



# Township of Cranford Master Plan



Prepared by **T&M**  
ASSOCIATES

Adopted September 30, 2009



# Township of Cranford Master Plan

County of Union, NJ

Prepared for:

Cranford Township Planning Board

Prepared by:

  
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This original of this document has been signed and sealed in accordance with Law.

Adopted by the Cranford Township Planning Board on **September 30, 2009**

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The Planning Board acknowledges the efforts of the Cranford Township Environmental Commission in the preparation of the Conservation Plan Element of the Master Plan and in particular the Project Team for the Conservation Element consisting Chairman Nelson Dittmar, Ann Darby, Steve Jandoli, Linda Feder, Committeeman Mark Smith, and Robert Hudak, Township Zoning Officer.

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The Planning Board incorporates the Township’s Natural Resources Inventory, prepared by the Cranford Environmental Commission, December 2003, into this Master Plan by reference as a technical report and foundation of the Master Plan and its Conservation Plan Element.



## **PRINCIPLES, GOALS, OBJECTIVES, AND DEVELOPMENT POLICY OF THE TOWNSHIP MASTER PLAN**

### **INTRODUCTION**

The Township of Cranford Master Plan is intended to guide the growth and development of the Township over the course of the next six (6) years. The Municipal Land Use Law requires that all Master Plans contain a statement of principles, assumptions, policies and standards upon which the constituent proposals for the physical, economic and social development of the municipality are based. The Principles, Goals, Objectives and Development Policy of the Township Master Plan satisfy this requirement and provide the foundation for the other components of the Master Plan.

The Township of Cranford Master Plan is based upon objectives, principles, assumptions, policies and standards which have been developed over a period of time by the Township Committee, Planning Board, Zoning Board of Adjustment, and other Township Departments, and are intended to serve as a guide for the physical, economic and social development of Cranford.

### **THE TOWNSHIP VISION FOR 2020**

- *Highlight the river as an asset to the community*
- *Promote economically vibrant Downtown with a balance of office, professional, retail and residential uses*
- *Encourage commercial uses in the Downtown that make it a destination*
- *Maximize economic importance of the Cranford Business Park*
- *Highlight accessibility to various modes of transportation (rail, bus, air and highways) and Cranford's proximity to major cultural, recreational and sporting venues*
- *Maintain and enhance strong park and recreation programs*
- *Maintain and increase open space, including through State, County, Municipal or other public purchase of property and through zoning regulation*
- *Continue positive relationship with School District to continue using fields and facilities*
- *Implement sensible land use development policies so as to avoid adversely impacting Cranford's high-quality school district*
- *Improve pedestrian, recreational and automobile safety*
- *Work to preserve small town character and historical architecture*
- *Concentrate dense residential in the Downtown Core<sup>1</sup> with less dense residential uses emanating out from the Core*
- *Create a parking strategy to accommodate future growth*
- *Encourage environmentally-friendly practices and principles*

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<sup>1</sup> As identified in the Land Use Plan Element, p. LU-13.

## **PRINCIPLES**

The Township of Cranford Master Plan is based upon the principles of balanced land use, sustainable development, and equitable growth.

**BALANCED LAND USE** ~ Land is a finite resource. Residential, commercial, industrial, agricultural, public, recreational, and open space uses compete for a share of this limited and increasingly valuable resource. The Township's future land use and development must be balanced to meet the public needs and serve the goals and objectives of the Township plan for housing and economic development, redevelopment, community facilities and services, clean and abundant water, good air quality and green spaces for recreation and biological diversity.

**SUSTAINABLE DEVELOPMENT** ~ "Sustainable development meets the needs of the present without compromising the ability of future generations to meet their needs."<sup>2</sup> Development should not exceed the limits of the Township's natural systems and infrastructure, nor should it degrade them.

**EQUITABLE GROWTH** ~ The benefits and burdens of growth, development, redevelopment, and conservation in the Township should be equitably shared.

## **GOALS AND OBJECTIVES**

### **Economic and Non-Residential Goals**

1. Conserve and promote the economic vitality of the Downtown so that the core of Cranford remains healthy.
2. Provide a parking strategy to accommodate all of the Downtown's constituents: commuters, office workers, shoppers and Downtown residents. Require adequate parking as a prerequisite to new development.
3. Recognize the economic value of multi-story buildings within the Downtown. Encourage the fullest use of existing upper floors and the creation of additional upper-story floor space.
4. Promote the Township's accessibility to transportation facilities such as the Garden State Parkway and New Jersey Transit rail and bus lines as attractive to both Township businesses and residents.
5. Continue to develop commercial and business (i) in the Downtown, (ii) on the North, South and Centennial Avenues, and (iii) in existing centers of commerce.
6. Continue to evaluate development opportunities that utilize Cranford's rail and bus lines in order to encourage an increase in mass transit usage.
7. Encourage the development of a diversified economic base that generates employment growth, increases property values, and promotes the improvement of underutilized properties.

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<sup>2</sup> United Nations World Commission on Environment and Development (Brundtland Report, 1987).

8. Recognize unique characteristics of clustered businesses and promote development consistent with those unique characteristics.
9. Capitalize on Cranford's competitive advantages for economic development, including its designation as a regional work center, metropolitan location, extensive transportation and utility infrastructure, a stable and highly skilled labor force and an excellent quality of life.
10. Create attractive gateways at the principal entrances to the Township through upgraded land uses, streetscape improvements and signage.
11. Develop strategies which maximize the economic potential of Cranford's Business Park including the creation of zoning ordinances which would permit more intense land use.
12. Explore and promote greater linkages between the Downtown, Union County College, and the Cranford Business Park.
13. Actively incorporate the arts and cultural activities into the Downtown to enhance its appeal as a destination for the arts.

### **Residential Goals**

1. Provide a wide range of housing to meet the needs of residents in diverse income groups.
2. Define residential uses and boundaries to guard against intrusion from incompatible land uses.
3. Provide transitional buffer zones where commercial areas border residential areas.
4. Concentrate higher density residential uses in the Downtown to take advantage of transportation infrastructure and require adequate parking as a prerequisite to new development.
5. Monitor opportunities for funding that structures a local rehabilitation program that meets COAH's requirements for rehabilitation housing.
6. Require all in-fill development to be done in a manner that is consistent and compatible with the surrounding neighborhood and environment.
7. In existing residential zones, encourage the preservation of existing housing structures and limit new development that increases density.
8. Ensure that public and quasi-public land use remains compatible with the needs and character of adjacent neighborhoods.
9. Limit developments that would generate a high volume of vehicle traffic on local and collector streets.
10. Encourage the preservation, maintenance, and restoration of all residential properties.

### **Conservation Goals**

1. Encourage sustainable development practices.
2. Adopt and practice environmentally responsible policies.
3. Aggressively seek to acquire additional open space and opportunities to preserve open space.
4. Maintain Cranford as a Tree City, U.S.A. community.

5. Conserve and protect as many environmentally sensitive areas in the Township as possible, including but not limited to all waterways, wetlands, and woodlands.
6. Require all development to be subject to rigorous environmental evaluation to minimize any potential adverse environmental impacts.
7. Pursue the development of a Township-wide green belt incorporating natural areas, environmentally sensitive areas, and scenic areas, such as the Rahway River to connect various parts of the Township through a unique open-space network.
8. Promote stormwater best management practices to improve local drainage patterns and enhance the environment through implementation of Cranford's Stormwater Management Plan.
9. Maintain and upgrade the storm and sanitary systems.
10. Preserve existing trees to improve air quality, reduce erosion, and to preserve community character.
11. Protect groundwater quality and promote the recharge of groundwater.
12. Preserve floodplains to mitigate the adverse impact of flood events and to maintain the ecological health of stream corridors.
13. Preserve the Township's open spaces and protect them from development.
14. Incorporate energy-efficient and renewable energy technologies into new development.
15. Continue to implement the shade-tree-planting program by planting additional street trees.
16. Promote remediation of brownfield sites and encourage sustainable reuse.
17. Promote and encourage use of LEED (Leadership in Energy and Environmental Design) building standards in all development.
18. Maintain and seek to expand recycling activities within the Township.
19. Promote change to establish Cranford as an environmentally sustainable community.
20. Protect air quality and support efforts to mitigate airplane noise.
21. Promote development in existing nonresidential areas that accommodate alternative modes of transportation and shared parking.

### **Circulation Goals**

1. Maintain and improve the road and transportation system which will enable the safe and efficient movement of people and goods.
2. Continue to encourage road improvements and traffic management systems which aid in improving all East-West and North-South movements on all State, county and municipal roads.
3. Support State and County efforts to take a regional approach to improve road and traffic infrastructure.
4. Expand existing bus transit to link the Downtown, Union County College and the Business Park.
5. Promote the creation of a transportation system that enhances local circulation, increases regional access, and provides links to regional destinations.

6. Coordinate land uses and transportation investments to encourage alternatives to driving such as mass transit, bicycle and pedestrian pathways.
7. Improve traffic signals at key intersections, and provide areas for pedestrian safety on long crosswalks.
8. Provide bike lanes that connect activity centers throughout the Township.
9. Coordinate maintenance and improvement projects with neighboring communities and Union County.
10. Continue to monitor areas with high traffic accident rates and develop improvement programs such as traffic calming measures.
11. Provide clear signage to parking facilities and key destinations within the Township.
12. Insure coordinated management of all parking related matters.
13. Coordinate with County and State agencies to further implement Greenway throughout Township.

### **Community Facilities and Utilities**

1. Provide a full range of facilities and services to accommodate existing and future Township needs in a convenient and cost-effective manner.
2. Maintain excellent public safety with appropriate facilities, manpower, and equipment distributed according to needs.
3. Encourage the continued use of the public library as a positive benefit to the community.
4. Encourage the preservation of historic buildings and landmarks that are significant to Cranford's past.
5. Create a strategy for the preservation or disposition of municipal vacant land, reinvesting any proceeds into expanding open spaces.
6. Investigate the consolidation or sharing of municipal services.
7. Dedicate sufficient resources to regularly scheduled infrastructure maintenance as part of an ongoing long-term maintenance strategy.
8. Periodically review the adequacy of all municipal systems and services and project future needs and demands.
9. Cooperate with surrounding communities, County, and State organizations to make the best use of available public facilities.
10. Ensure that developers bear their share of infrastructure improvement required by the development.

### **Recreation and Open Space Goals**

1. Increase and improve park, open space, recreational and cultural facilities for all Township residents with an emphasis on providing open space in the Downtown.
2. Cooperate with public and quasi-public institutions to utilize and maintain their undeveloped and underdeveloped land for open space or recreation.
3. Insure that quality open space is provided and maintained as development occurs.
4. Preserve pedestrian paths to parking and recreation facilities and where feasible create additional paths.

5. Encourage the use of high quality landscaping design with public art (e.g. statues) in developing civic spaces.
6. Develop an increasingly diversified array of quality recreational and cultural facilities, services and offerings.
7. Recognize and promote the recreational opportunities of Cranford West.

### **Community Identity Goals**

1. Develop and effectively communicate a strong and appealing identity for the Township.
2. Create attractive "gateways" into the Township and improve the appearance of intermediate and major thoroughfares.
3. Develop and implement streetscape projects for major public thoroughfares.
4. Preserve and protect Cranford's small town character, historic elements and natural amenities.
5. Maintain and enhance the appearance of all Township-owned properties.
6. Encourage quality architectural and landscape design through the use of design standards that are consistent with the architectural history of the surrounding neighborhood.
7. Implement sensible land use development policies so as to avoid adversely impacting Cranford's high-quality school district.
8. Promote the recreational uses and aesthetic beauty of the Rahway River.

### **ASSUMPTIONS**

1. The Township will be able to guide its growth in accordance with the Municipal Land Use Law and will have meaningful input into any proposed County, regional, State and/or Federal development.
2. There will be no natural or man made disasters which will affect the development of the Township or the Township's ability to implement the Master Plan.
3. The future growth during the next six (6) year period will not exceed the capacity of the Township to provide essential community facilities, utilities and/or services.

### **STANDARDS**

The Land Use Element provides standards for the existing and proposed location, extent, and intensity of development of land to be used in the future for varying types of land uses and other public and private purposes. This Master Plan provides standards for stating the relationship to the existing and proposed land use plan changes. This Master Plan also creates standards for population density, development intensity throughout the municipality and delineates areas which are generally not developable. The Township's Land Development Ordinance, including its zoning, site plan, and land subdivision and design regulations, provides specific standards for the design, construction and development of individual land uses and development sites within the Township.

## LAND USE PLAN ELEMENT

### INTRODUCTION

Cranford is a thriving, mature, suburban community that grew up around the meandering Rahway River. Since its initial development, Cranford quickly grew into a bedroom community as residents left New York City for the surrounding undeveloped lands. By 1885 Cranford was a commuter suburb when reportedly seventy six (76) persons commuted to New York City<sup>3</sup>. Cranford continued to develop around an urban core of shops, factories, schools and churches followed by suburban homes. Master Plan stakeholders consider the River one of Cranford's greatest strengths and weaknesses, which is a strength given the recreational opportunities and sense of place it creates for Cranford, but a weakness given the flood prone areas it creates.

Cranford's last comprehensive Master Plan was adopted in 1979. The 1979 plan discussed land use, housing, circulation, community facilities, the Downtown and implementation. Like many plans of that era, the 1979 Plan was generalized in its Planning and Land Use Recommendations. Since the 1979 Plan, the Township has reexamined the Master Plan in 1988, 1995 and 2002. These reexamination reports reaffirmed many of the 1979's Plan's goals and objectives, but also identified many new planning challenges that face the Township. These include the regulation of oversized homes, future development of the Downtown, improving pedestrian linkages and connections to the Rahway River. The 2002 Reexamination Report acknowledged a need to comprehensively reevaluate the Township's land use, housing, circulation, open space, recreation and historic preservation needs.

This Master Plan provides a comprehensive framework for future decision making regarding the Township's land use and planning policies. The planning process provided the opportunity for community residents and others to provide input on what they want the Township to be like in the future, and identify the key areas where the Township must act to preserve the characteristics of Cranford it wishes to retain. Accordingly, this Master Plan sets forth a set of goals, objectives, strategies, and specific actions to make the plan a reality. It guides future development of Cranford, reflects the wishes of its residents and sets the Township's relationship within Union County and the Region.

The Township of Cranford is a diverse community with a land area that totals 4.8 square miles. It includes a variety of land uses and housing types and commercial, institutional and industrial activities. While Cranford's land use has not changed dramatically in the last few decades, many state planning policies, changes in the real estate marketplace and statutory requirements have changed which affects the future of Cranford. In 2001, the New Jersey State Planning Commission adopted a State Plan to guide the future development of the State. This Master Plan recognizes the goals, objectives and strategies of the State Plan, which were considered in the development of this Plan. This Plan also recognizes and considered rules created by the New Jersey Department of Environmental Protection (NJDEP) and the Federal Emergency Management Agency (FEMA), which has adopted rules and regulations that regulate development in wetlands, floodplains, areas near stream banks, brownfields and other environmentally constrained lands. Furthermore, since the 2002 Master Plan Reexamination, the Council on Affordable Housing (COAH) has adopted and subsequently revised its regulations establishing a new "growth share" approach in establishing local

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<sup>3</sup> Lawrence P. Fuhro, president of the Cranford Historical Society



affordable housing obligations. A separate housing plan element addresses these needs and an implementation strategy.

This Master Plan also recognizes global awareness of climate changes, a significant increase in cost of energy and the potentially environmentally destructive nature of our carbon footprint—“measure of the impact human activities have on the environment in terms in the amount of green house gases produced and measured in units of carbon dioxide.”<sup>4</sup>

The Township's many community facilities include: schools; libraries; emergency service facilities for police, fire protection, and first aid; and, community recreation areas and playgrounds. The majority of Cranford's community facilities are located near or in the Downtown. The Township is served by a well developed transportation network that includes local streets, County roads, and State highways as well as a passenger rail line and two freight rail lines.

The Rahway River and its tributaries are important features of Cranford's landscape and provide needed drainage for the community, as well as scenic views and habitat areas for a variety of species.

Cranford is a Transit Village identified by the State Department of Transportation. The Township also created the first Special Improvement District (SID) in the State of New Jersey. While the Township population is stable, it experiences growth pressures in the form of residential infill development, (i.e., teardowns and expansions to existing homes).

To meet the public need for the orderly growth and development of the Township, and to provide balanced land use that includes housing, community facilities, economic development and job creation as well as the conservation of its natural resources, the Cranford Planning Board has prepared this land use plan element in accordance with the New Jersey Municipal Land Use Law (N.J.S.A. 40:55D-28.b (2)). The land use plan is based upon the objectives, principles, policies and standards for the development of the Cranford Master Plan and takes into consideration all the other elements of the Master Plan as well as the State Development and Redevelopment Plan.

## **RELATIONSHIP OF THE LAND USE PLAN ELEMENT TO THE TOWNSHIP ZONING ORDINANCE**

The New Jersey Municipal Land Use Law requires that the Township Master Plan include a land use plan element. The purpose of the plan is to guide the use of lands within the Township to protect the public health, safety, and welfare. The Municipal Land Use Law further requires that the Township may only adopt a zoning ordinance to regulate land use and the location of buildings and structures after the adoption of the land use plan element. The law further requires that the provisions of the Township zoning ordinance or any amendment to the zoning ordinance shall either be substantially consistent with the land use plan element or designed to effectuate it.<sup>5</sup>

The land use plan map is based upon Cranford's vision for future growth and conservation that maintains a compact pattern of development within the Township's borders. The Township envisions a vibrant Downtown, appropriate infill development, adaptive reuse of obsolete industrial and manufacturing uses and brownfield reclamation. Cranford's nonresidential areas and suburban

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<sup>4</sup> [www.carbonfootprint.com](http://www.carbonfootprint.com)

<sup>5</sup> N.J.S.A. 40:55D-52.a.



development transitions at a linear greenway of preserved open spaces that extends along and adjacent to the Rahway River within the Township limits.

The land use plan element also presents the standards for density and development intensity recommended for Cranford.

### **HISTORICAL OVERVIEW**

During the early 1900's Cranford was known as the "Venice of New Jersey". Cranford grew up around the Rahway River and the amenities it brought to city dwellers during periods of significant industrial activity in New Jersey and the United States. According to the Township of Cranford Website<sup>6</sup> "in 1720, John Crane of nearby Elizabeth Towne (now Elizabeth) built a grist mill on the North side of a ford in the river and a sawmill on the south side. That mill at Crane's Ford provided grain for Washington's troops during the Revolution."

Over the years, Cranford has evolved from a recreation destination to a bedroom community to New York City. The Township maintains a classic land use pattern consisting of reduced density as the distance from the Downtown increases.

Today, Cranford is shaping a new vision and taking a new direction in an effort to create a sustainable future.

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<sup>6</sup> [www.cranford.com](http://www.cranford.com)

**LAND USE ISSUES**

There are several land use issues which are addressed in the Land Use Plan, as follows:

1. Permitted uses and bulk requirements were evaluated for all zoning districts in the Township. A particular emphasis was placed upon the following districts/areas:
  - a. Downtown Core
  - b. Cranford Business Park
  - c. Village Commercial
2. The future use of non encumbered Township-owned properties is addressed in this Plan.
3. A need to consolidate zoning districts to simplify rules, regulations and standards within the nonresidential districts is a policy objective of this Master Plan.
4. Addressing parking needs in the Downtown.
5. Planning for parking demand associated with residential and commercial growth in targeted areas of the Township.
6. The Plan evaluates the adopted zoning for consistency with the existing land use pattern. There are several areas of the Township where zone changes are recommended to be consistent with existing land uses, while nonconforming land uses are encouraged to transition to a conforming use over time.
7. The types of uses in nonresidential districts are evaluated to reflect the type of development most appropriate for the respective district.
8. Implementation of standards to ensure high quality commercial development is evaluated and addressed within this Plan.
9. The Plan evaluates Cranford's strengths to capitalize on the amenities of the Rahway River, established Downtown, existing county parks and accessibility to various modes of transportation.
10. The Plan recognizes flooding problems and the impacts of the Federal Emergency Management Agency Regulations and needed changes to encourage building outside of the 100-year floodplain.
11. The Plan addresses appropriate infill for residential and commercial development.
12. The Plan addresses Township policies for consistency with the State Development and Redevelopment Plan (SDRP), adjoining community zone plans and the location of adjoining community public wellheads.
13. The Plan recognizes a need to provide affordable housing in accordance with state regulations. Such requirements and recommendations are evaluated within the Housing Plan Element and Fair Share Plan.
14. Recognize the need for a wide range of housing choices to accommodate a broad range of age based demographics.
15. The need for a separate public district is evaluated within this Plan.
16. The defunct Staten Island Railroad from Cranford Junction to the Arthur Kill-owned by NJDOT has been identified for potential freight use. The Master Plan acknowledges the potential reactivation of this line and a need for the Township to monitor its impacts.

**EXISTING LAND USE**

Table LU-1, Existing Land Use by Type, tabulates how land in Cranford is currently utilized by acreage and by percentage of developed or open land, and by major category and subcategory of land use. Map LU-2 – Existing Land Use graphically depicts the land use information contained in Table LU-1.

As summarized below, approximately 44% of the land in Cranford is developed for residential use. Approximately 20% of Cranford is roads and road rights-of-way, which includes the right-of-way of the Garden State Parkway. Recreation and open space lands comprise more than 12% followed by over 7% commercial, 3.5% public quasi-public and 5% schools. Industrial (3%), transportation (including rail) (2.1%), the Rahway River (1.5%), vacant unimproved land (0.5%) and agriculture (0.2 %) comprise the remainder land uses respectively.

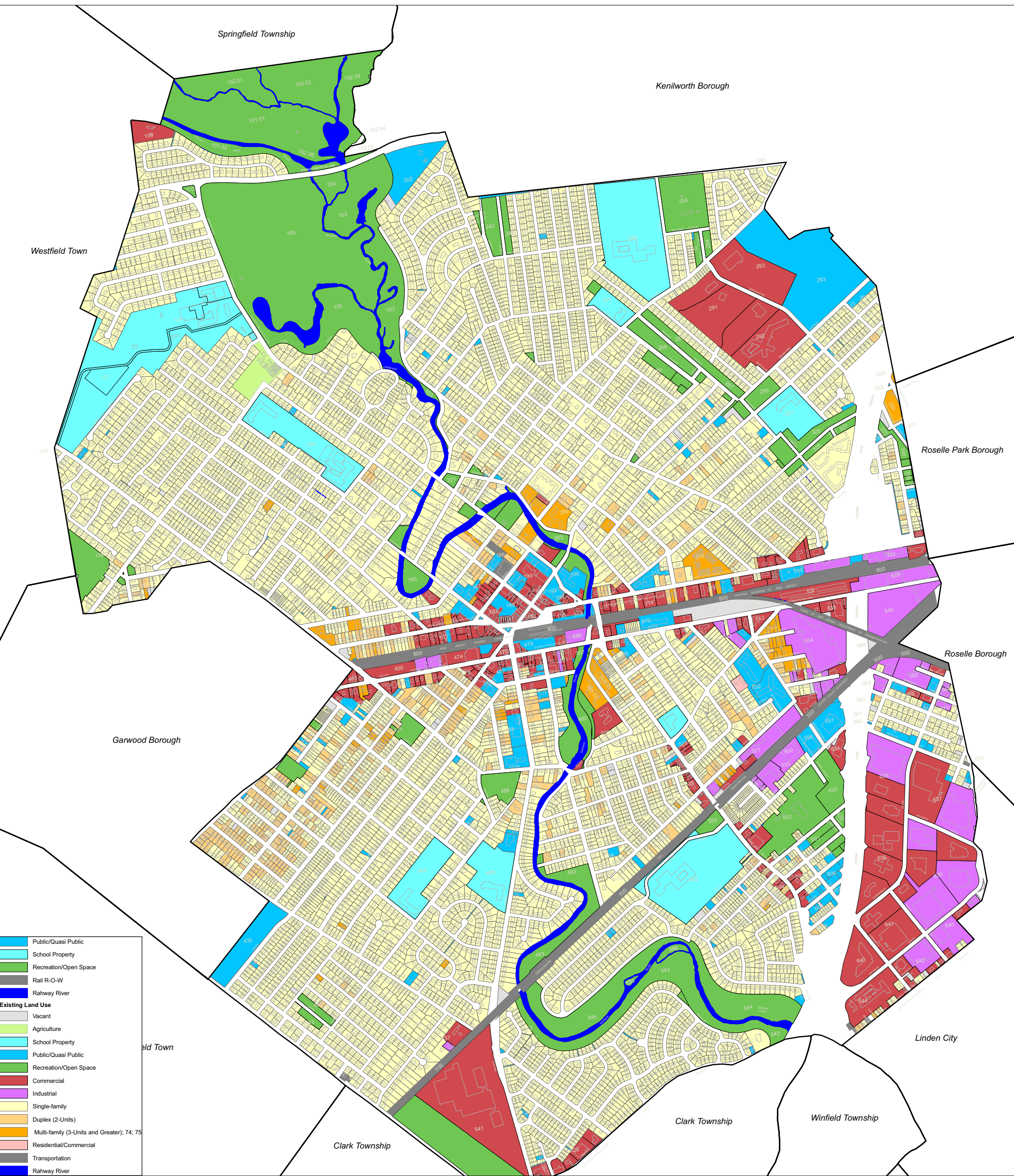
**Table LU-1:  
Existing Land Use – 2009**

<b>Existing Land Use</b>	<b>Acres</b>	<b>Percent</b>
Vacant (unimproved land)	14.3	0.5%
Agriculture	5.5	0.2%
School	155.6	5.0%
Public/Quasi-public	106.9	3.5%
Recreation and Open Space	381.4	12.4%
Commercial	229.7	7.4%
Industrial	93.0	3.0%
Single-family residential	1260.4	40.8%
Duplex residential (two-family)	75.6	2.4%
Multi-family residential (3 units or >)	36.7	1.2%
Transportation (Rail)	65.1	2.1%
Roads (Including GSP right-of-way)	620.2	20.0%
Rahway River	45.6	1.5%
<b>Total</b>	<b>3,090.0</b>	<b>100.0%</b>

*Source: MOD-IV Tax Assessment Data from the Township of Cranford, updated by field survey and from the Township Tax Assessor*

Out of the 3,090 acres in Cranford, approximately 2,487 acres, or over 80% of the land area is improved as either residential, commercial, industrial, roads/rail or public/quasi-public space. When including lands preserved for parks and open space that are permanently dedicated for recreational and open space purposes and the Rahway River, less than one (1) percent of the Township is privately-owned and available for development.





- Public/Quasi Public
- School Property
- Recreation/Open Space
- Rail R-O-W
- Rahway River
- Existing Land Use**
- Vacant
- Agriculture
- School Property
- Public/Quasi Public
- Recreation/Open Space
- Commercial
- Industrial
- Single-family
- Duplex (2-Units)
- Multi-family (3-Units and Greater); 74; 75
- Residential/Commercial
- Transportation
- Rahway River

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0 305 610 1,220 1,830 Feet

Prepared by: PNR, June 18, 2007  
 Source: Union County GIS, NJDEP  
 File Path: H:\C:\GIS\2007\GIS\Projects\Land Use.mxd

**Figure LU-1  
 Existing Land Use  
 Township of Cranford  
 Union County, New Jersey**

NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.



**EXISTING ZONING**

Cranford's zone plan has changed over the years to meet changing market conditions for land in the Township. For a 4.8 square mile town, zoning has become increasingly complex, especially when considering the number of zone districts. The Township is divided into 22 zone districts, three redevelopment districts and one rehabilitation district. These districts can be divided into six broad categories:

- Single and Two-Family Residential (R-1, R-2, R-3, R-4, R-5)
- Multi-Family Residential (R-6, R-7, R-8, R-SC-1, 555 South Avenue East Redevelopment)
- Commercial and Mixed-Use Districts (B-1, B-1-O, B-2, B-3, Cranford Crossing Redevelopment, Riverfront Redevelopment and Western Gateway Rehabilitation)
- Office (O-1, O-2, O-3)
- Research and Industrial (ORD-1, ROI-1, ROI-2, ROI-3)
- Institutional and Public (E-1, P)

The single and two-family districts encompass almost 78% of the Township. With the exception of the Downtown area, single and two-family districts are located throughout Cranford. Permitted uses include single-family homes, two-family homes (R-5 district only), and community residences for developmentally challenged and essential services.

Multi-family residential districts are located outside and proximate to the Downtown. The Township's multi-family districts permit townhouses, apartments and senior citizen apartments. The district encompasses three percent of the Township.

Commercial and mixed-use districts comprise 2.9% of the Township and are predominantly located within and proximate to the Township's Downtown. Exceptions include neighborhood commercial districts on Raritan Road adjacent to Walnut Avenue and Centennial Avenue and commercial uses on Centennial Avenue from the Garden State Parkway (GSP) interchange 136 to Lincoln Avenue.

Office districts are located at the periphery of the Downtown, along Birchwood Avenue adjacent to the Conservation Center, and along Raritan Road adjacent to Commerce Drive on the border with the City of Linden. They represent 3.2% of the Township land area.

Research and industrial districts are located generally adjacent to the GSP and rail right-of-way in the eastern portion of the Township. A ROI-2 district exists on the Garwood Border. Research and industrial districts comprise 10.4% of the Township's land area.

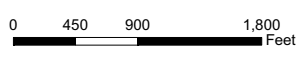
Institutional and public districts are located in the northern areas of the Township. Union County College is located adjacent to Nomahegan Park on Springfield Avenue and comprises the E-1 district. The Cranford Conservation Center, located in the P-1 district on Birchwood Avenue, shares a common boundary with the Township of Kenilworth. Collectively, these districts comprise 2.6 percent of the Township.

Zone District Abbreviation	Zone District Name
R-1	One-Family Detached Residence District
R-2	One-Family Detached Residence District
R-3	One-Family Detached Residence District
R-4	One-Family Detached Residence District
R-5	One- and Two-Family Residence District
R-6	Townhouse Residence District
R-7	Garden Apartment Residence District
R-8	Apartment Residence District
R-SC-1	Senior Citizen Apartment Residence District
B-1	Central Business Retail District
B-1-O	Central Business Retail Office District
B-2	General Business Service District
B-3	Neighborhood Business District
O-1	Low-Density Office Building District
O-2	Medium-Density Office Building District
O-3	High-Density Office Building District
ORD-1	Office Research Distribution District
ROI-1	Campus Research, Office and Industrial District
ROI-2	Selected Research, Office and Industrial District
ROI-3	Research-Office-Industrial-Limited District
E-1	Education District
P-1	Public Use District
CCRD	Cranford Crossing Redevelopment District
RRD	Riverfront Redevelopment District
WGRD	Western Gateway Rehabilitation District
ARR	Age Restricted Redevelopment District (555 South Avenue East Redevelopment Area)
NRD	North Avenue Rehabilitation District



**Figure LU-2  
Existing Zoning  
Township of Cranford  
Union County, New Jersey**

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NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

Prepared by: PHR, June 21, 2007, Last Revised February 21, 2008  
Source: Union County GIS, NJDEP  
File Path: H:\C:\GIS\Projects\Zoning 2-08.mxd

Table LU-2: Zone District Changes 1964 to 2009 (By Zone)

Zone District	1964		1978		2009	
	Acres	Percent	Acres	Percent	Acres*	Percent
B-1	61.50	1.9%	80.70	2.5%	20.3	0.7%
B-1-O	N/A	N/A	N/A	N/A	10.5	0.3%
B-2	47.60	1.5%	7.70	0.2%	25.2	0.8%
B-3	N/A	N/A	N/A	N/A	22.2	0.7%
CCRD	N/A	N/A	N/A	N/A	1.2	0.1%
E-1	N/A	N/A	49.10	1.5%	49.7	1.6%
O-1 (OB-1)	76.20	2.4%	80.60	2.5%	45.6	1.5%
O-2 (OB-2)	N/A	N/A	22.70	0.7%	47.6	1.5%
O-3 (OB-3)	N/A	N/A	35.20	1.1%	6.3	0.2%
ORD-1	N/A	N/A	N/A	N/A	54.2	1.8%
P-1	N/A	N/A	N/A	N/A	29.6	1.0%
R-1	N/A	N/A	N/A	N/A	570.4	18.5%
R-2	1,193.00	37.3%	1,041.30	32.6%	294.2	9.5%
R-3	1,241.00	38.8%	1,345.00	42.1%	584.2	18.9%
R-4	208.00	6.5%	137.30	4.3%	825.3	26.7%
R-5	N/A	N/A	23.20	0.7%	158.6	5.1%
R-6	N/A	N/A	13.10	0.4%	23.0	0.7%
R-7	N/A	N/A	11.00	0.3%	14.7	0.5%
R-8	N/A	N/A	N/A	N/A	13.5	0.4%
R-SC-1	N/A	N/A	N/A	N/A	8.3	0.3%
ROI-1 (I-1)	177.50	5.6%	155.80	4.9%	130.3	4.2%
ROI-2 (I-2)	192.90	6.0%	195.30	6.1%	117.6	3.8%
ROI-3	N/A	N/A	N/A	N/A	20.1	0.7%
RRD	N/A	N/A	N/A	N/A	6.8	0.2%
ARR (555 South Avenue)	N/A	N/A	N/A	N/A	6.1	0.2%
WGRD	N/A	N/A	N/A	N/A	4.7	0.2%
<b>Total</b>	<b>3,197.70</b>	<b>100.0%</b>	<b>3,198.00</b>	<b>100.0%</b>	<b>3,090.2</b>	<b>100.0%</b>

\* - Differences in acreages from 1964 to 2009 result from different base maps and the inclusion of roadways. 2009 acreages calculated in a Geographic Information System.

**FUTURE DEVELOPMENT POTENTIAL**

The development potential identified in this section is based upon analyzing vacant properties identified in the Township's Geographic Information System (GIS); recently approved projects not yet built and planned projects in the Township's Redevelopment districts. The majority of opportunities for future development exist as a result of redevelopment of existing properties. The potential of redevelopment in terms of potential of residential units and nonresidential square footage associated with redevelopment projects is as follows:

- Riverfront Redevelopment District
- 555 South Avenue East Redevelopment District

As depicted above in Table LU-1, the Township has just over 14 acres of vacant unimproved land in private ownership. Just over five out of these 14 acres are located within the 555 South Avenue East Redevelopment District. The remaining nine acres of land are scattered throughout the Township. The majority of these properties are residentially zoned. Most are small and irregularly shaped; and, therefore, would be difficult to develop for residential or commercial purposes.

**FUTURE LAND USE****Strategy**

The Township's future land use strategy is to encourage beneficial growth and development, and to conserve natural resources by directing new growth into the Downtown, while conserving and expanding the existing Rahway River greenbelt and open spaces. This strategy supports the continued vitality of the Township's suburban Downtown that has in place the appropriate infrastructure, regional highway access, and community facilities to support and serve the Township population and provide for new job creation and housing. The Township will utilize its land use ordinances to remediate brownfields and greyfields for beneficial economic development. The Township has a strong desire to incorporate additional green/open space in the downtown business core.

The Township will continue to expand its passive and recreational open space to protect its environmentally critical lands and natural resources. Open Space will provide species habitat, recreational opportunities, protect water quality and control flooding. This strategy promotes balanced land use, sustainable development and a desirable visual environment.

**Concept**

The Land Use Plan indicates the Master Plan's recommendations with respect to land use. Collectively, the Land Use Plan and corresponding map indicate the location and intensity of land for residential, commercial, industrial, public/quasi-public and other uses. The Land Use Plan is intended to guide the Township to develop more detailed land use regulations, which are regulated by the Township's ordinances. Given the fully developed character of the Township, the Land Use Plan recognizes the existing distribution and character of land uses within the Township and proposes no substantial changes in the Township's existing Zone Plan. Rather, the plan is designed to refine and further clarify the Master Plan's recommended approaches to balancing preservation and growth within Cranford.

In particular, the Land Use Plan was crafted to preserve the existing residential character of the Township. With the exception of some minor changes to reflect existing land uses, the majority of changes proposed in the Land Use Plan are within non-residential areas of the Township. As



described in this text of the Land Use Plan these changes are designed to improve the economic base and aesthetic character of the Township's commercial and office districts.

The concept for Cranford's future land use is based upon the following generalized land use areas shown on the concept plan (Map LU-3):

- Downtown Core
- Downtown Business
- Downtown Transition
- Village Commercial
- Commercial – 1
- Commercial – 2
- Commercial – 3
- Neighborhood/Gateway Commercial
- Office Residential Character
- Office District
- Age Restricted/Senior Services/Institutional
- Union County College
- Single-Family, Single-Family and Two-Family and Multi-Family Residential
- Recreation and Open Space Lands
- Public Lands

In addition to these land use categories, Cranford's Land Use Plan also includes several overlay districts. These include the Floodplain Overlay, the Special Improvement District Overlay, and the Historic Sites Overlay. These are intended to further clarify and define the existing, permitted, and anticipated future land uses in each of those areas of the Township where they are applicable. These overlays are described in further detail in the narrative discussion of the Land Use Plan.

Cranford's generalized concept for future land use areas is shown on the land use concept plan and described below.

**Table LU-3:  
Future Land Use**

<b>Future Land Use<sup>1</sup></b>	<b>Acres</b>	<b>Percent</b>
Downtown Core	22.3	0.7%
Downtown Transition	17.1	0.6%
Village Commercial	5.0	0.2%
Commercial – 1	123.3	4.0%
Commercial – 2	74.8	2.4%
Commercial – 3	52.0	1.7%
Neighborhood/Gateway Commercial	22.0	0.7%
Office Residential Character	21.6	0.7%
Office District	44	1.4%
Age-Restricted/Senior Services/Union County College	66.3	2.1%
Single-Family Residential	1305.0	42.2%
Single-Family and Two-Family Residential	97.4	3.2%
Multi-Family Residential	37.9	1.2%
Recreation/Open Space Lands	331.3	10.7%
Public Lands**	141.8	4.6%
Rahway River	45.6	1.5%
Rail Right-of-Way	62.6	2.0%
<b>Total</b>	<b>3,090.0*</b>	<b>100.0%</b>

Source: T&M Associates

\* Includes 620 acres (0.97 square miles) of roads and road right-of-ways (20.1% of total land area)

\*\* Includes 62.7 acres along Myrtle Street for a municipally-sponsored affordable housing project.

<sup>1</sup>Cranford contains several overlay districts. These include the Floodplain overlay (122.9 acres), the Special Improvement District Overlay (65.7 acres), and the Historic Sites Overlay (6.6 acres). As they are overlays on the above land use categories, they are not shown on the table to avoid double-counting.

*Downtown Core* ~ The Downtown Core represents the center of Cranford's Downtown. This Plan recommends that it include the area surrounding North Avenue from Miln Street to the Rahway River and along South Avenue from South Union to the Rahway River. The Downtown would extend north along Springfield Avenue to the southern side of Miln Street. The southern border of the Downtown extends along a line shown on Figure LU-3A, running from the Riverfront Redevelopment District to the northern side of Cherry Street, and terminating at South Union Avenue. The residential blocks just outside the Downtown include the Township's oldest residential neighborhoods. The major public buildings and quasi-public buildings include the Municipal Building, the United States post office, and places of worship.

Existing in the Downtown Core are two redevelopment districts: Cranford Crossing Redevelopment District (CCRD) and Riverfront Redevelopment District (RRD).

*Downtown Business* ~ This Plan recommends a Downtown Business District that consists of less intense density with set back requirements that accommodate off-street parking. This district permits retail uses. The Downtown Business District consists of the area surrounding North

Avenue from Orchard Avenue to Miln Street and along the north side of Miln Street from North Avenue to Alden Street. The Downtown Business District continues along South Avenue from the Western Gateway Rehabilitation District to South Union Avenue and the north side of Cherry Street and Chestnut Avenue from South Union Avenue to High Street. The Downtown Business District continues along South Avenue from the Rahway River to the South Avenue East Redevelopment District.

*Downtown Transition* ~ Adjoining the Township's Downtown Core and Downtown Business are lower intensity office and residential uses. This district provides a transition to adjoining residential uses. Downtown Transition consists of two (2) districts. One district consists of the area on the south side of Cherry Street from High Street to Walnut Avenue. The second district consists of the eastern side of Springfield Avenue from North Union to Miln Street. Retail uses are not permitted in this district. See Figure LU-3A.

*Village Commercial* ~ Along Centennial Avenue from Lincoln Avenue to Conrail overpass. The area contains a small compact center of residential character with a core of mixed-use commercial, residential and community retail services that promotes pedestrian orientation.

*Commercial – 1, Commercial – 2 and Commercial - 3* ~ Cranford's economic development opportunities are strongly influenced by regional access from the Garden State Parkway (GSP), which travels perpendicular to North Avenue (NJ 28) (GSP Interchange 137). Industrial and commercial development is located, and it is recommended to continue to be located, adjacent to the Garden State Parkway right-of-way along Commerce Drive and the Township streets connecting Commerce Drive to GSP interchange 136 in Cranford as well as along portions of the NJ Transit and freight line rights-of-way. Office development is located, and it is recommended to continue to be located, adjacent to the intersection of Walnut Avenue and Raritan Road, which is located in close proximity to GSP interchanges 135 and 136. The result is an area of special commercial economic development opportunity for the Township that includes the Township's business and industrial parks.

*Neighborhood/Gateway Commercial* ~ There are five neighborhood gateway commercial areas located on South Avenue, Raritan Road and North Avenue. (See Figure LU-3.) These gateway areas provide for necessary convenient commercial uses within residential areas. These uses should be designed to allow for pedestrian circulation, common parking and a village-type atmosphere.

*Office Residential Character* ~ This area includes (1) both sides of North Avenue from Lincoln Avenue West to Orchard Street; (2) the south side of South Avenue from Lincoln Avenue West to Washington Place; and (3) north side of North Avenue from Centennial Avenue to just east of Arlington Road up to but not including the townhouse complex. The areas are proposed to allow the conversion of existing residential structures for professional office uses, while preserving the character, scale and features of the buildings.

*Office District* ~ This area includes (1) the south side of North Avenue from Centennial Avenue to just before Elizabeth Avenue; and (2) Birchwood Avenue principally from Orange Avenue to the Conservation Center. (See Figure LU-3.) The areas are proposed to allow office development.

*Age Restricted/Senior Services/Institutional* ~ Located in this category are existing senior housing facilities located within the Township including the Meeker and Gill Senior Apartments located along Meeker and East Lincoln Avenues, Cranford Health and Extended Care assisted living facility

on Birchwood Avenue, Cranford Hall located on Lincoln Park East, and Atria Assisted Living on Jackson Drive. Also included is the proposed age restricted facility governed by the 555 South Avenue East Redevelopment designation.

*Union County College* ~ Union County College is owned by Union County and houses educational, administrative, recreational and parking facilities associated with this community college.

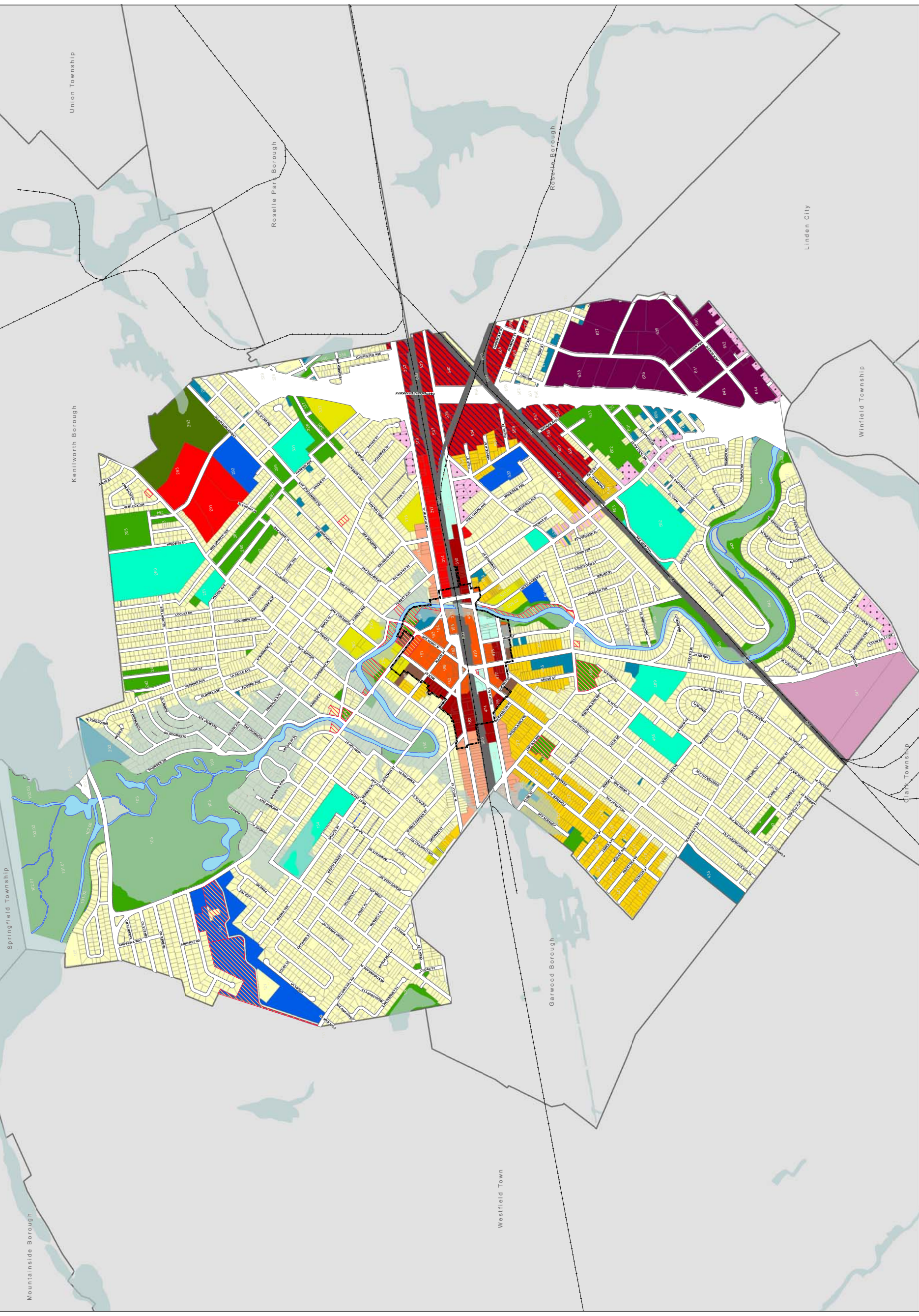
*Single-Family, Two-Family and Multi-Family Residential* ~ Comprising over 80 percent of the Township are the residential districts. Located throughout the Township and almost entirely built-out, these districts have an established character. Pressure exists for larger homes. This has been accomplished by numerous home additions and in some cases the tearing down of an existing home and its replacement with a new and larger one. A need to balance investment to encourage revitalization and retention of high quality neighborhoods should be balanced with the preservation of existing character.

*Open Space and Recreation* ~ This category includes active and passive recreation resources in the Township. It includes the Township's greenway located along the Rahway River, as well as County and Municipal parks located on Township and County recreation and open space inventories (ROSI). Other notable inclusions are the Memorial Field Athletic Complex and the Centennial Avenue and Orange Avenue Pool Complexes.

*Public Lands* ~ Located throughout the Township are lands that are in and serve a variety of public use. Properties included in this category are the Township's school properties, the Municipal building, the Roundhouse, the Cranford Public Library and Community Center and the Conservation Center.

*Overlay Districts* ~ Several overlay districts exist in the Township. An overlay district exists for property located within the 100 year floodplain. Additionally, an affordable housing overlay exists. Each of these districts is discussed in greater detail within the Land Use Plan section of this Master Plan.





**Figure LU-3**  
**Future Land Use**  
**Township of Cranford**  
**Union County, New Jersey**

NOTE: This map was developed using New Jersey Department of Transportation data, but this secondary product has not been verified by NJDEP and is not State-authorized.

**Proposed Future Land Use**  
 Commercial-1  
 Commercial-2  
 Commercial-3  
 Conservation Center  
 Downtown Business  
 Downtown Core  
 Multi-Family Residential  
 Neighborhood/Gateway Commercial  
 Office  
 Office Residential Character  
 Open Space  
 Public/Quasi Public  
 School Property  
 Single and Two-Family Residential  
 Single-Family Residential  
 Age Restricted Senior Services/ Institutional  
 Village Commercial  
 Transition  
 Railroad R.O.W  
 Special Improvement District  
 Historic Sites  
 100 Year Flood Hazard  
 Municipal Boundary

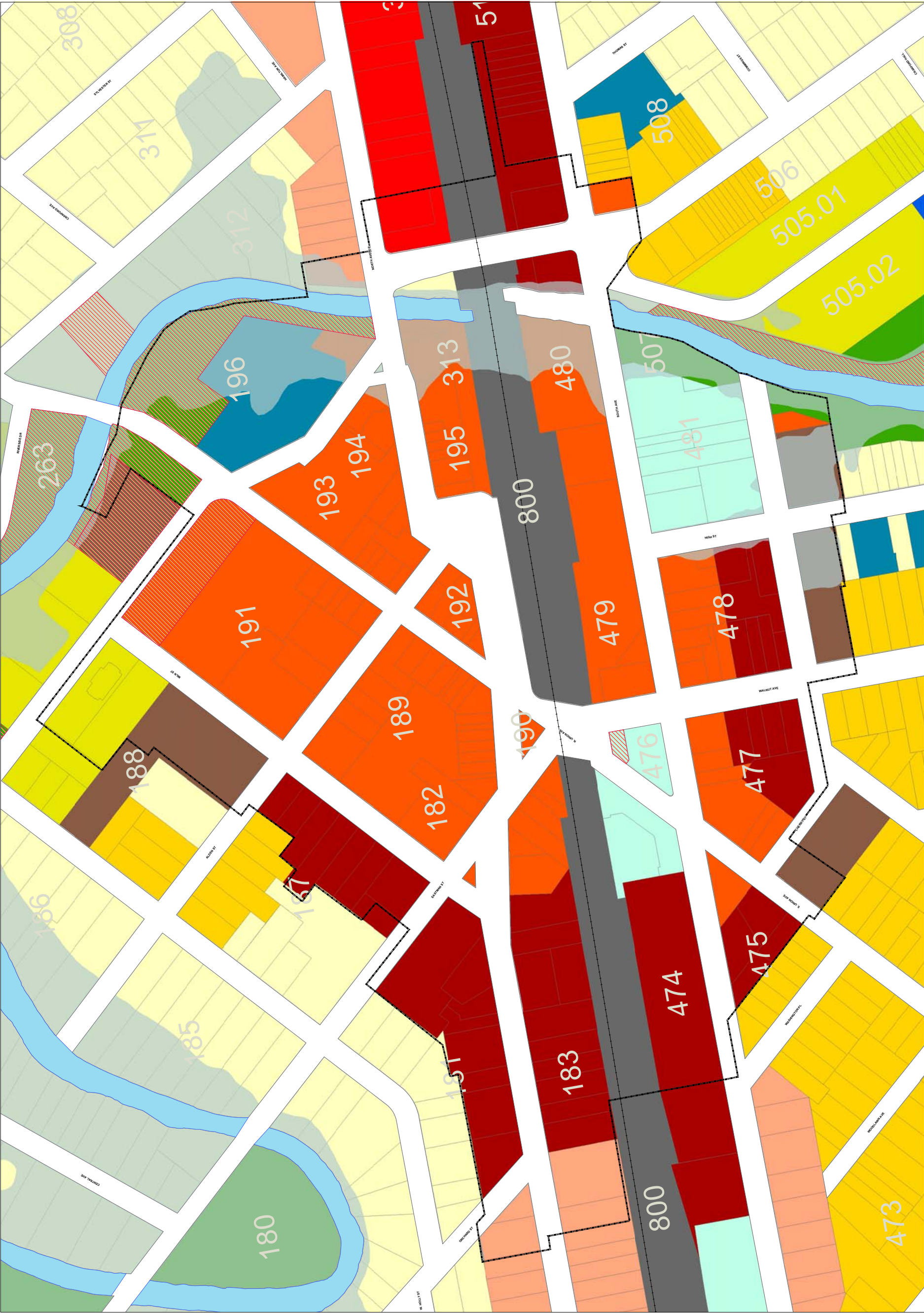
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**A S S O C I A T E S**

Prepared by: A/R, September 9, 2009  
 Title: Cranford Township GIS - The Road Building Future Land Use, Historic Sites Overlay Zone, NBDOT - 2008 Roads  
 File Path: H:\CNPB\0020\GIS\Projects\Concept Plan 9-9-09.mxd

0 1,000 2,000 4,000 Feet

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**Figure LU-3A: Future Land Use**  
**Downtown Area**  
**Township of Cranford**  
**Union County, New Jersey**

- Proposed Future Land Use**
- Commercial-1
  - Commercial-2
  - Commercial-3
  - Conservation Center
  - Downtown Business
  - Downtown Core
  - Multi-Family Residential
  - Neighborhood/Gateway Commercial
  - Office
  - Office Residential Character
  - Open Space
  - Public/Quasi Public
  - Redevelopment Project Area
  - School Property
  - Single and Two-Family Residential
  - Single-Family Residential
  - Age Restricted/ Senior Services/ Institutional
  - Village Commercial
  - Transition
  - Railroad R-C/W
- Special Improvement District**
- Historic Shells
  - 100 Year Flood Hazard
  - Municipal Boundary

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0 150 300 600 Feet

Prepared by: A/R/R, September 9, 2009  
 Title: Union County, Cranford Township GIS - The Road  
 Building From: Land Use, Historic Sites, Overlay Zones, NUDOT - 2008 Roads  
 File Path: H:\CNPB\0020\GIS\Projects\Downtown Future Land Use.mxd

NOTE: This map was developed using New Jersey Department of  
 Transportation data. The data was not verified by the  
 State of New Jersey. The data was not verified by the  
 State of New Jersey and is not State-authorized.



## **LAND USE PLAN**

The land use plan map shows the recommended locations for future land use in the Township. The land use plan, and its relation to the Township zone plan, is described in the following section. The standards proposed for the Township zone plan are shown on the table of recommended standards for development density and intensity set forth in Appendix LU-A.

### **Downtown Commercial Area**

The Downtown commercial area covers approximately 41 acres, or less than one (1) percent of Cranford's total land area. Though the Downtown was platted in the late 1880's and early 1900's, it maintains the character of a charming traditional commuter railroad community. The retention and renovation of the original building façades should be encouraged. Design guidelines and the façade improvement program encourage the retention of the desirable architectural characteristics and features of Downtown buildings and require appropriate standards for rehabilitation and new construction. Appropriate adaptive reuse for permitted uses of the second and third floors of these buildings should also be encouraged.

The Township has made the retention of existing businesses and the capture of new destination business a priority for the Downtown. Cranford created the first Special Improvement District (SID) in the State. The SID encompasses the entire Downtown Core and Downtown Business Districts, and portions of the Downtown transition area, which totals almost 200 properties on 60 acres. The Downtown Management Corporation (DMC) is the entity charged with administering the SID.

The Downtown is currently comprised of several districts, which include the B-1- Central Business District, B-1-O – Central Business Retail Office District, B-2 – General Business Service District, B-3 Neighborhood Business District, O-2 – Medium-Density Office Building District, Cranford Crossing Redevelopment District, and Riverfront Redevelopment District. The existing districts in the Downtown Core are surrounded by business zones to the East and West, and residential districts to the North and South.

The recommended zone plan for the Downtown commercial area is to consolidate existing districts into Downtown Core, Downtown Business and Downtown Transition districts. (See Figure LU-3A.) This change would simplify the current zoning in the downtown, yet allow for distinct qualities for each of these three areas. Generally this allows the highest level of density and use to fall in the Downtown Core and steps down in the Downtown Business and Transition areas.

- 1. Downtown Core District* ~The Downtown Core encompasses areas appropriate for the highest level of density and intensity as recommended in this Plan. The Downtown Core functions as the Township's central business district and primary shopping, entertainment and service destination. This Plan recommends that it include the area surrounding North Avenue from Miln Street to the Rahway River and along South Avenue from South Union to the Rahway River. The Downtown Core would extend north along Springfield Avenue to the southern side of Miln Street. The southern border of the Downtown extends to the northern side of Chestnut Street, running from the Riverfront Redevelopment District to the northern side of Cherry Street, and terminating at South Union Avenue.

Existing in the Downtown Core are two redevelopment districts: Cranford Crossing Redevelopment District (CCRD) and Riverfront Redevelopment District (RRD).



2. *Downtown Business District* ~ The Downtown Business District consists of less intense density with set back requirements that accommodates off-street parking. This Plan recommends that the Downtown Business District consists of the area surrounding North Avenue from Orchard Avenue to Miln Street. The Downtown Business District continues along South Avenue from Washington Avenue to South Union Avenue and along South Avenue from the Rahway River to the South Avenue East Redevelopment District.
3. *Downtown Transition District* ~ Adjoining the Township's Downtown Core are lower intensity non-retail commercial uses. This District provides a transition to adjoining residential uses.

### Uses

The Township of Cranford is an established shopping and employment center. One of the primary components that separates Cranford from many other successful downtowns is a niche of independent retail sales and services, and professional office. Part of the stakeholder vision includes the retention of these stores as a desirable component of Cranford's Downtown. A couple of the primary desirable benefits are the continuation of small town character and a high level of service characterized by a family business. In order to maintain a strong collection of local businesses, the Township should plan for and attract destination uses that increase pedestrian traffic. As part of responsible planning, consideration should be given to providing a variety of retail spaces. The Township should continue to identify and attract new niche businesses.

Land uses in the downtown area are predominantly commercial with retail uses, personal service uses, food service uses, and office uses. There are residential uses on the upper floors of buildings. The area includes public and quasi-public uses, such as places of worship. Uses that attract residents to the Downtown Core and generate foot traffic should also be promoted. As the Downtown continues to develop, particular attention should be paid to providing sufficient parking.

Housing should be an important component of the Downtown, with an abundant and diverse mix of housing (large and small) located within, and surrounding, the Downtown Core. Downtown housing should reinforce the connections between residents and the Downtown and create a sense of neighborhood, which should help promote independence from the automobile.

The Downtown Core and Downtown Business districts are intended to provide opportunities for a mix of retail, office, and residential uses in the same building while creating a pedestrian-focused environment. Therefore, commercial uses including retail sales, retail services—with design standards to retain window transparency—offices and residential apartments on upper floors, parking facilities, restaurants and theaters—subject to conditions—should continue to be appropriate uses in the Downtown. Retail development should also be allowed on both levels without a requirement for accompanying residential or office uses.

Uses in the Downtown Core and Downtown Business districts should be expanded to permit fine art schools and similar uses that promote the arts in the Downtown. Drive-through facilities and auto dominant uses should be prohibited in the Downtown Core, i.e., auto repair, gasoline sales, car dealers and other similar uses but allowed with conditions in the Downtown Business. Boutique hotels should also be permitted in the Downtown Core and Downtown Business districts subject to conditions. Banquet facilities should be permitted on upper floors subject to meeting Township parking requirements. A shared parking approach should be considered when evaluating parking

demand for banquet facilities.

As the Downtown Transition District serves as a transition from the downtown to the residential neighborhoods, retail uses should not be allowed.

The Downtown area contains redevelopment districts that feature modern retail and office space with a residential component. Cranford Crossing and Riverfront Redevelopment Plans are the redevelopment districts that provide opportunities for niche retail, specialty services, civic activities, and entertainment.

The recommended schedule of permitted and conditional uses for the various proposed downtown districts is as follows:

Uses	Downtown Core	Downtown Business	Downtown Transition
Banks and financial institutions	CU	PPU	PPU
Banks and financial institutions w/drive through	—	CU	CU
Essential services	PPU	PPU	PPU
Funeral home	—	CU	CU
Hotels, boutique hotels	CU	CU	—
Institutional/Public use	CU	CU	CU
Gasoline service stations	—	CU	CU
New Car dealers	—	CU	—
Offices (professional, business, administrative)			
1st floor	CU	CU	PPU
2nd floor and up	PPU	PPU	PPU
Parking lots	PPU	PPU	PPU
Professional office in dwellings	CU	CU	PPU
Public and Private garages (structured parking)	CU	CU	PPU
Residential			
1st floor	—	—	PPU
2nd floor and up	CU	CU	PPU
Restaurants	PPU	PPU	—
Retail Services			
1st floor	PPU	PPU	—
2nd floor and up	PPU	CU	—
Retail Trade	PPU	PPU	—
Theaters and recreation uses	CU	PPU	—
Vending machines	CU	CU	CU

CU = Conditional Use

PPU = Principal Permitted Use

***Floor Area Ratio***

The existing Land Development Ordinance (LDO) uses Floor Area Ratio (FAR) as a primary standard to control both scale and intensity of use. Floor Area Ratio in the ordinance is defined as “the ratio of the gross floor area of all buildings on a lot to the lot area”. Gross floor area is defined

as “the sum of the gross horizontal areas of the several floors of a building measured from the exterior face of the exterior walls, but not including areas devoted exclusively to off-street parking and loading space for motor vehicles or any space where the floor-to-ceiling height is less than seven feet”.

Under the existing schedule of regulations the B-1, B-1-O, B-2 and B-3 districts are governed by four regulations; maximum building height, maximum stories, floor area ratio and rear yard setback. In addition to a maximum FAR of 2.5, the ordinance restricts building height in the zone to 45 feet and 3 stories (2 stories/35 feet in the B-3 district). Currently, no onsite parking is required for first floor uses in the majority of the Downtown. The LDO contains limited standards that control new development or redevelopment in the Downtown.

Many buildings in the Downtown cover the entire lot with a building footprint and accordingly have an existing building coverage of 100 percent. Building coverage has a direct relationship to FAR and consequently the ability to construct additional floors on one and two story buildings. Under the current code requirements, a three story building is permitted with a FAR of 2.5, which is an average of 0.833 or 83 percent building coverage for each story. Under the existing ordinance, there is little or no incentive for buildings that are one or two stories and have a building coverage in excess of 83 percent to add an additional story or two to their building. This Plan recommends an increase in the FAR to 3.0 to permit greater utilization of the upper floors in the Downtown.

As stated previously, this Plan supports directing new growth into the Downtown. Constructing additional stories to existing buildings without increasing the footprint where off-street parking exists is a desirable planning objective.

The following guidelines are proposed for the Downtown district:

	<b>FAR</b>	<b>Building Height</b>	<b>Max. Floors</b>	<b>Front Set Back</b>	<b>Side Set Back</b>	<b>Rear Set Back</b>
Downtown Core	3.0	45	3	5	0	10
Downtown Business	2.5	45	3	5	0	10
Downtown Transition	1.5	35	2.5	20	10	10

***Parking***

A significant issue is the availability of parking in the downtown. As shown in Table LU-4 and illustrated in Figure LU-4, a total of 810 parking spaces exist within eight (8) public parking lots in the Downtown. Three hour meter parking provides midterm parking for downtown shoppers (26.1 percent), 9 hour meter and 9 hour permit spaces (20.2 percent) provides downtown employee parking and 12 hour meter and permit spaces (51.3 percent) provide commuter parking spaces. Just over two (2) percent of the spaces are reserved for handicapped individuals.

**Table LU-4 – Municipal Parking Lots**

<b>LOT NO.</b>	<b>3 Hr Meter</b>	<b>9 Hr Meter</b>	<b>9 Hr Permit</b>	<b>12 Hr Meter</b>	<b>12 Hr Permit</b>	<b>Handicap</b>	<b>TOTAL</b>
<b>1<sup>a</sup></b>	56	0	27	0	0	3	<b>86</b>
<b>2</b>	56	35	0	15	125	6	<b>237</b>
<b>3</b>	6	0	36	0	0	0	<b>42</b>
<b>4<sup>b,d</sup></b>	0	0	0	0	162	2	<b>164</b>
<b>6</b>	0	0	0	77	0	1	<b>78</b>
<b>7</b>	80	0	54	0	0	4	<b>138</b>
<b>8<sup>c</sup></b>	0	0	0	0	37	1	<b>38</b>
<b>11</b>	14	0	12	0	0	1	<b>27</b>
<b>TOTAL</b>	<b>212</b>	<b>35</b>	<b>129</b>	<b>92</b>	<b>324</b>	<b>18</b>	<b>810</b>

a - Lot No. 1 also has 3 reserved spaces for Fire Department personnel, not included in total.

b - Lot No. 4 also has 4 reserved spaces for NJ Transit employees, not included in total.

c - Lot No. 8 reserved for Cranford residents only.

d - Lot No. 4 permit spaces open to public after 10:30 A.M. for free on weekdays and all day Saturday and Sunday.

*Source: Cranford Police Department*

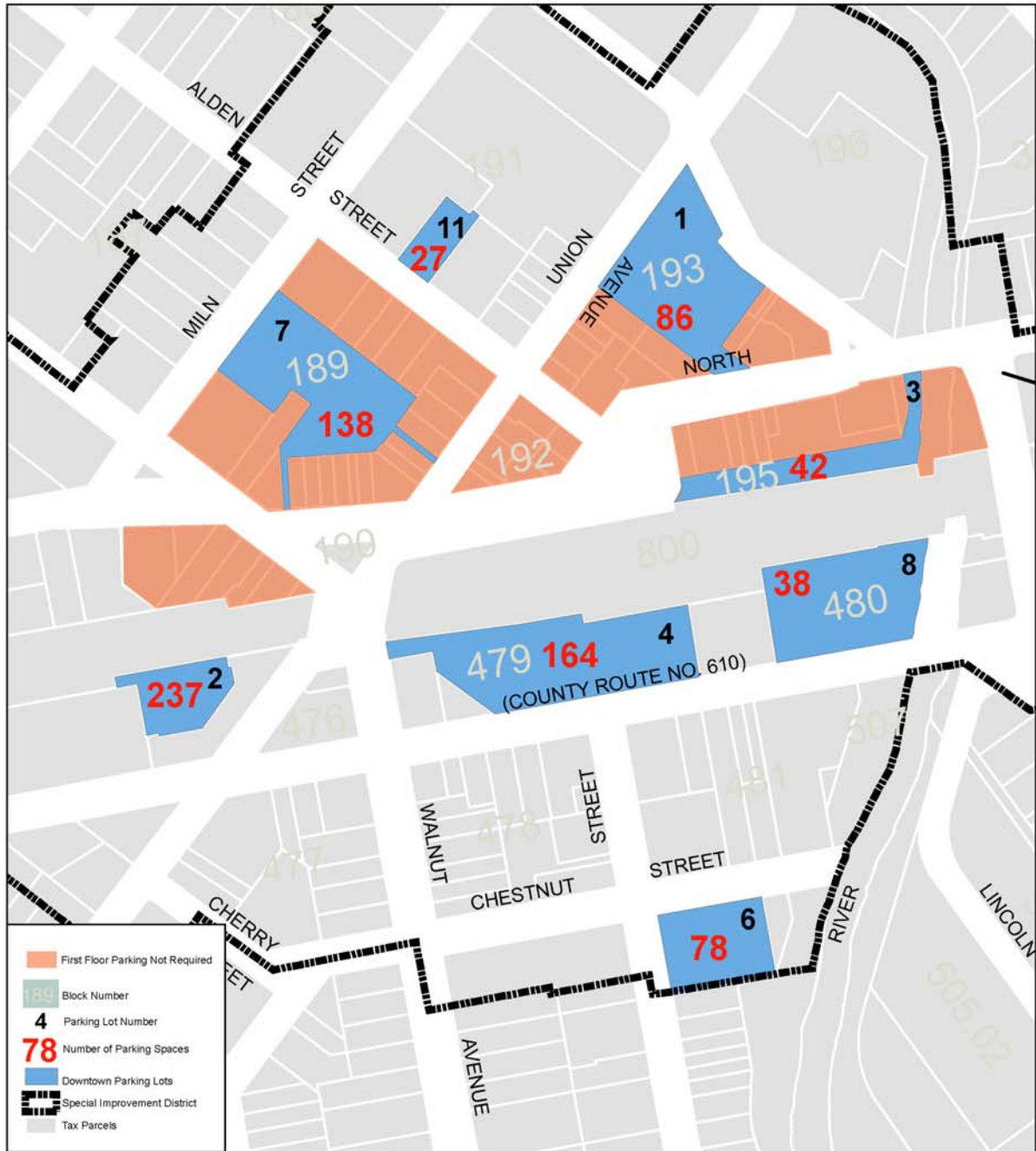
Off-street parking areas are a necessary component for most development. Their location and appearance can determine the image of the development along a corridor. Parking lots must be designed to serve the needs and the movements of pedestrians as well as the storage and circulation of vehicles. Parking lots need to be designed to make a positive contribution to the image of the area. People must travel through the parking lot on foot and the design of the parking lot must meet the pedestrian's needs for convenience, safety, and visual comfort. To retain a “main street” environment, parking lots and loading areas should be located behind store fronts. Small parking lots between buildings may be appropriate if no alternative exists, but the design of the lot should continue to the street wall by means of an attractive masonry wall, or similar design technique. Parking structures must be placed in an unobtrusive location and may be combined with liner and/or aesthetically appropriate storefronts at the street level.

This Plan recommends property owners provide off-street parking in the Downtown Business and Downtown Transition districts. In the Downtown Core, the Plan recommends a parking requirement that considers the proximity and availability of public parking. The Plan recommends that shared parking be incorporated when appropriate.

This Plan specifically recommends that off-street parking be provided on-site or within a few hundred feet for all new development and use changes.

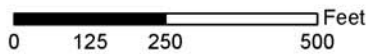
This Plan further recognizes a need to:

1. Provide handicapped parking in Lot No. 3; and
2. Monitor the need to increase handicapped parking in excess of federal requirements.



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**Figure LU-4  
Downtown Parking Lots  
Township of Cranford  
Union County, New Jersey**



Prepared by: PNR,  
Source: Cranford Township  
File Path: H:\CNPB\00020\GIS\Projects\parking plan.mxd



NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

### ***Signs***

From an aesthetic point of view, signage is the most important appurtenance and the most difficult to regulate. This is directly related to the numerous elements of signage, i.e., type, illumination, size, lettering, color and orientation of signage. In a suburban mixed use Downtown, having as many as five (5) floors, in which each has numerous businesses and signage needs, only increases the demand and consequently the regulation of these signs.

However, policy makers realize the importance of signage to the success of businesses. The following recommendations are intended to satisfy the signage needs of local businesses with the design and appearance requirements of a healthy, visually attractive Downtown, while encouraging opportunities to reduce sign pollution (excess usage of signs). The following are design criteria and illustrations depicting how signage should be architecturally integrated with their surroundings in terms of size, shape color, texture and lighting. The ultimate result of this section upon adoption is to provide sufficient detail to update the sign regulations within the Township's Land Development Ordinance (LDO).

Master Sign Program - A master sign program should be required for any building or group of buildings that contain five (5) or more businesses to coordinate signage in an orderly manner. This program should be "triggered" when an application for an individual sign is located in a building that does not already have an approved program. This master sign program should be required in all non-residential districts in addition to the Downtown Core.

Furthermore, the LDO should include a master sign matrix plan by zoning district, which identifies by district and type of sign the following:

1. Maximum number of signs permitted
2. Maximum permitted area (square feet)
3. Maximum height (feet)
4. Setback (feet)
5. Internal lighting (permitted/not permitted)
6. External lighting (permitted/not permitted)
7. Size allocation (maximum percent of canopy surface area (for canopies))

### ***Wayfinding signs***

Consistent with recommendations within the Township's Vision Plan, a system of wayfinding signs should be designed and installed directing visitors to the Downtown. Once in the Downtown, the wayfinding signs should direct individuals to community facilities, off-street parking and other destination locations. One goal of installing wayfinding signs is to reduce the amount of existing signs in the Downtown and the Township as a whole.

### ***Recommendations***

1. Consolidate the existing downtown commercial area into three districts: Downtown Core, Downtown Business and Downtown Transition.
2. Expand the range of existing permitted uses to include fine arts schools and other uses that promote the arts, allow conditional uses such as boutique hotels, banquet facilities



on upper floors in Downtown Business District and structured parking. Parking lots should be a principal permitted use with design guidelines.

3. PPU and CU recommendations in chart on page LU-26.
4. Increase in the FAR to 3.0.
5. Require off-street parking for all residential and office uses in Downtown Business and Downtown Transition districts.
6. Parking requirements should be part of zoning requirements and not a design standard as currently written in the Township's ordinance.
7. Expand master sign program in all nonresidential districts. Revise sign requirements in accordance with previous sections of this Plan. Create wayfinding signs as discussed in previous sections of this Plan
8. Update parking space requirements and incorporate a shared parking lot as part of the requirement.
9. Create parking lot design standards for surface and structured parking lots that incorporate screening.
10. Encourage the private sector to build public parking as part of development projects.
11. Incorporate open space, green space and environmentally sensitive design practices in development plans.
12. Maintain a uniform building setback from the rights-of-way allowing exceptions for public plazas and similar uses.
13. Development standards should be included in the Land Use Code for the Downtown that includes a typology of building types and design vocabulary with images of building styles and fenestration.

### **Commercial Districts**

Areas planned for primarily commercial land uses are located outside the Downtown Commercial Area discussed above and cover approximately 350 acres or 11.3 percent of the Township's total land area. The commercial land use area recognizes the special economic development potential of the North and South Avenue corridors and provides commercial nodes that serve the needs of the neighborhoods of the Township for shopping and personal services.

Commercial land use is organized under the Township zone plan into five (5) land use types that provide opportunities for the development of community and neighborhood commercial land uses. The types are: Commercial (Commercial - 1; Commercial - 2; Commercial - 3); Neighborhood Commercial; Office Residential Character; Office (general), and Village Commercial uses. The Township plan is to concentrate commercial land use into these zones in order to promote compact nodes of commercial development. The land use districts are located as follows:

□ Commercial

Commercial - 1: One large contiguous district located east of the Garden State Parkway and south of Myrtle Street (Cranford Business Park).

Commercial – 2: Along the former Lehigh Valley Railroad from Roselle Township to Park Street and adjacent to the eastern sections of North Avenue and South Avenue.

Commercial – 3: From Conrail overpass along the western side of Walnut Avenue south to Raritan Road

❑ Neighborhood Commercial:

South Avenue East and Meeker Avenue

Raritan Road and Commerce Drive

Raritan Road and Walnut Avenue

❑ Office (General):

North Avenue east of the Rahway River

Birchwood Avenue District

❑ Office Residential Character:

South Avenue and Lincoln Avenue West

North Avenue and Lincoln Avenue West

Northside of North Avenue from Rahway River to Cranford Condominiums just after Arlington Road

North Avenue and Arlington Road.

❑ Village Commercial:

Along Centennial Avenue from Lincoln Avenue East to the Conrail overpass.

***Description of Business Land Use Areas***

Each category of business zone in the Township's zone plan is described below.

*Commercial*

*Commercial – 1, Commercial – 2 and Commercial – 3 Areas* comprise approximately 280 acres or 9% of the total land area in Cranford. This Future Land Use designation comprises areas generally associated with the existing ROI-1 Campus Research, Office and Industrial District, ROI-2 – Selected Research, Office and Industrial District and the ROI-3 – Research-Office-Industrial-Limited Districts; in addition to the Office, Research, and Distribution District (ORD-1). This Master Plan recommends eliminating the ROI-1, ROI-2 and ROI-3 districts and replacing them



with commercial districts to recognize and encourage the trend of evolving industrial uses into commercial uses in the Township. The Plan recommends the creation of three (3) new commercial districts (Commercial – 1, Commercial – 2 and Commercial – 3).

Reinvestment, increased land use intensity near Commerce Drive, improved building design, signage and connections between adjoining uses are needed. This area of the Township is isolated from nearby amenities for workers. Restaurants and other services are limited in the immediate area surrounding Commerce Drive. To improve the C-1 District, the Township should work with property owners to better understand their needs to encourage reinvestment in these properties. The Township should expand permitted uses at the periphery of these districts. The adjoining medium density office district located along Raritan Road does not permit a wide enough range of uses that could service the C-1 District adjacent to Commerce Drive. This Plan, within the Bulk Recommendations Table, recommends increasing the permitted level of development intensity in the Commercial – 2 (areas not adjacent to rail, rail spurs or sharing a property line with the Garden State Parkway right-of-way) and Commercial - 3 districts to encourage the replacement of warehouses—and other declining land uses—with office space.

Each newly proposed Commercial district within the Commercial 1, 2 and 3 Future Land Use classifications is described below.

#### *Commercial - 1*

The proposed Commercial - 1 district is more commonly known as the Cranford Business Park. The park is approximately 130 acres in size. The average lot size of privately-owned property in the district is in excess of 150,000 square feet. To encourage the retention of relatively large lots in this district, the minimum lot size should be 150,000 square feet in comparison to 100,000 square feet in the current ROI-1 district. All of the principal lots in the district are improved with nonresidential buildings. However, many of these properties are underutilized under the current layout and design. The Bulk Recommendations table located in Appendix LU-A recommends increasing the FAR to 3.0 and increasing the maximum height and stories to six stories/75 feet for internal lots within the C-1 District. For properties that border an adjoining district, a maximum building height of 4 stories is recommended.

The intent is to encourage the conversion of uses into a Class “A”<sup>7</sup> office park in a campus-like environment. Quality building layout and design combined with appropriate landscaping are needed to retain the high quality industrial park atmosphere. However, given the differences in existing lot sizes and the desire to encourage the retention of existing large lots in the ROI-1 district there continues to be a land use planning need to retain two commercial districts in comparison to three (3) ROI districts that exist in accordance with the existing zoning at the time this Master Plan was written. The development and retention of existing and new users in the Cranford Business Park is an important economic development objective for the Township.

The range of principal permitted uses should include business, administrative, executive and professional offices, child care centers, research laboratories in a campus-like setting and restaurants/cafeterias as an accessory use to the principal use. Stand-alone restaurants as a principal permitted use should be prohibited.

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<sup>7</sup> Class “A” Office Space can be characterized as buildings that have excellent location and access, attract high quality tenants, and are managed professionally. Building materials are high quality and rents are competitive with other new buildings. (Source: Urban Land Institute)

*Commercial – 2*

The Commercial – 2 district is intended to provide similar office and light industrial uses, but on smaller lot sizes ranging from 10,000 square feet and larger. It is inappropriate to encourage the manufacturing of materials and uses which would have detrimental impacts on the Township's environment and neighborhoods near the C-2 land use designation. This Plan recommends consolidating the existing ROI-2 and ROI-3 as depicted on the Future Land Use Map into the proposed Commercial – 2 future land use designation to regulate development on 10,000 square foot lots and larger.

Principal permitted uses should include a full range of office uses, research laboratories, industrial sales and supply (e.g., plumber's supply), retail services, grocery stores and banks. The Township is concerned over the potential use of the rail line to transfer solid waste through the Township. Therefore, solid waste transfer stations, other solid waste facilities, and similar uses should be prohibited. Car dealers—new and used, hotels and motels and restaurants should be specifically prohibited.

Pilot plant operation in conjunction with a research lab, light manufacturing and light industrial uses should be permitted conditionally.

*Commercial – 3*

The Commercial – 3 District is intended to provide for Class “A” office space in a campus-like setting, similar to the Commercial – 1 District. A separate Commercial – 3 District is recommend for the purpose of crafting bulk standards that recognize and continue the existing large lots in this area of the Township and the desire of retaining the existing land use pattern. Design standards should be crafted to ensure that the existing campus-like environment is retained as part of any future development in the District.

The Commercial -- 3 district contains a portion of Hyatt Hills Golf Course that is located within Cranford Township (the remainder of the course is located in Clark Township). Currently, golf courses are permitted as a conditional use in the existing ORD-1 district, which this Master Plan recommends changing to Commercial – 3. Golf courses should continue to be permitted as conditional uses in the Commercial – 3 District. The Planning Board considered rezoning the portion of the Commercial – 3 district occupied by Hyatt Hills to a golf course or commercial recreation district. While the Planning Board encourages the retention of the Hyatt Hills Golf Course, the Land Use Plan retains the flexibility existing in the current zoning to develop this site in campus-like office use if the Hyatt Hills course were closed and redeveloped.

*Neighborhood Commercial*

*Neighborhood Commercial Areas (B-3)* provide convenient service of everyday goods and needs to surrounding residential neighborhoods. In total, eight (8) acres are zoned for this purpose. The mean lot size in the existing B-3 zone is 14,087 square feet where no minimum lot size is required. While some residential uses are located in the B-3 zones, the zones have generally developed or are developing in accordance with the Township zone plan.

The characteristic uses of the B-3 zone include retail sales and personal services, offices, banks, restaurants and food service use, and public purpose uses.

*Office (General)*

The purpose of the Office District (O-1) located on North and South Avenues is to provide for the maintenance and alteration of existing buildings and for new construction of business office and professional buildings. The office district is intended to provide for medical and service office uses, in addition to other general and professional office uses, while requiring standards intended to minimize adverse impacts upon any adjoining or nearby residential districts and uses. Appropriate uses include offices for executive, administrative or business operations, professional offices of an architect, engineer, attorney or similar profession, medical, dental offices and outpatient clinics, service office uses, such as but not limited to, real estate and branch banks. The outdoor storage of goods or materials, warehousing or indoor storage of goods or materials that are not incidental to the permitted use should be prohibited.

The purpose of the O-1 Office District located on Birchwood Avenue is to retain the area of the Township for low intensity clustered professional and business offices. The district is intended to provide opportunities for limited office use that would be suitable and not incompatible with the residential character of the district. Given the environmental sensitivity of this area resulting from flood hazards and existing freshwater wetlands, building layout should be clustered and designed to minimize impacts on existing environmental features.

Office uses in the area should be designed and operated not to increase on-street parking in the front yard area. On-site parking spaces should only be located in the side and rear yards; and be screened by a solid wall, fence or vegetation having a height of not less than four (4) feet nor more than six (6) feet (vegetation may exceed six (6) feet in height).

Service entrances, loading areas and dumpster areas should only be located in the rear or side yard. Each loading area should be screened from adjacent uses. Front yards should be reserved for landscaping, sidewalks, driveway access to parking areas and small monument signs not exceeding sixteen (16) square feet in area.

*Office Residential Character (ORC)*

This Plan recommends creating a new Office Residential Character (ORC) District in accordance with the Future Land Use Plan. This District, located adjacent to South Avenue and Lincoln Avenue West is intended to allow the conversion of existing residential structures for professional office uses, while preserving the historic character, scale and features of the buildings and the streetscape. This Master Plan also proposes the creation of ORC districts on North Avenue adjacent to Lincoln Avenue West and on North Avenue adjacent to Arlington Road. The purpose is to allow professional office and other low intensity commercial uses, while retaining the residential scale and character of buildings.

*Village Commercial District*

A commercial district exists along Centennial Avenue from Lincoln Avenue to the Conrail overpass. This district is currently zoned B-3 Neighborhood Business district, and is categorized by typical neighborhood commercial uses mixed with residential, automotive, public and athletic uses.

The Village Commercial District is envisioned as a pedestrian friendly area where residents and visitors enjoy a mix of neighborhood commercial businesses, professional office uses and single-family residential uses.

Permitted uses in the district include retail stores, business and professional offices, banks, personal service shops (retail trade), parking lots, and restaurants.

This Plan recommends leaving the current zoning in place along Centennial Avenue from the Conrail overpass south to the Garden State Parkway Interchange 136.

***Recommendations***

1. Rename the ROI-1 to C-1 and increase the minimum lot size in this zone to 150,000 sq. ft.
2. Consolidate the ROI-2 and ROI-3 districts into the Commercial – 2 district.
3. Increase the FAR in the Commercial - 1 district from 0.5 to 3.0 and increase the maximum permitted height to six (6) stories/75 feet for interior properties. Establish a maximum building height of four (4) stories for properties that border an adjoining district.
4. Create specific landscape, and screening design requirements for the Commercial – 1 district for the purposes of creating a visually appealing business park.
5. Create a Village Commercial District.
6. Create an Office Residential Character District along South Avenue West and North Avenue West (See Future Land use Map) to retain the residential scale of buildings, while allowing for their conversion to commercial uses.

## **Institutional**

This land use category includes a variety of uses that may be considered to be beneficial to the community as a whole, such as senior housing and senior health care facilities, as well as the Union County College.

### ***Age Restricted Residential/Senior Services***

The Future Land Use Plan identifies two existing developments providing care and housing services to seniors. These include the existing R-SC-1 district, which currently provides for senior age-restricted apartments. The district is located along Meeker Avenue, Lincoln Avenue East, Ann Street, Moen Street and Winans Avenue. Its purpose is to provide a comprehensively planned age-restricted housing development. Approximately 8.25 acres, or 0.26% of the Township's total area, is planned in this category. This district contains the 29-foot tall three-story Lincoln apartment building and the 51-foot five-story Gill apartment building that contain a total of 232 age-restricted units.

Located at 600 Lincoln Park East Cranford Hall nursing home provides assistance to seniors on a 2.7 acre property. This property is currently zoned Residential – 2. This Master Plan recommends rezoning the property into the R-SC-1 district. The R-SC-1 district should be evaluated as part of zoning revisions to implement this Master Plan to ensure that the property located at 600 Lincoln Park East is a permitted use. Bulk standards should also be evaluated for consistency with existing conditions.

As indicated in the demographic element of this Plan, Cranford is an aging community. Providing additional opportunities for residents to age in place within Cranford is needed. This Plan recommends the encouragement of additional age-restricted development complexes in Cranford to meet this demand. The Township should consider providing a full range of age-restricted housing options to meet the needs of low to high income individuals.

This Plan also recognizes the 555 South Avenue East Redevelopment District designed to provide additional age-restricted units.

### ***Union County College***

The area currently zoned Education District (E-1), located in the northwestern area of the Township is occupied as the primary campus for Union County College as developed for public and quasi-public institutional uses. Union County College—originally named County Junior College, was founded on October 16, 1933 in Abraham Clark High School, Roselle, N.J., with an enrollment of 243 evening students. It was the first of six Emergency Relief Administration projects in New Jersey. In 1936, the College became an independent, nonprofit institution and in 1942 and the College moved into its own building in Cranford. In 1959, the college moved to its current 48-acre Campus in Cranford. The continued institutional and public uses of the campuses should be permitted, and the campus environments should be maintained.

Primary planning issues in the district include:



1. Potential encroachment near adjoining residential properties (the County supersedes Township zoning power);
2. A need to better understand the College's capital improvement needs;
3. Lack of a public transportation connection with the Township's Downtown; and
4. A need to better market the college as an asset of the community.

### **Residential Land Use**

The Township accommodates a wide variety of housing types as part of its plan for residential land use. The Land Use Plan identifies 3.2 square miles of the Township for residential use. This represents approximately 66% of the Township's total land area. Residential areas include lands planned for single-family, two-family and multi-family development. The concept for the Township's land use plan locates the densest residential areas adjacent to the Downtown. Density is generally reduced as the proximity to the Downtown increases. The residential categories of the land use plan and their relationship to the Township zone plan are described below.

#### ***Recommendations for all Residential Districts***

1. Create a standard that limits the total amount of impervious coverage as a percentage of lot width in the front yard, i.e., no more than 30% of the area in front of a principal building may be impervious.
2. Create infill development standards to prevent the construction of oversized homes.
3. Create a building coverage requirement.

#### ***Single-Family Residential***

The Single-Family residential land use designation is planned as a suburban area of the Township on 8,000 to 12,000 square foot lots, thus representing a net density ranging from 3.6 to 7.26 units per acre. This area covers 2.7 square miles, or 56% of the Township. The intent is to provide an area for development of low-density single-family detached housing. The Single-Family residential area includes Dreyer Farms, which should be a permitted use in this land use designation and its preservation is encouraged and supported by the Township.

The primary issues facing the Single-Family residential districts include:

1. Preserving the integrity of the existing single-family neighborhoods (prevention of oversized homes);
2. A need to refine the existing bulk standards;
3. Revise ordinances to permit the flexibility to allow residential development to be raised outside the floodplain in accordance with FEMA regulations; and
4. A need to incorporate stormwater controls into new development.

The Single-Family residential areas should continue to be implemented by retaining the R-1, R-2, R-3 and R-4 single-family residential zones. The R-1 zone will permit a maximum density of 3.6 dwelling units per acre. The R-2 zone will permit a maximum density of 4.3 dwelling units per acre. The R-3 zone will permit residential density of 5.4 residential units per acre and the R-4 zone will permit a residential density of 7.26 units per acre.

The Single-Family residential districts are designed for single family development in detached structures. They are located throughout the Township. The Single-Family districts also permit community residences for the developmentally disabled, country clubs and private swim clubs and

essential services. Over time, many of these uses may be expanded to service the community and accordingly, there is a need to create distinct regulations to better regulate such uses.

Permitted conditional uses include institutional and public uses. Home occupations and associated regulations should be permitted conditionally in the Township.

The Religious Land Use and Institutionalized Persons Act (RLUIP) of 2000 places limitations on actions that would restrict the exercise of religion. This Master Plan recognizes—in accordance with RLUIP—that the Township may not impose a land use regulation that imposes a substantial burden on the exercise of religion of a person, including a religious assembly or institution unless the Township demonstrates that such imposition is:

- In furtherance of a compelling governmental interest; and
- Is the least restrictive means of furthering that compelling government interest.

For religious institutions, this Plan specifically recommends creating standards to better regulate their intensity, scale, building setbacks, parking requirements, appropriate buffers and other standards in the context of surrounding residential development within all residential districts in a manner that does not impose a substantial burden on the exercise of religion.

#### Recommendations

1. Craft infill development standards that reduce development potential proportionally as lot size increases.
2. Create design requirements for religious uses to ensure that appropriate parking and buffers are in place adjoining residential properties.
3. Revise stormwater ordinances in accordance with the Conservation Plan Element of the Master Plan.
4. Revise ordinances to permit homes to be raised outside of the floodplain in a manner that does not require variance relief (See Conservation Plan Element of the Master Plan).

#### ***One and Two-Family Residential Land Use***

The One and Two-Family residential land use is planned as a suburban area of the Township on 5,000 square foot lots and greater, thus representing a net density ranging from 8.7 to 14.52 units per acre for duplexes on 6,000 square foot lots. The One and Two-Family residential areas cover 127 acres or 4.1% of the Township. The intent is to provide for and retain the existing character of single-family homes and duplexes on 5,000 and 6,000 square foot lots and to craft standards appropriate for new two-family homes that are typically larger than homes that were built in the post-war era.

The One and Two-family residential area is organized by the Township zone plan into the R-5 residential zone. Permitted uses include single-family detached and two-family homes and essential services. Institutional and public uses are permitted conditionally.

The Township should update the inventory all two family dwellings identified on the Existing Land Use (Figure LU-1). The Township should also prohibit the intrusion of non-residential uses that conflict with, or detract from, or do not support a quality residential environment.

The medium density residential zones of the Township zone plan are described below.

The R-5 zone allows single-family detached dwellings on 5,000 square foot lots and duplexes (two-family) on 6,000 square foot lots. Given the recent trend of constructing larger homes on lots, this plan recommends increasing the minimum lot size for duplexes to 7,000 to 8,000 square feet and the minimum frontage requirement to 70 to 80 feet respectively. This is necessary to provide sufficient space for off-street parking, while maintaining the green appearance of properties from the street.

#### Recommendations

1. Create an inventory of all duplexes in the Township.
2. Increase the minimum lot size for duplexes to 7,000 to 8,000 square feet and increase the minimum lot width to 70 to 80 feet respectively for duplexes.

#### ***Multi-Family Residential Land Use***

Multi-Family residential land use consisting of uses in the R-6, R-7, and R-8 districts is planned as a suburban area of the Township on 40,000 square foot lots and greater (builder's acre). The Multi-Family Residential land use category permits multi-family development associated with townhouses, garden apartments and apartments. Density ranges from 8.7 to 33.5 dwelling units per acre. The Multi-Family residential areas cover approximately 40 acres or 1.3% of the Township. The intent is to preserve the existing housing stock and provide a wide range of housing types to meet varied income and age-level needs. The Master Plan does not propose the expansion of these multi-family areas beyond what is shown on the Township's Land Use Plan Map.

#### Recommendation

1. Maintain the existing Multi-Family Residential Land Use areas as currently zoned.

#### **Conservation**

The conservation areas of the land use plan protect the environment by promoting aquifer recharge, protecting the water quality and features of streams and rivers and, by maintaining the character of undisturbed wooded areas. The conservation areas are an essential part of the Township's unique character which includes a natural landscape as well as an urban landscape.

The areas shown on the land use plan map for conservation land use are located in the parks and open space area of the Township and the floodplain overlay. The Conservation Plan Element contains a separate Conservation Map which identifies known contaminated sites in Cranford, public wells and wellhead protection areas and historic resources within the Township.

Resource protection in Cranford will be addressed through the following actions:

1. Township land use regulation to implement the Conservation Master Plan for greenways and environmentally critical lands through the Township zone plan and through appropriate site plan and subdivision design standards.
2. State regulations that protect wetlands, wetlands transition areas, and air and water resources.
3. The creation of partnerships with various state agencies and professionals to encourage brownfield remediation.
4. Acquisition of available state and federal grants.

The major environmentally sensitive features that the Township plans to conserve are shown on the Conservation Plan Map (Figure CO 1: Conservation Plan). The importance of these features to the Township Conservation Master Plan and Cranford are reviewed in the Conservation Plan Element.

### ***Recommendations***

1. Create floodplain overlay ordinances in accordance with the Conservation Plan.
2. Create a stream corridor protection ordinance in accordance with the Conservation Plan.
3. Incorporate other revisions identified in the Conservation Plan Element.

### **Parks/Open Space**

The parks and open space area as depicted on the Future Land Use Map include public parks and permanently preserved open spaces identified on the Township's Recreation and Open Space Inventory (ROSI). These lands are held for conservation purposes only. The Township zone plan may be modified, as appropriate, to designate their status and/or use as dedicated open space.

The parks/open space area shown on the land use plan map covers approximately (382 acres or 12.3%) of the Township's total land area. These are the existing preserved open space lands. Consistent with the recommendations of the Conservation Plan Element, Cranford should establish a program to preserve additional open space to protect the Township's natural resources. A successful Township program will include municipal funding to leverage monies from the State for preserving open space. This will expand the protected natural areas in Cranford and help implement a system of greenbelts and greenways.

To determine Cranford's open space and recreation needs this Plan used the Core System created by the National Park and Recreation Association (NPRA).

The Core System standard, predicts the necessary amount of open space to protect the important natural resources and to retain a high quality of life for Township residents.

### ***Outdoor Recreation Needs***

Recreation is required to maintain a healthy way of life. What people do to recreate is a response to their internal needs and desires. The quality and quantity of recreational opportunities available to a community has a direct effect on the community's general quality of life. To satisfy the recreational needs and wishes of an entire community, many variables must be considered. It is important to realize that the recreational opportunities will serve a variety of different individuals. To ensure that the Township can provide residents with a variety of needed recreation programs and facilities, there should be a core system of lands owned and controlled by the Township and dedicated to local public recreation use.

*Estimate of Need Based Upon Core System Standards*

The Core System standard is used to estimate need based on existing and projected population. The NPRA standards, published in the *NPRA Recreation, Park, and Open Space Standards and Guidelines*, provide guidance for developing a core system of public parks for local close-to-home recreation uses. The standards suggest public park and recreation areas be provided to local residents at the ratio of 10.5 acres of parkland per 1,000 people.

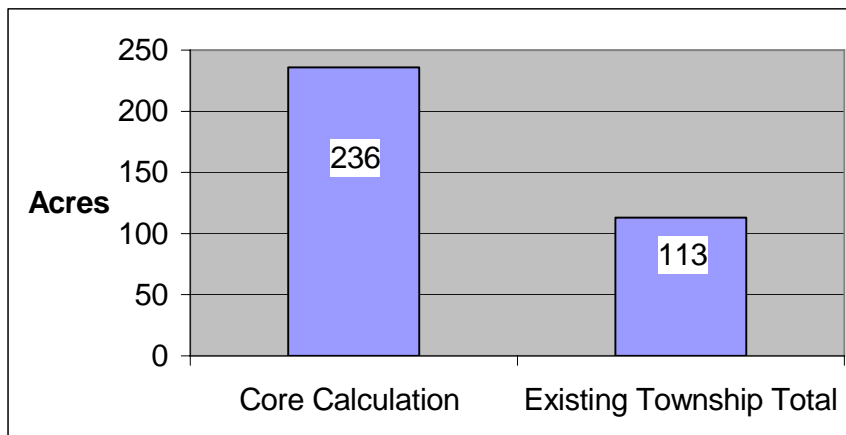
**TABLE LU- 5  
CORE CALCULATION**

**Standard = 10.5 acres per 1,000 people**

	Population	Calculated Acres
2005 (Est.)	22,478	236

*Source: US Census*

**TABLE LU- 6  
CRANFORD TOWNSHIP  
NEED FOR MUNICIPAL PARK AND RECREATION AREAS  
(CORE CALCULATION)**





Based upon the existing 113 acres of park and recreation land and the Township's 2005 population of 22,478 people, there is a shortfall of open space and parklands. In summary, the Core System approach suggests that the Township park system can not adequately support the existing or future population.

The Core System Standard is a methodology that should be used with caution. In general, these formulaic approaches are intended to serve as a guide to determine the necessary open space in a community and are not an exact science.

### ***Green Acres Program***

One opportunity to acquire monies to create recreation and open space opportunities is through the New Jersey Department of Environmental Protection Green Acres Program (Green Acres). Green Acres provides 50% matching grants and low-interest loans to local governments for the acquisition of land for recreation and conservation purposes. To qualify for this funding, local governments must have an adopted open space and recreation plan, and either an open space tax or an approved alternative funding source which is stable and sufficient to affect an annual tax levy.

To further efforts to create additional open space, the Township should investigate these options. Specifically, the Township should investigate the availability of Green Acres funding to acquire land in the Birchwood Avenue area of the Township. Such facilities would address community recreation and open space needs and be designed to reduce flooding issues in the area.

### ***Recommendations***

1. Create a recreation and open space plan in accordance with Green Acres requirements.
2. Plan for and build at least one (1) new multi-purpose recreation field.
3. Provide a stable and dedicated source of funding for local open space and recreation.
4. Use Centennial Avenue as a "shared road" bike path associated with the East Coast Greenway between North and South Avenues until the trail continues outside of the public right-of-way.
5. Evaluate opportunities to create new open space or recreation facilities in the Birchwood Avenue area of the Township, which could both address community recreation and open space needs and be designed to reduce flooding issues in the area.
6. Link trail and street sections of the East Coast Greenway.
7. Plant additional shade trees.
8. Continue a vigorous program of improving and maintaining Township park and recreation facilities.
9. Solicit grant monies to supplement local expenditures to satisfy Cranford's local recreation and open space needs.
10. Improve signs at parks in the community.
11. Continue to monitor user fees for programs.

### **Public Use/Public Land**

The public use and public lands includes the Township's public buildings and lands such as public schools and school administration buildings, public library, Township hall, the lands of the public works yards, public housing sites, and other governmentally-owned facilities. In addition, the Public Use category includes Township-owned properties along Myrtle Street that are proposed for a municipally-sponsored affordable housing project as part of the Township's Housing Element and Fair Share Plan.

The public use and public land area covers approximately 106 acres or 3.4% of the Township's total area.

The Township zone plan may be modified, as appropriate, to classify these areas as public use areas.

### ***Recommendations***

1. Create separate public districts to regulate public use areas as follows:
  - Public – County (PUC)
  - Public – Recreation (PUR)
  - Public – Municipal (PUM)
  - Public – Education (PUE)
  - Public – Open Space (PUOS)
  - Public – Municipally-sponsored Affordable Housing

### **Overlay Districts**

The Land Use Plan includes land use overlays. Overlay land use areas cover a portion of, or all of, one or more underlying categories of planned land use. Within an overlay area, there are special features or considerations that need to be respected, managed, or regulated based upon Township or State objectives or regulations. In Cranford the land use overlays include Floodplain Overlay, the Historic Preservation Overlay, and the Special Improvement District Overlay.

#### ***Floodplain Overlay***

The Federal Emergency Management Agency (FEMA) has delineated floodplain areas in GIS format using Flood Insurance Rate Maps (FIRM). Floodplain boundaries have been determined from profiles based on high water marks and regional stage-frequency relations. Floodplain areas average about 1 chance in 100 that the designated area will be inundated in any year. Areas located within the 100-year floodplain are predominantly located adjacent to the Rahway River and its tributaries. Floodplains should be regulated as an overlay to discourage additional development in the floodplain and reduce damage to life and property from flood events. The overlay ordinance should reduce the permitted building coverage and impervious surface area in comparison to the underlying zoning or mitigate stormwater impacts to the satisfaction of the Township Engineer.

#### ***Historic Preservation Overlay***

There is a need to identify and to preserve local historic resources in Cranford. However, to preserve such resources, communities need to identify local historic resources, evaluate current issues regarding such resources, and recommend implementation measures to conserve, re-use, rehabilitate, and to protect these resources.

Historic Preservation efforts are necessary in Cranford to:

1. Document existing historic and proposed historic properties and/or areas to be considered for historic preservation efforts;
2. Create policy objectives to direct preservation activities by means of identified goals and policies; and
3. Determine long-range historic preservation efforts needed for continued maintenance of historic sites.

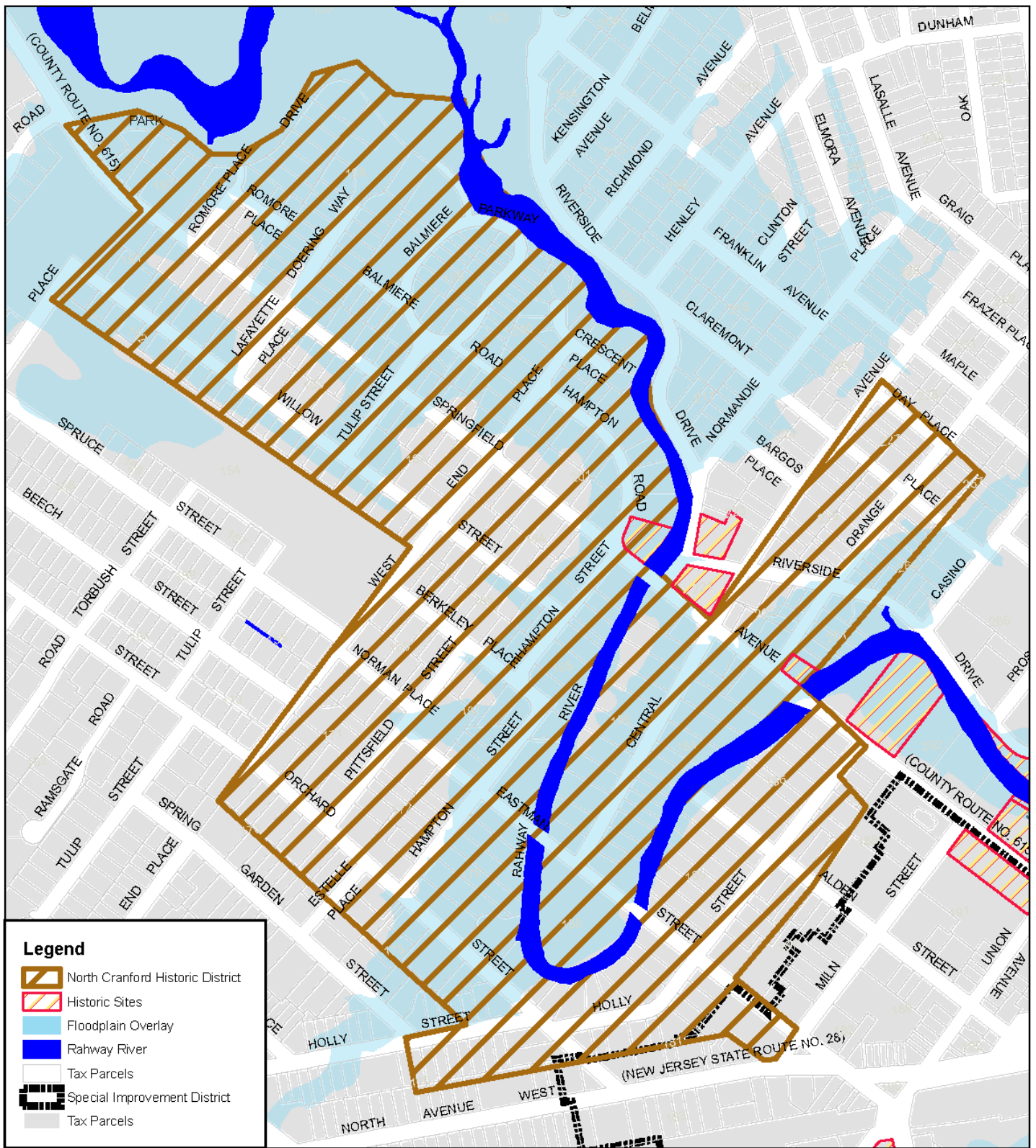
### Architectural and Historic Significance

Buildings often reflect the popular designs and styles of the period in which they were built. Although many of them are common or "vernacular" examples of these styles, most still retain those characteristic features that make them charming, beautiful, and architecturally significant.

In order to be eligible for listing on the State and National Register of Historic Places, a property must be at least fifty years of age and demonstrate a high degree of physical integrity and significance in history or architecture. While a large percentage of the buildings in Cranford are more than fifty years old, most of them may not possess such a level of integrity or significance for listing on the State and National Register. Whether the above-mentioned properties are actually eligible for State and National Register listing as historic individual properties or historic districts is unknown at this time. Additional studies are needed to evaluate their potential.

After these studies are finished, the Historic Preservation Board with assistance from the Planning Board should also evaluate whether local historic sites would be able to qualify as potentially eligible properties. This decision should be based upon the resources' degree of significance and potential threats to physical and/or architectural integrity. If the resources are eligible for state and national historic designation, it is recommended that Cranford apply for matching funds to prepare nomination papers for those properties so that they, too, can be afforded the same special status, government protection, and tax credit benefits as those properties already so designated. Such State and National designation would not, however, have any bearing on an individual property owner's ability to alter or demolish their property if they wished.

In Cranford, as identified on the Future Land Use Map, Twenty-one sites have been identified as historically significant. Furthermore, in August of 2001, the State Historic Preservation Office found that a North Cranford Historic District was eligible for listing in the state historic register. This opinion was confirmed in a Certification of Eligibility letter on May 19, 2005. The proposed North Cranford Historic District (See Figure LU-5) proposed delineation includes over 450 properties in the proposed 180-acre district. During the development of this Master Plan, it was determined that the delineation of the proposed North Cranford Historic District may not accurately reflect the 1860 to 1930 period of significance intended to be preserved. This Master Plan recommends that the Township Historic Preservation Board evaluate the proposed delineation of the North Cranford Historic District to determine whether it best represents the proposed or a more appropriate period of significance (1860 to 1930) when Cranford transformed from a rural farming village to a suburban railroad community.



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**Figure LU-5**  
**Proposed North Cranford Historic District**  
**Township of Cranford**  
**Union County, New Jersey**

Prepared by: PNR,  
 Source: Cranford Township  
 File Path: H:\CNPB\00020\GIS\Projects\North Cranford Historic District.mxd



NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.



### ***Special Improvement District Overlay***

In the 1980's Cranford founded the first Special Improvement District (SID) in New Jersey. The SID resulted in the creation of a special tax on building and business owners for Downtown development and marketing. The SID is managed by the Downtown Management Corporation (DMC) and is housed in the Cranford Municipal Building. The primary purpose of the DMC is to preserve, market and enhance the function and appearance of the traditional business core of the Township.

The SID area is identified on the Future Land Use map; it generally corresponds with the Downtown. According to the DMC, there are more than 250 businesses located in the SID. One hundred and ninety (190) are retail uses occupying approximately 309,000 square feet of space and approximately 50,000 square feet of office space. Development applications heard by the Planning and Zoning Boards as well as construction permit applications are required to be referred to the SID for comment.

The SID is responsible for the creation of design criteria for the construction or alteration of building façades within the district, including signage and acts as an advisory agency to the Planning and Zoning Boards of Cranford to help foster appropriate development in the Downtown. Various Downtown sales and street fairs also are administered by the DMC.

The DMC is governed by a Board of Directors consisting of property owners, business owners and residents that are appointed by the Township Committee. The Township Committee appoints a DMC Director, who runs the day-to-day operations of the corporation.

### **Redevelopment/Rehabilitation Districts**

The Township Committee has designated three areas in need of redevelopment and one area in need of rehabilitation. These areas include: Cranford Crossing Redevelopment District (CCRD), Riverfront Redevelopment District (RRRD), 555 South Avenue East (SRD) Redevelopment District and the Western Gateway Rehabilitation District (WGRD). Redevelopment plans have been prepared for Cranford Crossing, Riverfront, Western Gateway and 555 South Avenue East. No other areas have been recommended for redevelopment or rehabilitation studies. However, the Township should continue to monitor the need to conduct studies in the future utilizing all of the planning tools and designations available to encourage sustainable economic growth.

#### ***Cranford Crossing Redevelopment District (CCRD)***

Located at the intersection of South Union Avenue and South Avenue East, the 1.2 acre Cranford Crossing Redevelopment District is one piece in retaining and improving Cranford as a healthy, vibrant Downtown with attractive streets and well-maintained sidewalks filled with people and activity. The districts 22,000 square feet of retail space and 50 apartments assist in implementing a Downtown vision of diverse array of shopping, dining, working, and cultural amenities in the Downtown. The 310 car municipal parking structured parking deck is an investment in Cranford's future as the deck will provide commuter, retail and residential parking for generations to come. Proper maintenance of this facility is critical to ensure its operation.



Specific Master Plan policies implemented at Cranford Crossing include:

1. Create a dynamic business environment in the Downtown;
2. Make Downtown a family and children friendly environment;
3. Make Downtown the center of social and cultural life;
4. Make Downtown a place to live, work, play and shop; and
5. Make Downtown an “18 hour” activity hub.

***Riverfront Redevelopment District (RRRD)***

Located along South Avenue and bounded by High Street, Chestnut Street (includes properties to the south) and the Raritan River, the Riverfront Redevelopment District permits a variety of commercial and residential uses in a mixed-use development. The Master Plan supports the implementation of the Riverfront Redevelopment Plan as it may be amended from time to time. However, existing brownfield conditions and recent changes to New Jersey Department of Environmental Protection (NJDEP) policies for building within the 100-year floodplain represent challenges to its implementation. Conservation objectives of limiting development, implementation of best management practices along the Rahway River and reestablishing a regional group to regionally manage land use along the Rahway River are strategies identified in this Plan to encourage better stormwater management and water quality planning. However, the Master Plan supports the steps to focus development in the downtown to implement the Riverfront Redevelopment plan. The Master Plan notes that the Riverfront Redevelopment District replaced the High Density Office Building District (O-3), which permitted four (4) story buildings with a maximum height of fifty (50) feet.

***555 South Avenue East Redevelopment District (SRD)***

Located at 555 South Avenue East, the redevelopment plan for this 5-acre site is currently the subject of ongoing affordable-housing litigation. The Master Plan and Land Use Plan Element recognize the future redevelopment of the area pursuant to the redevelopment plan governing this area, which includes the provision of affordable housing at this site in accordance with the Township’s Housing Element and Fair Share Plan.

***Western Gateway Rehabilitation District (WGRD)***

Located along South Avenue adjacent to Lincoln Avenue West, the Western Gateway Rehabilitation District and Redevelopment Plan are designed to encourage a traditional layout and design consistent with the Downtown, but without residential development and at a lower level of intensity. Particular emphasis is warranted for the relationship of buildings to the street, prohibition of parking within front yards, a desire to limit the visibility of parked cars and parking lots from the street. This rehabilitation district is intended to eliminate the potential for strip mall style of development within a gateway of Cranford, which serves as a transition into the community’s Downtown.

**Other Special Planning Areas and Considerations**

In addition to the land use categories described above, there are several areas of the Township that require additional land use planning considerations; or there are other special land use policy issues affecting the Township as a whole. These are described in the following sections.

### *South and North Avenue Corridor Design Guidelines*

Areas along South and North Avenue outside of the Downtown Core are predominantly non-residentially zoned. From a planning perspective, there is concern over the future layout and scale of development within these areas. It is the intent to preserve, enhance and improve the existing layout of development. This Master Plan specifically discourages the replacement of existing buildings along this area with strip commercial development<sup>8</sup>. In 2005, the Township prepared the South Avenue Corridor Study to create a new vision and land use planning recommendations for the South Avenue corridor. The primary objective of the South Avenue Plan was to provide recommendations for a zoning and/or redevelopment strategy that is complimentary with the Township's other recent smart growth planning initiatives and continues the implementation of the Township's Transit Village Designation. To that end, the Plan proposed policies to protect and enhance adjoining neighborhoods and supports the revitalization and redevelopment of Cranford's Downtown commercial district. Additional steps are necessary along North Avenue—similar to the planning efforts—on South Avenue, to plan for the orderly redevelopment of this corridor.

To encourage lower intensity non-residential uses than the Downtown Core that are compatible with residential uses, the Township should consider the establishment of special design guidelines along sections of South and North Avenue for those areas outside of the Special Improvement District not addressed by redevelopment or rehabilitation districts. The design guidelines could include standards for yards, open space, landscaping, signage, setbacks, connectivity, and screening. The standards would be the basis for development design in the area and supplement the development standards and requirements of the underlying zone district.

### *Gateways*

There are numerous areas in Cranford that function as gateways into the Township. They are located at:

1. South Avenue and Lincoln Avenue West (including the Western Gateway Rehabilitation District);
2. North Avenue and Lincoln Avenue West;
3. North Avenue and Elizabeth Avenue;
4. South Avenue and Lincoln Avenue East; and
5. Centennial Avenue near Interchange 136.

Gateways play an important role in defining the image of the Township. Since gateways are highly visible, they should present a positive and inviting impression. This can be accomplished through landscaping, quality of design, signage and site development. The Township should identify specific initiatives for each gateway which improve their function as an image defining entry into the Township. In an effort to retain the attractiveness of the entranceways of the Township, landscaping and signage should welcome residents and visitors to Cranford.

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<sup>8</sup> Strip Commercial development: A one (1) story shopping center consisting of a series of adjoining shops in a building or buildings typically with a uniform front design and direct access to each shop from a common parking area in front of the building.

***Land Use and Transportation Planning***

It is impossible to separate land use and transportation planning. They are inextricably linked. Real estate professionals typically characterize the value of a property as being a function of its location. Planners and transportation professionals evaluate properties accessibility. A transportation system comprising roads, rail, bus, taxi, bicycle and foot traffic create a transportation system that both enables and constrains the location, shape, size, intensity and overall pattern of land uses. At the same time, the type, capacity and usage of transportation systems depend on land uses.

In recent years, there has been a growing effort to more fully understand the relationship between land use and transportation. It is necessary to understand these relationships in order to:

1. Complement transportation investments by placing compatible activities adjacent to transportation infrastructure and by placing new activities at locations where transportation infrastructure and services exist or are planned.
2. Influence the amount of travel, the geographic location of travel demand, and the relative attractiveness and use of various modes of travel.
3. Complement land use goals by placing facilities appropriately so as to minimize impacts on adjacent sensitive land uses and by locating capacity such that it stimulates development in desired locations.

This Plan specifically recommends that the impacts of future land use planning be evaluated in the context of impacts on the local transportation network (which includes parking) and the need to improve roadways and other infrastructure.

While this Plan does not contain a specific circulation plan element, the following identifies problem transportation areas of the Township that was obtained through the stakeholder meetings associated with the development of this Plan. They include:

1. South Avenue & High Street
2. Springfield Avenue & North Avenue
3. Hillside Avenue & Centennial Avenue
4. Springfield Avenue & Miln Street
5. Miln Street & Eastman Avenue
6. South Avenue & Centennial Avenue
7. North Avenue & Centennial Avenue
8. Springfield Avenue & North Union Avenue

### **ADDITIONAL ZONING RECOMMENDATIONS**

The following are additional zoning recommendations intended to address the planning issues identified within this Master Plan.

1. Rezone districts in accordance with the separate list of proposed zone district/boundary changes.
2. Create new public districts to regulate public use areas.
3. Increase lot sizes for duplexes in accordance with this Plan.
4. Require a maximum percentage of the front yard that can be impervious.
5. Create building coverage requirements for all districts.
6. Provisions for fences on corner lots should be updated.
7. Limit warehouses to accessory uses in the proposed Commercial 2 District.
8. Establish service standard for new development.
9. Prohibit accessory structures to cantilever no more than two (2) feet into the side yard. Clarify the ordinance to indicate that no encroachments are permitted within three (3) feet of the property line.
10. Require that parking deviations be a variance rather than a design waiver.
11. Evaluate tree replacement fees.
12. Update parking space requirement in the Downtown.
13. Clarify when site plan approval is required.
14. Consider allowing an exception to front yard setback requirements to permit small entrance porches.
15. Consider allowing front yard setbacks in residential zones to be reduced to the average setback of adjoining properties without requiring variance relief.

<b>Appendix LU-A: Recommended Development Density and Intensity Standards</b>								
<b>Zone</b>	<b>Principal Use</b>	<b>Minimum Lot Area (sq. ft.)<sup>9</sup></b>	<b>Maximum Net Density (units per acre)</b>	<b>Floor Area Ratio (FAR)</b>	<b>Principal Building Height (stories/ft.)</b>	<b>Building Coverage (%)</b>	<b>Impervious Coverage (%)</b>	<b>Notes/Recommendation</b>
<b>R-1</b>	1-family	12,000	3.6	N/A	2.5/30	18	35	Building coverage should be calculated within the first 120 feet of the lot. A sliding scale approach to building and impervious coverage maximums should be considered as part of ordinance revisions.
<b>R-2</b>	1-family	10,000	4.3	N/A	2.5/30	18	35	Building coverage should be calculated within the first 120 feet of the lot. A sliding scale approach to building and impervious coverage maximums should be considered as part of ordinance revisions.
<b>R-3</b>	1-family	8,000	5.4	N/A	2.5/30	19	38	Building coverage should be calculated within the first 120 feet of the lot. A sliding scale approach to building and impervious coverage maximums should be considered as part of ordinance revisions.
<b>R-4</b>	1-family	6,000	7.2	N/A	2.5/30	20	40	Building coverage should be calculated within the first 120 feet of the lot. A sliding scale approach to building and impervious coverage maximums should be considered as part of ordinance revisions.
<b>R-5</b>	1-family	5,000	8.7	N/A	2.5/30	20	45	Building coverage should be calculated within the first 120 feet of the lot. A sliding scale approach to building and impervious coverage maximums should be considered as part of ordinance revisions.
<b>R-5</b>	2-family	7,000 to 8,000	10.9 to 12.4	N/A	2.5/30	20	50	Building coverage should be calculated within the first 120 feet of the lot. A sliding scale approach to building and impervious coverage maximums should be considered as part of ordinance revisions.
<b>R-6</b>	Townhouse	40,000	8.7	N/A	2.5/30	25	50	
<b>R-7</b>	Garden Apartment	40,000	10.9 – 17.4	N/A	2.5/30	35	70	
<b>R-8</b>	Apartment District	40,000	10.9 – 33.5	N/A	5/60	40	80	



<b>R-SC-1</b>	Senior Apartment District	40,000	10.9 – 33.5	N/A	5/55	40 <sup>10</sup>	80	
<b>Downtown Core</b>	Retail, Office and Residential	N/A	N/A	3	3/45	N/A	N/A	Set back requirements for Downtown Core consistent with current B-1 zone. Set back requirements for Downtown Business should provide sufficient space for off-street parking in the rear or side of structure. This Plan does not recommend parking in front. of the structure.
<b>Downtown Business</b>				2.5			80	
<b>Downtown Transition</b>	Office and Residential	N/A	N/A	1.5	2.5/35	N/A	80	Set back requirements for Downtown Transition should provide sufficient space for off-street parking in the rear or side of structure. This Plan does not recommend parking in front. of the structure.
<b>Office District</b>	Office Uses (medium density)	15,000	N/A	0.5	3/40	38	75	Rename O-2 district to O-1.
<b>Village Commercial</b>	Mixed Business and residential uses	N/A	N/A	TBD	3/40	TBD	90	Lot sizes should vary by use. Standards to be established as part of ordinance revisions.
<b>ORC</b>	Office Uses	7,000	N/A	0.75	2.5/30	30	75	Requires a minimum lot width of 75 feet.
<b>C-1</b>	Office and Business Uses	150,000	N/A	2.1	6/75	35	70	
<b>C-2</b>	Office and Commercial Uses	10,000	N/A	0.8	3/45	40	75	
<b>C-3</b>	Office and Commercial Uses	20 Acres	N/A	0.6	3/45	25	60	
<b>E-1</b>	Education District	45 acres	N/A			N/A		
<b>P-1</b>	Public Uses	N/A	N/A	N/A	N/A	N/A	25	
<b>Neighborhood / Gateway Commercial</b>	Convenience Business Uses	N/A	N/A	1.5	2/35	N/A	80	

## CONSERVATION PLAN ELEMENT OF THE MASTER PLAN

*This Element was partially funded by the Association of New Jersey Environmental Commissions (ANJEC)*



### INTRODUCTION

Cranford has prepared this conservation plan in accordance with the requirements of the Municipal Land Use Law (N.J.S.A. 40:55D-28.b.(8)) to provide for the preservation, conservation, restoration, and appropriate utilization of natural resources. Resources to be considered for conservation purposes include open space, energy, water supply, air, forests, soils, wetlands, rivers and other waters, endangered and threatened species and wildlife, and other resources important to the well being of the community and the region. This Conservation Plan Element of the Master Plan (herein after referred to as the Conservation Plan) responds to civic concerns that the Township's natural resources, open spaces, and neighborhood character are being altered and compromised by incremental land development practices that reduce open space, aggravate flooding, and impair water quality.

This document is the Township of Cranford's first Conservation Plan. However, it builds upon past conservation initiatives. In 1999, the Cranford Environmental Commission (CEC) procured a grant to prepare a Community Forestry Management Plan, which resulted in additional funding to the Township from state agencies. In 2003, the CEC prepared an updated Natural Resources Inventory (NRI) to identify the natural and environmental characteristics of the community. In addition, in 2003, CEC proposed a sustainability resolution that was adopted by the Township Committee. Sustainability is a policy in which decision making about municipal operations incorporates environmental stewardship, economic growth, and social equity, so that the needs of the present generation do not compromise the needs of future generations. In 2005, CEC sponsored a sustainable building standards ordinance that was adopted by Township Committee.

Municipalities shall, in a Conservation Plan, consider the natural resource conditions located within its boundaries as well as devise goals and objectives consistent with the Municipal Master Plan to preserve, conserve, and utilize its natural resources. In addressing the requirements of the Conservation Master Plan, consideration must be given to the significant investment in transit, roads, and community facilities in Cranford, as well as the historic and cultural resources attributed to the Township. Recognizing that Cranford Township is nearly fully developed with few remaining undeveloped parcels, the natural resource conditions have been altered to suit a community of 4.8 square miles with a population of 22,478<sup>11</sup> people. New development is anticipated in the form of scattered residential infill development and redevelopment of the Township's Downtown and non-residential areas. Despite this level of suburbanization, Cranford's conservation planning is critical to the long-term quality of life provided to its residents.

The Conservation Plan's overriding goals, objectives, and recommendations intend to retain and improve the quality and character of the lives of the citizens of Cranford. The Conservation Plan is built upon the premise that Cranford's existing natural and historic resources shape the way in which leisure time is spent, affect the long-term strength of the economy and property values, determine whether there is clean air and water, support the network of living things of which we are a part, and affect the character of the community. The Conservation Plan acknowledges that

global warming or an increase in the average temperature of the Earth's near-surface air and the oceans since the mid-twentieth century is projected to continue. To further support for policies and targets to reduce greenhouse gas emissions, the Township signed the Mayor's Climate Protection Agreement in 2007.<sup>12</sup>

This Conservation Plan identifies an implementation strategy and additional planning steps necessary to continue this effort and makes recommendations to improve the balance between manmade and natural resources. The approach taken is to describe the natural resource conditions and, through a variety of community-based programs, suggest mechanisms to support the natural resources of the community.

## **CONSERVATION GOALS**

To conserve natural resources from degradation, the Conservation Plan identifies the key resources and features within the Township that should be maintained and protected as the green infrastructure of the Township. The Conservation Plan also recommends the actions that the Township should undertake to focus public and private conservation efforts to achieve Cranford's conservation goals.

Cranford's conservation goals are listed in the "Principles, Goals, Objectives, and Development Policy of the Township Master Plan" starting on G-3 of this document.

## **RESOURCE PROTECTION NEEDS**

Cranford must manage its environmentally critical lands to protect the Township's natural resources. The critical environmental lands of the Township are characterized by environmentally sensitive features whose functions are integral or important to a natural system or landscape. These critical features of the Township include:

1. Water Resources
2. Stream Corridors
3. Water Quality
4. Floodplains & Flood Hazard Areas
5. Wetlands
6. Wellhead Protection Areas
7. Public Open Space

Resource protection in Cranford will be addressed through the following actions:

- Adoption of new Township land use regulations to implement the Conservation Plan for greenways and environmentally critical lands through the Township zone plan and through appropriate site plan and subdivision design standards.
- Adoption of State regulations that protect wetlands, wetlands transition areas, and air and water resources.
- Creation of partnerships with state agencies and private entities to encourage brownfield remediation and sustainable reuse.
- Acquisition of available state and federal grants.
- Education.

The major environmentally sensitive features that the Township plans to conserve are shown on the Conservation Plan Map (Figure CO 1: Conservation Plan). The importance of these features to the Township Conservation Master Plan and Cranford are reviewed below.

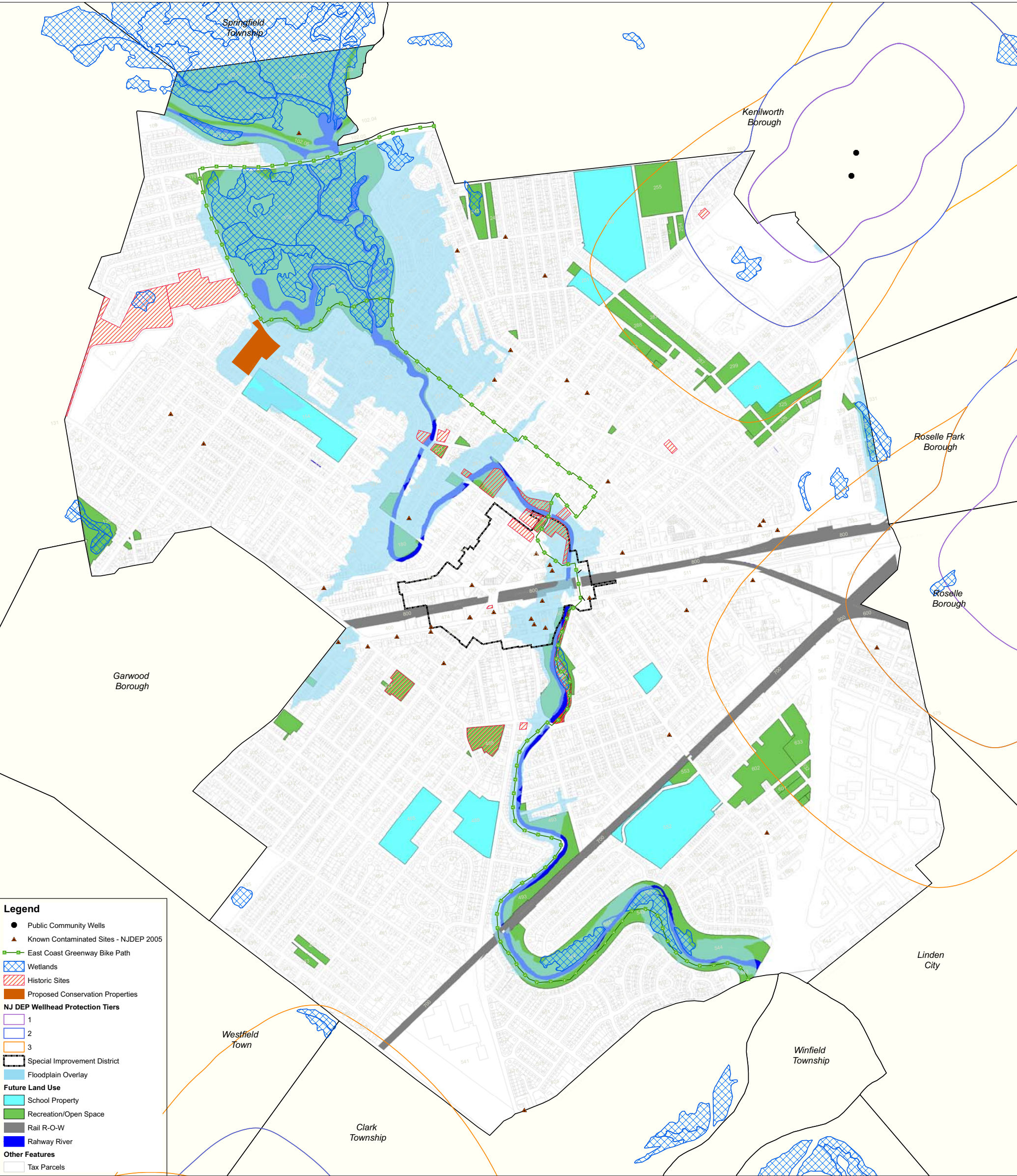
## **CONSERVATION PLAN**

### **Water Resources**

The surface waters of the Township are important as wildlife habitat, recreational and park resources, scenic resources, and for flood control and drainage. Surface waters are vulnerable to further degradation and pollution from development and inappropriate land use. Both the

groundwater and surface water resources in the Township are finite resources that need to be conserved and restored. As indicated in the Township's 2005 Stormwater Management Plan, surface waters in the Township include the Rahway River and its tributaries, which include Casino Brook, Orchard Brook, Nomahegan Brook, and Gallows Hill Brook.





**Legend**

- Public Community Wells
- ▲ Known Contaminated Sites - NJDEP 2005
- East Coast Greenway Bike Path
- ▨ Wetlands
- ▨ Historic Sites
- Proposed Conservation Properties
- NJ DEP Wellhead Protection Tiers**
- 1
- 2
- 3
- ▭ Special Improvement District
- ▭ Floodplain Overlay
- Future Land Use**
- ▭ School Property
- ▭ Recreation/Open Space
- ▭ Rail R-O-W
- ▭ Rahway River
- Other Features**
- ▭ Tax Parcels

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**Figure CO-1**  
**Conservation Plan**  
**Township of Cranford**  
**Union County, New Jersey**

0 330 660 1,320 1,980 Feet

NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

Prepared by: PNR, Last Revised January 14, 2008  
 Source: Union County GIS, NJDEP  
 File Path: H:\C:\GIS\2007\GIS\Projects\Conservation plan 1-08.mxd



The rivers and stream corridors within the Township are subject to flooding and are vulnerable to adverse impacts from suburban land development.

The environmentally critical lands and the measures for protection of the Township water resources are reviewed below.

### **Stream Corridor Protection**

The stream corridors of the Township consist of streams and associated wetlands, together with adjacent upland areas, including the floodplain and areas that support protective bands of vegetation that line the water's edge. The maintenance of a stream buffer as part of the corridor along the bank of a surface water body is recommended to protect the stream from development impacts. A stream buffer is an area of undisturbed vegetation that is maintained along the bank of a surface water body to protect the stream corridor from development impacts. Buffer widths may vary depending upon the degree to which the stream, its resources and the functions need to be protected. Considerations include water quality and stream functions, such as wildlife habitat, scenic value, and recreational value.

### **Water Quality**

Impacts from land development and urban runoff contribute to nonpoint sources of pollution in the Township's local waterways. These impacts include siltation of rivers, streams and ponds, and increased nutrient, bacterial, and chemical contaminants.

NJDEP Water Monitoring Standards Division monitors impairments to waterways; referring to waterways that exceed the permitted State's total maximum daily loads for a particular heavy metal or biological impairment. As documented in the Township's 2003 Natural Resource Inventory (NRI), surface water in the Watershed Management Area (WMA) in which Cranford is located is somewhat impaired. The Township NRI indicates that closest monitoring station along the Rahway River is located in Springfield Township. In 1998, the area of the Rahway River located adjacent to the Springfield Station was located on the State's Impaired Water bodies List. In 2002, the same station was removed from the Impaired Water bodies List. Tested indicators of water quality include total phosphorus (TP), pH, dissolved oxygen, temperature, fecal coli form, nitrate, total suspended solids, un-ionized ammonia, and metals. Descriptions of each indicator are discussed on pages VII-8 to VII-10 within the Township's NRI. In 2002, the Rahway River conformed to state standards for the indicators listed above, with the exception of fecal coli form, which is an indication of an elevated level of pollution from human or animal fecal matter. The NRI also indicates that water quality at the Springfield monitoring station improved from 1998 as impaired levels of total phosphorus and dissolved oxygen were reduced. Despite these improvements in water quality, continued improvements are obtainable.

The use of fertilizers to create the "perfect lawn" is an increasingly common problem in many residential areas. Fertilizer run-off increases the level of nutrients in water bodies and can accelerate eutrophication<sup>13</sup> in the lakes and rivers. The excessive use of fertilizer causes nitrate contamination of groundwater. Good fertilizer maintenance practices can help in reducing the amount of nitrates in the soil and thereby lower its content in the water. Almost as important as the use of fertilizer is the combination of over fertilizing and over watering lawns. In many cases, this leads to nutrient rich runoff, which ultimately may drain into a nearby stream, lake, or other water body. If fertilizer is applied correctly, the natural characteristics of the underlying soils will absorb or filter out the nutrients in the fertilizer.

### **Stormwater Management**

In 2008, the Township adopted a Stormwater Management Element of the Master Plan. The 2008 Plan provides a strategy for Cranford to plan for and manage increased runoff associated with future development and land use changes. While stormwater management is addressed in the above referenced plan, proper stormwater management contributes to improved water quality and the preservation of floodplains maintains the natural spillways for stormwater to flow.

### **Flood Plains and Flood Hazard Areas**

Floodplains are usually flat areas of land bordering streams, which are periodically inundated by floodwaters. Rainstorms of severe intensity may cause the entire floodplain to flood. Floodplains are areas of substantial ecological value. The sediments deposited in the floodplain by slow-moving floodwaters increase the fertility of the land. Where floodplains are undeveloped, the shrub and forest vegetation provide excellent habitats for wildlife. Proximity to water heightens the floodplains' value to wildlife, and overhanging vegetation offers shade and refuge for stream organisms and helps maintain natural stream temperatures. Vegetated floodplains can also act to filter out nonpoint source pollutants before they enter streams, thus providing a natural mechanism for water quality benefits. Floodplains are excellent locations for water-related recreation sites, as well as for nature study. Since standing floodwaters are steadily absorbed by flood plain soils, groundwater supplies are maintained and flood peaks downstream are reduced.

Flood hazard areas are the areas within the floodplain that are subject to flooding from a storm with a frequency of recurrence of once or more per 100 years. In general, further development should be discouraged within the flood hazard areas, and the flood hazard areas should be preserved from development. Uses that are not significantly harmed by periodic flooding, such as recreation, and nature study, should be permitted.

### **Wetlands**

Wetlands provide critical habitats for endangered and threatened species and many other wildlife species, and are vital to the recharge of aquifers, the control of flooding, and the removal of pollutants from the environment.

The wetlands within the Township are regulated and protected by the NJDEP pursuant to the State Freshwater Wetlands Protection Act.

### **Wellhead Protection Areas**

An important water supply and groundwater protection issue is the protection of public community water supply wells from the impact of contaminants associated with particular land uses and chemical management practices. Pollutants can seep through the soil from the land surface and contaminate groundwater and the water supply. While there are no public community water supply wells (PCWS) in Cranford, portions of the Township lie within areas that may impact adjoining communities PCWS.

Wellhead protection areas are delineated around public community water wells based on site-specific wellhead information, such as time of travel, rate of pumping, and aquifer characteristics (thickness, transmissivity, porosity, and hydraulic gradient). Time of travel of the pollutant to the well is directly related to the distance the water has to travel to arrive at a well once its starts pumping. The time is divided into three tiers based on travel time to wells:

- Tier 1: 2 years (730 days) - This boundary accounts for the time travel to the outer boundary and presence. The boundary extends from the well to the boundary established to represent the 2-year time travel.
- Tier 2: 5 years (1,826 days) - This boundary accounts for the discharge of known pollution contamination and the ability of the NJDEP to locate responsible parties. The boundary accounts for the “smearing effect” observed in pollution plumes and the acceleration of groundwater near a pumping well. The Tier 2 boundary extends from the perimeter of Tier 1 to the boundary representing the 5-year time travel.
- Tier 3: 12 years (4,383 days) - This boundary is the complete zone of contribution and the limit of the wellhead monitoring areas. The Tier 3 boundary extends from the perimeter of Tier 2 to the outer boundary representing the 12-year time travel.

The USEPA identifies common sources of contaminants by land-use categories. See Appendix CO-B.

To identify potential environmental threats to water supply, a review of known contaminated sites was compared to the previously mentioned wellhead protection areas. Known contaminated sites include those that are located on the 2005 NJDEP known contaminated list. Appendix CO-A contains a detailed description of the contaminated sites that make up contaminated sites in Cranford.

Two (2) known NJDEP contaminated sites are located within wellhead protection areas as defined by NJDEP of PCWS located in Roselle Borough.

Cranford should work with adjoining communities to ensure that public water supplies are not contaminated as a result of poor land use practice.

### **Preserved Open Space**

Open space is critical for the protection of the Township’s environment, for maintaining a desirable visual character for the community, and for providing a balanced pattern of land use to address public needs. Preserved open space maintains vegetative and wildlife habitats, provides a natural amenity for the community and opportunities for passive and active recreation, and helps safeguard public health and safety through the protection of air and water quality.

Within Cranford, 382 acres of land are publicly-owned and dedicated for open space and recreational purposes. This represents 12.3 percent of the total land area in Cranford. Approximately, 269 acres or over 70% of this land is owned and managed by the Union County Parks system. In addition to the 382 acres of land in Cranford, portions of the Nomahegan/Lenape Park in Springfield and Echo Lake Park in Westfield are located along Cranford’s border. Despite their location outside of Cranford, these parks provide open space and recreation opportunities to Township residents.

Existing recreation and open space lands (ROSI) are identified on Map CO-1 in green. Lands identified as providing recreation and open spaces whether under municipal or private ownership are identified in the table below.

**Table CO-1: Recreation and Open Spaces – Township of Cranford**

<b>Township of Cranford</b>	<b>County</b>
Cranford Recreation Complex (including Centennial Avenue Pool)	Nomahegan Park
Crane Park	Rahway River Park
Lincoln Avenue Parks	Lenape Park
Mayor’s Park	Unami Park
Hampton Park	McConnell Park
Springfield Tennis Courts/Girl Scout Park	Sperry Park
Hanson Park	Rahway River Park and associated Passive Open Space Lands
Sherman Park	Mohawk Park (Sunny Acres)
Hillside Avenue Tennis Courts	
Johnson Park	
Memorial Park	
Orange Avenue Pool Complex	
Cranford West (Hope Township)	
Cranford Canoe Club	

Compiled by: T&M Associates

The Township, working with the State, the County, private land owners, conservancies and other groups should preserve, maintain and restore additional open space within the community. The public effort to preserve open space should include the acquisition of lands to provide additional recreation and open space lands.

This Plan recognizes that the Township owns land in Hope Township, commonly referred to as Cranford West that provides additional recreation and open space opportunities to residents.

**CONSERVATION PLAN RECOMMENDATIONS**

The development and redevelopment of Cranford should be consistent with the principle of sustainable development. Sustainable development meets the needs of the present without compromising the ability of future generations to meet their needs. Development and growth should not exceed the limits of Cranford’s natural systems and its infrastructure system, nor should it degrade those systems. Consistent with the principle of sustainable development, the Township should take the following actions—not listed in any particular order—to achieve its conservation goals and objectives and meet the Township’s conservation needs:

**RESOURCE PROTECTION**

**Promote Cooperation among Communities along the Rahway River**

The Rahway River is the most significant natural resource in Cranford and many other communities in Union and Essex Counties. During stakeholder interviews to develop this Plan, the Rahway River was identified as both an asset—as a scenic and open space resource—and a detriment—from flooding impacts—to the community.



Cranford has little or no control over activities that affect the quality or quantity of water from upstream communities. This Plan recognizes the need to manage the Rahway River as any other resource and the need to do so on a regional basis. The Rahway River Association was created to protect and restore the Rahway and its ecosystem. According to its website, “the Association recognizes the Rahway River and its biological communities are an important link between the environment, communities, and the quality of life of the people of the Rahway River Watershed (See Figure CO-2). To help fulfill its purpose, the Association will:

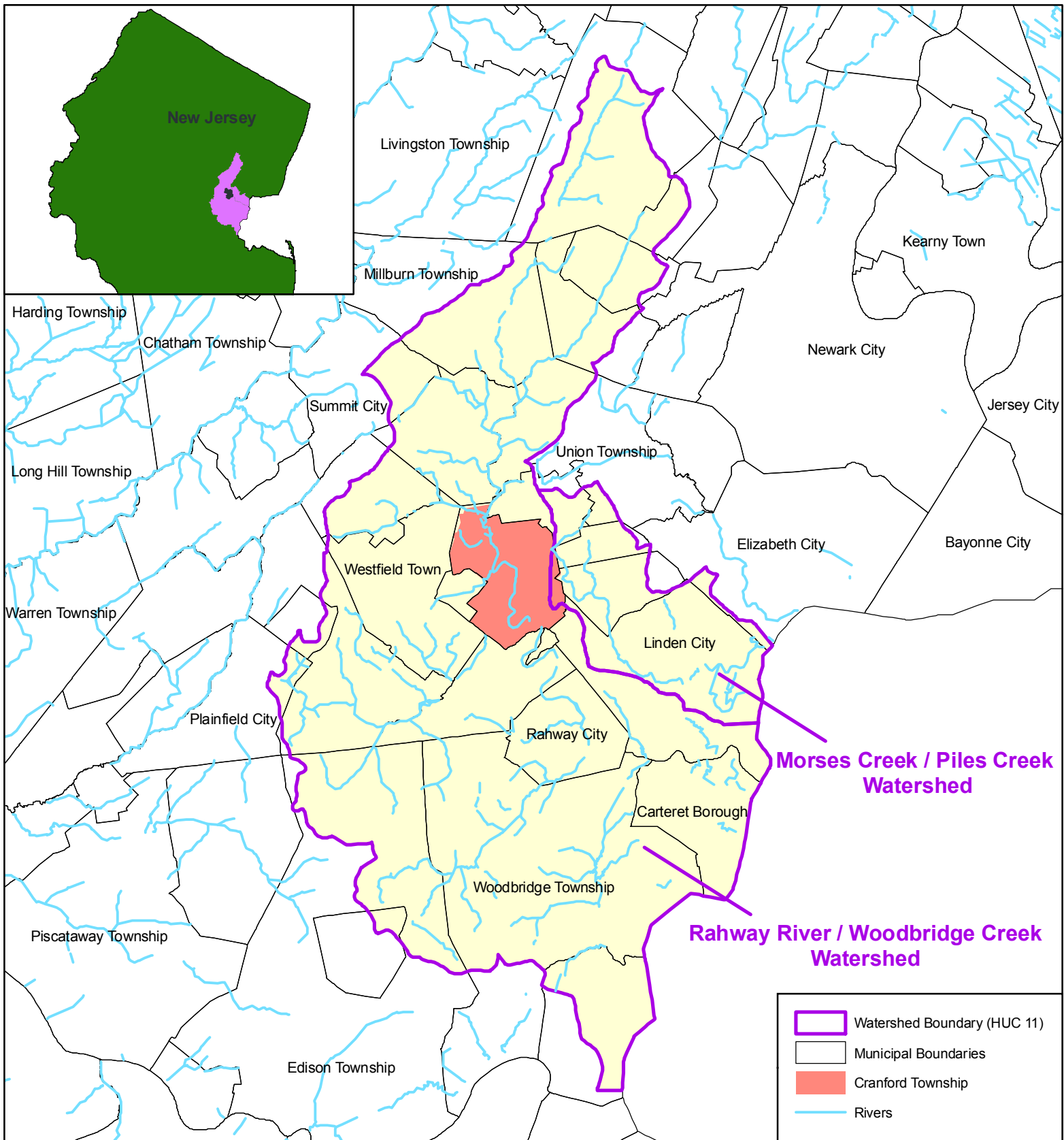
- Provide opportunities for networking and information sharing between communities and organizations in the Rahway Watershed;
- Promote cooperation and coordination between public and private entities to preserve and enhance the River’s ecological functions and benefits;
- Work in cooperation with communities and other organizations to undertake ecologically beneficial activities to restore and enhance the Rahway River and its biological communities;
- Provide opportunities for education, curriculum support activities, community awareness, and environmental stewardship relating to the Rahway River and its natural resources; and
- Encourage recreation and other beneficial uses of the River commensurate with the Association’s purpose.”

A primary goal of this Conservation Plan is to create land-use policy and an inter-municipal plan to regulate land adjacent to the Rahway River. This will require the coordination with twenty-one municipalities in three (3) counties located along the River. This Plan recommends collaborating with the Rahway River Association and these communities to develop such a plan. Initial stages should include the creation of a steering committee, which should work with State Legislators for the re-enactment of the Rahway River Intergovernmental Cooperation Committee Act. The committee created by this Act dissolved in January 2008 under its sunset provisions. The Committee should develop a detailed request for proposals that could be used as basis to solicit grant funding from the Department of Community Affairs (DCA) and other sources to assist in providing fiscal resources to develop a Stormwater Management Plan that would be adopted in part or endorsed by all communities along the Rahway River.

### **Conserve Stream Corridors and Flood Hazard Areas**

Cranford should regulate development to preserve the existing stream corridors and its flood hazard areas. Township regulations should conserve stream corridors from increased development and from activities that would adversely affect the stream environment. The flood hazard areas should be regulated to minimize the potential for damage to life and property from flood events.

The state is leading this effort by adopting more stringent environmental restrictions to the New Jersey waterways. Under the new rule, the potential to fill up to 20 percent of the land area within the 100-year flood hazard area has been eliminated.



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**Figure CO-2**  
**Watershed Areas**  
**Township of Cranford, New Jersey**

0 1.5 3 6 Miles

Prepared by: PNR, 3/12/08  
 Source: NJDEP  
 File Path: H:\CNPB\00020\GIS\Projects\Rahway River Watershed



NOTE: This map was developed using New Jersey Department of Environmental Protection Geographic Information System digital data, but this secondary product has not been verified by NJDEP and is not State-authorized.

The Township should craft its own minimum standards to protect all stream corridors and to restrict the development of flood hazard areas. The minimum standards for stream corridor protection should provide for a stream buffer with a minimum width as part of the stream corridor. The Township should regulate all flood hazard areas to conserve the flood hazard area from development and minimize the potential for flood damage. The regulations should identify the activities and uses that would be permissible within the stream corridor and the flood hazard areas. These regulations would limit impacts associated with expanding buildings and creating new impervious areas within floodways.

### **Establish Greenways**

Greenways are one technique to preserve riverfront land and restore regional ecosystems. They have traditionally been formed along riverfront lands, along ridgelines, as hedgerows dividing farmlands, as greenbelts around cities, as rails-to-trails programs, and in many other areas. A greenway is, in simplest terms, a linear open space. In Cranford, opportunities exist to expand the existing Rahway River greenway. Furthermore, if the freight lines in the Township are vacated, potential may exist in the future to create a regional rail-to-trails network with connections to the East Coast Greenway, which is a path that spans 3,000 miles from Florida to Maine. Of this path, 5.15 miles are in Cranford. The Township should continue to monitor the status of the former Staten Island line now owned by the New Jersey Department of Transportation (NJDOT) adjacent to Cranford junction. Parts of a greenway may be established as scenic or recreational open space, and parts may be set aside for wildlife habitat. It is important to note that greenways or parts of greenways may not allow public access. Greenways may be owned either publicly or privately and acquired as open space through fee simple acquisition or through conservation easements. For example, areas along the Rahway River are privately-owned. If these properties become available, the Township should consider their acquisition.

The Township greenway system should include the Township's stream corridors in conjunction with a program of stream corridor protection and restoration. The development and improvement of river walkways should be encouraged. Furthermore the use of pervious materials should be considered as part of the design of new walkways with consideration given to the needs of handicapped individuals.

### **Regulate Development in Wellhead Protection Areas**

The State has mapped wellhead protection areas for the public community wells adjacent to Cranford since no public community water supply wells exist in the Township. These are the protection areas for wells that serve at least fifteen (15) service connections to year-round residents or regularly serve at least twenty-five (25) residents.

A wellhead protection area is the area around a well from within which groundwater is likely to flow to the well and through which ground-water pollution, if it occurs, poses a significant threat to the water quality of the well. The wellhead protection area should be regulated to control the siting and development of land uses to reduce the potential for ground water contamination and the migration of pollutants into the ground water.

Land uses of special concern within wellhead protection areas are industrial facilities, including manufacturing installations, fuel and chemical storage, railroad yards, and energy plants. In the Cranford suburban setting, highways, utility lines and automotive repair facilities may also produce

contaminants. Land uses of less concern consist of single-family residential, institutional uses, commercial facilities (excluding those with large parking lots), parks, and open space.<sup>14</sup>

### **Encourage Energy Efficiency and Renewable Energy Goals in Community Development and at Community Facilities**

Energy consumption is growing and energy is increasingly expensive. An opportunity exists for the Township to act as a leader to more efficiently use energy in community buildings and vehicles. This Conservation Plan suggests creating energy-efficiency goals for all municipally-owned and operated buildings and for the municipal mobile fleet to reduce energy demand. Upon the completion of an energy audit for municipal vehicles, criteria could be established for the purchase and leasing of municipal vehicles. This criteria should include the use of hybrid/clean fuel vehicles. Along with the energy-efficiency goals, periodic energy audits of municipal facilities should be conducted and guidelines should be created for more sustainable municipal purchasing (e.g., recycled paper, recycled bathroom tissue and paper towels, recycled ink cartridges, and Energy Star appliances.)

This strategy supports the vitality of the Township's urban and suburban areas that already have in place the appropriate infrastructure and community facilities to support and serve the Township population. The Township will promote energy conservation by utilizing its existing urban and suburban footprint more efficiently through the continued redevelopment and rehabilitation of the Township's Downtown, by reclaiming brownfields for beneficial economic development, through the adaptive reuse of existing developed sites, by promoting the infill of areas where sewer and water lines are currently available, and by designing walkable neighborhoods in an environment that is friendly to pedestrian, bicycle, and public transportation use.

In addition, the Township has incorporated LEED® (Leadership in Energy and Environmental Design) building standards into all public buildings and encourages their use in new development. The U.S. Green Building Council has established a green building certification process for these standards called the LEED Rating System. It sets forth specific standards for site suitability, water efficiency, energy and atmosphere conservations, building materials and resources, and indoor environmental quality for new construction, existing buildings, and commercial interiors. LEED standards are currently being applied in New Jersey. The Township should continue to monitor LEED standards and periodically update local requirements in accordance with any changes. The use of LEED standards for newly constructed private residences should be encouraged.

Furthermore, the Township should encourage the use of street lighting that consumes less energy and takes advantage of long lasting bulbs.

### **Promote Tree Conservation**

The established urban forest in Cranford is important to the Township's identity and environmental health, in addition to providing habitat for local species. Trees protect water and air quality, control flooding, and reduce stormwater runoff and erosion. They absorb carbon dioxide and release oxygen into the atmosphere. They reduce greenhouse gas emissions, especially carbon dioxide, and they help control global warming.

Trees are important to urban and suburban areas. The planting, maintenance, and protection of trees benefit the urban and suburban environment. Planting or preserving trees in strategic locations can reduce energy demand in buildings and heating and cooling costs. Trees are beneficial for stormwater management, for controlling erosion, and for masking urban noise. Trees can mitigate

the adverse impacts of the urban heat island effect. When planted in parking lots and streets, trees are effective in cooling and beautifying the urban and suburban environment.

The clear cutting of sites to prepare a development site has substantially adverse environmental impacts. To conserve its forests and trees, this Conservation Master Plan recommends the enactment of development design standards and requirements to effectively conserve the Township's tree resources and mitigate their loss to development. While the Township has a "tree save" ordinance in place, additional consideration should be given to protecting and retaining specimen trees or tree stands as part of a tree-save plan and limitations on clear-cutting. These recommendations should be implemented and coordinated with recommendations within the 2005 Community Forestry Management Plan.

### **Landscaping**

Landscaping is a major part of community design. Site plans and subdivision plans need to include well designed landscaping for nonresidential and residential projects. The benefits of a professionally installed and maintained landscape are economic as well as aesthetic and environmental. A well-designed landscape is inviting to customers and is generally accepted as producing higher rental fees and lower vacancy rates. The proper selection and placement of plant material can lower heating and cooling costs by as much as 20%. Well designed landscaping can increase residential and commercial property values from 5% to 20%.

Landscaping plans submitted for Township for site plan approval should be prepared by a New Jersey certified landscape architect and be designed to achieve the following:

- Provide landscaping to screen parking areas, provide breaks from winter winds, and to provide summer cooling for buildings, streets, and parking.
- Provide landscaping to screen or create views, to define boundaries between public and private spaces, to mask noise, to articulate outdoor spaces, and to define circulation systems.
- Provide plant materials appropriate to the intended design function and to local soil conditions, water conservation, and the environment.
- Provide a varied palette of plant materials giving consideration to hardiness, susceptibility to disease, colors, seasonal interest, textures, shape, blossoms, and foliage.
- Provide native plant material and do not introduce invasive plant species.
- Consider the impact of growth of the plant materials on other elements of the development plan, such as sight distances.
- Accent site entrances with special landscaping treatment.
- Mass trees at critical points.
- Accent and complement buildings with foundation plantings and landscaping.
- Retain existing specimen trees, tree stands, and shrubs as part of the site design.



### **Increase Recycling**

The primary goals of recycling in Cranford are to save energy, reduce greenhouse gases, conserve natural resources, and provide other environmental benefits.

The New Jersey Mandatory Source Separation and Recycling Act of 1987 (N.J.S.A.) 13:1E-99.11 et seq.) requires that municipalities incorporate the State Recycling Goals for collection, disposition, and recycling as a component of their Master Plans.

The current *Statewide Solid Waste Plan 2006 Update* reaffirms the New Jersey recycling goal as 50% of the municipal solid waste stream. This Plan requires that each county and municipality review its recycling plan and strategy for reaching this goal.

In their plans, the State and County strategies to increase recycling tonnage target specific generators such as schools, multifamily housing complexes as well as small- and medium-sized businesses. They also emphasize the need for increased education and promotion as well as the enforcement of local recycling mandates.

The Township must now investigate opportunities to increase recycling in the community with an implementation framework. This should reflect the need to increase tonnages of the traditional recycling materials such as glass, plastic and metal containers and paper, and also of other recyclable items such as computers and other consumer electronics.

The Township recycling plan should incorporate the State's *Environmentally Preferable Purchasing* (EPP) Policy, which includes requirements that all office paper products are made with 30% post-consumer recycled content. The Plan should also create any new recycling ordinances in accordance with all state and county requirements.

### **Establish a Township Open Space Preservation Program**

Cranford should establish a program to preserve additional open space to protect the Township's natural resources. A successful Township program will include municipal funding to leverage monies from the County, the State or both for preserving open space. This will expand the protected natural areas in Cranford and help implement a system of greenbelts and greenways. Cranford should take the following actions to implement an open space preservation program:

- ❑ Maintain a dedicated source of funding, such as an open space tax, or alternative means to fund open space preservation in Cranford and use the funds to leverage additional County or State funds for open space in Cranford.
- ❑ Give consideration to applying to the State Green Acres Program and/or the Union County Park Program to secure grants for open space and recreation programs in Cranford.
- ❑ Create a recreation and open space master plan element that identifies specific properties appropriate for acquisition. This Plan should also create an evaluation matrix to assist in the prioritization/ranking of properties that may be considered for acquisition.
- ❑ Identify potential properties for preservation.

### **Require Development and Redevelopment Practices That Reduce Environmental Impacts**

Pervious hardscape materials, such as pervious asphalt and concrete, provide numerous environmental benefits. The use of pervious materials often eliminates the need for stormwater devices such as retention ponds and swales, which can limit land disturbance on a tract of land. The use of pervious materials are best management practices (BMP) recommended by the Environmental Protection Agency and the New Jersey Department of Environmental Protection (NJDEP) and other agencies for the management of stormwater runoff on a regional and local basis.

Pervious materials typically provide projects with points toward certification under the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) Green Building Rating System.

Pervious pavement integrates hardscape surfaces with stormwater management by allowing rainwater to seep into the ground. Pervious materials can be instrumental in recharging groundwater and reducing stormwater runoff.

This Plan recommends the use of pervious materials when appropriate for:

- Parking lots
- Sidewalks and pathways
- Patios
- Tennis courts
- Swimming pool decks
- Foundations/floors for greenhouses and similar uses
- Sound barriers
- Tree grates in sidewalks
- Low-volume pavements
- Other appropriate uses as recommended by the Township Engineer

### **Encourage Pedestrian Circulation and Bikeways**

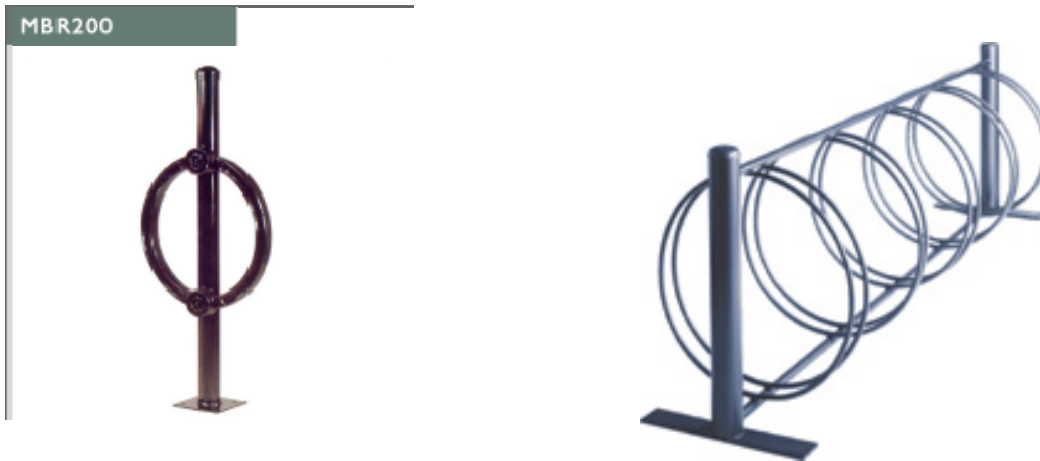
Cranford has numerous open space lots that provide connections to public lands, which include the Rahway River and Nomahegan Park. The Township may wish to evaluate the pedestrian connections into these facilities to encourage nonvehicular travel. These pedestrian connections are a resource that few communities which developed over a century ago have. As with any resource, improvements are necessary to maintain their viability. This Conservation Plan supports improvements to maintain and increase the pedestrian usage of these connections.

### **Promote Bicycle Usage and Increase Bicycle Storage Locations**

Conservation planning requires educating the public so individuals are aware of alternative options or ways of conserving a resource. Conservation planning also requires the creation and placement of services to make the conservation of a resource easier for users to implement. An excellent example in Cranford is the numerous alley connections between streets that encourage individuals to walk to the train or nearby areas in town. Another opportunity to encourage bicycling to the train, nearby commercial areas, community facilities, and other locations is the placement of

bicycle racks. The Township working with the Downtown Management Corporation (DMC) should identify locations where bicycle racks are needed to encourage their use.

Township ordinances require bicycle racks associated with all major development. This Plan recommends evaluating the formula used to determine the number of required bicycle spaces. The current formula often requires an excessive number of spaces, which often leads to the waiving of this design requirement. Furthermore, greater consideration should be given to incorporating bicycle racks (bollard style) within Downtown streetscape improvements.



Furthermore, traditional bicycle racks are often only needed at community facilities, i.e., trains stations, schools, etc.

## **BEST MANAGEMENT PRACTICES**

### **Improve the Water Quality of Local Streams**

To protect streams from further degradation of water quality, stream restoration and best management practices are needed. The Township should establish minimum standards for stream corridor protection. Ideally, a stream buffer width having a minimum distance of 75 feet and an average distance of 100 feet, as measured from the 100 year floodline is appropriate. If there is no 100 year floodline, then the buffer should be maintained from the bank of the stream, lake, or pond. An exact buffer width should be determined during the crafting of implementation ordinances.

The buffer will slow water entering the stream and trap sediment, fertilizers, pesticides, pathogens, and heavy metals, thereby filtering particulates from entering the surface water body. The buffer will also provide a source of food, nesting, cover and shelter for wildlife species and a corridor for the migration and movement of wildlife. Buffers are desirable that provide at least three (3) layers of vegetation, including herbaceous plants that serve as ground cover, under story shrubs, and trees that, when fully mature, will form an overhead canopy. When constructing a buffer area, vegetation should be indigenous, noninvasive species and be consistent with the soil, slope, and moisture conditions of each site.

This Conservation Plan specifically recommends the maximum practical use of the following nonstructural strategies for all major developments in accordance with Subchapter 5 of the DEP Best Management Practices manual:

1. Protect areas that provide water quality benefits or areas particularly susceptible to erosion and sediment loss.
2. Minimize impervious surfaces and break up or disconnect the flow of runoff over impervious surfaces.
3. Maximize the protection of natural drainage features and vegetation.
4. Minimize land disturbance including clearing and grading.
5. Minimize soil compaction.
6. Provide vegetated open-channel conveyance systems discharge into and through stable vegetated areas.
7. Provide preventative source controls.

### **Recommended Measures**

#### ***Require the Use of Vegetated Filter Strips***

Vegetated filter strips are engineered stormwater conveyance systems that treat small drainage areas. Generally, a vegetated filter strip consists of a level spreader and planted vegetation. The level spreader ensures uniform flow over the vegetation that filters out pollutants, and promotes infiltration of the stormwater. Vegetated filter strips are best utilized adjacent to a buffer strip, watercourse, or drainage swale since the discharge will be in the form of sheet flow, making it difficult to convey the stormwater downstream in a normal conveyance system (swale or pipe).

#### ***Increase the Use of Stream Corridor Buffer Strips***

Buffer strips are undisturbed areas between development and the receiving waters. There are two management objectives associated with stream corridor buffer strips:

- To provide buffer protection along a stream corridor to protect existing ecological form and functions; and
- To minimize the impact of development on the stream itself (filter pollutants, provide shade and bank stability, reduce the velocity of overland flow).

Buffers only provide limited benefits in terms of stormwater management; however, they are an integral part of a system of best management practices.

#### ***Provide More Public Education***

Cranford should educate the public regarding best management practices. For example, homeowners could be educated on the impacts of the overuse of fertilizers and encouraged to use an Integrated Pest Management (IPM) approach. In an IPM program, pest control includes: prevention of pests by reducing food, water, and access used by pests; application of pesticides only as needed; selecting the least toxic pesticides effective for controlling pests; and restricting pesticide use to areas not contacted or accessible to children. This approach includes other techniques for homeowners to create a “green lawn” without over fertilizing.

***Improve Requirements to Stabilize Stream Banks, Shoreline, and Slopes***

The root systems of trees, shrubs, and plants effectively bind soils to resist erosion. Increasing the amount of plant material for new and redeveloped residential and nonresidential sites should be encouraged throughout the Township. Planting schemes should be designed by a certified landscape architect to combine plant species that have complementary rooting characteristics to provide long-term stability.

***Regulate Stormwater Management for Infill Development***

Applying stormwater management practices for infill development in Cranford may be a challenge. In most cases, the level of disturbance and the amount of new impervious surface associated with home expansions will not trigger NJDEP stormwater management regulations. Furthermore, the limited available vacant land and its cost may limit stormwater management options for infill development situations.

In Cranford, the most common form of infill development is the demolition of a home and replacement with a home containing a larger building footprint. This Conservation Plan does not contemplate the replacement of single-family homes with higher density land uses, i.e., multifamily housing, which would have greater stormwater management impact because of increased impervious coverage.

In most instances, infill development creates a more intensive use than previous uses and has higher levels of impervious cover, runoff, and contaminant loading per unit of area. In Cranford, the impacts of numerous expansions to single-family homes are significant. For infill development that conforms to existing zoning requirements, typically only a building permit is required rather than minor site plan approval, which is granted by the Construction Official rather than the Planning Board.

In many cases, areas surrounding the new infill development were built before the need for stormwater controls was recognized and may be experiencing stormwater management problems. While the development of single, individual infill sites may not have significant stormwater impacts, the development of many individual sites can have cumulative effects and exacerbate existing problems or create new stormwater problems by increasing flooding, erosion, or water quality degradation.

On residential properties, infill development is often limited by lot-level controls. In most cases, having residential roof leaders that discharge to ponding areas, e.g., lawns, is the prevalent practice. However, there are additional opportunities to increase groundwater recharge and reduce evaporation by using structural stormwater systems, such as a drywell. Other options include:

- Redirecting gutters to lawns;
- Creating of rain gardens;
- Using rain barrels;
- Promoting awareness of problems associated with soil compaction; and
- Encouraging public education.



To regulate infill development properly, this Conservation Plan specifically recommends the creation of regulations that require stormwater improvements for construction that substantially increase the building footprint. Revisions to the Township's grading and disturbance requirements is one method to regulate infill development.

#### **STORMWATER MANAGEMENT THRESHOLDS (EXAMPLE)**

##### **A. Residential Development**

1. Total lot disturbance, including new building and lot coverage, soil disturbance and/or re-grading, exceeds X square feet in the R-X, R-X or R-X Zone District or 7,000 square feet in other zone districts; and/or
2. New impervious surface exceeds 10,000 square feet; and/or
3. A building permit is required and:
  - a. Building coverage or lot coverage exceeds or will exceed 75% of the maximum permitted in the R-X, R-X or R-X Zone District or 85% of the maximum permitted in the other zone districts; and
  - b. Building coverage added as a result of the development exceeds 1,200 square feet in the R-X, R-X, or R-X Zone District or 400 square feet in other zone districts.

#### **INNOVATIVE PLANNING TECHNIQUES**

##### **Create Scatter Site Redevelopment Areas and Plans**

To leverage the maximum amount of funding to cleanup existing Brownfields, consideration should be given to creating scattered site redevelopment areas<sup>15</sup> and plans. The intent is to utilize powers and environmental clean up monies offered to municipalities and property owners within formal Redevelopment Areas. The goal is to increase the likelihood of environmental remediation.

#### **ORDINANCE RECOMMENDATIONS**

1. Public District. Expand a public district to include publicly-owned properties in accordance with the Land Use Plan Element.
2. Create a Building Coverage Standard for All Zone Districts.
3. Tree Preservation. To preserve the established shade tree resource in the Township, the tree replacement ordinance should be revised to include:
  - a. A visual tree assessment of the trees health and condition.
  - b. Additional Provisions for Major Development. A site plan should be prepared that indicates:
    - i. Existing wooded areas;
    - ii. The location of streams and other watercourses;
    - iii. The total acreage of the tract;
    - iv. The total number, by species of existing trees with a DBH of six inches or greater;
    - v. The total number, by species of existing trees to be removed; and
    - vi. Approved method of disposal.

- c. Recommendations regarding which trees should be saved, which includes a construction management recommendation regarding tree protection for trees identified to be saved.
- d. Provision allowing a reduction of replacement trees when their cost exceeds an “x” percentage of the project.

It should be noted that a tree preservation ordinance located within Chapter 136 of the Township’s ordinance will not prevent the removal or clear cutting of trees prior to the filing of a development application. For this reason, consideration should be given to requiring a permit for the cutting of any private tree with a DBH of 15 inches or greater and an absolute prohibition on the clear cutting of trees.

The creation of a permit system would enable the Township to track the number of trees that are being removed with the ultimate goal of establishing a policy of no net loss of trees.

The existing street tree ordinance protects public trees from removal. However, this ordinance should be reviewed and periodically updated.

This Conservation Master Plan supports the creation of an historic tree ordinance to prevent the cutting of specimen trees on private property.

4. Recreation and Open Space. Require “In lieu” contributions for recreation fees. These are fees paid by the developer in lieu of providing the necessary amount of recreation on-site. A review of recent case law is necessary to ensure that any proposed ordinances are permitted in accordance with the Municipal Land Use Law (MLUL).
5. Bicycle Racks. Revise bicycle rack requirements in accordance with the body text of this Plan.
6. Stream-corridor Protection. Create an ordinance in accordance with the body text of this Conservation Plan.
7. Landscape Plans. Require that a certified landscape architect prepare all landscape plans for major development.
8. Environmental Impact Statement. To evaluate potentially harmful effects on the natural and aesthetic environment, consideration should be given to requiring an Environmental Impact Statement for all major site plan and subdivision applications and a modified environmental impact statement or environmental assessment for minor site plan and subdivision applications. This Conservation Plan recognizes that the level of detail required for various types of applications should vary depending on the size of the development proposal, the nature of the site and the location of the project. Consideration should be given to conducting a preapplication conference with the Township Planner and the Environmental Commission Chair to determine the content of the environmental impact statement or environmental assessment.
9. Floodplain Overlay. Create an ordinance in accordance with the body text of this Conservation Plan.

10. Stormwater Management. The Township should create provisions that:

- a. Require stormwater improvements for construction that substantially increase the building footprint.
- b. Revise Township ordinances to permit the use of permeable materials where appropriate (see page CO-17 of this Plan);
- c. Require vegetative filters and improved landscaping in off-street parking areas (see illustration);
- d. Permit flush curbs and/or curb cuts to allow for runoff to discharge into adjacent vegetated areas as sheet flow; and
- e. Permit an open filter area adjoining a catch basin.

10. Wireless Telecommunications Towers. The Township's Wireless Telecommunications ordinance should be updated based upon recent trends in the field.

#### **IMPLEMENTATION/ACTION PLAN**

This section is intended to provide concrete steps towards implementing the objectives of this Conservation Master Plan. This Conservation Master Plan recommends a course of action to improve conservation policies and an implementation agenda. The Environmental Commission, working with the Township Planner, Township Engineer, and associated Township personnel should be responsible for implementing the goals and specific objectives of this Conservation Master Plan.

Successful implementation will require the participation of existing Township boards, committees, and staff including, but not limited to, the Township Council, Planning Board, Recreation Department, Department of Public Works, and others.

Accomplishing the conservation objectives will require time and commitment from Township personnel. Where money is required, it may be sought from state, county, and federal governmental agencies, private nonprofit conservation agencies, foundations, and individual donations in addition to municipal funds.

This Conservation Plan recommends the following implementation actions:

1. Prepare ordinance amendments as indicated in the Ordinance section of this Conservation Master Plan.
2. Create land-use policy and an intermunicipal plan to regulate land adjacent to the Rahway River. Collaborate with the Rahway River Association and the communities along the River to develop this Plan.
3. Expand the existing Rahway River greenway in conjunction with a program of stream corridor protection and restoration. Encourage the development and improvement of river walkways.
4. Create energy-efficiency goals for all municipally-owned and operated buildings and for the municipal mobile fleet to reduce energy demand. Perform periodic energy audits of the municipal buildings and mobile fleet.

5. Evaluate the feasibility of a local open space tax to be utilized for recreation and open space preservation.
6. Prepare a recreation and open space plan. Investigate applying to Green Acres and/or Union County for open space and recreation funds.
7. Collaborate with Union County to improve bike paths.
8. Consider creating scattered site redevelopment areas to expedite environmental cleanup.
9. Work with the NJDEP Office of Brownfield and NJ Economic Development Agency to remediate brownfield sites. Monies are available to:
  - Conduct project feasibility studies.
  - Provide predevelopment funding.
  - Investigate and remediate.
  - Cleanup underground storage tanks.
10. Investigate where appropriate and provide technical assistance to encourage the clean up and reuse of contaminated sites pursuant to the Economic Opportunity Zone Act, which expands eligibility for property tax exemptions to residential developers, and extends the maximum tax exemption term from ten to fifteen years where developers agree to fully remediate sites rather than using engineering controls, i.e., capping a site.
11. Assist property owners and the Township of Cranford in assessing the extent of environmental contamination of properties by accessing the Hazardous Discharge Site Remediation Fund (HDSRF) to prepare environmental assessments on contaminated sites.
12. Assess the condition of existing open space lots that provide access to the Rahway River and pedestrian alleys in the Downtown.
13. Inventory Township-owned lots and assess the status of each, i.e., available for sale or designated for preservation.
14. Support policy recommendations within the Township's Stormwater Management Plan.
15. Incorporate pedestrian and bicycle friendly design into redevelopment projects and improvements near the train station.
16. Work with the Downtown Management Corporation to identify locations where bicycle racks should be installed.
17. Implement the stormwater management recommendations within this Plan.
18. Encourage compliance with anti-idling laws. Support enforcement efforts and add signage at schools to encourage residents to reduce vehicular idling.
19. Implement strategies by the Environmental Commission to encourage sustainable practices in Cranford. These include:

- Encourage residents to purchase products and services that are produced in an ecologically sustainable manner; maximize recycling, minimize energy use; minimize use of toxins; and eliminate the release of toxic material into the environment;
- Educate municipal officials about sustainable development and its importance for the community and the planet;
- Raise awareness of how local actions connect to global trends;
- Encourage the Township Committee to endorse sustainability operating principles as set forth in Resolution No. 2003-259;
- Solicit information from municipal departments to design their own strategies and action plans to meet sustainability objectives;
- Develop a system of sustainability indicators and targets; and
- Identify environmental business opportunities for Cranford with the DMC and the Chamber of Commerce.



**CONSERVATION PLAN ELEMENT  
APPENDIX CO-A**

*Contaminated Sites*

The United States Environmental Protection Agency (USEPA) lists properties that meet the criteria set by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (42 USC Section 9601). CERCLA provides broad Federal authority to respond directly to releases or threatened releases of hazardous substances by defining liability of responsible parties. The law authorizes both short-term and long-term remedial responses. The National Priority List is a list of CERCLA sites, which have been determined to rank high enough to warrant long-term remedial action. The Act also established a trust fund, entitled Superfund, to provide for cleanup when no responsible party could be identified. In New Jersey, the Site Remediation Program of the Department of Environmental Protection (NJDEP) administers the Superfund program.

The National Priority List (NPL) does not include any sites in Cranford.

The Site Remediation Program also provides a listing of the Known Contaminated Sites where contamination of soil or ground water is confirmed. In Cranford, 42 sites have been identified.

The Site Remediation & Waste Management, Division of Remediation Support and the Division of Remediation, Management and Response administers the Industrial Site Recovery Act of 1993 (ISRA) (N.J.S.A. 13:1K and N.J.A.C. 7:26B). ISRA is directed toward the regulation of both the owner of the real property and operator of an industrial establishment and affects the sale, transfer, or closure of said operations. An “industrial establishment” refers to the North American Industry Classification System (NAICS) code listed in N.J.A.C. 7:26 B - Appendix C with specified exceptions and limitations; the start of operations on or after December 31, 1983; and business activities that involve the generation, manufacture, refining, transportation, treatment, storage, handling, or disposal of hazardous substances or hazardous wastes. ISRA also addresses adaptive reuse of brownfield sites and the funding mechanisms for remediation of sites. The goal is to ensure that these sites are not abandoned for State cleanup.

ISRA encompasses three elements: discharge response, industrial site evaluation and responsible party cleanup. The industrial site evaluation element is the most crucial for Cranford. Part of this element includes properties that are in compliance with the Underground Storage Tank requirements. In addition, ISRA includes sites listed on the Brownfield Site Mart, Department of Community Affairs, and New Jersey Brownfields Redevelopment Task Force.

**CONSERVATION PLAN ELEMENT  
APPENDIX CO-B**

**Protecting Wellhead Protection Areas: Land Uses and Contaminant Sources**

<b>Category</b>	<b>Contaminant Source</b>	
<b>Commercial</b>	Airports Auto repair shops Boatyards Construction areas Car washes  Cemeteries  Dry cleaners Gas stations Golf courses	Jewelry/metal plating Laundromats Medical institutions Paint shops Photography establishments Railroad tracks and yards Research laboratories Scrap and junkyards Storage tanks
<b>Industrial</b>	Asphalt plants  Chemical manufacture/storage Electronics manufacture Electroplaters  Foundries/metal fabricators Machine/metalworking shops Mining and mine drainage	Petroleum production/storage Pipelines  Seepage lagoons and sludges Storage tanks  Toxic and hazardous spills Wells (operating/abandoned) Wood preserving facilities
<b>Residential</b>	Fuel oil Furniture stripping/refinishing Household hazardous products Household lawns	Septic systems/cesspools Sewer lines  Swimming pools (chemicals)
<b>Other</b>	Hazardous waste landfills Municipal incinerators Municipal landfills  Municipal sewer lines  Open burning sites	Recycling/reduction facilities Road deicing operations Road maintenance depots Storm water drains/basins Transfer stations

Source: U.S. Environmental Protection Agency. (1991). Protecting Local Ground-Water Supplies Through Wellhead Protection.  
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## **STATEMENT OF PLAN RELATIONSHIPS**

### **INTRODUCTION**

The New Jersey Municipal Land Use Law (MLUL) requires that the Township state the relationship of its Master Plan to the plans of adjacent communities, the Union County plan, the State Development and Redevelopment Plan (SDRP), and the District Solid Waste Management Plan.

The policy of the Township of Cranford is to work with neighboring municipalities, the County, and the State, to advance sound planning and develop compatible plans.

This section of the Township Master Plan analyzes the relationship of the Township plan to the plans of the State, the County, and adjoining municipalities.

### **ANALYSIS OF SURROUNDING COMMUNITIES**

The Township of Cranford is bordered by Springfield Township and Kenilworth Borough to the North, Roselle Park Borough and Roselle Borough to the east, Linden City, Clark Township and Winfield Township to the south and Garwood Borough and Westfield Town to the west.

#### ***Springfield Township***

Directly abutting Cranford to the north is Springfield Township. The portion of Springfield bordering Cranford consists of lands planned for public open space associated with Lenape Park, the Rahway River and Nomahegan Brook. Cranford plans parks and open space also associated with Lenape Park. Therefore, we find the land use plans along the Springfield and Cranford common border to be consistent.

#### ***Kenilworth Borough***

Kenilworth border Cranford's northern border. Kenilworth plans predominantly for single-family residential uses along the Cranford border. Cranford plans for single-family residential, schools, parks and open space. Therefore, we find the land use plans along the Kenilworth and Cranford common border to be consistent.

#### ***Garwood Borough***

Abutting Cranford to the west is Garwood Borough. The portion of Garwood Borough bordering Cranford is identified within the Borough's 2002 Land Use Plan and 2007 Zoning Map as R-A Single Family Residential (10 units per acre), R-B Two Family Residential (16 units per acre), G-B General Business and LI Light Industrial districts. The New Jersey Raritan Valley line bisects Garwood and Cranford respectively. Garwood permits light industrial uses adjacent to the rail line. Cranford permits one and two family dwellings in the R-5 district and business uses in the B-3 district adjacent to the light industrial uses in Garwood. Cranford recently revised the ROI-2 Selected Research, Office and Industrial District near the Garwood border on South Avenue to a commercial district as part of a formal redevelopment plan located within a rehabilitation district. Cranford now plans for commercial uses along South Avenue. The industrial land use plan in

Garwood is somewhat in conflict with Cranford's plan consisting of residential and commercial zoning.

The northern and southern portions of the common border with Garwood are zoned R-2, R-3, R-4, R-5 and R-6, which permits single-family, duplexes and townhouses at densities ranging from 4.3 to 14.5 units per acre. Single-family residential uses are permitted at densities ranging from 4.3 to 8.7 units per acre, townhouses at 8.7 units per acre and duplexes at 14.5 units per acre. While the northern and southern common boundaries of each community are predominantly planned for residential uses, higher densities are permitted in Garwood.

### ***Westfield Town***

Westfield Town borders Cranford to the West. Cranford is planned predominantly for single-family residential along the common border with Westfield. Cranford also plans for the continued use of Union County College and the County owned and operated Lenape Park. Westfield, as indicated in their 2002 Master Plan, plans for single-family residential uses along the Cranford border. Despite the location of the Fairview Cemetery, the entire area of the Town adjacent to Cranford is zoned for single-family residential uses at densities ranging from 2.7 to 7.26 units per acre. Densities in Cranford range from 3.63 to 7.26 units per acre. While densities are slightly lower in Westfield, planned land uses in both communities are consistent.

### ***Roselle Borough***

At southeastern border of Cranford exists a common boundary with Roselle Borough. Neither the 1979 Borough of Roselle Master Plan nor the 1988-1989 Master Plan review contains a land use plan map that depicts the intended future land use for Roselle. The Roselle Master Plan acknowledges the status of the community as nearly built-out and focuses on the development of remaining areas of open space. Along the Cranford border adjacent to South Avenue, both communities are planned and zoned for industrial uses. Cranford envisions this area for Research, Office and Industrial uses, which is compatible with industrial zoning in Roselle. The Southern portion of the common border adjacent to Jackson Avenue is planned for campus research, office and industrial uses in Cranford. Whereas, in Roselle, much of this area is zoned for single-family and duplex homes. Zoning in Cranford is more intensive than in Roselle near the business park. While this land use pattern has existed for sometime, Cranford should continue to require buffers when industrial uses border residential properties.

### ***Roselle Park Borough***

Cranford shares its eastern border to the north of North Avenue with Roselle Park Borough. Adjacent to North Avenue, Cranford is planned for select research, office and industrial uses, whereas Roselle plans for commercial business uses. To the north of North Avenue, both communities are zoned for low to medium density residential uses. Therefore, both land use plans for each community are consistent.

### ***Linden City***

At the southern border of Cranford adjacent to Raritan Road is the City of Linden. Linden prepared a Master Plan and a reexamination report in 2002. According to the Land Use Plan



map, Linden plans for low-density single-family housing on the common border with Cranford. Cranford plans for medium density office uses, which serve as a transitional use from industrial uses located with the Business Park on Commerce Drive.

### ***Winfield Township***

All 566 communities in New Jersey have the authority to create planning and zoning boards. Winfield Township is one of a handful of New Jersey communities that have not chosen to utilize these powers. The Township has not adopted a Master Plan. Accordingly, the Township does not have the power to zone in accordance with provisions from the Municipal Land Use Law Section 40:55D-62.

### ***Clark Township***

The majority of Cranford's southern border is shared with Clark. Along the Cranford border, Clark is planned for single-family residential uses near the Westfield border and Carolina Street. Clark plans for open space and recreation associated with the Hyatt Hills Golf Course which is located in Clark and Cranford. Clark recognizes a possible redevelopment area at the intersection of Raritan Road and Walnut Avenue. As delineated, the possible redevelopment area would include the US Gypsum plant and lands near Shop-Rite. Neighborhood commercial uses are planned along Raritan Road just east of Walnut Avenue, which is consistent with neighborhood business planned development in Cranford. The southeastern portion of the border with Clark is planned for single-family residential uses along Raritan Road in close proximity to Garden State Parkway interchange 136. With the exception of the neighborhood commercial district in Cranford and an office, research and development district in Cranford (associated with a use prior to Hyatt Hills Golf Course) Cranford is planned for residential development along the Clark border. This Plan proposes to change the former office, research and development district in Cranford associated with the Hyatt Hills Golf course to a recreation and open space land use classification. Therefore, land uses along the Clark/Cranford border are consistent and without conflict.

## **THE STATE DEVELOPMENT AND REDEVELOPMENT PLAN (SDRP)**

The State Planning Commission adopted the State Development and Redevelopment Plan (SDRP) in June of 1992 and adopted a revised SDRP on March 1, 2001. A new SDRP was released for cross acceptance in 2004. The SDRP contains goals, objectives, and policies regarding the future development and redevelopment of New Jersey. The primary objective of the SDRP is to guide development to areas where infrastructure is available or can be readily extended such as along existing transportation corridors, in developed or developing suburbs, and in urban areas. New growth and development should be located in "centers," which are "compact" forms of development, rather than in "sprawl" development. The overall goal of the SDRP is to promote development and redevelopment that will consume less land, deplete fewer natural resources and use the State's infrastructure more efficiently. Among these is the redevelopment and revitalization of New Jersey's cities and urban areas. As set forth in the 2001 SDRP:

The SDRP places Cranford within the Metropolitan (PA1) and the Parks and Natural Areas Planning Areas as designated by the State Plan.

<b>State Plan Designations</b>		
<b>State Plan Designation</b>	<b>Area (acres)</b>	<b>Percent of Area</b>
Metropolitan	2,900	92%
Parks and Natural Areas	239	8%
<b>Total</b>	<b>44,151</b>	<b>100.0%</b>

While the majority of the Township is identified as within the Metropolitan Planning Area, 620 acres are identified by the state as critical environmental sites (CES) associated with the Rahway River stream corridor. The state proposes to modify the delineation of CES areas within Cranford as part of the Cross Acceptance process to update the State Development and Redevelopment Plan. This Plan acknowledges the lack of consistency between the Federal Emergency Management Agency (FEMA) 100 year floodplain mapping for the Rahway River corridor and the states delineation of this area as a CES.

The State is currently revising the State Plan. Cranford has identified inconsistencies with state plan mapping associated with the Hyatt Hills Golf course, the Cranford conservation area, Dryers farm and PSE&G transmission lines. Cranford anticipates correcting these errors as part of the State Plan cross acceptance process.

Cranford was designated as a transit village as part of the New Jersey Department of Transportation (NJDOT) and NJ TRANSIT multi-agency Smart Growth partnership. The Transit Village initiative is intended to help redevelop and revitalize communities around transit facilities to make them an appealing choice for people to live, work, ride and play, thereby reducing reliance on the automobile.

## **UNION COUNTY PLAN**

In 1998 Union County prepared a Master Plan consisting of the following elements:

- Goals and Objectives
- Demographics
- Land Use Plan
- Circulation/Transportation Plan
- Economic Development Plan

Primary plan goals are as follows:

### ***Housing***

#### **Goal:**

Promote the provision of a broad range of housing opportunities for all income levels and household types by encouraging the maintenance or rehabilitation of the existing housing stock and through the construction of new housing units.

### ***Development***

#### **Goal:**

To facilitate the development of Union County by directing new growth to environmentally suitable areas that can be provided with essential infrastructure and support facilities and to revitalize the urban centers and corridors within the County.

***Transportation/Circulation***

**Goal:**

To promote the development of an improved and balanced, multi-modal transportation system that integrates and links highway, bus, rail, air, waterborne transport systems and pedestrian and bicycle facilities.

***Economic Development***

**Goal:**

Continue County sponsored economic development efforts to reduce unemployment, provide year-round employment opportunities and enhance the tax base by encouraging compatible industrial, commercial, office and retail facilities to locate or expand in Union County.

Planning goals in Cranford are consistent with goals identified in the Union County Master Plan.

**SOLID WASTE MANAGEMENT PLAN**

The New Jersey Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.) established a comprehensive system for the management of solid waste in New Jersey. The act designated all of the state's counties and the Hackensack Meadowlands District, as solid waste management districts. On August 13, 1980, the Department of Environmental Protection (DEP) approved the Union County District Solid Waste Management Plan. DEP passed the most recent amendment to this Plan on April 27, 2006.

Cranford complies with all state refuse and recycling requirements and will continue to work with the County to achieve the planning goals enumerated in the Solid Waste Management Plan.

