlook—development which is possible and perhaps probable on vacant or marginal or underutilized land—whose current zoning regulations would allow a certain type and amount of development some time in the future. This latter analysis is by definition less accurate and uncertain. Factors such as the presence of environmental constraints or lack of access or water and sewer availability may prohibit, inhibit, reduce, or delay such development. Nevertheless, a community should always be cognizant of what the future levels of population or employment might be reached and how much and what types of future developments are possible based upon land use policies and regulations contained within a master plan and land use regulations. This should be explored in order to evaluate present and future capacities in infrastructure and community facilities—such as available water, sewer and road capacities and capacities within schools, libraries and other community facilities. The number of police, fire and other service employees that may be needed, and the ulti-

## 2010 Cranbury Township Master Plan

mately, the character and pattern of land use development that is possible, are also major considerations. Such an evaluation may give rise to the need to adjust some of the elements of the master plan—land use, circulation, utilities, community facilities, etc.—so as to achieve a desirable outcome in the long term.

Table 3-2 sets forth all known non-residential developments which are: (a) under construction; (b) have been approved; or (c) are in the pipeline. Since many are in conceptual form, less reliance can be placed on the amount of development that may ultimately be approved or a certainty that such projects will be built. Nevertheless, it is instructive to note that the predominant form of development anticipated in the future, will continue to be office-warehouse development, with approximately 4 million additional square feet approved, and over 4 million additional square feet in the planning stages. One office-research development will be completed soon. However, no further office-research space is planned. Only a small amount of future office development planned or approved. Two mixed-use retail developments are likely—one containing a hotel, banquet restaurant and wine store (AVN Holdings, LLC), located at the corner of Route 130 and Half-Acre Road), and another with a small retail component and a larger office component (Verde Group, on South River Road at its intersection with Dey Road). Two houses of worship, one on Dey Road and another on Cranbury Brick Yard Road east of the Turnpike, are in the conceptual planning stages. The remaining projects to be expected in the future in Cranbury are smaller civic or retail projects or the reuse of older industrial sites, as set forth in Table 3-2.

On the residential side, very little new development has been approved or is planned. The only sizable project which is in the approval pipeline is the 32-unit affordable housing project to be developed on a parcel on the west side of Route 130 just north of the Ryan Road cul-de-sac, by Cranbury Housing Associates. Aside from this project and ongoing renovation and additions to existing homes, no new residential development has been approved in Cranbury in the last few years.

### **3. Development Potential Based upon Existing Vacant Land**

Despite the presence of large areas of open space, farm fields and vacant parcels both to the east and west of Cranbury Village, there are only a few parcels in Cranbury which are neither developed, deed-restricted against future development, approved for development, nor presently in the approval or conceptual development pipeline.

Within the confines of Cranbury Village, both within the downtown and the surrounding residentially developed neighborhoods, only a few vacant parcels remain. Some of them, such as the parcels located to the west side of North Main Street and south of Dey Road, are environmentally constrained and may not be developable at all. One fairly large, apparently vacant property on the southbound side of Route 130, just south of Old Trenton Road, is actually a detention basin. The only two substantial parcels available for development are both located in Cranbury's Professional Office/Residential zones:

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**Table 3-2: Non-Residential Development under Construction, Approved or in the Pipeline**

<u>Developer</u>	<u>Land Use</u>	<u>Status</u>	<u>Floor Area (s.f.)</u>
<b>A. <u>UNDER CONSTRUCTION</u></b>			
▪ Eastern Properties (Block 1.03, Lot 1)	Office/Research		82,000
<b>B. <u>APPROVED</u></b>			
▪ Keystone South Park	Office/Warehouse		810,000
▪ Cranbury Brick Yard LLC	Office/Warehouse		2,832,000
▪ Silvi-Crete <sup>1</sup>	Office/Warehouse		10,000
▪ Verde Group <sup>2</sup>	Mixed Use (office/retail)		63,500
▪ St. David's Church <sup>3</sup>	Civic/Community		4,500
▪ Pole Barn–Board of Education	Storage		1,500
▪ Updike Parsonage Barn <sup>4</sup>	Civic/Community		1,500
▪ Comfort Suites	Hotel		54,500
▪ AVN Holdings	Hotel/Banquet/Wine Store		97,000
▪ Sweetwater Construction <sup>5</sup>	Office/Retail		<u>8,000</u>
Total			3,882,500
<b>C. <u>IN PIPELINE</u></b>			
▪ Alfieri (Brainerd Park)	Office/Warehouse	Concept Plan (DRC)	3,054,000
▪ Alfieri (Millstone Park)	Office/Warehouse	Deemed Complete – On hold	1,241,500
▪ 7-Eleven	Retail	Concept (DRC)	3,000
▪ Norland Products <sup>6</sup>	Office/Warehouse	Concept (DRC)	10,000
▪ JET USA	House of Worship/ School	Concept (DRC)	38,000
▪ Gateway Cathedral	Church/School	Concept (DRC)	89,000

<sup>1</sup> Reconstruction of an existing 10,000 s.f. warehouse/office building

<sup>2</sup> Use variance only. Applicant to obtain site plan approval.

<sup>3</sup> Addition to an existing church

<sup>4</sup> Reconstruction of historic barn at Barn Park

<sup>5</sup> Adaptive reuse of existing bank

<sup>6</sup> Adaptive reuse of existing warehouse/office space

## 2010 Cranbury Township Master Plan

the first are 3 abutting properties referred to by the name of the owners of the 3 parcels—the Kushner/Haggerty/Cheney parcel—comprising about 11 acres of land, west of South Main Street and south of Old Trenton Road. Under present zoning only  $\pm 5$  single-family homes or a few thousand square feet of professional office space could be developed. The second is a  $\pm 5$ -acre parcel in the PO/R zone located west of South Main Street, just south of the Cranbury Circle, owned by Sandy Kerzner. Again, approximately 3 single-family homes or a small amount of professional office space could be accommodated. Because of their accessibility and visibility on busy roads and their proximity to residentially developed areas of the community, both properties have the potential to be utilized at higher development densities, and to provide for a greater range of residential and/or commercial development than the present zoning permits. Recommendations for their rezoning are provided in the final chapter of this Master Plan, with greater detail as to their potential for economic development in Chapter 9, the Economic Plan Element. The type of use, bulk and design controls that might regulate the development under such rezoning is described in Chapter 4, the Community Design Element. Such a rezoning would increase their development potential for between 50 and 60 residential units and/or office or retail development of approximately 50,000 square feet.

On the west side of Cranbury, most of the undeveloped parcels of land are either deed-restricted farmland or permanent, preserved open space. There are, however, a few vacant parcels capable of yielding some residential development, either in the form of large-lot subdivisions or cluster subdivisions (where a density bonus of a 25% increase in the number of units is granted). In the latter case, homes are clustered in one portion of the parcel on smaller lots, with the remainder of the parcel set aside for permanent open space or farming. Some of the parcels that are vacant and developable on the west side of Cranbury Village are currently farmed; others are constrained by the presence of wetlands. It is estimated that if all such parcels were to be subdivided, the total development yield would be in the range of 60 units, with 20 units being located in the A-100 Agriculture Preservation District and another 40 in the R-LI Residential Low-Impact District.

The Route 130 corridor has a few small, vacant parcels, but development in the future is likely to be derived from redevelopment of marginal or underutilized property. The likelihood of that occurring under present zoning is poor, however, because the range of permitted retail uses would not provide the necessary economic incentive for their redevelopment. Recommendations for revising the regulations of both the HC-Highway Commercial zone (located in the center of Cranbury) and the GC General Commercial zone (located in the south of Cranbury) are also contained in the final chapter of this master plan, and are discussed more fully from an economic development viewpoint in Chapter 9, the Economic Plan Element, with the recommended use, bulk and design considerations detailed in Chapter 4, the Community Design Element. It is difficult to estimate the yield likely from such a rezoning, since the economics related to redevelop-

## 2010 Cranbury Township Master Plan

opment is much more complex than the economics of development on vacant land. However, it is not unrealistic to assume that between another 75,000 and 150,000 square feet of retail space could be developed along the corridor in the next 10 to 15 years.

Finally, there are still a few significantly large vacant and uncommitted parcels of land to the east of Route 130 which have the potential to add a considerable amount of non-residential floor area to Cranbury's inventory. There are four contiguous vacant parcels at the north end of the Township, adjacent to South Brunswick Township, under single ownership (M. Alfieri Co.), which are capable of accommodating approximately 2 million square feet of office space. Given the large inventory of vacant office space in the region and State, coupled with the fact that Exit 8A is identified more as a warehouse-office area than a corporate office area, such development in the near or even distant future is extremely unlikely. It is possible that without a demand for office space, this land would be developed for a lesser amount of warehouse office space—lesser because warehouse office space is typically one-story in height, as opposed to office development, where multiple stories allow higher yields to be obtained.

Most of the remaining vacant parcels in Cranbury are located east of the Turnpike, adjacent to Monroe Township, at the extreme eastern edge of the Township. These properties are the least attractive for development, not because of their zoning, which mirrors that which is provided in the established warehouse-office developed areas west of the Turnpike, but because of three factors: (1) much less favorable access to Exit 8A of the Turnpike; (2) lack of public sewer service; and (3) the presence of environmental constraints—primarily stream corridors and wetlands. Nevertheless, in the distant future, after all of the approved and still-to-be-developed parcels of land located between Route 130 and the Turnpike are fully developed, this area too is likely to be developed for warehouse-office uses. Estimates of the buildout capacity of this area would be in the half a million to a million square feet range.

Finally, although no specific site has been rezoned or even identified at this time for the development of additional affordable housing, Cranbury's adopted Housing Element and Fair Share Plan, (which has received Substantive Certification) calls for the Township to accommodate another 51 units of family affordable homes and 67 units of senior housing. The need for such housing is predicated on the pace and amount of growth within Cranbury—which, as discussed in the analysis above, will primarily come from warehouse-office development. Since such development is stalled by the economy, the need for such additional sites is not immediate. Moreover, the status of the third-round rules which have mandated such housing to be built is very much in a state of uncertainty, with the "growth share" methodology of determining a municipality's fair housing obligations having been recently struck down by the Appellate Court. While Cranbury has every intention of fulfilling its fair share obligations, changes to the laws and regulations may well delay, diminish or expunge the need for such additional development. Until this becomes clear, there is no point in including this amount of development in the

## 2010 Cranbury Township Master Plan

buildout analysis. However, it should be noted that where new multi-family residential developments are permitted, including an increase in development densities, an affordable housing set-aside will be required in accordance with State law, in order to satisfy whatever obligation such housing generates. In this manner, Cranbury's taxpayers will not be required to pay for or subsidize such affordable housing obligations.

### **D. EXISTING ZONING**

Cranbury's zoning map differentiates land into one of 16 zones or districts in the Township. Each of these zones, including the types of uses permitted and the major bulk standards that apply in each case, is described briefly below.

Cranbury's zoning ordinance specifies several land uses that are permitted in all zones throughout the Township, including: commercial agriculture with permanent agricultural stands (subject to site plan approval); home agriculture with temporary agricultural stands; public utilities and service structures; and houses of worship.

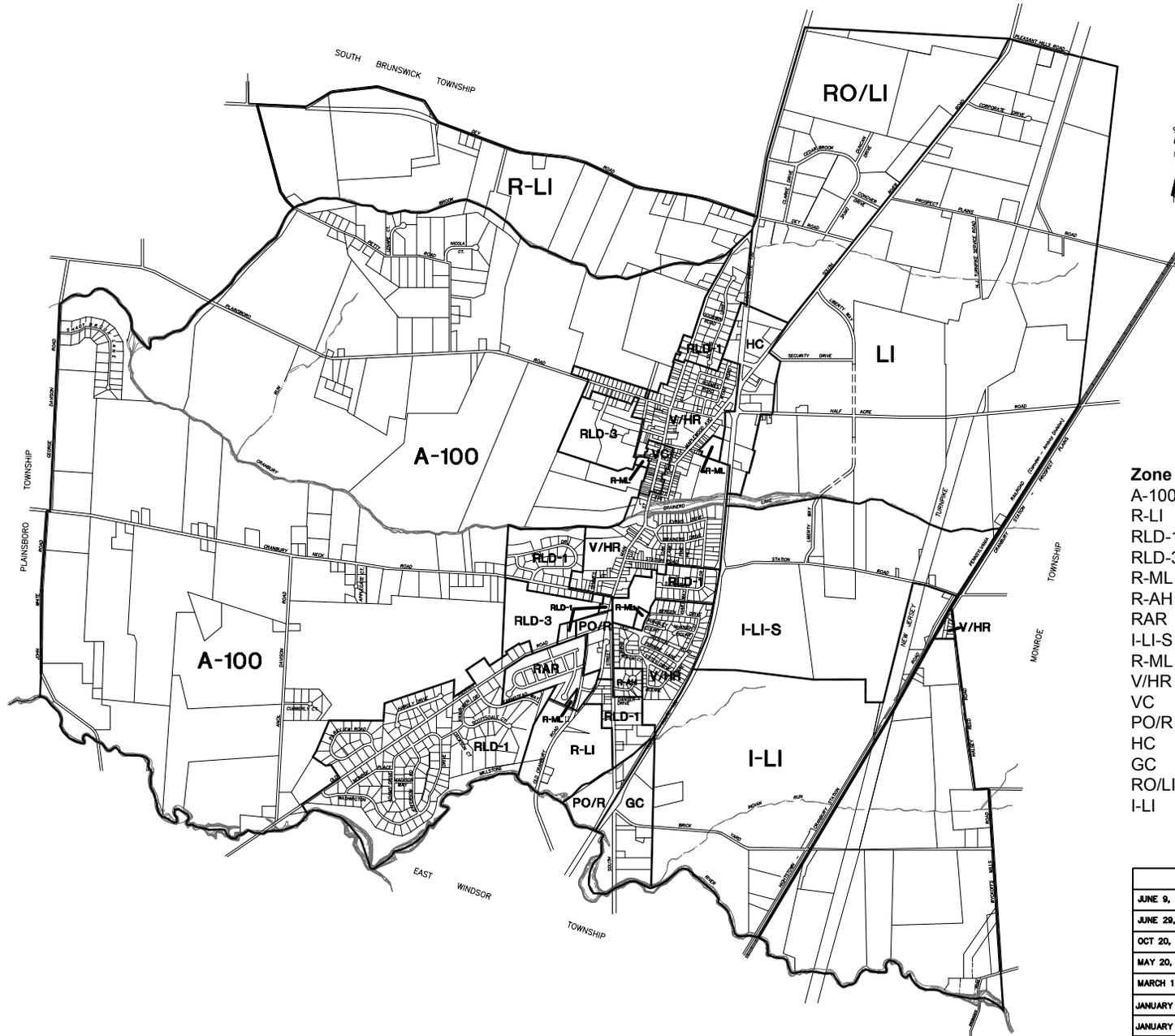
#### **1. Agricultural Districts**

- **A-100 Agricultural Preservation.** The A-100 Agricultural Preservation District encompasses a majority of the land in western Cranbury, and includes large tracts of preserved farmland. Permitted uses in the A-100 zone consist of detached single-family and lot averaged detached single-family dwellings and commercial and home agriculture, among others. For all permitted uses except lot averaged single-family development, minimum lot area is six acres, with maximum FAR of 0.06 and maximum impervious coverage of 20%. Lot averaged detached single-family development must be on a tract of 20 acres or more, on either contiguous or non-contiguous lots under common ownership; minimum lot size may be reduced to 40,000 square feet as long as 70% of the tract is dedicated to open space.

#### **2. Residential Districts**

In addition to those uses permitted in all zones in Cranbury as specified above, there are a number of uses identified in the Township's zoning ordinance that are permitted in all residential districts, including: family day-care homes that provide child care services to no more than five children at a time; community residences for the developmentally disabled; community shelters for victims of domestic violence; home occupations that are secondary to the use of the dwelling for residential purposes; and bed-and-breakfast establishments.

**R-LI Residential Light Impact.** The R-LI Residential Light Impact zone is located north of Cedar Brook and west of Route 130 in the northwestern portion of the Township. The zone requires a minimum lot size of four acres and a minimum lot width of 200 feet; building height can extend to 35 feet or 2½ stores, whichever is less. In addition to the uses permitted in all districts within Cranbury, detached single-family dwellings and public parks and playgrounds owned and operated by



Zone	Designation
A-100	Agricultural Preservation
R-LI	Residential - Light Impact
RLD-1	Residential - Low Density (1)
RLD-3	Residential - Low Density (3)
R-ML	Residential - Mt. Laurel
R-AH	Residential - Affordable Housing
RAR	Residential - Age Restricted
I-LI-S	Light Impact Industrial - Sewer Area
R-ML II	Residential - Mt. Laurel II
V/HR	Village/Hamlet Residential
VC	Village Commercial
PO/R	Professional Office/Residential
HC	Highway Commercial
GC	General Commercial
RO/LI	Research Office & Light Industrial
I-LI	Light Impact Industrial

REVISIONS	
JUNE 9, 1995	ORIGINAL
JUNE 29, 1995	CORRECT ERROR A-100 ZONE
OCT 20, 1995	ADD LI ZONE
MAY 20, 2000	ADD RAR & I-LI-S ZONES
MARCH 12, 2003	ADD VARIOUS NEW DEVELOPMENTS
JANUARY 25, 2007	REVISE I-LI-S ZONE TO INCLUDE LOT 19, BLOCK 10
JANUARY 9, 2008	ADD R-ML II ZONE

Figure 3-2: **Current Zoning**  
Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
Source: Hatch Mott MacDonald 2009

**JANUARY 2008**  
CRANBURY TOWNSHIP  
MIDDLESEX COUNTY, NEW JERSEY  
RICHARD PREISS, PP  
CRANBURY TOWNSHIP PLANNER



## 2010 Cranbury Township Master Plan

the Township are permitted. Existing land use in this area is composed primarily of farmland and larger lot, single-family residential uses.

**RLD-3 Residential-Low Density 3.** There are two RLD-3 Residential-Low Density 3 districts in the Township, the first of which is bounded generally by Cranbury Neck Road to the north, Main Street to the east and Old Trenton Road to the south, and the second, known as the “Wright South” property, located west of Main Street to the south of Plainsboro Road. Per Cranbury’s existing land use map, the RLD-3 zone is composed of a mix of residential and agricultural land uses. In addition to those uses permitted in the R-LI and RLD-1 zones, the RLD-3 zone permits lot averaged detached single-family dwellings. “Conventional” detached single-family homes in the district must have a minimum lot size of four acres and a minimum lot width of 200 feet. Lot averaged residential development is permitted on both contiguous and noncontiguous lots under common ownership; the tract must be 10 or more acres, 70% of which must be permanently deed restricted for open space, and can be developed to a maximum gross density of one unit per three acres.

- **RLD-1 Residential-Low Density 1.** Many of Cranbury’s newer residential subdivisions are located in the RLD-1 Residential-Low Density 1 district. Within the Township, RLD-1 zones can be found in multiple locations proximate to the downtown area (i.e. subdivisions west of Route 130, off of Main Street, Cranbury Neck Road and Old Trenton Road). Permitted uses are the same for the RLD-1 as the R-LI and RLD-3 zones (see above). Minimum lot size in the RLD-1 zone is 40,000 square feet, smaller than that of the R-LI and RLD-3 zones, and minimum street frontage is 170 feet.
- **R-ML Residential-Mount Laurel.** The R-ML Residential-Mount Laurel zone is comprised of a small tract of land located north of Old Trenton Road and west of Bergen Drive, adjacent to Heritage Park. The entirety of the tract has been improved with a townhouse development. Planned affordable residential development is permitted in the R-ML zone, and can be composed of any combination of single-family detached, semi-detached and attached dwellings; two-family dwellings; townhouses; and multifamily dwellings. The maximum gross density for the district is 10 dwelling units per acre, with a minimum lot size of two acres and a minimum lot width of 200 feet; buildings may extend to a maximum of 40 feet or three stories.
- **R-ML II Residential-Mount Laurel II.** The R-ML Residential-Mount Laurel II zone is comprised of a small triangle of land located just west of Old Cranbury Road and north of Pin Oaks Drive that has been improved with six multi-family dwellings. All of those uses permitted in the R-ML zone are permitted in the R-ML II zone, as described above. The minimum lot area for the district is two acres, the minimum lot width is 200 feet and the maximum gross density is 10 dwelling units per acre. The

## 2010 Cranbury Township Master Plan

bulk standards for the R-ML and R-ML II zones are similar; one major difference is that the required yards in the R-ML II zone are smaller than that of the R-ML zone.

- **R-AH Residential-Affordable Housing.** Like the R-ML and R-ML II zones, the purpose of the R-AH Residential-Affordable Housing zone is to create opportunities for the construction of housing for low- and moderate-income households. The R-AH zone is located to the east of South Main Street and encompasses Danser Drive; the site has been developed with a mix of single-family and multi-family dwellings. Detached single-family dwellings, as well as multifamily structures with two or more dwelling units affordable to low- and moderate-income households developed on property owned by the Township, are permitted in the R-AH district. The maximum density for market rate single-family detached dwellings is 1.2 units per acre (inclusive of land dedicated to the Township), with a minimum lot size of 15,000 square feet and a minimum lot width 75 feet. Setback requirements and building design for the affordable housing component of the development must be complimentary to the market rate housing on the site.
- **V/HR Village/Hamlet Residential.** The V/HR Village/Hamlet Residential districts are located within and adjacent to Cranbury's downtown core, and are composed of historic residences along North Main Street, as well as newer subdivisions that branch off of North Main Street. Minimum lot size in the V/HR district is 15,000 square feet, with a minimum lot width of 100 feet. In addition to those uses permitted in all districts in Cranbury, single-family homes and public parks owned and operated by the Township are permitted in the V/HR zone. Conversion of any single-family dwelling into a two-family dwelling is permitted as a conditional use, subject to several conditions, including a minimum lot size of 18,000 square feet and a minimum dwelling unit size of at least 600 square feet. Additionally, the dwelling unit must have been built prior to 1953 (the date of the first zoning in Cranbury).
- **R-AR Residential-Age Restricted.** There is a single R-AR Residential-Age Restricted zone in Cranbury, comprised of 136 age-restricted housing units known as the Four Seasons at Cranbury, located generally south of Old Trenton Road and west of Old Cranbury Road. A portion of the district is reserved for low- and moderate-income units, which are not subject to the age-restrictive provisions that apply to the remainder of the district. Detached single-family, semi-detached single-family and zero lot line housing for residents aged 55 and over are permitted in the R-AR district. The bulk requirements in the R-AR zone are intended to encourage a mix of lot sizes; permitted lot areas range from 5,000 square feet to 10,000 square feet. Maximum Floor Area Ratio (FAR) in the district is 0.40, with the condition that no house may be greater than 3,000 square feet regardless of lot area, and at least 40% of the zone must be dedicated to common open space.

## 2010 Cranbury Township Master Plan

### 3. Commercial and Office

- **VC Village Commercial.** Cranbury's historic downtown core is zoned VC Village Commercial, and is located along North Main Street from Westminster Place to the north and Scott Avenue to the south. Permitted uses include: detached single-family and two-family dwellings; dwelling units within mixed-use buildings; retail and service establishments; offices for professional services, commercial, business and government; banks and financial institutions; and restaurants, excluding drive-through establishments. Minimum lot area in the VC district is 6,500 square feet, with a maximum building coverage of 30% and a maximum impervious coverage of 60%. Front yard depth may be either 45 feet or the average setback of existing buildings on the same side of the street within 200 feet of the lot in question, whichever is less; this measure serves to preserve the historic character of the village core by requiring new buildings and additions to compliment that of proximate existing buildings.
- **PO/R Professional Office/Residential.** The PO/R Professional Office/Residential zone is located along Old Cranbury Road from Pin Oak Drive to the south and extending one lot north of Old Trenton Road. Detached single-family dwellings, offices for professional services, commercial, business and government, garden centers and nurseries, banks and financial institutions, etc. are permitted in the PO/R district. Bulk standards for the district are specified for each permitted land use, and include a two-acre minimum lot size for single-family dwellings and a two-acre minimum lot size for garden centers and nurseries.
- **HC Highway Commercial.** The HC Highway Commercial district generally includes land on both sides of Route 130 both north and south of the intersection of Route 130 and Maplewood Avenue/Cranbury South River Road. Uses permitted in the HC zone are similar to those outlined for the PO/R zone above, and include: restaurants, excluding drive-through or fast-food establishments; offices for professional services, commercial, business and government; banks and financial institutions; commercial recreation facilities; light industry; and hotels and motels. Minimum lot area district-wide is two acres and maximum FAR is 0.20 for a one-story building and 0.25 for a two-story building. Impervious surfaces may not cover more than 60% of the lot. The HC district hosts a busy commercial corridor, the development of which includes Residence Inn, Staybridge Suites, Enterprise Rent-a-Car, 1<sup>st</sup> Constitution Bank and other uses typical of an auto-oriented, suburban highway.
- **GC General Commercial.** The GC General Commercial district is located along the Route 130 corridor in southern Cranbury, and includes the southernmost portion of South Main Street. Minimum lot area in the district is five acres, with a maximum FAR of 0.20 and a maximum impervious coverage of 50%. Permitted uses are similar to that of the PO/R and HC zones, as outlined above, and include: light industry; contractors, such as heating, plumbing, electrical and building ser-

## 2010 Cranbury Township Master Plan

vices; wholesale sales and services; garden shops; and auto service stations and repair shops. Truck stops and outdoor storage are prohibited. As per Cranbury's existing land use map, land uses in the district include automobile retail (i.e. gas station, car dealership), light-industrial (i.e. West Pattern Works) and commercial uses (i.e. Monroe Medical Supplies).

### **4. Industrial**

- **RO/LI Research Office and Light Industrial.** The RO/LI Research Office and Light Industrial district is located in the northern portion of the Township, and is bounded generally by Cranbury South River Road to the east, Route 130 to the west and Pleasant Hills Road to the north. Land use in this area is primarily storage/warehousing and office research campuses, which has attracted health care and biotechnology companies to Cranbury (e.g. Abbott Laboratories, Amicus Therapeutics, Vax Innate Corporation). Permitted uses in the RO/LI zone include: light industry; offices for professional services, commercial, business and government; planned industrial parks; commercial recreation; and scientific or research laboratories. For all uses except office and planned industrial parks, minimum lot area is 10 acres and maximum FAR is 0.22 for one-story buildings and 0.30 for multistoried buildings; planned industrial parks must have minimum area of 50 acres in contiguous parcels.
- **LI Light Industrial.** The LI Light Industrial zone is the largest district in the eastern portion of Cranbury, and encompasses a significant portion of the New Jersey Turnpike corridor. The LI zone is composed primarily of storage and warehousing uses, with limited farmland portions. Permitted uses in the LI zone are the same as that of the RO/LI zone above (e.g. light industry, planned industrial parks, commercial recreation, etc.). Minimum lot area is 10 acres for all uses in the LI district, except for offices and planned industrial parks, with a maximum FAR of 0.22 for one-story buildings and 0.30 for multistoried buildings. One major difference between the LI and RO/LI districts is that within the RO/LI zone, warehouse and light industrial uses may not make up more than 70% of a planned industrial park, while there is no such "use mix" provision in the LI district.
- **I-LI Light Impact Industrial.** The I-LI Light Impact Industrial district is located in southeastern Cranbury, generally from Route 130 to the west, Hightstown Cranbury Station Road to the east and the Millstone River to the south. Permitted uses in the I-LI district include: light industry, offices for professional services, commercial, business and government; commercial recreation facilities; scientific or research laboratory; and wholesaling of goods and services. Minimum lot area is six acres district-wide, with maximum FAR of 0.20 and maximum impervious coverage of 40%. Maximum FAR may be increased to 0.30 if the majority of inbound non-employee traffic to the site is accomplished by rail.

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- **I-LIS Industrial-Light Impact Sewered.** Permitted uses in the I-LIS Industrial-Light Impact Sewered district are the same as in the I-LI zone above, but the two districts have different bulk standards. The I-LIS district is located in mid-eastern section of Cranbury, and includes a portion of the New Jersey Turnpike corridor; the zone is bounded on the west by Route 130 and on the east by Hightstown-Cranbury Station Road. Minimum lot area in the I-LIS zone is six acres, with a maximum FAR of 0.30 and maximum impervious coverage of 50%.

### **E. CRANBURY'S LAND USE PLAN**

Cranbury's Future Land Use Plan is shown in map form and the proposed land use designations are explained in Chapter 14, "Future Land Use, Master Plan Reexamination and Summary of Master Plan Recommendations."

### **F. CONSISTENCY WITH THE NEW JERSEY STATE DEVELOPMENT AND RE-DEVELOPMENT PLAN AND THE MIDDLESEX COUNTY MASTER PLAN**

As per the Municipal Land Use Law (NJSA:40:55D-28), the land use element of the master plan is required to not only identify and describe existing land uses and the future land use plan for the community, but must also include policy statements indicating the relationship to the State Development and Redevelopment Plan, the master plan and solid waste management plan of the county in which it is located, and the relationship to the plans of adjoining municipalities. This information is provided in the following sections below.

#### *New Jersey State Development and Redevelopment Plan*

The State Development and Redevelopment Plan (State Plan) was adopted in March 2001 by the legislature of the state of New Jersey. Since that time, the State Planning Commission has issued a working Draft Final State Plan, which was intended to be adopted after a series of public hearings. The adoption process has been stalled for several years and the date of its adoption is uncertain. The State Plan is not a regulation, but a policy guide, and is meant to coordinate planning activities and development throughout the state. At the municipal level, master plans should be evaluated and modified to reflect the policies of the State Plan, as necessary.

The purpose of the State Plan is to "provide a balance between growth and conservation by designating planning areas that share common conditions with regard to development and environmental features." The State Plan Map indicates that Cranbury is located within three different state-designated planning areas. A majority of western Cranbury is designated as Planning Area 4 (PA 4), or the Rural Planning Area, though portions of the Township north of Cranbury Brook in western Cranbury are designated as Planning Area 4B (PA 4B), or the Rural/Environmentally Sensitive Planning Area. Most of eastern Cranbury proximate to the New Jersey Turnpike and Route 130 (i.e. warehousing and office land uses), as well as Cranbury's village center, is designated as Planning Area 2 (PA 2), or the Suburban Planning Area. Cranbury's downtown core is identified on the

## 2010 Cranbury Township Master Plan

State Plan Map as a “designated village center”, and therefore is central place in which the State Plan recommends that future growth should be directed or contained.

Characteristics of areas designated as PA 4 and subarea PA 4B include large areas of open and cultivated land surrounded by regional or village centers; these planning areas contain most of the state’s prime farmland and wooded tracts with environmentally sensitive features. In Rural Planning Areas, the State Plan recommends accommodating growth in designated centers and limiting the expansion of sewers and public water outside of these centers. Characteristics of areas designated as PA 2 include low-density development with a lack of high intensity centers and a fragmented development pattern with an availability of developable land; these areas are or will be served by infrastructure, though alternate modes of transportation are limited or do not exist. Suburban Planning Areas are designated for future growth, though only where appropriate.

The 2009 Draft Final State Plan Policy Map for Mercer County, on which Cranbury is represented, indicates an expansion of PA 2 within Cranbury, primarily along Old Trenton Road where development has occurred since the last State Plan was issued. Overall, there are not any revisions that are expected to substantially impact land use policies in this Master Plan.

The State Plan has a set of Statewide Planning Goals, stemming from the State Planning Act. The relationship of the Master Plan to these goals is described below:

### **Goal 1: Revitalize the State’s Cities and Towns.**

The Master Plan recognizes the importance of preserving Cranbury’s historic downtown core and enhancing existing neighborhoods. Cranbury’s Master Plan includes a Community Design Element, which seeks to ensure that new development is compatible with the existing physical character of the Township, thereby preserving the architectural heritage and streetscapes that makes Cranbury unique.

### **Goal 2: Conserve the State’s Natural Resources and Systems.**

The Master Plan takes into account the Township’s rich agricultural heritage and provides an update to the existing Farmland Preservation Plan as a means to identify and preserve additional farmland, where appropriate. In addition, the Master Plan recognizes the importance of preserving existing natural resources and systems through the preparation of a Conservation Element and a Recycling Element. An overarching principle of the Master Plan is to promote a balance of land use, including supporting sustainable development practices and encouraging stormwater management controls for new development.

### **Goal 3: Promote Beneficial Economic Growth, Development and Renewal for All Residents of New Jersey.**

The Master Plan recognizes the importance of preserving existing historic resources, open spaces, environmentally sensitive lands and community amenities in order to enhance quality of life in the Township, in Middlesex County and other areas throughout

## 2010 Cranbury Township Master Plan

the region. In addition, the Master Plan includes an Economic Development Element, which supports this goal.

### **Goal 4: Protect the Environment, Prevent and Clean Up Pollution.**

As stated in Goal 2, an overarching principle of the Master Plan is to promote a balance of land uses. The Township adopted a Stormwater Management Plan in 2005 to accommodate and manage increases in runoff associated with future development and land use changes, as well as an Emergency Action Plan for the Brainerd Lake Dam in 2004, revised in 2008.

### **Goal 5: Provide Adequate Public Facilities and Services at a Reasonable Cost.**

The Community Facilities Element of the Master Plan assesses existing public and quasi public facilities and services in the Township and offers recommendations regarding how to improve and enhance access to these amenities.

### **Goal 6: Provide Adequate Housing at a Reasonable Cost.**

A Housing Element and Fair Share Plan was prepared in 2008, and was drafted in compliance with COAH's procedural and substantive regulations for the third fair share cycle (2004-2018). It received Substantive Certification in April 2010.

### **Goal 7: Preserve and Enhance Areas with Historic, Cultural, Scenic, Open Space and Recreational Value.**

The Master Plan contains an Historic Preservation Element that provides recommendations to assist and guide historic preservation efforts in the Township; it provides an overview of important historic resources within Cranbury, and can serve as a reference point for the Township to increase awareness of the community's historically important structures and sites. In addition, the Open Space and Recreation Element, adopted in 2007, outlines the current recreational amenities in the Township and identifies future recreation needs for residents.

### **Goal 8: Ensure Sound, Integrated Planning and Implementation Statewide.**

As evidenced by the analysis included within this portion of the Land Use Element of the Cranbury Master Plan, the Township is striving to be consistent with the New Jersey State Development and Redevelopment Plan, Middlesex County planning policies and the planning policies of all municipalities adjacent to Cranbury.

#### *Middlesex County Master Plan*

Middlesex County's last full Master Plan was prepared in the 1970s. Updates to certain elements have been prepared more recently, including the Comprehensive Farmland Preservation Plan in 2008, the Bicycling Guide in 2001, and the Transportation Plan in 1999. Though it has not issued a full Master Plan in recent years, Middlesex County has engaged in strategic planning efforts over the past several decades; publications include Growth Management Plans in 1990, 1992 and 1995 and Middlesex County Cross Acceptance Reports in 1998 and 2005.

## 2010 Cranbury Township Master Plan

Four major strategic planning goals were outlined for Middlesex County in the 1998 Middlesex County Cross Acceptance Report:

- Facilitate the provision of housing and jobs at reasonable cost, and the achievement of sustainable economic growth;
- Provide for adequate infrastructure capacity, timed and equitably financed to support continued growth without stimulating inefficient growth and capital investment plans;
- Provide for the management and protection of important environmental resources within the county and outside the county, upon which the county depends for public health and quality of life; and
- Provide greater coordination of local, county and state planners and officials, thereby securing a broader perspective in solving regional problems, preserving/improving the character of existing communities and conserving important natural resources.

The overall objectives of the Township of Cranbury Master Plan are consistent with these goals.

### *Middlesex County Solid Waste Management Plan*

The Middlesex County Department of Planning, Division of Solid Waste Management, prepared an update to the Solid Waste Management Plan in 2007. The Plan is not a new solid waste plan, but rather “the codification of previously approved provisions that have been adopted by the county and certified by the NJDEP Commissioners since the 2001 plan was approved.” The most significant amendments to the plan are the inclusion of new solid waste facilities and the adding of additional materials to an approved recycling facility. This document was reviewed and its recommendations were taken into consideration in the preparation of the Township of Cranbury Master Plan. The Township does not currently provide municipal solid waste pick-up; rather, residents and businesses must contract with private haulers. Cranbury will, however, be holding a referendum in November 2010 to determine whether residents are supportive of having the municipality served by one solid waste hauler whose costs would be fixed by public bid. The Middlesex County Improvement Authority (MCIA) provides curbside pickup of recyclables in Cranbury.

### **G. RELATIONSHIP TO THE MASTER PLANS OF ADJACENT COMMUNITIES**

The Township of Cranbury shares a border with three Middlesex County municipalities, the Township of Plainsboro, the Township of South Brunswick and the Township of Monroe, and one Mercer County municipality, the Township of East Windsor.

#### *Township of Plainsboro*

The Township of Plainsboro borders Cranbury to the west. Lands in Plainsboro are zoned PCD Planned Unit Development from Dey Road south to the Cranbury Brook.

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Development in Plainsboro adjacent to Cranbury is comprised of the residential portion of the PCD Princeton Meadows and the Princeton Meadows Country Club and Golf Course; the area north of Cedar Brook is developed with single-family residences and the area south of Cedar Brook is developed with townhouses. As per the Plainsboro Zoning Code, maximum residential density within the PCD is 11 dwelling units per acre, and at least 25% of the land must be common open space. In Cranbury, the R-LI Residential Impact and A-100 Agricultural Preservation zones are adjacent to Plainsboro's PCD; though residential densities are much greater in this portion of Plainsboro than is permitted in Cranbury, the two municipalities are partially separated by Cedar Brook and the residential densities are generally compatible in the section where the R-LI zone and the PCD directly abut one another.

From Cranbury Brook, extending south to the Millstone River, Plainsboro's R-150 Rural zone is adjacent to Cranbury's A-100 Agricultural Preservation zone. The R-150 zone permits residential development on six acre lots, or cluster residential development on tracts of 150 acres. Land use in this area of Plainsboro is made up primarily of farmland, and, as such, is compatible with the agricultural land uses found in Cranbury.

### *Township of South Brunswick*

Cranbury shares its northern border with the Township of South Brunswick. There are two zones in South Brunswick that border Cranbury: the RR Rural Residential district and the I-3 General Industrial district. The RR zone permits a minimum lot size of two to three acres for single-family dwellings, depending on the suitability of the soils for septic filtration. Cranbury's R-LI Residential-Light Impact zone, which generally permits agricultural uses and single-family residential uses on four acre lots, is compatible with the adjacent zoning in South Brunswick.

South Brunswick's I-3 zone permits offices, industrial activities (e.g. lumber, coal and fuel storage, distribution yards, wholesale distribution centers, limited manufacturing), scientific or research laboratories and warehousing, among others. The minimum lot size in the I-3 zone is three acres. These land uses are compatible with the warehousing and research office uses located across the border in Cranbury's RO/LI Research Office and Light Industrial zone.

### *Township of Monroe*

The Township of Monroe lies to the east of Cranbury. Monroe's PRC Planned Retirement Community district extends from Cranbury's northern municipal boundary to Prospect Plains Road, and includes the 418 acre Rossmoor Adult Community. The PRC-2 Planned Retirement Community zone is located south of the PRC zone; minimum site area in the PRC-2 zone is 100 acres, with a permitted density of three and one-half dwelling units per gross acre for each residential section. The PRC-3 Planned Retirement Community zone is located south of the PRC-2 zone, and also has the intent of establishing a residential "active adult community". Minimum site area in the PRC-3 zone is 55 acres with a permitted residential density of three and one-half dwelling units

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per gross acre for each residential section. Lands across the border in Cranbury are zoned LI Light Impact Industrial and I-LI-S Light Impact Industrial-Sewer Area; land use consists primarily of warehousing and research office.

From Cranbury Station Road to just south of Halsey Reed Road, zoning in Monroe is comprised of several pockets of the R-60 Residential district, interspersed with the PRD-AH Planned Residential Development Affordable Housing district. Continuing south along the municipal boundary to the Millstone River, lands in Monroe are zoned RR-FLP Rural Residential-Farmland Preservation; adjacent lands in Cranbury are zoned I-LI.

Though the potential for negative impacts on residences in Monroe exists due to Cranbury's light industrial zoning, design standards and appropriate landscaping will help to mitigate any impacts.

### *Township of East Windsor*

Cranbury shares its southern boundary with the Township of East Windsor. There are five zones in East Windsor that are adjacent to Cranbury: R-O Research Office, R-1 Residential Low-Density, ARH Age-Restricted Housing, R-3 Residential Medium Density and PUD Planned Unit Development. In Cranbury, adjacent zoning includes A-100 Agricultural Preservation, RLD-1 Residential-Low-Density, R-LI Residential-Light Impact, PO/R Professional Office (proposed in this Master Plan to be re-designated M-R Regional Mixed Use), GC General Commercial (proposed in this Master Plan to be re-designated C-R Regional Commercial), and I-LI Light Impact Industrial. While the uses found in East Windsor are not entirely compatible with land use in Cranbury, the Millstone River and associated wetlands serve as a natural buffer between the two municipalities, effectively mitigating these inconsistencies.

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### CHAPTER 4. COMMUNITY DESIGN ELEMENT

#### **A. INTRODUCTION**

Cranbury's 1994 Master Plan contained an element that is fairly unique to New Jersey master plans in that it included a Community Design Plan. Such an element is not amongst the list of elements that the Municipal Land Use Law (MLUL) either mandates or recommends be included in a municipal master plan. At the same time, the MLUL does not preclude the provision of elements or policies and guidelines designed to shape or guide the community's visual landscape outside of its Land Use Plan Element. This Community Design Element therefore is intended to provide the legal and practical underpinning of the design standards that are found within Cranbury's land use and site plan standards within the Cranbury Land Development Ordinance, and contains recommendations for both revising and supplementing the existing standards as appropriate.

The Community Design Element of the 1994 Master Plan was extremely detailed and provided objectives, recommendations and standards for all agricultural, residential, commercial and industrial development. Included were standards for site design, lot averaging, preservation, conservation areas, sidewalks, driveways, parking landscaping, building design, lighting, signage and other site-related details. This very comprehensive and detailed element became the basis for adopting design standards in the same vein within the Cranbury's Land Development Ordinance. Since their adoption in 1995, these design standards have been implemented throughout Cranbury—from the eastern agricultural landscape, to the newer residential subdivisions around the Village, to the historic downtown, and especially within the industrial/warehouse/office areas east of Route 130.

In those areas of Cranbury where the intrinsic natural, rural and historic character was already in existence, these standards have helped to preserve the natural and manmade beauty. In areas of Cranbury where new development has occurred, the quality of the newly-built environment has exhibited designs and a visual character of the highest quality, even for developments which typically lack such qualities—such as the industrial and warehouse/office developments. There is little that this master plan can offer by way of supplementing or revising the existing design standards in the Cranbury LDO that would enhance most of these standards, or engender better design.

There are, however, a few areas or zoning districts in Cranbury which have not benefited from such standards. In the HC Highway Commercial and GC General Commercial zones, which are developed with older, auto-oriented, contractor and industrial types of uses that date back more than 30 or 40 years, the level of new development or redevelopment opportunities have not given Cranbury a chance to upgrade the area's uninspiring visual qualities. Upgrading those qualities calls for a twofold approach. The first, as suggested in the Land Use Plan in Chapter 14, and in Chapter 9, the Economic Development Element, fresh life and economic opportunities must be brought to these zones

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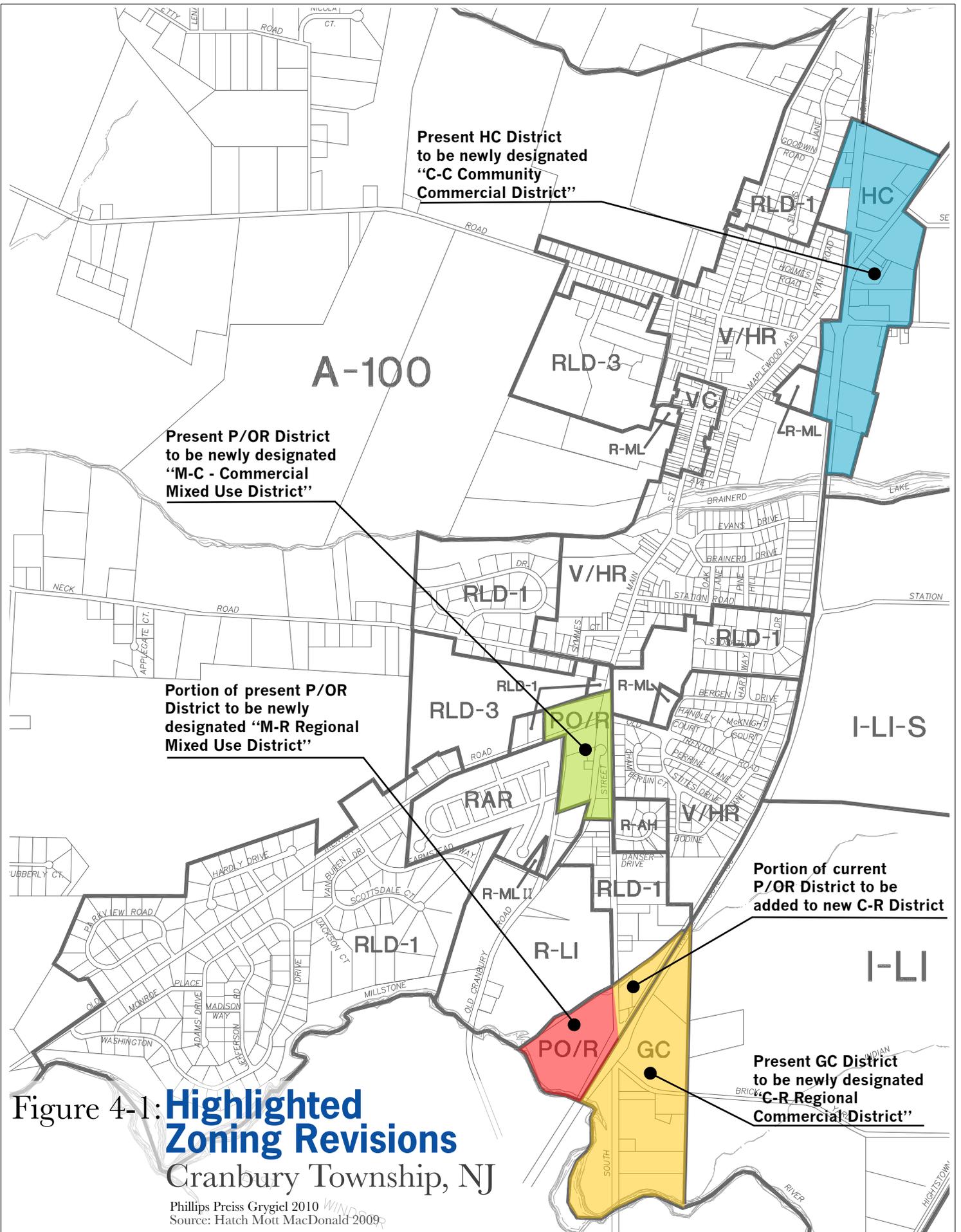
by broadening the array of permitted uses—especially retail uses, that can be developed in these zones. The second, as will be detailed below, is to adopt fresh, bolder and more contemporary design standards, to bring out the highest quality of designs being utilized for commercial development around the USA—modern, sustainable, and embodying the principles of both “smart growth” and “new urbanism.”

Another area which deserves a similar twofold approach is the PO/R Professional Office/Residential zones in Cranbury. Here, rather than an existing poor visual environment, these areas are stagnant—either vacant, marginally developed, or undeveloped. This is attributable to restricted zoning controls—both use and bulk—which have provided insufficient incentive for development. Again, changes in zoning regulations as suggested in the Land Use Plan and Economic Development Element would create an incentive to inject new development into the community, and help to diversify the array of retail and residential choices afforded in Cranbury. Similarly, a new set of design standards to ensure that good, contemporary design is required, but tempered by the need to fit in and be compatible with the surrounding largely residentially-built environment.

### **B. DESIGN STANDARDS FOR THE NEW C-C COMMUNITY COMMERCIAL AND C-R REGIONAL COMMERCIAL DISTRICTS**

In the first instance, the image and focus of the HC Highway Commercial District and the GC General Commercial District need to be reoriented, and thus, while the boundaries of said districts need not be changed (except to add some land in one instance), the names should be changed. Since the present HC District is going to have more of a focus on community commercial needs with the broadening of permitted retail uses, the name should be changed to C-C Community Commercial. The present GC District is also going to have more retail uses permitted; however this is going to be oriented to regional pass-by traffic. This district is to be renamed C-R Regional Commercial. (See Figure 4-1.)

The zoning should be fine-tuned to differentiate between C-C and C-R Districts to establish a different character for each. The vision for the C-C District should be smaller scale buildings and lot sizes, with slightly higher density, more like mid-century small shopping plazas with a small amount of parking in front. In contrast, development in the C-R District could be laid out more like a modern large-scale shopping plaza, with most of the parking in front, but without its monotonous, generic highway commercial design.



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*Above, examples of offices over retail, with front parking areas, by Minnno Wasko.*

Although these districts certainly should not compete with the downtown or attempt to recreate the same pedestrian-oriented environment, the design of these Districts should be improved visually. Specifically:

- Front parking areas should be delineated and buffered from the street through low walls or picket fences, and low plantings / landscaping, at the front property line, to divide the parking area from the street's sidewalk.
- Driveways / curb cuts from front street should not exceed 30 feet in width. Long, continuous pull-in parking areas should be prohibited.
- Properties fronting Route 130 should be encouraged to provide easements through their lots to adjacent side streets, for improving access to adjoining parcels. In exchange, the property providing the easement could receive a small reduction in parking requirements, perhaps 0.5 spaces per 1,000 square feet.
- Sidewalks in front of retail stores should include a minimum 5-foot clear width walking area, plus seating and pedestrian-scale lighting in front landscaped areas.

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*Above, examples of low walls / fences and landscaping to buffer front parking areas.*

In terms of the bulk and area regulations, the current maximum allowable Floor Area Ratios (FARs) for these districts are too low to provide any incentive to redevelop the current uses or put any effort into site improvements. The Township should allow a higher FAR in these districts, and in exchange, require tougher design and site planning standards to improve the aesthetics along Route 130 and other roads. Combined with revised parking and lot coverage standards, a higher FAR could encourage a mix of uses and multi-story buildings (such as offices over retail), in certain areas.

Lot coverage must also be rethought. The current lot coverages are too low, particularly when combined with the very high parking ratios required for retail uses, to provide an incentive to redevelop those properties at a higher FAR and provide a critical mass of retail floor space in a new shopping center.

Specific recommendations for each zoning district follow.

### **1. Design Parameters Specific to C-C District**

The C-C District is located at Route 130 and **Cranbury**-South River Road. The Permitted Uses (Section 150-21) should also include:

- Larger retail stores providing goods and services that are unlikely to locate in the VC Village Commercial zone in downtown Cranbury, including but not limited to agricultural supplies and accessories, home and garden centers (such as hardware stores, lumber yards, appliance stores), sporting and hobby stores (such as sporting goods, pet shops and party rental and supply stores), pharmacies and drug stores and banks, including drive-through banks.
- While automobile, camper and truck sales would be permitted in the new C-R Regional Commercial zone (described below), they would not be permitted in the C-C zone. Nor would gas stations or 24-hour convenience stores (either in conjunction with gas stations or as standalone stores), nor would supermarkets. However, automobile parts and supplies, car rental or service-only stores, would be permitted.

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- Smaller convenience and specialized retail and personal service establishments that would be more likely to be located and successful in Cranbury's downtown VC Village Commercial zone would not be permitted, including beauty salons, gift shops, clothing and shoe stores, florists, bike sales and service, and restaurants and other eating and drinking establishments.
- Offices are already permitted, but the zoning needs to be clarified so that they are also permitted over retail uses. This would include general, professional and medical offices.
- Shopping centers, combining a number of retail establishments permitted in the zone, would be permitted, with or without second floor offices.
- All of these retail establishments, whether provided as standalone stores or as shopping centers, would be required to adhere to design controls related to keeping a large amount of window glazing on street-facing facades, providing sidewalks from street to the store entrance, and building being in compliance with setback requirements of the district.

Bulk and Area Standards should be reworked to encourage intensification and thereby upgrade the area's appearance by reducing the minimum lot size and the increasing density.

- Minimum lot area: 2 acres (no change)
- Minimum frontage: 150 feet (no change)
- Increase maximum allowable FAR to 0.3 for one-story and 0.35 for two stories from the current 0.2 to 0.25. With the current high parking ratio requirements, and the proposed higher impervious surfaces, this higher FAR can only be achieved with a multi-story building.
- Impervious coverage should not exceed 60 percent (same as current). A parking ratio reduction with porous paving should be considered, permitting up to 75 percent lot coverage (see below).
- Retail development should not to exceed 1 story (thus providing an incentive to provide office over retail to achieve the full permitted FAR).
- Maximum height: 3 stories / 35 feet (the same as currently).

### **Parking Ratios for the C-C District**

To accommodate the higher FAR, provide the incentive of a lower retail parking ratio (4/1000 SF), where the internal circulation aisles and parking areas of adjacent parcels are connected, and the buildings that are supplied by the parking are no more than 100 feet apart (allowing people to park once and then easily walk to the next building). The Cranbury Land Development Ordinance's Parking Area Design Standards already en-

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courage such interconnected parking areas and shared driveways so as to limit curb cuts, but making it a prerequisite for a lower parking ratio will give the requirement more strength. These more efficient circulation and parking systems will also reduce the amount of future traffic making loops on arterial roads as they move from shopping center to shopping center. In addition, the required parking lot connections should occur within the front bays of parking, closest to the street, thus allowing the drive aisle of the front parking bays to serve as a de facto service road parallel to Route 130.

To further encourage retail, the configuration of required parking could be further reduced to 3/1000 SF to be provided in standard, paved parking lots, plus an additional 1/1000 SF requirement (for a total of 4/1000 SF) provided through overflow parking areas with porous paving. The amount of lot coverage could thus be increased (say to 75 percent) while keeping effective impervious coverage low (60 percent) through these porous overflow parking areas. Placing 20 to 40 percent of required parking in overflow parking areas would account for the extra supply that is only needed during the holiday shopping season. Porous paving is typically provided with “grasscrete” or similar product, concrete pavers with hollow centers that may be planted with hardy grasses, while being strong enough to support vehicular use.

To further encourage a mix of uses, the parking supply ratios should allow different uses in same structure or parcel (especially office/retail) to share parking spaces based on calculations from a shared parking study using time-of-day parking demand curves. This will particularly encourage office over retail as a way to share parking and maximize the FAR of a parcel.

### Site Planning for the C-C District

The physical form of the new development and its required parking should be shaped proactively to create a unified physical form in the C-C District. One bay of parking (approximately 60 feet, containing 2 rows of parking) should be permitted in front of the building, between the building and street. The remainder of required parking should be located behind buildings (interior to the lot) or along the sides of buildings, with respect to its street-facing (front) facade. Retail stores should be required to provide a rear entrance to rear parking areas.

In effect, the minimum building setback will still be at least 75 or 80 feet. Structures located on same side of street should also be required to match the common setback of adjacent parcels' structures, or the average setback of the two. A maximum building setback should also be provided, so that buildings will not be set back too far from the street, conflicting with the goal of a unified setback for the district.

Specifically, the zoning should require a 5- to 10-foot landscaped setback from the street to the front parking bay, including a low wall or fence w/ plantings; then the ±60 foot parking bay, then a 10-foot sidewalk and planting strip, then place the building at 75 to 80 feet setback from public right-of-way. A maximum building setback of 100 feet should be imposed.

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Sidewalks in front of buildings should connect to adjacent structures on the same lot, and should connect through to adjoining retail parcels (i.e., there should be no barrier created by fence, landscaping or berm). If the adjoining arterial streets (Cranbury South River Road and Half Acre Road) are not required to have sidewalks, such a requirement should be added. With the additional FAR being granted, the landowner should be able to provide public sidewalks at the street.

Additional requirements on building orientation should be added so that new retail developments do not turn their backs on either adjoining arterial street. C-C District parcels having frontage on two arterial streets (i.e., both Route 130 and South River Road) should be required to present retail facades to each street (for example via two buildings oriented back to back, each facing a different street). Alternately, the buildings could face an internal street running generally perpendicular to the arterial streets, with a retail entry at each corner of the building closest to the two streets.

Finally, one of the properties in the current H-C Highway Commercial District, the lot comprising the Noble Estates property business, is split, the portion fronting on Route 130 being located in the HC zone and the rear located in the V/HR Village Hamlet Residential zone. This rear portion is not particularly suited for residential development, and is inaccessible other than through the H-C zoned portion. This split-lot zoning warrants future review. The merits of rezoning the entire parcel for commercial use—to be within the proposed C-C Community Commercial zone—must be weighed against the benefits and need to create a suitable buffer and transition from its commercial front to the existing single-family residential uses behind it.

### **2. Design Standards Specific to C-R District**

With its larger average lot sizes (compared to the C-C District), the C-R District at Route 130 and Brick Yard Road would be appropriate for larger, modern suburban-style shopping centers that will allow Cranbury to provide important types of retail that are not appropriate for the downtown area, and to make Cranbury's retail sector more competitive with retail offerings in adjacent communities. Similar to the C-C District, the approach should provide incentive for high-quality redevelopment via a higher allowable FAR and lowered parking ratios.

The Permitted Uses in the C-R District should be changed to be same as C-C District (above), but also permit regionally, automotive-oriented establishments such as automotive sales, gas stations, convenience stores, supermarkets and designed shopping centers. For maximum flexibility, all of the permitted uses should be permitted on any floors. Offices over retail, or retail stores with interior mezzanine spaces, might result.

The Bulk and Area Regulations should be as follows:

- Minimum lot area: 3 acres (slightly less than at present)
- Minimum frontage: 200 feet (same as before)

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- Maximum FAR 0.35 (currently 0.2). This higher FAR provides an incentive to build multi-story buildings to achieve the maximum permitted FAR (otherwise the retail parking supply won't fit).
- Impervious coverage should not exceed 60 percent. A parking ratio reduction with porous paving should be considered, permitting 75 percent lot coverage.
- Maximum height: 3 stories / 35 feet (same as before), but 1 story / 20 feet for standalone retail.

### Parking Ratios for the C-R District

As one incentive to reduce parking, a similar approach described earlier for the C-C District should be pursued: a 10 percent reduction (from 5/1000 SF to 4.5/1000 SF) should be permitted for shopping centers that are connected to adjacent retail uses with vehicular aisles and sidewalks. The allowable reduction for these improvements is less than for the C-C District because the larger lot sizes mean C-R shopping centers are likely to be configured differently, and located too far apart, to permit easy walking between adjacent parcels. Shared parking between different uses should be permitted as well.

The proposed C-R district currently includes substantial amount of forested tree cover. For properties bordering the Millstone River, environmental habitat preservation should be fostered in exchange for a lower parking supply. To balance the preservation of this habitat with the desire for new, higher-quality retail development, another parking ratio reduction is proposed. The Township zoning could encourage greater tree preservation by allowing a portion of retail parking to be set aside in a future parking reserve. An amount of treed area could be set aside to provide an additional parking supply equal to 1 space/1,000 square feet of development, to be "banked"—that is, could be converted to parking if the Township decides that the original parking lot doesn't provide enough spaces. If and when the treed areas are turned into parking areas, they should be maintained as secondary, overflow parking areas by use of porous paving. For a parcel without a treed area to preserve, the same 1/1000 SF overflow parking supply set-aside could be permitted, if established with porous paving. The zoning would have to mandate regular maintenance of porous paved areas to minimize siltation that could reduce its efficiency at recharging stormwaters.

Overflow parking areas should be located to the side or rear of the shopping center buildings, so that they will not look incongruous with standard parking lot areas. This will also mean that shopping center should include breaks in the building line for pedestrian walkways back to the overflow areas. The walkways should be generously proportioned and have ample evening lighting for safety.

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*Above, Toms River downtown, pedestrian path leading to rear uses and parking areas*

### Site Planning for the C-R District

- The developer (or developers) of parcels on the east side of Route 130 both to the north and south of where Brick Yard Road currently intersects Route 130 (i.e., at the Cranbury Circle) will be required to realign this intersection and the alignment of Brick Yard Road in accordance with the recommendation in Chapter 5 Section D1, and as illustrated in Figures 5.3 and 5.4.
- Permit all parking to be provided at front of lot if desired, except for any parking provided as treed or porous paving overflow areas.
- Most conventionally-paved parking bays should run perpendicular to the front façade of new structures (with the exception of one row of parking adjoining the front façade, and one row closest to the street), so that required pedestrian pathways (as per Section 150-41, H.3.d) may be located between rows of parking, where they are safest from vehicular movements.
- Given the expected size of shopping centers in this area, increase the minimum distance between curb cuts along one road to 400 feet (from 200 feet).
- Driveways of parcels on either side of Brick Yard Road and on either side of Hightstown Road should align so as to provide efficient vehicular movements between developments.

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- Sidewalks should be provided along Hightstown Road / South Main Street and along Brick Yard Road.



*Above: porous paving at parking lot of Dia Beacon museum, Beacon, New York.*

### **C. DESIGN STANDARDS FOR THE NEW M-C AND M-R DISTRICT**

The need for and appropriateness of rezoning the former HC and GC Districts to C-C Community Commercial and C-R Regional Commercial Districts also apply to the PO/R District. In this instance, this Master Plan recommends not only broadening the array of uses permitted and increasing the densities of development permitted, but also differentiating the two areas of the Township currently zoned PO/R, into two new zoning districts.

The existing PO/R Professional Office/Residential District located at Old Trenton Road/Hightstown Road, which is close to the downtown and surrounded almost entirely by residential uses, is to be re-designated the M-C Community Mixed-Use District. The second P/OR District is located next to the GC District at the southern edge of Cranbury, at the busy Cranbury Circle intersection of Route 130, Hightstown Road, and Brick Yard Road. It is currently surrounded by farmland and very low intensity industrial/commercial uses. A portion of this district—that which lies to the east of South Main Street and has a small portion fronting on Route 130—should be rezoned to C-R Regional Commercial (i.e. the former GC district). The remaining portion should be re-designated M-R Regional Mixed-Use (see Figure 4-1). To target the most appropriate use of each of these two new districts, the allowable uses and site design and parking requirements should be revised to accommodate their differences, as discussed below.

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### Design Standards Specific to the MC-Community Mixed-Use District

As this area is close to downtown and surrounded by established residential areas, the allowable uses and site plan standards should reinforce that character with ground-floor retail along the south side of Old Trenton Road, housing above and to the rear, and parking at the interior of the lot. North of Old Trenton Road, a small office complex existing near the remaining vacant area has been approved for two small office condominiums. In this case, multi-family instead of the office condominium could be an option.



*Above, housing over retail in California. Parking is to the rear.*

The entire parcel should be developed comprehensively as a single, integrated development. Therefore the as-of-right development for parcels of less than 10 acres would be residential development of 4 units per acre. To develop the retail portion, and to obtain additional residential units on the second floor over the retail portion, a minimum tract size of 10 acres would be required. Permitted uses in this area should be:

- Single-family attached, meaning townhouses, duplexes, or stacked flats, 2 stories in height.
- Multi-family residential, on the second story fronting Old Trenton Road (subject to meeting the minimum tract size of 10 acres), and at any level at the interior of parcels, away from Old Trenton Road. Up to eight units per multi-family building (eightplexes) are permitted.
- Retail and service establishments, including personal service businesses and specialized and convenience retail, including banks and financial services, bakeries, delis, beauty shops, nail salons, tanning salons, laundries, drop-off only dry cleaners, takeout food, and clothing and shoe repair; but only on the ground floor of buildings along the south side of Old Trenton Road, and with frontage onto said road, and in accordance with the minimum tract size and minimum frontage requirements on Old Trenton Road, as articulated below.

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Prohibit detached single-family dwellings, garden centers and nurseries throughout this area.

### **Bulk and Area Regulations for the M-C District**

- Minimum tract size 2 acres for residential only, at 4 units per acre. Minimum tract size to permit retail with second floor residential is 10 acres.
- Minimum frontage: 100 feet for residential only; 400 feet of frontage on Old Trenton Road for mixed-use.
- No FAR for attached residential only developments, but a maximum total FAR of 0.35 for a mixed-use development of retail and residential development (currently 0.15 for office development). This higher FAR provides an incentive to do two-story buildings (otherwise the parking supply won't fit).
  - The total amount of retail should be limited either by means of a maximum 70-foot store depth, or a maximum square feet cap (30,000 square feet), and must be located with frontage of at least 400 feet on Old Trenton Road. This will ensure that retail fronting Old Trenton Road is small-scale and leaves room for residential development to the south.
- Maximum residential density 4 units per acre.
  - However, as an incentive to provide housing over retail along the south side of Old Trenton Road, 20 units of upper-story residential in this location are to be exempted from the density requirements, but only if a unified development is created that combines all parcels south of Old Trenton Road in this district with a minimum tract size of 10 acres. This number of units would fit on one floor with a double-loaded layout, or on two stories with a single-loaded arrangement. However, the upper-story housing would still be required to meet parking requirements.
  - Each residential unit should have a maximum of two bedrooms per unit, in order to provide diversity in Cranbury's housing stock, i.e., to serve young and older empty-nesters.
- Maximum impervious coverage of 40 percent of lot (compared to currently 50 percent for offices, 75 percent for garden centers). A lower number is possible here since the focus of development is housing, which has a much lower parking requirement than retail.
- Maximum height: 2 stories / 28 feet for mixed-use retail / residential buildings, and maximum 2 stories / 25 feet for all-residential buildings.

### **Affordable Set-Aside in the M-C District**

Any residential development within the M-C Commercial Mixed-Use zone shall be required to satisfy any affordable housing requirements generated by such development,

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or as mandated by the New Jersey Fair Housing Act as amended as of the date of development. Therefore, if the new affordability requirements require 10% of all additional units to be affordable units, 10% of the total number of units in the development within the M-C zone, shall be set aside as affordable units.

### **Open Space in the M-C District**

For unified mixed-use developments on a minimum of 10 acres, a central pocket park / green space must be provided for the residential development. The park should be at least 30,000 square feet. Residential development, framed by walkways and/or internal streets, should overlook or surround the park.

### **Circulation & Parking for the M-C District**

Parking should be located at the interior of parcels, away from view of streets that bound the district (in other words, no parking shall be permitted in any of the front yards). Allow the use of shared parking between retail & residential.

The cul-de-sac of Old Cranbury Road should be permitted to be realigned, abandoned, or retained, but in all cases, a public pedestrian pathway providing a direct route through this area from Old Cranbury Road to Main Street should be required.

Curb cuts should be prohibited along Old Trenton Road (except for one curb cut for the parcel north of Old Trenton Road). Vehicular access should be from Old Cranbury Road and South Main Street only. Individual residential parking driveways should be prohibited on the other bounding streets as well (South Main Street and Old Cranbury Road); instead, residential units should share vehicular access drives that connect to Old Cranbury Road and South Main Street.

Sidewalks should be provided on all streets internal to the area and along all perimeter streets (Old Trenton Road, South Main Street, and Old Cranbury Road).

### **Building Design in the M-C District**

Housing closest to Main Street should front onto it (i.e. have primary pedestrian entries facing South Main Street), to match the existing homes on the east side of Main Street, but should have vehicular access from the rear, internal to the block.

Multi-family buildings (those with four to eight units) should be massed like the large single-family houses nearby, with gables, eaves, dormers, telescoping additions, first and second floor porches, etc. Flat roofs and boxy buildings should be prohibited.

## **2. Design Standards Specific to new M-R Regional Mixed-Use District**

This location includes a fairly new office development located at the northern end of the Kerzner parcel, to the west of South Main Street, just north of the Cranbury Circle. The allowable uses for this district should be amended to include:

- Offices, up to two stories in height, in smaller buildings similar to what has been developed to the north.

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- Retail and service establishments, including personal service businesses and specialized and convenience retail.

Single-family housing should be prohibited.

Generally, the current allowable impervious coverages for the allowable FARs and required parking ratios are much higher than necessary. More development intensity could be permitted within the same impervious coverage. Amend the bulk standards as follows:

- For office development: Keep FAR of 0.15 as currently allowed, but reduce impervious coverage to 0.35.
- Retail development: To provide more incentive for retail, allow retail development up to 0.35 FAR, like the C-R District recommendations. Similarly, allow lot coverage up to 60 percent, or 75 percent with the additional land being parking overflow areas with permeable paving.

Design standards for all uses should require deep buffers to riparian areas.

Retail development should be permitted to have parking in any location, similar to the C-R District.

Access driveways should be shared between small developments within this area, so as to limit the number of curb cuts on Route 130 and Hightstown Road.

### **D. SITE PLAN & SUBDIVISION STANDARDS**

The following additions are recommended to Section 150-41, Paragraph H, Commercial Design Standards for the new C-C, C-R, M-C and M-R Districts:

- Require a minimum of 75 percent of the length of street-facing retail façades to contain tall retail storefront-style windows.
- Encourage differentiation between multiple retail storefronts (businesses) in one building through variations in massing, height, bay setbacks, etc.
- Encourage awnings over retail windows.
- For multiple-story buildings, emphasize the base or first level with materials of a heavier appearance, greater amount of fenestration, signage, awnings, etc.
- For residential over retail, encourage balconies, terraces, and/or courtyards atop the retail roof.

### **E. REVISION OF EXISTING DESIGN STANDARDS**

#### **1. Cranbury's Sign Regulations**

In general Cranbury's sign regulations have served the community well. Most signs in the community are tasteful, and appropriately sized and located. However, there are some areas where the sign regulations may be too restrictive (such as for small busi-

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nesses), where they are too permissive (such as for small buildings in the Highway Commercial zone), and where there are loopholes (such as in the industrial districts). These regulations need to be reviewed and revised to address all of these issues.

### **2. The Design and Scale of Single-Family Residential Uses**

Knockdowns and the renovation and/or expansions of single-family homes in a manner which dwarfs the homes on adjacent lots, also referred to as “McMansions,” is an increasingly common problem in suburban and rural communities in New Jersey. While the phenomenon has slowed down during the current recession, many high-value communities with residential neighborhoods of appropriately-scaled and designed single-family homes were the target of knockdowns and McMansions during the last real estate boom. Cranbury was fortunate not to be victimized by this, but without adequate controls on the bulk, massing or maximum size of single-family homes, and lack of design regulations (outside of the historic district), the potential exists for McMansions to be built in Cranbury without the ability of the Township to control or stop them. The current bulk and design controls of Cranbury should be reviewed and supplemented in order to preclude this from occurring within the community.

### **3. Berms and Landscaping in Cranbury’s Industrial Zones**

Cranbury has requirements for certain unattractive features of warehouse/office developments to be screened from public view through the use of berms and landscaping. The purpose is to hide truck loading or storage areas, mechanical equipment, large parking areas, etc. that detract from their appearance. Generally, the standards have worked well, particularly since the maximum and average height of berms is restricted, and because they are required to vary their vertical and horizontal alignment, which avoids very tall, uniformly high and straight berms, which produce what is often referred to as the “canyon effect.” Experience in this area from numerous applications that have been made, revised and approved or denied, has affirmed the need for such standards to be enforced and for variances to be granted only in unique cases of hardship. The tall uniform berming of the Home Depot warehouse development which produced the “canyon effect” was an attempt to conceal unattractive uses. Based upon this and subsequent applications, berms should only be tall enough to block unwanted views of unattractive features (parking, truck loading, etc.), but not to screen the actual buildings themselves, which if designed in accordance with the Township’s design requirements, can be attractive themselves. A review and some tightening of the regulations are most likely warranted to reinforce this intent.

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### CHAPTER 5. CIRCULATION ELEMENT

#### **A. INTRODUCTION, ETC.**

The purpose of the 2010 Traffic Circulation Element is to evaluate existing areas of traffic concern, consider future traffic and its impact on roadways and intersections, and recommend long-term solutions to ensure future traffic circulation demands can be accommodated on Cranbury's roadway network. In addition, consideration is also given to improving pedestrian and bike circulation within Cranbury and public transit accessibility.

This Traffic Circulation Element was prepared to support the intent and goals of community planning and land use found in this Master Plan. The last Traffic Circulation Element adopted by Cranbury Township was the 1998 Circulation Plan Revision prepared by Lehr & Associates and Clarke Caton and Hintz. The Circulation Plan Revision that amended the Master Plan Circulation Element was later supplemented by:

- Draft Circulation Element (no date) prepared by Charles R. Carmalt
- Decision Memorandum dated June 12, 2003, prepared by Charles R. Carmalt
- Liberty Way Extension (Master Plan Roadway Review) dated September 22, 2004, prepared by Shropshire Associates.

These traffic documents provided information to supplement the 1998 Circulation Element to address traffic growth in both Cranbury and surrounding communities. Traffic conditions were reviewed and recommendations made to better manage traffic generated primarily by warehouse-office development in Cranbury between Route 130 and the New Jersey Turnpike, to better accommodate increases in traffic volumes and changes in circulation patterns on Cranbury's local streets, and the increasing volume of regional traffic passing through Cranbury.

This 2010 Circulation Element's primary focus is on vehicular circulation, particularly roadways and intersections that are currently experiencing traffic congestion, and on the impact of future traffic on these intersections. It identifies improvements to meet future traffic demands based on current traffic conditions and projected traffic from future development. Traffic concerns are identified and recommendations are offered to manage future traffic demands in the long term.

#### **B. EXISTING AND FUTURE CONDITIONS**

##### **1. Existing Conditions**

Cranbury Township, located in Middlesex County, Central Jersey, provides a desirable mix of residential, farming, small town business and commercial uses. Cranbury is located between Exit 8 and Exit 8A of the New Jersey Turnpike and experiences regional traffic passing through its roadway network on a daily basis. State Highway U.S. Route

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130 is the primary north-south roadway that provides access to intersecting Township and County roadways. Route 130 and its intersections with Cranbury's east-west roadway network have become points of traffic congestion due to traffic generated from both the Township and regionally. Main Street through Cranbury's Historic Village Center also serves north-south traffic and often becomes the "relief valve" for traffic congestion on Route 130. Cranbury-South River Road (CR 535) provides a direct north-south route between Route 130 and Exit 8A of the New Jersey Turnpike.

Roadways under Middlesex County jurisdiction that provide east-west travel through Cranbury include Old Trenton Road (CR 535), Cranbury Neck Road (CR 615), Station Road (CR 615), Dey Road (CR 614), and Prospect Plains Road (CR 614). Local roads that provide east-west travel include Brick Yard Road, Plainsboro Road and Half Acre Road.

### **2. Future Conditions**

Traffic projections used as a basis for analyzing future traffic conditions were made utilizing traffic reports submitted as part of developer applications, and supplemental counts and analysis conducted by Shropshire Associates within Cranbury. A design year of 2037 was chosen to represent a full build-out of all known development. The existing traffic volumes along the adjacent roadway network will continue to increase as a result of development in Cranbury Township and surrounding communities. Based on other recently prepared traffic studies, a 2% annual traffic growth is predicted for traffic along U.S. Route 130. However, the portion of U.S. Route 130 which travels through Cranbury Township has exhibited a higher growth rate over the past 7 years. For the Traffic Circulation Element a conservatively low 2% growth rate was assumed.

In addition to the general background traffic growth, a number of residential, commercial and industrial developments have been proposed or approved and are expected to be constructed throughout Cranbury Township and the surrounding communities in the coming years. All known proposed and approved developments within the vicinity were considered when estimating increases of traffic along these roadways. Some developments were only partially occupied, so adjustments were made for the unoccupied space. Three (3) developments located in Monroe were referenced in unrelated traffic reports for which the size of development and build out year could not be verified. To be conservative, trips generated by these developments were considered and included in the background traffic counts. The known developments used to project increases in the roadway traffic volumes include:

- Prologis Park - Station Rd (810,000 SF warehouse)
- Millstone Park - Station Rd (1,279,980 SF warehouse)
- Rock-Cranbury Middle Campus - Half Acre Rd (1,010,479 SF warehouse/office/research)

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- Rockefeller FTZ - Half Acre Rd (2,086,576 SF warehouse/outlet, 1,560,976 SF occupied)
- Ford Warehouse (300,000 SF warehouse)
- One Corporate Drive (53,790 SF office/warehouse)
- Seven Corporate Drive (101,311 SF office/warehouse)
- Nine Corporate Drive (55,200 SF office/warehouse)
- 73 Station Road (427,500 SF of warehouse space)
- Morris Warehouse Project Phase II (approximately 500,000 SF warehouse)
- Cedar Brook Corporate Center (1,240,000 office & warehouse; partially occupied)
- Security Capital Business Park (600,000 SF office/warehouse; partially occupied)
- Comfort Suites (75 room hotel)
- American Properties Bank (2,226 SF with 3 drive-thru lanes)
- American Properties restaurant (3,774 SF)
- Vineyards at Monroe (191 age-restricted homes)
- US Homes (36 single family homes & 1,046 age-restricted homes)
- K. Hovanian's Four Seasons at Monroe (296 age-restricted single-family homes)
- Crossings at Monroe
- Brookman Estates
- David Van Wart residential
- Centex at Applegarth (99 single-family homes)
- Strafford at Monroe (890 mixed-use residential units).

The majority of the proposed and approved developments within Cranbury Township are warehouse-office developments, which generate a significantly higher percentage of large truck traffic than other uses. Table 5-1 illustrates the amount of traffic that can be expected to be generated by these developments either from available traffic impact studies for each development or based on trip generation rates from the Institute of Transportation Engineers' (ITE) publication *Trip Generation, 7<sup>th</sup> Edition*.

By applying an annual growth rate of 2% to the existing 2007 volumes and by adding the projected traffic volumes from the known approved and proposed development, the projected 2037 roadway volumes were estimated.<sup>4</sup> The only transportation infrastructure improvement assumed under the 2037 "No-Build" conditions was the connection

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<sup>4</sup> It was assumed that the Liberty Way Bridge would not be constructed in order to provide for a conservative projection.

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of Liberty Way from Station Road to U.S. Route 130, as a right-in/right-out only intersection with northbound Route 130.

<b>Table 5-1: Background Development Trip Generation</b>			
	Size	Trips	
		AM Peak Hour	PM Peak Hour
Prologis Park	810,000 SF	195	211
Millstone Park	1,279,980 SF	154	141
Rock-Cranbury Middle Campus	1,010,479 SF	373	391
Rockefeller FTZ	2,086,576 SF	258	210
Ford Warehouse	300,000 SF	72	78
One Corporate Drive	53,790 SF	129	171
Seven Corporate Drive	101,311 SF	176	152
Nine Corporate Drive	55,200 SF	96	83
73 Station Road	427,000 SF	192	201
Morris Warehouse Project Phase II	500,000 SF	225	235
Cedar Brook Corporate Center	1,240,000 SF	174	150
Security Capital Business Park	600,000 SF	174	150
Comfort Suites	75 rooms	36	41
American Properties bank	2,226 SF	58	153
American Properties restaurant	3,774 SF	43	41
Vineyards at Monroe	191 homes	49	78
US Homes	1,082 homes	245	310
K. Hovanian's Four Seasons at Monroe	296 homes	71	107
Crossings at Monroe		included	Included
Brookman Estates		included	Included
David Van Wart residential	-	included	Included
Centex at Applegarth	99 homes	79	106
Strafford at Monroe	890homes	178	231

*Source: Shropshire Associates LLC, 2010*

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Only known approved and proposed developments were included in determining the 2037 No-Build traffic volumes. A considerable amount of additional vacant land is located along Liberty Way which is zoned for warehouse/office development. It can be anticipated that development of an additional 4-5 million square feet could receive approval and/or be constructed within the next few decades. As of the date of this study, Cranbury Brick Yard, LLC has received approval to construct approximately 2,800,000 SF of warehouse and office space south of Station Road with access proposed only from Hightstown-Cranbury Station Road. This development will contribute a significant amount of passenger and truck volume to the U.S. Route 130 roadway and intersections as far south as the Cranbury Circle, and will have a substantial impact on the Route 130 and Station Road intersection, especially if the Liberty Way Bridge is not constructed. Traffic from that site will rely on a fully connected Liberty Way roadway to allow traffic to travel to and from Interchange 8A of the New Jersey Turnpike.

### **C. ROADWAYS: EXISTING AND FUTURE CONDITIONS, AND RECOMMENDATIONS**

The roadways included within this Traffic Circulation Element include U.S. Route 130, Brick Yard Road, Old Trenton Road, Station Road, Half Acre Road, and Liberty Way. A brief description of each roadway is provided below.

#### **1. U.S. Route 130**

##### *Existing Conditions*

U.S. Route 130 passes through Cranbury Township as a four-lane divided roadway that is classified<sup>5</sup> as an Urban Principal Arterial under the jurisdiction of the New Jersey Department of Transportation (NJDOT). U.S. Route 130 has a cartway width of approximately 84 feet, including 10-foot shoulders in both directions, and a 16-foot wide grass curbed median. The posted speed limit along U.S. Route 130 is 55 MPH. U.S. Route 130 travels in a north-south direction.

It should be noted that the Bridge portion of U.S. Route 130 over the Cranbury Brook is a four-lane divided highway with shoulders. The U.S. Route 130 Bridge is located approximately one-half mile west of the potential future location of the Liberty Way Bridge. The Route 130 Bridge provides the majority of roadway capacity for traffic which travels north/south through Cranbury Township.

##### *Future Traffic Concerns*

1. Insufficient north-south capacity could cause motorists to use alternate north-south routes such as Main Street. Increasing intrusion of regional traffic on local Cranbury roadways would be undesirable.
2. Due to limited north-south routes through Cranbury, the intersection of Route 130 with cross streets that provide access to Route 130 could be overwhelmed.

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<sup>5</sup> 1994 New Jersey Functional Classification Maps.

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3. Route 130 is under the jurisdiction of the New Jersey Department of Transportation (NJDOT). Thus improvements to Route 130 are subject to NJDOT resources being allocated for these purposes.

### *Options for Route 130*

1. With a Completed Liberty Way. Constructed as an alternate route or bypass of Route 130, Liberty Way would add needed north-south capacity and separate Cranbury's commercial traffic from commuter and regional traffic on Route 130.
2. Without a Completed Liberty Way. Extra capacity could come from adding lanes to Route 130. However, it could be expected that additional right-of-way (ROW) would be required from properties fronting on Route 130. The Route 130 Bridge over the Cranbury Brook may require replacement or expansion. Any Route 130 widening would be subject to an NJDOT approval, feasibility analysis, and to its budgetary allocation.

## **2. Brick Yard Road**

**Brick Yard Road** is a two-lane local road that extends east from its intersection with Route 130 (known as the Cranbury Circle) to Wyckoff Mills Road. Brick Yard Road has an east-west orientation. There is no posted speed limit. The roadway is approximately 24 feet wide with minimal shoulders. Guide rails exist on both sides of the road to protect vehicles from ditches/wetlands immediately adjacent to the roadway.

### *Future Traffic Concerns for Brick Yard Road*

1. Development along Brick Yard Road or nearby could put a substantial burden on the roadway which is both narrow (due to environmental constraints), and is in poor current condition.
2. The absence of shoulders along the travel way.

### *Options for Brick Yard Road*

1. Obtain 30 feet of right-of-way from adjacent properties as new applications come in for development.
2. Require developers of future adjacent development fronting on Brick Yard Road to expand the half cartway width to 17 feet from centerline so that sufficient width and appropriate shoulders can be provided.

## **3. Old Trenton Road (CR 685)**

**Old Trenton Road** to the West of South Main Street is a two-lane urban minor arterial roadway with designated north-south orientation (although it really travels in an east-west direction through Cranbury Township). Between Ancil Davidson Road and South Main Street, Old Trenton Road is under the jurisdiction of Middlesex County, and has a posted speed limit of 35 MPH in each direction. The typical roadway cross-section includes significant shoulders (10 to 15 feet wide), in both directions. The cartway of Old Trenton

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Road narrows, and provides only minimal shoulders at the western end near the Ancil Davidson Road intersection, and at the eastern end near the South Main Street intersection.

At the time of this Master Plan preparation, Middlesex County was undertaking a roadway improvement project along Old Trenton Road between South Main Street and Ancil Davidson Road. The improvements include left-turn storage lanes at all intersections including: Liedtke/Four Seasons Drive, Farmstead Way, Lynch Way, Jefferson Road, Parkview Road and Washington Way/Millstone Park Access. For the purpose of this evaluation, it is assumed that the improvements currently under construction along Old Trenton Road are the existing condition.

Old Trenton Road to the east of South Main Street is a two-lane roadway, one lane in each direction, currently under the jurisdiction of Cranbury Township, and has a posted speed limit of 40 MPH. This section of Old Trenton Road connects South Main Street to Route 130 and provides access to adjacent residential neighborhoods. Between its intersections with South Main Street and U.S. Route 130, Old Trenton Road has a cartway width of approximately 70 feet and consists of two (2) lanes divided by an 18 to 20 foot wide grassed median and 12-foot shoulders on both sides. At two unsignalized intersections, left-turn storage lanes are provided to allow vehicles to access neighborhood streets. Houses within neighborhoods north or south of Old Trenton Road have reverse frontages, that is, with their rear yards facing the road. The rear yards are buffered from the roadway by berms and landscaping. As such, individual lots do not have direct access from Old Trenton Road; they gain access to Old Trenton Road via two residential roads which intersect Old Trenton Road between U.S. Route 130 and Main Street. For the purpose of this study, this section of Old Trenton Road is assumed to extend in a general east-west direction.

### *Future Traffic Concerns related to Old Trenton Road*

1. Pedestrian crossings of Old Trenton Road.
2. The narrow cartway width of Old Trenton Road between Old Cranbury Road and South Main Street.
3. The speed of vehicles traveling on Old Trenton Road between South Main Street and Ancil Davidson Road.

### *Options for Old Trenton Road*

1. Middlesex County is constructing improvements that include revised pavement striping. This change in traffic control should be an improvement. Conditions should be monitored after construction is completed.
2. Appropriate right-of-way dedication should be obtained from properties adjacent to Old Trenton Road near its intersection with Main Street as new applications for development come in.

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3. Developers of property along Old Trenton Road should be required to construct a half cartway width consistent with the cross-sections required by the County.
4. Additional speed limit signs should be added and speed limits should be enforced.
5. It is strongly recommended that Cranbury Township transfer jurisdiction of Old Trenton Road between South Main Street and Route 130 to Middlesex County. Old Trenton Road with a County Route designation from East Windsor Township to Route 130 could accommodate truck traffic all the way to Route 130. This would limit trucks heading north on Main Street that would be following the County Route. (Truck traffic is barred from using local streets if County routes are available.)

### **4. Station Road (CR 615)**

**Station Road** is a two-lane undivided roadway that extends east from its intersection with Main Street in the Village, across U.S. Route 130, and continues east into Monroe Township. Station Road is classified as a Local Roadway between its intersections with Main Street and U.S. Route 130, and as a Rural Minor Collector east of U.S. Route 130. Station Road is under the jurisdiction of Middlesex County. Between its intersections with Main Street and U.S. Route 130, Station Road has a cartway width of approximately 24 feet, has no shoulders, and a posted speed limit of 25 MPH. Station Road provides direct access to homes fronting on this road. East of its intersection with U.S. Route 130, Station Road has a cartway width of approximately 32 feet including an 8-foot shoulder in the westbound direction, but a shoulder of only minimal width in the eastbound direction. Station Road has a posted speed limit of 50 MPH west of U.S. Route 130. For the purpose of this study, Station Road is assumed to run in an east-west direction.

At the time of this Master Plan's preparation, the New Jersey Turnpike Authority was undertaking a major roadway widening project including the construction of several additional northbound and southbound lanes. The turnpike widening requires replacement of the existing Station Road bridge. The replacement bridge will be configured to have one lane in each direction with shoulders. The bridge replacement cross-section is similar to that of the existing Station Road bridge.

#### *Future Traffic Concerns on Station Road*

1. Pedestrian crossings of Station Road at Evans Drive.
2. The narrow cartway between Route 130 and Main Street provides insufficient turning radii for larger vehicles turning onto Main Street.
3. The high speed of vehicles traveling between South Main Street and Hightstown-Cranbury Station Road.

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### *Options for Station Road*

1. Middlesex County currently has jurisdiction of that section of Station Road located between Main Street and Route 130. It is strongly recommended that Cranbury Township request taking jurisdiction of this section of roadway from Middlesex County so that traffic calming measures could be implemented that the County might not permit.
2. With County approval—should Cranbury Township not obtain jurisdiction of this section of Station Road—the Township could consider reconfiguring this roadway to maximize desired traffic calming. Traffic Calming could include changing the road to be one-way eastbound from its intersection at Main Street to U.S. Route 130. This will eliminate westbound traffic that would seek to use Station Road to bypass Route 130 heading to westbound Old Trenton Road. This could reduce the total volume of traffic using Station Road. However, it would also limit movements which would then require traffic to be redistributed to other roadways and intersections within the Village. Any reconfiguration should be reviewed by Cranbury Township police and fire departments to ensure that proper emergency access to/from Main Street would be available.
3. Prohibit larger vehicles (i.e., trucks) from entering this section of Station Road due to geometric constraints. This could be done at Cranbury Township's will should it obtain jurisdiction from the County.

### **5. Half Acre Road**

**Half Acre Road** is a two-lane undivided roadway which extends eastward from its intersection with Maplewood Avenue across U.S. Route 130 into Monroe Township. Half Acre Road is classified as an Urban Collector. It has a cartway width of approximately 28 feet, including minimal shoulders, in both directions, except that at certain intersections the cartway widens to provide for left-turn lanes. Additionally, at several existing intersections including the intersection with Liberty Way, exclusive right-turn lanes are provided. Half Acre Road has no posted speed limit and is under the jurisdiction of Cranbury Township. For the purpose of this study, Half Acre Road is assumed to extend in an east-west direction.

The turnpike widening project will require replacement of the existing Half Acre Road bridge. The replacement bridge will be configured to have one lane in each direction with shoulders. The bridge cross-section is similar to that of the existing Half Acre Road bridge.

### *Future Traffic Concerns at Half Acre Road*

1. Exclusive left-turn lanes at intersections and driveways are needed due to heavy volumes of truck traffic.
2. Acceleration and deceleration lanes are needed at driveways which provide access to warehouse-office developments.

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### *Options for Half Acre Road*

1. Acceleration and Deceleration Lanes should be required at driveways of warehouse office developments which front on Half Acre Road.
2. Appropriate left-hand storage lanes should be provided at all proposed site driveway intersections to accommodate left turn movements into the site. A 50-foot storage length is suggested as a minimum, although the actual length should be determined by a traffic analysis based on left turning volumes.

### **6. Liberty Way**

The “Master Plan Roadway,” as it was referred to in prior Master Plans, is now known as **Liberty Way**. It was first proposed as part of the 1998 Circulation Element of the Cranbury Township Master Plan. Liberty Way was envisioned to be a Minor Arterial road to provide a north/south bypass to both the Route 130 corridor and to provide a direct connection between Cranbury's warehouse-office areas and Exit 8A of the New Jersey Turnpike. The primary objective was to relieve traffic congestion anticipated to occur at the Route 130 and Station Road signalized intersection. When completed, Liberty Way would extend over two miles from U.S. Route 130 at the southern end (south of Station Road) to Cranbury-South River Road, just south of its intersection with Dey Road. Liberty Way would also allow the warehouse-industrial area east of Route 130 to be more attractive to development by reducing travel time for current and future tenants.

Several sections of Liberty Way have already been constructed as required by Cranbury's Master Plan to provide better access to approximately 15 million square feet of existing warehouse/office space. Additionally, there are a substantial number of acres of vacant land located along Liberty Way, some of which have been approved for future development, and others which have not (see Section 3 of Chapter 3, the Buildout Analysis in the Land Use Plan Element. These areas are zoned Light Industrial (LI) and Industrial-Light Impact (ILI), which is anticipated to generate further warehouse/office development. There is potential for a significant increase in the amount of warehouse/office space (estimated 5-6 million square feet) which could also be constructed on vacant land within the next decade.

To date, the section of Liberty Way between South River Road and Half Acre Road is completed. Additionally, two other sections have recently been completed in conjunction with adjacent development, one south of Half Acre Road ending near the Cranbury Brook and the other north of Station Road also ending near the Cranbury Brook.

The constructed portions of Liberty Way consist of two lanes with varying shoulder widths. No speed limit is currently posted. Liberty Way is under the jurisdiction of Cranbury Township and extends in a north-south direction.

### *Future Traffic Concerns of Liberty Way*

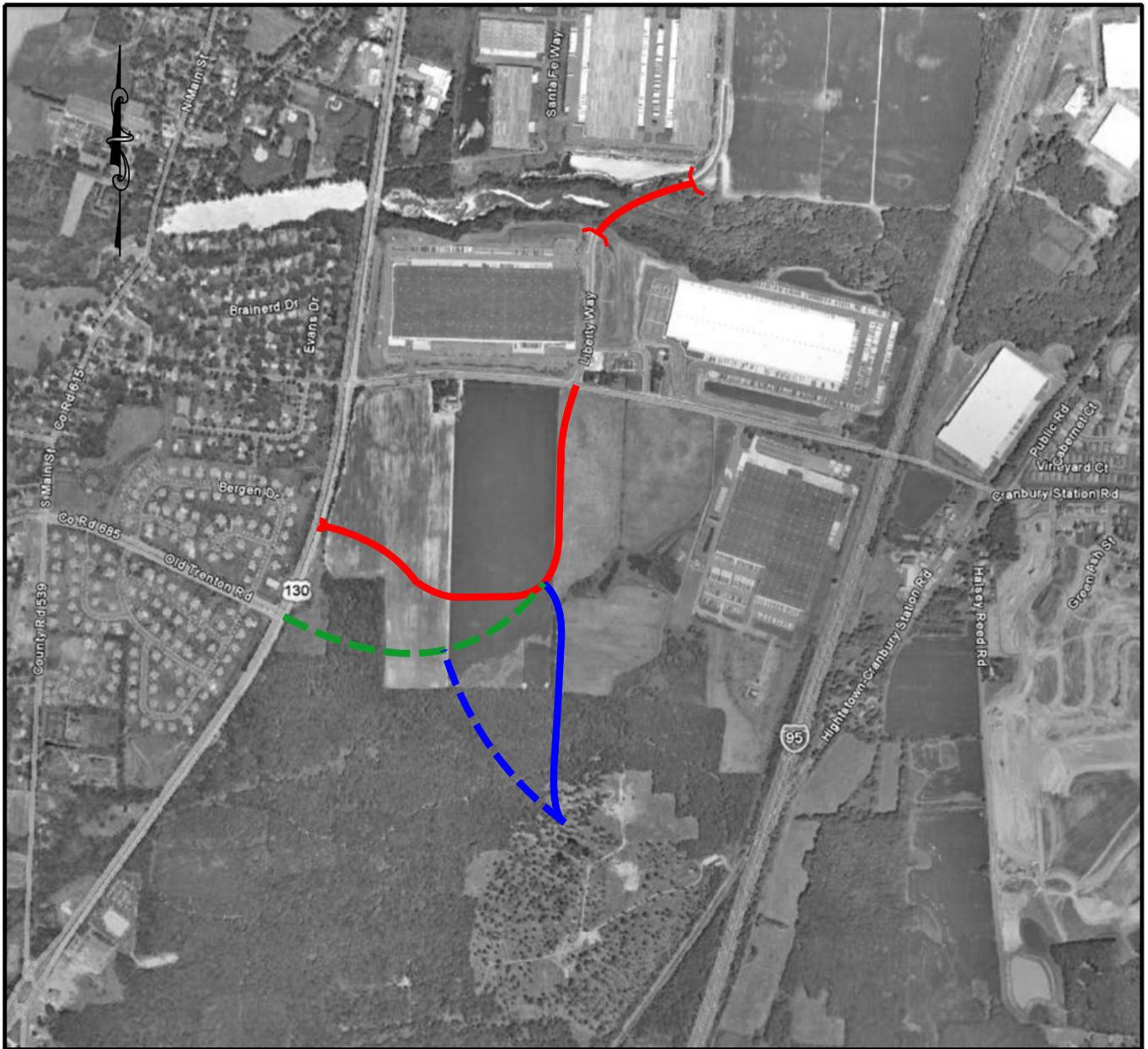
1. The speed of vehicles using Liberty Way as a bypass could differ from that of delivery trucks using the roadways to access warehouse-office sites.

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2. Acceleration and deceleration lanes are needed at driveways to provide access to warehouse-office sites.
3. The present completed sections of Liberty Way are underutilized because the roadway is not connected to Route 130 at the southern end, and also because the bridge is missing, no connection is provided at its northern end to Cranbury-South River Road. Without completing these connections, Liberty Way cannot function as the bypass it was originally intended to be. Both the bridge and the southern extent of Liberty Way are proposed to be completed as part of both approved and future development south of Station Road, but the timing of approvals for and the construction of the bridge are uncertain.

### *Options for Liberty Way*

1. The route of the southern extension of Liberty Way was originally intended to connect with Route 130 at the signalized intersection of Old Trenton Road. Environmental constraints (the presence of wetlands) may not allow a connection at this location. An alternate route has therefore been proposed for right-in/right-out access to and from Route 130 north of the Old Trenton Road intersection. It is recommended that the Township work with both the New Jersey Department of Environmental Protection and the NJDOT to determine if an alignment can be made that intersects opposite Old Trenton Road (see Figure 5-1 for alternate routes for Liberty Way).
2. It is strongly recommended that the southern extension of Liberty Way, south of Station Road, include a stub connector roadway to provide access directly between Liberty Way and the Viridian Property (Lot 10 of Block 10 and Lot 1 of Block 12). Figure 5-1 shows the stub connector roadway from either of two alternate routes for the southern extension of Liberty Way Road. Provision of a connection between development on the Viridian property to Liberty Way would limit the traffic impact generated by a development on the Viridian property on the surrounding roadway network (i.e., Hightstown-Cranbury Station Road, Brick Yard Road and portions of Station Road) and would provide a direct connection to roads better configured to accommodate the volume and size of vehicles generated by development on this site.
3. An appropriate speed limit should be established for both northbound and southbound directions. The speed limit shall consider the size and volume of trucks using Liberty Way should be established and posted.
4. The roadway should be flared at intersections to provide left-turn storage lanes and dedicated right-turn lanes.
5. Upon completion of Liberty Way, the Township could explore transferring jurisdiction of Liberty Way to Middlesex County, thereby making Liberty Way a County Road.



- ALTERNATIVE 1
- - - - ALTERNATIVE 2
- CONNECTOR ROAD FOR ALTERNATIVE 1
- - - - CONNECTOR ROAD FOR ALTERNATIVE 2

Figure 5-1: **Liberty Way Southern Extension**  
Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
Shropshire Associates LLC



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6. Funding for and/or construction of the remaining unconstructed sections of Liberty Way will be provided for by a combination of developers, Middlesex County, and other public and private funding sources. It is recommended that fair share contributions be collected from future development that will impact the roadway. It is also recommended that fair share contributions be made by developers based on trips generated from specific sites based on the following formula: the design peak divided by the total anticipated design peak traffic on the Liberty Way roadway at full buildout.

### **7. Maplewood Avenue-Scott Avenue**

**Maplewood Avenue** is a two-lane local road that extends south from its intersection with Route 130 to **Scott Avenue** within the Village, and Scott Avenue extends from this point westward until it intersects with South Main Street. Residential parking occurs on both sides of Maplewood Avenue. Maplewood Avenue's northern extent serves as an entryway into Cranbury's Village Center. Signs are posted to encourage motorists exiting into Cranbury from Route 130 at Half Acre Road to turn onto Plainsboro Road, and then from there turn onto Main Street. This route is signed in an effort to keep non-local traffic from passing through this residential street. (The roadway also has signs prohibiting truck traffic.) The posted speed limit is 25 MPH. While Maplewood Avenue has a north-south orientation, Scott Avenue has an east-west orientation. The posted speed limit on Scott Avenue is also 25 MPH.

#### *Future Traffic Concerns of Maplewood Avenue-Scott Avenue*

1. Both roadways are narrow. The residents living on these two streets use both sides for on-street parking, constricting two-way traffic.
2. Residents have voiced concern about the volume of vehicles that use Maplewood Avenue-Scott Avenue as a connection between Route 130 and Main Street.
3. There are concerns relating to speeding, especially at the intersection of Maplewood Avenue and Scott Avenue, which permits only southbound right-turns from Maplewood Avenue and eastbound left-turns from Scott Avenue. As such, the intersection functions as a 90-degree bend rather than an intersection. Motorists do not slow down sufficiently to make the turn without drifting into the stream of traffic coming in the opposite direction.

#### *Recommendations for Improving Maplewood Avenue/Scott Avenue*

Traffic-calming measures could be instituted along Maplewood Avenue and/or Scott Avenue. One method of traffic calming that could be considered is a "speed table" (a raised section of roadway, like an extended speed bump). An appropriate and safe location should be determined based upon an evaluation of existing conditions. The speed table would be installed with appropriate pavement markings and signage. A temporary speed table could be installed and assessed over a period of time to deter-

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mine if the traffic control device slowed vehicular speed and/or reduced traffic volume without compromising safety.

### **D. INTERSECTIONS: FUTURE CONDITIONS AND RECOMMENDATIONS**

A field reconnaissance was conducted to determine the features of existing major intersections which have been determined to be of potential concern. The intersections studied include the U.S. Route 130/Brick Yard Road, U.S. Route 130/Old Trenton Road, U.S. Route 130/Station Road, Station Road/Liberty Way, Half Acre Road/Liberty Way and Station Road/Hightstown-Cranbury Station Road. A brief description and analysis of each of these intersections is provided below.

#### **1. U.S. Route 130 and Brick Yard Road**

The intersection of **U.S. Route 130 and Brick Yard Road** occurs at the Route 130 traffic circle, known as the “**Cranbury Circle.**” The intersecting roadways of Brick Yard Road, Hightstown Main Street and Cranbury South Main Street are stop-controlled at their entrance to the Cranbury Circle. There are crossover or pass-through lanes on the north and south sides of the Circle providing one-way, counterclockwise movements. These crossover lanes are stop-controlled where they intersect Route 130. The east side of the Circle has Brick Yard Road stop-controlled at its intersection with Hightstown-Main Street, a short distance from the Hightstown-Main Street intersection with the Circle, which is also stop-controlled. See Figure 5-2 for existing conditions at the Cranbury Circle.

#### *Future Traffic Concerns of this Intersection*

1. Traffic waiting to enter the Circle from Hightstown-Main Street sometimes blocks entry onto Brick yard Road from Route 130.
2. Additional traffic volume at this intersection is anticipated in the future due to additional development in the area and from regional traffic growth. Additional volume would extend queuing at the intersection and result in a higher incidence of conflicting movements to and from Brick Yard Road.
3. Larger vehicles using the Cranbury Circle for access to or from Brick Yard Road could result in potentially unsafe traffic circulation conditions. Unsafe conditions could occur if queuing in the crossover lanes extends back to the Route 130 through lanes, either northbound or southbound.
4. The intersection is under NJDOT jurisdiction and any reconfiguration would require approval of the NJDOT.

#### *Options for U.S. 130 and Brick Yard Road*

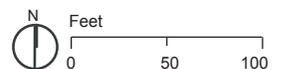
Brick Yard Road could be realigned. Two concept plans showing two alternative realignments are provided in Figures 5-3 and 5-4. Land would need to be deeded or condemned in order to provide sufficient right-of-way for this alignment. The intersection is

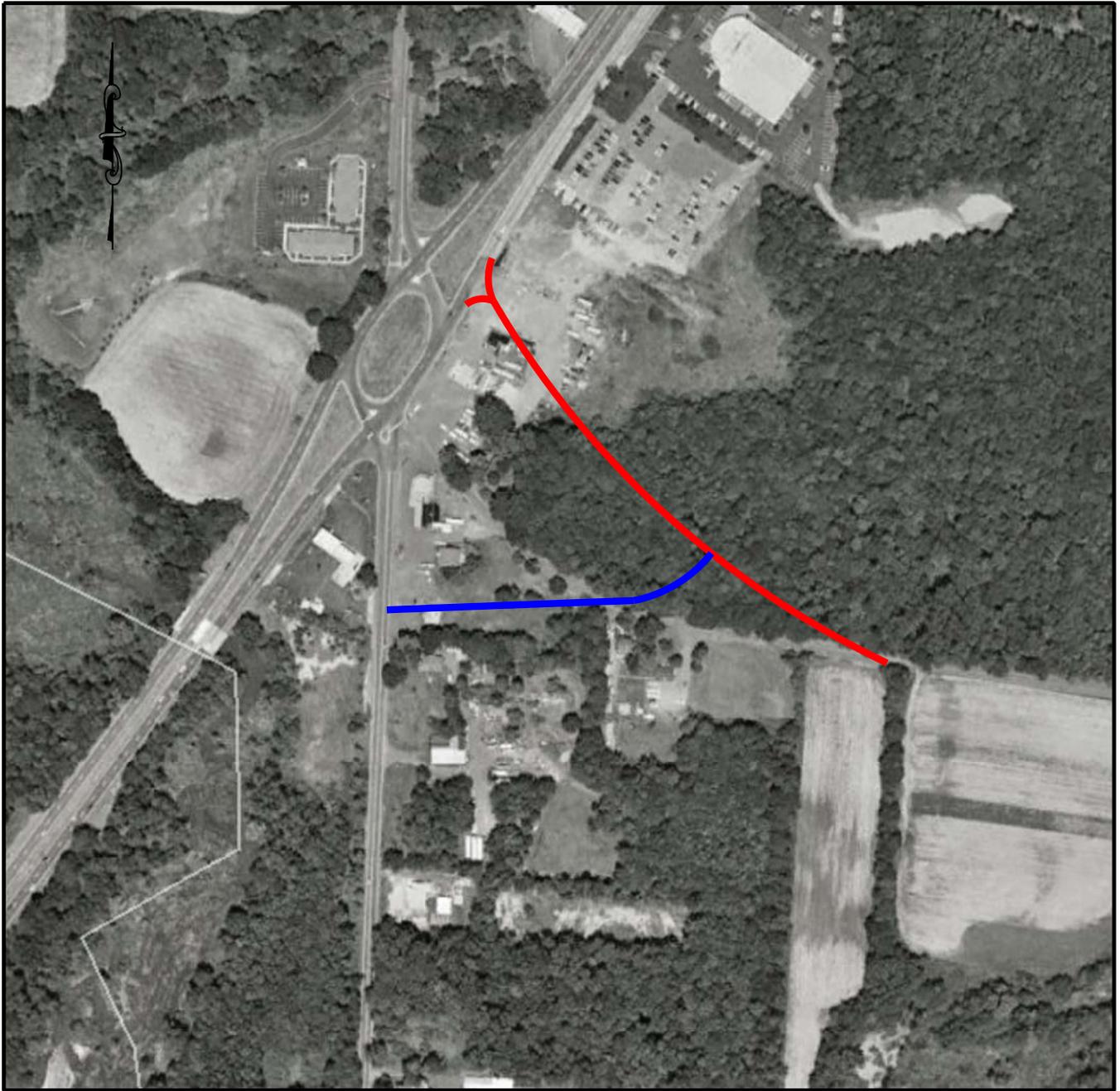


Figure 5-2: **Existing Intersection Configuration:  
Cranbury Circle**

Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
Shropshire Associates LLC





## CRANBURY CIRCLE



BRICKYARD ROAD RE-ALIGNMENT



BRICKYARD ROAD CONNECTOR - ALTERNATIVE 1

Figure 5-3: **Future Roadway Alignment:  
Cranbury Circle**  
Cranbury Township, New Jersey

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## CRANBURY CIRCLE

-  BRICKYARD ROAD RE-ALIGNMENT
-  BRICKYARD ROAD CONNECTOR - ALTERNATIVE 2

Figure 5-4: **Future Roadway Alignment:  
Cranbury Circle**  
Cranbury Township, New Jersey

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under the jurisdiction of the NJDOT and any reconfiguration would require their approval.

### **2. The U.S. Route 130 and Old Trenton Road Intersection**

The **U.S. Route 130 and Old Trenton Road** intersection is a T-shaped, signalized intersection and controlled by a three-phase, semi-actuated traffic signal with either a 90- or 120-second background cycle length, which varies by time of day. During the week-day AM and PM peak hours, the traffic signal has a 120-second background cycle length to accommodate the higher volume of traffic on the roadways. The northbound U.S. Route 130 approach consists of an exclusive left-turn lane and two (2) individual through-movement lanes. The southbound approach consists of a single through lane and a shared through/right-turn lane. However, vehicles were observed using the available 10-foot shoulder for right-turning movements onto westbound Old Trenton Road. The eastbound Old Trenton Road approach consists of an individual right-turn lane and two (2) exclusive left-turn lanes. See Figure 5-5 for existing alignment of the U.S. Route 130/Old Trenton Road intersection.

#### *Future Traffic Concerns on U.S. Route 130 and Old Trenton Road*

1. Without Liberty Way Bridge: If Liberty Way is not completed and it does not connect at the Route 130/Old Trenton Road intersection, and additionally if Liberty Way Bridge is not built, a substantial volume of left-turn movements from southbound Route 130 can be expected at both Route 130/Station Road and/or at the Cranbury Circle to access either Station Road east of Route 130 or any development south of Station Road. Similarly, all traffic generated by development located on Station Road or points south would pass through these intersections. This would add a substantial volume of traffic movements to these already constrained intersections.
2. With Liberty Way Bridge: If the Liberty Way Bridge is constructed but it does not connect to Route 130 at Old Trenton Road, there will only be right-in/right-out connection along northbound Route 130. This will not allow Liberty Way to function as a bypass road in the southbound direction. Left turns from Route 130 southbound to Liberty Way would be prohibited. Southbound Liberty Way traffic would cause bottleneck conditions at the westbound Station Road approach to Route 130/Station Road for left turns to southbound Route 130. Southbound Route 130 left turns would compete for green time. Excessive delays would occur for southbound left turns which would cause longer queues that could extend into the southbound Route 130 through lanes.

#### *Options for U.S. Route 130 and Old Trenton Road*

1. The Township is strongly recommended to consider connecting Liberty Way to the intersection of Route 130/Old Trenton Road. As noted above, the route of the southern extension of Liberty Way was originally intended to connect to this



Figure 5-5: **Existing Intersection Configuration:  
Route 130 & Old Trenton Road**  
Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
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signalized intersection to make use of an existing traffic signal. This intersection would be configured in such a way as being able to handle the additional traffic volumes and movements. Without this connection, Liberty Way would not function as the truck bypass it was intended to be and allow for those movements necessary to access Cranbury's warehouse-industrial areas to the east of Route 130. The connection of Liberty Way at Route 130/Old Trenton Road will take conflicting movements away from other intersections (such as Route 130/Station Road), which are less capable of accommodating conflicting movements.

2. The location where Liberty Way is planned to intersect with Route 130/Old Trenton Road is one where freshwater wetlands have been identified and mapped. Therefore the intersection of Liberty Way with Route 130 opposite Old Trenton Road would require the filling of wetlands. The Township should explore with the New Jersey Department of Environmental Protection and NJDOT the possibility of obtaining permits for this purpose, and determine whether wetland mitigation could be achieved to permit this to occur.
3. The intersection of Route 130/Old Trenton Road could be reconfigured with a southbound Route 130 left-turn lane for access to Liberty Way. The Liberty Way approach could then have an exclusive left-turn lane, a through-lane and a right-turn lane. It would have one receiving lane for northbound Route 130 right turns, one for Old Trenton through-movements and one for left turns from southbound Route 130. The eastbound Old Trenton Road approach would be reconfigured to have an exclusive left-turn lane, a through-lane, and a right-turn lane. (See Figure 5-6 for a concept configuration of Route 130/Old Trenton Road with the Liberty Way connection.)
4. Whatever the configuration, the Township should proceed with plans to connect Liberty Way with Route 130 at the intersection of Old Trenton Road, and seek fair share contributions from developers for the improvements that will be necessary for intersection and signal improvements.
5. Traffic volumes on Old Trenton Road are not anticipated to significantly increase with the Liberty Way connection at Old Trenton Road. Traffic heading to/from points west are not currently prohibited from using Old Trenton Road. With the Liberty Way connection, motorists currently using Old Trenton Road would continue to do so.
6. Additional right-of-way would need to be acquired in order to implement the required improvements at this intersection.
7. Since the intersection is under NJDOT jurisdiction, any reconfiguration would require their approval.



Figure 5-6: **Future Intersection Configuration:  
Route 130 & Old Trenton Road with  
Liberty Way Connection**

Cranbury Township, New Jersey

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### **3. U.S. Route 130 and Station Road Intersection**

The **U.S. Route 130/Station Road** signalized intersection is controlled by a three-phase, semi-actuated traffic signal with either a 90-second or 120-second background cycle length, which varies by time of day. The 120-second background cycle length is utilized during the weekday AM and PM peak hours due to the higher volume of traffic on the roadways. The northbound and southbound U.S. Route 130 approaches each consist of an exclusive left-turn lane, two through lanes, and a right-turn lane. The westbound Station Road approach consists of an exclusive right-turn lane and a shared through/left-turn lane, while the eastbound approach consists of an exclusive left-turn lane and shared through/right-turn lane. See Figure 5-7 for a depiction of the existing configuration of the U.S. Route 130/Station Road intersection.

#### *Future Traffic Concerns—U.S. Route 130 and Station Road*

1. Without the Liberty Way Bridge: Without the Liberty Way Bridge, the intersection of Route 130/Station Road would have to accommodate all north-south movements originally envisioned to be accommodated by Liberty Way, that is, for development east of Route 130 and south of Station Road. This would mean adding hundreds of additional conflicting movements to this intersection, which has been shown in traffic reports to have failing movements (i.e., long delays) under current peak traffic conditions. Southbound movements that would have used Liberty Way as a bypass would travel on other north-south roadways such as Route 130 or Main Street.
2. With the Liberty Way Bridge: If the Liberty Way Bridge is built but Liberty Way does not connect to Route 130 at the Old Trenton Road intersection, there will only be a right-in/right-out connection along northbound Route 130, as noted above. Liberty Way as a bypass would end at its intersection with Station Road and then require traffic to head east on Station Road to access Route 130 for movements north-south. The volume of traffic turning south will overwhelm the single left-turn lane, and dual left-turn lanes from Station Road to Route 130 southbound may be required. This scenario with the Bridge constructed but the southern end limited to right-in/right-out along northbound Route 130 intersection represents a “worst case” scenario in that the intersection would have to accommodate its highest demand for conflicting movements.

#### *Options for U.S. Route 130 and Station Road*

1. The Township should strongly consider connecting Liberty Way to the intersection to Route 130 opposite Old Trenton Road. As noted above, the route of the southern extension of Liberty Way was originally intended to connect to this signalized intersection to make use of an existing traffic signal. This intersection could be configured to handle the additional volume and conflicting movements. Without this connection, Liberty Way will not function as the intended bypass and



Figure 5-7: **Existing Intersection Configuration:  
Route 130 & Station Road**

Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
Shropshire Associates LLC



## 2010 Cranbury Township Master Plan

will limit movements necessary for access to Cranbury's warehouse-office areas east of Route 130.

2. Without the Liberty Way Bridge, the intersection of Route 130/Station Road may require additional southbound left-turn capacity. Since the left-turn lane is already extended to its maximum useful length, dual left-turn lanes may be required to accommodate the capacity. It should be noted that such a configuration is typically not desirable from a traffic engineering viewpoint, and the NJDOT typically discourages such configurations. See Figure 5-8 for the recommended configuration of the Route 130/Old Station Road intersection without the Liberty Way Bridge, with and without its southern intersection with Route 130 opposite Old Trenton Road. It should be noted that two (2) eastbound receiving lanes would be required along Station Road to accommodate the dual left from southbound Route 130. Additional ROW will be required along the south side of Station Road.
3. With the Liberty Way Bridge built, but the southern intersection of Liberty Way built as a right-in/right-out intersection along Route 130 northbound, the intersection of Route 130 and Station Road would require a substantial reconfiguration that may include the dual left-turn lanes for southbound Route 130 and dual left-turn lanes for the westbound Station Road approach. This configuration would be very undesirable from a traffic engineering viewpoint and may not meet NJDOT's approval. Dual left turns require stoppage of opposing and/or conflicting movements. The efficiency of the distribution of the traffic would be greatly compromised, and as such, this may not be a viable option. Closure of the west Station Road approach may be required; however even that may not be sufficient to mitigate the severely constrained intersection. See Figure 5-9 for the recommended configuration of the Route 130/Station Road intersection assuming that the Liberty Way Bridge is built, but without the southern intersection of Liberty Way at Route 130/Old Trenton Road. This configuration would also require additional ROW along the southbound side of Station Road for two (2) receiving lanes.
4. The optimal roadway improvement would be to have Liberty Way Bridge built, and with its southern intersection located opposite Old Trenton Road. Under this scenario, the intersection of Route 130 and Station Road would experience considerably reduced traffic congestion. (See Figure 5-10.)
5. Additional right-of-way would have to be acquired to provide sufficient space to make necessary improvements at this intersection.
6. Since this intersection is under NJDOT jurisdiction, any reconfiguration of this intersection would require their approval.



Figure 5-8: **Future Intersection Configuration:  
Route 130 & Station Road without  
Liberty Way Bridge**  
Cranbury Township, New Jersey

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Figure 5-9: **Future Intersection Configuration:  
Route 130 & Station Road with  
Liberty Way Bridge & Connection  
at Route 130**

Cranbury Township, New Jersey

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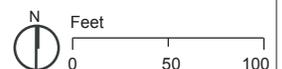
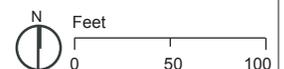




Figure 5-10: **Future Intersection Configuration:  
Route 130 & Station Road with  
Liberty Way Bridge & Connection  
at Old Trenton Road**

Cranbury Township, New Jersey

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### **4. Station Road and Liberty Way Intersection**

The existing T-shaped **Station Road/Liberty Way** intersection is stop-controlled along the southbound Liberty Way approach. The eastbound and westbound Station Road approaches each consist of a single lane for all possible movements. The stop-controlled southbound Liberty Way approach is comprised of a single lane for left and right turning movements. Under future conditions a fourth leg (on the south side of Station Road) to the intersection will be constructed in conjunction with future warehouse development along Station Road. The future northbound approach will consist of a shared through/left-turn lane and an exclusive right-turn lane. See Figure 5-11, which shows the existing configuration of the Station Road/Liberty Way intersection.

#### *Future Traffic Concerns—Station Road and Liberty Way*

1. Without Liberty Way Bridge: This intersection would have to accommodate all conflicting movements that were envisioned to be through-movements on Liberty Way.
2. With Liberty Way Bridge: Through movements on Liberty Way would be significant in the northbound direction. Should Liberty Way connect to Route 130/Old Trenton Road, significant movements will also occur in the southbound direction.

#### *Options for Station Road and Liberty Way*

1. Traffic signal warrants should be reviewed for either the Bridge being constructed, or for the southern extension (between Station Road and its intersection with Route 130 either at Old Trenton Road or along northbound Route 130). Should warrants be met, the intersection would require signalization. The Township should consider fair share contributions from all new development for future signalization at this intersection.
2. With Liberty Way Bridge built, but the southern intersection at Route 130 for right-in/right-out turns only, through movements would be limited at this intersection and exclusive left-turn lanes would be required. See Figure 5-12 for a recommended configuration of the signalized intersection of the Station Road/Liberty Way intersection.
3. Exclusive left-turn lanes could be necessary for north-south Liberty Way and/or for east-west Station Road. The Township should consider acquiring additional right-of-way should such a configuration be necessary.
4. With the Liberty Way Bridge built and with the southern intersection of Liberty Way opposite Old Trenton Road, the optimal configuration of the roadway network is achieved. The intersection of Station Road and Liberty Way will siphon off traffic using the Station Road/U.S. Route 130 intersection. The increase in through traffic will require a configuration that allows more through movements. (See Figure 5-13.)



Figure 5-11: **Existing Intersection Configuration:  
Station Road & Liberty Way**  
Cranbury Township, New Jersey

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Figure 5-12: **Future Intersection Configuration:  
Station Road & Liberty Way Bridge with  
Connection at Route 130**

Cranbury Township, New Jersey

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Shropshire Associates LLC





Figure 5-13: **Future Intersection Configuration:  
Station Road & Liberty Way Bridge with  
Connection at Old Trenton Road**

Cranbury Township, New Jersey

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5. Any improvements at this intersection would be under the jurisdiction of Middlesex County and would require County approval.

### **5. Half Acre Road and Liberty Way Intersection**

The **Half Acre Road/Liberty Way** four-leg intersection is stop-controlled along the northbound and southbound Liberty Way approaches. The eastbound Half Acre Road approach consists of a left-turn lane, a through lane and a right-turn lane. The westbound Half Acre road approach consists of a single left-/through/right-turn lane. The stop-controlled northbound and southbound Liberty Way approaches each consist of a single lane for exclusive left turns, through movements and right-turn movements. See Figure 5-14, which shows the existing configuration of the Half Acre Road/Liberty Way intersection.

#### *Future Traffic Concerns—Half Acre Road and Liberty Way*

1. Without Liberty Way Bridge: This intersection would have to accommodate all conflicting movements that were envisioned to be through movements on Liberty Way.
2. With Liberty Way Bridge: Should Liberty Way connect to Route 130 at Old Trenton Road, through movements on Liberty Way would be significant in the northbound direction, and also in the southbound direction.

#### *Options for Half Acre Road and Liberty Way*

1. Should the Bridge be constructed, traffic signal warrants should be reviewed. If the warrants are met, the intersection would require signalization. The Township should consider fair share contributions from all new development for future signalization at this intersection.
2. Exclusive left-turn lanes would be necessary for north-south Liberty Way and for east-west Half Acre Road. The Township should consider acquiring sufficient right-of-way to allow this to occur.
3. See Figure 5-15 for the recommended configuration of the signalized intersection of Half Acre Road/Liberty Way.
4. Any improvements at this intersection would be under the jurisdiction of Cranbury Township. The Township would be required to pay for the costs of providing electrical service and for maintaining the traffic signal.

### **6. Station Road and Hightstown-Cranbury Station Road Intersection**

The intersection of **Station Road/Hightstown-Cranbury Station Road** is a four-legged intersection and is stop-controlled along the northbound and southbound approaches. The eastbound Station Road approach consists of an exclusive left-turn lane and a through/right-turn lane. The westbound Station Road approach consists of an exclusive left-turn lane and a through/right-turn lane. The westbound Station Road approach con-



Figure 5-14: **Existing Intersection Configuration:  
Half Acre Road & Liberty Way**

Cranbury Township, New Jersey



Figure 5-15: **Future Intersection Configuration:  
Half Acre Road & Liberty Way Bridge**  
Cranbury Township, New Jersey

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sists of a through lane for all movements. The stop-controlled northbound Hightstown-Cranbury Station Road approach consists of one lane for all movements. The southbound stop-controlled driveway has one lane for all movements. See Figure 5-16, which shows the configuration of the Station Road/Hightstown-Cranbury Station Road intersection.

### *Future Traffic Concerns—Station Road/Hightstown-Cranbury Station Road*

1. Should the Viridian site (Cranbury Brick Yard LLC) be developed as approved, this intersection would experience a significant increase in commercial and commuter traffic.
2. The intersection currently has sight distance limitations for the northbound Hightstown-Cranbury Station Road approach.
3. The intersection is adjacent to a railroad right-of-way and any improvements must include traffic control consistent with requirements for a safe rail crossing.

### *Options for Station Road and Hightstown-Cranbury Station Road*

1. If the approximately 2,800,000 square feet of warehouse and office space is constructed, traffic signal warrants would be met. A traffic signal would then be required.
2. Exclusive left-turn lanes could be necessary for Hightstown-Cranbury Station Road northbound approach and/or for the westbound Station Road approach. The Township should consider acquiring sufficient land so the right-of-way could accommodate the improvements.
3. See Figure 5-17 for the recommended configuration of the signalized intersection of Station Road/Hightstown-Cranbury Station Road.
4. Any improvements at this intersection would be under the jurisdiction of Middlesex County and would require County approval.

## **E. PARKING ANALYSIS AND RECOMMENDATIONS**

Cranbury's Village commercial center lies a little south of the signalized intersection of North Main Street and Plainsboro Road to the north, and Brainerd Lake to the south. Although there are a few commercial establishments and public facilities to the south of Brainerd Lake, this study focuses on Main Street north of the Brainerd Lake.

Main Street (County Route 535) within the study area is classified as an urban minor arterial roadway under the jurisdiction of Middlesex County. It has a posted speed limit of 25 miles per hour. Main Street varies in width, but at its widest it is 54 feet wide with designated on-street parking spaces along both the northbound and southbound sides. Parking is prohibited near intersections and driveways, and also at certain drop-off points such as in front of the post office and the mailbox near 32 North Main Street. There are no designated parking spaces north of Main Street's intersection with West-



Figure 5-16: **Existing Intersection Configuration:  
Hightstown-Cranbury Station Road**  
Cranbury Township, New Jersey

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Figure 5-17: **Future Intersection Configuration:  
Hightstown-Cranbury Station Road with  
Warehouse Access to  
Cranbury-Hightstown Road**  
Cranbury Township, New Jersey

## 2010 Cranbury Township Master Plan

minster Place. This parking study therefore focuses on a 0.3-mile section of Main Street between Westminster Place and Brainerd Lake along which designated on-street parking spaces are provided.

The existing parking within the limits of study area was divided into 3 sections. On-street parking spaces were inventoried for both sides of Main Street in each section. The sections were chosen to represent parking within a reasonable walking distance (up to 0.1 miles or 550 feet) to destinations within a defined section. Section 1, located between Westminster Place and Park Place, has a total of 22 designated parking spaces, including both sides. Section 2, located between Park Place and the Municipal Drive, has a total of 34 designated parking spaces on both sides of the street. Section 3, located between the Municipal Drive and the Cranbury Lake, has a total of 25 designated parking spaces on both sides of the street. There are therefore a total of 81 designated on-street parking spaces within the study area.

It should be noted that there is a small public parking lot with access from Park Place to the west of Main Street that provides several parking spaces. Because these spaces are not technically “on street,” they were not included in the Main Street parking analysis. However, it is acknowledged that they do provide a few additional public parking spaces to the downtown because they are within a short walking distance from Main Street.

### *Parking Data Collection*

Parking counts were conducted in September and October 2010 on a typical weekday (after school was back in session) and on a Friday during clear weather conditions. Parking counts were conducted within each of the three sections of the study area as defined above. The counts were repeated at 20-minute intervals from 10:00 AM to 8:00 PM and from 9:00 PM to 11:00 PM. During each 20-minute interval, occupied parking spaces were recorded by section. (Table 5-2 for Tuesday, September 21, and for Friday, October 1, indicate the number of occupied parking spaces by section and show the percentage of parking spaces available that were occupied during each 20-minute interval.) The tables then show the total number and percentage of occupied parking spaces for all three sections. The last column provides the total number of on-street spaces that were available during each interval.

### *Parking Analysis*

Parking in Cranbury’s Village Center is shared among various uses—including retail, restaurant, professional office and residential uses. There is a sharing and synergy of parking usage that allows the parking supply to satisfy many uses and larger numbers of residential units and floor areas of non-residential uses than might be required if each of the land uses were on their own lot and provided parking for their own customers or residents separately. Retail parking typically peaks in the mid- to late afternoon. Restau-

Cranbury Township  
Main Street - Village Parking Study  
Parking Count Conducted Tuesday, September 21, 2010

Time	Parked Vehicles - On Street Parked (both sides of Main Street)						Total Spaces Available		
	Westminster Pl. to Park Pl. (22 Striped Spaces)	Park Pl. to Municipal Drive (34 Striped Spaces)	Municipal Drive to Lake (25 Striped Spaces)	Village Center Parking (81 Striped Spaces)	% Total Spaces Used				
10:00 AM	10	45%	27	79%	21	84%	58	72%	23
10:20 AM	7	32%	28	82%	21	84%	56	69%	25
10:40 AM	7	32%	27	79%	20	80%	54	67%	27
11:00 AM	6	27%	23	68%	22	88%	51	63%	30
11:20 AM	5	23%	27	79%	21	84%	53	65%	28
11:40 AM	17	77%	32	94%	18	72%	67	83%	14
12:00 PM	11	50%	33	97%	23	92%	67	83%	14
12:20 PM	17	77%	32	94%	22	88%	71	88%	10
12:40 PM	18	82%	29	85%	19	76%	66	81%	15
1:00 PM	16	73%	31	91%	22	88%	69	85%	12
1:20 PM	15	68%	27	79%	23	92%	65	80%	16
1:40 PM	11	50%	29	85%	25	100%	65	80%	16
2:00 PM	10	45%	30	88%	24	96%	64	79%	17
2:20 PM	15	68%	30	88%	25	100%	70	86%	11
2:40 PM	16	73%	34	100%	23	92%	73	90%	8
3:20 PM	10	45%	23	68%	22	88%	55	68%	26
3:40 PM	13	59%	19	56%	20	80%	52	64%	29
4:00 PM	12	55%	21	62%	19	76%	52	64%	29
4:20 PM	12	55%	20	59%	15	60%	47	58%	34
4:40 PM	12	55%	20	59%	12	48%	44	54%	37
5:00 PM	15	68%	17	50%	6	24%	38	47%	43
5:20 PM	17	77%	18	53%	7	28%	42	52%	39
5:40 PM	14	64%	18	53%	7	28%	39	48%	42
6:00 PM	17	77%	15	44%	14	56%	46	57%	35
6:20 PM	19	86%	19	56%	19	76%	57	70%	24
6:40 PM	17	77%	18	53%	20	80%	55	68%	26
7:00 PM	21	95%	19	56%	19	76%	59	73%	22
7:20 PM	19	86%	20	59%	18	72%	57	70%	24
7:40 PM	11	50%	18	53%	21	84%	50	62%	31
8:00 PM	16	73%	18	53%	21	84%	55	68%	26
9:00 PM	12	55%	12	35%	13	52%	37	46%	44
9:20 PM	12	55%	12	35%	8	32%	32	40%	49
9:40 PM	13	59%	12	35%	7	28%	32	40%	49
10:00 PM	11	50%	12	35%	7	28%	30	37%	51
10:20 PM	13	59%	12	35%	8	32%	33	41%	48
10:40 PM	13	59%	12	35%	8	32%	33	41%	48
11:00 PM	13	59%	12	35%	8	32%	33	41%	48

Cranbury Township  
Main Street - Village Parking Study  
Parking Count Conducted Friday, October 1, 2010

Time	Parked Vehicles - On Street Parked (both sides of Main Street)						Total Spaces Available
	Westminster Pl. to Park Pl. (22 Striped Spaces)	Park Pl. to Municipal Drive (34 Striped Spaces)	Municipal Drive to Lake (25 Striped Spaces)	Village Center Parking (81 Striped Spaces)	% Total Spaces Used		
10:00 AM							
10:20 AM							
10:40 AM							
11:00 AM	11	31	20	62	77%	19	
11:20 AM	13	31	20	84	79%	17	
11:40 AM	16	34	19	69	85%	12	
12:00 PM	18	34	24	76	94%	5	
12:20 PM	16	32	24	72	89%	9	
12:40 PM	20	34	24	78	98%	3	
1:00 PM	14	32	25	71	100%	10	
1:20 PM	15	34	22	71	88%	10	
1:40 PM	14	34	23	71	86%	10	
2:00 PM	18	34	21	71	88%	10	
2:20 PM	12	30	20	82	77%	19	
2:40 PM	8	31	19	58	72%	23	
3:00 PM	19	26	27	72	89%	9	
3:20 PM	13	24	15	52	64%	29	
3:40 PM	12	28	17	57	70%	24	
4:00 PM	14	30	14	58	72%	23	
4:20 PM	9	31	13	53	85%	28	
4:40 PM	12	29	9	50	62%	31	
5:00 PM	11	24	10	45	56%	36	
5:20 PM							
5:40 PM							
6:00 PM	17	27	11	55	88%	26	
6:20 PM	18	32	11	81	75%	20	
6:40 PM	21	27	12	60	74%	21	
7:00 PM	16	27	14	57	70%	24	
7:20 PM	17	22	14	53	65%	28	
7:40 PM	17	13	14	44	54%	37	
8:00 PM	12	17	14	43	53%	38	
8:20 PM	11	18	14	41	51%	40	
8:40 PM	11	18	15	42	52%	39	
9:00 PM	9	18	17	42	52%	39	
9:20 PM	9	15	15	39	48%	42	
9:40 PM	9	13	13	35	43%	45	
10:00 PM	9	13	9	31	38%	50	
10:20 PM							
10:40 PM							
11:00 PM							

## 2010 Cranbury Township Master Plan

rant parking peaks at lunchtime and dinnertime.<sup>6</sup> Office parking peaks in the mid-morning and again in the mid-afternoon when employees would be at work with clients and/or visitors. Residential parking peaks in the overnight hours, starting in the early to late evening and lasting overnight until the morning commute, when residents leave for work.

The parking counts indicate that the various uses with differing peak parking demands utilize available parking throughout the day. The data clearly show that the highest combined use of on-street parking, and thus least available parking spaces, occurs from noon to approximately 3:00 PM with 80% to 85% of the on-street parking spaces occupied. There was a peak demand of almost 90% in the 2:40 PM interval, when less than 10 parking spaces were available in the entire study area at that time.

The peak parking demand for on-street spaces occurs when restaurants are occupied by lunchtime customers, by retail customers in the early afternoon, and when employees/clients are still in their offices. It should be noted that Cranbury's elementary school, public library and municipal building have off-street parking accessed via Municipal Drive, and thus were not considered as having a primary influence on the on-street parking demand. However, based on the period in which peak parking demand was observed (early afternoon), there may be some on-street parking demand utilized by those employees of the municipal building, the library and school and parents picking up their children after school. This study did not specifically identify the destination of motorists who park on Main Street.

For comparative purposes, the maximum size of each individual use (retail, restaurant, office) was reverse-calculated based on Cranbury Township's Land Development Ordinance's (LDO's) minimum parking requirements. The LDO requirement for retail is 1 space for every 200 square feet (SF) of retail space, or conversely, the 81 on-street parking spaces could support up to 16,200 SF of retail space. The LDO requirement for restaurants is 1 space for each 4 seats; commonly 81 spaces could support up to 325 seats. (The restaurant seat estimate would be slightly lower to account for employee parking.) For office space, the LDO requirement is 1 space for each 250 SF; the 81 parking spaces could support up to 20,250 SF of office space. (See Table 5-3 below for a summary of these calculations.)

**Table 5-3: Reverse-Calculated Maximum Size of Use for 81 On-Street Parking Spaces**

Use	LDO Requirement	Maximum Size
Retail	1 space/200 SF	16,200 SF
Restaurant	1 space/4 seats	325 seats
Office	1 space/250 SF	20,250 SF

<sup>6</sup> For restaurants that serve breakfast, coffee, pastries, etc. in the morning, an early-morning peak could also be expected.

## 2010 Cranbury Township Master Plan

Cranbury's Village Center is not comprised of a single use, but a mix of uses. The parking requirements per the Cranbury LDO for the combination of uses probably significantly exceeds the 81 existing spaces provided, yet the 81 available parking spaces appear to currently handle the existing peak parking demand without any major problems, other than requiring some patrons or employees to walk a little farther from their cars to or from their destination. This is due to several factors such as offset peak parking demands (shared use). It may also be attributable to non-vehicular access (pedestrian or bicycle), which would decrease the demand for parking.

Weekend parking counts were not conducted. Retail and restaurant parking may have higher demand during this period, especially during the mid-morning to late afternoon time periods, but there is typically substantially less demand for office parking at that time.

It should be noted that the economic recession within the last two years may have affected retail, restaurant and office activity in the Village. Commercial vacancies or underutilization due to a decrease in patrons, clients or employees, would decrease parking demand which, when the economy recovers, could increase again. Should vacancies be filled, or utilization rates increase, or changes in occupancy occur, it could create a concentration of uses that have higher peak demands. In such a case, parking demands may increase. Under these circumstances further analysis may be warranted.

### *Parking Improvements*

It is vital to Cranbury's Village Center that sufficient parking be available for retail, restaurant, office, residential and other uses. The 81 designated on-street parking spaces are shared among the various uses, which helps to reduce the total number of parking spaces required to meet the demand.

Peak parking demand under existing conditions typically ranges between 85% and 95%. This leaves less than 10 available spaces during peak parking periods. Increased activity or an intensification of retail or office uses could generate a peak demand exceeding the current 81 parking space supply. If this were to occur, prospective parkers would most likely seek alternative locations, such as the parking lot adjacent to the municipal building or private lots associated with Main Street businesses, or along the side streets such as Westminster Place or Park Place.

Potential sources of additional parking, to the extent it is needed, include providing a public parking lot of appropriate size near the Village Center. However, further investigation would be necessary to determine its feasibility. Additionally, Cranbury Township might first consider reconfiguring existing on-street parking to maximize efficiency and generate a greater number of spaces. Some suggestions for the reconfiguration of on-street parking include:

1. Angled Parking—Convert some or all existing parallel parking spaces to angled parking spaces on one or both sides of Main Street. The feasibility of this will depend on availability of appropriate roadway width and may require some roadway,

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curb and/or sidewalk improvements, although the cost and time it would take to implement this would be comparatively minor. Additional parking spaces would be gained; however, this has to be balanced against consideration of safety and convenience. The major advantage of this solution is that it is inexpensive (a few gallons of paint), and is 100% reversible. The Angled parking could be provided on one side (see Figure 5-18)—perhaps on the west side where much of the retail actually currently occurs—or on both sides (see Figure 5-19).

2. Change Size of Spaces—Reduce the size of designated on-street parking spaces. The Manual on Uniform Traffic Control Devices (MUTCD) suggests that parallel parking spaces be at least 22 feet long. The MUTCD also allows that end spaces, those with no parking space either behind or in front, such as those near driveways or intersections, be 20 feet. The size of each on-street parking space on Main Street could be evaluated to determine the feasibility of resizing spaces. Additionally, the Township may wish to investigate the potential to further reduce the size of several parking spaces to be less than 22 feet and designate such space for compact car use only.
3. Change Parking Designation—Main Street currently has a centerline and individual parking spaces designated on both its northbound and southbound sides. In many cases the on-street parking spaces may be longer than the vehicles parking in them. This leads to inefficient use of space along curbs where parking would be permissible. The designated parking spaces could be eliminated and replaced with a single traffic stripe that runs parallel to the centerline. (See Figure 5-20.) The entire shoulder area within the striped area would be designated for parking. Breaks in the line would be provided for intersections and driveways. Motorists would fit themselves into the “parking area” rather than choosing a designated parking space. Areas where parking would be prohibited would have to be clearly indicated such as at intersections, driveways and drop-off zones. This could be tested in smaller sections of the downtown to see if a greater number of cars utilize them in comparison to designated spaces. If the answer is affirmative, additional areas of designated spaces could be converted into long “parking areas.”
4. Public Parking Lot—Cranbury Township could consider construction of a parking lot to the west end of Park Place. Park Place has its west termination at the open field to the north of the school and to the west of the tennis courts. The Township could explore the feasibility of providing a paved parking area that could serve as an overflow for Main Street parking and also serve as overflow for school parking. The school parking lot tends to fill up during peak use such as around the holidays or during parent-teacher events. Providing an additional parking lot could also facilitate opening a second access to the school, provide additional parking and provide more convenient ingress and egress from the municipal/school parking areas. (See Figure 5-21, Concept Parking Lot.) It should be noted that the land where the public parking lot would be created and where Park Place would be extended is

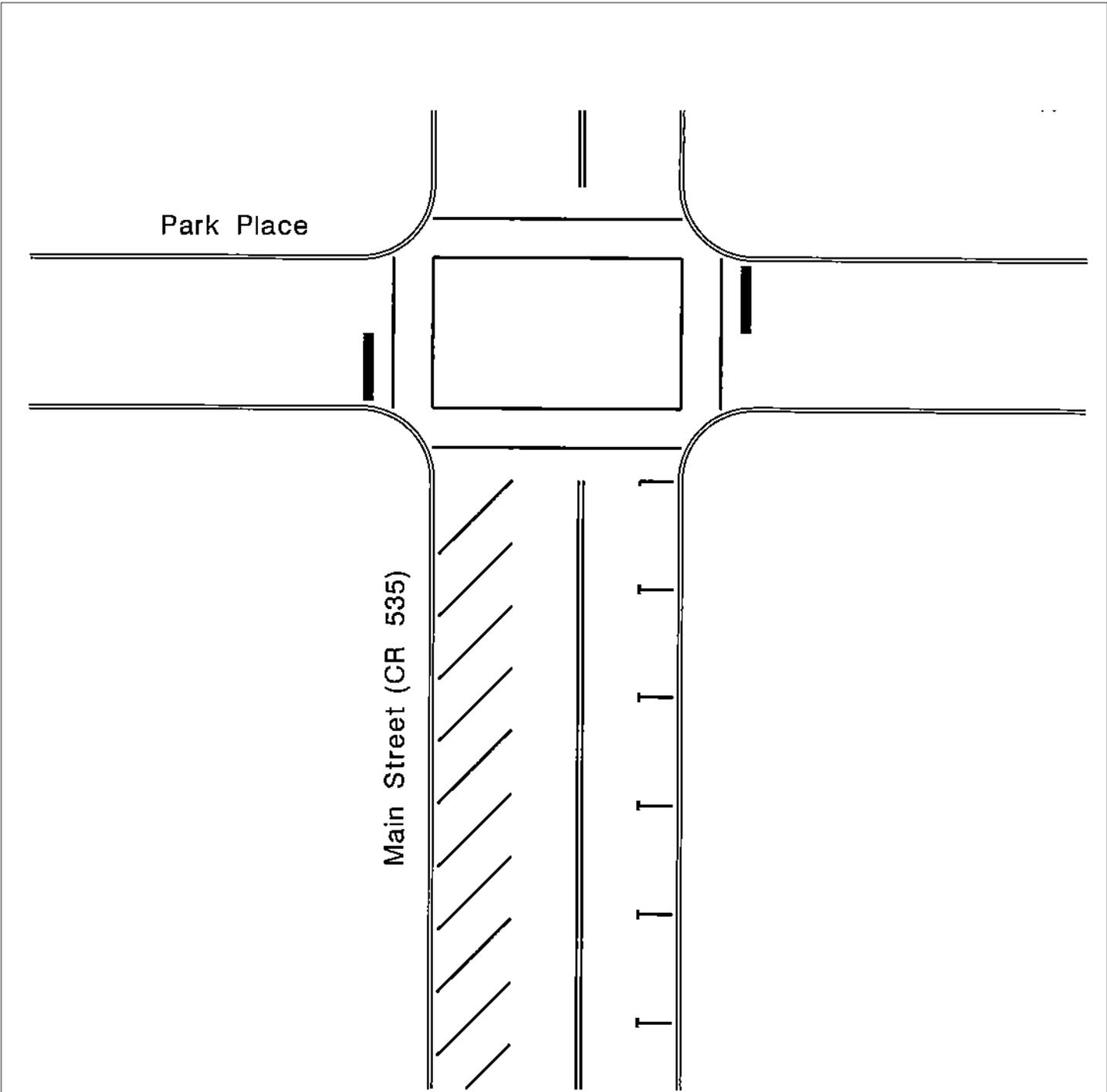
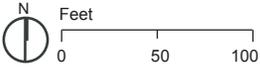


Figure 5-18: **Downtown Parking Concept:  
West Side Angled Parking**  
Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
Shropshire Associates LLC



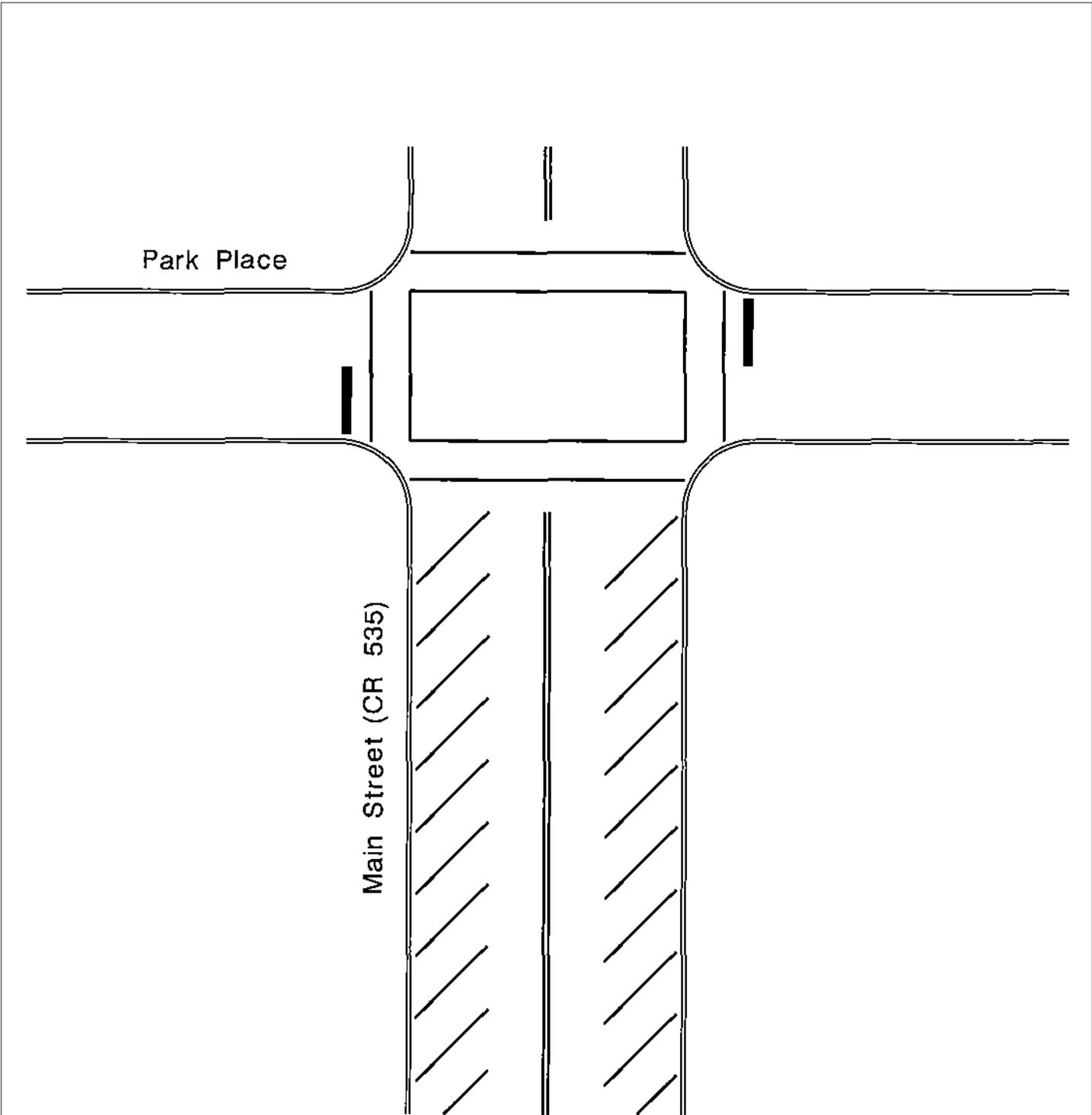
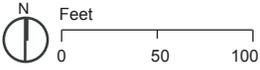


Figure 5-19: **Downtown Parking Concept:  
Two-sided Angled Parking**  
Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
Shropshire Associates LLC



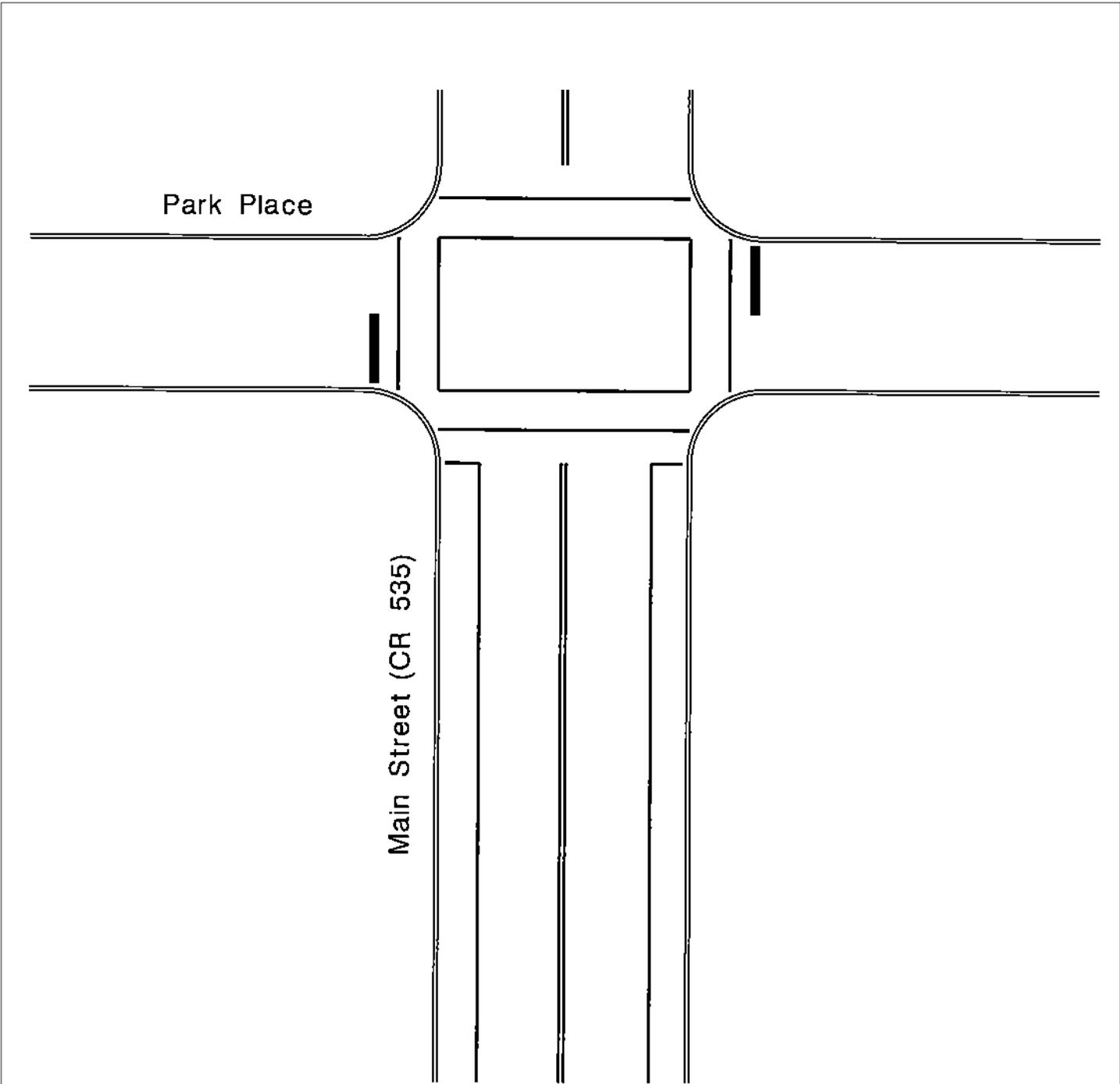


Figure 5-20: **Downtown Parking Concept:  
No Designated Parking Spaces**  
Cranbury Township, New Jersey

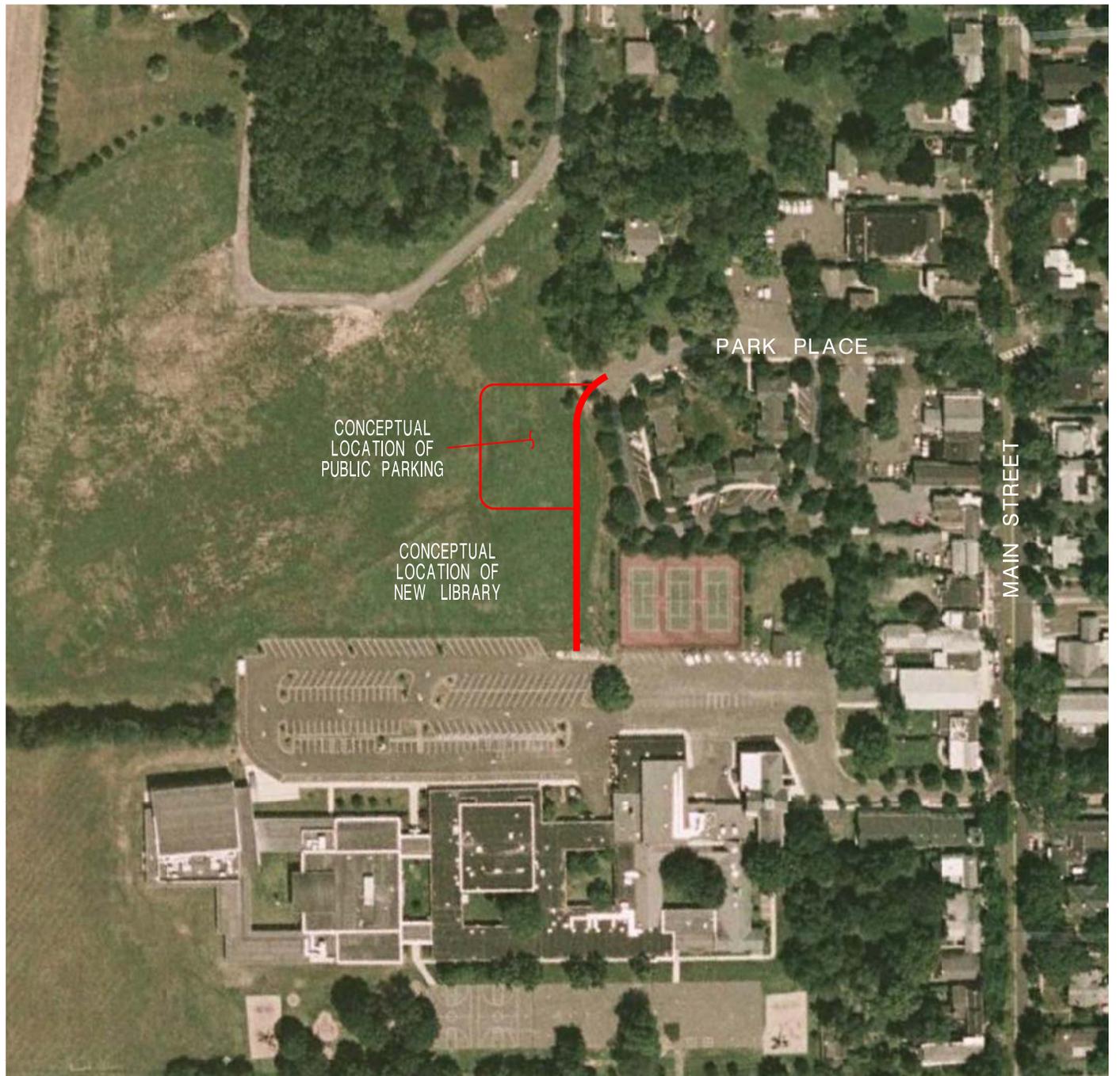
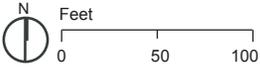


Figure 5-21: **Parking Lot Concept:  
Proposed Library**  
Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
Shropshire Associates LLC



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under the ownership of the Board of Education. Therefore the cooperation, review and approval of the Board of Education of both of these initiatives would be required. Since these improvements would help to improve access to the school as well as provide additional parking space to parents of schoolchildren, teachers and staff, these initiatives would benefit both the school as well as the downtown.

5. Parking signage could be provided to direct motorists on Main Street to use public parking lot(s) within “walking distance” of Main Street. One of these is the existing parking lot west of Main Street, which is accessed via Park Place.
6. It should be noted that Main Street is under the jurisdiction of Middlesex County. Any changes to parking along Main Street would be subject to the review and approval of the County.

### **F. OFF-TRACT TRAFFIC IMPROVEMENT FUND**

Fair share off-tract improvement contributions by land developers within Cranbury Township are needed to implement the recommended Traffic Circulation improvements. The three components in creating an equitable fair share contribution mechanism are (1) the projected improvement cost; (2) the total anticipated traffic increase that will drive the need for the recommended improvements; and (3) the trip generation for a specific development. The improvement costs can be estimated for each required improvement—bridge, road or intersection. Each developer would be required to provide a traffic study that includes site trip generation for proposed development according to the latest version of the Institute of Transportation Engineers’ publication Trip Generation. This trip generation information would be compared to full buildout traffic volumes in the PM peak design hour to calculate the percentage of total cost that would be required.

The appropriate ordinances to codify the off-tract contribution rate and the procedure for managing the improvement fund should be adopted.

### **G. PUBLIC TRANSIT**

Cranbury has few Township-wide public transportation options and residents rely primarily on private vehicle use for both commuting and non-work-related trips, such as for shopping or for reaching leisure time activities. However, commuters traveling to and from employment destinations primarily in New York City and Trenton can access New Jersey Transit commuter rail service at Princeton Junction in the Township of West Windsor, as well as reach employment destinations in Middlesex and Mercer Counties via limited private bus service from downtown Princeton and from a park-and-ride facility located on Route 130 in South Brunswick.

#### **1. New Jersey Transit Commuter Rail**

The nearest New Jersey Transit rail station to Cranbury is approximately six miles away at the Princeton Junction rail station located on Wallace Drive in the Township of West Windsor. Commuters travel on the Northeast Corridor line with eastbound service to Newark Penn Station and New York Penn Station and westbound service to the Trenton

## 2010 Cranbury Township Master Plan

Transit Center. Connections to lower Manhattan, Hoboken and the Jersey City waterfront are available by way of PATH service at Newark Penn Station, as well as to Center City Philadelphia by way of SEPTA service at the Trenton Transit Center. Shuttle rail service to downtown Princeton is an approximately five minute ride from Princeton Junction on the “Dinky Train”. A local bus service is provided at the Princeton Junction train station which includes a stop in Cranbury, thus allowing Cranbury residents who do not have a parking permit to utilize the train.

Seventeen eastbound trains depart from Princeton Junction during the morning between 5:00 AM and 9:00 AM. Express service between Princeton Junction and New York Penn Station during the morning and evening commute takes a little over an hour. Eight westbound trains depart from Princeton Junction between 5:30 AM and 9:30 AM. Service between Princeton Junction and the Trenton Transit Center takes approximately 20 minutes. New Jersey Transit offers 17 afternoon trains from New York Penn Station to Princeton Junction between 4:00 PM and 8:00 PM, and offers 9 trains leaving after 8:00 PM, the last of which departs from New York Penn Station at 1:22 AM. Train service is also provided on weekends, with trains running hourly to half-hourly throughout the day in both directions.

There are eight commuter parking lots proximate to the train station, the majority of which are available only to commuters with parking permits. The Wallace Road and Vaughn Drive parking lots reserved for West Windsor residents only. As per the West Windsor Parking Authority, there is a waiting time of four to eight years for a parking permit. There are two daily lots, one of which is located on Wallace Road and the other is located off of Station Drive; these lots typically sell out by 6:30 am during the weekdays.

### **2. Bus Routes**

Coach USA, a private bus company, operates commuter bus service, also known as Suburban Transit, from Princeton (Palmer Square) to Wall Street in Lower Manhattan. Service via Line 600 originates in Princeton and makes stops twice per day at 5:30 AM and 6:30 AM en route to New York. Return service via Line 600 is also available once per day in during the evening commute, departing Battery Park at 5:15 PM and arriving in Princeton at 6:55 PM. Line 100 runs from Princeton to the Port Authority Bus Terminal in Midtown Manhattan approximately every half-hour throughout the weekday from 6:00 AM and 11:00 PM. Return service is also available, and runs half-hourly to hourly, except during the evening commute when service is more frequent. The trip takes approximately an hour and a half.

There is a New Jersey Transit Park-and-Ride facility located at the junction of Routes 130 and 32 in close proximity to Exit 8A in South Brunswick. Lines 300 and 600 of Academy Bus and Coach USA/Suburban Transit offer frequent bus service to midtown Manhattan and Lower Manhattan on weekdays.

## 2010 Cranbury Township Master Plan

As mentioned above, bus service is provided between Princeton Junction rail station and Cranbury, but there is no New Jersey transit bus service within Cranbury Township at this time.

### **H. PEDESTRIAN AND BIKE PATH IMPROVEMENTS**

Plans for greenways, walkways and bikepaths first appeared in master plans for Cranbury in the 1993 Master Plan. The Parks, Open Space and Recreation Plan provided a plan for a greenway system, including bikepaths, jogging paths and nature trails to meet the growing demand for these facilities in Cranbury. The greenway system was proposed to be a linear park system along streams, woodland edges and property lines. The stated purpose of this linear open space system was to preserve stream corridors and wetlands, to link existing and proposed parks, to link residential centers, and to provide additional recreational amenities in the Township. A pathway plan was prepared by the Greenway and Pathway Planning Board subcommittee and was integrated into the Cranbury Township Master Plan. The Cranbury Open Space and Recreation Plan prepared in 2000 (the "2000 OSRP") proposed a new greenway system along streams, woodland edges and property lines. The plan noted that many of the properties located along the Millstone River, Cranbury Brook and Cedar Brook were preserved through the Farmland Preservation program. However, these properties were not accessible to the general public. In those instances where greenway areas could be identified on parcels that were entering the Farmland Preservation Program, the plan recommended that public access to greenway along those streams be provided, prior to the participation of that particular parcel in the Farmlands Preservation Program. Figure 5-22 shows the location of the proposed greenways based upon a map prepared by Cranbury Township's engineering consultants in 2004.

During public outreach meetings convened for the preparation of the 2007 Open Space and Recreation Plan, many participants mentioned the need to either improve or create connections for pedestrian and cyclist access to parks, neighborhoods and the downtown. In particular, interconnected bikepaths and walking trails for seniors, safer walking spaces in town for seniors, a fixed track for jogging or walking, maximization of opportunities for walkways for seniors, and the creation of resting places or benches where appropriate. With regards to the adoption of the greenways system envisioned in the 2000 and 2007 OSRP recommended that the Township identify all of the existing easements along the greenway and take advantage of opportunities presented to make the greenway a reality.

In addition the recommendation regarding the greenway plan, the 2007 OSRP recommended the following with respect to pedestrian/ bicyclist paths and greenways:

- Establishing improved, direct, paved, barrier-free paths to Village Park, Village Green Park, and Heritage Park by utilizing the existing sidewalk system along with linkages to paved walkways in the parks. Benches should be placed at regu-

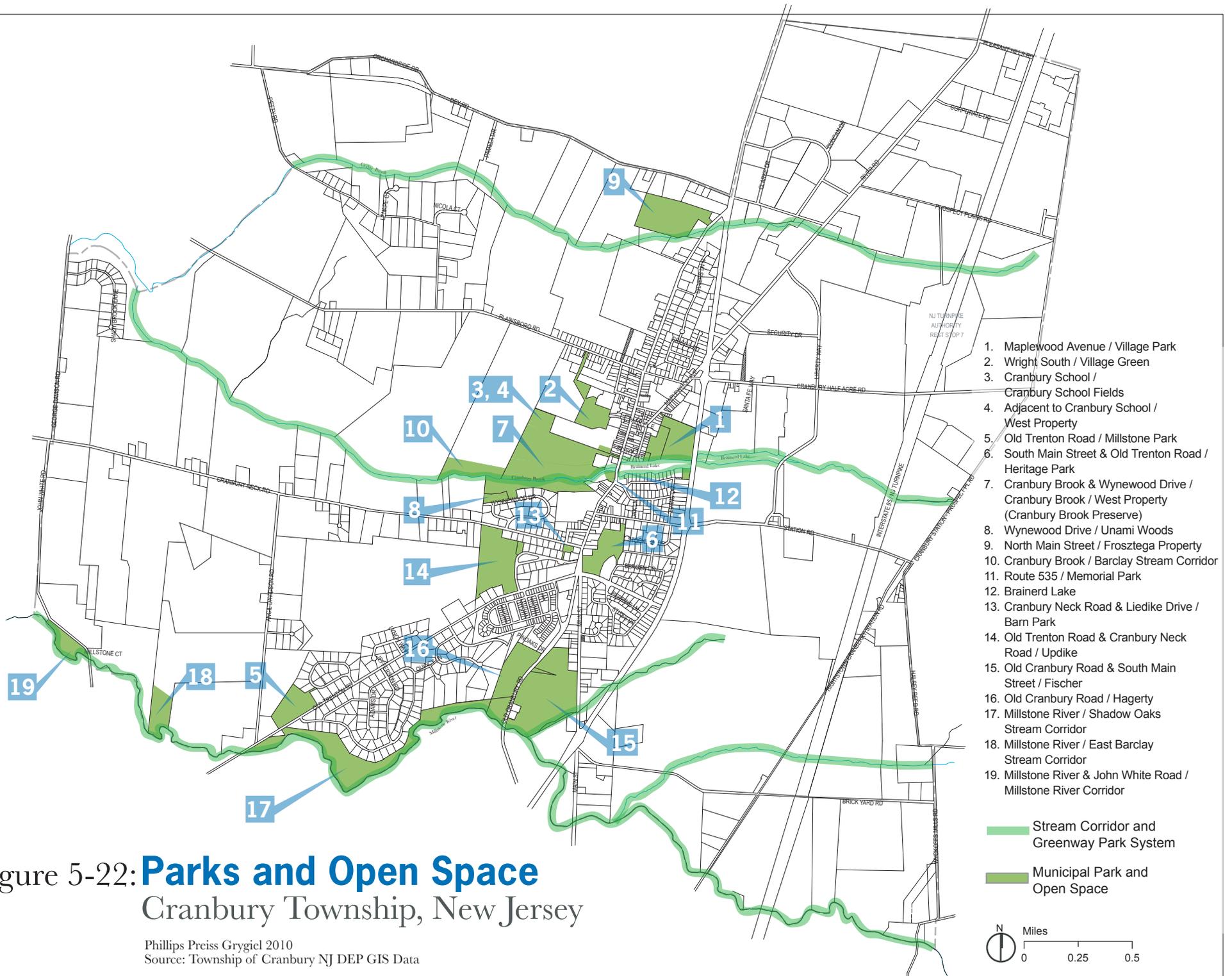


Figure 5-22: **Parks and Open Space**  
 Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
 Source: Township of Cranbury NJ DEP GIS Data

## 2010 Cranbury Township Master Plan

lar intervals. Improving paths with signage and cleared vegetation at passive recreation parks.

- Extending the path along Cranbury Brook the length of the woods through the Barclay property, making a loop with the existing path. Benches should be placed along the loop and the path should be wide enough for biking and walking.
- Establishing a bikepath/walkway along the Cranbury Brook from Plainsboro Road, along brook to the Sardini property.
- Identifying a wheelchair usable path from the age-restricted, Four Seasons development to Heritage Park which already has wheelchair usable paths. Creating a bikeway connection to Unami Park via Pumphouse Road and Wynnewood Drive with signage.
- Clearing existing trails in Unami Woods and providing signage at trail entrances, particularly Pumphouse Road, as well as a curb-cut easement on Wynnewood Drive.
- Creating a wheelchair accessible path around the regulation ballfield at Village Green.
- Creating wheelchair usable paths in Village Park, and establishing safe paths to the park from the Elms and other town locations.
- Providing a pedestrian-only walkway to provide access to the new Village Green facility from Bunker Hill Road.
- Maintaining the natural, ecologically smart paths through passive parks by avoiding areas of environmental constraints, preserving valuable vegetation and habitat, and in a manner which does not disrupt scenic views of the natural landscape.
- Engaging a traffic consultant to study access to Millstone Park to determine ways in which pedestrian and vehicular access and parking, particularly along Old Trenton Road, could be made safer and more convenient

There are no designated bikeways in Cranbury. Biking as a form of transportation, exercise and leisure is encouraged along Cranbury roads. However, the introduction of separate bike lane in Cranbury would be expensive and in some instances, such as in the historic Village Center, difficult from an engineering perspective because of the proximity of many historic buildings to the roadway.

This Master Plan recommends establishing a Bike Route Plan for the Township, but not separate bike lanes. The Bike Route Plan would identify a series of interconnected routes within and through Cranbury, showing the safest and most convenient routes for cyclists, both in terms of accessing the downtown and Cranbury's community and recreational facilities and open space, as well as linking such routes with those of surround-

## **2010 Cranbury Township Master Plan**

ing communities such as Plainsboro Township. The Bike Route Plan would also identify the Township's restaurants and retail facilities that could serve or support the cyclist, thus enhancing business opportunities within the Township—especially within the Downtown.

Biking is also a healthy alternative to driving both for the individual and the environment. Bike routes would also allow residents to opt to bike to locations in the Township rather than drive, thereby simultaneously exercising and reducing air pollution caused by car exhaust. Appropriate streets to be included in the Bike Route Plan are Cranbury Neck Road, Plainsboro Road, Main Street, John White and George Davison Road, and because of its wide paved area, Old Trenton Road.

## CHAPTER 6. CONSERVATION ELEMENT

### **A. NATURAL CONDITIONS IN THE TOWNSHIP OF CRANBURY**

Cranbury has a unique land use pattern, which has undoubtedly been shaped as much by the natural conditions and physical characteristics in the Township as land use policy and decision making. Through extensive agricultural and open space preservation efforts, a significant portion of Cranbury has remained in its natural state, or close to its original form, to a much greater extent than neighboring communities. Looking to the future, the overall topography of the community, the soil type and depth (particularly those soils deemed suitable for farming), drainage and flooding and wetland characteristics will continue to have an effect on the location and form of development in the Township.

#### **1. Geology, Soils and Drainage**

Natural Resource Conservation Service (NRCS) soil maps indicate that there are 17 different soil series in Cranbury (see Figure 6-1). The most prevalent soil type within the Township is the Sassafras series, which is found primarily in the central and western portions of Cranbury. Sassafras-Urban Land Complex soils can be found in the downtown areas of Cranbury, indicating that the natural soil layers in this section of the Township have been disturbed; Urban Land Complex soils are typical in developed areas with urban land uses, often due to the addition of fill for buildings and paved surfaces. Generally, the Sassafras soil series is found in upland areas, and consists of well-drained and moderate to extremely acidic soils that formed from sandy marine and alluvial sediment. Sassafras soils are identified by the NRCS as Prime Farmland and Soils of Statewide Significance, and are appropriate for general crops, pastures and fruits. As per the NRCS, "Prime Farmland" consists of soils that have qualities well-suited to agricultural uses (i.e. soils in Capability Class I and select soils from Capability Class II); "Soils of Statewide Importance" are also appropriate for agriculture, but these soils have certain limitations that must be managed in order to be productive farmland (i.e. soils in Capability Class II that do not meet the criteria of Prime Farmland and Capability Class III).

Additional soils of significance in Cranbury include the Woodstown, Fallsington and Downer soil series. The Woodstown soil series is found predominantly in the eastern and northern portions of the Township, and consists of moderately well-drained soils that derive from sandy marine and alluvial sediments. The organic composition and fertility of the Woodstown soils ranges from moderate to low and, when adequately drained, these soils are suitable for agricultural land uses such as vegetable or fruit crops. The Woodstown series is identified as having a Capability Class of II and III, with limitations due to wetness. The Fallsington and Downer soil series are less prevalent in Cranbury, and can be found in scattered locations throughout the Township. The Fallsington soil series is poorly drained with moderate to low permeability, and was formed from alluvial and loamy marine sediment parent materials. When adequately drained, Fallsington soils

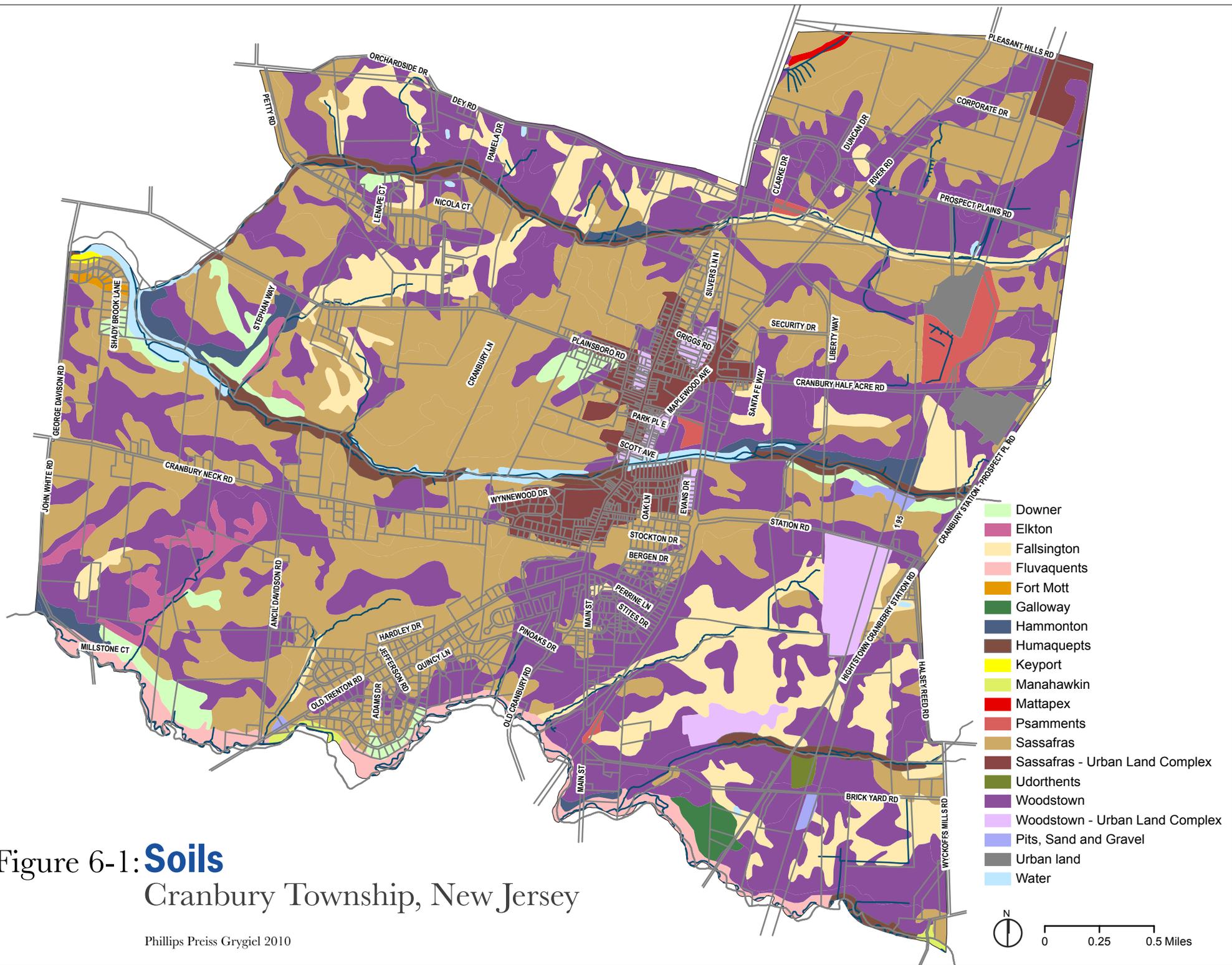


Figure 6-1: **Soils**  
Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010

## 2010 Cranbury Township Master Plan

can be used for farming purposes, particularly vegetable crops. The Downer soil series consists of deep and well-drained soils formed from deposits of sand and gravel. These soils have low organic content and low fertility, and are typically designated as Capability Class II and III, with limitations due to erodability and drought.

A significant portion of the Township is classified as Prime Farmland or Soils of State-wide Significance, and includes the Sassafras, Woodstown, Downer, Hammonton, Keyport and Mattapex soil series. Prime Farmland and Soils of Statewide Significance make up approximately 76% of Cranbury's surface area.

According to the New Jersey Geological Survey, the most prevalent underlying geology in Cranbury is the Magothy formation. The entire western and northern portions of the Township are consistent with the Magothy formation, which contains coarse-grained gravel and quartz sand interbedded with layers of clay and silt in the upper portions, and ranges from 80 to 250 feet deep. Sands in the Magothy formation, together with the underlying Raritan and Potomac formations, form the Potomac-Raritan-Magothy Aquifer, which serves as an important source of water for the New Jersey Coastal Plain. Wells in Cranbury are typically found in the Magothy or the underlying Raritan formation at depths of 100 to 130 feet.

Additional geological formations in Cranbury include the Merchantville and Woodbury formations. The Merchantville formation can be found in a band beginning at the northeastern boundary of the Township, and extending south to the eastern section of the Millstone River within Cranbury; the Woodbury formation is located at the very southernmost point of Cranbury, east of the New Jersey Turnpike. The Merchantville formation is composed of clay and silt glauconite and glauconite-quartz sands, and ranges from 20 to 65 feet deep. The Woodbury formation consists of clay silts containing mica and pyrite, glauconite clay carbonized material and quartz sands; this formation typically extends 50 feet deep.

Soils associated with the Magothy, Merchantville and Woodbury formations are known to be acid-producing. As per New Jersey Department of Protection (NJDEP), acid producing soils are "soils that contain deposits of iron sulfide minerals (pyrite or marcasite) which, when exposed to oxygen from the air or from surface waters, oxidize to produce sulfuric acid. Acid producing soils, upon excavation, generally have a pH of 4.0 or lower. After exposure to oxygen, these soils generally have a pH of 3.0 or lower." These acidic soils have the potential to negatively impact water quality, and, as such, NJDEP has developed Soil Erosion and Sediment Control Standards for acidic soils; riparian buffers of 50 feet are required in areas where acid producing soils are exposed.

### **2. Topography**

The topography in Cranbury can be described as flat to gently rolling; elevations in the Township generally range from 80 feet above sea level at certain points along the Cranbury Brook and along the Millstone River, and up to 120 feet above sea level in the eastern portion of the Township proximate to Route 130. (See Figure 6-2)

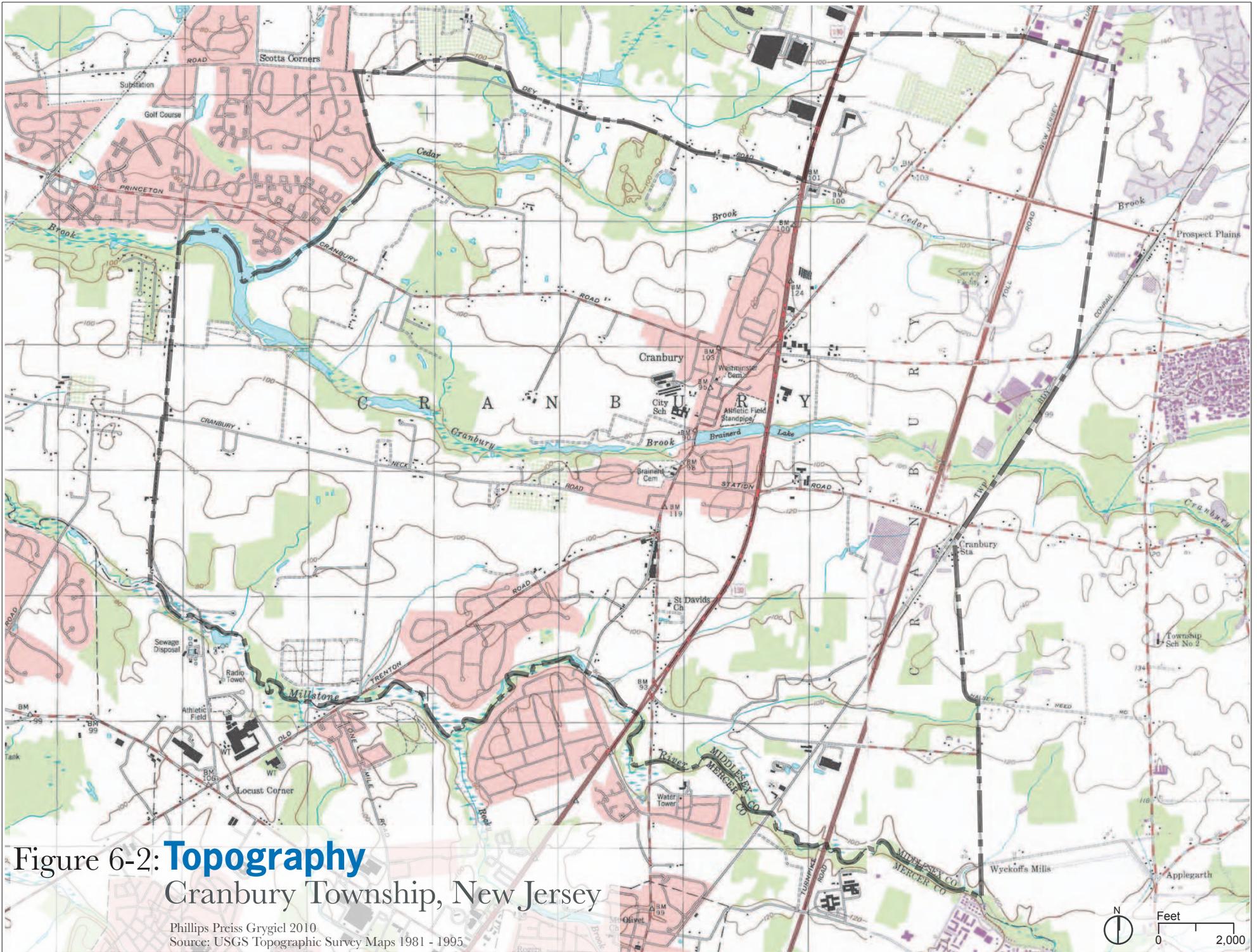
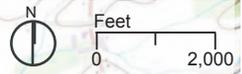


Figure 6-2: **Topography**  
 Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
 Source: USGS Topographic Survey Maps 1981 - 1995



## 2010 Cranbury Township Master Plan

As per NJDEP, there are no slopes in the Township that are greater than 15%. Slopes of 5-10% can be found in the Township at the division of the Cranbury and Cedar Brook watersheds north of Plainsboro-Cranbury Road and Half Acre Roads, as well as at points along Cranbury Neck Road. Most other areas of the Township have slopes of 0-5%. (See Figure 6-3)

### **3. Wetlands and Floodplains**

The majority of wetland areas within Cranbury are associated with the floodplains of major watercourses in the Township, and are typically affiliated with the Woodstown and Fallsington soil series (see Figure 6-4). Large, contiguous tracts of wetlands can be found along the Cedar Brook, which runs east to west in the northern portion of Cranbury; wetlands are particularly apparent in the farmland areas north of Cedar Brook. The lack of wetlands along Cedar Brook in the eastern portion of the Township, proximate to the New Jersey Turnpike and within the warehouse district north of where Old Trenton Road intersects with Route 130, indicates that some of the wetlands may have been disturbed or filled in over the years. Extensive areas of wetlands are present along the Millstone River and its tributaries in the southern portion of the Township, particularly in farmland areas in the lower southeastern portion of Cranbury and in the warehouse district east of Route 130 below the intersection of Route 130 and Old Trenton Road. There are also wetland areas along Cranbury Brook, which runs east to west in the central portion of the Township, though they are limited in the downtown and other built-up areas of Cranbury.

Though NJDEP has the final authority to determine the resource value classification of wetlands throughout the state, the 2006 Cranbury Environmental Resource Inventory indicated that a majority of the Township's wetlands would likely be classified as "intermediate resource value wetlands". Intermediate resource value wetlands are those wetlands that have not been identified by the state as exceptional resource value wetlands (i.e. draining to FW-1, FW-2 trout waters or their tributaries or have threatened or endangered species) or "ordinary resource value wetlands" (i.e. lowest quality wetlands, require no buffer and are less than 5,000 square feet; these include isolated wetlands, detention basins, drainage ditches, etc.). Immediate resource value wetlands require a 50-foot buffer area, within which development is regulated by NJDEP. A portion of the wetlands along the Millstone River in Cranbury have been identified as habitat for the wood turtle, a state-identified threatened species, and, as such, would likely be afforded a higher resource value classification with greater protections. Here a 150-foot wetland transition or buffer areas are required by NJDEP.

The New Jersey Landscape Project (undertaken by the NJDEP Division of Fish and Wildlife, Endangered and Nongame Species Program) has mapped forested and grassland habitat in the state; in Cranbury, forested wetland habitat can be found proximate to Cranbury's major waterways, particularly north of Cedar Brook and in the eastern portion of Cranbury along the Millstone River. A majority of forested wetland habitat in Cranbury



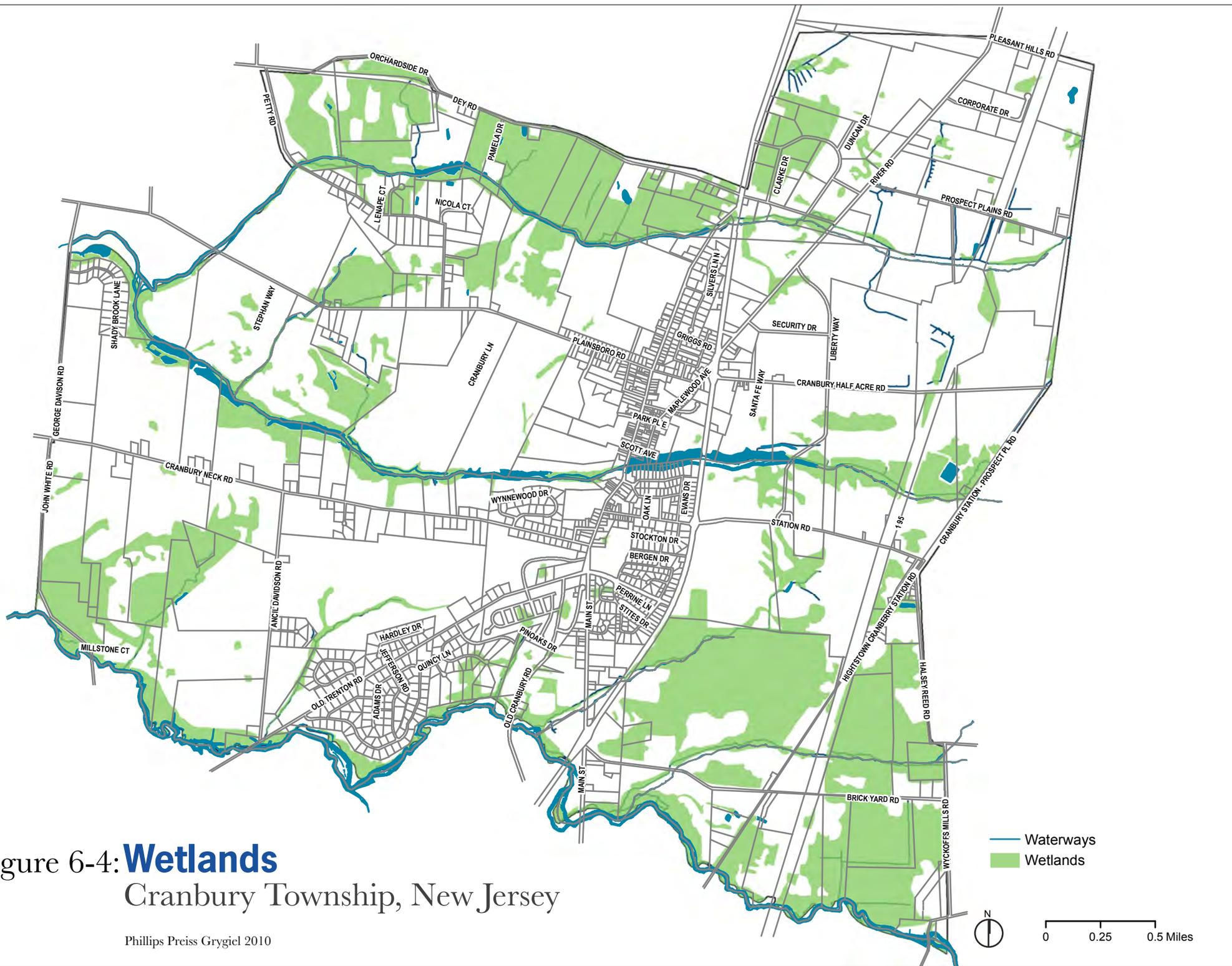


Figure 6-4: **Wetlands**  
Cranbury Township, New Jersey

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has been deemed “Suitable Habitat” or Rank 1, which, as per the New Jersey Landscape Project, “is assigned to patches that meet habitat-specific suitability requirements such as minimum size criteria for endangered, threatened or priority wildlife species, but that do not intersect with any confirmed occurrences of such species.” A small portion of Cranbury’s forested wetland habitat in the far eastern section of the Township proximate to the Millstone River is considered to be “Priority Concern Species” or Rank 2, which is “assigned to patches containing one or more occurrences of species considered to be species of special concern.” Emergent wetland habitat has similarly been identified along the Township’s waterways (especially north of Cedar Brook and in the eastern portion of Cranbury along the Millstone River) and have been ranked as Suitable Habitat (Rank 1).

Other critical environmental areas within the Township are delineated on Federal Emergency Management Agency (FEMA) maps. Development within areas subject to periodic flooding, called floodplains, are strictly limited. These areas are classified as “100-year flood plain limits,” and in Cranbury, are generally associated with the Cedar Brook, Cranbury Brook and the Millstone River (see Figure 6-5). Certain smaller stream areas and water bodies in Cranbury do not have their flood hazard areas delineated by FEMA, but still may be subject to flooding. Careful analysis of these areas is required at site plan approval.

### **4. Streams**

Cedar Brook runs east to west through the northern portion of Cranbury, and is parallel to Cranbury Brook for a majority of its length (see Figure 6-6). The watercourse turns in a southwesterly direction proximate to Petty Road, where it forms a portion of the Township’s western boundary with Plainsboro, eventually converging with Cranbury Brook in the western portion of the Township. Cedar Brook’s headwaters are near Prospect Plains-Cranbury Road at the Township’s eastern boundary.

Cranbury Brook is a 13-mile tributary of the Millstone River that travels in an east-west direction through the Township, eventually converging with the Millstone River in Plainsboro to the west. The headwaters of Cranbury Brook are located in Millstone Township. The Brainerd Lake dam is located proximate to Cranbury’s downtown along the Cranbury Brook, forming an impoundment known as Brainerd Lake. Most of Cranbury’s lakes take the form of impoundments along Cranbury Brook, Brainerd Lake being the most significant of them.

The Millstone River flows in a northwesterly direction from the Township of Millstone in Monmouth County, forming the southern boundary of Cranbury, before turning in a more northerly direction proximate to Princeton Junction, and eventually emptying into the Raritan River near Bound Brook. Major tributaries of the Millstone River include Stony Brook, Cranbury Brook, Bear Brook, Ten Mile River, Six Mile River, Rocky Brook and Beden Brook. The Millstone Watershed Management Area (also known as Watershed Management Area 10, as designated by NJDEP), in which Cranbury is located, includes

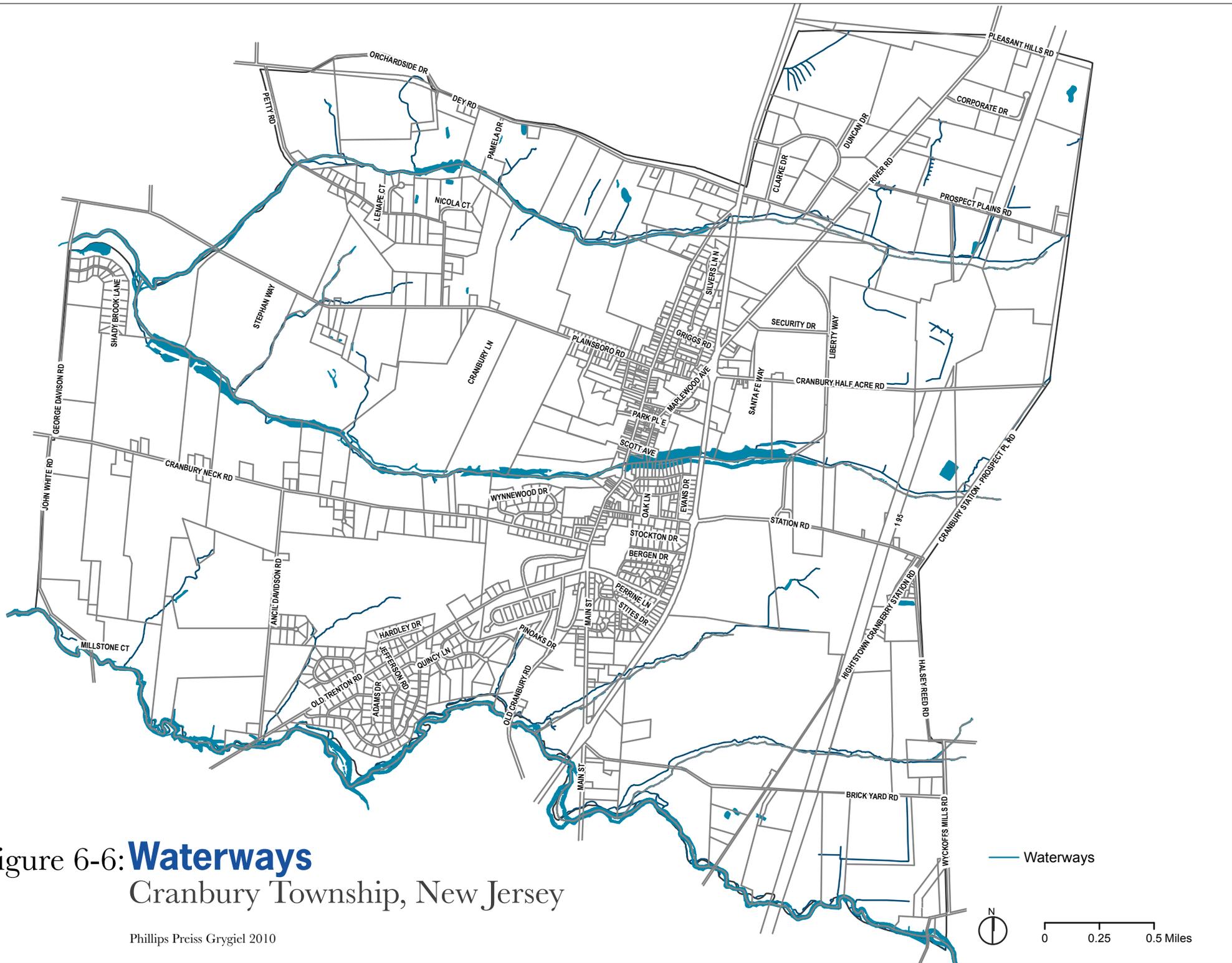


Figure 6-6: **Waterways**  
Cranbury Township, New Jersey

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the 38-mile Millstone River in its entirety, and is comprised of approximately 285 square miles.

It should be noted that each of the streams within the limits of Cranbury have been classified by NJDEP as Freshwater Non-Trout Category 2 (FW-NT-C2) waterbodies, which is a general classification applied to all waterbodies not deemed "Outstanding National Resource Waters" (ONRW) or Category 1 (C1) waters. FW-NT waters are deemed unsuitable for trout production and maintenance due to a combination of physical, chemical and biological qualities, though they may support any number of other fish species. As per NJDEP, designated uses for FW-NT waters include: maintenance, migration and propagation of the natural and established biota; primary and secondary contact recreation; industrial and agricultural water supply; public potable water supply after conventional filtration, treatment and disinfection; and any other reasonable uses. Water quality changes are permitted in C2 waters, provided that degradation is necessary for "important economic or social development" and are within the range of permitted changes for a particular waterway. Water quality has been assessed in Middlesex County for waterways that traverse Cranbury using several different methodologies; stream samples are taken at Ambient

Biological Network (AMNET) sites using standards devised by the Environmental Protection Agency (EPA), and are used to determine the health of a stream (i.e. through the computation of a New Jersey Impairment Score and Biological Conditions). There are over 800 locations in New Jersey that are sampled on a five year rotating schedule; though there are not any sampling locations in Cranbury, there are AMNET sites proximate to the Township (i.e. in the Millstone River in East Windsor, Plainsboro and Monroe and in Cranbury Brook in Millstone and Monroe). Generally, recent sampling has indicated that the biological conditions in these waterways are moderately impaired, likely due to nonpoint source pollution from suburban development and agricultural operations. Additionally, states are required to list impaired waterbodies under §303(d) of the Federal Clean Water Act. As per the 2004 Impaired Waters List, Brainerd Lake was listed as Category 1 (Attainment) for aquatic life parameters; insufficient data was obtained to determine eutrophic conditions in the lake. Monitoring stations in the Millstone River and Cranbury Brook proximate to Cranbury indicate that the waterways have failed to meet water quality standards, and are therefore classified as Category 5 (Non-Attaining).

Cranbury has taken steps to protect riparian corridors within the Township through the adoption of some limitations for development within stream corridors and regulates stream encroachments in flood fringe areas. §88-7 of the Township Ordinance classifies certain kinds of stream encroachments as "projects of special concern" and such projects require review and approval by NJDEP. Projects of special concern have been defined to include: 1) any stream encroachment project in perennial streams with over 50 acres of drainage area, which involves either or both of the following: a) channelization or relocation of a stream for a distance of over 100 feet or for a distance over 300 feet on either side of a bridge or culvert; and/or b) loss of more than 6,000 square feet of exist-

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ing woodland within 25 feet of the banks; and 2) projects that the Planning Board or NJDEP determines would be likely to produce serious adverse effects, including: a) potential negative impacts on the biota of the stream and adjoining wetlands; b) potential serious degradation of water quality below NJDEP's Surface Water and Ground Water Quality Standards; and c) potential serious adverse impacts on water resources, including potable water supplies, flooding drainage, etc., among others. In addition, the Township is within the Delaware and Raritan Canal Commission review zone for major developments; as a condition of approval from the Commission, many sites that are developed along riparian corridors in the Township must have conservation easements to maintain existing riparian corridors and minimize disturbance. Despite the existence of Ordinance §88-7, development within certain portions of Cranbury's stream corridors has continued, with adverse impacts. Recently a subcommittee was formed in Cranbury to prepare a more restrictive stream conservation corridor overlay protection ordinance. This ordinance is presently in draft form. This Master Plan recommends that it be introduced, reviewed and adopted by the Township Committee.

In accordance with N.J.A.C. 7:14A-25A Municipal Stormwater Regulations, and in an effort to properly mitigate impacts on environmentally sensitive lands and streams within Cranbury, the Township adopted a Municipal Stormwater Management Plan in June 2005. The Plan addresses land development ordinances that will "incorporate design standards and maintenance responsibilities for new development to address soil erosion control, groundwater recharge, stormwater quality and stormwater quality impacts."

Drainage problems exist at several culverts within the Township, due in part to the culverts' overall inability to accommodate increased stormwater runoff and associated sediment that can lead to clogging. As noted in Cranbury's Municipal Stormwater Management Plan, the culvert under Petty Road along Cedar Brook floods occasionally during severe storm events. The culverts under Dey Road along a tributary of Cedar Brook also have flooding problems during severe storm events, as does the culvert on Old Trenton Road near Ancil Davison Road.

### **B. RECOMMENDATIONS**

Proposed developments subject to site plan approval should be designed to the greatest extent reasonably practicable to preserve the natural features of the site, including, but not necessarily limited to, water bodies, wetlands, major stands of trees, outstanding natural topography, significant geological features and other areas of scenic, ecological and historic value; to utilize such features in a harmonious fashion; and to enhance the visual appearance of the development.

#### **1. Adopt a Stream Conservation Corridor Overlay Zone Ordinance**

In 2007, a Stream Conservation Corridor Ordinance was prepared under the guidance of Cranbury's Environmental Commission to more adequately protect the stream corridors for the benefit of protecting clean and plentiful water, as well as for aesthetics and other environmental benefits to the residents. The proposed ordinance would restrict devel-

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opment within 200 feet from the centerline of a stream. The adoption of this ordinance would provide a number of benefits, including maintaining water quality in Cranbury's streams and preserve the stream corridors' natural environment by preserving and protecting the existing topography and natural vegetation along the Cranbury Brook, the Millstone River, the Cedar Brook, and their tributaries. While restricting development within 200 feet of the centerline of the stream, the proposed ordinance would permit unpaved walkways, with appropriate natural surfaces, within designated stream corridors to provide residents of the Township with access for passive recreational purposes. The 2007 OSRP recommended revising the proposed ordinance to permit unpaved bikeways to be developed within this 200-foot buffer zone.

The Environmental Conservation Element of the Master Plan recommends that the Township adopt a Stream Corridor Conservation Overlay Zone Ordinance.

### **2. Adopt Net-Out of Resources/ Site Capacity Calculations**

Net-Out of Resources refers to the technique of deducting environmentally constrained lands from development density calculations. Netting-out is intended to protect and preserve environmentally constrained areas by reducing or eliminating the credit given for these lands towards the overall or gross yield of development on a given site. Site Capacity Calculations would have to be undertaken in order to determine the intensity of development on a site. The calculations determine the maximum number of dwelling units permissible for a residential development, or the maximum amount of floor area and/or impervious surface area permissible for a nonresidential development based upon a deduction of the amount of environmentally-constrained land from the total parcel or lot size.

While many communities in the state have utilized such ordinances as a means for unfairly limiting growth or requiring oversized lots for development where neighbors are opposed to new development, the intention here is solely for the protection of real and critically environmentally constrained areas, such as wetlands and stream corridors. Therefore no deductions should be required for factors such as scenic views, shallow bedrock, stands of mature trees, or soils which are limited for septic use, since other regulations, engineering requirements and health codes already limit or control development in these areas. Moreover, in consideration for adopting such regulations, especially within non-residentially zoned areas of the Township, development intensity limitations on unconstrained land should be raised to compensate for the loss of development on constrained land, and also to compensate for development yields that are lost on land which is only marginally constrained.

The appropriate intensity of use in such an ordinance would be arrived at by considering various factors including the net buildable acres, the required open space, the maximum impervious surface area, and the presence of resources requiring heightened protection. The Ordinance would establish certain ratios for critical environmental resources such as wetlands, surface water bodies and stream corridors only. The acreage of land commit-

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ted to these resources would be deducted from the gross area permitted for development and then multiplied by the ratios such as Floor Area Ratio and/or impervious coverage permitted in order to determine development yield and intensity.

### **3. Update the Environmental Resource Inventory**

In 2006, the Township completed an Environmental Resource Inventory (ERI) for Cranbury to identify and describe the priority natural resources, cultural conditions and environmental features within the Township, which has been incorporated and reflected within the Conservation Element of this Master Plan. The ERI provides both visual depictions of natural resources in the form of mapping information and text that describes these resources, their sensitivities and limitations for development and suggested measures for protection of sensitive resources.

The ERI states that revisions to the ERI will be necessary as priorities and conditions in the community change. The ERI must be reviewed and updated with regard to changes in land use, the quality and quantity environmental resources, and changes to State and Federal laws over time. Reviews of the controls of the ERI are necessary to accurately document the progression of development within the municipality and its impact on natural resources over time, and to keep the ERI functioning as a legitimate tool for planning. It is recommended that the ERI be updated when the next Master Plan or Master Plan Reexamination is undertaken in Cranbury.

This Master Plan also recommends that when the ERI is updated that its format and the information contained therein is more user-friendly and be explained in layman's terms so that all applicants, residents and small business owners, as well as large developers, can refer to the document and consider utilizing more sustainable design and construction materials and methods in their development proposals.

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### CHAPTER 7. HISTORIC PRESERVATION

#### **A. INTRODUCTION<sup>7</sup>**

Cranbury is home to many extant historic structures some dating back to the early 19<sup>th</sup> Century and many of which are fine examples of vernacular American architecture including commercial, industrial, transportation and residential typologies. Fortunately, the recognition and concern for Cranbury's historic assets by its residents, past and present, have resulted in the preservation of much of its Village center and surrounding landscape.

Cranbury's special historic characteristics were recognized when most of the village was entered on the New Jersey Register of Historic Places on August 9, 1979, and on the National Register of Historic Places on September 18, 1980. In recognition of Cranbury's historical and architectural significance the nomination stated that, "Cranbury is the best preserved 19th century village in Middlesex County...While there are many small mill towns in New Jersey, few are in such an undisturbed environment as that of Cranbury."

Based on the Local Historians Enabling Act (P.L. 1979, c.50), enacted by the New Jersey State Legislature in 1979, Cranbury Township established the position of Township Historian to assist the township in cooperative efforts to gather and disseminate information about Cranbury's history. In 1989 the Township of Cranbury passed an ordinance, codified in Chapter 93 of the Township Code, confirming the importance and significance of Historic Cranbury by establishing a Historic Preservation Advisory Committee (HPAC) for the purposes of protecting, enhancing and perpetuating historical resources within the Township.

On February 27, 2006, the HPAC Ordinance Chapter 93 was repealed and replaced with the new Chapter 21 entitled the Historic Preservation Commission (HPC) and a new Chapter 93 entitled "Historic Preservation" pursuant to the N.J.S.A. 40:55D-107 et seq. The new ordinance was intended to perform all of the functions of a historic preservation commission pursuant to N.J.S.A. 40:55D-109. Among the changes incorporated into the new ordinance were those intended to make the application review process more user friendly. Ordinary repairs involving replacement in kind no longer required HPC approval. In addition, the historic buffer area around the historic district was reduced from 2,400 feet to 200 feet. New design guidelines for the Historic District were prepared.

In the following section of the Historic Preservation Element the existing historic preservation ordinance is briefly described and summarized, as well other preservation entities and efforts that exist in the Township. In addition, individual historic sites and scenic vistas are identified for protection. This element also makes recommendations for modifications to the local historic preservation ordinance including modifying the definition of the

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<sup>7</sup> A brief history of the Township of Cranbury can be found in Chapter 1 of this Master Plan.

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historic buffer area and incorporating environmental sustainability measures in the design guidelines for historic districts.

### **B. CRANBURY VILLAGE HISTORIC DISTRICT**

The Cranbury Village Historic District contains over 200 buildings and was listed on the New Jersey Register of Historic Places in 1979 and the National Register of Historic Places in 1980. It is now a locally designated historic district protected by ordinance, as well. The district represents a significant cluster of 18<sup>th</sup> and 19<sup>th</sup> century houses and barns grouped along Main Street between roughly Cranbury Neck Road and Plainsboro-Cranbury Road. Several non-contiguous parcels are located along Main Street north of Plainsboro-Cranbury Road. The major period represented by the district is 1840-1880, with several buildings dating from the late 18<sup>th</sup> century and few from the early 20<sup>th</sup> century.

The historic district contains fine examples of frame vernacular Greek Revival and Victorian houses. Residential buildings are typically two to two and one-half stories in height and basically of rectangular or square form. Commercial buildings and outbuildings range in height from one to three stories. Most buildings are constructed of wood, either clapboard or shingle, although some are of brick or stucco. Front porches are common. Large street trees located approximately 30 feet apart along with lights, street furniture and signs add to the cohesive character of the historic district.

The significance of Cranbury's historic district is inextricably tied to its agricultural setting. The village was built to serve the surrounding farm community and its importance is directly related to that farmland. The sharp edges that remain between farmland and village are very important to the appreciation of both resources. Cranbury is a participant in the New Jersey Farmland Preservation Program and to date has been placed over 2,000 acres in permanently preserved farmland. Development adjacent to an historic landmark can have a visual impact on the landmark. Prior to the 2006 revisions to Chapter 93 Historic Preservation of the Township Code, HPAC was required to review any new construction on property within 2,400 feet of a historic district or landmark or visible from a historic district or landmark, or for any site plans, subdivisions or variances within 2,400 feet of a historic district or landmark. This buffer was the subject of a court challenge but was never ruled upon.

The 1993 Master Plan recommended that the historic district boundary be expanded to include the surrounding farmland to preserve the traditional agricultural setting of the Village which creates the rural setting for the historic district which is essential to maintaining its integrity. Once the district was expanded the then existing 2,400 foot buffer area which surrounded the Village was to be eliminated. (See Figure 7-1 for the current historic district, buffer area and historic sites.)

The revisions to Chapter 93, Historic Preservation in 2006 created a new term "Historic Buffer Area." Properties within buffer areas must obtain a Certificate of Approval from the Commission. However, less stringent standards apply because the properties are

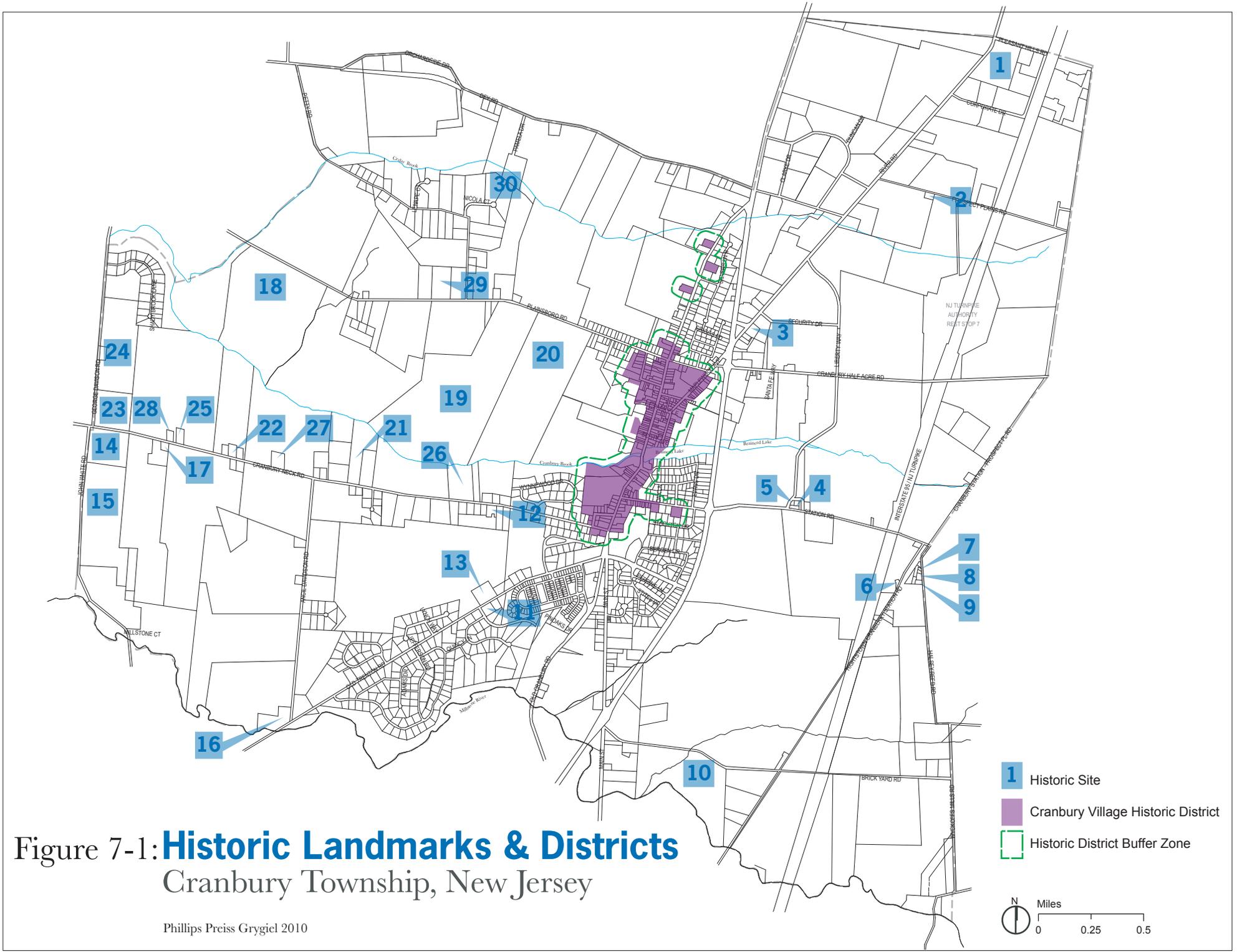


Figure 7-1: **Historic Landmarks & Districts**  
Cranbury Township, New Jersey

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not landmarks. Under the revised ordinance, the Commission must first determine whether the proposed work will have a significant visual impact in terms of design, appearance or scale, on the adjacent historic landmark or site. In order to mitigate or eliminate the visual impact on historic resources, the proposed alternatives or new development must be compatible with the historic resource in terms of scale, height, design, layout, building materials and building mass.

The Historic Buffer Area is defined in the 2006 ordinance as “a 200-foot buffer, measured from the lot line, surrounding a designated historic building, landmark or site other than a historic building, landmark or site located within a historic district.” The definition of the buffer area did not include areas surrounding the historic district. The reasoning was that the historic district itself should be large enough to include any needed buffering. On the other hand, isolated historic landmarks outside the district do require buffering. However, the Commission has continued to review applications within 200 feet of the historic district boundary.

This Master Plan recommends that the definition of “Historic Buffer Area” be amended to apply the 200 foot buffer area to the historic district, as well as historic sites, in order to ensure that the ordinance as written is consistent with how it is being implemented in practice. Although the definition should make clear that if any portion of a property is within 200 feet of the district boundary, that development on the entire property is subject to the buffer area standards, it is recommended that exceptions be made in such circumstances where only a very small portion of the property is within the buffer or if the building or structure that is proposed to be altered or modified is itself a substantial distance or not visible from the historic area.

### **C. RESPONSIBILITIES OF THE HISTORIC COMMISSION**

The Historic Preservation Commission of the Township of Cranbury, established by the Historic Preservation Ordinance, consists of five regular members and two alternate members, all of whom must have a demonstrated interest, competence, or knowledge in historic preservation. At least one member must be knowledgeable in building design and construction or architectural history; one person must be knowledgeable, or have a demonstrated interest, in local history; and at least three members, and both alternates, must be residents of the municipality who holds no other office except for membership on either the Planning or Zoning Boards. Members are appointed by the Mayor for a term of four years, alternates for a term of two years. The Township Committee designates one of its members to act as a liaison between the Historic Preservation Commission and the Township Committee.

The Planning Board and Zoning Board of Adjustment must refer to the Commission every application submitted to either Board for development in a historic district or historic district buffer area or on a historic site designated on the Zoning Map or identified in any component element of the Master Plan. The Commission advises the Planning and Zoning Boards on development applications through the issuance of “certificates of ap-

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proval” (COA). A COA is a report issued by the Commission approving any new construction or any addition to or alteration, relocation or demolition of a structure located on a designated historic site or in a historic district or historic buffer area. The Commission reviews an application for a COA and has 45 days to decide whether or not to grant a COA which, if granted, is in effect for two years. The Commission’s role is advisory only, and a development application may be approved even if it did not receive a COA. The Zoning Officer enforces any violations of the COA.

In addition, the Commission receives and reviews requests for local designation of a historic site or district from interested parties. Based on its review, the Commission makes a list of sites and districts that it proposes to nominate for designation. Each building proposed for demolition is carefully documented with photographs, tax maps and written descriptions of the physical characteristics of the resource(s) and a statement of significance that address the criteria for designation. The Commission also identifies through surveys and other research valuable historic resources to be locally designated.

A designated property must have integrity of location, design, setting, materials, workmanship and association and that meet one or more of the following criteria:

- (1) Character, interest, or value as part of the development, heritage or cultural characteristics of the Township, state or nation.
- (2) Association with events that have made a significant contribution to the broad patterns of national, state or local history.
- (3) Association with the lives of persons significant in national, state or local history.
- (4) Embodiment of the distinctive characteristics of a type or period of construction, architecture, or engineering or of a method of construction.
- (5) Identification with the work of a builder, designer, artist, architect or landscape architect whose work has influenced the development of the Township, state or nation.
- (6) Embodiment of elements of design, detail, material or craftsmanship that render an improvement architecturally significant or structurally innovative.
- (7) Unique location or singular physical characteristics that make a district or site an established or familiar visual feature.
- (8) Likelihood of yielding information important in prehistory or history.

The Commission is also charged with providing advisory, educational and informational functions that promote historic preservation in the Township.

### **D. FUNDING AND PARTNERSHIPS FOR TOWNSHIP PRESERVATION EFFORTS**

Like many municipalities in the State, funding for historic preservation is a challenge particularly during this economic climate, and Cranbury is no exception. Sources of funding for the Township’s preservation efforts can be sought by virtue of its status as a Certified

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Local Government. The 2006 revision to the Historic Preservation Ordinance of the Township's Code included language to enable the HPC to qualify for Certified Local Government (CLG) status from the National Park Service, Department of the Interior. Cranbury was designated a local CLG in January 2009. The main advantage of having this designation is the Township is eligible for grant money. Each federal fiscal year, New Jersey sets aside ten percent of the state's allocation of federal historic preservation funds for pass-through to Certified Local Governments.

This Master Plan recommends that the HPC continue to take advantage of their CLG status to apply for grants for preservation efforts in the community.

Other sources of funding for Township preservation activities can also be sought through partnerships. The Cranbury Historical and Preservation Society (the "Society") was organized in 1967 and incorporated on November 17, 1970. It is governed by an all-volunteer Executive Board composed of officers, trustees and standing committee chairpersons.

The Society is committed to furthering the interest and knowledge in the history of Cranbury; the promotion, support and encouragement of the beautification and preservation of the land and buildings located in Cranbury; and the restoration and preservation of Cranbury's old and historic building sites. The Society operates a Museum (4 Park Place East) and History Center (6 South Main Street), and sponsors biennial house tours, tours of the Museum and walking tours of the Village; periodic special exhibits, school programs on local history; and cultural programs and events for the entire community.

The Township has worked in concert with the Society for funding of certain projects such as the Parsonage Barn at the Barn Park (described further below). The Society is a valuable preservation partner to the Township helping to fund and in other ways support the Township's preservation efforts.

This Master Plan recommends that the Township continue to partner with the Society and other non-profit entities in terms of funding, coordination, education, and administration in its preservation efforts.

### **E. HISTORIC SITES**

The Township's Zoning Code states that when a application for development in the A-100, RLD-1, RLD-3, R-LI, and V/HR zones contains historic sites noted in the Cranbury Township Master Plan, the structure shall be retained and the setting of these historic sites shall be maintained by preserving the area surrounding the structure as required. These standards are intended to protect the site features which form the setting for designated sites, which may include the farm structures, trees, hedgerows, landscaping, and pastures that are located within proximity of a historic site.

The 1993 Cranbury Township Master Plan included a list prepared by HPAC of historic buildings located outside of the Cranbury Village Historic District that were considered to be valuable historic resources to the community. That list of buildings included several

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major farmsteads with accompanying agricultural landscapes that were typical of the mid-19<sup>th</sup> Century in Cranbury. Table 7-1 at the end of this chapter provides an updated list of historic sites in Cranbury outside of the boundaries of the historic district based on the list provided in the 1993 Plan.<sup>8</sup> (See also Figure 7-1.)

As a comprehensive survey of historic properties has not been conducted since the early 1990s, this Master Plan recommends that the HPC consider updating the inventory of historic resources outside of the historic district.

### **F. BARN PARK**

The Township owns a one-acre parcel of land located on Cranbury Neck Road (Block 21, Lot 4.11) known as the “Barn Park.” The Barn Park is unfunded parkland per the definition of the NJ Department of Environmental Protection’s Green Acres Program, and as such is subject to the terms, restrictions and requirements of the State Historic Preservation Office. Until fall 2010, there were two historic agricultural buildings on Barn Park, referred to as the Wagon House (circa 1930), and the Corncrib (circa 1890-1900).

In 2005, the Township entered into a contract with the New Jersey Barn Company for the purchase of the Updike Parsonage Barn (also known as the Howarth Barn) in order to preserve this pre-revolutionary, hand-hewn, white oak structure, which is believed to be one of the earliest barns constructed in the Township, and dating back to the 18<sup>th</sup> Century. The contract provided for the dismantling and storage of the barn and the repair and reconstruction of its frame. The Cranbury Historical and Preservation Society assisted the Township in the re-erection, repair and restoration of the Parsonage Barn by offering financial support and supervising the work necessary to complete the project. The Society is leasing the Parsonage Barn from the Township for historic preservation, recreational and conservation purposes consistent with Green Acres regulations.

This Master Plan recommends that the Township continue to support the renovation and reuse of the remaining historic barns in the Township, as appropriate.

### **G. SCENIC VISTAS**

A primary objective of the 1993 Master Plan was to protect scenic vistas and preserve natural resources, particularly around the Village Historic District. Scenic vistas include areas with characteristics of community importance including mature woodlands, historic or cultural resource landmarks or landscapes, unique topographical features, long views, and panoramic vistas of the natural or built environment. Key scenic vistas of open space, farms and other rural features found in Cranbury are integral to preserving the historic integrity of Cranbury Village and its historic sites.

The 1993 Master Plan recommended, and the Township later adopted, regulations and policies to maintain the hard edge around the Village by preserving the open spaces around the historic district through lot averaging, acquisition of key parcels, and participation in the New Jersey Farmland Preservation Program.

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<sup>8</sup> The Update was undertaken by the HPC in October 2010.

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The Township has over 2,000 acres of preserved farmland. Site plan design standards for all development in the Township include providing open space and locating buildings to protect scenic view sheds, to preserve farmland, to provide a setting for historic structures, to create a buffer between land uses, and to provide recreation opportunities. The lot averaging option concentrates development adjacent to the existing Village to preserve large areas of contiguous open space at the edge of the Village. Any development using the lot averaging development option is required to permanently deed restrict the environmentally sensitive areas, scenic view sheds and open space as identified in the Cranbury Township Master Plan. These include the scenic view sheds and vistas shown on Figure 7-2.

This Master Plan advocates the continued protection of the scenic vistas identified in the Plan through lot averaging, acquisition of key parcels, and participation in the New Jersey Farmland Preservation Program.

### **H. DESIGN GUIDELINES**

Based on the Secretary of the Interior Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, the Historic Preservation Ordinance provides specific design guidelines and criteria for site and streetscape, building site, garages and accessory structures, fences, walkways, additions and new construction, size, massing, proportion, directional expression, roofs, exterior materials, windows, doors, porches, trim, and storefronts.

The guidelines set forth criteria by which the Historic Preservation Commission reviews applications for certificates of approval and determines the appropriateness of the proposed work in any historic district or on any historic site. The guidelines apply to the repair and alteration of existing buildings and historic landmarks and to the construction of new buildings.

At first glance, it would seem that historic preservation and environmental sustainability go hand-in-hand. Preserving existing buildings and adapting them for new uses over time makes the best use of the resources and energy used in their initial construction, as well as saving open land and keeping demolished materials out of landfills. Rehabilitation of old buildings can generate more local dollars that stay in the community rather than being exported elsewhere. Financial incentives for historic preservation can also help to meet the social needs of the community by facilitating the creation of affordable housing. Preservation is also sustainable when it comes to protecting a place's identity, and contributes to its "sense of place". The National Trust for Historic Preservation has stated that "Historic preservation can—and should—be an important component of any effort to promote sustainable development. The conservation and improvement of our existing built resources, including reuse of historic and older buildings, greening the existing building stock, and reinvestment in older and historic communities, is crucial to combating climate change."

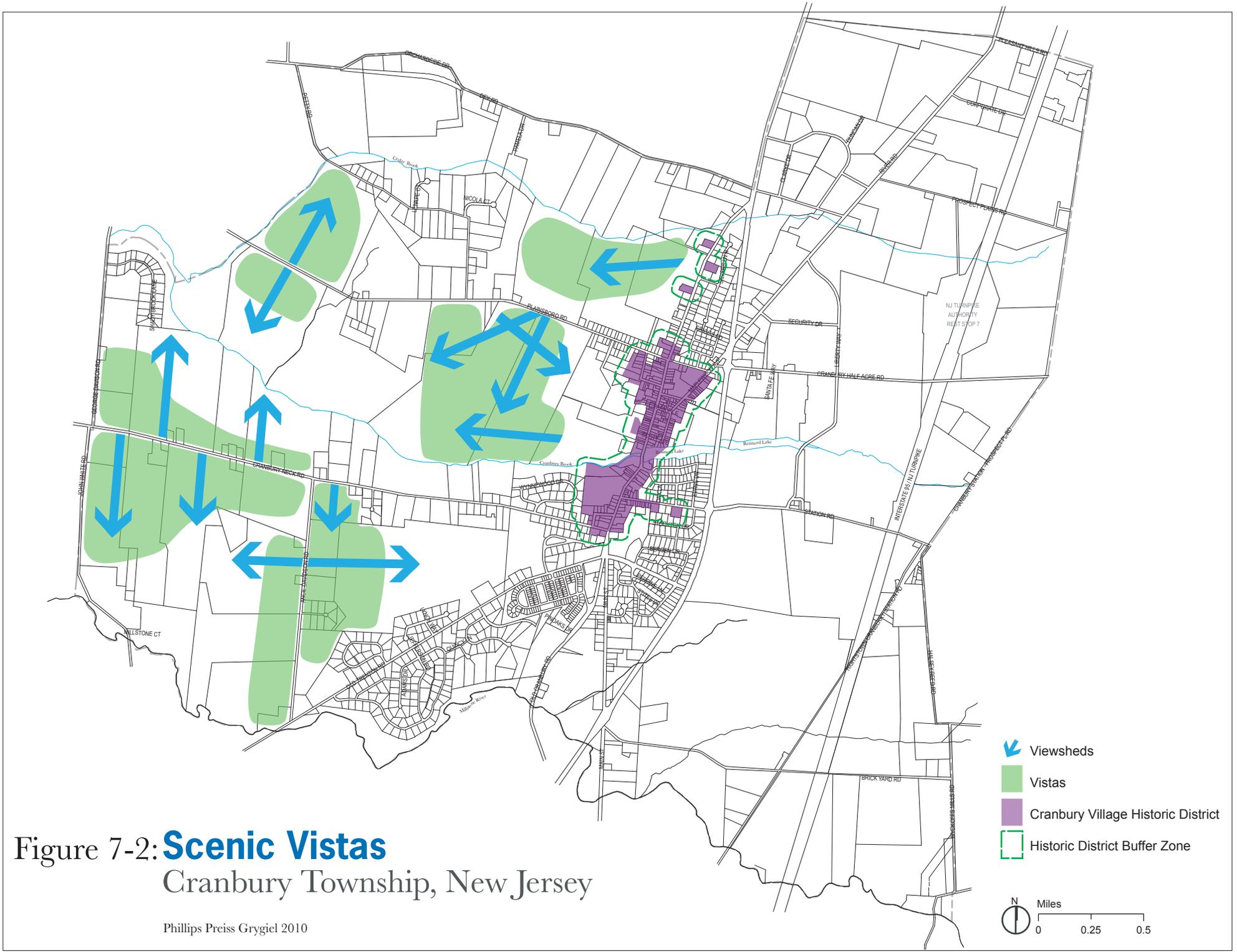


Figure 7-2: **Scenic Vistas**  
Cranbury Township, New Jersey

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Despite the seeming compatibility between historic preservation and sustainability, input from the public outreach process indicates that this is not always perceived to be true, particularly by property owners looking to minimize their energy bills and maximize the energy efficiency in heating and cooling, and the maintenance of their historic properties. As a result, some of the original, historic fabric of Cranbury's buildings is at risk of being lost due to property owners opting to replace historic materials with new construction materials manufactured as "green" and energy-efficient.

This Master Plan recommends that the design guidelines listed in Chapter 93 Historic Preservation of the Township Code be updated to address the use of renewable energy resources. The desire to use renewable energy sources such as solar panels, geothermal technologies, and even wind power is likely to increase with time. These resources should be incorporated into the local historic district on a limited basis. Standards are needed in the design guidelines to promote the use of green technology and should provide standards for their design and placement within an historic context.

In addition, owners of properties in historic districts should be required to substantiate their requests for alternative energy systems and state whether they have pursued other traditional conservation measures. It is important to make sure that steps are taken to make a property as energy efficient as it can be before considering their replacement with renewable energy technologies, as they are currently very expensive and have long payback periods. In addition, there are aesthetic concerns associated with some of the technologies that may conflict with the goals of maintaining the historic authenticity of an historic building or district. In general, for historic properties, a "best practices" approach to renewable energy systems is to install them so they are not visible from the public right-of-way, and in such a way that they do not damage the historic fabric of the building. In addition, all work performed should be easily reversible.

### RECOMMENDATIONS

- Amend the definition of Historic Buffer Area in *Chapter 93 Historic Preservation* to include a 200 foot buffer area around any historic district. If any portion of a property is within the buffer area it should be subject to all of the requirements of properties in the buffer area. However, certain exceptions should be made such as if a very small portion of property is within the historic buffer, or if the building or structure to be altered or added is a significant distance from the historic area, or not visible from such area, in which case it should be excluded from review.
- The HPC should consider updating the inventory of historic resources outside of the historic district.
- The Township should continue to support the renovation and adaptive reuse of the existing barns at the Barn Park, as appropriate.
- The HPC should continue to take advantage of their CLG status to apply for grants for preservation efforts in the community.

## **2010 Cranbury Township Master Plan**

- This Master Plan recommends that the Township continue to partner with the Society and other non-profit entities in terms of funding, coordination, education, and administration in its preservation efforts.
- This Master Plan advocates for the continued protection of the scenic vistas identified in the Plan through lot averaging, acquisition of key parcels, and participation in the New Jersey Farmland Preservation Program.
- The HPC should also consider updating the design guidelines listed in Chapter 93 Historic Preservation of the Township Code to address the use of renewable energy resources.

## 2010 Cranbury Township Master Plan

**Table 7-1: Inventory of Historic Sites, Township of Cranbury, Middlesex County, New Jersey**

Key No.	HPAC No.	Property Owner	Block/ Lot	Street Location	Date	Building Comments
1	35	Charles & Gladys Henry	2/1	South River Road	Mid 1800s	5 Bay rectangle; vernacular with Gothic details
2	31	Sider-Steiner Company	5/1	Prospect Plains Road	Mid 1800s	Well preserved with extensive Victorian detail
3	39	E. John Meslin	5/16	South River Road	Mid 1800s	Vernacular Queen Anne
4	36	C. Gordon Stults	7/19	Station Road	Early 19 <sup>th</sup>	3 bay side hall with subsequent 2 bay century additions.
5	21	Willis Apple-gate: Holland House	7/20	Station Road	1850	5 bay rectangle. Well preserved second Empire mansard roof and window detailing.
6	22	Conrail Freight Station	9/3			Simple utility structure with board and batten siding.
7	23	Thomas Gambino	13/3	Halsey Reed Road	Mid 1800s	5 bay rectangle.
8	24	Mildred Carson	13/5	Wyckoff Mills Road	Mid 1800s	5 bay rectangle.
9	25	Frederick Ritter	13/7	Wyckoff Mills Road	Mid 1800s	5 bay rectangle with center hall.
10	38	Indian Run Associates	16/4	Brick Yard Road	Early 1800s	5 bay center hall.
11	17	Sharyn Snook	20/5.02	Old Trenton Road	Post-1876	Gothic cottage with brick foundation. Simplest kind of Gothic cottage, uncommon in Middlesex County. Contrast to vernacular style.
12	16	Matthew Long	21/3	Cranbury Neck Road	1800	Princess Ann with intersecting roofline. Vernacular Greek Revival and Gothic details.
13	41	Gladys Danser	21/26	Old Trenton Road	Late 1800s	L-Plan Victorian vernacular.
14	2	Stanley C. Stults, Jr.	22/1	John White Road	Early 1900s	Vernacular farm outbuildings.
15	45	Margaret White: Wyckoff House	22/14	John White Road	Mid 1800s	3 bay side hall with subsequent 3 bay addition.

## 2010 Cranbury Township Master Plan

**Table 7-1: Inventory of Historic Sites, Township of Cranbury, Middlesex County, New Jersey**

Key No.	HPAC No.	Property Owner	Block/ Lot	Street Location	Date	Building Comments
16	14	Curt Lindberg: J. Barclay House	22/15	Ancil Davison Road	Mid 1800s	5 bay center hall with rear ell. Only entire brick structure in area. Eligible for National Register.
17	6	Gordon Tantom, Jr.	22/16	Cranbury Neck Road	1895-1915	Queen Anne 5-bay
18	52	Independent American Investment	23/2	Plainsboro Road	Early 1800s	3/5 bay with earlier wing.
19	47	Donald Patterson	23/11	Plainsboro Road	Early 1800s	3 bay side hall with subsequent 2 bay addition.
20	46	Barclay Farms MF	23/12	Plainsboro Road	1850s	5 bay, center. Hall. Well preserved historic detailing.
21	13	Harold C. Davison	23/98	Cranbury Neck Road	1830	3 bay rectangle with 2 bay wing. Vernacular with Folk Victorian details.
22	11	Christian Christianson	23/101	Cranbury Neck Road	Late 1800s	Vernacular 5 bay center hall with double-end polygonal bays. Complex of 4 barns with metal gabled roofs.
23	5	Stanley C. Stults, Jr.	23/103	John White Road	1840	5 bay rectangle. 1840 rectangle barn.
24	1	Edward Simonsen	23/104	George Davison Road	1820-01840	5 bay center hall with rear ell.
25	4	Charles Sullivan	23/122	Cranbury Neck Road	1800-1850	Vernacular 5 bay rectangle.
26	15	Leonard Harlan	23/141	Cranbury Neck Road	1800s	Vernacular farm outbuildings.
27	12	Michael Brunskill	23/146	Cranbury Neck Road	1775-1800	Vernacular 5 bay rectangle.
28	3	George Wagner	23/152	Cranbury Neck Road	1900	2½ story, 2 bay rectangle.
29	42	Eleanor Spence	24/3.01	Plainsboro Road	1850	3/5 bay with earlier wing.
30	18	George Nicola	25/44	Petty Road	1850	5 bay rectangle. Interesting mix of 19 <sup>th</sup> century addition.

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CHAPTER 8. COMMUNITY FACILITIES PLAN

A. SCHOOLS

The public school system in Cranbury is administered by the Cranbury Board of Education and serves grades pre-kindergarten through 8. (The location of the school and all other community facilities in Cranbury can be found in Figure 8-1.) There is one public school facility in the Cranbury School District – the Cranbury School, located at 23 North Main Street behind Town Hall. Cranbury students in grades pre-kindergarten through 8 attend the Cranbury School and students in grades 9 through 12 attend Princeton High School in the Township of Princeton. Princeton High School serves students residing in the Borough and Township of Princeton, as well as the Township of Cranbury. An inventory of facilities serving Cranbury students is provided in Table 1.

Table 8-1: Inventory of Board of Education Facilities

School Name	Grade Level	Address	School Board
Cranbury School	Pre-K-8	23 North Main Street, Cranbury	Cranbury
Princeton High School	9-12	151 Moore Street, Princeton	Princeton

Source: Township of Cranbury Board of Education, Princeton Regional Schools

The Cranbury School District currently offers two half-day preschool programs for children ages 3 and 4. The “Cranbuddies” preschool program is available to three-year olds on Monday, Wednesday and Friday mornings and to four-year olds five days per week during the afternoon. Enrollment is limited to four three-year olds in the morning class and eight four-year olds in the afternoon class; the Cranbuddies preschool program is also able to accommodate children requiring special needs programming.

There have been no substantial changes in the distribution of students by grade in Cranbury between the 2005-2006 and 2009-2010 school years. School enrollment data suggests that the Cranbury School District will not have to accommodate a significant increase in school children over the next several years, in part because of the established nature of Cranbury’s residential population, the fact that little residential development generating schoolchildren is anticipated in the coming years, and the fact that enrollments in the earlier grades are starting to decline. See Table 2: School Enrollment by Grade for detailed information on school enrollment in the Township.

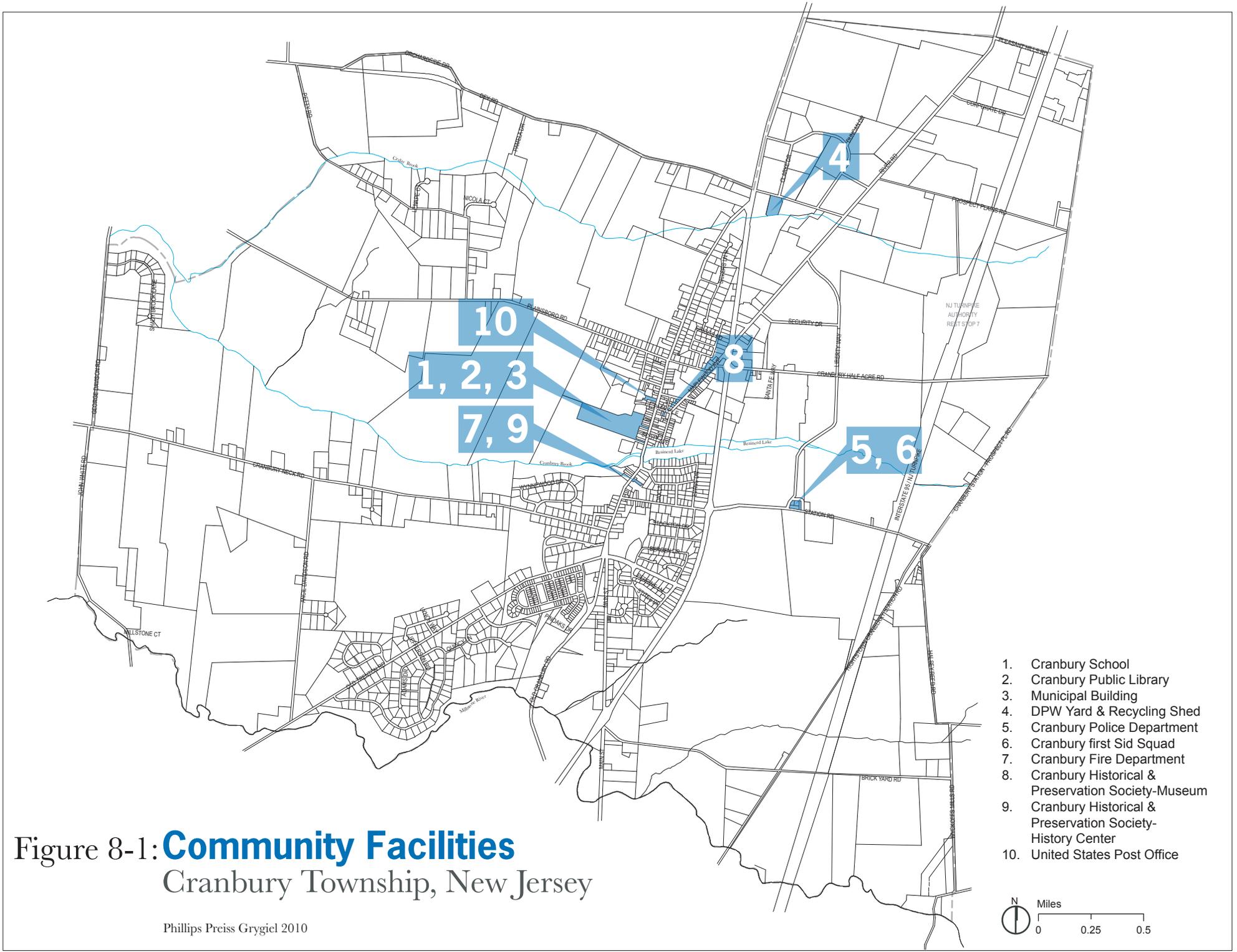


Figure 8-1: **Community Facilities**  
Cranbury Township, New Jersey

## 2010 Cranbury Township Master Plan

**Table 8-2: School Enrollment by Grade**

Grade	2005/06	Percent	2006/07	Percent	2007/08	Percent	2008/09	Percent	2009/10	Percent
Pre-K	10	2%	8	1%	12	2%	15	2%	12	2%
K	63	10%	63	10%	58	9%	49	8%	42	7%
1	55	8%	67	11%	67	11%	65	11%	52	9%
2	70	11%	56	9%	66	10%	64	10%	61	10%
3	66	10%	70	11%	60	9%	73	12%	70	12%
4	75	12%	67	11%	72	11%	65	11%	74	12%
5	69	11%	72	11%	72	11%	73	12%	69	12%
6	72	11%	69	11%	68	11%	72	12%	76	13%
7	69	11%	73	11%	68	11%	67	11%	73	12%
8	77	12%	69	11%	78	12%	71	12%	67	11%
Special Needs	24	4%	23	4%	11	2%	2	0.3%	-	-
<b>Total</b>	<b>650</b>	<b>100%</b>	<b>637</b>	<b>100%</b>	<b>632</b>	<b>100%</b>	<b>616</b>	<b>100%</b>	<b>596</b>	<b>100%</b>

Source: New Jersey Department of Education

Total enrollment in the Cranbury School was recorded at 596 students for the 2009-2010 school year. Ten year enrollment peaked in the 2005-2006 school year with 650 students, up from a low of 545 students in the 1999-2000 school year. The almost 8% increase in student enrollment in the 2005-2006 school year can be attributed, in part, to the addition of the Cranbuddies preschool program. Following its peak in the 2005-2006 school year, student enrollment first stabilized, and has now begun to decrease. During the 2009-2010 school year enrollments decreased -3.36% across the board. It is anticipated that without substantially greater residential development within the Township, these school enrollments would continue to decrease. This trend is consistent state-wide, as the children of the Baby Boomers or Echoboomers pass through the school system. For additional information on Cranbury's student enrollment profile, see Table 3: Ten Year Enrollment Profile.

**Table 8-3: Ten Year Enrollment Profile**

Year	Pre-K		K-6		7-8		Special Needs		Total	
	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change	Number	Percent Change
1999/00	-	-	417	-	116	-	12	-	545	-
2000/01	-	-	411	-1.46%	127	8.66%	9	-33.33%	547	0.37%
2001/02	-	-	419	1.91%	142	10.56%	11	18.18%	572	4.37%
2002/03	-	-	434	3.46%	126	-12.70%	11	0.00%	571	-0.18%
2003/04	-	-	449	3.34%	133	5.26%	10	-10.00%	592	3.55%
2004/05	-	-	445	-0.90%	143	6.99%	11	9.09%	599	1.17%
2005/06	10	-	470	5.32%	146	2.05%	24	54.17%	650	7.85%
2006/07	8	-25.00%	464	-1.29%	142	-2.82%	23	-4.35%	637	-2.04%
2007/08	12	33.33%	463	-0.22%	146	2.74%	11	-109.09%	632	-0.79%
2008/09	15	20.00%	461	-0.43%	138	-5.80%	2	-450.00%	616	-2.60%
2009/10	12	-25.00%	444	-3.83%	140	1.43%	-	-	596	-3.36%

Source: New Jersey Department of Education

## 2010 Cranbury Township Master Plan

The total per pupil cost in the Cranbury School District for the 2008-2009 school year was \$15,591, up from \$14,798 for the 2007-2008 school year. Cranbury's 2008-2009 per pupil cost is greater than the state average of \$12,084 for schools serving grades kindergarten through 8. Of the 64 school districts in New Jersey that are classified as "Operating Type K-8", the Cranbury School District ranked 61<sup>st</sup> in per pupil cost (ranked from low to high cost) for the 2008-2009 school year as per the New Jersey Department of Education 2010 Comparative Spending Guide.

### **B. DEPARTMENT OF PUBLIC WORKS**

The Township of Cranbury Department of Public Works (DPW) is responsible for maintaining Township roads, parks, grounds and buildings, including routine building inspections and repairs. DPW provides curbside pickup of brush and leaves twice per year during the spring and late fall and curbside chipping services for tree branches and shrubbery once per month. DPW is responsible for grass mowing, athletic field marking and upkeep, litter control and safety inspections of parks equipment, as well as snow removal and ice control during the winter months. DPW has a staff of eight full-time employees.

DPW's main office is located in the Cranbury Municipal Building at 23-A North Main Street; DPW equipment, including mowers, tractors and trucks, is housed at the DPW Yard, located at 100 Dey Road. Additionally, the Cranbury Recycling Shed is located at the DPW Yard, where residents can drop off computers, televisions, telephones, irons, fluorescent lightbulbs, CDs and DVDs, etc. to be recycled. Additional DPW facilities include the West Property Storage Barn and six pumping stations: Dey Road Pump Station at 97 Dey Road; Half Acre Pump Station at Half Acre Road and Sante Fe Way; Liberty Way Pump Station at Liberty Way and Station Road; Stites Drive Pump Station at Stites Drive in Cranbury Greene; Old Cranbury Road Pump Station at Old Cranbury Road near the Four Seasons development; and Cranbury Brook Pump Station at South Main Street behind the firehouse.

DPW's future needs include an additional storage barn that can house the truck fleet and other heavy equipment.

### **C. POLICE**

The Cranbury Police Department is located at 1 Logan Drive and employs 17 police officers and nine civilian staff members, comprised of one administrative assistant and eight crossing guards. A majority of current officers have six years or less of service with the Cranbury Police Department; all new officers have come from other police departments or have attended police academy through the state-approved Alternate Route Program, which allows civilians to enter police recruit training without first being hired by a police department or law enforcement agency. One officer in the department is a certified paramedic and three officers are trained emergency medical technicians.

The Cranbury Police Department is dispatched through the Hightstown Police Department; there are intermittent problems with the phone transfer system, which can be dis-

## 2010 Cranbury Township Master Plan

ruptive to the department's operation at times. In 2009, the department received 6,098 emergency calls, of which 1,701 were high priority emergency calls. Much of the crime in Cranbury is transient in nature due to the Township's proximity to the New Jersey Turnpike and Route 130. The types of offenses observed throughout the Township varies, and typically occurs in the form of theft, burglary and assault against property and persons in the warehouse business district; traffic and vehicular accidents along Route 130; and speeding and traffic-related citations in the village and residential areas.

The crime rate for the Township in 2008 was 14.5 crimes per 1,000 residents, which is somewhat higher than the observed rates for all municipalities located adjacent to Cranbury; Cranbury's 2008 crime rate per 1,000 residents is significantly lower than that of both Middlesex County and New Jersey (22.9 and 26.2 crimes per 1,000 residents, respectively). The department has a ratio of 208 residents per officer, which is indicative of higher policing levels than that of the municipalities located adjacent to the Township. (It should be noted that while Cranbury has a much smaller population than that of adjacent communities, the department has to police a land area similar in size to that of adjacent communities.) The department has indicated that they are operating with two officers less than full staffing.

**Table 8-4: Cranbury & Vicinity Crime Rates and Policing Levels**

<b>Municipality</b>	<b>Crime Rate per 1,000</b>	<b>Police Officers</b>	<b>2007 Estimated Population</b>	<b>Residents per Officer</b>	<b>Area (sq. miles)</b>
<i>Cranbury</i>	14.5	19	3,944	208	13.4
East Windsor	12.9	61	26,686	437	15.7
Monroe	7.3	66	36,397	551	42.0
Plainsboro	8.4	46	21,196	461	12.2
South Brunswick	12.2	104	40,755	392	41.1

Source: New Jersey State Police Uniform Crime Report, 2008

The department offers several community policing initiatives, including educational lectures on personal and home safety, as well as home inspections conducted by an officer who provides follow-up advice on improving home security. In conjunction with the Cranbury Township Police Fraternal Order of Police Lodge #68, the department has both participated in and sponsored community events, including the Drug Free Fair, Cranbury Day, Safe Halloween Program and D.A.R.E., as well as child safety programs (e.g. fingerprinting, car seat program, promotion of bike helmet use).

In fall 2005, a new, state-of-the-art police station was opened on Logan Drive.

### **D. FIRE**

The Cranbury Fire Department is located at 2 South Main Street. Established in 1898, the fire department is made up entirely of volunteer personnel. There are 32 volunteer firefighters, including two Township employees that are authorized to respond to emergency calls during the day.

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Members of the fire department are on-call via a radio dispatch system. Volunteers are not on-call during a set day or time period, but rather respond to emergency calls when they are able. The number of firefighters needed to respond to an emergency varies; for a routine call, at least three firefighters are needed (one of which is a driver), while four to five firefighters are needed for a structure fire.

The fire department is dispatched through the Hightstown Dispatch Center and then all communications are transferred to the Mercer County Central Dispatch. The current dispatch system functions well and is managed professionally, in part due to guidelines issued in 2009 designed to streamline dispatch procedures. There are two radio frequencies on which the Township currently operates: 1) UHF (ultra high frequency), used Cranbury police, fire department and public works, as well as the Plainsboro Fire Company; and 2) VHF (very high frequency), used by the Cranbury First Aid Squad, Mercer County fire departments, as well as statewide bandwidths. The Cranbury Fire Department cannot communicate with other departments that operate on a 700-800 MHz system. In an effort to improve communications and interoperability amongst departments, several fire departments in the region, including Cranbury, have collectively applied for a federal grant to update the radio system in Middlesex County.

The fire department has mutual aid plans with all neighboring fire departments as a means to provide and receive fire fighting assistance when needed. The fire department also participates in several specialized task forces, and has recently started automatic emergency response to the New Jersey Turnpike in the vicinity of Exit 8 in partnership with the Hightstown Fire Company. The fire department offers weekly and monthly trainings to members and allows them to participate in additional trainings offered by accredited fire academies. All volunteers are air pack qualified, and must complete the New Jersey Firefighter 1 training within one year of joining the fire department.

Fire hydrants in Cranbury are maintained by New Jersey American Water. There is fire hydrant coverage in Cranbury's downtown, as well as in the commercial areas of the Township. Areas of the Township that do not have hydrant coverage include: Ancil Davison Road; Applegate Drive; Brickyard Road; 40-98 Cranbury Neck Road; Cubberly Court; Halsey Reed Road; Hightstown-Cranbury Station Road; John White Road; Lenape Court; Nicola Court; Petty Road; Probasco Road; and Wyckoff Mills Road. In the areas of the Township where there is no hydrant coverage, pumper trucks are used; the fire department has a Tanker Task Force, and performs drills several times per year.

The fire department has indicated that there are no response issues in the Township, nor are there any problems with hydrant water pressure. Fire department response time ranges from four to ten minutes, depending on the location of the emergency. The majority of alarm calls originate from the warehouse and commercial areas of Cranbury. In 2009, the fire department received 267 calls, though the annual average is typically closer to 200 calls per year.

The fire department has been proactive in fundraising and applying for grants to support major capital purchases. The department is in the process of updating its water rescue

## 2010 Cranbury Township Master Plan

equipment and training, and anticipates needing to replace 30 Self Contained Breathing Apparatus (SCBA) that are approaching the end of their service life. The department's brush unit needs to be replaced and a grant has been applied for to fund its purchase.

**Table 8-5: Inventory of Cranbury Fire Department Equipment**

Description	Year
Tahoe Chief's Vehicle	2010
Rescue Boat	2009
CAFS-Equipped Rescue Pumper	2007
100' Tower Ladder	2003
2000 Gallon Pumper Tanker	2000
Suburban	1999
Crown Victoria Car	1999
Utility Vehicle	1985
Reserve Engine	1982
Brush Unit	1954
Tractor-Drawn Tanker	-
Antique Fire Engine	-

Source: Cranbury Fire Department

The fire department is active in the community and extends an open invitation for residents to tour the fire house on request. The department offers fire prevention education programs at the Cranbury School and participates in local events, such as Cranbury Day and the Drug Free Fair, as a means to better inform residents about the fire department and its role in the community. In addition, the department has a Junior Firefighters program for 16 and 17-year olds in the Township to recruit and train new volunteers.

### **E. EMERGENCY MEDICAL SERVICES**

Emergency medical services within the Township of Cranbury are provided by the Cranbury First Aid Squad, the headquarters of which is located at 1 Logan Drive. The First Aid Squad is an all volunteer organization.

The Cranbury First Aid Squad was established in 1957 with funds from Ella Groves Frazier's will; the Squad's first ambulance went into service in September of the same year. In 1967 the Squad became a separate entity from the Cranbury Fire Department. In November 1974 the Squad Headquarters was dedicated at 68 Maplewood Avenue.

### **F. LIBRARY**

The Cranbury Public Library is located at 23 North Main Street, attached and essentially part of the Cranbury School. The facility serves as both the public and school library. The public library owns and circulates a collection of over 25,000 books, 130 magazines, 7 newspapers, 1100 DVDs, 110 video games, 300 music CDs, and 800 audio books as well as 3 kindles with over 50 e-books. The library's Website, [www.cranburypubliclibrary.org](http://www.cranburypubliclibrary.org), provides access to the online catalog, downloadable audio books, language tutorials, Historical Cranbury Press and multiple databases, including encyclopedias, newspapers and periodicals. Services offered to library patrons include internet access, notary service, copy and fax machine, Inter-Library loans, reference and reader's advisory service, a public meeting room for Cranbury organizations,

## 2010 Cranbury Township Master Plan

reciprocity with most Middlesex and Union County libraries and delivery of materials to the home-bound. The Cranbury Public Library offers a variety of programs and events for residents. Regularly scheduled programming for children includes: Preschool Story-times, with storytime and crafts for children ages 2 -5; Reading Buddies presented by Princeton High School students for children in grades 1 to 3; Open Gaming, which offers board, card and video games for children ages 7 and up; and a summer reading program. Adult programming includes afternoon book discussions at the Cranbury Senior Community Center and evening book discussions at the library. Residents can receive computer assistance twice per week during "Open Tech Hours" or by appointment, as well as through library-sponsored computer classes. In addition, there are special events and educational programming at the library throughout the year, including science presentations, author events and low impact fitness programs.

Founded in 1994, Friends of the Cranbury Public Library is a non-profit member organization whose mission is to advocate for the library, encourage reading, improve library services and raise funds to support the library programs. The Friends sponsor and volunteer at several library programs during the year. Their popular Museum Pass program allows families to attend local museums at no cost. The Friends also collect used books and hold a year-round book sale as well as large fall and spring sales. They have donated furniture, computers, books, DVDs, CDs, video games and other materials to the library since the organization's inception.

The Cranbury Public Library Foundation was founded in 2009. Its mission is to ensure through financial support that the community receives the most complete public library services, products, and programs available now and in the future. The Foundation operates as an IRC nonprofit 501(c) 3 to accept and acknowledge funds donated to further library support and special projects.

In recent years heavy utilization of the library by the school as well as residents has led the library to seek a future standalone location, where a new public library can be established. This master plan incorporates the recommendations of a subcommittee that was convened to find such a location. Therefore, if and when the new library is needed, this Master Plan recommends that it be provided across the parking lot of the school between the current tennis courts and the Babe Ruth baseball field. Also, to the extent that a municipal community center is to be provided, it would make sense for the new standalone library and community center to be combined in a single building. The community center could, for example, accommodate the senior center, now located in the basement of the Town Hall (see 8. *Senior Center*, below).

### **G. HISTORICAL AND PRESERVATION SOCIETY MUSEUM & HISTORY CENTER**

Incorporated in 1970, the Cranbury Historical and Preservation Society's mission is to encourage interest in and knowledge of Cranbury's history, promote the beautification of land and buildings in the Township, and to restore and preserve Cranbury's historic buildings and sites. In addition to operating the Cranbury Museum and Cranbury History Center, the society offers walking tours of the village and local history programs at the

## 2010 Cranbury Township Master Plan

Cranbury School, and sponsors biennial house and garden tours and cultural events for the community.

The Cranbury Museum is located at 4 Park Place East. Built in 1834, the building was sold to the Historical and Preservation Society in 1972, and was converted into a museum over a span of several months; many of the original features of the home were preserved, including the wide pine floorboards and a window sash with wavy glass panes. The Arthur E. Perrine Memorial Wing was added in 1975, and serves as a meeting space and exhibit room for the museum's periodic exhibits.

The Cranbury History Center is located at 6 South Main Street. Known as the Gristmill-er's House, the structure was used as the Cranbury Police Station from 1968 to 1985, and was later leased by the Township to the Historical and Preservation Society to be restored. Today, the Gristmill-er's House houses the society's visual, oral and written historical records, as well as the society's textile collection and other historical artifacts not on display at the Cranbury Museum. The Cranbury History Center is open to members of the public for the purposes of conducting research and viewing the society's records.

### **H. SENIOR CENTER**

In fall 2006, the Township designated the "recital room" in Town Hall for use as a Senior Community Center. This room is used for educational sessions, counseling, social events, arts and crafts, games, clubs, movies series, meetings, and as a drop-in center for seniors. The Center has comfortable seating and tables on which to enjoy card games, board games and puzzles. A library has books, magazines and a newspaper in addition to informational brochures. A TV and videos are also available. Senior exercise classes are offered at the Presbyterian Church; Tai Chi at the Methodist Church, and a Senior Dance-Fitness class at the ABT facility on Main Street. The 2007 OSRP made recommendations to improving access for seniors to and within existing Township parks including adding benches and other places to sit at regular intervals. As indicated in 6. *Library* above, if a combined standalone library and community center is built, the senior center could be moved to the community center. (See #6 above.)

### **RECOMMENDATIONS**

#### **1. Reserving a site for a future new library**

The existing Cranbury Public Library is unique in that it is shared with the Cranbury School. While this fosters interaction between the school and the greater Cranbury community, the Township is beginning to outgrow its existing library facilities. The Master Plan recommends reserving land within the existing Town Hall Complex for a future, standalone library; specifically, to be located north of the municipal and school parking lots between the tennis courts and the Babe Ruth field. This central location will serve to keep the library in the heart of the village. The Circulation Element of the Master Plan recommends extending Park Place Circle into the municipal and school parking lot, making it easier to access the site of the proposed library.



Cranbury Library Study: Site Plan

13 December 2010

Figure 8-2 : **Conceptual Layout for Future Potential Standalone Library**  
Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
Sketch courtesy of KSS Architects LLP

## 2010 Cranbury Township Master Plan

Figure 8-2 provides a conceptual layout for a new standalone library, based upon the location described above. It should be noted that this Master Plan is not endorsing such a layout, nor proposing that plans be developed at this time for a new library. However, it does illustrate how such a facility would fit into the overall municipal complex, should such a facility be constructed in the future.

### **2. Find a site for a new DPW storage barn**

The DPW has indicated that a storage barn is needed for the Township's truck fleet and heavy equipment. It is recommended that a location be identified for the future construction of a storage barn.

### **3. Encourage residents to volunteer for the Cranbury Fire Department**

Many communities have difficulty maintaining the ranks of their volunteer fire department. While the Fire Department had indicated that they do not have a major shortage of volunteers today, it is important to maintain a presence in the community and encourage future volunteerism through youth programs and outreach. The Fire Department should continue to participate in community events and bolster programs that encourage volunteerism in Cranbury to ensure the long-term viability of the department.

## 2010 Cranbury Township Master Plan

### CHAPTER 9. ECONOMIC DEVELOPMENT PLAN

#### **A. INCOME AND EMPLOYMENT CHARACTERISTICS IN CRANBURY<sup>9</sup>**

Consideration of Cranbury's economic status should also include an analysis of the income and employment characteristics which are detailed below.

##### **1. Income Characteristics**

Persons residing in Cranbury Township have on average higher incomes than in Middlesex County as a whole. Median income in 2000 in Cranbury was \$111,680 for households and \$128,410 for families. Comparable figures for the County were \$61,446 for households and \$70,749 for families. Table 9-1, Household and Family Income by Income Brackets, further illustrates these findings by noting the number of households in each of the income categories.

**Table 9-1: Household and Family Income by Income Brackett, 2000**

	<b>Households</b>	<b>Percent</b>
Less than \$10,000	23	2.1%
\$10,000 - \$14,999	17	1.6%
\$15,000 - \$24,999	58	5.3%
\$25,000 - \$34,999	47	4.3%
\$35,000 - \$49,999	82	7.5%
\$50,000 - \$74,999	124	11.3%
\$75,000 - \$99,999	130	11.9.%
\$100,000 - \$149,999	264	24.1%
\$150,000 - \$199,999	116	10.6%
\$200,000+	233	21.3%
Total:	1,094	100%
Median Income:	\$111,680	

*Source: 2000 US Census*

<sup>9</sup> Excerpted largely from Amended Housing Element and Fair Share Plan of Cranbury, Clark Caton Hintz, December 11, 2008.

## 2010 Cranbury Township Master Plan

The percentage of persons and households below the poverty level, as defined by the 2000 U.S. Census, equates to 1.61% of all Cranbury Township residents and 1.29% of persons in families. This is lower than the County as a whole, which had 6.59% of County residents living below the poverty level in 2000.

### **2. Employment Characteristics**

Table 9-2, Distribution of Employment by Industry, shows the distribution of employment by industry for employed Cranbury Township residents. The four industries to capture the largest segments of the population were the professional, scientific, management, administrative and waste management service industry at 20.7%; the finance, insurance, real estate, and renting and leasing industry at 16.5%; education, health and social services industry at 15.5%; and the manufacturing industry at 10.2%.

**Table 9-2: Distribution of Employment by Industry, Township Residents, 2000**

Sector Jobs	Number	Percent
Agriculture, Forestry, Fishing and Hunting, and Mining	8	0.5%
Construction	53	3.5%
Manufacturing	155	10.2%
Wholesale Trade	67	4.4%
Retail Trade	124	8.1%
Transportation and Warehouse, and Utilities	65	4.3%
Information	73	4.8%
Financing, Insurance, Real Estate, Renting, and Leasing	245	16.1%
Professional, Scientific, Management, Administrative, and Waste Management Services	315	20.7%
Educational, Health and Social Services	236	15.5%
Arts, Entertainment, Recreation, Accommodation and Food Services	66	4.3%
Public Administration	89	5.8%
Other	27	1.18%
<b>Total:</b>	<b>1,523</b>	<b>100%</b>

Source: 2000 US Census

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Table 9-3, Employment by Occupation, identifies the occupations of employed persons. While Cranbury Township residents work in a variety of industries, 60.4% of employed residents work in management, professional and related occupations and 23.6% are employed in sales and office occupations and a small number, 2.1%, work in construction, extraction and maintenance occupations.

**Table 9-3: Employment by Occupation, Cranbury Township, 2000**

Sector Jobs	Number	Percent
Management, Professional, and Related	920	60.4%
Service	122	8.0%
Sales and Office	360	23.6%
Farming, Fishing, and Forestry	0	0.0%
Construction, Extraction, and Maintenance	32	2.1%
Production, Transportation, and Moving	89	5.8%
<b>Total</b>	<b>1,523</b>	<b>100%</b>

*Source: 2000 US Census*

The number of jobs in Cranbury exceeds the number of people residing in 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. See Table 9-4, Covered Employment Estimates, for additional detail.

**Table 9-4: Covered Employment Estimates, December 2006**

Year	Cranbury	Middlesex
2006	12,693	405,694

*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 December 2006, which is the most current data available at the municipal level.*

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Finance and Insurance and Wholesale Trade were the largest sectors of in-town employment, with 1,581 and 1,524 jobs respectively. Cranbury also hosts a sizable manufacturing industry. Table 9-5, Covered Employment by Sector, provides additional detail.

**Table 9-5: Covered Employment by Sector, 2003**

	Employment					Wages	
	March	June	September	December	Average	Weekly	Annual
Private Sector Municipality Total	13,333	13,441	13,547	13,502	13,421		
Agriculture, forestry, fishing and hunting	17	15	11	14	14	\$351	\$18,267
Utilities	-	-	-	-	-	-	-
Construction	308	321	323	332	320	\$1,138	\$59,200
Manufacturing	1,288	1,286	1,262	1,218	1,278	\$1,255	\$65,242
Wholesale trade	1,493	1,502	1,568	1,545	1,529	\$1,186	\$61,653
Retail trade	963	895	983	1,012	941	\$550	\$28,594
Transportation and warehousing	759	719	694	676	707	\$673	\$34,985
Information	273	289	285	280	282	\$1,314	\$68,326
Finance and insurance	1,653	1,596	1,514	1,499	1,581	\$1,172	\$60,955
Real estate and rental and leasing	243	248	245	238	245	\$1,014	\$52,713
Professional and technical services	1,070	1,141	1,181	1,235	1,152	\$1,465	\$76,161
Management of companies and enterprises	-	-	-	-	-	-	-
Administrative and waste services	4248	476	479	462	456	\$7,31	\$37,992
Educational services	87	82	85	90	84	\$1,176	\$61,144
Health care and social assistance	115	112	116	126	118	\$616	\$32,011
Arts, entertainment, and recreation	34	39	68	63	49	\$919	\$47,769
Accommodation and food services	297	355	348	342	331	\$385	\$20,042
Other services, except public admin.	235	246	230	242	237	\$684	\$35,549
Unclassified entities	40	40	43	62	44	\$1,094	\$56,881
Government Municipality Total	332	324	322	322			
Federal Government Municipality Total	33	31	29	27	31	\$776	\$40,350
Local Government Municipality Total	299	293	293	295	284	\$839	\$43,643
Total Covered Employment	13,665	13,765	13,869	13,824			

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### **3. Employment Trends and Projections**

Cranbury Township has experienced substantial non-residential growth in the last decade, with warehousing dominating the non-residential construction and office space coming in at a distant second. The Township also added two hotels during the period. Given the weak office market and the slowing economy, Cranbury expects a decline in the amount of non-residential development anticipated to be constructed in the next 10 to 15 years. Per the projections in Cranbury's Housing Element and Fair Share Plan, 3,581 jobs will be created in the Township between 2004 and 2018.

### **B. CRANBURY'S PRIOR ECONOMIC DEVELOPMENT STRATEGY**

The 1994 Master Plan for Cranbury was a visionary document which had a profound influence on the way Cranbury has developed in the past 15 years, and is the main reason why Cranbury's land use pattern is so different from most of the surrounding communities who have experienced widespread suburban sprawl development. Cranbury's distinct land use pattern—a hard-edged, residentially-oriented village with a traditional pedestrian-oriented, mixed-use main street at its center, with vast expanses of preserved open space and farmland to its west, and large attractive modern warehouse-flex developments to its west—owes its success to the goals and objectives and vision established in the 1980s, set forth in the framework of the 1994 Master Plan and codified in Cranbury's current Land Development Ordinance.

Essentially the economic underpinnings of the 1994 Master Plan were as follows:

1. Preserve the historic village, focusing retail development within the confines of the small Village Commercial zone located in the center along both sides of Main Street north of Brainerd Lake to Westminster Place.
2. Confine residential development to areas directly adjacent to the Village in the form of single-family residential development.
3. Limit the types of retail development allowed along the Route 130 corridor so as not to compete with the Village Commercial area, and focus instead on auto-oriented uses, hotels and supportive retail services catering to a more regional market.
4. Take advantage of Cranbury's proximity to Exit 8A of the New Jersey Turnpike, to develop the area east of Route 130 with large-footprint warehouse office developments, attractively designed and with large expanses of open space similar to corporate office parks.
5. Utilize the ratables generated from development east of Route 130 to fund three major items:
  - (a) Buy up land and development rights of properties located west of the Village as either permanent open space or deed-restricted farmland.

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- (b) Build affordable housing within the confines of the established residential area of the Village, as small-scale 100% affordable housing projects, at low densities and designed to visually and functionally integrate this housing into the residential fabric of the community.
- (c) The provision of community services, especially costs of education and municipal services, for the residential community.

As indicated in the prior discussion, this economic development strategy was very successful during the State's recent economic and real estate booms. The significant investment related to funding open space and farmland preservation, affordable housing construction and the provision of municipal and school district services could rely on the taxes generated by the millions of square feet of highly desirable and valuable warehouse office space being developed east of Route 130. However, in recent years, with the advent of the economic recession, declining real estate values and demand for flex space, the increasing burden of providing affordable housing as a significant component of non-residential growth in the Third Round Council on Affordable Housing rules, and the increasing costs of providing school and municipal services in the face of declining state aid and a decreased ratable base, have exposed fissures in the Township's economic policies.

While this problem by no means requires Cranbury to abandon its vision for development—particularly its focus on agricultural and open space preservation—its goal of historic preservation of the Village and continued residential growth around it, it has come time to reevaluate and reorient some of its economic and land use policies to provide opportunities for economic development and improve the revenue potential from the Township's ratable base so as to put Cranbury on a sound financial footing in the next 10 to 15 years.

### **C. RECOMMENDED ECONOMIC DEVELOPMENT STRATEGY**

The strategy recommended in this Master Plan revolves around the following initiatives:

1. Form a public-private partnership (representatives of businesses on Main Street and from government) to explore specific ways in which the downtown can be revitalized, a task which is beyond the scope of this Master Plan.
2. Expand retail opportunities outside of the Village Commercial area primarily in two zones—the present Highway Commercial and General Commercial zones, but also as part of a mixed-use development (retail and lower-density multi-family development), in the present Professional Office/Residential zones.<sup>10</sup>

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<sup>10</sup> Note that the present HC Highway Commercial Zone is to be redesignated C-C Community Commercial; the present GC General Commercial Zone is to be redesignated as C-R Regional Commercial Zone and the present PO/R Professional Office/Residential Zone will have two new designations: M-C Community Mixed-Use for the South Main Street/Old Trenton Road portion and M-R Regional Mixed-Use for the portion located to the west of Route 130 on the East Windsor border.

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3. Also allow additional lower-density and empty-nester multi-family housing in the present PO/R zone located at South Main Street/Old Trenton Road (to be redesignated the M-C Community Mixed Use Zone), which would produce significant real estate taxes, but which would not generate significant numbers of school-age children.
4. Revise the permitted floor area ratio and impervious surface coverage in the Township's Industrial zones, to permit slightly higher yields of development, bearing in mind that per the recommendation of the Conservation Element, that such yields need to be proportionally lowered where property contains environmentally-constrained land.
5. Allow smaller lot sizes and smaller warehouse/flex and office developments in the industrial zones to capture opportunities for start-up and smaller businesses, rather than catering only to the largest, high-end warehouse/office tenants.
6. Encourage the development of solar and wind energy facilities in the industrial areas of Cranbury, to generate additional ratables and to keep these types of facilities outside of Cranbury's preserved open space and farmland areas.
7. Streamline the development application and approval processes, to reduce the time and cost associated with obtaining approvals for development, thereby making Cranbury a more business-friendly community.

Each of these initiatives have been raised in other elements of the Master Plan, particularly in the Land Use Plan and Community Design elements, but their economic aspects and policies will be explained more fully below.

### **1. Revitalization of Downtown Cranbury**

Cranbury's downtown has been able to maintain its historic, mixed-use character and attractive streetscape through the efforts of the Historic Preservation Commission and the boards which regulate development—the Township Committee (through zoning legislation) and the actions of the two boards which review and approve development (the Planning and Zoning Boards). As already mentioned, Cranbury has zealously protected the downtown's small retail sector (comprising only approximately 16,000 of leasable retail space) by restricting retail development in Cranbury Township to the Village Commercial zone, and prohibiting it in other commercial zones, such as the present Highway Commercial and General Commercial zones along Route 130, and elsewhere in the Township. In spite of this policy, the retail sector has not fared well in the past few years, a factor which is not solely attributable to the recession. A contributing factor to the decline of the downtown retail sector has been the emergence in the national economy of big-box retail establishments in place of local businesses such as drug and hardware stores.

From an aesthetic and functional viewpoint, Cranbury's downtown is very much admired. Its physical character and appearance are the envy of many a small town in New Jersey. Thus physical improvements, such as brick pavers, added street trees, historic lamp-

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posts, etc. are not the answer. The answer probably lies partially in the fact that Main Street is “off the beaten path”—that is, much of the regional traffic bypasses it, using Route 130 to go north and south, and uses Dey Road, Plainsboro Road, Cranbury Neck Road and Old Trenton Road—which do not pass through Main Street—to travel east and west. In addition, Cranbury has purposely sought to limit residential expansion, and residential uses are confined to areas around the village, which now provides limited opportunities for new housing. The absence of significant through-traffic and a low population total proximate to Main Street is a double-edged sword. On the one hand, it helps Main Street and the village to retain its small-town character and lessen the disturbance to those who live on Main Street. At the same time, the sheer demographics—available residents with spending power living close to or traveling through Main Street—has limited the diversity, amount and types of retail uses that can survive in the downtown.

Nevertheless, a few recent successes do indicate that the retail sector of Cranbury can be modestly expanded and upgraded with some effort. This includes the success of the expansion of outdoor dining opportunities in Cranbury in recent years, as well as the small walk-up window of the Gil and Bert’s ice cream store, which has become a popular destination. Thus, while it is unlikely that a large hardware store or pharmacy will return to the downtown, some other attractive retail establishments that do well in pedestrian-oriented, “Main Street” settings, may be attracted to some of the now vacant retail spaces. Anecdotal evidence suggests that there may be some demand for specialty boutiques such as small art galleries that would capitalize on the previously mentioned physical character and image of the downtown.

All of the necessary actions required to revitalize the downtown are beyond the scope of a master plan. The nature and scope of these issues require the particular focus of a separate effort, one involving the business community, inclusive of current business and property owners in the downtown, and government—including the above-mentioned boards. It is therefore recommended that a joint “revitalization committee” or task force be convened to explore specific actions and methods that could be employed to revitalize Main Street. Amongst the issues to be explored are the following:

- The use of wayfinding, directional and promotional signage along Route 130 and Cranbury’s east-west arterials that direct visitors to Main Street;
- A kiosk at the center of downtown, with maps and promotional material, directing visitors to restaurants and other visitor-oriented businesses on Main Street;
- Parking improvements—adding to the supply of parking downtown, and better signage to direct motorists to available off-street lots and parking on side streets (see Chapter 5, Circulation Element).
- Resurrect the Chamber of Commerce or start a merchants’ or business owners’ association to help with downtown promotions and management.

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- Consider additional events in the downtown—such as a farmers market or sidewalk sales, or a road or bike race, which bring visitors to downtown from adjacent communities and the region.
- Develop marketing and tenanting material that advertises and provides information about available vacant space, along with demographic information (population, spending power, housing prices, etc.) to re-tenant downtown's vacant spaces.
- Identify particular tenants that would have the potential to do well on Main Street, and target successful similar stores in adjacent towns and the region with possibly opening a similar store in Cranbury.
- Work on improving signage, lighting and pedestrian crossings on Main Street, to provide a safer, more attractive environment in the evening.
- Reexamine parking ratios and other requirements for downtown businesses that often require variances and discourage potential tenants from opening up stores in the downtown.
- Develop maps of pedestrian and bike paths through Cranbury, or which connect adjacent communities' residential areas, open spaces and greenways, to the downtown, to encourage visitors using these resources to fraternize downtown's businesses.
- Create a separate website (with links for the Cranbury website) that contains all of the other information and provides a list of potential spaces and job openings in downtown businesses.

These and other recommendations of the revitalization committee could go a long way to ensuring the health and attractiveness of downtown's retail sector in the future.

### **2. Expansion of Retail Opportunities**

Per the 1994 Master Plan, as well as subsequent Reexamination reports in 1999 and 2005, and as codified in the current Cranbury Land Development Ordinance, retail uses are essentially confined to the VC Village Commercial zone in Cranbury. This area is composed primarily of small lots with narrow frontages along both sides of Main Street, running from Brainerd Lake in the south to Westminster Place in the north. Only a few of the properties were designed, intended and constructed to accommodate retail uses. Most of the buildings in this portion of the Village are traditional, colonial single-family homes, some of which have had their first floor converted to retail uses, with the upper floors remaining as residential uses or used as offices. There are of course exceptions, particularly some of the properties located on the west side of Main Street, between Town Hall and the Post Office. However, even these properties contain smaller buildings, with smaller footprints that are unsuited to accommodate many of the types of retail businesses that demand a larger floor area to be feasible and competitive. Moreover, the market demand for retail uses in the Village Commercial zone is limited because the

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population which is within a 5- to 10-minute walk or drive of the VC zone is limited<sup>11</sup>, nor does Main Street carry a substantial amount of regional pass-through traffic. Most of the traffic uses the Turnpike or Route 130. Moreover, the distance and time involved in reaching downtown Cranbury from the industrial areas of Cranbury inhibits employees from visiting the downtown, and the limited array of commercial establishments does little to attract them or residents from the surrounding communities from visiting the downtown for daily convenience or comparative shopping purposes. There are some eating establishments and gift or decorative furniture stores that do attract visits from seniors and “tourists” on weekends, occasionally for lunch or dinner, but insufficient to fill the available retail spaces or give rise to the development of significant additional retail uses in the downtown.

At the same time, there are a series of retail stores—such as a convenience store, additional eating places or delis, banks, a hardware store, drug stores and the like which appear to be in demand from both the resident population as well as the employee population in Cranbury, that appears to be unsatisfied. Moreover, as evidenced by the proliferation of retail opportunities on Route 130 both north and south of Cranbury demonstrates the demand created by regional pass-by traffic. The combination of local demand—residents and employees—and regional pass-by traffic gives rise to demand for additional retail development along the Route 130 corridor in Cranbury.

Currently many properties in both the Highway Commercial zone and General Commercial zone in Cranbury are underutilized or marginal, or contain businesses that have done little to reinvest in or improve their businesses in recent years. Trucking, storage and older industrial/contractor yards proliferate. Low-density, auto-oriented uses—gas stations, auto sales and service—are present. The overall appearance, quality of merchandise offered, variety of goods and services available is substantially lacking, and the real estate potential and value of each as such does not reflect the good visibility and accessibility of these parcels to the regional marketplace. Allowing regionally- and locally-oriented convenience types of retail uses, but developed within attractive, well-designed, comprehensive and integrated retail centers (i.e., the opposite of strip-type retail centers found in other parts of the Route 130 corridor) could provide a boost to the image, viability, usability and value of the properties, thereby providing an array of needed retail services to residents and employees. At the same time, such retail uses, catering primarily to regional pass-by, auto-oriented traffic, would do little to hurt or compete with the smaller pedestrian-oriented, idiosyncratic retail establishments that exist in the Village.

Details relating to design and zoning considerations for these properties can be found in Chapter 4, the Community Design Element.

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<sup>11</sup> The entire population of Cranbury is around 4,000 persons, and no residential areas outside of Cranbury are within a 5- to 10-minute drive of the Village Commercial area.

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### **3. Revisions to Present Professional Office/Residential Zone**

There are two areas within Cranbury where the present PO/R zone is mapped: in the area referred to locally as “South Main Street,” which is to the north and south of Old Trenton Road on the west side of South Main Street; and on the west side of Route 130 just south of Cranbury Circle. A review of the current status of the properties shows that they are significantly underutilized. In the “South Main Street,” aside from a small professional office complex, the properties are largely vacant or occupied by marginal, deteriorated former farm/factory buildings. Along Route 130, there is a single large parcel which remains vacant. A review of the current Cranbury LDO reveals that the likely cause of this—use and bulk regulations which confine development to 2-acre single-family uses or small professional offices. Given the advantageous accessibility and visibility of these properties—to pass-by traffic on Old Trenton Road and along Route 130, again the opening up of opportunities for different uses might spur development and the generation of real estate taxes.

However, unlike the present Highway Commercial and General Commercial zones, the South Main Street currently zoned PO/R district is within the confines of lower-density residential development south of the downtown, where unlimited and larger-footprint retail development might clash with its neighbors. In this instance, a more mixed-use type of development—small-footprint, local service-oriented retail uses combined with lower-density, empty-nester oriented multi-family development, designed in a more “traditional” and sustainable form, with design requirements that mirror those of Cranbury’s more traditional mixed-use (retail/residential) uses, could be attractive in the marketplace, help to serve the convenience needs of Cranbury residents, and generate additional ratables. Multi-family developments, at these densities, with lower bedroom counts (i.e., studio, one- and two-bedroom units) would attract younger professionals and older empty-nesters, thus generating few school-age children but higher real estate values, thus having a positive fiscal impact on the community. Again, the details relating to the density and design considerations for this form of development in the two current PO/R districts is provided in Chapter 4, the Community Design Element of this Master Plan.

### **4. Increasing the Permitted Floor Area Ratios and Impervious Coverages of Cranbury’s Industrial Zones**

Substantial development within Cranbury’s “industrial areas”—in reality a more accurate description would be warehouse/office areas—reveals an opportunity to achieve two desirable goals at the same time: increasing ratables and environmental conservation. While such goals would appear to be at odds, the pattern and quality of development of the warehouse/office uses east of Route 130 in Cranbury has revealed how a simultaneous adjustment to its regulations on both ends—restricting the amount or development on environmentally-constrained land and allowing for higher yields of development on developable land—is possible.

In reviewing the developed area of Cranbury east of Route 130 the following is evident: on properties where there is an absence of environmentally-constrained land (i.e., no

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streams, stream corridors, wetlands, etc.), development intensities are very low, with substantial areas of open space, substantial distances between buildings, and deep setbacks. However on parcels which are environmentally-constrained, the development is usually confined, with buildings, parking, driveways squeezed close together, with lower setbacks and with little open space within the developed portion. Most of the open space within these developments are wetlands or stream corridor areas. To bring about a better balance between the developments which are located on unconstrained land and those on constrained land, it is suggested that 2 adjustments be considered to the Cranbury LDO:

- (1) Increase permitted Floor Area Ratios and permitted impervious coverages, along with a possible relaxation of setback standards); and
- (2) Adopt regulations which deduct environmentally-constrained land—wetlands and stream corridors primarily—from the area to which the floor area ratio and impervious coverage limitations are applied.

The impact of this would be as follows. On unconstrained land, development yields and hence the amount of real estate taxes generated would be higher, without detriment to the environment or visual character of the area. On substantially environmentally-constrained land, development yields would be lesser, avoiding situations in which development is compacted into one area of the site with little open space and separation between buildings, but still with reasonable development yields. Lesser environmentally-constrained land would produce a yield of development similar to that under current regulations; the deduction for constrained land would be counterbalanced by the higher development yields permitted, thus achieving yields similar to those which are achieved presently.

Cranbury still has a substantial amount of vacant land in the industrial zones; some of it has been approved for development; some of the parcels have applications which are in the “pipeline”; and some areas, e.g., east of the Turnpike and south of Brick Yard Road, are largely vacant. All of these areas represent opportunities for higher yields, but only where substantial environmental constraints are not present. Moreover, the adoption of these changes could also lead to higher yields on existing developed sites. There may be some existing developments which are close to or at the development yield maximum that may be given opportunities to slightly expand their floorplates, yielding additional development and ratables if and when market demand returns.

Finally, stands of mature trees on sites to be developed in Cranbury should be protected to the maximum extent possible. While land containing such features ought not to have their overall development yield reduced in the same manner as wetlands and stream corridors, regulations should be adopted to protect such stands of mature trees to the maximum extent practicable.

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### **5. Lower Minimum Lot Sizes in Certain Industrial Zones**

Market demand from the late 1980s through the 1990s and up till recently in the warehouse/office market has been for ever-increasing floorplates. Applications and informal development reviews until the recent economic recession focused on obtaining larger warehouse-office buildings—a million square feet or more—because prospective tenants and warehouse/office developers saw opportunities to fill these spaces with one tenant, who needed the slightly larger floorplates to operate a highly-computerized, mechanized warehouse space in an intensive manner. Moreover, if there was no single tenant for the same space, there was substantial demand for space at half or quarter the size (half or quarter of a million square feet), so that larger building spaces could be subdividable into 2 or 4 separate spaces. With the downturn in the economy, millions of square feet of vacant warehouse-office space now exist in Cranbury, most of it in large pieces—leasable and suitable only for the larger-footprint type tenants.

What Cranbury's regulations have encouraged through minimum lot sizes of 5 acres or more for warehouses, is the larger-footprint warehouses and the attraction of large corporate-oriented warehouse uses. Thus, smaller businesses, needing only a few thousand square feet of space to start a business, or to support a smaller business with lesser storage needs or storing smaller, high-value items, have been shut out. With a strong economy and the success of the Exit 8A area being able to establish itself as a warehouse/office center with an international reputation and clientele, this was not a problem. Now, however, when there is increasing competition in the marketplace for tenants, Cranbury is missing out. Moreover, it is anticipated that as the economy strengthens, there will be a greater demand and growth in smaller businesses, and development in this sector will be focused on smaller, stand-alone warehouse/office or flex spaces, or even condominium-style warehouse office parks. Such a demand has been in evidence recently with applicants for the redevelopment of small parcels on Hightstown Cranbury Station Road, south of Brick Yard Road. By selectively reducing the required minimum lot sizes in the industrial zones, along with increasing the permitted yields on unconstrained land, Cranbury will put itself in a strong competitive position in the marketplace, helping it to capitalize on demand and increase its ratable base in the future, as the economy strengthens and demand returns. In addition, the buffers and setbacks between warehouse office development and existing residential development should be increased and strengthened. This would include rear yard and side yard setbacks in such instances.

### **6. Wind and Solar Energy Facilities in Industrial Zones**

Wind and solar energy generating facilities are expected to be increasingly developed in the next decade because of a variety of economic and political factors known to all: the move away from dependence on fossil fuels, for environmental and international strategic reasons, and the economic opportunities present in the "green energy movement." The State of New Jersey has been at the forefront of this, having adopted a Statewide Plan for Sustainability, and legislation which makes it easier to overcome potential land

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use regulatory barriers which would otherwise restrict or prevent such facilities from being developed. Legislation which recognizes such facilities as inherently beneficial uses, and which permits such facilities in industrial zones on parcels in excess of 20 acres, as-of-right, are two examples.

It is recommended that wind and solar energy generating facilities be permitted in all of Cranbury's industrial zones, on smaller parcels<sup>12</sup>, but subject to other controls to ensure they are safe, compatible with surrounding land uses, and attractive. One of the inherent benefits of such facilities is that they can be developed in concert with or in addition to existing as well as new industrial uses. Placing arrays of solar panels on the roofs of large warehouse buildings is particularly economically feasible. Recent breakthroughs in technologies now allow solar panels to be placed in canopy-like form over parking spaces. In these instances, rather than consuming large open developable facilities, or other productive farmland or usable open space, solar energy can be generated without consuming additional land. Likewise, the values of such developments are improved, leading to higher ratables and increased property taxes. The environmental benefits are also substantial.

At the same time, Cranbury's LDO needs to explicitly prohibit or substantially curtail the development of such facilities in the agricultural preservation zone, where their presence would be aesthetically incongruous with the preserved rural, agricultural landscape. Perhaps very small and limited facilities (such as solar panels on the roofs of single-family residences) would be appropriate, but large wind turbines or solar farms would not. By encouraging them and confining them to Cranbury's industrial areas, economic, environmental and preservation goals in this Master Plan can be achieved.

### **7. Expediting Development Reviews**

On the whole, the process by which applications for development are handled in Cranbury, from the point of conception through approval, and the cost thereof, is reasonable—particularly in comparison to many municipalities in the region. However, the process seems to be working well for large-scale, warehouse office developers and for commercial developments, but less so for single-family residential owners, or for small businesses.

A particular strength of Cranbury's approval process, which is required to follow State law but is permitted to add an informal review process, is that it relies heavily on the informal review of development applications prior to their being filed, or prior to their being deemed complete to start the official "clock," at a committee known as the Development Review Committee, or DRC. Comprised of two members of the Planning Board, one member of the Zoning Board, as well as the Township Engineer and Planner, the DRC performs a number of functions. It assists applicants in understanding the development application process and assists applicants in preparing for formal hearings. It advises applicants on ways in which to strengthen their applications, avoid variances or waivers

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<sup>12</sup> In deference to State law where such uses are only permitted as-of-right on industrial parcels of 20 acres or more.

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where possible or which appear unlikely to be granted, and in complying with submission requirements. It also is the entity in Cranbury that deems applications complete.

While these functions have been particularly helpful to larger non-residential applications over the years, and to homeowners, who are unaware or unfamiliar with the approval process, many within the small business community have seen the application process to be time-consuming, expensive and often-times unnecessary. It appears that there are a number of ways the application process can be streamlined, made to be more business-friendly and less cumbersome in those cases where applications need only minor changes. These are as follows:

- (1) It should be made clear that an appearance at the DRC should be optional, not mandatory. It presently is, but often-times, applicants have to return to the DRC prior to being deemed complete. Applicants should be encouraged, but not mandated, to appear at the DRC.
- (2) Applications should not be required to be deemed complete by the DRC. Since deeming an application complete is a technical matter, the Planning and/or Zoning Board's engineer should be given the task of making this determination without the need for the application to appear before or return to the DRC. This will shorten the process and make it less expensive.
- (3) Changes of tenancy, where one permitted use replaces another and requires no variances or changes to a site plan, should be permitted without having to seek site plan approval—unless the use requires more parking than is provided and would thus create a variance for a parking deficiency.
- (4) The definition or criteria for deeming a site plan application as a minor site plan should be expanded. Under the current LDO, minor site plan applications need not provide plans as detailed as those required for major site plans, and can be approved by the DRC at an informal meeting, as opposed to a formal Planning Board meeting subject to notice. This would obviate the need for fully engineered plans to be provided, and for having professionals appear at Planning Board hearings, in cases that could be handled more administratively.

A simplification of the application review process, making informal review optional, broadening the definition of minor site plan and exempting changes of occupancy from having to seek site plan approval will go a long way to lessening the time and cost small business owners must expend on applications which are neither substantial nor involved major changes or where discretionary decision making is required.

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### CHAPTER 10. UTILITY PLAN ELEMENT

#### **A. INTRODUCTION**

The Utility Plan Element analyzes primarily the public water supply, sewerage and waste water treatment, solid waste disposal and stormwater management facilities in Cranbury Township, but also describes other utility services, including gas, electric, telephone, cable TV and internet access. Future utility needs are analyzed based on anticipated population and land use demands, and recommendations are made for possible future extensions or upgrades.

#### **B. WASTEWATER ELEMENT**

The Township itself does not have facilities to treat sewage. Sewage treatment is performed by the Middlesex County Utilities Authority at their treatment plant located in Sayreville, New Jersey. Sewage flows from the Township through the South Brunswick Township sewer system to the Middlesex County Utility Authority intercept where it is then directed to the treatment facility in Sayreville. All sewage flows from Cranbury are transmitted through the Dey Road pump station where it is metered for total flow. Cranbury requires developer agreements for contributions to the Township facilities, if such developments connect to the public sewer system. It should be noted that as per an agreement with South Brunswick Township in 2001, there are certain restrictions in place that restrict the capacity that is available to Cranbury for sewage flows through its system, as well as payments for such a service to Cranbury. Cranbury Township does not maintain its sewer system; it is maintained by Monroe Township.

As part of this review, the location of the current sewers in the township and their relation to the Sewer Service Area was compared to the current Zoning Map. The Sewer Service Area was derived from previously prepared maps of the Township and also compared to plans prepared by the Middlesex County Planning Department as part of their preparation of plans for the County's Waste Water Management Plan, dated October 2010. This Master Plan does not recommend making any changes to the current sewer service area in Cranbury, and in particular does not recommend incorporation of the Viridian property (also known as the "Cranbury Brick Yard Road, LLC" property) into the sewer service area.<sup>13</sup>

Most of the properties located on the west side of Route 130 are zoned residential. The sewer service area, however, does not include all the residential area. Most of the acreage within the sewer service area has been developed; only a few parcels on Cranbury Neck Road in Block 21 and on South Main Street in Block 18.07 remain as open parcels. While there are substantial undeveloped areas outside the sewer service area, sewers cannot be extended without a revision to the Waste Water Management Plan. Without

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<sup>13</sup> The Cranbury Township Committee adopted resolutions in 2007 and again in 2010 which affirmed the current sewer service area, and determination not to incorporate the Viridian property within the Sewer Service Area.

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an amendment to the Waste Water Management Plan, development in this area will not affect the capacity of the sanitary sewer system.

The area on the east side of Route 130 is primarily zoned for light industrial, office, warehouse or commercial development. For the most part these areas are included in the sewer service area. The exceptions are the areas south of Brick Yard Road and portions of Blocks 10 and 13 adjacent to and north of Brick Yard Road.

Table 10-1 below sets forth the six Cranbury Township-owned sanitary sewer pump stations, including their location (by block and lot) and their rated pumping capacity. Since major increases in the generation of wastewater flows were generated on the east side of Route 130, the Township, beginning in 1999, began a series of upgrades to the facilities in the sewer service area. The facilities upgraded/replaced/constructed were the Half Acre Road Pump Station and Force Main, the Dey Road Pump Station and Force Main, and the Route 130 Interceptor.

**Table 10-1**

**Cranbury Township-Owned Sanitary Sewer Pump Stations**

Pump Station Name	Location		Rated Capacity (mgd)	Initially Constructed	
	Block	Lot		Township	Developer
Stites Drive	18.05	15	0.43		X
Four Seasons	20	10.02	0.07		X
Cranbury Brook	23	121	0.72	X	
Station Road	7	20.021	0.245		X
Half Acre Road	7	8.01	1.75	X	
Dey Road	1.01	1	4.54	X	

These improvements increased the capacity of the sewer system to meet existing and future needs in accordance with the zoning.

In reviewing the future potential needs of the system, no upgrades are needed to meet capacity deficits caused by existing, approved, or future development planned or anticipated under the current zoning. There is the potential need to upgrade or replace the Cranbury Brook Pump Station. However, this recommendation is intended to replace old equipment, not to expand capacity.

### **C. WATER ELEMENT**

No portion of the public water supply system in Cranbury is currently owned by the Township. The Township water supply system was originally owned by the Township but was sold to the Elizabethtown Water Company in 1993 when they became the New Jersey American Water Company (NJAWC), a privately-held public utility. All water is now supplied by New Jersey American Water Company. The bulk of the water is supplied from above ground water resources treated in plants in both Bridgewater and Franklin Townships in Somerset County. A water tower on the east side of the Township, which holds 1.5 million gallons, provides both storage and regulates system pressure. Wells, and an above-ground water tank, were located in the Village (on Maple-

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wood Avenue, behind the Sweetwater Construction Company site). This water source was eliminated due to contamination and switched to above-ground sources.

According to the NJAWC planning department, the recently completed, 2008-2009 installation of a twenty (20") inch water main in Plainsboro Road was the only improvement needed to provide the Township with the necessary water supply and fire protection for the existing and foreseeable future.

NJAWC reviews all applications in the Township and performs an hydraulic analysis of development's demand on their system. In cases where an upgrade is necessary solely for the application being reviewed, the developer must pay for the total cost of the upgrade. Where the upgrade may be necessary for multiple users, the developer is responsible only for their fair share of the costs.

### **D. STORMWATER ELEMENT**

In 2004 the State of New Jersey adopted a comprehensive Stormwater Management Plan that addressed both the quantity and quality of stormwater runoff with which Cranbury is compliant, as described below. Each municipality in the State became responsible not only for insuring new developments met the new regulations, but also to make changes to existing municipal operations and infrastructure. As part of the plan, each municipality was issued a General Permit with certain actions that they were required to meet within timelines established in the permit. In recognition of the difference between large and small municipalities, the State created a two-tier system with larger municipalities with greater resources placed in Tier A and smaller ones in Tier B. Cranbury is a Tier A municipality.

Some of the requirements placed on the Municipalities were:

Adopt Ordinances to eliminate non-point pollution (e.g. pet litter, yard waste collection, litter control, etc.);

1. Retrofit inlet headpieces during road construction to a type that reduces the amount of floatables and organics entering the stormwater system;
2. Repair in the instances of where erosion was caused by municipal storm sewer outfalls;
3. Require street sweeping at set times;
4. Establish a regimen of yearly cleaning of inlets to remove debris; and
5. Establish housekeeping routines at public works and other municipal yards.

For new development the regulations:

1. The provision of guidance in the way in which the stormwater runoff volume should be calculated;
2. The setting of limits on the rate of post-development stormwater that can be released;

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3. The setting of requirements on the amount of suspended solids that must be removed before releasing the stormwater offsite;
4. The provision of guidance on methods of site design that decrease the amount of stormwater runoff and reduce the amount of total solids generated by development;
5. The setting of requirements for recharging rainfall back into the ground that would normally be lost due to development.

The Township is responsible to review the developments according to the new rules and insure that the plans are built correctly and routinely inspected and maintained to provide long term viability of the systems.

A more comprehensive listing of the permit requirements can be found in the Tier A Stormwater Management Plan and the attachments to General Permit issued to the Township every five (5) years. In summary, the new permits and their requirements address many of the concerns and goals found in the Master Plan.

As indicated previously, Cranbury is presently in compliance with NJDEP's Stormwater Management requirements. The Township is required to submit reports annually, which reports are kept on file in the Township Clerk's office. Aside from compliance, such reports also contain outfall mapping, and other current information and certification. The Township Municipal Stormwater Management Plan is also on file at the Township Clerk's office.

### **E. SOLID WASTE DISPOSAL**

The Township currently does not provide solid waste pick up for residents or any commercial or industrial users. Each property owner must contract separately with a private carter to provide this service. Currently the Township is exploring the possibility to provide a system where a single waste collection company would provide services for the entire Township at a cost to be fixed by a public bid.

The Township provides a Cleanup weekend once a year to allow residents to discard bulk items. These items are brought to the Public Works Yard where bulk containers are provided.

Recycling is provided under a contract with the Middlesex County Utilities Authority. Glass, Paper and paper are collected under this contract. (Additional details of the Recycling Program can be found in Chapter 13.)

The Township provides roadside leaf collection every fall on a weekly basis and recycles the material collected.

### **F. GAS AND ELECTRIC**

Electric and natural gas is provided to Cranbury by Public Service Electric and Gas Company (PSE&G), one of the largest combined electric and gas companies in the United State and is also New Jersey's oldest and largest publicly-owned utility.

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### **G. TELEPHONE**

Telephone lines in the Township are owned, operated and maintained by Verizon. Verizon is the largest local telephone service operator in the United States.

In 2005, the Zoning Board of Adjustment denied an application for a variance to Omnipoint Communications Inc. who wished to install a 150-foot tall monopole cell tower at 469 Cranbury Road. The proposed site was 3.2 acres in size and located within the Township's professional office zone. Many residents expressed opposition to the application because of the site's close proximity to existing homes. The Township Code requires that cell towers must be at least 1,000 feet from the nearest residential home. Omnipoint's proposed tower was less than 150 feet from the closest home. The application was denied, and Omnipoint sued the Township. The court upheld the Zoning Board's denial, and upheld the Township's zoning requirements for cell towers.

Two cell towers in the Township are located on privately owned land. One is on Block 7, Lot 23.02 in the HC (Highway Commercial Zone) at 2682 Route 130. The other is located on Block 16, Lot 6 in the I-LI (Industrial- Light Industrial Zone) at 44 Cranbury Station Road. Both towers are in the commercial and industrial areas that characterize Route 130 and land to its east.

There is a firehouse tower (built in the 1990s) located in Memorial Park near the firehouse. At one time the Township considered utilizing an expanded version of the tower for accommodating wireless antennas. However, the tower is in a Historic District and was determined not to be an appropriate location for such a facility.

### **H. CABLE TV AND INTERNET ACCESS**

Comcast is the cable television provider to the Township. Comcast provides cable television service to a number of communities throughout New Jersey. Utilizing their cable infrastructure, Comcast also provides high-speed cable broadband internet and phone service. Verizon is also a provider of DSL broadband Internet Service; Cranbury is one of the communities in Middlesex County where Verizon offers fiber-optic high-speed Internet service, FIOS.

### **I. RECOMMENDATIONS**

Much of the Utility Plan Element (see Chapter 2, Goals and Objectives) are, or can be, met through the following actions:

1. Enforcing the Stormwater Regulations adopted by the State of New Jersey of Water Quality Standards in 2004. Many of the issues regarding the need for clean stormwater runoff, protection of environmentally sensitive areas and the promotion of groundwater recharge are now addressed with performance standards and recommended designs.
2. Enforcing the Flood Hazard Regulations adopted in 2007 which has a goal of protecting streams and tributary areas by providing new buffers along drainage ways.

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3. Inspecting and maintaining stormwater management devices installed as part of the 2004 regulations. It will be necessary for the Township to require owners of these devices to perform inspections as outlined in operating manuals to maintain optimal performance.
4. Compliance with the Tier A permit requirements as they relate to housekeeping items at Township facilities and the adoption and enforcement of the required ordinances.

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### CHAPTER 11. AGRICULTURAL PRESERVATION ELEMENT

#### **A. INTRODUCTION**

The shape of today's Cranbury Village is inextricably linked to its agricultural past: the village arose as a central place to serve the many farms located throughout the surrounding area. An overriding goal of this Master Plan is to preserve the rural character of the Township. The preparation of this Farmland Preservation Plan serves to affirm the importance of the agricultural community in Cranbury.

It is recognized there are a number of benefits associated with agricultural land, including the tangible benefits of providing a wildlife habitat, open space and the reduction of groundwater runoff, as well as the intangible benefits of preserving scenic views and maintaining the rural character of the community. Perseveration of farmland further serves to maintain the "hard edge" between the village area and the outlying farmland area, another goal of this Master Plan.

Cranbury's local farmland preservation program is complimented by the Township's participation in the New Jersey Farmland Preservation Program, as well as the Green Acres program and Middlesex County open space programs, which allows the Township to preserve open space for recreational purposes and to protect natural resources. Cranbury has actively worked with the Middlesex County Agricultural Development Board to establish the local Agricultural Development Area and preserve farmland within the area.

#### **B. INVENTORY OF FARM PROPERTIES**

Agricultural uses are particularly encouraged in the western portion of Cranbury; this area has been designated as the "Farmland Preservation Area" and is comprised of the A-100 Agricultural Preservation district. Loss of farmland has been considerably slowed in recent years despite the rapid pace of warehousing, research and office development that has occurred east of Route 130, proximate to the New Jersey Turnpike. The majority of the farmland that has been lost in Cranbury in recent years has been due to residential development in western Cranbury. Nevertheless, the Township, Middlesex County and State of New Jersey's investment of significant resources to preserve farmland have paid off and thousands of acres of farmland have been permanently preserved.

In 1992, over 5,720 acres of land was actively farmed in Cranbury, or 66% of the Township's land area; by 1999, total farmland acreage in Cranbury had declined to 5,184 acres. As per the Middlesex County Comprehensive Farmland Preservation Plan, Cranbury's farmland acreage in 2004 was 4,786 acres, or 55% of the Township's land area. Cranbury's tax records indicate that, at the time of the most recent assessment (2010) there were still 4,622 acres of qualified farmland in the Township, a decline of only 1% since 2004.

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**Table 11-1: Total Agricultural Land Use**

	Farmland Acreage	Percent of Land Area	
1992	5,729		66%
1999	5,184		60%
2004	4,786		55%
2010	4,622		54%

A complete inventory of the agricultural properties that constitute the Cranbury Farmland Preservation Area can be found in Table 11-2 below.

**Table 11-2. Preserved Farmland**

Block	Lot	Acreage	Zone
14	14.01	105.6	I-LI
14	14.02	5	I-LI
21	4	50.30	RLD-3
21	6	210	A-100
21	8.19	28.7	A-100
22	1	18.99	A-100
22	2	79.18	A-100
22	3	119.8	A-100
22	4	56.2	A-100
22	6	133.38	A-100
22	7	88.14	A-100
22	8.01	70.87	A-100
22	10	49.90	A-100
22	14	68.4	A-100
23	1	53.59	A-100
23	2	124.6	A-100
23	3	182.80	A-100
23	11	185.91	A-100
23	12	130.00	A-100
23	13	19.55	RLD-3
23	14.03	19.33	RLD-3
23	99	78.5	A-100
23	100	43	A-100
23	102	150	A-100
23	103	19.52	A-100
23	104	38	A-100
24	1	133	A-100
24	2.01	19.7	A-100
24	4	59.55	A-100
24	9.01	8.6	A-100
25	3	69.55	R-LI
25	4	7.6	R-LI
25	19	60	A-100
25	31	83	A-100
25	40	105.04	A-100
25	42	36	A-100
<b>Total Acreage</b>		<b>2,711.50</b>	

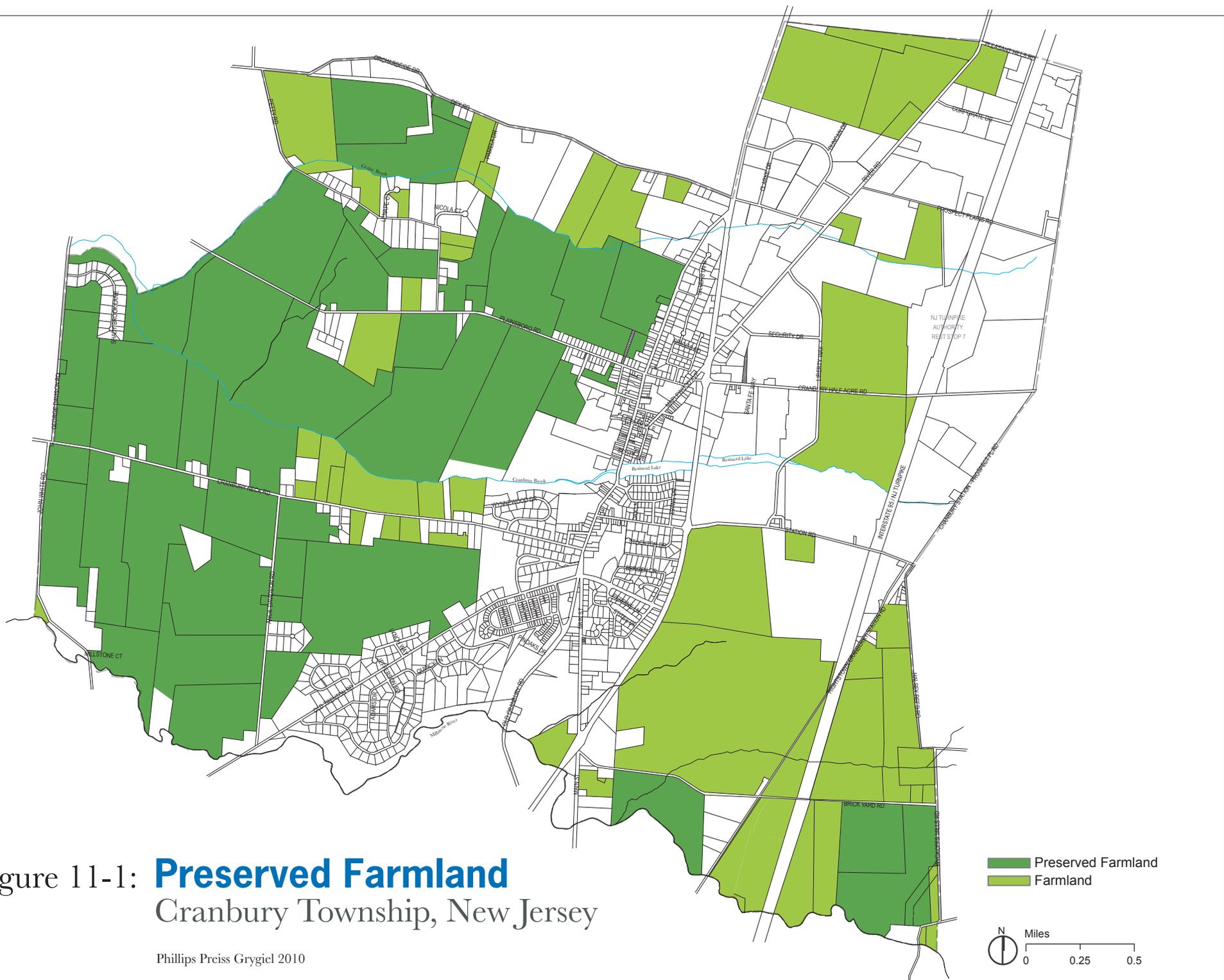


Figure 11-1: **Preserved Farmland**  
Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010

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Recent acquisitions include the Lum, Toscano and Reinhard North properties, as well as two Kurek properties east of the New Jersey Turnpike. The total area of preserved farmland in Cranbury is 2,711.5 acres.

### **C. MUNICIPAL SUPPORT FOR AGRICULTURE**

The Township has preserved its agricultural heritage through various mechanisms, including the purchase of development rights through the New Jersey Farmland Preservation Program, encouraging lot averaged development and the acquisition of key properties, among others.

#### **Right to Farm Ordinance (Chapter 81 of the Cranbury Code)**

The Township adopted a Right to Farm ordinance in 1980. The “Right to Farm”, as described in the Cranbury Code, includes “the use of large irrigation pumps and equipment, aerial and ground seeding and spraying, large tractors, numerous farm laborers and the application of chemical fertilizers and products for the control and elimination of insects, pests, weeds, fungus and other substances injurious to the farming process or for the purpose of producing from the land agricultural products, such as vegetables, grains, hay, fruits, fibers, potatoes, wood, trees, plants, shrubs, flowers and seeds. This right to farm shall also include the right to use land for grazing by animals, subject to the restrictions contained elsewhere in this Code for raising livestock.”

The ordinance further states: “It is expressly found that whatever temporary inconveniences may be caused to others by such uses and activities so conducted, they are more often that offset by the benefits from farming to the neighborhood and community and to society in general, by the preservation of open space and the beauty of the countryside and clean air and by the preservation and continuance of farming operations in Cranbury Township and in New Jersey as a source of agricultural products for this and future generations.”

The Right to Farm program has established a formal conflict resolution process to help farmers, neighbors and municipalities resolve disputes arising from the operation of a commercial farm. To be eligible for protections of the Right to Farm Act, a commercial farm must be in compliance with agricultural management practices (AMPs) that have been adopted by the State Development Committee, or other generally accepted agricultural management practices.

#### **Zoning**

The Township has two zone districts (the A-100 and R-LI Districts) that encourage agricultural uses in the western portion of the Township. The Township also has a low-density residential zone (RLD-3) which is intended to provide for a transition or low-density buffer between preserved agricultural land and residential development. In terms of the primary zoning tool utilized to preserve farmland in Cranbury, the most notable is the Agricultural Preservation zone (A-100) with a minimum lot size of six acres. The Residential-Light Impact zone (RL-I) has a minimum lot size of four acres, and is intended to minimize development impacts in environmentally sensitive areas. The

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Residential-Low Density (RLD-3) zone, found in several locations adjacent to the Cranbury’s downtown area, has a minimum lot area of four acres for conventional development and a maximum density of one unit per three acres for lot averaged development. This is intended to maintain the distinctive “hard edge” of Cranbury’s village center.

Only the A-100 zone and the RLD-3 zone permit lot averaging subdivisions. Since some fairly large, actively farmed parcels of land that may be subject to conventional large-lot subdivisions still exist in the R-LI District, Cranbury should consider allowing lot averaging in this district too, as a means of preserving farmland on these tracts.

**Lot Averaging**

Clustering or lot averaging is permitted in the Agricultural Preservation zone (A-100) and the R-LD3 zone in Cranbury. In the A-100 district it has a minimum lot area of six acres, but offers the option of reducing minimum lot size to approximately one acre, provided at least 70 percent of the tract is preserved as open space. A bonus of increasing the density by 25 percent over that which could be developed in a conventional subdivision if at least 70 percent of the land is permanently deed restricted for open space and/or agriculture is provided for. As indicated above, permitting lot averaging in the R-LI district is recommended as a further means of preserving agricultural land in the Township.

**D. PROPERTIES TO BE ACQUIRED**

The remaining properties that have not yet been preserved are included in Table 11-3 below and are important to preserving the long-term viability of agriculture in Cranbury. Of particular importance are the Malouf property (Block 23, Lot 97, 38.53 acres in size) and the Reinhardt South property (Block 23, Lot 8, 41.15 acres in size).

**Table 11-3. Targeted Farmland**

<b>Block</b>	<b>Lot</b>	<b>Acreage</b>	<b>Zone</b>
22	5	11.25	A-100
22	11	38.32	A-100
23	8	41.15	A-100
23	97	38.53	A-100
23	98	19.06	A-100
23	120	15.86	A-100
23	141	13.10	A-100
25	1	74.90	R-LI
25	7	32	R-LI
25	8	49.4	R-LI
25	44.03	44.25	A-100
25	60.01	30.33	A-100

**RECOMMENDATIONS**

**1. Continue to support farmland preservation in Cranbury**

Cranbury has had great success with its farmland preservation program. While a number of key farm properties have been acquired since the program’s inception, there are

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several important parcels remaining. The Agricultural Preservation Element of the Master Plan recommends that, as agricultural properties become available, the Township should evaluate each for its suitability for preservation and include them in the Farmland Preservation Program as appropriate. Key parcels to acquire include the Malouf and Reinhardt South properties described above.

### **2. Adopt Lot-Averaging Provisions in the R-LI District**

The largest vacant, developable and farmed parcels of land in Cranbury that remain to the west of the Village are located in the R-LI District, i.e. west of Route 130 and north of Dey Road. Lot averaging subdivisions have helped to preserve some agricultural land in the A-100 zone in Cranbury in the past 15 years, and there is no reason why similar provisions ought not to be applied to the R-LI District. Similar requirements in terms of preservation and density bonuses ought to be available to avoid conventional suburban sprawl-like subdivisions and the loss of all farming on such properties.

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### CHAPTER 12. RECYCLING

The New Jersey Mandatory Statewide Source Separation and Recycling Act of 1987 (N.J.S.A. 13: 1E-99.11 et. seq.) requires that municipalities incorporate state recycling goals for the collection, disposition and marketing of designated recyclable materials as a component of their Master Plan. To that end, the Township of Cranbury created a local recycling program to address the need to decrease solid waste generation and increase the amount of goods recycled in the Township, and designated a recycling coordinator who is responsible for providing annual reports to the New Jersey Department of Environmental Protection (NJDEP).

The primary goal of the recycling program in Cranbury is to maintain compliance with regulations from the Department of Environmental Protection and Department of Energy pertaining to solid waste collection and recycling, while providing residents of the Township comprehensive service at a reasonable rate. The Township currently contracts with the Middlesex County Improvement Authority (MCIA) to provide curbside recycling collection every other Monday, while the recycling coordinator oversees the recycling collection program on a day-to-day basis. Residents may recycle the following items during regular, bi-weekly curbside collections: aluminum cans; glass bottles and jars; steel and tin cans; plastic milk, water, soda and laundry bottles; newspaper; corrugated cardboard; mixed paper, such as magazines, office paper and junk mail; clean, dry textiles that are larger than 12 square inches; and shoes, belts and handbags.

The Cranbury Department of Public Works (DPW) is responsible for collecting brush, leaves and grass on the third Wednesday of each month; residents must call DPW to schedule a pick up. Fall leaves are collected regularly from mid-October through late December, and spring leaves from late March through early May. State stormwater regulations stipulate that yard waste may not be placed along the street more than seven days prior to scheduled collection, nor may they be placed closer than 10 feet from a storm sewer inlet unless they are bagged or otherwise contained. As such, Cranbury has adopted ordinances to direct residents' handling of yard waste: Ordinance 120-4.C (2) requires that all leaves to be collected must be placed between the curb and sidewalk for pickup and Ordinance 120-4.C (3)(b) requires that all material to be chipped should be placed at the curb on the collection day.

In addition to curbside collection of yard waste, DPW also picks up, upon request, electronic and white goods for recycling on the second Wednesday of each month; a fee of \$10.00 is levied for each item. Electronic waste may include televisions, VCRs, computer equipment, laptops, telephones, irons, fluorescent lamps and bulbs, compact fluorescent bulbs and undamaged mercury containing devices (e.g. thermostats and thermometers). White goods collected by the Township include washers and dryers, stoves and ovens, refrigerators and freezers, air conditioners, grills, water heater tanks, dishwashers, metal storm doors without glass window inserts, humidifiers and dehumidifiers,

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water coolers, metal sinks and residential kitchen exhaust fans. The DPW serves as the Township's point of contact in the event residents have questions regarding the suitability of an item for recycling collection. DPW is also responsible for staffing the Township's recycling center where residents can drop off electronic waste; the "Recycling Shed" is located in DPW yard, and is open from 12:00 pm to 3:00 pm on the first Friday of every month.

In 2006, the Township adopted requirements for the recycling of construction and demolition waste. The requirements state that at the time of issuance of any building permit, the building code official will provide written instruction on proper disposal and recycling of construction and demolition waste and furnish a Notification of Construction/Demolition Activity Form that must be filled out by the permitted and faxed to the Middlesex County Division of Solid Waste Management (MCDSWM) within 48 hours of issuance of a municipal permit.

The MCDSWM offers several recycling programs to county residents. Mobile shredding events are scheduled at least several times per month at various locations throughout the county, where residents can securely recycle confidential files and documents. Documents recommended for shredding include old files, receipts, bills, financial statements and any other documents that have not been recycled due to confidentiality concerns. Additionally, Middlesex County residents may drop off paint and paint-related items at designated sites in the county on the fourth Saturday of every month from 8:00 am through 4:00 pm; though there is not a drop off location in Cranbury, there is one in adjacent South Brunswick Township. MCIA and Middlesex County sponsor a county-wide book recycling program for students. Students receive "hands-on" recycling education by donating outdated hardcover and soft cover books that can no longer be used, sold or given away; to reward students for their efforts, the recycling processor pays them for each ton recycled. MCIA also provides for tire and additional household hazardous waste collection through regularly scheduled drop off programs throughout the county.

The Township does not provide garbage collection; rather, residents must contract with private haulers for this service. A referendum will be included on Cranbury's ballot in November 2010 to help determine whether residents would like the Township to investigate offering municipal garbage collection services (i.e. garbage collection once per week during the year, except for the summer months when trash pick up would be twice weekly). Midco and Waste Management are two companies that serve Cranbury. As per state requirements, trash and roll-off bins in the Township are now covered to eliminate litter and discourage the spread of rats and other pests.

### **RECOMMENDATIONS**

According to the New Jersey Statewide Mandatory Source Separation and Recycling Act (P.L. 1987, c.102, or NJSA 13:1E-99.11 et seq.), leaves must be source separated and recycled. Grass clippings also may be included at specially permitted vegetative composting sites, and perhaps soon at mulching sites. However, backyard composting has

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been widely practiced and well accepted for many years. Residents can help the local government by reducing organic (leaf and other yard trimmings) materials at the source through home composting practices.

This Master Plan recommends that the Township encourage backyard composting as a part of its overall yard waste management program. All municipal collection, processing, and distribution costs are avoided for leaves and yard trimmings that are composted by residents. Additionally, other materials such as grass clippings and fruit and vegetable scraps can be included in backyard composting, thus reducing handling of these wastes by the municipality as well.

Grass clippings are another major component of municipal solid waste. Lawn experts have shown that grass clippings left on your lawn act as a natural fertilizer. This Master Plan recommends that the Township encourage residents to leave the clippings on the lawn. The clippings will then filter down to the soil, acting as a natural fertilizer. The lawn will be healthier, and the taller grass will shade the soil, cooling roots and limiting weeds.

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### CHAPTER 13. GREEN BUILDINGS AND ENVIRONMENTAL SUSTAINABILITY PLAN

#### **A. INTRODUCTION**

Over the past few years, the argument about global climate change has shifted from debating its existence to strategizing about how to address it. Mounting evidence indicates that global warming and climate change are caused by increasing concentrations of greenhouse gasses (GHG) in our atmosphere which act like a greenhouse, trapping the sun's ray close to the earth's surface, thereby raising global temperatures. The U.S. Department of Energy states that today's buildings consume more energy than any other sector of the nation's economy, including transportation and industry. Inefficient building construction, materials, and insulation are major sources of GHG emissions.

Municipal planning for "green buildings and environmental sustainability" is a new and dynamic field. The 2008 statutory authorization for this plan element is among the most recent amendments to the Municipal Land Use Law. According to NJSA:40:55D-28b(16), a Green Buildings and Environmental Sustainability Plan Element:

"...shall provide for, encourage, and promote the efficient use of natural resources; consider the impact of buildings on the local, regional and global environment; allow ecosystems to function naturally; conserve and reuse water; treat storm water on site; and optimize climatic conditions through site orientation and design."

The MLUL focus is on integrating local planning goals and objectives in a way that addresses this new provision in the law. Community goals and objectives can be expected to change and evolve rapidly as new and innovative green approaches are conceived and developed. However, it is critical that this plan element reinforce and not detract from Cranbury's established community character, the protection of which is the key goal of this Master Plan.

Although the terms "green" and "sustainable" have become commonplace in today's lexicon, it is important to define them. "Green" building is a collection of design, construction, and operating practices that have the potential to address energy efficiency, reduction of pollutants, water conservation, waste reduction, healthy and sustainably produced materials, indoor air quality, occupant productivity and health, and other components of green building and sustainable development. "Sustainability" is described by the American Planning Association as, "the capability to equitably meet the vital human needs of the present without compromising the ability of future generation to meet their own needs by preserving and protecting the area's ecosystems and natural resources."

#### **B. EXISTING SUSTAINABILITY EFFORTS**

The Township of Cranbury has already made a great effort towards becoming a sustainable community as is described below.

## **2010 Cranbury Township Master Plan**

### **1. Farmland and Open Space Preservation**

Where and how development takes place is one of the single largest determinants of long-term quality of life and sustainability in New Jersey, and globally. More recent development patterns have favored greenfield, low-density, and auto-dependant sprawl, resulting in land consumption rates that exceed population growth, loss of wildlife habitat, and impaired ecosystems, as well as urban disinvestment. Cranbury has been a strong supporter of agricultural and open space preservation. Through its participation in the New Jersey Farmland Preservation Program, Township acquisitions, lot averaging, zoning and other means, Cranbury has permanently preserved over 2,000 acres of farmland constituting over 50 percent of the total land area. The Township enacted a Right-to-Farm ordinance to provide further protection for agricultural operations. The presence of farms in Cranbury also allows residents to buy locally grown, fresh vegetables and fruit.

Through Green Acres funding, an open space tax adopted in 2000, and County and other funding sources, the Township has reserved approximately 866 acres, or 10 percent of its total land area, for open space, parks and recreation areas. Land set aside allows for different forms of recreation including active and passive recreation as well as space for “alternative forms” of recreation such as Frisbee throwing, kite flying, etc.

### **2. Environmental Resource Inventory**

In 2006, an Environmental Resource Inventory (ERI) for Cranbury was prepared, which identifies and describes the priority natural resources, cultural conditions and environmental features within the Township. The ERI provides both visual depictions of natural resources in the form of mapping, information and text, that describes these resources, their sensitivities, limitations for development, and suggested measures for their protection.

### **3. Municipal Energy Audit**

In 2007, a group of volunteers formed a Sustainability/ Alternative Energy Workgroup to find ways to conserve resources while reducing costs and strengthening the community. As a result of the group’s efforts, an energy audit was conducted in July 2007 on several of the Township’s facilities and municipal buildings (including Town Hall) to assess energy use and the costs and savings resulting from possible upgrades. The audit resulted in 25 recommendations for improvements which could result in over \$100,000 in cost savings. The Township also received a \$100,000 sustainability grant to fund upgrades of the firehouse in order to make it more energy-efficient.

### **4. Stormwater Regulations**

The Township adopted a stormwater management plan in 2005 which is incorporated by reference into this Master Plan. As a result of the plan, the Township adopted a Stormwater Management ordinance in 2008 to implement low-impact, nonstructural improvements and best management practices for stormwater runoff. These practices are in ac-

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cordance with the standards of the New Jersey Stormwater Best Management Practices Manual.

### **5. Environmental Commission**

The Environmental Commission has taken the lead in raising awareness of global warming, green energy and green building design. The EC supported a soil-testing program in conjunction with the Rutgers Soil Testing Laboratory where soil-testing kits were made available to Township residents for free. The test results enable homeowners to eliminate unnecessary application of fertilizers and lime on their lawns. The EC continues to raise awareness and safeguard the environment in this regard.

### **6. Renewable Energy Projects**

In the spring of 2010, PSE&G announced that as part of a \$515 million PSE&G initiative, the company will spend approximately \$258 million installing between 100,000 and 200,000 pole-attached solar panels across the state, including some within the Township of Cranbury. The panels are part of an overall effort by PSE&G to increase renewable energy in New Jersey. The electricity provided ties directly into the power grid. By 2013, PSE&G expects the panels to create 40 megawatts of solar capacity, enough to power about 6,000 homes. PSE&G has already begun to install these solar panels on a number of electrical transmission poles in the Township. In addition, the Township has received both residential and commercial applications in recent months which incorporate renewable energy sources including solar panels.

## **C. SUSTAINABLE GOALS AND OBJECTIVES LISTED IN OTHER ELEMENTS OF THE MASTER PLAN**

In addition to this Green Element devoted solely to making Cranbury a more sustainable community, each chapter of this Master Plan incorporates concepts of sustainability. Recommendations from other elements of the Master Plan which are directly relevant to the Green Plan include the following:

### **1. Encourage Wind and Solar Energy Facilities in Industrial Zones**

The Economic Development Element recommends that the Township encourage the development of solar and wind energy facilities in the industrial areas of Cranbury, to generate additional rates and to keep these types of facilities outside of Cranbury's preserved open space and farmland areas. Wind and solar energy generating facilities are expected to be increasingly developed in the next decade. The Master Plan also recommends that at the same time, Cranbury's LDO explicitly prohibit or substantially curtail the development of such facilities in the agricultural preservation zone, where their presence would be aesthetically incongruous with the preserved rural, agricultural landscape. Perhaps very small and limited facilities (such as solar panels on the roofs of single-family residences) would be appropriate, but large wind turbines or solar farms would not. By encouraging them and confining them to Cranbury's industrial areas, economic, environmental and preservation goals in this Master Plan can be achieved.

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### **2. Incorporate Design Requirements for Renewable Energy Sources in Historic Districts**

This Historic Preservation Plan Element recommends that the design guidelines listed in Chapter 93 Historic Preservation of the Township Code be updated to address the use of renewable energy resources. The desire to use renewable energy sources such as solar panels, geothermal technologies, and even wind power is likely to increase with time. These resources should be incorporated into the local historic district on a limited basis. Standards are needed in design guidelines to promote the use of green technology and define appropriate design and placement.

In addition, owners of properties in historic districts should substantiate their requests for alternative energy systems and state whether they have pursued other traditional conservation measures. It is important to make sure that steps are taken to make a property as energy efficient as possible before considering renewable energy technologies, as they are currently very expensive with long payback periods. In addition, there are aesthetic concerns associated with some of the technologies that may conflict with the goals of maintaining the historic authenticity of the community. In general, for historic properties, a “best practices” approach to renewable energy systems is to install them so they are not visible from the public right of way, and in such a way that they do not damage the historic fabric of the building. In addition, all work should be easily reversible.

### **3. Designate Certain County and Local Roads in the Township as Scenic Corridors**

The Circulation Plan Element recommends that the Township explore options to designate certain County roadways in the Township as “scenic corridors” which would protect the natural vegetation including old growth trees along these Township roadways. This would also help to rebuff efforts on the part of some to widen these roadways to facilitate higher speed regional traffic, something that would be incompatible with Cranbury’s goal of maintaining a rural character. These include Cranbury Neck Road, Plainsboro Road, George Davidson Road, John White Road and Dey Road, within the A-100 and R-LI zones. Protection of natural resources such as trees is an important component in the Township’s sustainability efforts.

### **4. Explore Options for Bike Routes in the Township.**

The Circulation Plan Element recommends that bike routes, not separate bike lanes, in the Township be explored. Biking is a healthy alternative to driving both for the individual and the environment. Bike routes would allow residents to bike to locations in the Township rather than drive thereby simultaneously exercising and reducing air pollution caused by car exhaust.

### **5. Continue to Preserve Farmland in Cranbury**

The Master Plan recommends that the Township continue to preserve farmland parcels, as appropriate. In addition, with recent food contamination scares, and due to the vulnerability associated with the globalization of food production systems, communities are

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realizing the critical benefits of supporting local food production. Local food production systems strengthen the local economy, improve the health of the region's citizens by providing access to fresh food, help preserve open space and green the local environment, are ecologically sustainable, address global food security issues, sustain traditional local food culture, and promote comprehensive food planning at the community and regional levels. "Buy Local" food programs can be used to support local farms, farm markets, CSA's, and restaurants that buy local dairy, meat, and produce. Communities can improve farm viability and support access to healthy food by working with farmers to initiate "Buy Fresh, Buy Local" campaigns. These initiatives work to collaboratively market locally grown food products and support local food system priorities through print, digital media and networking opportunities.

The Farmland Preservation Element recommends that Cranbury implement a "Buy Local" food program.

### **6. Make improvements to active recreation parks**

The 2007 OSRP which is incorporated into this Master Plan by reference, makes recommendations for improvements to Cranbury's existing parks to increase their utilization and to allow existing preserved open space to remain in its natural state or accommodate farming operations. The Circulation Plan Element of this Master Plan provides details on the pedestrian and bicycle improvements to Cranbury's existing parks that are recommended in the 2007 OSRP. Improving and expanding access of residents to Cranbury parks, recreation and open space is a key component of the Township's sustainability efforts as it maintains the connection to the natural landscape and decreases pollution by absorbing contaminants from air and water.

### **7. Adopt a Stream Corridor Conservation Overlay Zone Ordinance**

In 2007, a Stream Corridor Conservation Overlay Ordinance was prepared under the direction of the Environmental Commission. The objective of such an ordinance is to protect the stream corridors for the benefit of clean and plentiful water as well as for aesthetics and other environmental benefits for the residents. The adoption of this ordinance would provide a number of benefits, including maintaining water quality in Cranbury's streams and preserve the stream corridors' natural environment by preserving and protecting the existing topography and natural vegetation along the Cranbury Brook, the Millstone River, the Cedar Brook, and their tributaries. The proposed ordinance would restrict development within 200 feet of the centerline of a stream. The proposed ordinance would permit unpaved walkways, with appropriate natural surfaces, within designated stream corridors. The 2007 OSRP recommended revising the proposed ordinance to permit unpaved bikeways to be developed within this 200 foot buffer zone.

The Environmental Conservation Element of the Master Plan recommends that the Township adopt a Stream Corridor Conservation Overlay Zone Ordinance.

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### **8. Encourage Backyard Composting and Non-Removal of Grass Clippings**

This Recycling Plan Element recommends that the Township encourage backyard composting as a part of its overall yard waste management program. All municipal collection, processing, and distribution costs are avoided for leaves and yard trimmings that are composted by residents. Additionally, other materials such as grass clippings and fruit and vegetable scraps can be included in backyard composting, thus reducing handling of these wastes by the municipality as well. The Recycling Plan Element recommends that the Township encourage residents to leave grass clippings on the lawn. The clippings will then filter down to the soil, acting as a natural fertilizer. The lawn will be healthier, and the taller grass will shade the soil, cooling roots and limiting weeds.

### **D. GREEN PLAN GOALS AND OBJECTIVES**

#### **1. Participate in Sustainable Jersey's Certification Process**

"Sustainable Jersey" is a partnership between the New Jersey League of Municipalities' Mayors' Committee for a Green Future, the New Jersey Sustainable State Institute at Rutgers University, the Municipal Land Use Center at The College of New Jersey, the New Jersey Department of Environmental Protection, the Rutgers Center for Green Building, and the New Jersey Board of Public Utilities. Sustainable Jersey Certification is a prestigious designation for municipalities. This program is a certification program for municipalities in New Jersey that want to "go green," save money, and take steps to sustain their quality of life over the long term. The program identifies clear actions that municipalities must implement to become a certified sustainable community; provides clear "how to" guidance and tools to enable communities to make progress on each action; and provides access to grants, and identifies existing and new funding opportunities for municipalities to make progress toward the actions.

The program is voluntary, free of charge, and the certification lasts for up to three years. The first step to becoming certified is to register the municipality by passing a municipal resolution stating the Township's intent to seek certification, and indicate which of the "Actions for Sustainable Communities" the municipality is thinking of implementing. The next mandatory step is to establish a Green Team by resolution or ordinance. The Green Team will lead and coordinate the sustainability activities of the community. Membership may include elected officials, members of municipal boards and committees, local business leaders, representatives from the school board, etc. In some communities, the Environmental Commission becomes the Green Team.

Sustainable Jersey divides "actions for sustainable communities" into sixteen categories (see Table 13-1 at the conclusion of this chapter). For each category there are specified action items each worth a certain number of points. A community can achieve the Bronze Level of certification which requires the establishment of a mandatory Green Team, implementation of two out of six "Priority Actions", and a total of 150 points. Actions must be completed in six of the sixteen categories to be eligible for certification. The Silver Level of Certification requires the establishment of a mandatory Green Team,

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implementation of three out of six “Priority Actions”, and a total of 350 points. Actions must be completed in eight of the sixteen categories to be eligible for certification.

The six Priority Actions include the following:

1. An energy audit of all facilities owned and operated by a municipality can be conducted to establish where and how energy is being used in buildings and facilities, and to identify opportunities for energy and cost savings. The audit provides data that a municipality will need to create a Carbon Footprint and develop policies aimed at reducing greenhouse gas emissions.
2. Measure the municipality’s carbon footprint. The carbon footprint is the amount of greenhouse gas (GHG) emissions produced by local government operations in a given year. The footprint will detail the sources of emissions so that actions can be focused on the largest emitters. The footprint will also enable a municipality to track its progress and determine if new policies are having an impact.
3. Adopt a resolution indicating Cranbury’s Sustainable Land Use Pledge which is a public affirmation of a municipality’s intent to support sustainable smart growth land-use policies.
4. Complete a Natural Resource Inventory which serves as an index of natural resources and is a compilation of text and visual information about the natural resource characteristics and environmental features of an area. (Cranbury has already done this.)
5. Adopt a Water Conservation Ordinance which can help curtail unnecessary water waste. The ordinance seeks to help extend available supplies through short-term drought periods.
6. Perform a fleet inventory of municipal vehicles to evaluate the current vehicles and equipment and determine where efficiency might be improved. The inventory includes surveying how the vehicle is used, as well as its environmental impact and fuel usage. Once the data has been considered, a strategy for greening the fleet can be developed including driver training, vehicle conversion, and/or purchase a alternative vehicles fuel vehicles.

Cranbury has already completed an energy audit of its facilities and has prepared a Natural Resource Inventory. Other initiatives already underway in the Township may also be eligible for points. The certification will enable the Township to have improved access to funding for its sustainability efforts.

### **2. Education**

Local government alone does not have the capacity to solve many sustainability problems. For example, local government facilities and operations usually account for only 2-3 percent of all local greenhouse gas emissions. Therefore, education of the public on the importance of energy efficiency and conservation measures is an important step towards making a community sustainable.

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The overriding goal of this Element is therefore to promote and encourage energy efficiency, water conservation, protection of natural resources and the reduction of greenhouse gas emissions through public outreach and education. The outreach and education is designed to positively influence Cranbury residents, businesses and the Township government to opt for more sustainable practices in their everyday lives. Cranbury is committed to promoting lifelong learning in the community to advance and support its transition into a more sustainable community.

To that end, this Master Plan recommends that the Township implement the following:

- a. Brochures on sustainable construction, renovation, remodeling and available grants and incentives.

Generating electricity for consumption is one of the largest sources of greenhouse gas emissions in the United States. Residential buildings are heavily reliant on electricity for meeting energy needs, with electricity consumption for lighting, heating, air conditioning, and operating appliances. The Township should consider providing brochures at Town Hall that are available to applicants seeking a permit for new construction or remodeling. The brochures should provide “best practices” information on green design, energy and water efficient appliances and renewable energy options, as well as existing state and federal grants and incentives for the use of energy efficient products. The goal of these brochures would be to encourage applicants for permits to consider building design, construction, and operating practices that can reduce or eliminate the negative impacts of development on the environment. Such pamphlets are already available from the State Board of Public Utilities (BPU) and other entities, such as the U.S. Green Building Council and the American Society of Interior Designers, and can be easily adapted to Cranbury’s needs. The brochure should also be made available on the Township’s website.

- b. Educational Campaign on Sustainability.

The Township working through the Green Team should consider launching an educational campaign on green building and sustainability. There are state programs such as the Community Partners Initiative (CPI) offered through the BPU which provides help to municipalities in organizing local outreach campaigns. The Township should consider utilizing CPI’s services or a similarly experienced organization to reduce the burden on the municipality in initiating the campaign. This educational campaign might include the following:

- *Hold a Community Visioning session* devoted to issues of green building and sustainability in order to engage its citizens in the creation of a shared community vision for sustainability in the Township. The results of the meeting can be used to guide decision-making and policy creation of the Township Government and community programming with regard to sustainable living.
- *Holding educational workshops* for residents, businesses and non-profit organizations on green building and remodeling, use of renewable energy sources (i.e.,

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solar, wind and geothermal), as well as available grants, incentives and programs for building owners.

- *Partnering with the Schools.* Create a School Green Team. Ideally, one of the members of the Municipal Green Team acts as a liaison to the School Green Team. The School Green Team should be comprised of administration, students, faculty, staff members, custodial staff, and parents, and should include a liaison from the Municipal Green Team. Energy efficient operations use taxpayer money more wisely and redirect money towards educational needs. Instilling wise energy habits in students creates lifelong conservationists and teaches them to care about the impact of their actions. Staff members engaged in these programs learn new behavioral strategies that will translate beyond the school/work environment.
- *Educational displays.* The Township should consider creating educational displays on sustainability at Township Hall and having a link from Cranbury's webpage on the Township's sustainability efforts. Programs that educate about energy conservation have been shown to reduce energy usage and thus reduce operating costs for schools.
- *A Green Challenge Program.* A Green Challenge Program is a suggested sustainability tool by Sustainable Jersey and encourages healthy competition among community members while building a sense of shared purpose. A Green Challenge Program engages the community by challenging individuals, families, and businesses to change their behavior in support of the community's goals for sustainable development. The Green Challenge Program asks people to pledge to "take a Challenge" and to make a specific change in their lives or in the way they do business. The Challenge instructs and educates residents on how to participate, provides a pledge form to sign, and offers resources for success. The Challenge raises community awareness on sustainable practices. As individuals try to achieve their own goals, they play a key role in reaching community-wide goals. Examples of Green Challenges may include encouraging individuals to do the following:
  - Change incandescent light bulbs to more energy-efficient compact fluorescent bulbs;
  - Use Energy Star appliances and electronic equipment;
  - Install low-flow toilets;
  - Turn off faucets when brushing teeth or washing dishes;
  - Only run washing machines and dishwashers when they are full;
  - Refrain from idling motor vehicles;
  - Install rain barrels or rain gardens on properties; and

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- Engage in environmentally friendly landscaping practices such as only planting native species of plants, using environmentally friendly pesticides on lawns and gardens, and using rain barrels to water lawns.

### **3. Municipal Buildings and Operations**

#### **a. Make municipal buildings and operations more sustainable**

Municipal purchasing, operations and practices often serve as models of sustainability in the community. Below are potential ways that the Township could implement sustainability measures. The Township should consider implementing these options to the extent that they are fiscally prudent.

- Adopting sustainable landscaping methods which ensure that municipally maintained parks, gardens and landscaped areas are managed in the most efficient and environmentally friendly manner. This includes landscaping with low-maintenance planting, maximizing water conservation and minimizing surface runoff, utilizing recycled and composted materials, and taking eco-friendly approaches to pest management.
- Establishing criteria for purchases made by the Township to encourage purchasing environmentally preferable goods and services that have less negative impact on the environment and human health when compared with other goods and services that serve the same purpose;
- Replacing all light fixtures in municipal buildings with compact fluorescent lamps;
- Using “green” cleaning products; and
- Creating a sustainability link on the Township’s website which would offer information on Township sustainability practices and offer resources to residents and businesses.

**Table 13-1: Sustainable Jersey Actions for Sustainable Communities**

	CATEGORY	ACTION ITEM		
1	Community Partnership & Outreach	Create Green Team	◆	↻
		Community Education and Outreach		↻
		Energy Outreach and Incentive Programs		
		School-based Energy Conservation Programs		↻
		Education for Sustainability Programs		
		Green Challenges & Community Programs		↻
		Green Fairs		↻
2	Diversity & Equity	Diversity on Boards & Commissions		
		Environmental Justice in Planning & Zoning		
		Lead Education and Outreach Programs		
		Lead-Safe Training Programs		
		Cumulative Risk Assessment		
3	Energy Efficiency	Energy Audits for Municipal Facilities	*	☑
		High Efficiency Municipal Buildings		
4	Greenhouse Gas	Municipal Carbon Footprint	*	↻
		Community Carbon Footprint		↻
		Climate Action Plan		
		Wind Ordinance		
5	Green Design	Green Building Policy/ Resolution		↻
		Green Building Training		↻
		Green Design Commercial and Residential Buildings		
		Green Design Municipal Buildings		
6	Health & Wellness	Building Healthier Communities		
		Anti-Idling Education & Enforcement Program		↻
		Safe Routes to School		↻
7	Land Use & Transportation	Sustainable Land Use Pledge	*	↻
		Sustainability Master Plan Revision		☑
		Complete Streets Program		
		Municipal Planning and Zoning Self-Assessment		
8	Local Economies	Buy Local Programs		↻
		Green Business Recognition Program		↻
		Green Jobs/ Economic Development		
9	Food	Support Local Food		↻
		Food Production		
		Planning for Local Food Production		
		Farmland Preservation		☑
10	Natural Resources	Environmental Commission		☑
		Caring for Conservation Easements		☑
		Natural Resource Inventory	*	☑
		Open Space Plans		☑
		Natural Resource Protection Ordinances		
		Tree & Woodlands Management		
		Water Conservation Education Program		
Water Conservation Ordinance	*			
11	Operations & Maintenance	Green Purchasing Program		↻
		Grounds & Maintenance		↻
		Green Fleets	*	↻
		Adopt Behavioral Policies		↻
12	Sustainability Planning	Community Asset Mapping		
		Community Visioning		↻
		Sustainable Community Plan		
13	Waste Reduction And Recycling	Recycling		☑
		Waste Reduction		↻
14	Innovative Demonstration Projects	Solar		☑
		Wind		↻
		Geothermal		
		Green Roofs		☑
		Raingardens		

		Other		
15	Animals In The Community	Companion Animal Management Plan		
		Pledge Supporting NJ Wildlife Action Plan		
		Wildlife Interaction Plan		
		Animals in the Community Education		
16	Arts/ Culture/ Historic Preservation	Strengthen School Arts Programs		
		Historic Preservation Plan		<input checked="" type="checkbox"/>

Source: Sustainable Jersey

◆ Mandatory Actions

★ Priority Actions

Already Done in Cranbury

↪ Recommended in Master Plan

## CHAPTER 14. FUTURE LAND USE PLAN, MASTER PLAN REEXAMINATION AND SUMMARY OF MASTER PLAN RECOMMENDATIONS

### **A. FUTURE LAND USE PLAN**

The future Land Use Plan for Cranbury does not represent a major shift in land use policy from the land use plan set forth in the 1993 Master Plan, or from the current Zoning Map for the Township. To the contrary, it affirms and reinforces the land use pattern that has been established in Cranbury. There are, however, a few minor map changes, and as discussed in preceding chapters of the Master Plan, some adjustments in policy and a reorientation in some of the non-residential areas located along the Route 130 Corridor and at south Main Street.

This Land Use Plan also attempts to provide a slightly more simplified and logical nomenclature, using symbols which first indicate the categories of land use (e.g. A = Agricultural, R = Residential, C = Commercial, etc.), followed by a name which attempts to capture the land use character for that intended district.

The Future Land Use Plan for Cranbury is illustrated in Figure 14-1. Highlighting zoning changes can be found in Figure 4-1, which is within Chapter 4, the Community Design Element of this Master Plan.

A description of each of the land use designations is provided below.

#### **1. Agricultural Districts**

- A-P Agricultural Preservation (Current Zoning Designation: A-100)

No changes are suggested to the boundaries of this district, and all of the objectives of the 1993 Master Plan with respect to this district are affirmed. There are a number of suggested refinements proposed. First, no utility facilities (including cell towers) or institutional uses other than farming<sup>14</sup>, (which include civic uses, schools, houses of worship, places of assembly) should be permitted in the district because of their incompatibility with agricultural operations and their deleterious impact on the scenic resources of this district. The traffic, size of buildings and levels of activity associated with institutional uses run counter to the goals and objectives of preserving agriculture and open space in this district. Minimum lot sizes of 6 acres for conventional subdivisions are maintained along with all of the other requirements in Cranbury's Land Development Ordinance.

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<sup>14</sup> Note that places of assembly directly related to agricultural activities, such as riding schools or academies, should be permitted. However, other places of assembly, such as auditoriums, houses of worship or non-agriculturally-related schools, should be prohibited.

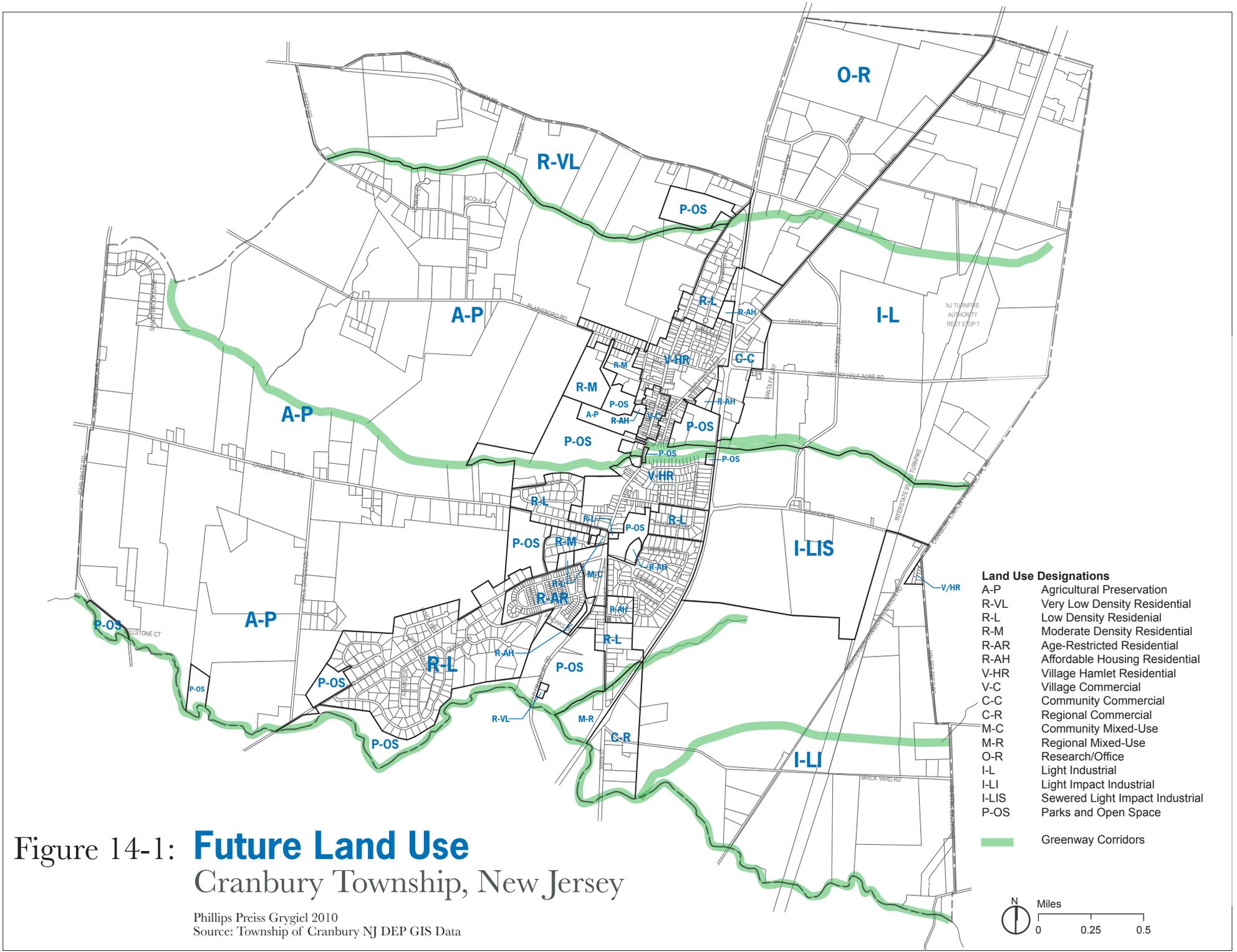


Figure 14-1: **Future Land Use**  
Cranbury Township, New Jersey

Phillips Preiss Grygiel 2010  
Source: Township of Cranbury NJ DEP GIS Data

## **2. Residential Districts**

- R-VL Very Low Density Residential (Current Zoning Designation: R-LI)

No changes are suggested to the boundaries of the district. However, a number of refinements are suggested. Similar to the A-P designation, no utility facilities or institutional uses (other than farming<sup>14</sup>) or cell towers should be permitted in the zone, for the same reasons. In addition, it is suggested that lot averaging—similar to the provisions adopted for the A-100 Agricultural Preservation zone and the RLD-3 Residential Low-Density 3 zones—should be adopted in an effort to prevent large-lot sprawl and encourage open space and farmland preservation. Lot sizes can be reduced in size to that which is required to provide septic sewer. A 25% increase in density and a minimum open space/farmland set-aside of 50% of the tract is recommended. The minimum lot size of 4 acres and all of the other bulk requirements for conventional subdivisions contained in Cranbury’s current LDO are to be maintained.

- R-L Low-Density Residential (Current Zoning Designation: RLD-3)

No changes are suggested for either the boundaries or the provisions for this district. The minimum lot size of 3 acres and all other current bulk requirements are to be retained.

- R-M Moderate-Density Residential (Current Zoning Designation: RLD-1)

No changes are suggested for the boundaries or the regulations for this district and the minimum lot size of 1 acre and all other requirements for this district are to be retained.

- R-AR Age-Restricted Residential (Current Zoning Designation: R-AR)

No changes are proposed to the requirements or boundaries of this zone.

- R-AH Affordable Housing Residential (Current and Proposed Zoning Designations: R-AH; R-ML; R-ML II; and R-ML III)

This land use designation covers all of the existing affordable housing districts in Cranbury—the R-AH, R-ML and R-ML II districts, and is also applied to a further parcel which is proposed to be rezoned from H-C Highway Commercial to R-ML III Residential-Mt. Laurel III District. This is the so-called “Route 130D” site, a 4-acre parcel with frontage on Route 130 just north of the Ryan Road cul-de-sac, which is proposed to be developed for 32 affordable family apartment units. All of the affordable housing districts are put into the R-AH classification in order to simplify their identification on the Future Land Use Map. However, each district is to retain its own use and bulk requirements as set forth in Cranbury’s current LDO.

## **3. Village Districts**

- V-HR Village Hamlet Residential (Current Zoning Designation: V-HR)

This district is to retain its name and all of the use and bulk requirements as per the current Cranbury LDO. While primarily a residential zone, its Village designation reinforces

its character and identity as providing for the historic residential areas in the Village which surround Main Street, the Cranbury Village mixed-use downtown.

- V-C Village Commercial (Current Zoning Designation: VC)

This district is also to retain its name but there are some suggested changes to the boundaries as well as the use and bulk regulations in order to reinforce its character as a mixed-use historic “Main Street” district. The changes suggested are as follows:

- (1). Uses Permitted. A more specific in the list of permitted retail uses needs to be adopted, so as to avoid uses which may be incompatible with the historic mixed-use character of the district (e.g. tattoo parlors or billiard halls). Also no agricultural activity or utility facilities should be permitted.
- (2). Size of Buildings. A reduction of the size of buildings is needed to discourage the demolition of several smaller residential, retail or mixed-use buildings, and their replacement with inappropriate retail strip centers or big-box stores.
- (3). Depth of Front Yard. Mandate a maximum (as well as minimum) front yard setback to maintain consistency of the prevailing shallow setbacks of buildings and the existing streetscape along Main Street.
- (4). Width of Sideyards. Restrict the width of side yards so as not to permit gaps in the downtown’s streetscape, and also to discourage wide driveways and curb cuts along Main Street.
- (5). Restrict Parking Location. Prohibit parking in the front and side yards, for the same reasons as stated above in points 3 and 4.

One change in the boundary of the district is recommended. It is the extension of the district boundary on the west side of Main Street at its northern end, up to Bunker Hill Road. There are only 2 lots south of Bunker Hill Road outside the current VC boundary, and one of these two lots has been historically used for retail purposes. The extension of the VC district to Bunker Hill Road would allow such uses to be incorporated into this district.

#### **4. Commercial Districts**

- C-C Community Commercial (Current Zoning Designation: H-C Highway Commercial)

As discussed in substantial detail in the Economic Plan Element and the Community Design Element, there is a need to substantially revise the uses permitted in the current HC zone, as well as the bulk and design standards in order to encourage the redevelopment of current marginally-used properties, to provide for the retail needs of the community, to substantially upgrade its image, and to generate tax ratables. Larger-scale retail uses and designed shopping centers are to be permitted, but within the context of a series of design requirements that would avoid the prototypical suburban highway strip center or big-box development. The change in zone from Highway Commercial to

Community Commercial is part of an effort to “rebrand” this district. More specific details relating to the use, bulk and design requirements can be found in Chapter 4, the Community Design Element. (See also Figure 4-1.)

- C-R Regional Commercial (Current Zoning Designation: G-C)

The change in name from General Commercial to Regional Commercial, along with a number of other changes detailed in Chapter 4, the Community Design Element, is also intended to rebrand this district, and to allow for more contemporary, large-scale but low-intensity regionally-oriented shopping along Route 130, at the southern end of Cranbury. (See also Figure 4-2.) A portion of the current PO/R Professional Office/Residential District composed of smaller lots and located to its north would also be included in this district. The aim is to encourage the redevelopment of marginally-used parcels, for more intensive commercial uses, to generate economic activity and a better visual environment than this currently dismal gateway into Cranbury from East Windsor Township.

## **5. Mixed-Use Districts**

- M-C Community Mixed-Use (Current Zoning Designation: PO/R)

This designation would be applied to the current Professional Office/Residential district located in the “South Main Street” area—that is, at the intersection of South Main Street and Old Trenton Road (see Figure 14-2). The current zoning provisions are too restrictive with respect to use and bulk standards, resulting in this area remaining in its current vacant and marginally-used condition. Mixed-use, limited retail uses (both in type and size) with low-density multi-family use is appropriate considering the site’s visibility and accessibility, its relative distance from Cranbury’s downtown Village Commercial District, and the residential uses which surround it. This new designation is intended to provide Cranbury with an opportunity to diversity both its retail offerings and housing choices in a manner which complements the surrounding residential neighborhood. Details relating to use, bulk and design are provided in Chapter 4, the Community Design Element.

- M-R Regional Mixed-Use (Current Zoning Designation: PO/R)

Similar to the re-designation described above for the new M-C Community Mixed-Use designation, the currently very underutilized PO/R district located with great visibility and accessibility to Route 130 would be given the opportunity to develop as a mixed-use district, this time, however, with a regional orientation. Slightly more intensive retail uses would be permitted, but with design controls to avoid prototypical strip centers or big-box development. See both Figure 4-3 and Chapter 4, the Community Design Element, for more detail.

## **6. Office Districts**

- O-R Research Office (Current Zoning Designation: RO/LI)

No changes in either the boundaries or the use and bulk regulations of the current Cranbury LDO are proposed for this district.

## **7. Industrial Districts**<sup>15</sup>

- I-L Light Industrial (Current Zoning Designation: LI)

No changes are proposed to the boundaries, uses or design requirements for this zone, although as suggested in the Economic Development Element of the Master Plan, minimum lot sizes should be reduced in size so as to permit smaller-scale uses which appear to be in current demand, and which may help to lead this sector of Cranbury's economy out of the recession. As also suggested in the Conservation and Community Design Elements of the Master Plan, a combination of allowing greater Floor Area Ratios and impervious coverage, coupled however with deductions for truly environmentally constrained land (stream corridors and wetlands), will lead to higher yields on unconstrained properties, but lower yields on environmentally-constrained land.

- I-LI Light Impact Industrial (Current Zoning Designation: I-LI)

Aside from the same changes as that recommended for the I-L designation above (lower minimum lot size, with increased FAR and impervious coverage, with deductions for environmentally-constrained land), this designation would be the same as that currently within the Cranbury LDO. The differentiation in treatment of the district as compared to the I-LIS designation described below is in recognition of the absence of public sewer service to the district.

- I-LIS Sewered Light Impact Industrial (Current Zoning Designation: I-LIS)

The changes to this district would follow those of the I-L and I-LI designations described above; otherwise the boundaries of the district and the regulations within the Cranbury LDO would remain as is.

## **8. Parks and Open Space**

- P-OS Parks and Open Space (Current Zoning Designation: various)

This designation in the Land Use Plan is intended to highlight the presence of public parks and open spaces in Cranbury. It is not however, intended to suggest that a separate new zoning designation for these properties be adopted on the Cranbury zoning map or in the Cranbury LDO. Parks and open space are permitted in all zones in Cranbury, and they are located mostly within the residential, Village and the Agricultural Preservation zones within the Township. Their inclusion as a separate land use designation on the Future Land Use Map is intended for identification and affirmational purposes only.

- Greenways (Current Zoning Designation: various)

This designation and its inclusion on the future land use map of Cranbury is intended to highlight and illustrate the desire for a system of greenways—preserved open space

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<sup>15</sup> All of Cranbury's so-called "industrial districts," within the present LI district, are more warehouse/of-fice district in use and character. Nevertheless, the term "industrial" is historic and indelibly bound up with the identity of the area east of Route 130 in Cranbury. Hence the term "industrial" is to be retained.

along Cranbury's major streams—the Cedar Brook, Cranbury Brook and the Millstone River—to be preserved as publicly accessible open space.

## **B. REEXAMINATION OF THE PRIOR MASTER PLAN REEXAMINATION**

The Municipal Land Use Law at N.J.S.A. 40:55D-89 calls for a reexamination of the prior Master Plan (or prior Reexamination Report) every six years. Cranbury prepared its last Master Plan Reexamination Report in 2005 (adopted on December 1, 2005). The Reexamination report is required to address the following:

- a. major problems and objectives relating to land development at the time of the last reexamination
- b. the extent to which the problems or objectives have been reduced or increased
- c. changes in assumptions, policies, objectives since the last reexamination
- d. the specific changes recommended for the Master Plan
- e. recommendations for incorporation of redevelopment plans

Essentially, this Master Plan for the Township of Cranbury, Middlesex County, New Jersey, dated December 16, 2010, replaces and supersedes the 2005 Master Plan Reexamination Report, but also, as required by Section D-89 of the MLUL, constitutes a reexamination of the 2005 Reexamination Report, as follows:

### **1. Major Problems and Objectives of the 2005 Reexamination Report**

- a. The need to attain a higher quality and value of highway commercial development along Route 130.
- b. Encouraging mixed-use development in the industrial parks west of Route 130.
- c. The need to accommodate the steadily increasing volume of non-local and commercial traffic on certain roads and intersections in Cranbury, and the safety of pedestrians on Cranbury's streets and roadways.
- d. The need to provide a Village-wide comprehensive pathway system connecting major residential areas to parks and open space, and a new Open Space and Recreation Plan.
- e. The need to review the definition and extent of the buffer to the Township's historic district.
- f. The need to fully update the Community facilities Plan.
- g. The need to increase the economic viability of the Cranbury Village Commercial district by formulating a downtown improvement plan.
- h. A shortage of active recreational fields to accommodate the needs of the Township's residents.

- i. The need to take into account Cranbury's Third Round Housing Element and Fair Share Plan in the formulation of a comprehensive land use plan for Cranbury.
  - j. Ensuring compliance with the mandates of the State Development and Re-development Plan
2. The Extent to Which the Problems and Objectives have been Reduced or Increased
- a. This master plan has set forth several economic development initiatives (see Chapter 9, Economic Plan Element), and recommendations in the Community Design Element (Chapter 4) and Future Land Use Plan (Chapter 14) which are aimed at achieving a higher quality and value of development along the Route 130 corridor.
  - b. In terms of encouraging a mix of uses in Industrial Parks, a small-scale mixed-use development, including business-oriented retail services, a bank and offices was approved by the Zoning Board of Adjustment in 2010, for a site located at the intersection of Dey Road and Cranbury-South River Road. This Master Plan also recommends allowing some small portion of office-warehouse developments to be provided for outlet retail sales.
  - c. Chapter 5 of the Master Plan (the Circulation Element) addresses in great detail, future plans and recommendations for improving certain roads and intersections in the Township which are likely to encounter increasing congestion in the future, as well as improvements aimed at improving pedestrian safety.
  - d. A very detailed and comprehensive Open Space and Recreation Plan was adopted by Cranbury in 2007 which addresses all of Cranbury's future active and passive open space and recreational needs, including providing linkages to its open space resources.
  - e. The Township's historic buffer requirement was reduced from 2,400 feet to 300 feet. In addition, the master plan recommends clarifying the implementation or interpretation of the buffer provision in the Code.
  - f. This Master Plan provides a fully updated Community Facility Element.
  - g. This Master Plan recommends that a Downtown Improvement Plan be conducted in the near future, to supplement, strengthen and provide more detailed recommendations for improving the downtown Village Commercial area.
  - h. The shortage of active recreational fields was fully addressed in the 2007 Open Space and Recreation Plan.

- i. This Master Plan has incorporated the required changes necessitated for compliance with Cranbury's most recently adopted and certified Housing Element and Fair Share Plan (December 2008).
  - j. The Land Use Element of the Master Plan demonstrates compliance of the master plan with the mandates of the State Development and Redevelopment Plan.
3. Changes in Assumptions, Policies and Objectives since the Last Master Plan Re-examination

This master plan, as was the case for the 2005 and 1999 Reexamination Reports, has largely followed and affirmed the goals and objectives of the 1994 Master Plan. There have been a number of additions to the objectives, as follows:

- a. The need to reorient and reevaluate the HC, GC and PO/R districts to allow for a stronger retail focus, but not to the detriment of the downtown.
- b. Allow for a greater variety of housing and shopping opportunities on the few remaining parcels of accessible vacant land in the Township.
- c. Ensure adequate parking facilities for both residential and commercial uses in Cranbury Village, especially within the downtown and around the school.
- d. Limit development in critical environmental areas such as wetlands and stream corridors.
- e. Identify and reserve a location for a new standalone library within the downtown, and the expansion of the existing school for future educational purposes.
- f. To encourage redevelopment at appropriate locations along Route 130 so as to strengthen its viability, and to provide for the shopping needs of Cranbury residents and employees, and to generate additional tax ratables.
- g. Increase the Township's non-residential ratables base by permitting a variety of retail uses along the Route 130 corridor and within the Township's professional office/residential district.
- h. Increase development intensities in industrial zones and lower minimum lot sizes to encourage both expansion and smaller warehouse-office opportunities.
- i. Streamline and simplify the Township's development approval process for small businesses and residents.
- j. Encourage/require all new developments to locate utilities underground.
- k. Increase awareness of area residents and implement best practices for mitigating and adapting to global climate change.

- l. Reduce the energy consumption and the carbon footprint of the Township's owned and managed properties and resources.
  - m. Encourage Sustainable Design and Construction in the Township.
  - n. Reduce the energy consumption and the carbon footprint of Township residents.
  - o. Encourage wind, solar and other renewable energy-generating facilities to be located in Cranbury's industrial areas east of Route 130, but not within the preserved farmland area west of the Village.
  - p. Encourage increased recycling efforts and, where possible, increase the types of waste or refuse that are recycled.
4. Specific Changes Recommended for the Master Plan

All of the changes are set forth in Section C of this chapter, below.

5. Recommendations for Incorporation of Redevelopment Plans Adopted Pursuant to the Local Redevelopment and Housing Law

Cranbury has not adopted any Redevelopment Plans pursuant to the Local Redevelopment and Housing Law.

### **C. SUMMARY OF MASTER PLAN RECOMMENDATIONS**

The foregoing chapters have included both analysis and some recommendations within each element of this Master Plan. The recommendations are summarized in this concluding chapter of the Master Plan, for ease of reference. The recommendations are as follows:

- **Zoning Recommendations.** Recommendations for revising certain sections of Cranbury's LDO are included.
- **Key Master Plan Recommendations.** These recommendations are aimed at maintaining and preserving the Township's rural character and quality of life, as well as providing Cranbury with a sufficient ratable base to sustain its fiscal and community needs in the long term.
- **Specific Parcels and Properties Recommendations.** During the course of preparing this Master Plan, recommendations were identified which affected specific parcels and properties in the Township.

## 1. Zoning Recommendations by Master Plan Element

### COMMUNITY DESIGN ELEMENT

#### HC Highway Commercial Zone/ C-C Community Commercial Zone and GC General Commercial Zone/ C-R Regional Commercial Zone

The Community Design Element recommends that the present HC Highway Commercial Zone be changed to C-C Community Commercial Zone and allow a broader array of retail uses, but only those which would not compete with the Village Commercial zone in the downtown. The vision for the C-C District should be smaller scale buildings and lot sizes, with slightly higher density, more like mid-century small shopping plazas with a small amount of parking in front.

The Master Plan recommends that the GC General Commercial zone have more retail uses permitted oriented to regional pass-by traffic, including such uses as gas stations, 24-hour convenience stores and car sales. This district should be renamed C-R Regional Commercial. Development in the C-R District could be laid out more like a modern large-scale shopping plaza, with most of the parking in front, but without its monotonous, generic highway commercial design.

#### PO/R Professional Office/ Residential Zones

This Master Plan recommends not only broadening the array of uses permitted and increasing the densities of development permitted, but also differentiating the two areas of the Township currently zoned PO/R, into two new zoning districts.

The existing PO/R Professional Office/Residential District close to the downtown surrounded by residential uses should be re-designated the M-C Community Mixed-Use District. The allowable uses and site plan standards should reinforce that character with ground-floor retail along the south side of Old Trenton Road, housing above and to the rear, and parking at the interior of the lot. North of Old Trenton Road, a small office complex existing near the remaining vacant area has been approved for two small office condominiums. In this case, multi-family instead of the office condominium could be an option.

The second P/OR District is located next to the GC District at the southern edge of Cranbury is currently surrounded by farmland and very low intensity industrial/commercial uses. A portion of this district—that which lies to the east of South Main Street and has a small portion fronting on Route 130—should be rezoned to C-R Regional Commercial (i.e. the former GC district). The remaining portion should be re-designated M-R Regional Mixed-Use which would permit low-rise office buildings, and retail and service establishments.

#### Cranbury's Sign Regulations

The Community Design Element recommends that sign regulations be reviewed and revised to address a number of issues.

### **The Design and Scale of Single-Family Residential Uses**

The Community Design Element recommends that the current bulk and design controls for single-family uses in Cranbury should be reviewed and supplemented in order to preclude knockdowns and McMansions within the community.

### **Berms and Landscaping in Cranbury's Industrial Zones**

The Community Design Element recommends that the Township review and tighten the regulations for berms and landscaping in Cranbury's Industrial Zones.

## **CONSERVATION ELEMENT**

### **Adopt a Stream Conservation Corridor Overlay Zone Ordinance**

In order to more adequately protect the stream corridors for the benefit of protecting clean and plentiful water, as well as for aesthetics and other environmental benefits to the residents, the Master Plan recommends that the Township adopt a Stream Corridor Conservation Overlay Zone Ordinance that would restrict development within 200 feet of the centerline of a stream.

### **Adopt Net-Out of Resources/ Site Capacity Calculations**

Net-Out of Resources refers to the technique of deducting environmentally constrained lands from development density calculations. The Conservation Element recommends that Net-Out of Resources/ Site Capacity Calculations regulations be adopted. In consideration for adopting such regulations, especially within non-residentially zoned areas of the Township, development intensity limitations on unconstrained land should be raised to compensate for the loss of development on constrained land, and also to compensate for development yields that are lost on land which is only marginally constrained.

## **HISTORIC PRESERVATION ELEMENT**

### **Amend Definition of Historic Buffer Area**

The Historic Preservation Element recommends amending the definition of Historic Buffer Area in *Chapter 93 Historic Preservation* to clarify the interpretation of the 200-foot buffer area requirement around any historic district, along with certain exceptions.

### **Protect Scenic Vistas**

The Historic Preservation Element advocates for the continued protection of the scenic vistas identified in the 1993 Master Plan through lot averaging, acquisition of key parcels, and participation in the New Jersey Farmland Preservation Program.

### **Update Design Guidelines**

The Historic Preservation Element recommends that the Township consider updating the design guidelines listed in Chapter 93 Historic Preservation of the Township Code to address the use of renewable energy resources.

## **ECONOMIC DEVELOPMENT ELEMENT**

### **Expand Retail Opportunities Outside of Village Commercial Area**

The Economic Development Element recommends that the Township expand retail opportunities outside of the Village Commercial area primarily in two zones—the Highway Commercial (to be redesignated C-C Community Commercial zone) and General Commercial zones (to be redesignated C-R Regional Commercial zone), but also as part of a mixed-use development (retail and lower-density multi-family development), in the Professional Office/Residential zones (to be redesignated M-C Community Mixed-Use zone) and retail and office uses (in the M-R Regional Mixed-Use zone).

### **Permit Lower-Density and Empty-Nester Multi-Family Housing**

The Economic Development Element recommends that the Township permit lower-density and empty-nester multi-family housing in the M-C Community Mixed Use zone, which produce significant real estate taxes, but do not generate significant numbers of school-age children.

### **Revise FAR and Impervious Surface Coverage Regulations in Industrial Zones**

The Economic Development Element recommends that the Township slightly increase the permitted floor area ratio and impervious surface coverage in the Township's Industrial zones, to permit slightly higher yields of development, bearing in mind that per the recommendation of the Conservation Element, that such yields need to be proportionally lowered where property contains environmentally-constrained land.

### **Allow Smaller Lot Sizes in Industrial Zones**

The Economic Development Element recommends that the Township allow smaller lot sizes and smaller warehouse/flex and office developments in the industrial zones to capture opportunities for start-up and smaller businesses, rather than catering only to the largest, high-end warehouse/office tenants.

### **Encourage Solar and Wind Energy Facilities in Industrial Zones**

The Economic Development Element recommends that the Township encourage the development of solar and wind energy facilities in the industrial areas of Cranbury, to generate additional ratables and to keep these types of facilities outside of Cranbury's preserved open space and farmland areas.

### **Streamline Development Application and Approval Processes**

The Economic Development Element recommends that the Township streamline the development application and approval processes, to reduce the time and cost associated with obtaining approvals for development, thereby making Cranbury a more business-friendly community.

### **Expand Retail Opportunities**

The Economic Development Element recommends that along the Route 130 corridor in Cranbury the Township allow regionally- and locally-oriented convenience types of retail uses, developed within attractive, well-designed, comprehensive and integrated retail centers that could provide a substantial boost to the image, viability, usability and value of the properties, thereby providing an array of needed retail services to residents and employees, and generating higher real estate taxes.

### **Revise Professional Office/Residential Zone**

The Economic Development Element recommends changes to the existing PO/R zone along “South Main Street” area to M-C Community Mixed-Use zone to allow a more mixed-use type of development—small-footprint, local service-oriented retail uses combined with lower-density, empty-nester oriented multi-family development, designed in a more “traditional” and sustainable form, with design requirements that mirror those of Cranbury’s more traditional mixed-use (retail/residential) uses, which could be attractive in the marketplace, help to serve the convenience needs of Cranbury residents, and generate additional ratables.

### **Increase the Permitted Floor Area Ratios and Impervious Coverages of Cranbury’s Industrial Zones**

The Master Plan recommends that two adjustments be made to the Industrial Zones:

- (1) Increase permitted Floor Area Ratios and permitted impervious coverages (along with a possible relaxation of setback standards); and
- (2) Adopt regulations which deduct environmentally-constrained land—wetlands and stream corridors primarily—from the area to which the floor area ratio and impervious coverage limitations are applied.

## **AGRICULTURAL PRESERVATION ELEMENT**

### **Adopt Lot-Averaging Provisions in the R-LI District**

The largest vacant, developable and farmed parcels of land in Cranbury that remain to the west of the Village are located in the R-LI District, i.e. west of Route 130 and north of Dey Road. Lot averaging subdivisions to preserve agricultural land should also be applied to the R-LI District. Similar requirements in terms of preservation and density bonuses ought to be available to avoid conventional suburban sprawl-like subdivisions and the loss of all farming on such properties.

## **2. Key Master Plan Recommendations by Master Plan Element**

### **CIRCULATION ELEMENT**

#### **Off-Tract Traffic Improvement Fund**

Fair share off-tract improvement contributions by land developers within Cranbury Township are needed to implement the recommended Traffic Circulation improvements. The appropriate ordinances to codify the off-tract contribution rate and the procedure for managing the improvement fund should be adopted.

### **CONSERVATION ELEMENT**

#### **Update the Environmental Resource Inventory**

The Conservation Element recommends that the Township's Environmental Resource Inventory (ERI) be updated and that its format and the information contained therein is more user-friendly and be explained in layman's terms so that all applicants, residents and small business owners, as well as large developers, can refer to the document and consider utilizing more sustainable design and construction materials and methods in their development proposals.

### **ECONOMIC DEVELOPMENT ELEMENT**

#### **Form a Revitalization Committee for Main Street**

The Economic Development Element recommends that the Township form a joint "revitalization committee" or task force be convened to explore specific actions and methods that could be employed to revitalize Main Street.

### **COMMUNITY FACILITIES ELEMENT**

#### **Encourage residents to volunteer for the Cranbury Fire Department**

The Community Facilities Element recommends that the Fire Department continue to participate in community events and bolster programs that encourage volunteerism in Cranbury to ensure the long-term viability of the department.

### **HISTORIC PRESERVATION ELEMENT**

#### **Update Inventory of Historic Resources**

The Historic Preservation Commission should consider updating the inventory of historic resources outside of the historic district.

### **Continue to Protect the Barn Park**

The Historic Preservation Element recommends that the Township continue to support the renovation and adaptive reuse of the existing barns at the Barn Park, as appropriate.

### **Utilize Certified Local Government (CLG) Status**

The Historic Preservation Element recommends that the Historic Preservation Commission continue to take advantage of their CLG status to apply for grants for preservation efforts in the community.

### **Forge Preservation Partnerships**

The Historic Preservation Element recommends that the Township continue to partner with the Society and other non-profit entities in terms of funding, coordination, education, and administration in its preservation efforts.

## **UTILITY PLAN ELEMENT**

Much of the Utility Plan Element are, or can be, met through the following actions:

1. Enforcing the Stormwater Regulations adopted by the State of New Jersey of Water Quality Standards in 2004. Many of the issues regarding the need for clean stormwater runoff, protection of environmentally sensitive areas and the promotion of groundwater recharge are now addressed with performance standards and recommended designs.
2. Enforcing the Flood Hazard Regulations adopted in 2007 which has a goal of protecting streams and tributary areas by providing new buffers along drainage ways.
3. Inspecting and maintaining stormwater management devices installed as part of the 2004 regulations. It will be necessary for the Township to require owners of these devices to perform inspections as outlined in operating manuals to maintain optimal performance.
4. Compliance with the Tier A permit requirements as they relate to housekeeping items at Township facilities and the adoption and enforcement of the required ordinances.

## **AGRICULTURAL PRESERVATION ELEMENT**

### **Continue To Support Farmland Preservation In Cranbury**

The Agricultural Preservation Element recommends that, as agricultural properties become available, the Township evaluate each for its suitability for preservation and include them in the Farmland Preservation Program as appropriate. Key parcels to acquire include the Malouf and Reinhardt South properties.

## **RECYCLING**

### **Encourage Backyard Composting**

The Recycling Element recommends that the Township encourage backyard composting as a part of its overall yard waste management program. All municipal collection, processing, and distribution costs are avoided for leaves and yard trimmings that are composted by residents.

### **Encourage Property Owners to Leave Grass Clippings**

The Recycling Element recommends that the Township encourage residents to leave the clippings on the lawn. The clippings will then filter down to the soil, acting as a natural fertilizer. The lawn will be healthier, and the taller grass will shade the soil, cooling roots and limiting weeds.

## **GREEN BUILDINGS AND ENVIRONMENTAL SUSTAINABILITY**

### **Participate in Sustainable Jersey's Certification Process**

The Green Building and Environmental Sustainability Element recommends that the Township seek "Sustainable Jersey" certification. Sustainable Jersey Certification is a certification program that identifies clear actions that municipalities must implement to become a certified sustainable "green" community; provides clear "how to" guidance and tools to enable communities to make progress on each action; and provides access to grants, and identifies existing and new funding opportunities for municipalities to make progress toward the actions.

### **Provide Brochures on sustainable construction, renovation, remodeling and available grants and incentives.**

The Green Building and Environmental Sustainability Element recommends that the Township consider providing brochures at Town Hall that are available to applicants seeking a permit for new construction or remodeling which provide "best practices" information on green design, energy and water efficient appliances and renewable energy options, as well as existing state and federal grants and incentives for the use of energy efficient products.

### **Inaugurate An Educational Campaign on Sustainability**

The Green Building and Environmental Sustainability Element recommends that the Township consider launching an educational campaign on green building and sustainability.

### **Make municipal buildings and operations more sustainable**

The Green Building and Environmental Sustainability Element recommends that the Township adopt sustainable municipal purchasing, operations and practices.

### **3. Specific Parcels and Properties Recommendations by Master Plan Element**

#### **CIRCULATION ELEMENT**

The roadways included within the Traffic Circulation Element include U.S. Route 130, Brick Yard Road, Old Trenton Road, Station Road, Half Acre Road, and Liberty Way. Options/ recommendations for each roadway are provided below.

#### **U.S. Route 130**

1. With a Completed Liberty Way. Constructed as an alternate route or bypass of Route 130, Liberty Way would add needed north-south capacity and separate Cranbury's commercial traffic from commuter and regional traffic on Route 130.
2. Without a Completed Liberty Way. Extra capacity could come from adding lanes to Route 130. However, it could be expected that additional right-of-way would be required from properties fronting on Route 130. The Route 130 Bridge over the Cranbury Brook may require replacement or expansion. Any Route 130 widening would be subject to an NJDOT approval, feasibility analysis, and to its budgetary allocation.

#### **Brick Yard Road**

1. Obtain 30 feet of right-of-way from adjacent properties as new applications come in for development.
2. Require developers of future adjacent development fronting on Brick Yard Road to expand the half cartway width to 17 feet from centerline so that sufficient width and appropriate shoulders can be provided.

#### **Old Trenton Road (CR 685)**

1. Middlesex County is constructing improvements that include revised pavement striping. This change in traffic control should be an improvement. Conditions should be monitored after construction is completed.
2. Appropriate right-of-way dedication should be obtained from properties adjacent to Old Trenton Road near its intersection with Main Street as new applications for development come in.
3. Developers of property along Old Trenton Road should be required to construct a half cartway width consistent with the cross-sections required by the County.
4. Additional speed limit signs should be added and speed limits should be enforced.
5. It is strongly recommended that Cranbury Township transfer jurisdiction of Old Trenton Road between South Main Street and Route 130 to Middlesex County. Old Trenton Road with a County Route designation from East Windsor Township to Route 130 could accommodate truck traffic all the way to Route 130. This would limit trucks heading north on Main Street that would be following the County

Route. (Truck traffic is barred from using local streets if County routes are available.)

### **Station Road (CR 615)**

1. Middlesex County currently has jurisdiction of that section of Station Road located between Main Street and Route 130. It is strongly recommended that Cranbury Township request taking jurisdiction of this section of roadway from Middlesex County so that traffic calming measures could be implemented that the County might not permit.
2. With County approval—should Cranbury Township not obtain jurisdiction of this section of Station Road—the Township could consider reconfiguring this roadway to maximize desired traffic calming. Traffic Calming could include changing the road to be one-way eastbound from its intersection at Main Street to U.S. Route 130. This will eliminate westbound traffic that would seek to use Station Road to bypass Route 130 heading to westbound Old Trenton Road. This could reduce the total volume of traffic using Station Road. However, it would also limit movements which would then require traffic to be redistributed to other roadways and intersections within the Village. Any reconfiguration should be reviewed by Cranbury Township police and fire departments to ensure that proper emergency access to/from Main Street would be available.
3. Prohibit larger vehicles (i.e., trucks) from entering this section of Station Road due to geometric constraints. This could be done at Cranbury Township's will should it obtain jurisdiction from the County.

### **Half Acre Road**

1. Acceleration and Deceleration Lanes should be required at driveways of warehouse office developments which front on Half Acre Road.
2. Appropriate left-hand storage lanes should be provided at all proposed site driveway intersections to accommodate left turn movements into the site. A 50-foot storage length is suggested as a minimum, although the actual length should be determined by a traffic analysis based on left turning volumes.

### **Liberty Way**

1. The route of the southern extension of Liberty Way was originally intended to connect with Route 130 at the signalized intersection of Old Trenton Road. Environmental constraints (the presence of wetlands) may not allow a connection at this location. An alternate route has therefore been proposed for right-in/right-out access to and from Route 130 north of the Old Trenton Road intersection. It is recommended that the Township work with both the New Jersey Department of Environmental Protection and the NJDOT to determine if an alignment can be made that intersects opposite Old Trenton Road.

2. It is strongly recommended that the southern extension of Liberty Way, south of Station Road, include a stub connector roadway to provide access directly between Liberty Way and the Viridian Property (Lot 10 of Block 10 and Lot 1 of Block 12). Provision of a connection between development on the Viridian property to Liberty Way would limit the traffic impact generated by a development on the Viridian property on the surrounding roadway network (i.e., Hightstown-Cranbury Station Road, Brick Yard Road and portions of Station Road) and would provide a direct connection to roads better configured to accommodate the volume and size of vehicles generated by development on this site.
3. An appropriate speed limit should be established for both northbound and southbound directions. The speed limit shall consider the size and volume of trucks using Liberty Way should be established and posted.
4. The roadway should be flared at intersections to provide left-turn storage lanes and dedicated right-turn lanes.
5. Upon completion of Liberty Way, the Township could explore transferring jurisdiction of Liberty Way to Middlesex County, thereby making Liberty Way a County Road.
6. Funding for and/or construction of the remaining unconstructed sections of Liberty Way will be provided for by a combination of developers, Middlesex County, and other public and private funding sources. It is recommended that fair share contributions be collected from future development that will impact the roadway. It is also recommended that fair share contributions be made by developers based on trips generated from specific sites based on the following formula: the design peak divided by the total anticipated design peak traffic on the Liberty Way roadway at full buildout.

#### **Maplewood Avenue-Scott Avenue**

Traffic-calming measures could be instituted along Maplewood Avenue and/or Scott Avenue. One method of traffic calming that could be considered is a “speed table” (a raised section of roadway, like an extended speed bump). An appropriate and safe location should be determined based upon an evaluation of existing conditions. The speed table would be installed with appropriate pavement markings and signage. A temporary speed table could be installed and assessed over a period of time to determine if the traffic control device slowed vehicular speed and/or reduced traffic volume without compromising safety.

#### **U.S. Route 130 and Brick Yard Road**

##### *Options for U.S. 130 and Brick Yard Road*

Brick Yard Road could be realigned. Land would need to be deeded or condemned in order to provide sufficient right-of-way for this alignment. The intersection is under the jurisdiction of the NJDOT and any reconfiguration would require their approval.

The Traffic Circulation Element includes the following Options/ recommendations for intersections in the Township:

**The U.S. Route 130 and Old Trenton Road Intersection**

1. The Township is strongly recommended to consider connecting Liberty Way to the intersection of Route 130/Old Trenton Road. As noted above, the route of the southern extension of Liberty Way was originally intended to connect to this signalized intersection to make use of an existing traffic signal. This intersection would be configured in such a way as being able to handle the additional traffic volumes and movements. Without this connection, Liberty Way would not function as the truck bypass it was intended to be and allow for those movements necessary to access Cranbury's warehouse-industrial areas to the east of Route 130. The connection of Liberty Way at Route 130/Old Trenton Road will take conflicting movements away from other intersections (such as Route 130/Station Road), which are less capable of accommodating conflicting movements.
2. The location where Liberty Way is planned to intersect with Route 130/Old Trenton Road is one where freshwater wetlands have been identified and mapped. Therefore the intersection of Liberty Way with Route 130 opposite Old Trenton Road would require the filling of wetlands. The Township should explore with the New Jersey Department of Environmental Protection and NJDOT the possibility of obtaining permits for this purpose, and determine whether wetland mitigation could be achieved to permit this to occur.
3. The intersection of Route 130/Old Trenton Road could be reconfigured with a southbound Route 130 left-turn lane for access to Liberty Way. The Liberty Way approach could then have an exclusive left-turn lane, a through-lane and a right-turn lane. It would have one receiving lane for northbound Route 130 right turns, one for Old Trenton through-movements and one for left turns from southbound Route 130. The eastbound Old Trenton Road approach would be reconfigured to have an exclusive left-turn lane, a through-lane, and a right-turn lane.
4. Whatever the configuration, the Township should proceed with plans to connect Liberty Way with Route 130 at the intersection of Old Trenton Road, and seek fair share contributions from developers for the improvements that will be necessary for intersection and signal improvements.
5. Traffic volumes on Old Trenton Road are not anticipated to significantly increase with the Liberty Way connection at Old Trenton Road. Traffic heading to/from points west are not currently prohibited from using Old Trenton Road. With the Liberty Way connection, motorists currently using Old Trenton Road would continue to do so.
6. Additional right-of-way would need to be acquired in order to implement the required improvements at this intersection.

7. Since the intersection is under NJDOT jurisdiction, any reconfiguration would require their approval.

### **U.S. Route 130 and Station Road Intersection**

1. The Township should strongly consider connecting Liberty Way to the intersection to Route 130 opposite Old Trenton Road. As noted above, the route of the southern extension of Liberty Way was originally intended to connect to this signalized intersection to make use of an existing traffic signal. This intersection could be configured to handle the additional volume and conflicting movements. Without this connection, Liberty Way will not function as the intended bypass and will limit movements necessary for access to Cranbury's warehouse-office areas east of Route 130.
2. Without the Liberty Way Bridge, the intersection of Route 130/Station Road may require additional southbound left-turn capacity. Since the left-turn lane is already extended to its maximum useful length, dual left-turn lanes may be required to accommodate the capacity. It should be noted that such a configuration is typically not desirable from a traffic engineering viewpoint, and the NJDOT typically discourages such configurations. It should be noted that two (2) eastbound receiving lanes would be required along Station Road to accommodate the dual left from southbound Route 130. Additional right-of-way will be required along the south side of Station Road.
3. With the Liberty Way Bridge built, but the southern intersection of Liberty Way built as a right-in/right-out intersection along Route 130 northbound, the intersection of Route 130 and Station Road would require a substantial reconfiguration that may include the dual left-turn lanes for southbound Route 130 and dual left-turn lanes for the westbound Station Road approach. This configuration would be very undesirable from a traffic engineering viewpoint and may not meet NJDOT's approval. Dual left turns require stoppage of opposing and/or conflicting movements. The efficiency of the distribution of the traffic would be greatly compromised, and as such, this may not be a viable option. Closure of the west Station Road approach may be required; however even that may not be sufficient to mitigate the severely constrained intersection. This configuration would also require additional ROW along the southbound side of Station Road for two (2) receiving lanes.
4. The optimal roadway improvement would be to have Liberty Way Bridge built, and with its southern intersection located opposite Old Trenton Road. Under this scenario, the intersection of Route 130 and Station Road would experience considerably reduced traffic congestion.
5. Additional right-of-way would have to be acquired to provide sufficient space to make necessary improvements at this intersection.

6. Since this intersection is under NJDOT jurisdiction, any reconfiguration of this intersection would require their approval.

### **Station Road and Liberty Way Intersection**

#### *Options for Station Road and Liberty Way*

1. Traffic signal warrants should be reviewed for either the Bridge being constructed, or for the southern extension (between Station Road and its intersection with Route 130 either at Old Trenton Road or along northbound Route 130). Should warrants be met, the intersection would require signalization. The Township should consider fair share contributions from all new development for future signalization at this intersection.
2. With Liberty Way Bridge built, but the southern intersection at Route 130 for right-in/right-out turns only, through movements would be limited at this intersection and exclusive left-turn lanes would be required.
3. Exclusive left-turn lanes could be necessary for north-south Liberty Way and/or for east-west Station Road. The Township should consider acquiring additional right-of-way should such a configuration be necessary.
4. With the Liberty Way Bridge built and with the southern intersection of Liberty Way opposite Old Trenton Road, the optimal configuration of the roadway network is achieved. The intersection of Station Road and Liberty Way will siphon off traffic using the Station Road/U.S. Route 130 intersection. The increase in through traffic will require a configuration that allows more through movements.
5. Any improvements at this intersection would be under the jurisdiction of Middlesex County and would require County approval.

### **Half Acre Road and Liberty Way Intersection**

#### *Options for Half Acre Road and Liberty Way*

1. Should the Bridge be constructed, traffic signal warrants should be reviewed. If the warrants are met, the intersection would require signalization. The Township should consider fair share contributions from all new development for future signalization at this intersection.
2. Exclusive left-turn lanes would be necessary for north-south Liberty Way and for east-west Half Acre Road. The Township should consider acquiring sufficient right-of-way to allow this to occur.
3. Any improvements at this intersection would be under the jurisdiction of Cranbury Township. The Township would be required to pay for the costs of providing electrical service and for maintaining the traffic signal.

### **Station Road and Hightstown-Cranbury Station Road Intersection**

1. If the approximately 2,800,000 square feet of warehouse and office space is constructed, traffic signal warrants would be met. A traffic signal would then be required.
2. Exclusive left-turn lanes could be necessary for Hightstown-Cranbury Station Road northbound approach and/or for the westbound Station Road approach. The Township should consider acquiring sufficient land so the right-of-way could accommodate the improvements.
3. Any improvements at this intersection would be under the jurisdiction of Middlesex County and would require County approval.

### **Increasing the Downtown Parking Supply**

Potential sources of additional parking, to the extent it is needed, include providing a public parking lot of appropriate size near the Village Center such as on the west end of Park Place. However, further investigation would be necessary to determine its feasibility. Additionally, Cranbury Township might first consider reconfiguring existing on-street parking to maximize efficiency and generate a greater number of spaces, such as angled parking, reducing the size of on-street parking spaces, eliminating designated parking spaces and replacing with a single traffic stripe that runs parallel to the center. In addition, parking signage could be provided to direct motorists on Main Street to use public parking lots within "walking distance" of Main Street.

### **Pedestrian and Bike Path Improvements**

With regards to the adoption of the greenways system envisioned in the 2000 and 2007 ORSP recommended that the Township identify all of the existing easements along the greenway and take advantage of opportunities presented to make the greenway a reality.

In addition the recommendation regarding the greenway plan, the 2007 OSRP recommended the following with respect to pedestrian/ bicyclist paths and greenways:

- Establishing improved, direct, paved, barrier-free paths to Village Park, Village Green Park, and Heritage Park by utilizing the existing sidewalk system along with linkages to paved walkways in the parks. Benches should be placed at regular intervals. Improving paths with signage and cleared vegetation at passive recreation parks.
- Extending the path along Cranbury Brook the length of the woods through the Barclay property, making a loop with the existing path. Benches should be placed along the loop and the path should be wide enough for biking and walking.
- Establishing a bikepath/walkway along the Cranbury Brook from Plainsboro Road, along brook to the Sardini property.

- Identifying a wheelchair usable path from the age-restricted, Four Seasons development to Heritage Park which already has wheelchair usable paths. Creating a bikeway connection to Unami Park via Pumphouse Road and Wynnewood Drive with signage.
- Clearing existing trails in Unami Woods and providing signage at trail entrances, particularly Pumphouse Road, as well as a curb-cut easement on Wynnewood Drive.
- Creating a wheelchair accessible path around the regulation ballfield at Village Green.
- Creating wheelchair usable paths in Village Park, and establishing safe paths to the park from the Elms and other town locations.
- Providing a pedestrian-only walkway to provide access to the new Village Green facility from Bunker Hill Road.
- Maintaining the natural, ecologically smart paths through passive parks by avoiding areas of environmental constraints, preserving valuable vegetation and habitat, and in a manner which does not disrupt scenic views of the natural landscape.
- Engaging a traffic consultant to study access to Millstone Park to determine ways in which pedestrian and vehicular access and parking, particularly along Old Trenton Road, could be made safer and more convenient

This Master Plan recommends establishing a Bike Route Plan for the Township, but not separate bike lanes.

## **COMMUNITY FACILITIES ELEMENT**

### **Reserve a site for a future new library**

The Community Facilities Element recommends reserving land within the existing Town Hall Complex for a future, standalone library; specifically, to be located north of the municipal and school parking lots between the tennis courts and the Babe Ruth field. The Circulation Element of the Master Plan recommends extending Park Place Circle into the municipal and school parking lot, making it easier to access the site of the proposed library.

### **Find a site for a new DPW storage barn**

The Community Facilities Element recommends that a location be identified for the future construction of a DPW storage barn for the Township's truck fleet and heavy equipment.