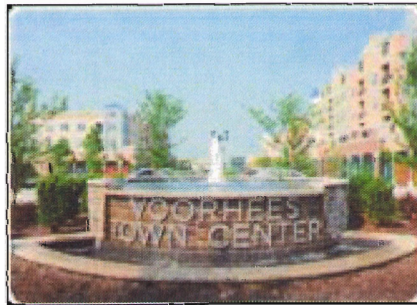


MASTER PLAN RE-EXAMINATION

Voorhees Township,
Camden County, New Jersey

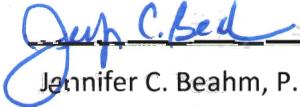


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I. **INTRODUCTION**

The Township of Voorhees Master Plan Re-examination Report was last adopted on July 13, 2005 via Resolution #05-028. Subsequent to the 2005 Reexamination, the Planning Board adopted a Master Plan Amendment on March 14, 2007 and a second Master Plan Amendment on October 27, 2010. In accordance with the New Jersey Municipal Land Use Law (MLUL), N.J.S.A. 40:55D-89, the 2005 Master Plan Re-examination Report and the 2007 and 2010 Master Plan Amendments are being re-examined to reflect the changing needs of the Township.

The governing body shall, at least every ten years, provide for a general re-examination of its master plan and development regulations by the planning board. The Re-examination Report shall state:

- A. The major problems and objectives relating to land development in the municipality at the time of the adoption of the last re-examination report.
- B. The extent to which such problems and objectives have been reduced or have increased subsequent to such date.
- C. The extent to which there have been significant changes in the assumptions, policies, and objectives forming the basis for the master plan or development regulations as last revised, with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition, and recycling of designated recyclable materials, and changes in State, county and municipal policies and objectives.
- D. The specific changes recommended for the master plan or development regulations, if any, including underlying objectives, policies and standards, or whether a new plan or regulations should be prepared.

- E. The recommendations of the planning board concerning the incorporation of redevelopment plans adopted pursuant to the "Local Redevelopment and Housing Law," P.L.1992, c.79 (C.40A:12A-1 et al.) into the land use plan element of the municipal master plan, and recommended changes, if any, in the local development regulations necessary to effectuate the redevelopment plans of the municipality.

II. **MAJOR PROBLEMS AND OBJECTIVES RELATING TO LAND DEVELOPMENT AT THE TIME OF ADOPTION OF THE LAST RE-EXAMINATION REPORT**

The first provision of N.J.S.A. 40:55D-89 of the MLUL states that the Re-examination Report shall include:

“The major problems and objectives relating to land development in the municipality at the time of the adoption of the last re-examination report.”

The 2005 Re-examination Report contained the following list of goals and objectives to guide the future growth and development of the Township:

A. **Commerce and Industry**

Goal: To allow an appropriate mix of retail, and office/light industrial uses in order to achieve economic viability in the Township of Voorhees.

Objective: To provide increased opportunities for office uses in appropriate areas of the Township.

Objective: To encourage retail development along certain designated transportation routes.

Objective: To encourage increased utilization of existing office development.

Objective: To provide limited manufacturing and light industrial uses which are compatible with the environment of the Township.

B. Housing

Goal: To achieve a balance of housing types and housing quantity, which meets the needs of Township residents and does not place a burden on Township fiscal sustainability.

Objective: To control the residential tax burden by reducing future residential densities and promoting commercial and office/light industrial uses.

Objective: To provide senior and disabled special needs housing to meet the requirements of Township residents.

Objective: To integrate new development with substantial open space areas and discourage the growth of suburban sprawl.

Objective: To minimize the visual impact of new development and to promote effective visual buffers.

Objective: To encourage infill development.

Objective: To promote energy conservation.

C. Community Facilities

Goal: To provide for the general needs of the community by making available those facilities necessary for the common good.

Objective: To promote facilities for local groups to meet and work together.

Objective: To encourage community assistance for those having special needs and to expand compliance with the American with Disabilities Act (ADA) in public places.

D. Recreation

Goal: To encourage the development of recreational facilities which meet the active and passive recreational needs of Voorhees Township citizens of all ages.

Objective: To provide family oriented parks and green spaces throughout the Township.

Objective: To keep current with active recreational trends and needs of Voorhees residents, and to meet those needs by providing ample amounts of active and recreational opportunities.

E. Land Use and the Environment

Goal: To preserve environmentally sensitive areas in their natural state and to protect natural resources and areas of conservation.

Objective: To protect and maintain wetland and floodplain areas, to protect long term public water supplies to reduce development pressure on aquifer recharge areas and to preserve wooded and field areas for wildlife habitat.

Objective: To promote stormwater management practices which positively affect aquifer recharge areas and floodplains, waterways and properties abutting waterways.

Objective: To provide significant natural space within and around existing development to lessen the impact of the built environment.

Objective: To seek appropriate locations for the establishment of greenway linking areas of environmental and recreational importance.

Objective: To promote wildlife preservation areas.

Objective: To promote lake management which encourages the maintenance of the aesthetic elements, environmental integrity and water quality of lakes as well as the financial benefit of increased realty value.

F. Open Space

Goal: To preserve appropriate remaining open space areas throughout the Township.

Objective: To ensure that open space planning plays an important role in developing the character, location, magnitude and timing of growth and development in the Township.

Objective: To give priority to preserving large contiguous tracts of forests and lands containing unique areas of environmental sensitivity.

Objective: To identify and protect the habitats of threatened and endangered species of wildlife and vegetation and to control the character, location and magnitude of growth and development in and adjacent to such habitats to avoid direct or indirect impacts on threatened or endangered species.

Objective: To promote and encourage the protection of privately owned tracts of open space, wetlands or forest lands through easement purchase, deed restrictions, and other appropriate planning techniques.

Objective: To locate open space as close as possible to the populations they serve, and encourage passive public recreational use of such lands, where appropriate.

G. Transportation

Goal: To provide for the orderly and efficient movement of people and goods throughout the Township.

Objective: To protect the existing transportation routes from development which exceeds the capacity of the road system.

Objective: To utilize the existing major transportation routes as much as possible and to avoid the expansion of new major arterial roads.

Objective: To carefully design new roads to enhance and facilitate the movement of traffic.

Objective: To encourage the development and use of public transit.

Objective: To promote the development of pedestrian walkway systems, while integrating connections with neighborhood bikeways.

H. Solid Waste

Goal: To promote recycling and the reduction of solid waste generation throughout the Township.

Objective: set community standards for source reduction of solid waste generation.

Objective: To set community standards for maximizing recycling.

Objective: To educate our residents regarding recycling and to provide for the recycling process.

III. EXTENT TO WHICH PROBLEMS HAVE BEEN REDUCED OR INCREASED

The second provision of N.J.S.A. 40:55D-89 of the MLUL states that the Re-examination Report shall include:

“The extent to which such problems and objectives have been reduced or have increased subsequent to such date.”

A. Planning Documents Recognized in the 2005 Master Plan Re-Exam

The 2005 Master Plan Re-Exam subsection titled *Review of Planning Documents* outlines six (6) documents which were reviewed regarding traffic and development issues.

1. The first document is titled *Voorhees Township Land Use Pamphlet, 2004*. This pamphlet acknowledges the NJDOT Bicycle Compatible Roadways and Bikeways Design and Planning Guidelines. The document also sets forth a regulation that would require a General Development Plan, as well as Site Plan and Subdivision Application to include more detailed information as to the impact of traffic. Additionally, new General Development Plans, Site Plans and Subdivision Applications will require a Circulation Plan.
2. The second planning document mentioned in the 2005 Master Plan Re-Exam titled *Voorhees Master Plan Update, 1995*, acknowledged the existence of goals and objectives pertaining to Commerce, Industry and Transportation. The document’s main focus was to promote the Economic Enhancement Strategy for the Township. The goal for commercial areas was to increase opportunities for economic enhancement by allowing greater floor area ratio (FAR) in certain districts. In addition, the document also sets out to increase retail usage, improved land assembly and interior access roads, enhanced landscaping, and greater buffer areas where appropriate.

3. The third document outlined in the 2005 Master Plan Re-Exam titled *Voorhees Master Plan Update, 1998* was prepared to supersede specific sections of the 1995 Master Plan. The main goals of the updated Re-Exam were to simplify and consolidate land uses and open space preservation. Revisions included consolidation and shifting of zoning boundaries. Planned development was encouraged for several zones permitting office and/or retail space, potentially reducing the number of curb cuts for better traffic. In addition to the above, the 1998 Master Plan update sought to promote pedestrian and bicycle compatible roadways, including a layout for bikeway routes and connections.

4. The document in the 2005 Master Plan Re-Exam titled *Voorhees Township, New Jersey, Bicycle and Pedestrian Master Plan Update; Fall 2003* provides an examination of pedestrian and bicycle facilities, with a proposed bicycle network throughout the Township. In response to this document, bicycle lanes were striped on some roadways. After a meeting between the Township and the NJDOT, it was determined that an update was needed to address specific bike and pedestrian pathways in a way that would create an increased linkage between various land uses and neighboring towns.

It appears that the Township has taken modest steps to address bike path linkages between neighborhoods. This has been achieved by refining bicycle routes, identifying links between land masses and neighboring towns. Moreover, this document also addressed appropriate bicycle racks and signage; however, there appears to be a need for additional pedestrian pathways and bike routes.

5. The fifth document in the 2005 Re-Exam titled *Route 73 Corridor Review Study, Final Report, 2003* outlined major goals for development along the Route 73 Corridor. The first goal was to provide a unique, aesthetic, environmentally sensitive, and architecturally pleasing appearance. The

second goal was to provide a safe route for both residents and visitors. A detailed analysis was conducted for the Route 73 Corridor to address various zones, permitted/conditional/prohibited land uses and provide recommendations for revised bulk standard requirements and zone specific design standards.

It appears that the Township has taken steps to address the first goal of providing a unique, aesthetic, environmentally sensitive, and architecturally pleasing appearance. This has been accomplished by implementing a more appropriate set of design standards for the Corridor. The Route 73 Corridor has increased in density since the 2003 report. During this development period open space has been allocated to avoid suburban sprawl. The second goal which proposed creating a safe route for residents has yet to be addressed.

6. The final document mentioned in the Voorhees Township 2005 Master Plan Re-Exam titled *NJ 73 Corridor Study – Year 2020 Planning Corridors – Report 4 (August 2000)* details the existing and anticipated demographic shifts, land use, and traffic volumes in the area. Transportation needs for the corridor are presented, and problem locations are identified based on the results of research and discussions with appropriate stakeholders. The study also notes that it has been programmed for implementation as part of the Transportation Improvement Program (TIP), or included in other long range planning studies. Two areas identified in these studies are:
 - a. Route 73 & Signal Hill Drive/Lakeside Drive
 - b. Route 73 and Kresson Road (CR 671/Braddock Mill Road)

The 2005 Master Plan also notes that many of the recommendations set forth by the TIP program for improvements at these intersections have already been implemented. This has resulted in successfully mitigating some of the traffic problems in the Township.

B. Planning Documents not recognized in the 2005 Master Plan Re-Exam

The Township of Voorhees created an Open Space Enhancement Plan as of April 2010. This report identified opportunities available within the Township of Voorhees to cost-effectively enhance and improve, as well as better preserve and protect, existing publicly-owned lands. The study concluded with a site-specific set of recommendations in the form of enhancements that attempt to both increase resident utilization of the Township's varied open space resources and improve each setting in a manner that maintains its ecological balance.

In October of 2010, the Township adopted a Land Use Pamphlet §S-16, containing additional information for Ordinance sections §172-10. The Pamphlet offered changes to the Land Use sections of the existing ordinance. Additionally, in April of 2011, the Township also adopted an additional Land Use Pamphlet S-17 supplement of replacement pages for the S-16 Land Use Pamphlet. This Pamphlet offered supplemental information for the existing Land Use Pamphlet through sections §186-11 of the Township's Land Development Ordinance.

C. Master Plan Amendments from 2005 Re-Exam to Current

The Township adopted an amendment on March 14, 2007 addressing three (3) changes to the Township's Land Use Ordinance, in addition to one amendment to change to the previous Master Plan reexamination report offered by the planning board which addressed recommendations in the 2005 Voorhees

Township Master Plan Reexamination Report. A summary of these amendments and changes are offered in the section below:

1. The first of these said amendments titled *Section II: Recommendations for Amendments regarding Medical Campus* allowed for the inclusion of a “medical campus” as a conditional use in Major Business (MB) Districts. The amendment set forth a set of bulk standards for potential development of “medical campus” and provided standards to allow air transport (heliport) landing areas as an accessory use.
2. The second amendment titled *Section III Recommendations for Gasoline Filling Stations* addressed the usage of gasoline filling stations in a Major Business District. The amendment permits fillings stations in MB districts and sets for bulk standards requirements to govern the potential development of filling stations.
3. The third and final amendment adopted amends the 2005 Master Plan Land Use recommendations for Redevelopment Plans. The previous Master Plan did not contain language which addressed Redevelopment Plans pursuant to NJ Municipal Land Use Law “Local Redevelopment and Housing Law” P.L. 1992, c79 (C.40A:12A-1 et al). The amendment added language to:

“...encourage revitalization and redesign of obsolete, under-used, deteriorating properties. The Local Redevelopment and Housing Law may be employed as a tool, where appropriate in accordance with the law, to avert and reverse a trend toward decline.”

This amendment addressed the growing trend in underutilization of properties within the Township. The main goal of the amendment was to use Local Redevelopment and Housing Law as a tool to reverse this trend

and promote increased usage of old properties while improving the overall look and character of the Township.

Additionally, the Township Planning Board adopted an amendment to the Township Master Plan in 2010, which recommended further amendments to the Township Ordinance. The 2010 amendment recommended additional permitted uses and promulgated an appropriate set of design and bulk standards to the MB Zone. This was a direct effort to bring the MB Zone further in line with the vision as set forth in the 2005 Reexamination. The permitted uses, design and bulk standards, as recommended in the 2010 Master Plan Amendment were adopted by the Township, and the Township Land Development Ordinance incorporated these recommendations in 2007 and 2011.

IV. SIGNIFICANT CHANGES IN ASSUMPTIONS, POLICIES AND OBJECTIVES FORMING THE BASIS FOR THE MASTER PLAN OR DEVELOPMENT REGULATIONS SINCE THE 2005 REEXAMINATION

The third provision of 40:55D-89 of the MLUL requires that a Re-Examination Report address:

"The extent to which there have been significant changes in the assumptions, policies and objectives forming the basis for the master plan or development regulations as last revised, with particular regard to the density and distribution of population and land uses, housing conditions, circulation, conservation of natural resources, energy conservation, collection, disposition and recycling of designated recyclable materials, and changes in state, county and municipal policies and objectives. "

A. BACKGROUND

1. Demographic Characteristics

U.S. Census data from 2010 reveals that the population of Voorhees Township was 29,131. As depicted in Table 1 below, the population of Voorhees Township grew steadily during the period between 1950 and 2000. During the decades between 1960 – 1970 & 1980 – 1990 the Township experienced the greatest population growth trend; consequently, population density also increased over the same period.

Population density is a measure of the number of people residing within a given land area. New Jersey has the highest population density in the nation, with an average of 1,134 persons per square mile. According to 2010 US Census data, Voorhees Township had a density of 2,511.29 persons per square mile which was more than double the average for the State of New Jersey as a whole. Consequent to the growth in population, the Township’s population density has been increasing steadily as well.

Table 1: Voorhees Township Population Characteristics 1930 – 2025 (projected)			
Year	Population	Percent Change	Population Density
1930	1,405	--	121.12
1940	1,450	3.2%	125.00
1950	1,823	25.7%	157.16
1960	3,784	107.6%	326.21
1970	6,214	64.2%	535.69
1980	12,919	107.9%	1,113.71
1990	24,559	90.1%	2,117.16
2000	28,126	14.5%	2,424.66
2010	29,131	3.6%	2,511.29
2015 (est.)	29,346	0.74%	2,529.83
2020 (est.)	29,572	0.77%	2,549.31
2025 (est.)	29,785	0.72%	2,567.67
2030 (est.)	29,986	0.67%	2,585.00
2035 (est.)	30,171	0.62%	2,600.95

Source: Population projections provided by the Delaware Valley Regional Planning Commission

According to the Delaware Valley Regional Planning Commission, the projected population growth for Voorhees Township in the next 25 years will be characterized by very slow population growth –a likely result of build-out. Significant population growth is not projected for the Township out to 2035. Refer to Table 2 below for an illustration of projected population growth.

Table 2: Voorhees Township Population Characteristics 1915 – 2025 (projected)			
Year	Population	Percent Change	Population Density
2015 (est.)	29,346	0.74%	2,529.83
2020 (est.)	29,572	0.77%	2,549.31
2025 (est.)	29,785	0.72%	2,567.67
2030 (est.)	29,986	0.67%	2,585.00
2035 (est.)	30,171	0.62%	2,600.95
Source: Population projections provided by the Delaware Valley Regional Planning Commission			

As depicted in Table 3 below, the age cohort breakdown of Voorhees Township is very similar to that of Camden County. The residents of Voorhees Township and Camden County are very close in median age. A breakdown of population by age for the Township and County is provided below:

Table 3: Voorhees : Population Comparison by Age (2010)		
Age	Voorhees Township	Camden County
Under 5	4.58%	6.50%
5 to 19	19.58%	20.49%
20 to 24	4.81%	6.42%
25 to 44	24.44%	26.58%
45 to 64	30.70%	27.22%
Over 65	16.53%	12.80%
Median Age	42.6	39.9
Source: US Census Bureau 2010, Data Set DP-01		

Based on the *Population Comparison by Age* data provided by the 2010 US Census data, Voorhees Township’s largest age cohort is between ages 45 to 64 years of age. The second largest cohort is seen within the 25 to 44 age range. The Census data also indicates that the median age of Voorhees Township is 42.6 years of age, slightly above the Camden County median age of 39.9 years of age.

According to the Census Bureau, Voorhees Township has a relatively high income base when compared to the Camden County average. The distribution of households by income for Voorhees and Camden County is presented within *Table 4, Households by income (%)* in 2010, below:

Table 4: Voorhees: Households by Income (%) (2010)		
Income (\$)	Voorhees Township	Camden County
Less than \$10,000	4.90%	4.40%
\$10,000 - \$14,999	4.50%	4.20%
\$15,000 - \$24,999	4.10%	9.40%
\$25,000 - \$34,999	6.20%	9.40%
\$35,000 - \$49,999	10.90%	11.40%
\$50,000 - \$74,999	16.00%	18.30%
\$75,000 - \$99,999	12.40%	14.50%
\$100,000 - \$149,999	19.90%	17.10%
\$150,000 - \$199,999	8.60%	6.20%
\$200,000 or more	12.50%	5.10%
Median Household Income	\$81,296.00	\$70,844.00
Per Capita Income	\$26,942.00	
Source: Table DP03, 2010 1-Year Estimate, American Community Survey (0.6-1.9 % margin of error)		

The 2010 ACS data also indicates that the median household income in Voorhees Township was \$81,296. This was significantly higher than the Camden County Average, which was \$70,844, as well as the state average, which was \$68,444. In addition, the Census data also states that the per capita income of Voorhees Township residents was \$44,603, substantially higher than the State per capita income of \$34,566.

2. **Employment Characteristics**

The 2010 ACS data in Table 5 below outline work activity for residents who are 16 years of age and older. There were 23,731 people 16 years of age or older as reported in the ACS data. From this cohort, 14,527 or 61% of the Township residents worked in 2010. As indicated in Table 4 below, only 5% of workers are self employed, and the majority of workers are employed in the private sector.

Table 5: Voorhees Classification of Workers		
Class	Voorhees Township	Percentage of Workers
Private Wage and Salary	11,947	82.20%
Government Workers	1,773	12.20%
Self Employed	807	5.60%
Unpaid Family	0	0.00%
Source: Table DP03, 2010 1-Year Estimate, American Community Survey (0.1-1.5 % margin of error)		

Voorhees Township maintains a relatively diverse workforce ranging in occupation from manufacturing, finance, education and professional services to retail, wholesale and public administration. These sectors make up the bulk of the workforce in Voorhees Township.

As depicted in Table 6 below, 27.6% of the total workforce worked in the educational, health and social services sector; 19.6% of the workforce was in the professional, scientific, management, administrative and waste management sector; and 12.4% of the total workforce was in retail trade followed by the finance, insurance and real estate sector comprising a total of 9% of the workforce.

Table 6: Voorhees Workforce by Sector		
Sector	Employees	Percentage of Workers
Agriculture, forestry, Fisheries and Mining	18	0.10%
Construction	328	2.30%
Manufacturing	1,024	7.00%
Wholesale Trade	457	3.10%
Retail Trade	1,799	12.40%
Transportation, Warehousing and Utilities	241	1.70%
Information	350	2.40%
Finance, Insurance and Real Estate	1,304	9.00%
Professional, Scientific, Management, Administrative and Waste Management Services	2,843	19.60%
Educational, Health and Social Services	4,014	27.60%
Arts, Entertainment, Recreation, Accommodation and Food Services	957	6.60%
Other Services	521	3.60%
Public Administration	671	4.60%
Total	14,527	100%
Source: Table DP03, 2008-2010 American Community Survey 3-Year Estimates (+/- 0.2-3.4% margin of error)		

As indicated in the table above, Voorhees Township has a wide variety of employment opportunities, which, in turn, provides residents the opportunity to seek employment in an array of different sectors.

Table 7 below illustrates a projection of Camden County’s Employment for the decade between 2008 and 2018. The overall employment projections are relatively stable in Camden County as a whole. Total employment, not stratified by trade is projected to grow from 236,400 jobs in 2008 to 240,050 jobs by 2018, which represents annual growth of 0.2%.

Table 7: Camden County Employment Projections			
Occupation	2008	2018	Percent Change +/-
Accommodation and Food Services	14,150	14,700	3.7
Admin. Support and Waste Management and Remediation	16,050	16,350	1.9
Arts, Entertainment, Recreation	2,950	3,150	7.4
Construction	9,650	9,900	2.5
Education & Health Services	40,900	46,700	14.2
Educational Services	5,500	6,050	10.0
Finance & Insurance	7,300	7,550	3.5
Financial Activities	10,250	10,550	2.6
Goods-Producing	25,800	22,150	-14.1
Government	35,250	35,250	-.01
Health Care & Social Assistance	35,450	40,700	14.9
Information	4,500	3,900	-13.6
Leisure & Hospitality	17,100	17,850	4.3
Management of Companies & Enterprises	2,800	3,250	14.8
Manufacturing	16,150	12,250	-24.1
Other Services	8,700	9,100	4.7
Professional & Business Services	32,200	33,650	4.6
Professional, Scientific, & Technical Services	13,300	14,050	5.6
Real Estate	2,950	2,950	0.2
Retail Trade	25,150	24,950	-0.8
Services Providing	193,100	201,050	4.1
Self-Employed	17,500	16,800	-3.9
Trade, Transportation & Utilities	44,150	44,050	-0.2
Transportation & Warehousing	7,500	7,500	0.1
Utilities	450	450	7.3
Wholesale Trade	11,050	11,150	0.6
Source: Population projections provided by the Delaware Valley Regional Planning Commission			

This is characteristic of a mature and stable local economy. Not surprisingly, as has been characteristic across the nation as a whole, manufacturing is expected to decrease 24.1% by 2018, while the information services sector is projected to lose 13.6% of its current level of jobs by 2018. These sectors represent the most significant job losses in the County. Gains are projected to occur in Education & Health Services, Health Care and Social Assistance, Management of Companies and Enterprises.

3. **Housing Characteristics**

According to the 2010 ACS 3-year Estimates, Voorhees Township contains an aging housing stock. The largest decade of home construction occurred between 1980 and 1989. The period accounted for approximately 38.28% of the total housing stock. The second largest period of construction was experienced between 1970 and 1979 with 20.57% of the housing stock share. Only 9.45% of homes were constructed before 1959. In addition, the smallest growth trend for the Township’s housing stock occurred during the decade following year 2000. This is likely a reflection of a scarcity of vacant land as the Township approaches build-out. See Table 8 below.

Table 8: Voorhees: Housing Stock		
Year Structure Built	Total	Percentage
2000 or later	919	7.75%
1990 to 1999	1,643	13.85%
1980 to 1989	4,536	38.28%
1970 to 1979	2,439	20.57%
1960 to 1969	1,197	10.10%
1959 or earlier	1,121	9.45%
Source: Table DP04, US Census Bureau 2010		

4. **Analysis of Housing Units**

Based upon the 2010 ACS, Voorhees Township contains approximately 11,855 total housing units. The largest grouping of housing units in the Township are classified as single-unit, detached, which comprise 49.6% of total housing units, while single-attached make up 13% of all housing units. Multiple unit dwellings between 10 to 19 units make up approximately 10.4%, whereas 20 or more unit dwellings make up 14.8% of all housing units. Table 9 below, outlines the total dispersion of housing units.

Table 9: Voorhees: Housing Units		
Unit Type	Units	Percent of Total
1-unit, detached	5,880	49.6
1-unit, attached	1,545	13.0
2-units	152	1.3
units	271	2.3
5 to 9 units	950	8.0
10 to 19 units	1,238	10.4
20 or more units	1,758	14.8
Mobile home	61	0.5
Boat, RV, van, etc.	0	0.0
Total housing units	11,855	%100.0
Source: Table DP04, US Census Bureau 2010		

5. **Cost of Housing Stock**

According to the 2010 ACS, the median value of housing sales in Voorhees Township was \$331,900. The majority of the housing stock in the Township was valued in excess of \$200,000 or higher, and more than 50% of the housing stock is valued over \$300,000, as shown below within Table 10, *Value of Sales Housing*. In addition, the median value of housing sales in Camden County in 2010 was \$ 218,300. The median value of housing in Voorhees Township was considerably higher than Camden County as a whole.

Table 10: Voorhees: Value of Sales Housing		
Home Value Range	Total Units in Range	Percent of Total
Less than \$50,000	177	2.3
\$50,000 to \$99,999	68	0.9
\$100,000 to \$149,999	446	5.9
\$150,000 to \$199,999	794	10.5
\$200,000 to \$299,999	1,769	23.3
\$300,000 to \$499,999	3,284	43.3
\$500,000 to \$999,999	908	12.0
\$1,000,000 or more	138	1.8
Owner-occupied units	7,584	100.0
Median (dollars)	\$331,900	N/A
Source: Table DP04, 2008-2010 3-Year Estimates, American Community Survey		

With respect to rental units, the median gross rent in Voorhees Township was estimated at \$1,094.00 in 2010. The median gross rent in 2010 for Camden County was \$941; consequently, the rent in Camden County as a whole is slightly lower than the rent for Voorhees Township.

6. **Projected Housing Stock**

According to the New Jersey Department of Labor and Workforce Development the Township has issued building permits for a total of 1,185 single and multi-family housing units during period between 2000 and 2010. Approximately 80% (or 942 units) were for single-family housing, while the remaining 20% of building permits were issued for multi-family housing. Years 2005 and 2007 were the only years of significant multi-family activity. (Refer to Table 11 below)

Table 11: Voorhees: Building Permits Authorized			
Year	Single-family	Multi-family	Total
2000	82	0	82
2001	68	0	68
2002	47	5	52
2003	95	0	95
2004	116	0	116
2005	125	152	277
2006	74	0	74
2007	80	78	158
2008	234	8	242
2008	17	0	17
2010	4	0	4
Total	942	243	1185

Source: New Jersey Department of Labor and Workforce Development

Additionally, in order to provide an accurate description of the housing situation in Voorhees Township, Certificate of Occupancy (CO) and demolition permit data must be analyzed.

Based upon data provided by the New Jersey Department of Labor and Workforce Development a total of 562 CO's were issued during the time period between 2005-July 2011. During the same time frame, a total of 32 demolition permits were issued. (562 CO's - 32 demolition permits yield a net gain of 530 housing units). The net growth total of housing units represents an average of approximately seventy-six (76) new housing units per year. See Table 12 below.

Table 12: Voorhees Certificate of Occupancy and Demolition Analysis			
Year	Residential Construction	Residential Demolitions	Total
2005	140	3	137
2006	82	9	73
2007	233	12	221
2008	28	1	27
2009	2	1	1
2010	2	2	0
Jul-11	75	4	71
Total	562	32	530
Source: New Jersey Department of Labor and Workforce Development			

Certificate of Occupancy and Demolition analysis data suggests that there is a decreasing trend in housing unit growth within Voorhees Township. This trend is a reflection of the current housing and construction sectors of the economy. It appears that nearly stagnant residential growth is likely in the near term.

V. SPECIFIC CHANGES RECOMMENDED FOR THE MASTER PLAN AND/OR DEVELOPMENT REGULATIONS

A. Comprehensive Goals

1. Maintain consistency with the purposes of the Municipal Land Use Law (MLUL) as contained within N.J.A.C.40:55D-2;
2. To continue to be a stable and diverse suburban community through the provision of a balanced land use pattern;

3. Encourage the development of both active and passive recreation opportunities for the community, while maintaining sensitivity to environmental and cultural resources;
4. To maintain and enhance a thriving local economy that encourages the provision of more cost effective public services in order to improve the quality of life for Voorhees residents;
5. To encourage the establishment of policies, codes and standards that promote the use of sustainable development practices, including but not necessarily limited to: infrastructure, public and private buildings, open space and recreation, local waste and recycling among other things;
6. To continually improve the sustainability profile of the Township;

B. **Comprehensive Objectives**

1. To encourage the redevelopment or revitalization of vacant or underutilized properties, and the rehabilitation and restoration of brownfields and/or contaminated properties;
2. Preserve the high level of public services and provide new facilities where necessary, in order to accommodate population growth, economic development and the changing needs of the residents;
3. To promote energy efficiency, conservation and increased use of renewable energy to reduce waste and increase recycling; to reduce the use of hazardous materials and eliminate toxic substances; to reduce greenhouse gas emissions and to plan for mitigating the effects of climate change;

4. To promote the expansion of pedestrian interconnection among neighborhoods, shopping areas, community centers and schools throughout the community;
5. Promote the protection of neighborhood characteristics by enforcing buffer areas between non-residential and residential areas;
6. Encourage the utilization of innovative and creative approaches in order to facilitate the provision of housing for low, moderate, and work force housing opportunities and choices, which will enhance the quality and contribute to the value of the community;
7. To collaborate with other government, non-government and private entities to create the most efficient and effective means for realizing Voorhees's Master Plan goals, while minimizing the financial burden on the Township.

C. **Specific Goals**

1. Upgrade, preserve and increase the economic and aesthetic vitality of the existing commercial and industrial areas, while being sensitive to adjacent and existing uses;
2. Encourage and support the rehabilitation and infill of the housing stock where appropriate while maintaining the character, scale and privacy of the established residential neighborhoods in the Township;
3. Recognize the need to adapt to the changing dynamics and demands of a diverse and increasing globalized economy;
4. Promote new development that will create and sustain attractive, safe neighborhoods guided by existing community standards and that will

enhance rather than detract from neighboring areas in terms of open space, parking, local and regional access and overall aesthetics;

5. To coordinate land uses with transportation facilities to facilitate access and encourage alternatives to driving;
6. Encourage those public and private actions necessary to develop and sustain the long-term vitality of the key commercial/retail areas in Voorhees by improving streetscapes through unified signage, facades, public walkways and landscaping, and improving vehicular and pedestrian circulation;

D. **Recommendations**

1. **Land Use**

- a. Advances in renewable energy technology coupled with State and Federal legislation promoting sustainable energy use. It is incumbent for the Township to encourage the establishment of requirements that would address onsite renewable energy infrastructure for both residential and commercial properties. Specific attention shall be given to the identification of appropriate locations for wind, solar, tidal and other renewable energy resources and opportunities.
- b. It is recommended that the Township evaluate the implementation of a comprehensive and Township wide safe route and pedestrian access and linkage plan. Complete streets should promote the increased usage of bike lanes, pedestrian routes, , bike racks, new and expanded bike paths, and improved pedestrian pathways and connections. This plan should promote walkability throughout the Township; promote bicycling as an alternative transportation option. Traffic calming

techniques, reduction in trip generation and improved visual realm are likely results of implementing this type of Plan.

- c. Safe routes for pedestrians have proven to be effective engineering, planning and urban design mechanisms to promote greater access and linkage, improved safety for pedestrians, encouragement of alternative non-carbon emitting modes of transportation (e.g., bicycles) and healthy and sustainable means of travel throughout the Township. These routes provide a safe and easy way for residents to access many types of pedestrian destinations like schools, parks, shopping areas, transit opportunities and other destinations throughout the Township. The Township can achieve this goal by utilizing but not necessarily limiting itself to the following planning techniques: strategic road striping of cross-walks, greater usage of pedestrian lanes (paved sidewalks) and curb ramps, unified pedestrian wayfinding (signage), and enhance multi-use pathway connectivity to increase route options and decrease travel times.

Special attention should be paid to the Route 73 Corridor which, pursuant to the Route 73 Corridor Reviews Study, Final Report 2003, suggests that the Township should “provide a unique, aesthetic, environmentally sensitive, and architecturally pleasing appearance” and “provide a safe route for residents and visitors”. Safe routes have proven an effective measure to accomplish both of these goals.

2. **Circulation**

- a. Voorhees has taken considerable strides to promote pedestrian and bicycle travel through the Township. The township instituted a Township wide path and bike lane route plan. To support the strategy of becoming a sustainable community, where residents can walk safely

or bicycle to shopping centers recreation areas, schools and access to public transit, The Township should further evaluate and expand a systematic network of pedestrian walkways and further the opportunity for bike lanes/paths/trails.

- b. Residential and commercial growth having taken place over the past several years has resulted in increased traffic on secondary and tertiary roadways. As a result it is recommended that the Township undertake a detailed inventory of roadways and intersections to be included within a comprehensive circulation plan element in order to recommend improvements to said roadways and intersections. This circulation plan element shall include the investigation of potential mitigation measures to help alleviate public safety issues.
- c. It is recommended that the Township's Land Use ordinance shall be updated to require traffic calming techniques to be included within future developments in order to avoid adverse impacts generated by proposed development.

3. **Climate Change**

- a. Voorhees Township shall develop a plan for reducing and mitigating its direct and indirect greenhouse gas (GHG) emissions. Direct emissions could be reduced through more efficient vehicles and the use of alternative fueled vehicles. Indirect emissions could be reduced through more efficient use of electricity and the use of renewable energy. Steps to mitigate GHG emissions could include increasing carbon sequestration capacity through tree planting and preservation of established forested areas. Voorhees should work closely with the county, state, and private sector (electric utilities) initiatives to access

resources for reducing and mitigating greenhouse gas emissions and addressing the effects of global climate change.

E. **Recommended Areas of Rezoning**

1. The existing fire house located on Block 185, Lot 13.1 is located in a Community Property (CP) Zoning District. This zone covers the majority of the parcel in which the fire house is located but does not extend to the adjacent parcel, Block 185, Lot 13.1, which is utilized by the Township's Fire Company. It would be recommended that the Township extend the CP district boundary to include the entire Fire Company property;
2. It is recommended that the Township consider creating a "Special Business and Service Overlay District" to amend and supplement the standards for the O1 Office district. The overlay would be applied to the lots within the portions the O1 zone along Somerdale Road located to the southwest of the PATCO High Speed Line right-of-way and extending to the Township border with the borough of Somerdale. The parcels within the overlay district would include Block 27, Lots 24 & 25, Block 39, Lots 12, 13, 14, 15, 16 & 17, and Block 44, Lots 1, 2, 4, 5 & 6. In addition to those uses otherwise permitted in the O-1 zone the list of uses allowed in the Special Business and Service Overlay District would include catering and related food services; radio and electrical repairing; barber and beauty shop operations, including nail and skin care establishments; and the offices of contractors in the building trades provided that no bulk storage of materials or equipment is permitted. Many of the structures along this corridor are vacant or under-utilized. While they have limited appeal as professional sites, many of these locations would be suitable for the service and business uses permitted with the proposed overlay district. The revised standards would encourage the adaptive reuse of these

properties and enhance the stability and vitality of this section of the Township.

3. It is recommended that the Township amend its RR Zoning District Conditional Use §152.003 to allow lots and parcels maintaining frontage on White Horse Road, between Haddonfield Berlin Road and Evesham Road to conditionally permit offices of a recognized profession, as enumerated in §152.052(A), and extend conditional use bulk standards as currently set forth in §152.055. A conditional use standard for professional office space in the RR District would provide for office uses on small lots, which can create a transition zone between existing RR Zoned parcels to the west of the subject area and more intensive commercial uses in the O1 District immediately to the east of the subject area, on the opposing side of White Horse Road. The extension of professional office uses on lots maintaining frontage on White Horse Road, would not be out of character with the existing mix of land uses along White Horse Road and would provide opportunities for the reuse of existing residential structures in the subject area, through conversion to professional offices.

4. It is recommended that the Township consider extending the existing B – Business District, located at the intersection of Kresson Gibbsboro Road and Cooper Road to the parcel maintaining frontage on the south-eastern side of the intersection Kresson Gibbsboro Road and Cooper Road (Block 222, Lot 1 (comprised of approximately 3.59 acres)) and currently located in the CR – Cluster Residential Zoning District. Said parcel is at the corner of a major intersection in the Township, and commercial or medical facilities would provide for uses that are more appropriate for its location and context at the intersection of Kresson Gibbsboro Road and Cooper Road. In addition to the above, it is further recommended that the Township consider amending the B Zone to permit hospices, nursing homes,

5. It is recommended that the Township consider consolidating Rural Residential (RR) Districts with adjacent Medium Density Residential (MDR) districts to effectuate more uniform residential development standards for contiguous residential Zoning Districts. Currently, there are twenty-one (21) RR Districts in the Township. Seventeen (17) of these Districts are adjacent to existing MDR Districts. Due to the proximity of these districts an opportunity for consolidation into a group of Cluster Residential (CR) Districts. In order to propose such a merger, revised bulk standards and permitted uses in both Districts need to be considered to ameliorate the potential for rendering existing structures as non-conforming with underlying Bulk and or Design Standards.
6. It is recommended that the RR zone be amended under 152.003 (E), Low intensity office uses to include the area located on the west side of White Horse Road between Route 561 (Haddonfield-Berlin Road) and Evesham Road. Blocks 139, 140, 148, 149, 149.02, and 149.03 are within the area affected by this change.
7. It is recommended that the Township review the possibility and appropriateness of extending a senior housing overlay on the vacant, undeveloped parcels (Block 202.23, Lots 32 – 36), comprised of approximately 79.77 acres portions of which are located in the O3 Zoning District on Centennial Boulevard adjacent to the existing EIB zoned senior housing development.

8. The former Virtua hospital site, located along East Evesham Road should be evaluated for rezoning to permit mixed-use redevelopment of the property. It is recommended that the parcel be re-zoned O3 with a TC-1 overlay. Ordinance section §152.061 Purpose and Intent (O3 District) sets forth the following intent for the O3 District:

The purpose and intent of the O3-Office 3 Zone is to provide for attractive large lot office, light manufacturing, research and professional office complexes to encourage the development of a well-rounded pattern of land use appropriate to the township.

It is envisioned that Virtua may continue to utilize the existing conference center, demolish the former hospital building and construct a new hotel. In addition, retail opportunities would compliment this type of redevelopment of the former hospital site. The conference and hotel space would serve to further supplement the services Virtua provides in Voorhees and the region.

9. The traditional gas station-repair facility has been transitioning away the combination of those uses and has trended toward hybrid stores, with a convenience store that provides gas filling opportunities. Currently the Township Zoning Ordinance does not have provisions for these types of uses, and therefore, any proposed use such as this would require Use Variance approval. These hybrid stations are particularly relevant along major arterials and corridors, such as Route 73 and from a macro perspective, would likely make sense along this corridor and/or within MB Districts in the Township. It is recommended that the Township investigate existing commercially zoned areas of the Township at key signalized intersections along major arterials, such as the Cooper Road, Route 73 intersection. It is further recommended that the Township adopt conditional use standards at appropriate locations that provide for land

area and access to permit convenience stores with gasoline fueling stations as conditional uses within these identified areas.

F. **Recommended Ordinance Changes and Amendments**

1. The Cluster Residential Zoning District contains design standards in §152.036, which are currently incomplete. This section should include regulations for building positioning (setbacks), lighting, service/loading areas, parking lots and building elements and design features. Any proposed standards should take into consideration design standards which are complimentary to the adjacent Kresson Golf Course and surrounding residential neighborhood;
2. The Voorhees Township Zoning Board of Adjustment – Annual Report of 2009 indicates that Section 152.003(D) of the Township’s Land Development Ordinance was amended a result recommendation of the 2005 Master Plan Reexamination (Ord. 85-06). *Ord. 85-06 An Ordinance Amending and Supplementing The Unified Land Development Ordinance And Other Sections Of The Code Of The Township Of Voorhees To Codify And Implement The Provisions Of The 2005 Master Plan Re-Examination Report And Other Legal Requirements* indicated that any conforming use existing as of January 1, 2006, shall be considered conforming under the regulations approving such use. This ordinance amendment inadvertently eliminated bulk requirements for existing homes in the Avian and Village sections of the Township. It is necessary that this Ordinance section be reviewed against existing conditions in the Avian and Village sections of the Township to ensure that bulk standards for the above noted sections of the Township are provided for and reflect existing conditions for parcels and any associated improvements, which existed prior to January 1, 2006.

3. The Land Development Ordinance does not currently provide for uniform regulations as they pertain to sheds, as size and or the maximum numbers are not established. It is recommended that the Township limit sheds to two (2), with a total of 200 Gross SF, while preserving current height and setback standards.

In addition to the above, it is further recommended that the Ordinance be amended to include one (1) accessory use section under Chapter 150 General Provisions, in lieu of including the various Zoning District subsections (RR (152.005(j), MDR (152.015(j) etc.).

4. All references in the Township Ordinance to the “BOCA” should be amended to reflect the New Jersey Uniform Construction Code – NJAC 5:23 (“NJ UCC”). In addition, Section §159.05 Adoption of Standards by Reference, should be amended to indicate that the NJ UCC replaces the BOCA code as the adopted code of the Township.
5. It is recommended that the Township combine ordinance sections 154.012 & 154.014 addressing single family residential improvement and design standards.
6. It is recommended that the Township delete section 154.005 governing the usage and construction of swimming pools in the Township and re-codify the section as appropriate.
7. It is recommended that Ordinance sections 154.001, 154.012, 154.015(A), 154.015(B), 154.015(C) from Chapter 154 Improvement Regulations and Design Standards be relocated to Ordinance Chapter 150 General Provisions and re-codified as appropriate. Due to Recommendation (d.) in this section the Township will also have to re-codify Sections 154.012 and 154.014. (*See Recommended Ordinance Changes and Amendments Recommendation in item d. above.*)

8. Relocate Affordable Housing Section §152.160 – 188 to Chapter 154.
9. The proposed CCRC overlay District currently has incomplete bulk standards. It is recommended that bulk standards be adopted and the Township Zoning Map amended to reflect the CCRC Overlay District.
10. Section §159.03(K) Grading Plans of the Township Ordinance should be relocated Section §156.037. In addition it is recommended that “zoning permit” replace “certificate of occupancy.” It is further recommended that the associated fee be amended to \$500.00.
11. It is recommended that Section §152.102 of the Township Ordinance be amended to include *professional hospital support facilities, medical professional and doctor’s office* as Permitted uses.
12. The Township expressed an interest in prohibiting medical marijuana dispensaries. As such, it is recommended that an Ordinance be adopted, which prohibits the Planning Board from reviewing applications that are in violation of Federal Law. **Appendix A**, includes a draft Ordinance to advance said prohibition.
13. The Township’s current tree replacement ordinance does not delineate the manner in which collected revenue can be expended. It is recommended that the Township consider defining how the collected revenue can be expended. In furtherance of this recommendation, the Township should also consider adopting a policy which would use collected tree removal revenue for the funding and acquisition of open space via the open space trust fund.
14. It is recommended that the Township amend Ordinance Section §154.015 to include prohibitions on various types of undesirable fencing materials, such as the following: barbed wire, collapsible fencing, canvas, cloth,

electrically charged fences or masonry walls; or topped by barbed wire, razor wire spikes, spiked fencing; chain-link and chicken wire. Wood and vinyl are acceptable fencing materials;

15. It is recommended that the Township adopt a comprehensive Renewable Energy Ordinance, setting forth photovoltaic, solar panel and wind energy regulations and provide appropriate design and bulk standards. In addition, it is recommended that the ordinance should also restrict any non-residential property to a less obtrusive vertical access turbine and set forth standards so that any ground mounted solar arrays be shielded from any nearby road(s) to reduce the likelihood of glare from the PV panels. Attached as **Appendix C** is a model renewable energy ordinance, based upon other successful renewable energy ordinances adopted by other municipalities in New Jersey.
16. It is recommended that the Township amend the Land Development Ordinance to include a section setting forth regulations that address the usage of Temporary Signage. A definition is also required, setting forth what constitutes this type of usage and the specific time period that determines said signage as *temporary*. The ordinance should also define permitted maximum size, location, maximum length of usage (typically not longer than 30 days and not more than two periods in a calendar year), and permitted materials and for *flags, banners, sandwich-board ground mounted signs and corrugated plastic*;
17. It is recommended that the Township correct off-street parking for retail uses, which would provide one (1) parking spot per two-hundred (200) feet of available floor space. It further recommended that the Township pursue a policy measure to increase the utilization of shared parking.

18. It is recommended that the Township provide for a definition of semi-detached housing, which is colloquially referred to as “twins.” Semi-detached housing consists of pairs of houses built side by side as units sharing a party wall and usually in such a way that each house's layout is a mirror image of its “twin.” Typically, semi-detached housing is constructed on individual tax lots, in a fee simple ownership structure, with a shared party wall being the distinctive feature of this unit type. Conversely, the Township provides for a definition of Townhouse, which is similar in that individual units share party walls, but the unit configuration includes four (4) or more units in a “building.” It is important that the Township distinguish between semi-detached or “twins” and townhouse style building types, to avoid confusion and unintended development outcomes. Semi-detached housing has proven a successful solution to providing single-family housing on narrow lots.

19. The traditional gas station-repair facility has been transitioning away the combination of those uses and has trended toward a convenience store that provides gas filling capabilities. Currently the Township Zoning Ordinance does not have provisions for these types of uses,, and therefore, any proposed use such as this would require Use Variance approval. These hybrid stations are particularly relevant along major arterials and corridors, such as Route 73 and from a macro perspective, would likely make sense along this corridor and/or within MB Districts. It is recommended that the Township investigate existing commercially zoned areas of the Township, which are appropriate for such a use. Preliminarily, we would recommend that key signalized intersections be evaluated, particularly the Cooper Road, Route 73 intersection. It is further recommended that the Township adopt standards where appropriate to permit convenience stores with gasoline fueling stations as conditional uses within these identified areas.

20. The Township provides for detailed regulations for changeable copy signs, in various contexts and scenarios at §154.015(B)(7)(b), Changeable Copy Signs. Currently, changeable copy signs are only permitted on properties fronting on County Route 561 and which contain a single use building. It is recommended that the Township draft additional standards for the regulation of LED or digital changeable copy signs, which take into account, but are not necessarily limited to the following:

- a. Establish a maximum LED (changeable copy) area and height, which may be regulated differently than non LED signs;
- b. Prohibit rapid visual movements (blinking, flashing, etc.) which is distracting to motorists and pedestrians, and establish minimum display times, before changing from one copy to the next;
- c. Establish maximum brightness levels and require automatic dimmers to change the dimness of the sign in low and ambient light conditions, ensuring the signs do not cause light pollution during times of reduced natural light;
- d. Limit the changeable copy to no more than three (3) line items.

In addition to the above, it is further recommended that the Township investigate the viability and appropriateness of permitting changeable copy signs along other major arterials in the Township, such as Route 73, as changeable LED signs are highly conducive to retail products that change frequently, such as gas prices. The Township may also consider permitting changeable copy Led signs in institutional settings such as churches, schools, municipal buildings, etc., as they provide a visually viable way of communicating important public information.

21. Code Section § 154.007 provides for lighting and wiring design standards. It is recommended that this section be reviewed and amended to include more sustainable standards for lumens, direction of lighting, preferred types of lighting and height standards. At minimum, it is recommended that the ordinance be overhauled to include the following:
- a. Regulation of illumination levels by Zoning District and/or broad land use category (e.g., residential, multifamily, commercial, parking lots, etc.);
 - b. Regulate types of lighting. The Ordinance currently prefers the utilization of high pressure sodium lamps. To promote sustainability and reduction in greenhouse gases, the Township could employ the utilization of LED lamps and in some instances, fully solar fixtures, which are viable in parking lot lighting scenarios;
 - c. More stringent regulations to minimize light trespass could be developed – limiting heights of light fixtures depending upon the application and context, to reduce glare and light pollution;
 - d. Lastly, all proposed standards should be reviewed for consistency with the Illuminating Engineering Society of North America (IESNA) standards, a non-profit professional organization of lighting specialists that has established recommended design standards for various lighting applications, with an emphasis on overall sustainability.
22. The Township formally adopted the Residential Site Improvement standards in Ordinance section §154.008 – Adoption of Residential Site Improvement Standards, in 1999. This serves to address residential parking standards.

The Township's non-residential standards are by and large in-line with similar municipalities in Camden County and the region. After a review of the various off-street parking requirements for non-residential development, it appears that parking requirements for some uses are more intensive – in terms of necessary spaces to be provided – and it is recommended that all non-residential off-street parking requirements for each enumerated use be reviewed. For example, Industrial, manufacturing and retail uses require more parking per Gross Floor Area (GFA) than what has proven necessary in similar municipalities.

In keeping with the overall Green and Sustainable initiative of the Township, reducing off-street parking requirements where applicable would serve to reduce impervious surfaces in the Township, which eliminate rainwater infiltration and natural groundwater recharge; collect solar heat, producing “heat islands” which increase energy consumption in buildings; and impervious surfaces displace living vegetation, reducing ecological productivity, and interrupting atmospheric carbon cycling. In consideration of the undesirable effects of increased impervious surfaces, the Township would be well served to reduce off-street parking requirements where appropriate.

G. **Sustainability**

1. It is recommended that the Township increase its sustainability profile by setting forth a Green Team initiative. It is further recommended that the Township seek Sustainable New Jersey certification; promote more walkability within the Township, and provide greater access and linkage for greenways, walkways, and bike paths in accordance with the Circulation Plan Element of the Township Master Plan; and evaluate opportunities to purchase additional parcels for dedicated open space.

2. In connection with the above, attached as **Appendix E**, is a Green Buildings and Environmental Sustainability Element of the Master Plan, which will serve to ensure that all of the “Green” initiatives in the Township are incorporated into the Township’s Comprehensive Master Plan and further ensure that sustainable practices are incorporated into further land use policies and decisions;
3. The Township maintains extensive bike paths, bike lanes and proposed areas of bike lane expansion. In addition, the Township publishes a bike path map, which has proven very useful to residents of the Community. It is recommended that an updated circulation element be completed to unify the overall pedestrian and bicycle circulation in the Township, which promotes walkability. Sidewalks and crosswalks should be evaluated to unify residential and commercial areas, promoting walkability, with special attention given to a comprehensive approach to integrating pedestrian foot traffic and bike path/lane opportunities in the Township. This will encourage not only walkability but bicycle travel, further supporting the overall Green initiative of the Township.
4. The Route 73 Corridor Review Study, prepared in May of 2003, offered several design standards for the Route 73 corridor, including recommendations for building positioning (setbacks), lighting, service/loading areas, parking lots and building elements and design features. The goal of the recommendations was to provide for comprehensive but flexible standards, which would yield a development pattern and visual realm that would distinguish the corridor from other highway commercial areas in Southern New Jersey.

The Township Ordinance in §154.015(D) Route 73 includes most of the Design Standards enumerated in the 2003 Corridor Review Study. Design waivers were not accounted for and certain circumstances could merit

waivers. It is recommended that conditions for design waivers be incorporated into the Ordinance.

In addition to the above, it should be noted that the Route 73 building design standards include a provision whereby the building design regulations apply to all non-residential zones in the Township. The balance of the design standards apply specifically to parcels with access to Route 73. It is recommended that the Township further evaluate these design standards for consistency and applicability in all commercial districts in the Township. Commercial districts not located along highway commercial corridors, would require different standards than village commercial areas or industrial areas for example. The design standards/regulations should be customized for specific types of Districts in the Township, to ensure future development outcomes;

5. In accordance with the Township's overall commitment to green urbanism and sustainability, it is recommended the Township adopt standards which deemphasize the car by placing garages behind structures or in alleys, drawing from *New Urbanist* design principles. In furtherance of the Township's sustainability objectives, it is further recommended that the Township incorporate standards for the preservation of existing trees, where feasible;

6. A **rain garden** is a planted depression that allows rainwater runoff from impervious urban areas like roofs, driveways, walkways, parking lots, and compacted lawn areas the opportunity to be absorbed. This reduces rain runoff by allowing stormwater to soak into the ground (as opposed to flowing into storm drains and

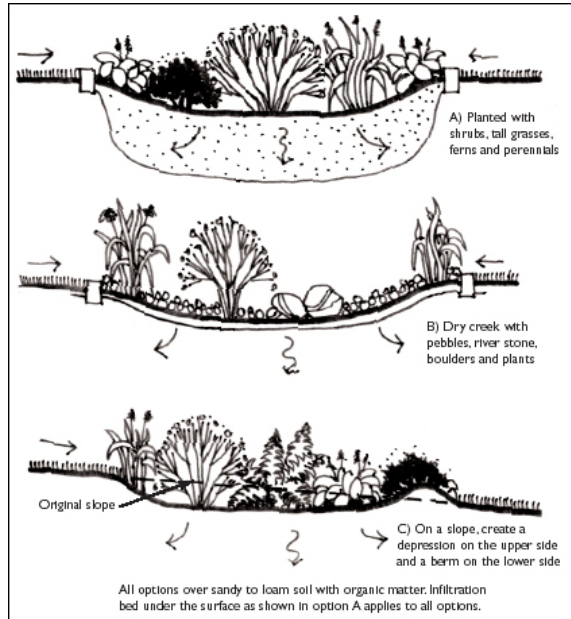


Figure 1: Rain Garden Types (Source: Franklin Soil and Water Conservation District)

surface waters which causes erosion, water pollution, flooding, and diminished groundwater). They can be designed for specific soils and climates. The purpose of a rain garden is to improve water quality in nearby bodies of water. Rain gardens can cut down on the amount of pollution reaching creeks and streams by up to 30%.¹

It is recommended that the Township consider offering incentives for the incorporation of rain gardens. Any proposed standards should be based on the size, location and use of native deep-rooted plants and grasses. Furthermore, any proposed rain garden should be positioned near runoff areas like downspouts and driveways and or the utilization of parking lots for water capture;

¹ Sandy Coyman; Keota Silaphone. "Rain Gardens in Maryland's Coastal Plain".

7. Wayfinding is an important element to both residents and visitors alike. In particular, a unified wayfinding plan can not only direct people to open space opportunities and Township resources and services, but can also act as a marketing tool to showcase the unique resources of the Township and guide people to important Township resources. It is recommended that a wayfinding plan be implemented in the Township with particular emphasis on signage for the various public and open space opportunities in the Township. This could likely be tied into the overall “Green Initiative” and could be planned, designed and coordinated with the existing wayfinding signage in the Township.

VI. RECOMMENDATIONS OF THE PLANNING BOARD CONCERNING THE INCORPORATION OF REDEVELOPMENT PLANS INTO THE LAND USE ELEMENT AND LOCAL DEVELOPMENT REGULATIONS

Additional Redevelopment Area(s) are not currently recommended for the Township pursuant to this Reexamination Report. It should be recognized however, that this is still a viable tool to stimulate private investment, economic development and reconstitute otherwise stagnant buildings, structures, properties and or areas of the Township. As such, it is recommended that the Township continue to consider utilization of this tool in the future, in appropriate areas of the Township.

Appendix A:

**Model Medicinal Marijuana Growth and
Dispensary Prohibition Ordinance**

Certain Approvals Prohibited—Federal Law Compliance.

The Township Committee of Voorhees Township does hereby prohibit the actions/activities and shall not support or sanction any actions/activities within the geographic boundaries of Voorhees Township of any person or persons, businesses, non profit or entity or any other group which require any decision, action and/or inaction of the Township which is in violation of Federal law. Township shall be defined herein as either the Township Committee and any and/or all of its members, any official, officer and/or employee of the Township (whether they be full-time or part-time), the Township Planning/Land Use Board and any and/or all of its members if any and/or all of them jointly and/or severally, are acting within the scope of their elected and/or appointed positions and/or employment with Voorhees Township.

Appendix B:

Model Renewable Energy Ordinance

Wind and Solar Systems:

I. Definitions:

Wind Energy System – means a wind energy conversion system consisting of a wind turbine, associated poles/towers and support structures, and associated control or conversion of electronics, which has a rated capacity consistent with applicable construction codes which will be used for on-site consumption but not including large diameter windmills.

Solar Energy System – means a solar energy system and all associated equipment which converts solar energy into a usable electrical energy, heats water or produces hot air or other similar function through the use of solar panels.

Solar Panels - a structure containing one or more receptive cells, the purpose of which is to convert solar energy into usable electrical energy by way of a solar energy system.

Wind Turbine – means equipment that converts energy from the wind into electricity. This term includes the rotor, blades and associated mechanical and electrical conversion components necessary to generate, store and/or transfer energy.

II. Wind Energy Systems and Solar Energy Systems shall be permitted if the following conditions are met:

A. Wind Applications

- i. Due to the nature of the small residential lot sizes associated with Voorhees Township, large diameter, tall wind mills shall not be permitted to be constructed in the Township.

- ii. Wind generating systems shall be restricted to vertical – axis wind turbine technology.
- iii. Vertical – axis wind turbines shall meet the following criteria:
 - [1] The system shall generate no more than 10 kilowatts of power per residential dwelling or commercial building, or be sized to generate more power than what is required by said structure.
 - [2] Only one vertical – axis wind turbine per property shall be permitted.

Multiple wind turbines on a single lot shall not be permitted.
 - [3] A wind study prepared by a qualified individual shall be performed to verify that the property conditions will produce the intended power generation by the wind turbine being considered.
 - [4] The size of the vertical – axis wind turbine shall be no more than 48 inches in diameter and 72 inches tall.
 - [5] The height shall be restricted to 41 feet above the ground surface to the top of the wind turbine unit.
 - [6] Support poles/towers and support foundations shall be designed by a licensed engineer in the state of New Jersey. In the event that a vertical –axis wind turbine unit is mounted to, or is constructed on top of, an existing dwelling or building, detailed calculations and engineering drawings of the mounting must be provided by a licensed engineer in the state of New Jersey. Cables shall be not be permitted to support towers, monopoles or roof mounted units.
 - [7] Setbacks:

- a. No vertical – axis wind turbine support pole or tower shall be constructed in the front yard or side yard of any property.
 - b. Support poles and towers, including height of the wind turbine unit, shall be set back a distance equal to its total height from:
 - i. Any public road right-of-way.
 - ii. Any overhead utility lines.
 - iii. All property boundary lines.
 - c. Support poles, towers and turbine units shall be factory finish, color to be approved by the reviewing board. No signs, other than manufacturers warning signs and labels shall be permitted.
 - d. All units and unit installation shall be in accordance with all applicable state construction and electric codes, as well as the National Electric Code. All units must be grid tied. All wiring must be concealed, under roof lines, below the roof deck structure or under ground.
 - e. Noise energy levels shall not exceed 55 decibels at a common property line. These levels may be exceeded during short-term events such as utility outages and severe windstorms.
- iv. Submittal Requirements:

[1] All applications to the reviewing board must be accompanied by a plot plan which includes the following:

- a. Current property survey prepared by a licensed professional surveyor in the state of New Jersey.

- b. Location of all structures on the property.
 - c. Location of the proposed wind turbine tower or support pole.
 - d. Right-of-way line and location of utility lines.
 - e. Wind system specifications, wind study and design calculations for turbine, pole, foundation, roof mounting, etc.
- v. Additional Requirements:
- [1] All electrical and structural design criteria shall meet the requirements of the State Uniform Construction Code. All ground-mounted wind energy systems shall not be artificially lighted except to the extent required by the FAA or other applicable authority.
 - [2] Wind turbines contained in the wind energy system shall be designed with an automatic brake or other similar device to prevent overspeeding and excessive pressure on the tower structure.
 - [3] All ground-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.
 - [4] All moving parts of the wind energy system shall be a minimum of ten (10) feet above ground level.
 - [5] The blades on the wind energy system shall be constructed of a corrosive resistant material.
 - [6] All guy wires or any part of the wind energy system shall be located on the same lot as the wind energy system.
 - [7] The wind energy system shall remain painted or finished in the color or finish that was originally applied by the manufacturer unless a

different color or finish is approved by the reviewing board. All components of the system shall be maintained in accordance with the most current requirements maintained within the Property Maintenance Code and Uniform Construction Code adopted by the Township of Winslow.

[8] Wind energy systems shall comply with New Jersey's net metering and interconnection standards.

[9] The applicant shall provide proof that it has met any and all New Jersey Board of Public Utility guidelines in connection with wind energy systems.

B. Solar Energy Systems

- i. Flat roof mounted solar energy systems shall be permitted on residential dwellings. Solar panels mounted to the roof of garages and accessory structures will also be permitted. Structurally attached solar energy systems installed on a building with a sloped roof shall not project vertically above the peak of the roof and/or shall comply with the height regulations of the zone. Roof-mounted solar energy systems shall not exceed a height of three (3) feet from the rooftop at any point. Structurally attached solar energy systems installed on a building with a flat roof shall not project vertically more than 5 feet above the roof and/ or shall comply with the height regulations of the zone.
- ii. Freestanding or ground mounted solar energy systems shall be considered a structure and shall be subject to the regulations of the zone for such, together with all other applicable building codes and ordinances. Ground mounted or free standing solar energy systems shall not be permitted to be constructed in the front yard of any property in any zone. The height of any ground mounted or free standing solar energy system shall not exceed

6 feet. Ground solar energy systems shall be located so that any reflection is directed away or is properly buffered from an adjoining property.

- iii. Tree clearing and/or removal will not be permitted for the construction of solar energy systems, or to create a path to allow sunlight to reach the solar energy systems.
- iv. Solar energy systems may consist of photovoltaic cells, hot water collector applications and hot air applications.
- v. Roof mounted solar energy systems are discouraged from being erected on the front roof of a structure which faces a street. Solar energy systems shall be located on a rear-or side-facing roof, as viewed from any adjacent street, unless such installation is proven to be ineffective or impossible. The removal of potential obstructions such as interceding vegetation shall not be sufficient cause for permitting a front-facing installation. Front-facing installation may be permitted in accordance with the following provisions:
 - [1] Applicant must indicate valid reasons as to why this is the only effective or possible means for utilizing solar energy on the property. Such information shall be certified by a professional deemed qualified by the Board and reviewed by the Township Engineer and any other Professional that the Township deems necessary.
 - [2] Solar panels must be flush mounted to the roof.
- v. Solar energy systems installations for the purpose of generating electricity shall conform to the following criteria:
 - [1] The solar energy systems shall generate no more than 10 kilowatts of power per residential dwelling or commercial building, or be sized to generate more power than what is required by said structure. All solar energy systems shall be grid tied.

[2] A study, prepared by a qualified individual, shall be performed to verify that the property conditions will produce the intended solar power generation based on property location, surrounding structures, and building orientation. Solar ground mounted or freestanding solar energy systems shall be set back a minimum distance of twenty (20) feet from all property lines.

[3] Solar energy systems shall be designed by a licensed engineer of the State of New Jersey. In the event that the solar energy system is to be mounted to, or is constructed on top of, an existing dwelling or building, detailed calculations and engineered drawings of the mounting must be provided by a licensed engineer of the State of New Jersey. Electric cables must be concealed below the roof line.

[4] All units and unit installation shall be in accordance with all applicable state construction and electric codes, as well as the National Electric Code.

[5] All wiring leading to and from the panels shall be installed below the roof structure or shall be installed under ground.

III. Abandonment and removal of solar and wind energy systems.

A. Any solar or wind energy system permitted under this Chapter which has not been in active and continuous service for a period of one (1) year shall be removed from the property to a place of safe and legal disposal.

B. All support structures and structural enclosures accessory to the wind or solar energy system shall be completely removed from the property to a place of safe and legal disposal.

C. The former wind or solar energy site shall be restored to as natural condition within six (6) months of the removal from the property.

- D. Solar and wind energy systems shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the system. In no case shall any identification be visible from the property line.
- E. The design of solar and wind energy systems shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the system into the natural setting and existing environment.

Appendix C:

Green Buildings and Environmental Sustainability Element of the Master Plan

GREEN BUILDINGS AND ENVIRONMENTAL SUSTAINABILITY PLAN ELEMENT

Introduction

This Green Buildings and Environmental Sustainability Plan Element of the Master Plan (Green Plan Element) has been prepared in accordance with the Municipal Land Use Law (M.L.U.L.). N.J.S.A. 40:55D-28a provides that the Planning Board “may prepare and, after public hearing, adopt or amend a master plan or component parts thereof, to guide the use of lands within the municipality in a manner that protects public health and safety and promotes the general welfare.” The purpose of the Green Plan element is to establish goals, policies and strategies to protect natural resources and to create a healthy and sustainable economy and society.

In 2008, the Municipal Land Use Law (M.L.U.L) was amended to create an additional and optional element of a comprehensive plan (Bill A1559), allowing the adoption of a sustainability plan (C.40:55D-1 et seq.):

A green buildings and environmental sustainability plan element, which shall provide for, encourage, and promote the efficient use of natural resources and the installation and usage of renewable energy systems; consider the impact of buildings on the local, regional and global environment; allow ecosystems to function naturally; conserve and reuse water; treat storm water on-site; and optimize climatic conditions through site orientation and design.

Another bill recently passed (A-3062, S-1303) recognizes wind, solar, or photovoltaic facilities as an “Inherently Beneficial Use” per the M.L.U.L. By placing it in the “Inherently Beneficial Use” category, a facility of that type would be considered a value to the community and would be included with other uses such as hospitals, schools, or child care centers.

Community goals and objectives can be expected to change and evolve rapidly as new and innovative green approaches are conceived and developed, but it is critical that this

plan element reinforce, and not detract from, Voorhees' desirable community character as a carefully planned community.

Since the terms "green" or "green design" and "sustainable" have become commonplace in today's vocabulary, it is important to define the terms "green" and "sustainable".

"Green design" is a general term implying a direction of improvement in design- i.e., continual improvement towards a whole and healthy integration of human activities with natural systems.

"Sustainability" is the capability to equitably meet the vital human needs of the present without compromising the ability of future generations to meet their own needs by preserving and protecting the area's ecosystems and natural resources. The concept of sustainability describes a condition in which human use of natural resources, required for the continuation of life, is in balance with nature's ability to replenish them.

When taken into consideration with the MLUL provisions for this Plan Element, a theme of conservation at a broad-based level emerges. Nine out of fifteen of the purposes of the MLUL direct the Planning Board to protect the environment, prevent urban sprawl, and protect the State's natural resources. These nine purposes of the law are listed below, which are consistent with the locally identified goals and objectives of this plan.

- (a) To encourage municipal action to guide the appropriate use of or development of all lands in the state, in a manner, which will promote the public health, safety, morals and general welfare;
- (b) To secure safety from fire, flood, panic, and other natural and man-made disasters;
- (c) To provide adequate light, air and open space;

- (d) To ensure that the development of individual municipalities does not conflict with the development and general welfare of neighboring municipalities, the county and the State as a whole;
- (e) To promote the establishment of appropriate population densities and concentrations that will contribute to the well-being of persons, neighborhoods, communities and regions, and the preservation of the environment;
- (g) To provide sufficient space in appropriate locations for a variety of agricultural, residential, recreational, commercial, industrial uses, and open space both public and private, according to their respective environmental requirements in order to meet the needs of all New Jersey citizens;
- (j) To promote the conservation of historic sites and districts, open space, energy resources and valuable natural resources in the State and to prevent urban sprawl and degradation of the environment through improper use of the land;
- (n) To promote utilization of renewable energy sources; and
- (o) To promote the maximum practicable recovery and recycling of recyclable materials from municipal solid waste through the use of planning practices designed to incorporate the State Recycling Plan goals and to compliment municipal recycling programs.

The Green Plan element has been prepared in furtherance of the MLUL purposes to conserve natural resources and promote the maintenance of a clean and healthy natural and built environment.

Sustainability Goals & Objectives

The overriding goal of this Green Plan Element is to outline successful, sustainable practices to guide local business, industry, school, government and community policies,

including efforts to reduce pollution, promote energy efficiency and use of renewable energy.

1. Promote the use of “green” technology including but not just limited to solar and wind power.
2. Solar and wind energy systems should be permitted either as an accessory use or conditional use in residential and non-residential zones within the Township. It is recommended that the ordinances include standards wherein the Township allows reasonable wind and solar development while still considering landowners concerns.
3. Encourage the adoption of design standards wherein a development application would take into account building form and orientation for energy efficiency considerations.
4. Promote smart growth development in areas well served by transportation infrastructure.
5. Promote the development of mixed-use neighborhood centers in order to encourage residents to shop locally and reduce vehicle miles travelled.
6. Encourage the reduction of vehicle miles traveled by employees of and visitors to new and existing non-residential developments.
7. Encourage a mix of uses in typically single-use employment centers, such as office parks. Additional uses that should be considered include but are not limited to restaurants, banks, drycleaners and childcare centers. Such a mix will provide convenient services in proximity to employment centers and eliminate the need for separate trips.
8. Focus the Township’s remaining development potential on lands that can support smart growth development, are well served by transportation

infrastructure, and are in proximity to employment and service centers. Direct the Township's remaining development potential away from environmentally sensitive lands and stream corridors.

9. Encourage pedestrian friendly street design.
10. Encourage the development of access to mass transportation and development of intra-local routes.
11. Encourage increased use of regional and local bus lines.
12. Encourage the use of "green" materials and "green" building practices in future development initiatives.
13. Promote and advance the integration of green technologies into the Township's Land Use planning and building construction process.
14. Continue to investigate the feasibility of engaging in agreements with other agencies within Voorhees Township for energy services through Power Purchase Agreements to save costs and energy.

Sustainability in Voorhees Township

Planning for sustainability encompasses the decision-making processes for determining where and how to simultaneously preserve and conserve, and where and how to grow. For a community to be "green," it should be in harmony and balance with its natural environment. Harmony and balance includes protecting our natural resources and maintaining biodiversity, maintaining a healthy economy, and providing safe, healthy places to live, work, and enjoy recreational activities.

For such a balance to be maintained, we need to thoroughly examine and improve our efforts to implement environmentally sound practices while recognizing that there are economic and social constraints that need to be considered when evaluating

environmental initiatives. From a planning perspective, the intent is to examine and recommend green initiatives that are sustainable, balancing the environmental benefit against its economic and social costs. Voorhees Township is committed to work towards becoming a sustainable community and has initiated efforts through the Sustainable Jersey program.

The Sustainable Jersey Program is for New Jersey municipalities that wish to control costs, save money, and take steps to sustain community quality of life over the long term through green planning. This innovative new program is an initiative of the NJ State League of Municipalities' Mayors Committee for a Green Future, the Municipal Land Use Center at the College of New Jersey, the New Jersey Sustainable State Institute at Rutgers University, the NJDEP, the Rutgers Center for Green Building, the NJ Board of Public Utilities, and a coalition of non-profits, state agencies, and sustainability experts. Voorhees Township is currently under review for certification through Sustainable Jersey. Certification offers technical resources for a municipality to implement their program and funding as it becomes available. However this is just one means to encourage sustainability throughout the community.

Interested residents can learn more about Sustainable Jersey certification at www.sustainablejersey.com.

This Element offers a policy to work towards sustainability in all municipal functions and operations, when appropriate. At the same time, a variety of initiatives will be offered to inspire residents to move towards a lifestyle that minimizes human impact on the environment. Sustainability practices will be considered in the following activities:

Green Buildings And Environmental Sustainability Plan Strategies

In order to achieve the goals outlined above this Green Buildings and Environmental Sustainability Plan Element is designed to outline successful, sustainable practices to guide local policies, including efforts to reduce pollution, promote energy efficiency and use of renewable energy. This can be achieved through:

- Land Use
- Transportation
- Energy (Conservation)
- Waste

The greatest achievement of the plan will be to gain the involvement and acceptance of green initiatives in the local community. Continuing education and outreach are needed to lead in the direction of a more sustainable future.

Land Use

Land use involves the efficient planning and development of land to shape a community. This involves finding the harmonious balance between developed land and open space. The amount of open space is a key indicator of sustainability, as it has a drastic effect on land use patterns and public health. A Recreation and Open Space Inventory (ROSI) database is maintained by New Jersey municipalities that are part of the Green Acres Program administered by the Department of Environmental Protection. This program helps fund the acquisition of properties for recreational use and keeps track of the both funded and unfunded parklands. According to the NJDEP Green Acres data base, which tracks and maintains open space inventories, the Township has approximately 236.94 acres of open space contained within County Parks, Township owned parks and recreational facilities and Board of Education open space. A key goal pertaining to

sustainable land use is to efficiently redevelop land to not increase the amount of developed land, while preserving environmentally significant properties in strategic locations that expand the open space system.

Emerging indicators becoming more common in land use development are the number of green buildings, herein defined as LEED certified, although it should be noted that there are several green rating systems. Leadership in Energy & Environmental Design (LEED) Green Building Rating System is a third party certification program initiated by the United States Green Building Council (USGBC).

Setting forth green building initiatives can help Voorhees Township reach their overall sustainability goals. Promoting the usage of “green building” materials by incorporating green technologies such as, but not limited to, solar panels/canopies, wind turbines or retrofitting existing building with more energy efficient heating and cooling systems can result in significant savings. Moreover, smaller steps can be taken to increase to usage of green technology in buildings such as installing lower wattage compact fluorescent light bulbs (CFL) or increasing the use of energy efficient appliances. Voorhees Township has not yet implemented any “green building” initiatives.

Another land use tool to create more sustainable community is the creation of mixed use zones. Mixed use zones create new or enhance (and legalize) existing areas of mixed commercial and residential uses. These zones allow a variety of uses to co-exist in the same area, as well as implement physical requirements to construct areas of business and community activity that are walkable. A variety of these zones are available, such as form-based codes, hybrid codes, transit-oriented zones, traditional neighborhood development, and other mixed use zones. To that end, the Township currently maintains no mixed-use Zoning Districts.

Transportation

Vehicular transportation dominates the way people get around in the Township and the overall area, but efficient and environmentally-friendly mobility is essential to a

sustainable community. Various transportation statistics were found in the American Community Survey (ACS), as part of the Decennial Census Program, for the years 2005-2009. This survey represents a sampling, of the population on a rotating basis. Since the ACS is conducted every year, rather than once every ten years, it will provide more current data throughout the decade.

Census data from the American Community Survey (ACS) shows that the mean travel time to work for Voorhees residents is 25.3 minutes, only marginally above the national average of 24.4 minutes. Longer commutes lead to higher congestion in and around the area; however, commuting times for Township residents appear to be in line with the national average.

Of the commuters whose origin is in Voorhees, 77.5% of them drive alone to work, which is slightly greater than the national average of 76%. Remaining Township residents carpool 7.4% or take public transportation 9.2% while 4.1% utilized the local rail system. The remaining 1.8% reportedly worked from home, walked or biked to work. Based on the aggregate number of available vehicles in the Township, 66% of its residents have access to private or motorized transportation, while 6% of the households did not have access to a car, truck, or van for private use, slightly below the national average 8%. Emissions reduction would result in the diversification of transportation modes and decline in automobile ownership. In order to offset increased traffic congestion and emissions the Township should continue to promote travel alternatives such as walk, bike, carpooling and public transportation.

Though changing, the dominance of the automobile is also reflected in the number of trails, bikeways, and bike lanes within a given municipality. By increasing the number and length of bikeways and trail opportunities, the Township can provide more opportunities for cycling and walking, which in turn will contribute to a decrease in dependence on the automobile and the emission of green house gases and promote the overall sustainability of the Township.

Energy (Conservation)

The Township purchases energy from a number of utilities for the natural gas and electricity provided to Municipal facilities. A full community-wide audit would be needed to determine the usage for the entire Township. To determine annual Municipal use, utility bills for the year 2011 were examined for all providers. PSE&G and Atlantic City Electric provide electricity service to municipal facilities, which consists of the Public Works and Municipal Building complexes, Library, and various smaller sites and street lights around the Township.

Voorhees should investigate the annual average kWh expended per year to establish a baseline of electrical energy consumption. A kilowatt (kWh) or kilowatt-hour expresses a unit of energy equal to 1000 watts for one hour. Once a baseline is established, targets for reduction can be put in place and annual reduction targets can be set. The largest consumer of energy is the street lights throughout the Township, which in a given municipality, typically accounts for almost 2/3 of the total costs in electricity. Township facilities typically account for the balance of energy consumption. Several measures can be taken to also reduce electricity consumption by Township facilities.

Natural gas is supplied to municipal buildings by South Jersey Gas Co. Since natural gas remains one of the most inexpensive energy sources, and market indicators suggest that there is an abundance of natural gas in the United States, it would be recommended that the Township to consider using this source as a potential substitute fuel.

Gasoline in the municipal fleet of vehicles was also reviewed, using the 2010 calendar year as a sample. The municipal fleet consists of vehicles for police use, building and zoning inspection, public works infrastructure service, and others. Fuel stations for Township vehicles are owned and operated by the Township. As a result of increasing gas prices, local governments have been increasingly burdened by rising fuel costs for their local fleets. The Township should look more deeply into this issue and determine if

there are any viable options to generate savings by upgrading to more fuel efficient vehicles.

The reduction in consumption of electricity, gas, and water by Township facilities, private residences, and businesses will benefit the overall community by reducing costs and thus creating a more efficient local government.

Waste

The Township collected a significant amount of recyclables from residents in 2011. In doing so, the Township was able to divert tons of the total debris from the waste stream, exceeding the standards set by the State of New Jersey Solid Waste Management Plan. These recycled materials include paper, cardboard, glass, metals, appliances, yard waste, oil, tires, e-waste, leaves, and wood chips.

Wastewater is water consumption that introduced into the sewer system, which is comprised of sewage, infiltration and inflow water. Infiltration is water other than sewage that enters the system through defective piping or connections. Infiltration levels directly correlate to the increase and decrease in the water table. Inflow is water other than sewage that enters from sources such as roof leaders, cellar drains, yard drains, area drains, and manhole covers and is the direct result of rainfall. The amount varies year to year, depending on rainfall.

The major objective of a sustainable sanitary sewer system is to reduce wastewater, which will therefore relieve a sewer system that will reach maximum capacity with the growth of consumption. In addition, a decrease in wastewater will lessen the need for energy to treat the water further down the line. There are several ways to achieve this goal by each segment. Overall, conservation is the best action with the greatest result and minimal cost. Another example is the use of rain barrels to collect rainwater along with native gardening to decrease both the consumption of water and well as the inflow to the sanitary system. Also, the reuse of water also known as grey water would contribute to reductions.

Recommendations

The following actions can be accomplished internally (within Township government) and externally (for the overall Township). Internal measures refer to the actions a local government can take to reduce the emissions associated with their operations and activities, while external measures target the reductions associated with the operations and activities of Township residents and business owners.

Land Use:

Encourage and facilitate responsible development with efficient land use that reduces sprawl.

- 1) Implement and standardize efficient land use practices.
 - a. Promote redevelopment of brownfields and greyfields with existing infrastructure into redevelopment zones.
 - b. The Township currently maintains several historic districts and one mixed-use district. Evaluate and consider the establishment and or extension of additional mixed use and historic zones, which will increase walkability thereby reducing vehicle trips. Also, seek alternative sources to fund purchases of alternative fuel vehicles such as the Camden County Improvement Authority (CCIA) which is a countywide pooled financing program for such projects.
 - c. Research the feasibility of amendments to the Stormwater Management Plan that incorporate new practices and expands upon best management practices (BMP), such as rain gardens, bioswales, and the like, with improved basin design guidelines that utilize native plantings.
 - d. Encourage co-location of new telecommunications facilities to reduce land consumption and share resources.

- 2) Establish a municipal Green Building Program.
 - a. Develop a green building ordinance that follows state or national standards (U.S. Green Building Council LEED).
 - b. Educate employees, encourage or sponsor staff to become LEED-AP Accredited Professionals
 - c. Provide information about green building to the public through the Township website and community workshops in partnership with community and civic organizations.
 - d. Create a Green Business Recognition program rewarding companies that utilize green practices.

- 3) Improve existing and continue to assemble meaningful open space.
 - a. Explore utilizing conservation easements to obtain sensitive lands not feasible for private development.
 - b. Hold annual community tree plantings in parks and local government facilities, as well as starting a Township tree sponsorship program.
 - c. Encourage a program that creates community stewards for neighborhood parks to care for and improve the quality of recreation.
 - d. Consider the implementation of a “Meadows Program,” which implements “Low-Mow” practices that restrict mowing on parcels to allow naturalized areas to develop where possible.

Transportation:

Promote transportation and mobility options that reduce pollution emissions.

- 1) Encourage programs that reduce commuter trips.

- a. Promote car-pooling and mass transit use by municipal employees.
 - b. Streamline one-stop permitting and web site functions, such as online payments, to reduce multiple trips by the public to municipal buildings.
- 2) Incrementally improve municipal fleets for efficiency and less Green House Gas emissions.
- a. Periodically analyze existing vehicles to see if old and/or under-used vehicles should be retired and maintain a regular maintenance schedule for all vehicles to ensure they are operating at peak performance ability (i.e. proper tire pressure, clean air filters, etc.).
 - b. Continue to investigate feasibility of alternative fuel vehicles (biodiesel, ethanol, electric, compressed natural gas, etc.) and/or fuel efficient smaller fleet vehicles, as technology and cost efficiency improves.
 - c. Continue and possibly expand the program of police officers on bicycles and review the use of bicycles for other Departments.
 - d. Consider providing alternative fuel sources at the municipal filling station.
 - e. Promote state anti-idling laws of non-emergency municipal vehicles through signage, employee training, and other education methods.
- 3) Invest in public infrastructure to promote non-vehicular and more efficient transportation systems.
- a. Improve traffic signal synchronization for optimal efficiency of operating vehicles.
 - b. Standardize pedestrian infrastructure, such as sidewalks, crosswalks, bicycle racks, and walkable design.

- c. Complete a comprehensive Township Bicycle & Pedestrian Plan to install bike lanes, trails, and similar infrastructure, particularly to complete the Shark River Waterfront.
- d. Consider coordinating with a car sharing program (Zip Car, etc.) to establish services at key locations.

Energy:

Utilize cleaner energy sources that minimize negative effects and maximize energy efficiency.

- 1) Serve as a model of building efficiency, by completing a comprehensive municipal energy audit and then implement the recommendation(s) of the municipal energy audit.
 - a. Install energy-efficient exit sign lighting and any exterior lighting retrofits with energy-efficient fixtures (LED, high pressure sodium)
 - b. Replace incandescent light bulbs with compact fluorescent light (CFL) and or light emanating diode (LED) bulbs in all Township facilities.
 - c. Consider expanding the number of facilities to install solar panels and reflective roofing, on expansive roofs of Township and Board of Education facilities.
- 2) Establish energy-saving strategies, through government employee policy and training for all community services and facilities.
 - a. Institute a “lights out when not in use” policy with signage and training, and explore change from traditional light switches to motion activated lighting systems, especially for restroom uses.
 - b. Ensure computers are turned off after work hours by assigning employee to check all stations before closing.

- c. Reduce lighting levels where feasible and consider the use of sensory lighting sensors.
 - d. Explore Camden County's Renewable Energy savings Program that is being rolled out in 2012 which includes a renewable energy program, countywide pooled energy savings program, and an energy saving improvement program for the Townships and School districts.
- 3) Encourage energy efficiency of public utilities for emergency services, schools, businesses, and community residents.
- a. Revisit lighting ordinance to reduce light pollution with upward and/or excessive light levels.
 - b. Promote usage of energy-efficient traffic and street lights (LED, high pressure sodium) in development projects.
 - c. Consider alternative-powered mowers and landscape equipment, over existing gas-consuming machines.
 - d. Examine funding sources to implement a low-income weatherization program into affordable housing programs. The State of New Jersey currently administers such a program through non-profit providers.
 - e. Support green electricity from solar, geothermal, wind or hydroelectric sources.

Waste:

Reduce waste by reducing, reusing, and recycling.

- 1) Establish internal government paper reduction strategies, through employee policy and training, encouraging Township-wide adoption in public and private sectors.

- a. Streamline electronic documents processing, educate employees regarding paper waste caused by faxing and printing.
 - b. Consider the establishment of a Township policy regarding double-side copying of all Township documents.
 - c. Reuse all paper when possible (i.e. blank back for scrap paper).
 - d. Strategically remove all Township Departments from junk email, faxes, etc.
 - e. Restrict black and white printing on all color printers.
 - f. Process and remit payments of Township bills on-line.
- 2) Establish new and improve existing recycling programs.
- a. Continue residential and commercial recycling program.
 - b. Investigate a municipal program for reuse or recycling of construction and demolition materials.
- 3) Increase the use of composting in the Township.
- a. Identify funding to distribute compost bins to private residential homes.
 - b. Establish compost bins at municipal facilities for employee use.
 - c. Educate residents of the benefits of composting, utilizing school system and youth programs.

Implementation

To implement the necessary actions identified in the Sustainability Plan with fiscal responsibility, federal, state and county sources of funding will be strategically identified, and combined with other forms of revenue. Therefore, this will not impose a negative impact on Township residents and businesses. All forms of revenue used for these initiatives will be applied in a judicious manner to provide a better quality of life for the Township's community. The formulation of a Sustainability Plan to improve the environmental quality of life for the community and the environment, by acting as progressive leaders to conserve and improve the environment by reducing the Township's overall carbon footprint, is a key priority of the Township.