



# CENTREVILLE VILLAGE PLAN

*New Castle County, Delaware*



## TRANSPORTATION STUDY, LAND USE ANALYSIS & RECOMMENDATIONS

*for*

- The Kennett Pike
- Centreville Village
- The Surrounding Landscape





Centreville Village Plan  
*New Castle County, Delaware*

**TRANSPORTATION STUDY,  
LAND USE ANALYSIS & RECOMMENDATIONS**

Final Report - July 3, 2002

**Primary Project Team:**

Wilmington Area Planning Council  
Centreville Civic Association  
Delaware Department of Transportation  
New Castle County

**Project Consultants:**

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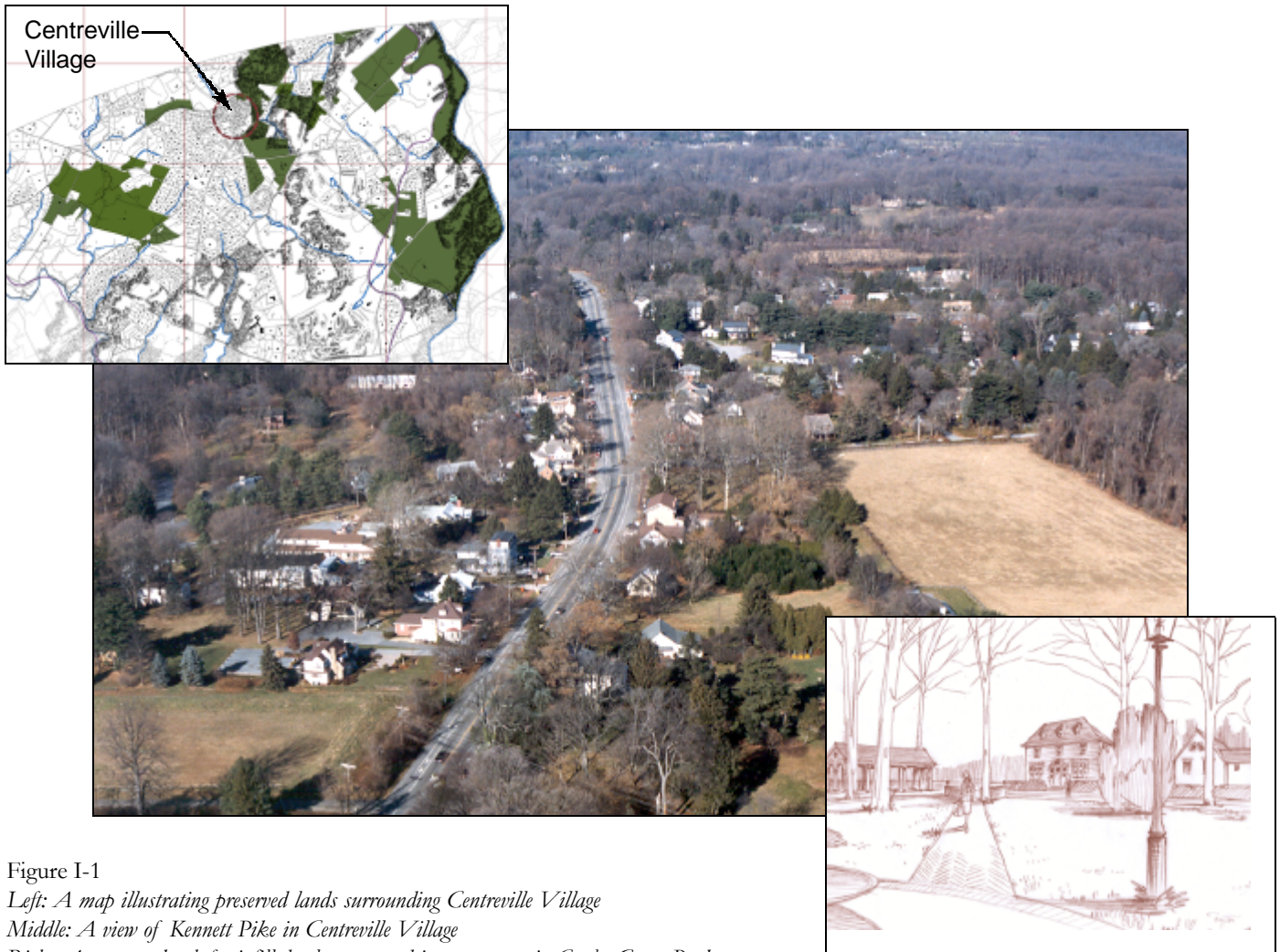


Figure I-1  
 Left: A map illustrating preserved lands surrounding Centreville Village  
 Middle: A view of Kennett Pike in Centreville Village  
 Right: A concept sketch for infill development and improvements in Canby Grove Park

### i.0 Introduction

Throughout Delaware and the greater Brandywine River Valley the term "Centreville" conjures positive images of a quaint historic village surrounded by a nationally recognized, "unique" landscape. The village is not only a common gathering place for local residents and shoppers, but serves as a point of interest for area tourists and the frequent starting point for amateur and professional cyclists setting out to explore the back roads of the surrounding landscape.

Over the past three decades the lure of the area has given way to a significant amount of residential development. While the Village has grown little, large lot subdivision development surrounding the village has doubled the area population and eliminated over 1,000 of the areas 5,000 open acres. Similarly, surrounding growth has transformed the Kennett Pike from a historic toll road / village main street to a major throughway for motorists traveling between Pennsylvania and Wilmington.

Centreville, as well as many unincorporated rural areas of Delaware, is faced with the complex challenge of trying to balance the charm of the past with the forces of modern development and transportation. This project defines and explores strategies to permit more village-styled development within an incorporated area to encourage walking and bicycling, reduce car trips and preserve remaining open spaces. The Centreville Village Plan aims to preserve the Kennett Pike which was described in 1999 by Scenic America as one of 12 national Last Chance Landscapes. This project and report represent one of the first attempts in New Castle County to look at a unique sub-area of the County and undertake a comprehensive examination of development, preservation and transportation issues.

### *i.1 Process Summary*

This project builds upon efforts by New Castle County, Wilmington Area Planning Council (WILMAPCO) and the Delaware Department of Transportation (DelDOT) to examine in greater detail, land development and transportation guidelines within historic areas as well as outlying land preservation criteria. Through community input and professional analysis, community concerns were addressed and served as the basis for Master Plan recommendations. This report suggests concepts to formally recognize both Centreville Village and the surrounding landscape as unique planning areas and suggests Master Plan approaches and site specific proposals for the Centreville Village Area.

This project is headed by WILMAPCO and is funded by a grant from the FHWA Transportation and Communities System Preservation Pilot Program. The team of Alberto & Associates Planning and Glatting Jackson Kercher Anglin Lopez Rinehart, Inc - Transportation were selected in July 2000 to undertake this study. The process was comprised of five tasks: Task 1; Data Collection and Base Mapping; Task 2; Community Input, Stakeholder Interviews (November 2000) and a Professional Presentation; Task 3; Community Design Charrette (January 2001); Task 4; Policy Recommendations; and Task 5: Final Report. Recommendations in this report are from the land use and planning consultants and community input.

### *i.2 Community Consensus and Professional Consultant Input*

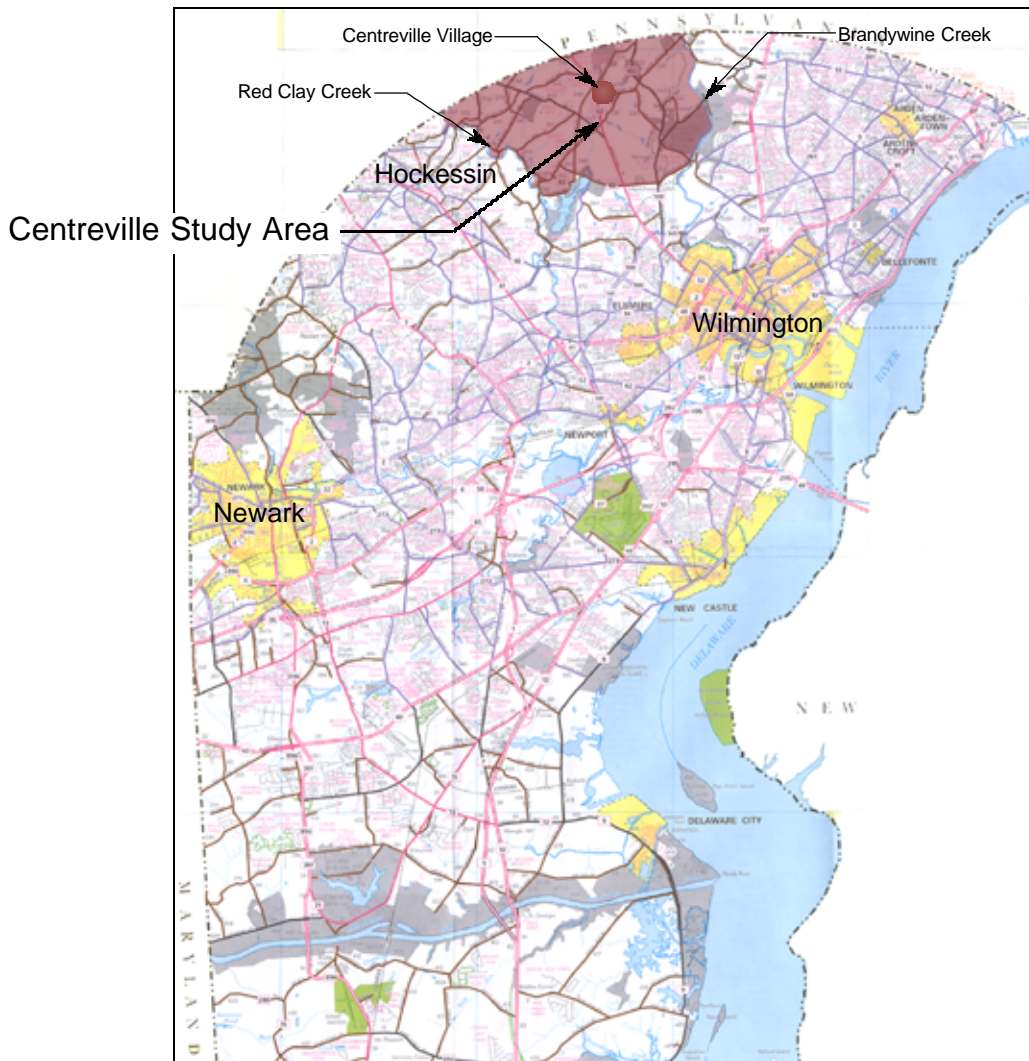
This process attempted to solicit maximum resident input and develop consensus on issues. A summary of resident comments from an October 26, 2000 workshop, November 13 and 14, 2000 resident interviews, and a March 28, 2001 public workshop are located in the Appendix of this report. Similarly, in a three-day Community Design Charrette (January 16-18, 2001) Centreville residents and land use / transportation professionals worked side-by-side to discuss issues and suggest solutions to issues facing the community. The resulting plan balances the input from the community with the technical expertise of the implementing agencies and the consultants.

### *i.3 Master Plan Recommendations vs. A Master Plan vs. Land Use Ordinances*

A Master Plan process and a method for implementing land use ordinances for a sub-area of New Castle County does not presently exist. The Centreville Planning Process is among the first in New Castle County to undertake a comprehensive examination of a specific area. The conclusions of this study contained in this report are summarized as a series of Issues, Observations and Recommendations (section 8). The conclusions of this report propose that a formal Master Plan process be adopted for sub-areas like Centreville and that the products of an adopted Master Plan serve as the basis for the implementation of land use ordinances aimed specifically to Centreville.

### *i.4 Master Plan Concepts vs. Development Proposals*

Section 6 of this report illustrates town planning principles and Master Plan concepts developed with Centreville residents during a three-day community design charrette in January 2001. THE PROPOSALS ARE NOT ACTUAL LAND DEVELOPMENT PROPOSALS FOR CENTREVILLE. They are instead a proactive illustration of what strategic, and sensitive Village infill may look like; an effort to promote ordinance revisions in Centreville village and a strategy to encourage wider community acceptance of traditional village planning concepts and the benefits of village infill.



1A - Northern New Castle County

## 1.0 *Defining Centreville*

### 1.1 **Centreville within New Castle County**

Centreville has both a physical and a political relationship with New Castle County. Physically, Centreville is among the few remaining historic village centers within New Castle County. Politically, Centreville is not an incorporated village or town like historic New Castle or urbanizing Middletown and Centreville falls under the jurisdiction of New Castle County land use laws, policing, tax structure, etc. Centreville lacks a formal local structure to manage land use and with growth pressures, increased traffic, loss of open space and economic opportunity, residents throughout Centreville and New Castle County are seeking ways to better control land use in their immediate area. Likewise, New Castle County land use experts recognize the uniqueness of areas such as Centreville and are working to implement methods to provide direct local resident involvement in land use issues.

The community occasionally mentions the option to become an incorporated jurisdiction within New Castle County. Incorporation requires an act of the Delaware legislature and Centreville would have to establish its own tax district and provide certain services. The costs and complexities of incorporation for Centreville currently outweigh the benefits. Recommendations in this plan and efforts presently underway by New Castle County will help to distinguish Centreville within the greater County.

As described in Section I-1 of this report, the project parallels efforts by New Castle County to recognize unique landscapes (Unique Corridor Overlay) and the villages within the County (Hometown Overlay). This report is intended to inform those documents as well as propose a general method for coordinating future development and preservation in the Centreville area.





1B Centreville Village



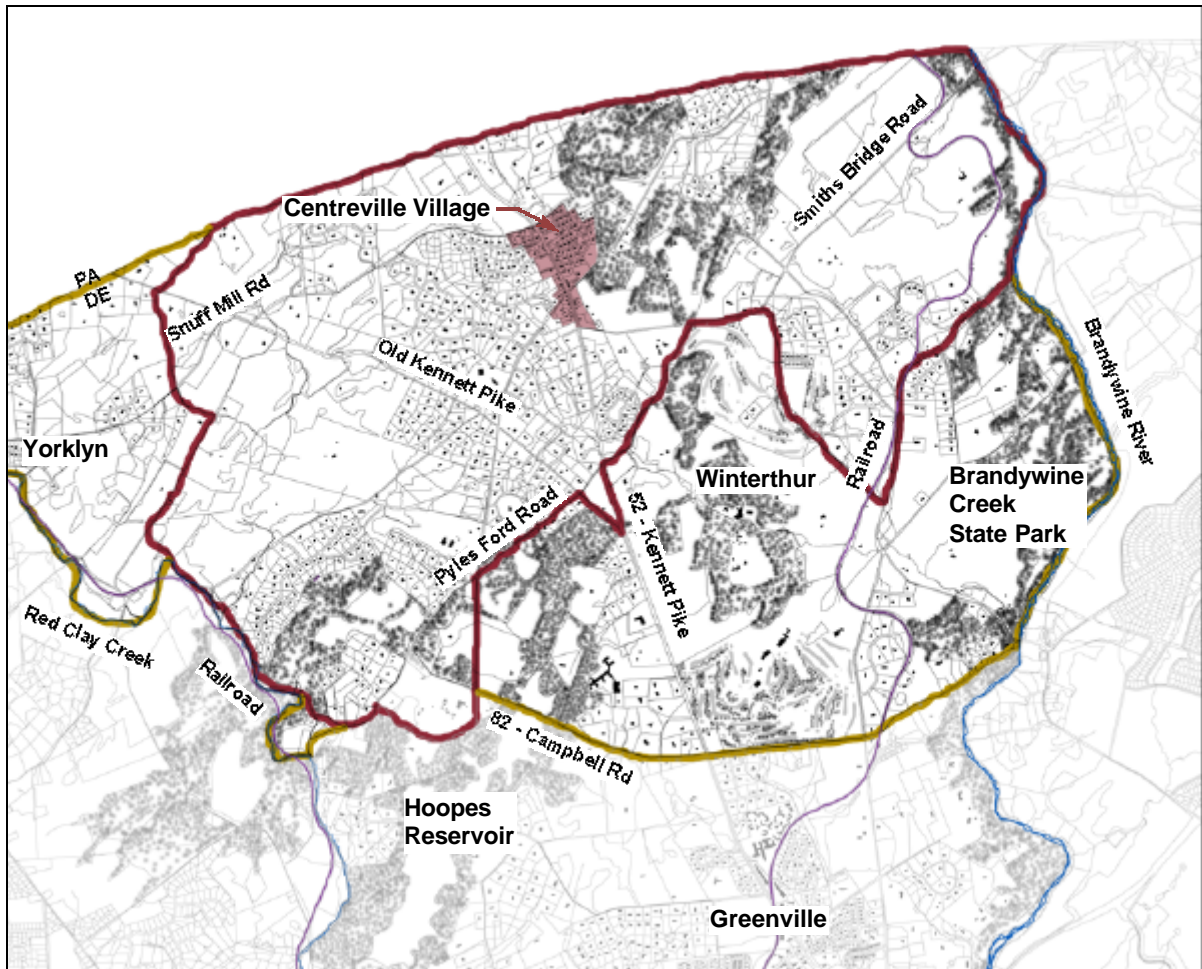
1C The Surrounding Landscape

### *Defining Centreville*

#### **1.2 Centreville Village and the Surrounding Landscape**

Centreville commonly refers to both the village proper as well as the surrounding landscape. Beyond this common understanding, however, no true physical or jurisdictional definition of Centreville Village nor a defined surrounding landscape exists. In a large County with recently revised, suburban land use ordinances, the historic bounds of areas like Centreville become clouded and often disappear. As Centreville and New Castle County continue to urbanize the urgency of reinforcing Centreville as a unique place increases. The exploration of and rationale for boundaries defining Centreville constitutes a major focus of this reports recommendations.

The Centreville Civic Association (CAA) in its 1992 bylaws established a boundary for Centreville (CAA boundary definition is located in the box on the next page). Similarly, the project consultant team established a boundary for the purposes of the Centreville Study. These suggested boundaries, illustrated in Figure 1D establish a good starting point for defining Centreville village and the surrounding landscape. Although the consultant's Study Area is larger, it attempts to be simpler in shape and follow clearer natural borders and roads. Generally the study area lies between the Red Clay and Brandywine Creeks and from the State line to Campbell Road. The Red Clay and Brandywine also constitute watershed low lands and the Kennett Pike the high point and dividing line of the two watersheds.



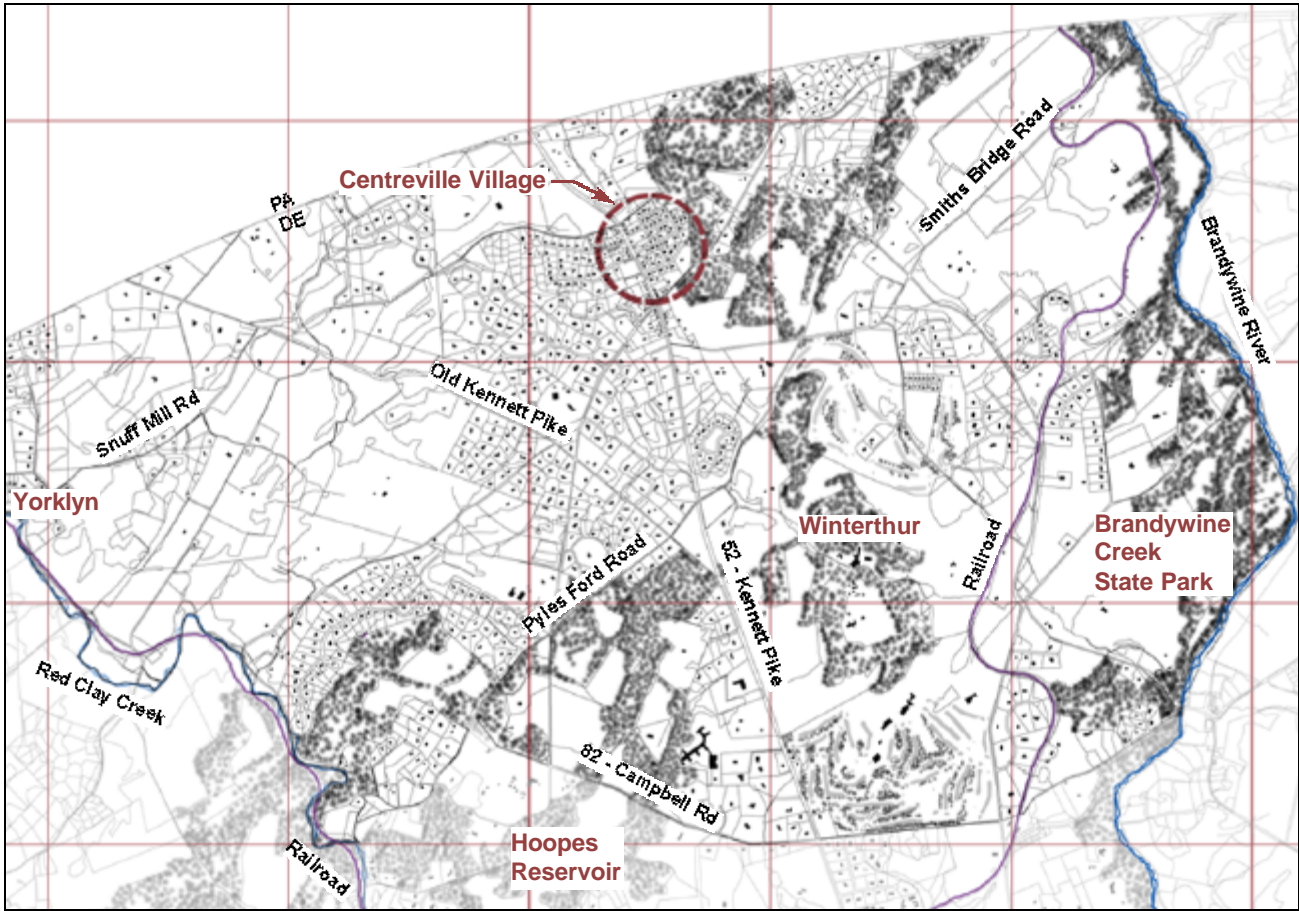
1D - Centreville Civic Association - red, Project Study Area - yellow

## *Defining Centreville*

### 1.3 The Project Study Area

The study area is approximately 9,000 acres or 14 square miles. For comparison purposes, 14 square miles is the exact average of rural municipalities in the neighboring State of New Jersey. The Consultant team pointed out that the scale of the Study Area permits meaningful analysis of both development and preservation issues. The bounds of the study area also coincide with an adjacent land use study for the Hockessin to Red Clay area and the meeting of these boundaries at the Red Clay Creek illustrate how various New Castle communities are beginning to examine themselves in detail.

(Note that an official description of the present Centreville Civic Association Boundary is located in the Appendix of this report.)

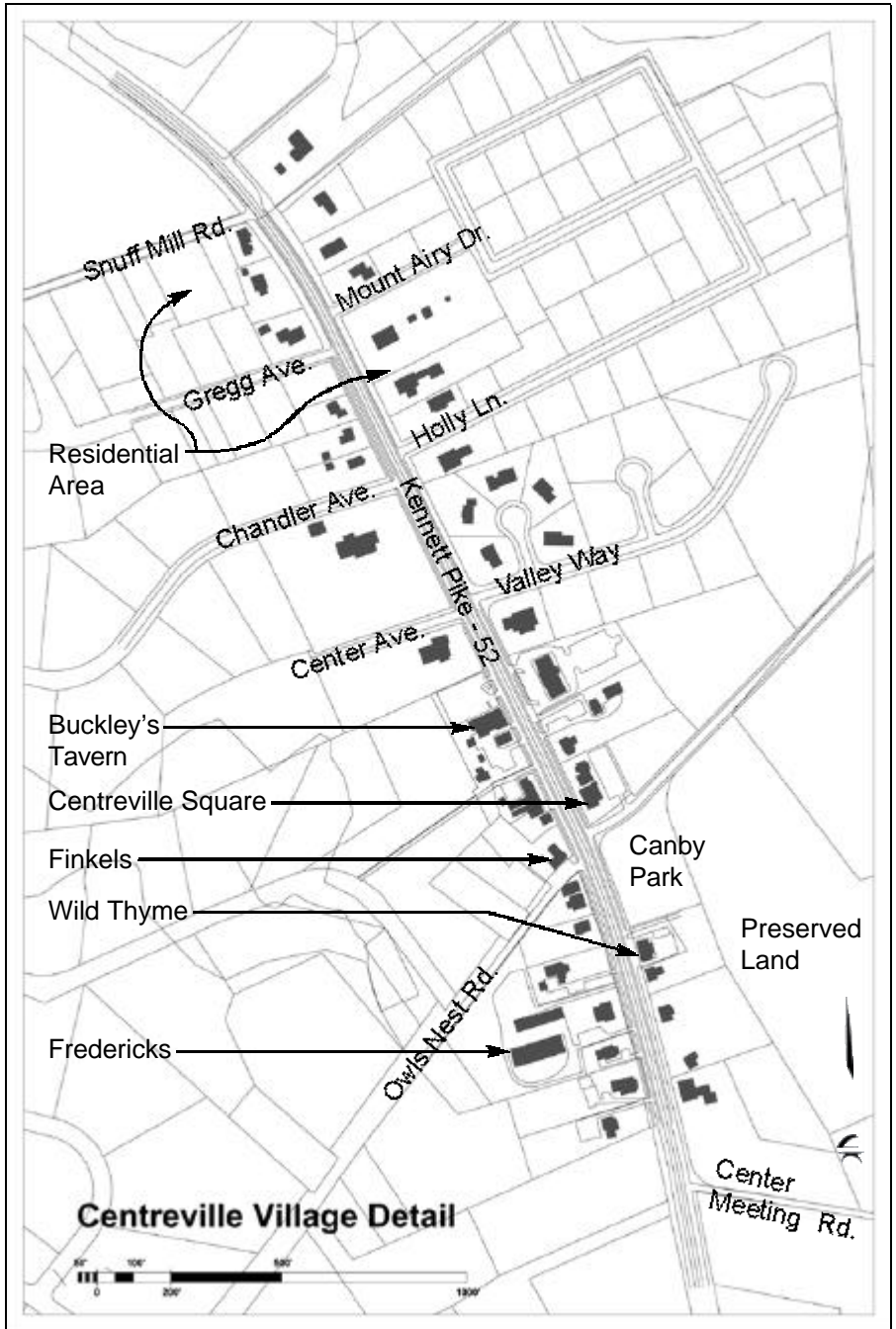


1E - Project Base Map

*Project Study Area*

**1.4 Centreville Area Base Map**

The above area base map was created for this planning study. A description of base mapping suggestions for future community master planning efforts is located in the appendix of this report.



1F

*Project Study Area*

**1.5 Centreville Village Base Map**

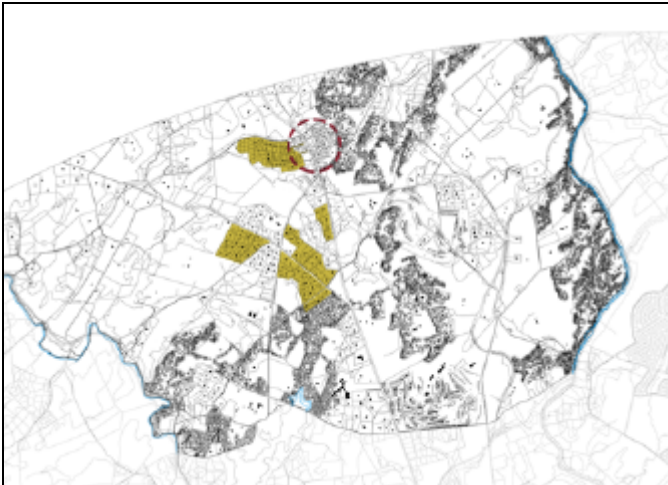
The above area base map was created for planning within Centreville Village. A description of base mapping suggestions for future community master planning efforts is located in the appendix of this report.



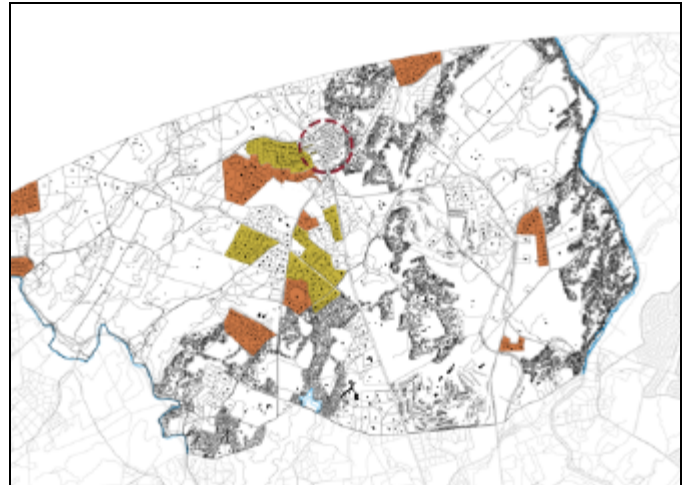
2A - Aerial View of Large Lot Subdivision Development



2B - Village, Farms & Subdivisions before 1968  
Village Circled in Red



2C - Subdivision Development 1969 - 1982 yellow

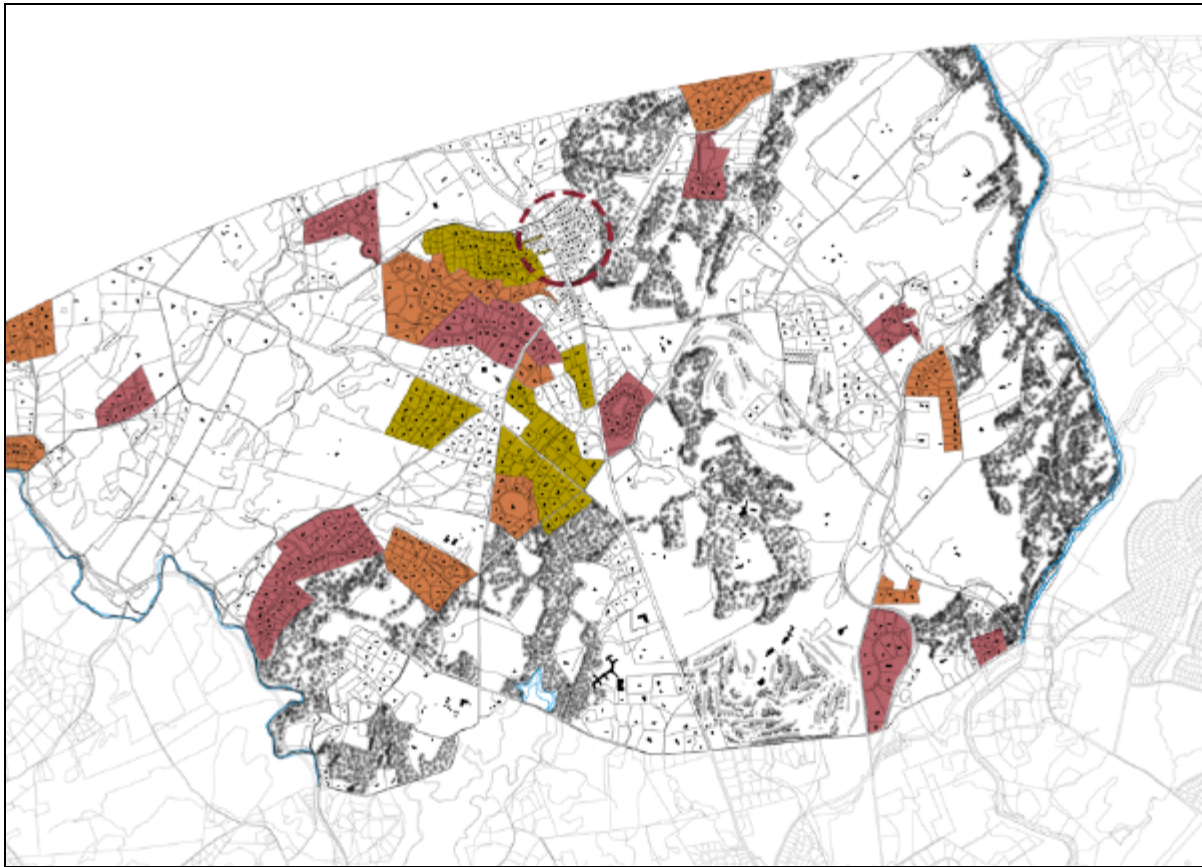


2D - Subdivision Development 1983 - 1993 orange

## 2.0 *Centreville Subdivision Development*

A significant amount of low density, single-family development has sprung-up around Centreville Village over the past three decades. This development has been alternatively accepted as a continuation of the national trend of developing open land in the countryside and this pattern of development has also been chastised as typical suburban sprawl eliminating the unique Centreville landscape.

Prior to formulating an opinion on the positives and negatives of this land development pattern, the project consultants undertook a mapping exercise to illustrate suburban land development patterns outside of Centreville Village. Subdivision development data since 1968 was compiled into a Time Series mapping collection which - for the first time - clearly illustrated a steady pattern of large lot suburban development and diminished open space (Figures 2B - 2E). The Time Series maps along with Chart 2F indicate that the continuous development of subdivisions over the past three decades has doubled the area population and eliminated over 20% of the remaining open lands.



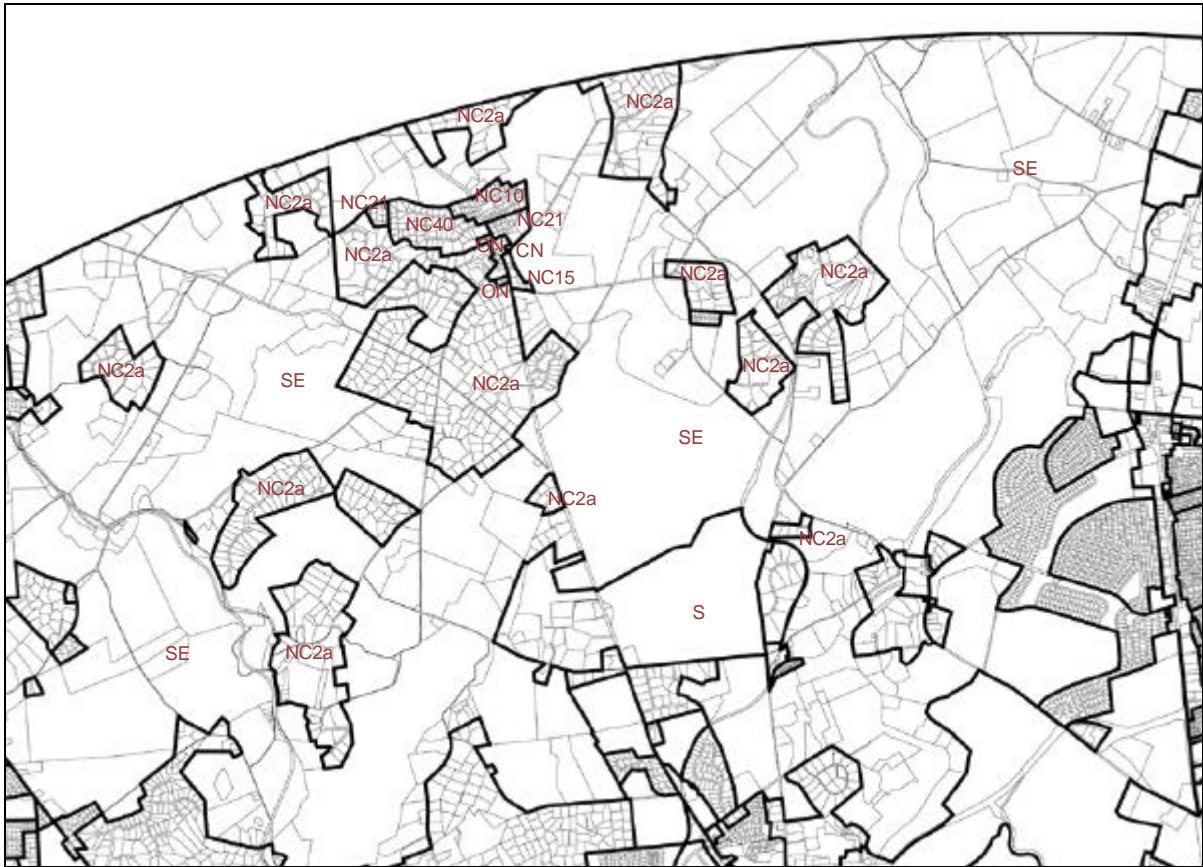
2E - Subdivision Development 1994 - 2000 red

**2F - Land Development Chart** (all numbers are approximate)

1. Centreville Village:		150du*	150 acres	1du / ac.
2. Centreville farm lots & subdivisions: Before 1968		350 du	685 ac.	1.96 du / ac.
3. Subdivision Development:				
1969 - 1982:	5 subdivisions:	140 du	276 ac.	1.97 du/ac.
1983 - 1993:	8 subdivisions:	190 du	411 ac.	2.16 du/ac.
1994 - 2000:	10 subdivisions:	180 du	451 ac.	2.5 du/ac.
Total Subdivision Development '69 - '00:		510 du	1,138 ac.	2.23 du/ac.

\* du = dwelling unit ac. = acre

Throughout the stakeholder meetings and the four-day design charrette, community opinion and comments were consistent regarding the Time Series map illustrations. Residents were generally surprised at the amount of private development that actually occurred outside of the village. Residents generally commented that they were aware of suburban development in the Centreville landscape but that they were not aware of the volume. In a large rural context like Centreville, suburban sprawl occurs over such a large area that, if not properly mapped and monitored, it can take over significant open space before the community can impement alternative land use policies. Participants did not support the continuation of this pattern of low density, car-oriented development. Preservation-minded citizens and village residents generally objected to continued sprawl. Similarly, even the residents of the large lot suburban homes did not desire to see the pattern continue. They generally feel that they purchased their home to be in the landscape and continued development diminishes the landscape.



2G - Current Land use Zoning Under the New Castle County Unified Development Code

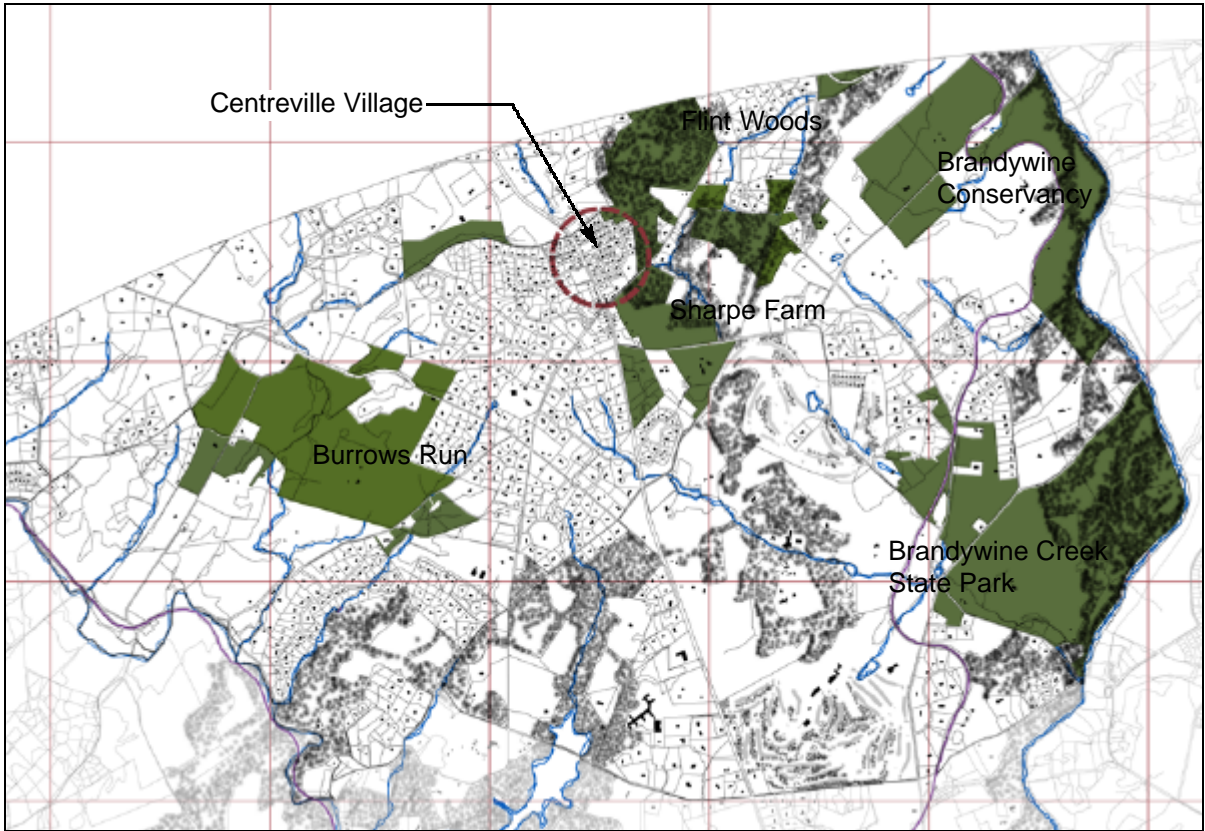
### *Centreville Subdivision Development*

#### **2.1 The Centreville Landscape and Current Zoning**

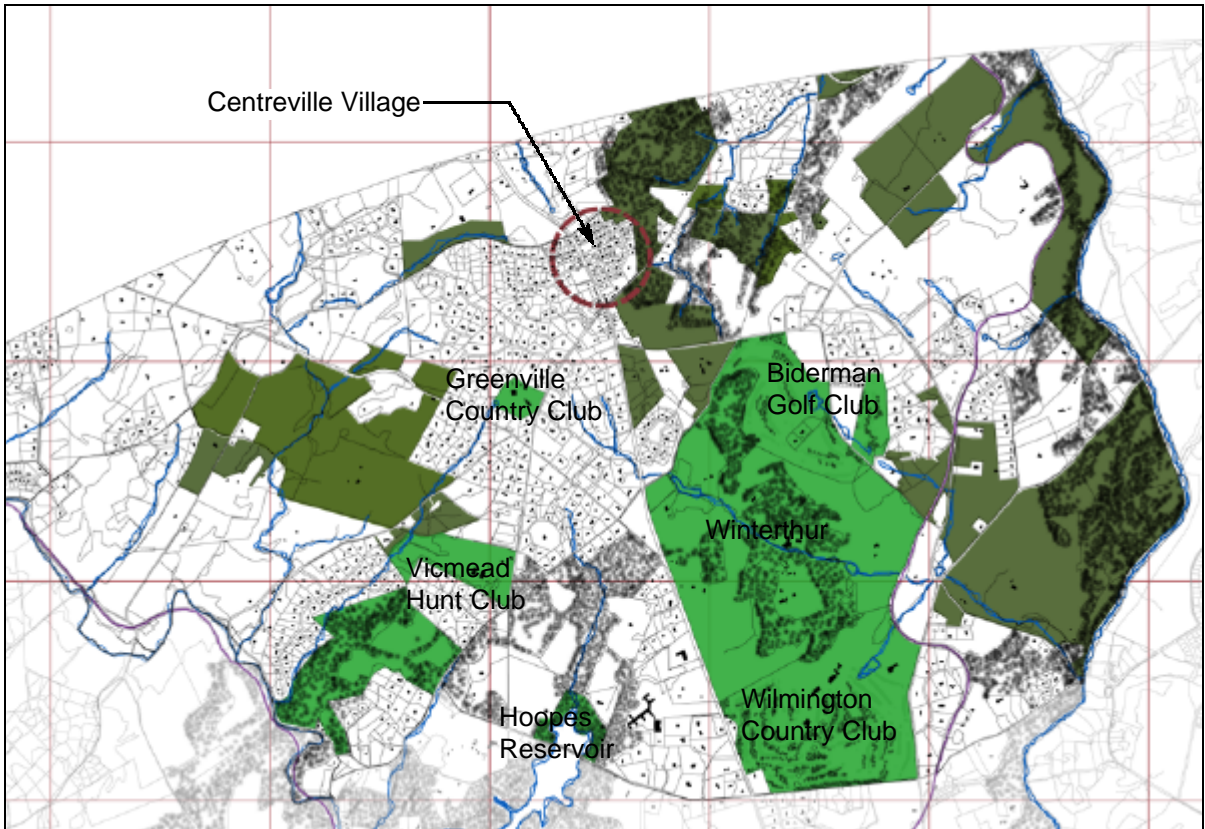
Subdivision development surrounding Centreville appears to be following a somewhat random pattern typical of a suburbanizing rural area. A review of the current zoning map illustrates that all land, even lands with permanent deed restrictions, are affixed with a real estate development designation. Most land surrounding Centreville Village is presently zoned SE - Suburban Estate with earlier, more dense subdivisions carrying a NC - Neighborhood Conservation zoning designation.

SE zoning permits 1 dwelling unit (du) per 2.44 acres. The permitted development density under SE closely reflects the area development pattern of 1 dwelling unit per acre since 1969. The term "Suburban Estate" is defined in the New Castle County Unified Development Code, Section 02.233-B as "The character of the area is intended to preserve a character that has long been established in northern New Castle County for single-family homes on large lots. SE or low density development is permitted under the UDC when proper infrastructure is not available to an area."

Development at 1 du. per 2.44 acres is often defined by land planning professionals as suburban sprawl. Suburban sprawl is low density, development that is generally viewed as negative because of its inefficient use of land, excessive infrastructure costs, car dependency and redundancy. It is recommended that Centreville Residents and NCC decision makers clearly address and decide whether development under SE and other zoning classifications in the Centreville landscape meet community land development and preservation goals.



3A - Lands in Permanent Preservation



3B -Lands Likely not to be Developed light green

Note: See Chart 4C for Acre Calculations





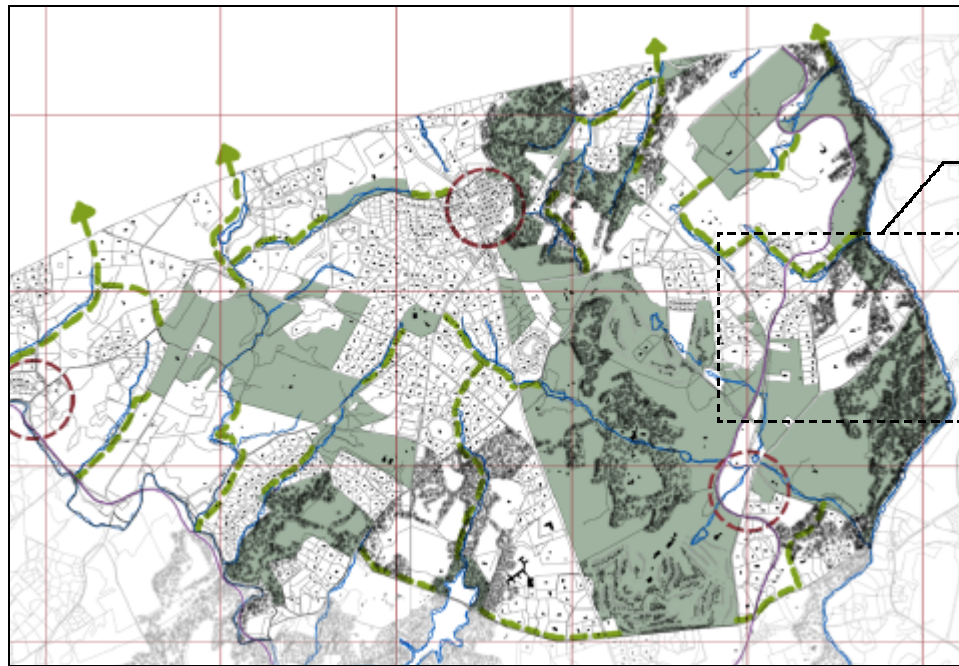
3C - An Unpreserved, Undeveloped Centreville Estate

### 3.0 *Centreville Open Space Preservation*

Resident concerns over the substantial and increasing amounts of suburban development were balanced, to some degree, by a similar exercise that researched and graphically illustrated the significant amount of open space preservation that has occurred surrounding Centreville Village. Like area real estate developers, many preservation-minded area residents, early-on, recognized the significance of the Centreville landscape and have organized into groups and have utilized a variety of methods to permanently deed restrict and preserve land. Within the study area, the Delaware Nature Society (DNS), Brandywine Conservancy (BC), Delaware Greenways (DG), New Castle County (NCC), the State of Delaware and others have championed efforts to permanently preserve open lands through outright purchase, conservation easements and deed restrictions.

Map 3A and Data Chart 4C illustrate approximately 1,175 acres in permanent preservation and map 3B illustrates an additional 1,309 acres of primarily golf clubs and parks that will likely not develop. Lands identified in as Lands Likely Not to be Developed generally have an underlying real estate designation and can develop given a change in conditions. It is recommended that the status of lands and intentions of landowners for lands designated as Likely Not to Develop is documented. It may also be appropriate for residents to work with landowners and preservation groups to pursue the permanent preservation of all or part of these critical lands.

Much of the land that has been preserved has been through the "low-keyed" yet aggressive efforts of civic minded landowners and a variety of environmental / preservation groups. While landowner privacy needs to be respected and efforts to date commended, preservation efforts appear independent from group to group and in conflict with the development basis of the UDC. For example, Figure 3A, which illustrates preserved open lands had to be assembled from a variety of sources and its accuracy is still questioned. It is recommended that a coordinated mapping and detailed data series of preserved open lands be established at a central source and it is further recommended that all mapping and data be user friendly and easily understood by non-professionals.



Plan Detail  
Figure 3E

3D - Greenway Connection Plan

### *Centreville Open Space Preservation*

#### 3.1 Create a Greenway Master Plan

Preservation efforts, while commendable, follow a random land use pattern, similar to subdivision developments. It is recommended that efforts underway by the DE Greenways to create an area Greenway continue. A Greenway Master Plan will suggest extensions beyond the boundaries of preserved land and connect parcels with trail and bike-way connections. Many of the preserved land parcels are traversed by streams, which provide the basis for possible linkages between properties. Waterways are often adjoined by lowlands, which may not develop and might be incorporated into a Greenway system.

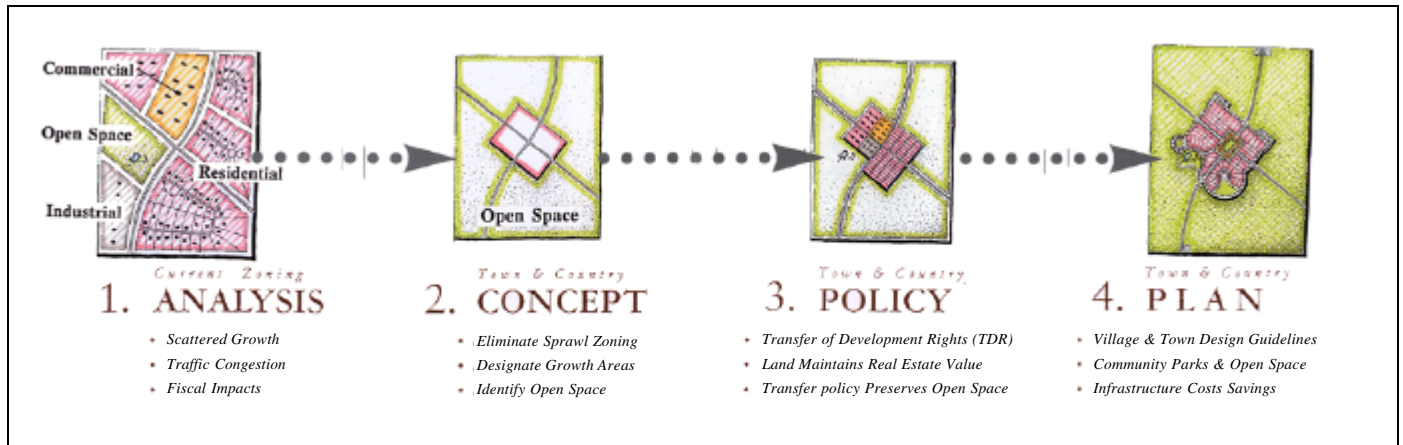


3E - Plan Detail

### *Centreville Open Space Preservation*

#### 3.2 Prioritize and Pursue Critical Lands for Preservation

The creation of a Greenway Master Plan will graphically illustrate lands that might add greater value to a Greenway system than if developed. Figure 3E - Plan Detail, for example identifies three land parcels (in yellow) that lie along the Brandywine Creek and between two permanently preserved parcels. Preservation of these parcels or a right-of-way connection to each preserved parcel would create a continuous Greenway connection for over 2.5 miles along the Brandywine.

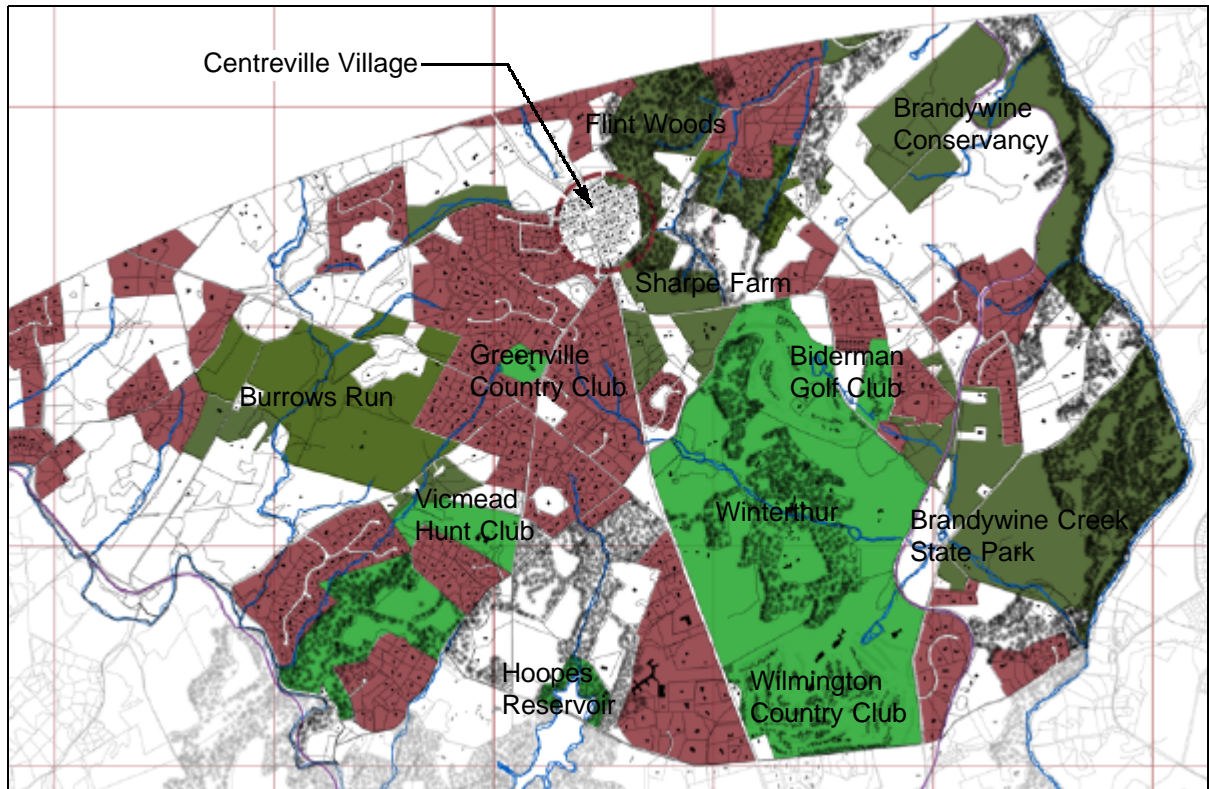


4A - A "Smart Growth" Planning Example: *The Town & Country Planning Model* (c. Angelo Alberto)

#### 4.0 *Concepts to Coordinate Future Development & Preservation*

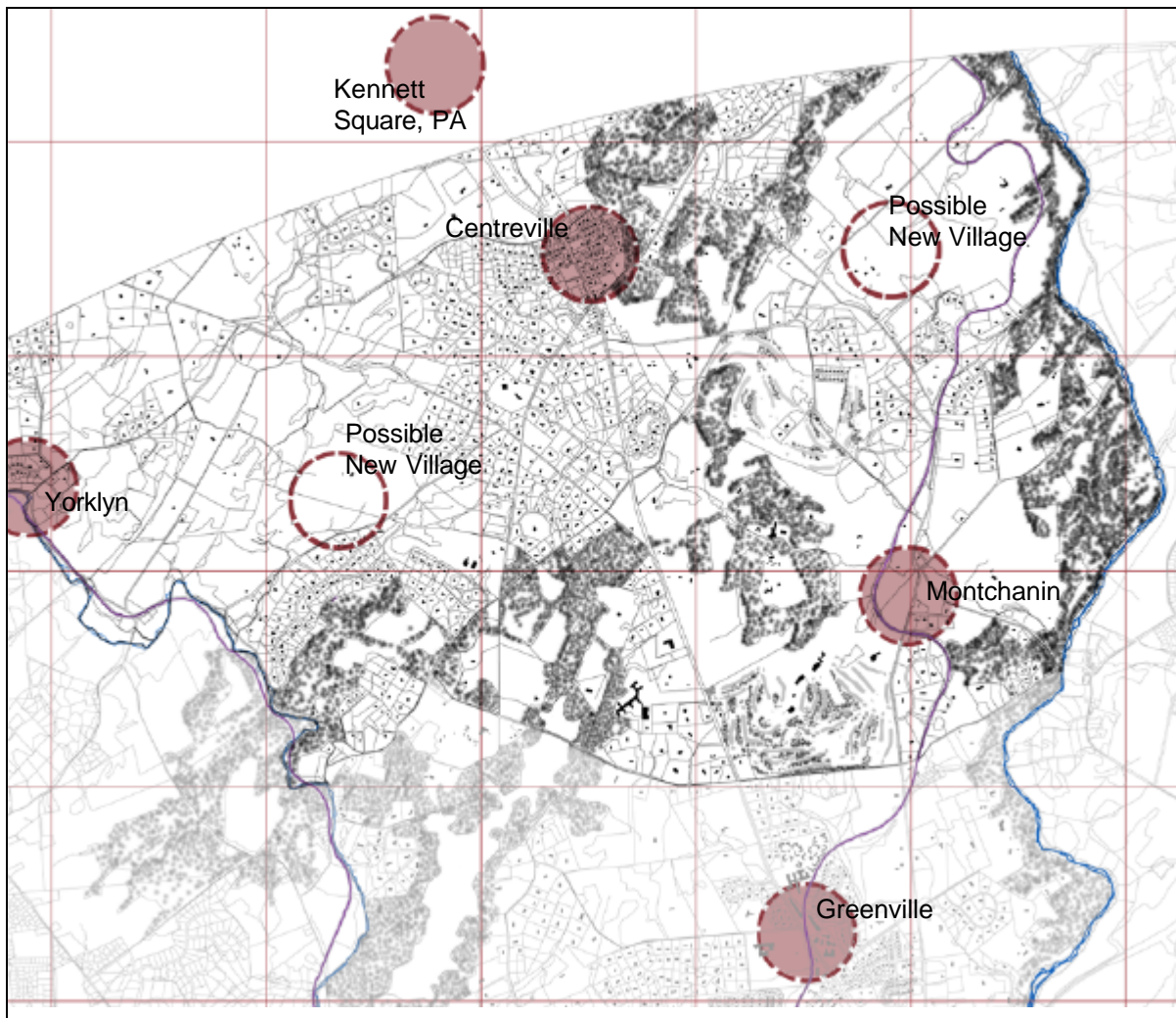
Map 4B and Chart 4C illustrate a composite mapping of development and preservation in the entire Study Area. The map summarizes in one drawing the delicate balance of large-scale subdivisions and preservation lands as well as the relatively small size of Centreville Village within the landscape. Approximately 50 percent of the study area remains undeveloped which, under SE zoning and minus undevelopable areas, can yield between 1,200 and 1,800 additional dwelling units to the existing 1,000-unit area. Under this current zoning scenario, all lands rendered in white on Map 4B would be rendered in red as subdivision development or, at best, preservation efforts will keep pace with subdivision development and 50 percent of the remaining open lands could be preserved and 50 percent developed.

Unless a viable, comprehensive alternative to current zoning is presented to the Centreville community and a pro-active implementation process ensues, the likely scenario for the Centreville landscape is to follow current zoning and continue the pattern of suburban sprawl on remaining open lands.



4B - Developed & Preserved Lands

4C - Land Allocation Chart (all numbers are approximate)			
Total Study Area			9091 acres
Developed Land red	Centreville Village Development before 1969 Subdivisions 1969 - 2001 (see detail chart sf) Roads (@10% of development)	90 acres 685 acres 1138 acres 191 acres	2,104 ac.
Preserved Land dark green	Burrows Run (DNS) Flint Woods (DNS) Conservation Easements (DNS, BC, State) Flint Woods State Nature Preserve (State of DE) Brandywine State Park (State of DE)	352 acres 37 acres 192 acres 136 acres 458 acres	1,175 ac.
Lands Likely Not to be Developed light green	Winterthur Wilmington Country Club Vicmead Hunt Club Greenville Country Club Biderman Golf Club Water bodies	653 acres 331 acres 68 acres 18 acres 180 acres 59 acres	1,309 ac.
Remaining Open Lands for Development or Preservation (white)			4,588 ac.



4D - Growth Centers Concept Plan

*Concepts to Coordinate Future Development & Preservation*

**4.1 Identify and Implement Smart Growth Planning Concepts**

A number of Smart Growth Planning concepts propose to replace low-density suburban sprawl with the traditional pattern of compact growth centers within the natural landscape. Following this concept, existing centers such as Centreville, Yorklyn, Kennett Square and possibly Montchanin (as suggested in Figure 4D) might be formally identified as centers of future growth. Similarly, new growth centers could be proposed within the landscape area to accept concentrated growth and avoid the trend of low-density development.

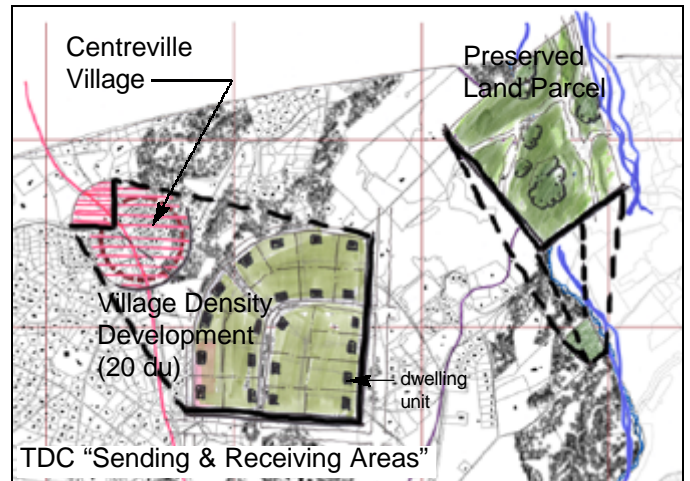
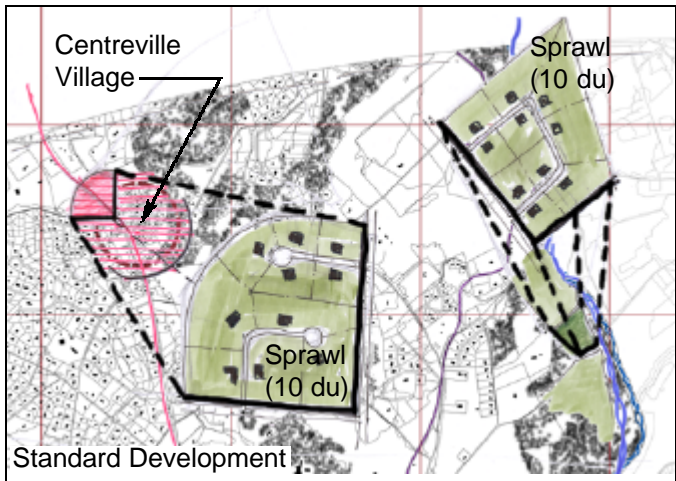
Future exploration of possible new growth centers as an alternative to suburban sprawl is recommended. It is further noted that growth center recognition and designation would have to go through a community acceptance process and proper infrastructure investment and implementation would be needed. This process has been well structured in neighboring New Jersey and is recommended for review.

*Concepts to Coordinate Future Development & Preservation*

**4.2 Preserve Lands Surrounding Growth Centers**

While few dispute the economic, environmental and quality-of-life benefits of Smart Growth land use concepts, many of the concepts are the inverse of over fifty years of zoning land use policy which has made acceptance difficult.

If it is suggested that growth is concentrated in specified centers than, logically, growth should be limited in lands outside growth centers. This approach is often viewed as a reduction in land values outside growth centers and frequently serves as the source of community resistance to change. A successful Smart Growth program requires that land equity policies for lands slated for preservation be enacted to elevate land values to or near the values of land slated for development.



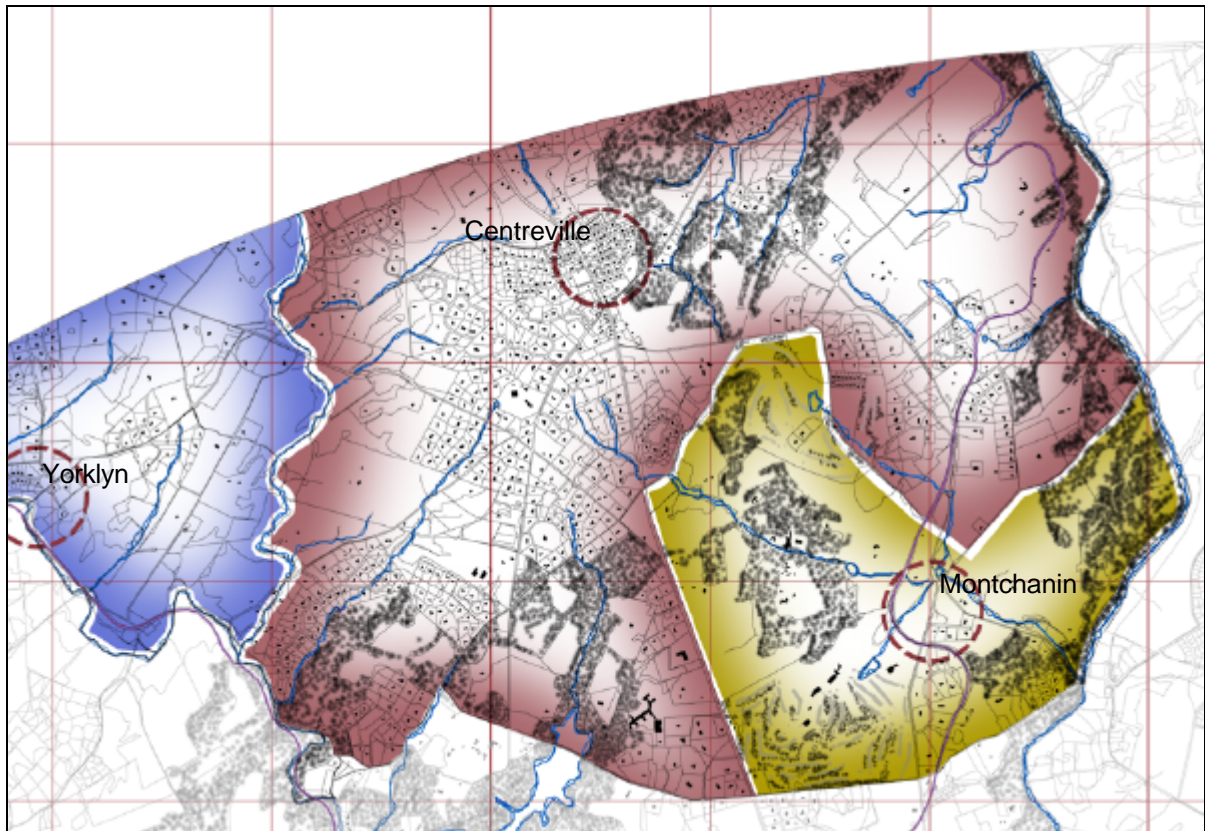
**4E - A Transfer of Development Rights Illustration:** The above land parcel along the Brandywine was recognized in Figure 3E as a possible Preservation Target Area and is here illustrated as a possible TDC "sending" area as a method to preserve the parcel. In the above sketches, a Centreville Village land parcel possibly suited for development is also included as a possible TDC "receiving" area. The above-left sketch illustrates how, both parcels will develop at current sprawl zoning densities. The above-right sketch illustrates the land parcel along the Brandywine as preserved by "transferring" the parcel's development credits to Centreville Village where the in-town land parcel develops at a more appropriate village density. (This concept for village development is further illustrated in Section 6.3 of this report.)

*Concepts to Coordinate Future Development & Preservation*

**4.3 Encourage Transfer of Development Rights (TDR)**

Current preservation programs can serve to preserve some land and it is suggested that a more proactive real estate-oriented land preservation approach such as Transfer of Development Rights (TDR) be encouraged. Article 7 of the New Castle County UDC outlines a TDR program.

Conceptually, TDR works by valuing developable land at a real estate development value. Development yields for individual land parcels are calculated to determine the number of "development rights" on that parcel. For example, a 10-acre land parcel zoned for one dwelling unit per acre might yield 10 dwelling units or 10 development rights under a TDR program. A development can increase its density by purchasing development rights from another land parcel. Once the development rights are purchased from a land parcel further development on that ground is prohibited or restricted.



4F - Concept Diagram for Centers with Corresponding Open Space

*Concepts to Coordinate Future Development & Preservation*

**4.4 Explore Manageable Growth & Preservation Areas**

Some experts contend that a key to implementing a successful TDR program lies in creating growth centers and corresponding preservation areas of a manageable size. TDR works best when landowners know each other and can readily access or see the results of a TDR program. Figure 4E is a concept suggestion for three TDC growth centers and three corresponding preservation or TDR sending areas. The location and ideal scale of such areas requires further exploration.



5A - Wild Thyme Flower Shop



5B - Village Character

## 5.0 *Centreville Village*

### 5.1 The Complexity of Contemporary Development in a Historic Center

Centreville and Delaware residents as well as visitors to the area hold Centreville Village in high regard and cherish the collection of well-placed, historic homes, shops and businesses. Many folks are also critical of and resist random subdivision and strip store development. This dissatisfaction with contemporary development is often heightened in an area like Centreville Village for fear that inappropriate development will detract from the existing Village. Dissatisfaction with contemporary development has led many historic villages like Centreville to resist nearly all growth proposals within the Village and attempts are often made to "freeze" historic villages in time.

Without careful planning, the Village may change in a way which diminishes its historic character. Conversely, numerous opportunities for strategic, high-quality infill development exist within Centreville Village. This opinion was consistently supported by a number of residents throughout the planning process.

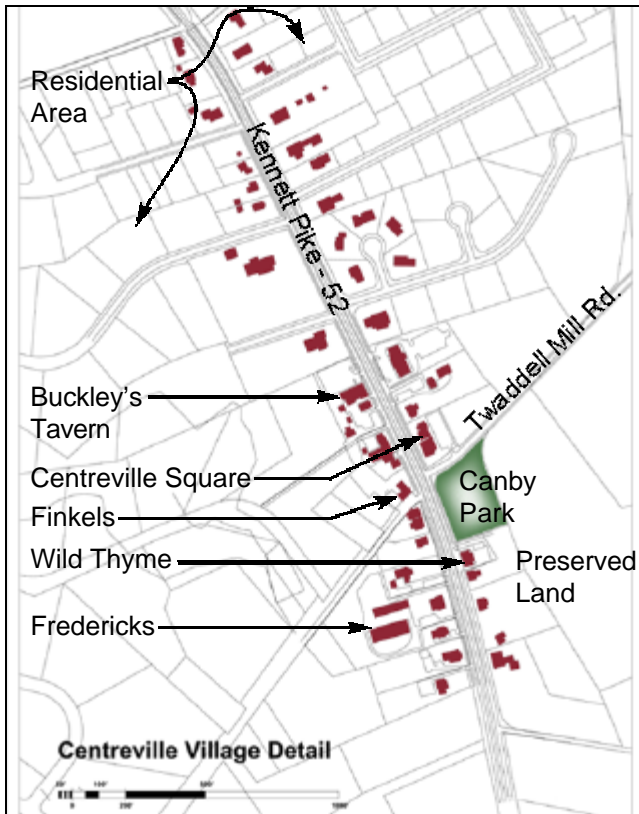
Sections 5 and 6 of this report propose a number of Master Plan development concepts for Centreville Village. Whether one supports growth in Centreville Village, opposes growth or is not sure whether to support or oppose Village growth, it is critical that the reader understands the background and intentions of the following proposals:

**Background:** Generally, community residents and public approval agencies have not *physically* planned their communities for the past forty or fifty years. With the advent of modern land use zoning, public agencies generally affix broad land development criteria to a land parcel and it is left to private developers to propose actual structures. This reactive approach to community development has led to several consistent problems with modern development in historic centers like Centreville: land development regulations are too general, they are suburban (low density, one story, etc.) in nature and they do not mandate that new development reflect the density, quality and character of the existing village. Until about 1990 the typical solution to this conflict was to resist all growth in most historic centers. Without detailing the many difficulties with the "freeze-in-time approach," land use professionals have sought alternatives.

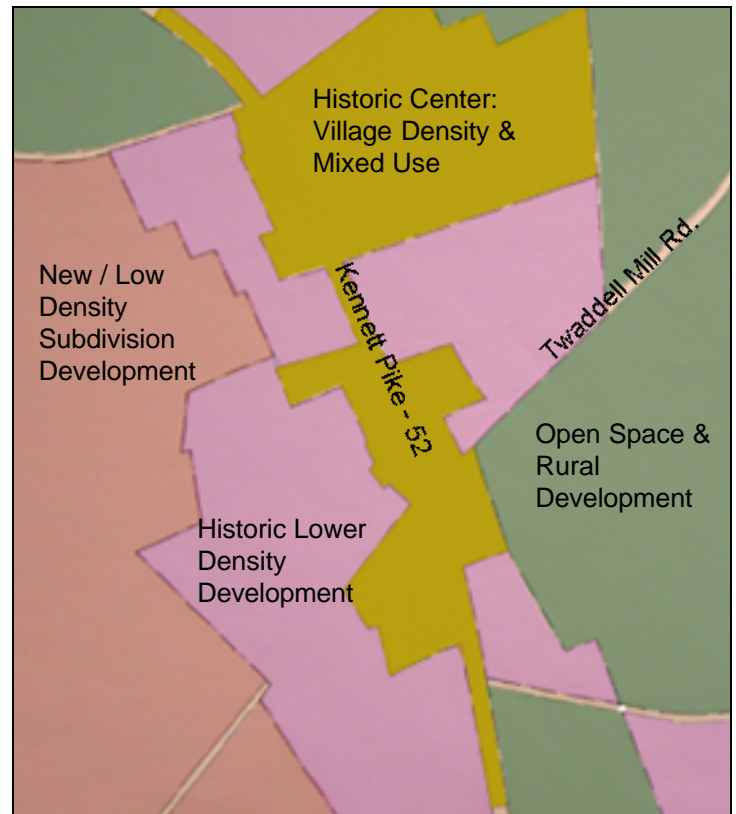
Within the past decade, an architect-led renaissance has occurred in community planning which, advocates development in historic centers and the creation of new, traditional centers. Stringent design guidelines aimed at creating new, high-quality structures have led to a number of construction successes that enhance the character of the community, increase the patronage of local shops and encourage the historic role of villages like Centreville as the civic and service centers of the area. Throughout the country, historic communities are embracing the concept of "infill development" and new compact, mixed use villages are springing-up as a much desired alternative to suburban sprawl.

**Growth in Centreville Village:** Centreville Village residents and New Castle County officials need to jointly determine whether growth or growth resistance is the preferred strategy for Centreville village. As the following analysis illustrates, growth in Centreville Village under current zoning is not recommended. The following analysis and Master Plan illustrations are provided to illustrate that an alternative approach to Village design is required for Village development proposals and that village-styled development is intended to compliment and enhance the existing Village.





5C - Existing Village



5D - Existing Village Diagram

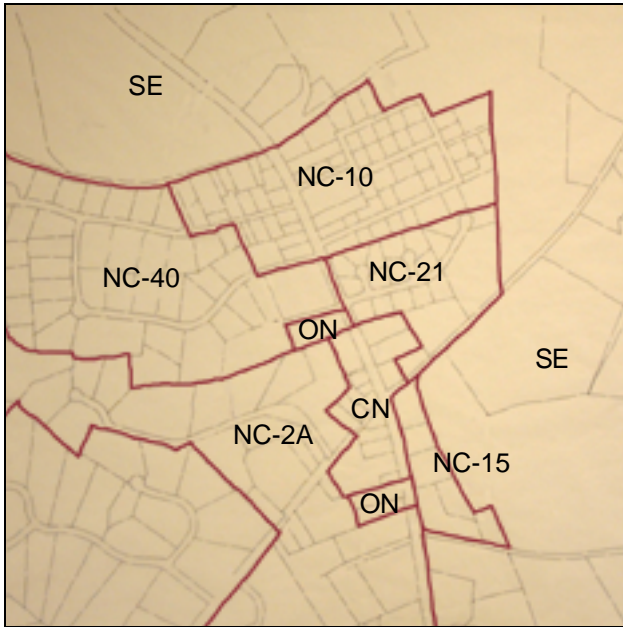
### *Centreville Village*

#### 5.2 Existing Village Analysis

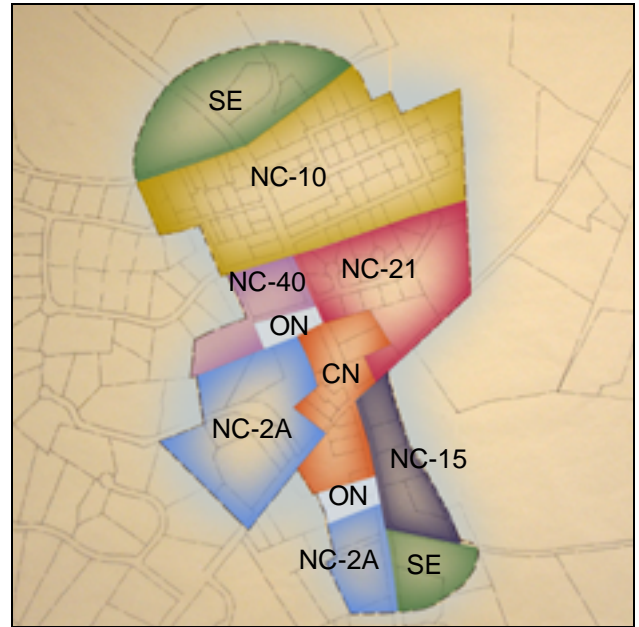
For analysis purposes, the above plan and diagram illustrate two contrasting ways of initially viewing Centreville Village. The Village Detail Plan was created by combining tax map, data, aerial photography and field measurements. The plan begins to represent the level of detail necessary to properly plan in historic areas. Historic areas are denser than suburban areas and planning proposals must take into consideration the surrounding context. The above map illustrates, property lines, street cartway widths, sidewalks, building foot prints and when fully developed should show landscaping, utilities, driveways and street furniture. The creation of the above base plan permitted the community to clearly see issues and permitted the planning consultants to carryout the following Master Plan analysis and concept proposals. Following the preparation of a proper base plan, New Castle County and Centreville residents can insert actual development proposals into the plan to determine their appropriateness (density, setback, adjacent relationships, etc.). Historically (and it is proposed for the future) a detailed and handsomely rendered Village Plan hung in the Village Hall and illustrated the character and growth of the community.

Contrasting the detailed Village Plan is a very basic existing village diagram (5D above right). This diagram initiated the Village Master Planning process by simplifying Centreville Village to its most basic components. The diagram attempts to find planning clues and "points of departure" that will either support no growth in the village or generate Master Planning concepts. The diagram illustrates that Centreville's village-scaled historic center is quite small and consists generally of the lots along the Kennett Pike. The village-scaled historic center was defined as that area displaying village planning principles such as a village density, mix of uses, small village-scaled lots, buildings close to the street and parking behind the buildings. Immediately behind "main street" is a layer of larger historic properties that were generally residential and larger scaled. Beyond this historic core are new, large-lot subdivisions and some remaining preserved or undeveloped open space.

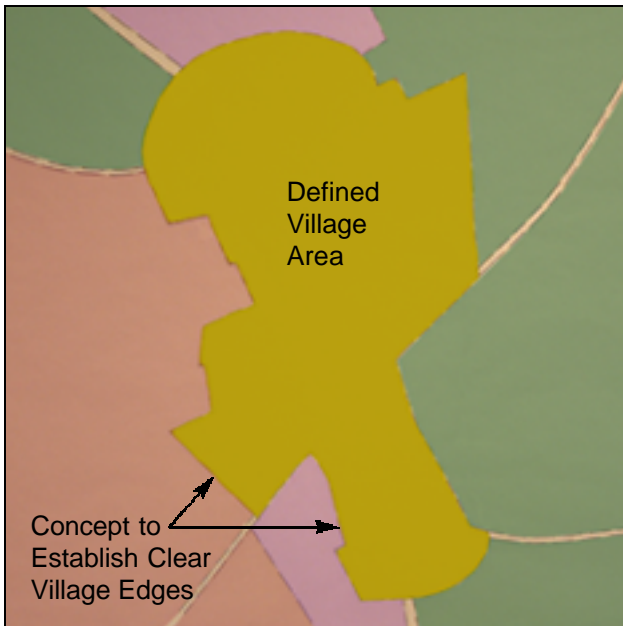
Historically, as villages grew, village-scaled development would continue beyond main street; larger residential parcels would subdivide and open spaces surrounding the Village would be incorporated into the village context. This approach may be valid today and is suggested for further exploration.



5E - Centreville Area - Current UDC Zoning



5F - Centreville Village - Current UDC Zoning



5G - Proposed Centreville Village Overlay

*Centreville Village*

**5.3 Current Village Zoning vs. A Traditional Village Overlay Zone**

The Current Village Area Zoning map above illustrates that there is little differentiation between the village core and the surrounding zones. Zoning designations in Centreville Village illustrate the difficulty in trying to apply the segregated concepts of zoning to a mixed-use historic village. All of the zones are, for the most part, after-the-fact boundaries surrounding existing development. The zones are small and fragmented and encourage neither the flexibility of use nor the consistency of architectural form that is necessary for acceptable village growth. The "NC" zoning designation, for example, responds to existing development but does not provide adequate flexibility for future village development, infrastructure implementation of a mix of uses.

Figure 5G is a conceptual attempt to define the Centreville Village area and Figure 5F and Chart 5H detail the UDC zones that fall in the suggested village area. The Defined Village Area is preliminary and conceptual but not arbitrary.

through an analysis of exiting uses, property lines and natural edges. "Hard" property lines separating older village development and the newer subdivisions to the west of the village, for example, were selected as well as the suggestion of imposing a new curved village edge on the north to "cap" development and keep the village from expanding further into the landscape.

It is recommended that Centreville Residents and NCC decision makers define a Village boundary, establish a Village zone and ordinances regulating development within the Village boundary and develop a method for expanding or reducing the Village boundary.

5H - Current UDC Village Zoning Summary Chart*			
ZONE	Definition - Permitted Uses	Bulk Coverage - Minimum Lot	Conflicts w/ Traditional Planning Principles
NC - Neighborhood Conservation	These districts protect the residential character of existing neighborhoods or planned subdivisions that were or are being developed under previous zoning regulations. These districts permit minor in-fill consistent with the existing character.	NC2a - 2 ac. min. NC40 - 40,000 sf. min. NC21 - 21,780 sf. min. NC15 - 15,000 sf. min. NC6.5 - 6,500 sf. min.  Between 25 - 50 ft. front yard setbacks	Excessive front , side, rear yard setbacks  Shared parking not permitted  Parking permitted in front  One story buildings permitted  Mixed building types prohibited (retail first floor, residential / office above)
CN - Commercial Neighborhood	This district has a suburban character. The scale and intensity of the development is regulated to ensure that uses primarily serve the surrounding residential neighborhoods.	Office - 20,000 sf. min. Retail - 20,000 sf. min. Other - 20,000 sf. min Mixed Use - 1 ac. min. Other - 1 ac. min.  15 ft. front yard setback min.	Excessive parking standards  Zones are fragmented  Buildings are not subject to architectural guidelines
ON - Office Neighborhood	This district is intended to provide for professional and administrative offices in a park-like setting whose character is suburban transition.	1 ac. min. lot  15 ft. front yard setback min.	Retail and office minimum sizes extend the small scale of existing shops and offices  Setbacks and height requirements do not require a relationship with existing neighborhood buildings
SE - Suburban Estate	This district is not serviced by sewer, and is not planned for sewer service in the future. The development pattern is planned for full buildout. The character of the area is intended to preserve a character that has long been established in northern New Castle County for single family homes on large lots.	2 ac. min. lot  50 - 300 ft. min. front yard setback	

\*refer to the New Castle County Unified Development Code for a complete definition of each zoning classification



5I - The new, traditional village of Kentlands, under construction, in Gaithersburg, MD



5J - A sensitive, new mixed use building in the historic village of Haddonfield, NJ

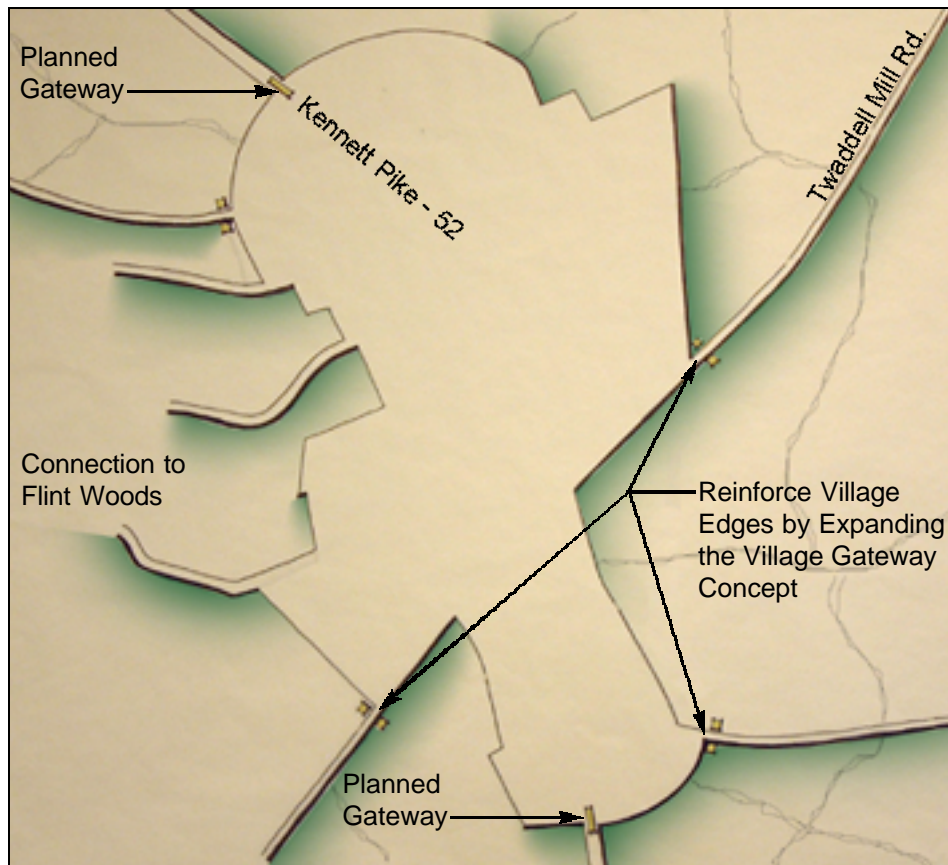
### *Centreville Village*

#### **5.4 Redefining Centreville Village Using Traditional Town Planning Principles**

Map 4B and Chart 4C illustrate that Centreville Village comprises only one percent of the overall Project Study Area yet this small Village has distinguished itself as a recognizable "place" within the area and it is the focus of much attention and discussion. This focus is due, in large part, to the powerful ability of well crafted villages to impart a lasting impression on residents and visitors alike. It is this power and sustainable character of traditional villages that communities are once again trying to capture in village planning projects throughout the country.

The application of traditional town planning principles (also called new urbanism, neo-traditional design, and smart growth) has proven a highly accepted alternative to standard zoning. Traditional town planning principles are not vague planning concepts but are objective planning criteria that can serve as the basis for Master Plan, design guidelines and ordinance revisions. In Centreville Village, Traditional Town Planning guidelines, principles and proposals were laid over the existing village framework to illustrate an alternative way of defining the village and in an attempt to outline future Master Plan, design guideline and ordinance revisions. The following principles and concepts in Section 6 were developed with Centreville residents during a three-day community design charrette in January 2001. **THE CONCEPTS ARE NOT ACTUAL LAND DEVELOPMENT PROPOSALS FOR CENTREVILLE.** They are instead a proactive illustration of what strategic, and sensitive Village infill may look like and an effort to promote ordinance revisions in Centreville Village and wider community acceptance of village infill.

Following the establishment of a village area, the overall village area as well as individual components can be analyzed from a traditional town planning perspective. Should the community decide they want to encourage improvements and development to make Centreville more village-like, a traditional town planning analysis will objectify issues and establish a direction for improvement. The following preliminary analysis of Centreville village revealed the following observations.



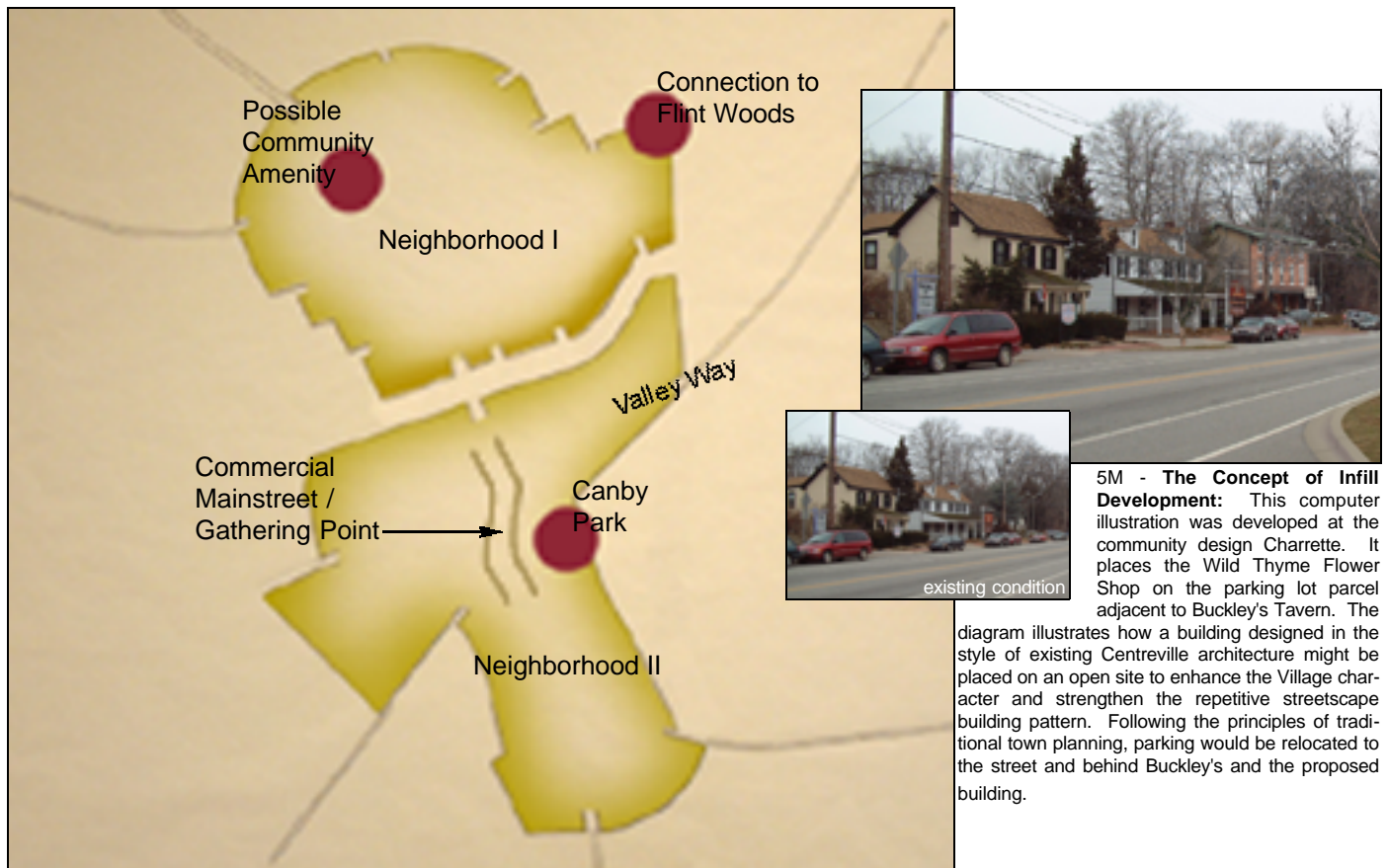
5K - Edge and Gateway Diagram

**Edge** (Figure 5K): With the establishment of a village area, the town planning concept of "edge" becomes very important. Edge serves as the threshold between the compact, mixed character of the village and the open or suburban lands beyond. The concept of edge can be highlighted through the encouragement of gateway elements such as presently planned at either end of the Kennett Pike. It is recommended that this gateway concept be expanded to the other roads leading into the Village.

**Village Scale:** The Defined Village Area is 150 acres. This scale is reflective of historic village centers such as New Castle and Odessa and provides a wonderful opportunity to have a direct pedestrian connection to the Village center as well as the Village edge and surrounding landscape. From an economic perspective, this scale is too small for the Village to sustain modern retail requirements which means Centreville retail establishments will continue to draw from outside the village to survive.

**Neighborhood Scale:** The neighborhood is the building block of traditional villages. Neighborhoods are defined by the area a pedestrian can comfortably cover in a 10-minute walk. This equates to a neighborhood diameter of about 2000' feet. Interestingly, the Defined Centreville Area of approximately 1,700' east/west and 4,300' north/south divides physically into two neighborhoods as suggested above in Figure 5L. Residents in the Centreville Design Charrette did acknowledge the great pedestrian distance between the proposed gateways and were interested in the two-neighborhood concept. It is recommended that this concept be explored to further define the Village.

**Walkability:** While the Defined Village Area has a walkable scale, detail improvements are required to encourage pedestrian activity. Improvements or Master Plan proposals for a comprehensive sidewalk network, street tree program, between-building pathways, pathway connections to the landscape and simply more street building density and streetscape experiences will improve the walkability of the Village. Walkable streets can be best created through modest investment and detailed planning to include proper density, architectural variety, building placement, landscape accents (such as street trees) and defined open space.



5L - Neighborhood Diagram

**5M - The Concept of Infill Development:** This computer illustration was developed at the community design Charrette. It places the Wild Thyme Flower Shop on the parking lot parcel adjacent to Buckley's Tavern. The diagram illustrates how a building designed in the style of existing Centreville architecture might be placed on an open site to enhance the Village character and strengthen the repetitive streetscape building pattern. Following the principles of traditional town planning, parking would be relocated to the street and behind Buckley's and the proposed building.

**Density:** Objection to "high density" development is the common argument that rural, suburban and some village residents make to resist development. High-density as well as low, and medium densities are rarely defined for the community and density is often less understood in village design. Charming Delaware villages such as Centreville, New Castle, and Lewis are actually quite dense compared to contemporary suburban development and it is this density combined with other town-making elements such as building variety, mix of uses and building placement that create desirable villages.

Properly defined, villages are neither high nor low density but generally have a gross density of between 4 and 8 units per acre. A survey of villages nationwide consistently reflect these medium densities and many are surprised to learn that classic historic main streets - the most desirable and walkable part of a community - can reach densities up to 20 units per acre.

Given these definitions, the current density for the Defined Centreville Village Area is very low. Within the Defined Village Area of 150 acres, there are approximately 150 buildings which yields a density of 1 unit per acre. With further community understanding of the benefits of village planning, through proper community presentation techniques, and careful planning, Centreville Village can accept a fairly substantial amount of village-styled growth. Most planning professionals and many village residents will argue that high quality, sensitive village growth will both improve and preserve the community, economists will further argue that growth will better support Centreville businesses, transportation experts will argue that mixed use village growth will reduce traffic and environmentalists will argue that village growth can serve to reduce development in the outlying landscape. However, because this superior approach requires wholesale land use policy changes and proactive public planning, residents who support Village growth should be fully prepared not to succeed without a comprehensive Master Plan process, community education program and ordinance revision process.

**Community Amenities:** The most rewarding and inexpensive amenity a village can create is a system of well-defined and walkable streets. If quality design standards are established and the community embraces quality growth, private investment will generally take on the expense of implementation. Following the establishment of a well defined Village framework or fabric, Village accents such as a small well-defined park (Canby Grove Park), well-placed civic structures (a library was suggested in the Centreville Design Charrette), monuments (such as the gateways) and detail elements such as street trees, lighting and consistent signage will all add to the character of the community.



5N,O - Illustration of a Kennett Pike Residence Expanding to a Two-Story Structure

### *Centreville Village*

#### **5.5 Suggested Design Standards, Design Guidelines and Ordinance Revisions**

Historic Centreville Village developed before the advent of modern zoning. The tenets of modern zoning are, for the most part, the inverse of traditional town planning principles and trying to control Village development with the heavy-handed, engineering principles of modern zoning does not work. Design Guidelines not only help to assure quality Village development but they also inform perspective developers of the community quality expectations.

The following is an outline of areas where design guidelines and ordinance revisions should focus. Note that some of these standards and guidelines are suggested in various sections of the New Castle County Unified Development Code and it is suggested a concise set of standards and guidelines be organized to specifically address Centreville Village.

**Village Master Plan:** The village Master Plan should be the primary device controlling village development. This important Village Standard is detailed in Section 6.0.

**Land Development Submissions:** Following the community adoption of a Village Master Plan, guidelines should be developed that require all individual development submission to be submitted in a manner that illustrates their relationship with the surrounding Village. Elements such as street, landscape, sidewalk and architectural relationships with the surrounding context should be required to assure Village continuity and uniformity.

**Historic District Certification:** It is suggested that Centreville Village explore State and Federal criteria for official Historic District Certification. Certification is one of the few enforceable tools that exists and requires developers to follow quality architectural standards. Likewise, the National Trust for Historic Preservation has moved away from its policy of "freezing" historic areas in time and has adopted a policy encouraging the controlled, strategic growth and improvement of historic centers.

**Precedents:** It is recommended that development proposals be based on existing Centreville architectural styles and surrounding architectural precedents. Development submissions within the village should include a minimum of three photo examples of similar buildings or details.

**Land Use:** Develop and implement guidelines that encourage a mix of uses within the Village and guidelines that encourage the vertical mix of individual buildings such as ground-floor shops with offices or residential above.

**Architectural Design & Materials:** Research architectural guidelines for historic centers and adapt them to Centreville Village.

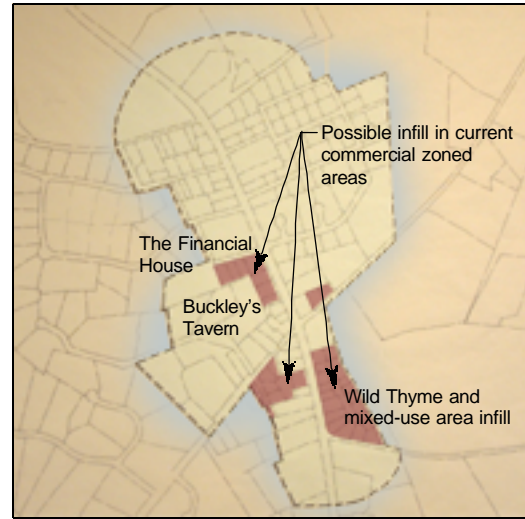
**Lot Sizes, Bulk Coverage and Infill Development:** Establish Village densities consistent with the architectural character of buildings along the Kennett Pike and permit the subdivision and infill of new buildings on lots that exceed the recommended Village densities.

**Streets:** See Section 7.0

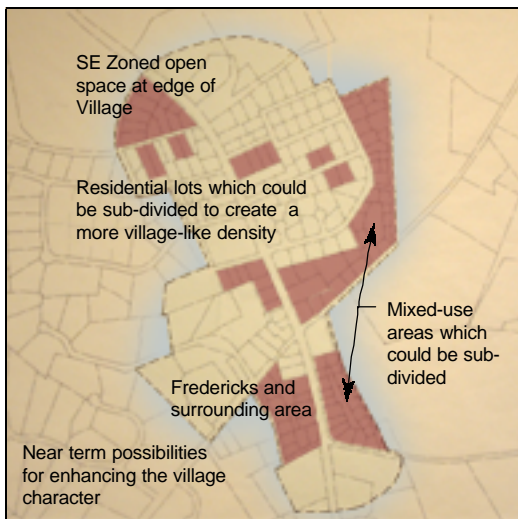
**Parking:** Encourage on-street and shared parking. Reduce current UDC parking requirements and require that all new parking lots be behind buildings.



6A - Phase I



6B - Phase II



6C - Phase III



6D - Phase IV

**Setbacks:** Encourage narrow building front yard setbacks similar to building presently lining the Kennett Pike.

**Wastewater Treatment Issues and Concepts:** Village densities are restricted in Centreville because a wastewater facility or sewer service does not presently exist in the area. Community wastewater systems would need to be researched and a community system would need to be implemented for any substantial growth within the village.

## 6.0 *Concepts for a Phased Village Master Plan*

### **Design and Implement a Phased Village Master Plan**

A sound village Master Plan is based on specific physical design proposals while most standard, suburban land use ordinances are rooted in general, text-based language. A text approach not only does not accommodate village design but is largely blamed for the public's lack of understanding and support for village growth as well as dissatisfaction with most new village development.

Regarding development within Centreville village, resident comments ranged from objections to full support for sensitive growth within the Village area. The most common comments supporting modest Village growth were a desire for a well designed convenience store, a coffee shop, a farm market, apartments and offices above shops and a library. The community consistently said they did not desire regional elements such as a large grocery store.

The preceding village diagrams and following proposals are conceptual and serve as an initial community illustration of the possibilities for infill development within Centreville. The products of this report can serve to illustrate the benefits and advance the development and adoption of a Master Plan process for Centreville and other unincorporated New Castle County Villages.





6E



6F - Canby Park Improvement Concepts

*Concept for a Phased Village Master Plan*

**6.1 Village Master Plan Concept I: Canby Grove Park**

Canby Park lies in the heart of Centreville Village at the intersection of the Kennett Pike and Twaddle Mill Road. The location, small scale, and configuration of the park combined with the mature trees within the park are indicative of a classic village green. Centreville residents generally described the park as a Fourth of July gathering place and pointed out that the park was underused throughout the remaining year. Most successful village greens are surrounded by buildings, which both activate the space and protect the space through the unconscious and conscious community policing of residents in homes overlooking the park. Charrette participants agreed that perhaps Canby Park improvements and sensitive infill development around the park would serve as a meaningful initial or catalyst illustration for the Centreville residents.

The above sketch suggests a new residence, a coffee shop and a library behind Wild Thyme as well as new structures behind Centreville Square and two infill houses along the Kennett Pike. The drawing illustrates that the infill development does not suggest high density but a continuation of the Village density and building adjacencies that exist along the Kennett Pike. Through the placement of new buildings, parking is concealed behind buildings. The sketch further suggests an open-air farm market arcade between Canby Park and the preserved Sharp Farm. Other features of this sketch include a concept for a traffic calming roundabout at the intersection, a new local relief road behind the park and park improvements such as gazebo elements.

This simple sketch illustrates the richness of well-crafted compact village infill. With community support, within a three acre area, a mix of shops, open space, residences and civic element could all be knitted together. A long discussion also ensued at the charrette regarding the preserved farm behind Canby Park. All involved expressed their appreciation for preservation efforts yet believed that the land behind Canby Park could have served as an appropriate place for possible village expansion. The group generally agreed that this situation illustrates the need for a comprehensive Master Plan that addresses both development and preservation issues together.



6G - Canby Park Market Arcade & New Shop



6H - Frederick's Country Center Site Concept

*Concept for a Phased Village Master Plan*

**6.2 Village Master Plan Concept II:**

**The Fredericks Country Center Site**

Frederick's Country Center is comprised of a pleasant mix of retail shops. Planning consultants were asked to illustrate how a fairly large village site like Frederick's might redevelop should the site change over time. The bulk of retail shops lie in the middle of the site in a modest two-story frame structure and parking surrounds the site and is visible from Owls Nest Road. The sketch above suggests that the site could be designed so that bulk parking is hidden in the site interior and new structures line Owls Nest Road and define the site edge. A new road off of Owls Nest Road would access the new structures (homes, shops or offices) and possibly tie into a future local relief road system (see Section 6.4)



6I - Existing



6J - Subdivided Site



6K - Existing



6L

New Village Gateway Location

Proposed Lands For Preservation

New Village Edge Greenway Network



6M - Village-Styled Homes Creating a Clear Village Edge

*Concept for a Phased Village Master Plan*

**6.3 Village Master Plan Concept III: Housing Infill at the North Village Edge**

Time Series Map 2E illustrates that the entire western open space edge of Centreville Village has recently been eliminated and replaced by large lot suburban homes. This development pattern has no relationship with the Historic Village and eliminated the historic relationship of Centreville Village and the surrounding landscape. This presently is not the case on the north edge of town where three or four large underdeveloped land parcels remain. Given typical contemporary dissatisfaction with suburban sprawl and no viable development alternative, the initial community desire for these lands will likely be to resist all development and pursue the preservation of these lands. Given the development potential and current zoning of these lands, from a private perspective, these lands may be subdivided for development.

When this situation was analyzed in the design charrette an alternative solution was suggested. The north edge of town has no clear village edge or "threshold" separating the landscape from the village and the proposed Gateway for Centreville is sited purely in the landscape. The above sketch suggests extending village housing to the new gateway and creating a clear village edge. This suggested siting of appropriate village development has several potential benefits to the community and landscape: locating development adjacent to the new gateway will enhance the visual "threshold" into the village and serve as an additional traffic calming device for Village visitors; a trail and possible local relief road can follow the Village edge creating a unique view and possibly provide a transportation alternative to the Kennett Pike; premium homes can be developed at the Village edge and have an uninterrupted view of proposed preserved land; new housing in Centreville Village will activate the Village and support local businesses; village development with preservation may reduce further development of the landscape; this site may serve as a TDR receiving area as described in Section 4.3.



6N - Concept for a Civic Amenity in the Proposed Residential Neighborhood

## 7.1 Kennett Pike Background: Form and Function



7A - Kennett Pike Route and Context

Delaware Route 52--known locally as Kennett Pike--transitions from an urban arterial in the City of Wilmington to a two-lane rural highway north of Greenville as it approaches the Pennsylvania state line. Along the way, it passes through two historic communities: Greenville and Centreville. Over the years, Greenville's original character has been supplanted by conventional suburban strip development, partly contributing to the need to convert Kennett Pike to a four-lane highway through the community. Conversely, Centreville's town center still retains its original character and has not yet attracted the strip development that has encompassed Greenville. This integrated transportation and urban design "vision" plan is a key step in preserving the valued character of the historic 250-year-old Centreville community.



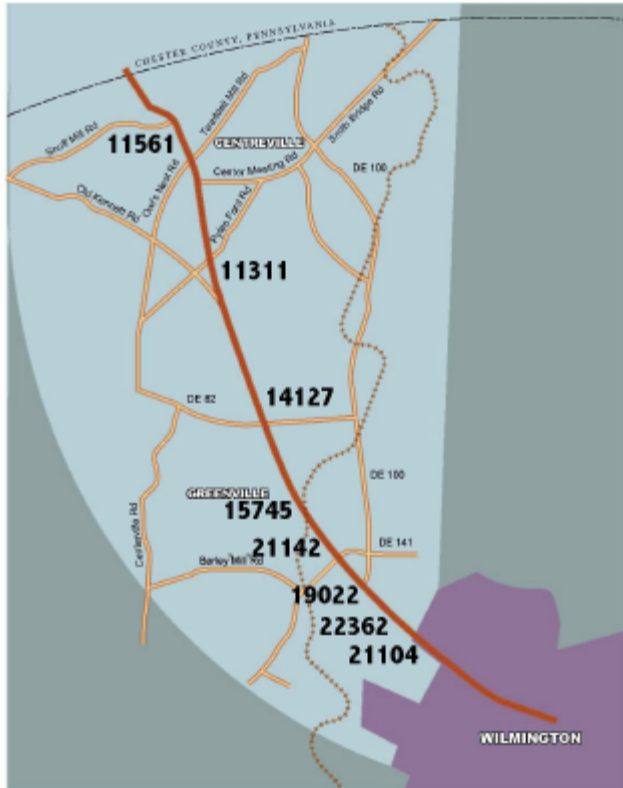
7B - Kennett Pike "Rural" Section

From just north of Greenville to the state line, Kennett Pike exhibits a two-lane rural section posted in most areas for 50 mph. Through the Village, the posted speed is reduced to 35 mph and curbs are added, but the general section dimensions do not change. Based on the feedback received at stakeholder interviews, most motorists do not appear to be respecting the 35 mph speed limit and are instead continuing to travel at a faster rate through town (the 85<sup>th</sup> percentile speed through this section is 45 mph). Although strong enforcement is sometimes very effective (as in the nearby town of Elsmere), variations in the design of the roadway section to reflect the change in speed limit (to be explored in this report) also represent an opportunity to affect travel behavior.



7C - Kennett Pike "Village" Section

Route 52 is designated a principal arterial and plays a large role in carrying commuters and commercial traffic from Chester County PA to multiple employment centers in the Wilmington area. Average Annual Daily Traffic (AADT, 1999)--which represents the number of vehicles traveling the roadway in both directions on a typical day--is approximately 21,000 at the Wilmington city limits and remains near 20,000 to Greenville. Further north, traffic figures begin to tail off, to approximately 15,000 AADT between Buck Road (Road 265) and Delaware Rt. 82, then dropping to less than 12,000 between Old Kennett Road (Road 243) through Centreville to the Pennsylvania state line.



7D - Kennett Pike Average Daily Traffic (Source: DelDOT)

Kennett Pike originated as a toll road with the primary role of carrying commuters and commercial traffic between Chester County and the City of Wilmington. These demands on the roadway still exist today. A successful traffic calming plan for Kennett Pike would respond to the concerns of residents and business owners along the route while not precluding the roadway from continuing to serve its historic and ongoing function. This entails both implementing design techniques that control the speeds of motorists and protect pedestrians, as well as providing viable alternatives to automobile travel that could reduce the vehicular demand on the corridor.

Many residents also expressed concern about the operations of several intersections along the route, specifically:

- a. Kennett Pike and Snuff Mill Road
- b. Kennett Pike/Twaddell Mill Road/Owls Nest Road
- c. Kennett Pike and Center Meeting Road

These intersections are discussed in detail in [Section 7.3](#).

## 7.2 Kennett Pike Village Section: Issues and Concepts

Residents and business owners have expressed numerous specific concerns regarding traffic operations and pedestrian safety along the main stretch of Kennett Pike through Centreville Village, particularly:

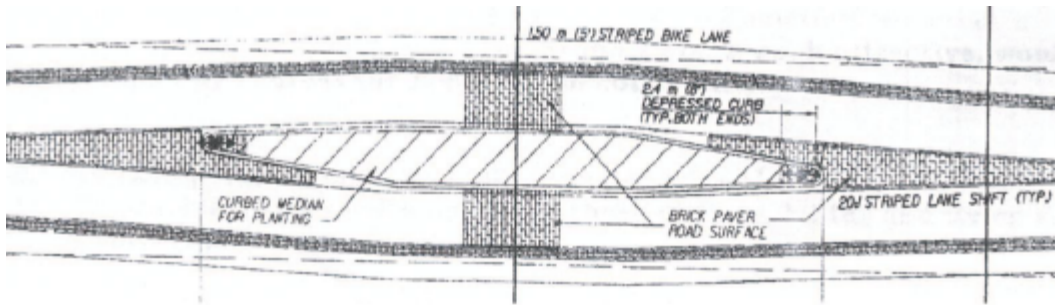
- a. **Traffic Speed:** The posted 35 mph speed limit does not successfully offset the highway-like design parameters of the roadway, despite efforts at enforcement.
- b. **Traffic Volume:** A steady stream of traffic travels through the Village during the peak periods, often causing delays on intersecting side streets.
- c. **Sporadic Traffic Movements:** The prevalent practice of passing left-turning vehicles on the right in the bicycle lanes creates a notable safety hazard for motorists, pedestrians, and bicyclists nearly unanimously expressed by each of the interviewed stakeholders.
- d. **Pedestrian Discomfort:** The high speeds, lack of defined slow points for crossings, and haphazard traffic movements limit the attractiveness of the Village as a pedestrian center.

Individual comment summary forms from study participants are included in **Appendix A**.



7E - Oft-Violated Traffic Regulation

The community's gateway project--which entails the installation of a landscaped median as illustrated in **Figure 6** at either end of the Village--is a step in the right direction with regards to "segmenting" Kennett Pike into distinguishable speed zones, in effect "enclosing" the Village section of the roadway. Ensuring the appropriate behavior of traffic between these gateways is a major focus of this study, to the degree that pedestrian, bicycle, and local traffic circulation goals can be met. On-street and off-street parking options are also directly affected by the traffic flow characteristics along Kennett Pike. The gateway project has been a joint effort among DelDOT, WILMAPCO, and the Centreville Civic Association.



7F - "Gateway" Preliminary Design

With traffic calming elements in place at the village gateways, it is important to extend the slower-speed image of Kennett Pike through the Village. The present cross-sectional characteristics of Kennett Pike through Centreville Village are indiscernible from those of the rural segments on either side, offering little incentive for slower travel besides fear of a speeding ticket.



7G - Existing Kennett Pike Village Section

With the village framed at the intersections with traffic calming elements, which are included (in varying degrees) in each of the proposed intersection reconfigurations, bulb-outs along the Village segment would help narrow the perception of the roadway through town and hence differentiate it from the rural stretches to the north and south. The effect of these bulb-outs, as shown in **Figure 8**, would be to add a permanent element to the parallel parking lane, thus ensuring a continuous narrowing presence along the roadway. These bulb-outs could be landscaped with street trees to further enhance the effect of narrowness and enclosure.





7H - Kennett Pike with Bulb-outs and Trees

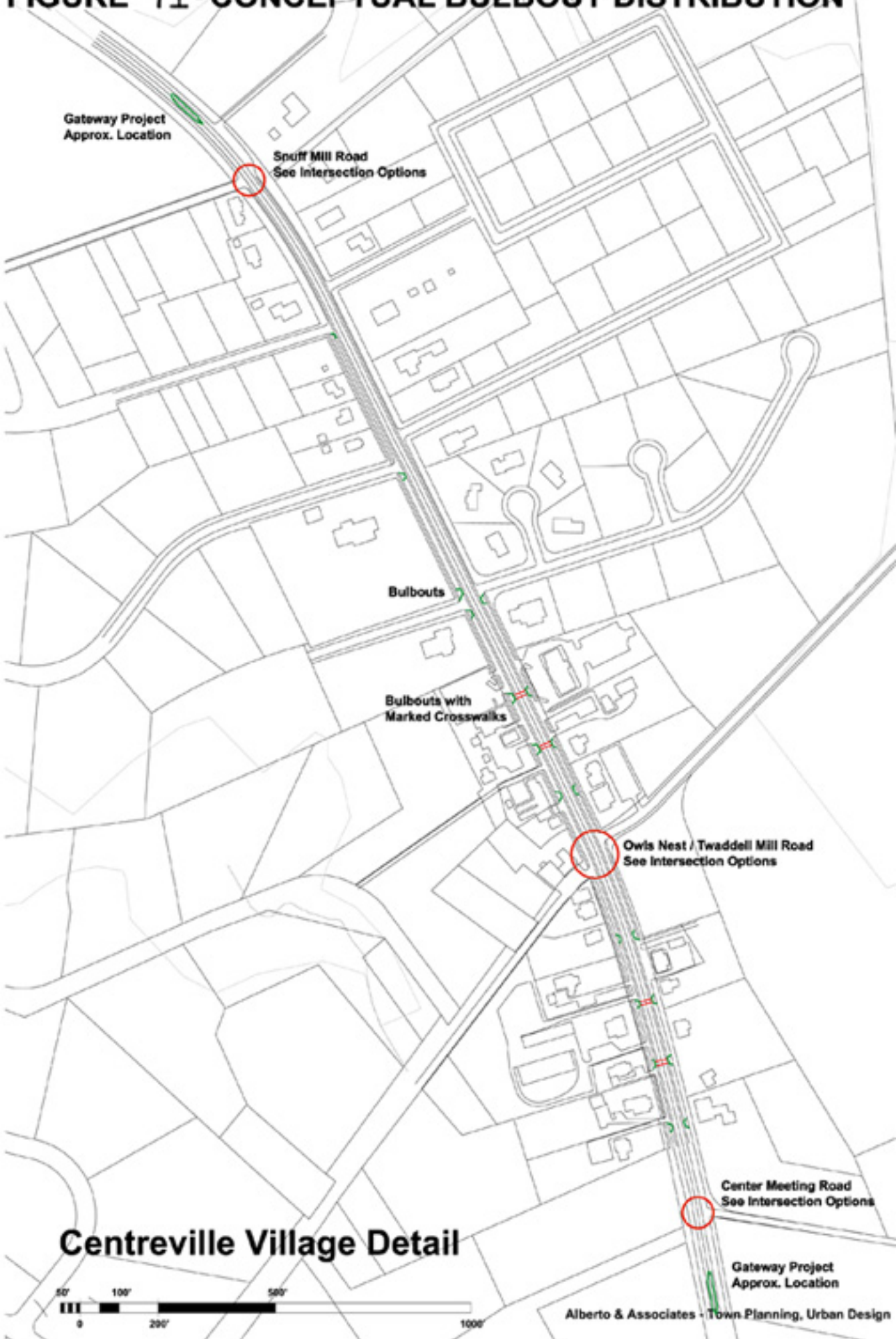
This concept for the gateway-to-gateway length of the village is illustrated in **Figure 9**. The non-monetary cost of bulb-outs is a loss of parking, which could be replaced in other locations, such as in shared back-of-property off-street lots consistent with the Village plan. The approximate number of on-street parking spaces that would be lost with the bulbout distribution as illustrated in **Figure 9** would be 14 to 16 spaces, plus those lost due to main intersection modifications (see **Section 7.3**). Concepts for replacing these spaces in shared back-of-property lots are illustrated in the **Land Use and Urban Design** section of the report.

Pedestrian and bicycle safety issues are paramount in this section of Kennett Pike. The benefits to these users of the traffic calming concept presented here are the following:

- a. Bulb-outs with landscaping would add "enclosure" to the roadway by reducing the overall effective paved width and introducing a vertical element to the edges of the streets. This also makes the Village section distinctly different than the rural section, all of which would help to reduce the prevailing speed of traffic through the Village.
- b. The bulb-outs would add a permanent element to the shoulder, eliminating the freedom for motorists to pass turning vehicles at high speed on the right, which would help to protect both bicyclists and pedestrians.
- c. The bulb-outs would create a clear separation and, in some locations, a tangible permanent buffer between the travel lanes and the sidewalks.
- d. In conjunction with designated crossing locations, bulb-outs would reduce the paved area to be traversed by pedestrians crossing Kennett Pike (by the width of the two shoulders). They also make the crossing more manageable by slowing traffic speeds and eliminating high speed passing maneuvers on the right.
- e. The bicycle lane would continue in its present configuration, not intruded upon by the bulb-outs. Bicyclists would continue to have their own dedicated lane yet with slower, more controlled automobile traffic beside them.

The pedestrian in particular is a key element to the overall vision plan, since a main focus of the plan is to re-create the walkable town structure that once existed here. Although the original buildings are mostly still in place and at a pedestrian scale, the speed and noise of traffic, along with the lack of sidewalk buffer and safe pedestrian crossings, makes it currently rather unpleasant to stroll through the town. The traffic calming plan for Kennett Pike would represent the reversal of this, supporting the ultimate vision of a walkable country town.

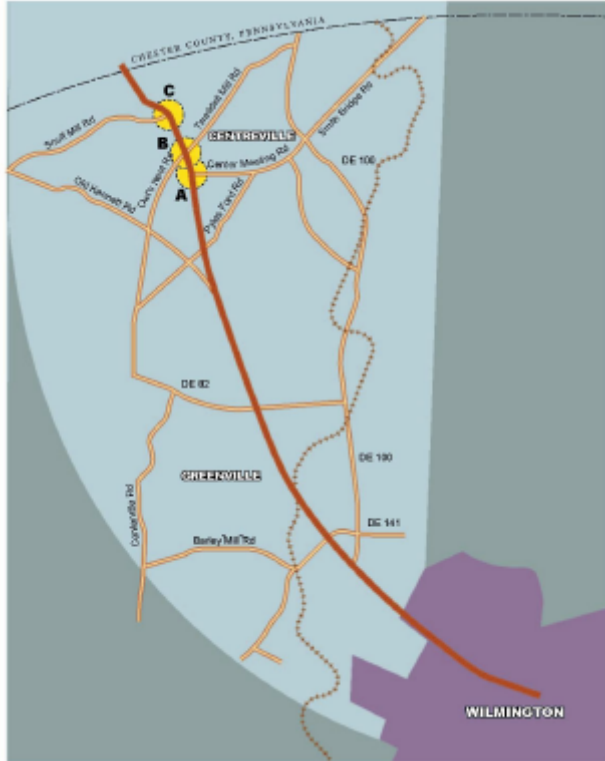
# FIGURE 7I-CONCEPTUAL BULBOUT DISTRIBUTION



## Centreville Village Detail



### 7.3 Intersections Issues and Options



#### 7J - Critical Centreville Intersections

The main intersections of concern along Kennett Pike through Centreville, from north to south, are:

- A. Snuff Mill Road
- B. Twaddell Mill Road / Owls Nest Road
- C. Center Meeting Road

Although each intersection has its own unique issues, a common concern expressed throughout the charrette process was that, for all three of these intersections, motorists pass vehicles on the right in the bicycle lane when cars are stopped to make left turns, despite signs that clearly prohibit this passing movement. This is a problem that was noted almost unanimously by each of the interviewed stakeholders. There are multiple factors contributing to this behavior: the lack of a left-turn storage lane; the presence of a bicycle lane and wide shoulder via which this maneuver can be made; and, inconsistent enforcement.

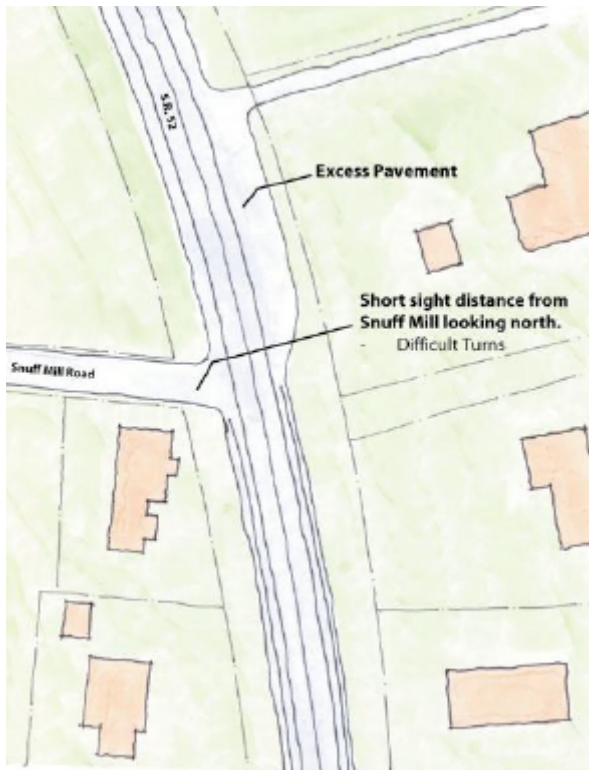
Other difficulties that were expressed are: Side street movements are often difficult and/or unsafe, due to high Kennett Pike traffic levels or inadequate sight distances; and, high speeds along Kennett Pike through these intersections threaten the safety of pedestrians, bicyclists, and motorists alike. The following concepts respond to these concerns and account for very preliminary technical analysis only. Supporting field observations were conducted to verify that the expressed concerns were not purely perceptual but, in fact, very legitimate. The purpose of the following discussions is to highlight and articulate concepts generated by the community through the charrette process to address their own concerns. Further technical analysis and a closer examination of regional function are required before any of these options progresses to the design stage.

The "treatments" conceptualized through the charrette process and potentially available for these intersections are:

- a. Full signalization;
- b. Roundabout, island, or other centerline treatment; or
- c. Existing arrangement but with turn bays, bulb-outs, and other supporting elements to make it impossible or unnecessary for vehicles to pass on the right.
- d. Do nothing.

DelDOT will further analyze transportation treatments and seek additional public input prior to selecting treatments for implementation.

### 7.3.1 Snuff Mill Road



**7K - Snuff Mill Road Intersection Issues** (based on community feedback)

The main concerns with the intersection of Kennett Pike with Snuff Mill Road, based on community feedback but not at this stage verified through detailed engineering studies, are:

- SIGHT DISTANCE, particularly for turns *out* of Snuff Mill Road onto Kennett Pike in either direction;
- LEFT-TURN SAFETY, for turns *out* of Snuff Mill Road, due to the inadequacy of simultaneous traffic gaps in both directions; and,
- SPEED.

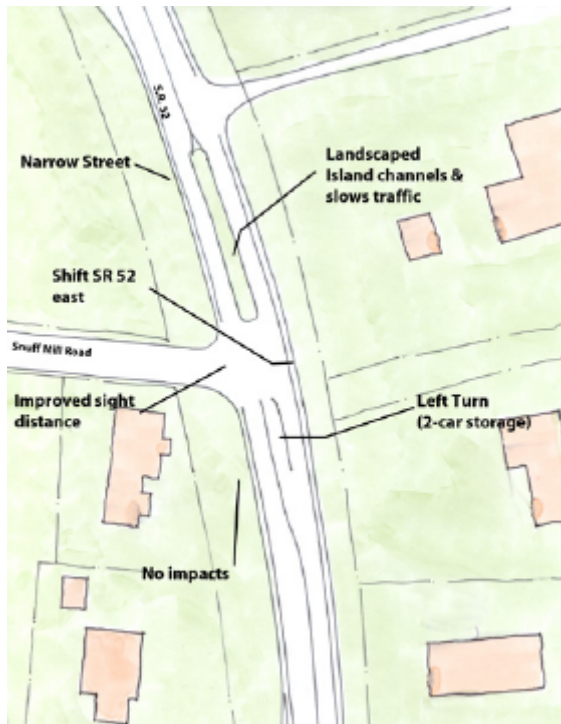


7L - Looking North from Snuff Mill Road

Options for addressing these issues are described below.

**Concept A** is the simplest approach for this intersection. It includes: a left-turn lane for northbound traffic; a landscaped island on the southbound approach, for the purposes of slowing cars as they travel around the curve approaching the intersection (the community gateway project serves this purpose); and, the elimination of the bus turnaround area north of the intersection.

The reason for the latter would be to reduce the overall width of pavement in this location. In general, the wider the pavement, the less visually appealing and the less discouraging to high traffic speeds. If this turnaround were eliminated, some alternate means of accommodated buses--far from assured--would have to be found. This would involve extension of services at least up to the middle school and perhaps into Chester County, which may in fact coincide with the longer term plans of Delaware Area Regional Transit (DART). If necessary, the elimination of this turnaround could take place after the implementation of the other recommendations.



7M - Concepts A and B - Turn Lane/Bulb-Out/Island

The addition of a left-turn lane, here as with each of the other intersections to be discussed, would eliminate the problem of illegal passing on the right. In theory, it is often the lack of a left-turn lane that helps regulate speeds and provides gaps in downstream traffic for unsignalized minor-street turning movements. However initial observations indicate that here there are so many violations that the addition of the turn lane would simply be "formalizing" the existing traffic pattern and removing the need for motorists intent on passing to use the bicycle lane and shoulder. As with all the recommendations, further study is needed to technically verify these observations to make a final determination of whether or not a left turn lane is needed or desirable, or if the answer lies with improved driver education and more consistent enforcement of the rules (although it is doubtful that the authorities charged with enforcement would be able to spend enough time on the issue to begin to significantly change travel behavior). Note that the drawing provided here is a conceptual sketch only--it does not depict specific design criteria or final taper and storage lengths. Any speed increases caused by the removal of left-turn impedance would have to be addressed through the implementation of traffic-calming elements such as the proposed median islands and narrowed paved surface.

Concept A does not include a traffic signal. Concept B is a variation of Concept A that assumes the same cross-sectional features but also includes a traffic signal. Future DelDOT evaluation would need to be conducted to determine if a signal is warranted at this location, but there are distinct conceptual advantages and disadvantages to this approach that are presented here. To the degree that it is physically and financially possible, **Concepts A and B** both recommend moving the centerline of the intersection to the east to improve site distance around the hill along the northwest corner of the intersection.

The main advantages of **Concept A** (illustrated improvements with no traffic signal) are that:

- a. It addresses the ubiquitous "passing on right" problem by removing left-turn traffic (from Kennett Pike to Snuff Mill Road) from the main traffic stream;
- b. It is a "quiet" alternative that would not require a lot of acceleration and deceleration;
- c. Little or no land acquisition would be required;
- d. It is the lowest cost alternative for this intersection.

The main advantages of **Concept B** (illustrated improvements plus a traffic signal) are that:

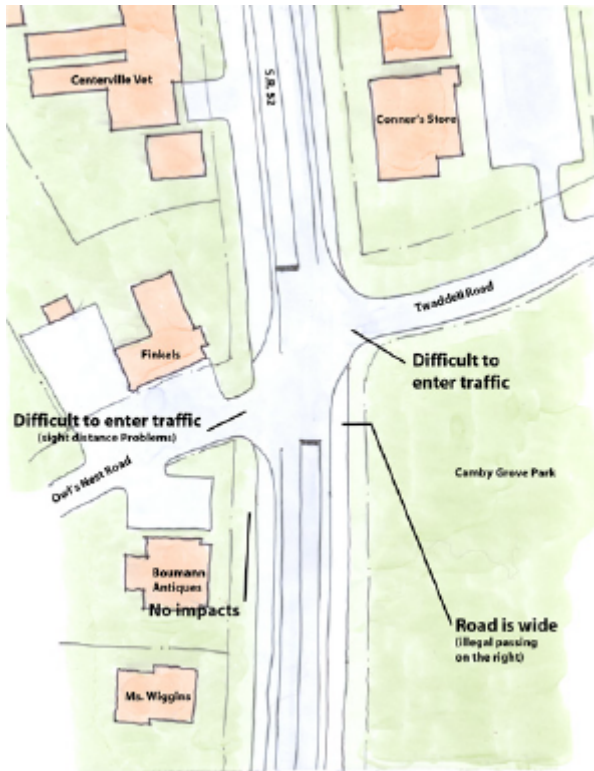
- a. Right and left turns from Snuff Mill Road onto Kennett Pike are given their own phase and hence the sight distance issue is eliminated;
- b. It addresses the ubiquitous "passing on right" problem by removing left-turn traffic (from Kennett Pike to Snuff Mill Road) from the main traffic stream;
- c. Little or no land acquisition would be required.

The main disadvantages of the traffic signal alternative (**Concept B**) are that:

- a. Noise levels would increase due to acceleration and deceleration;
- b. A traffic signal might be perceived as a deviation from the existing rural community character, although there are already several signals to the north and south of the Village.

Additional options considered for this intersection included roundabout-type treatments and wider splitter islands, but these concepts could not be made to work given the intersection's geometric constraints.

### 7.3.2 Twaddell Mill Road / Owls Nest Road



#### 7N - Twaddell Mill/Owls Nest Intersection Issues (base on community feedback)

The main concerns with the intersection of Kennett Pike with Twaddell Mill Road and Owls Nest Road, based on community feedback but not at this stage verified through detailed engineering studies, are:

- LEFT-TURN SAFETY, particularly for turns *onto* Kennett Pike, due to the inadequacy of simultaneous traffic gaps in both directions, and the conflicting offset of the two minor streets;
- MINOR STREET STRAIGHT-ACROSS MOVEMENTS, due to the same concerns as above;
- SPEED; and,
- STACKING/PASSING ON RIGHT.

Conceptual options developed at the charrette to address these issues are described below.





70 - Looking East from Owls Nest Road



7P - Concepts A and B - Turn Lanes and Bulb-Outs

**Concept A** assumes that there is no traffic signal at the intersection, while **Concept B** includes a traffic signal again dependent on a future warrant analysis.

The main advantages of **Concept A** (illustrated improvements with no traffic signal) are that:

- a. It addresses the ubiquitous "passing on right" problem by removing left-turn traffic (from Kennett Pike to the minor streets) from the main traffic stream;
- b. It is a "quiet" alternative that would not require a lot of acceleration and deceleration for main line traffic;

- c. Little or no land acquisition would be required;
- d. It is the lowest cost alternative for this intersection.

The main disadvantages of **Concept A** are that:

- a. Side street access to or across Kennett Pike are not optimally addressed, as these would remain uncontrolled secondary movements;
- b. The bulb-outs at the corners would require the removal of 6 to 8 parking spaces, most of which are directly in front of commercial properties.

The main advantages of **Concept B** (illustrated improvements plus a traffic signal) are that:

- a. Right and left turns from Twaddell Mill Road and Owls Nest Road onto Kennett Pike, as well as straight-through movement between the minor streets, would have their own protected phase, improving the ease and safety of these movements;
- b. It addresses the ubiquitous "passing on right" problem by removing left-turn traffic (from Kennett Pike to the minor streets) from the main traffic stream;
- c. There would be little or no land acquisition required.



7Q - Existing Configuration Looking North



7R - Concept B Looking North

The main disadvantages of **Concept B** are that:

- a. Noise levels would increase due to acceleration and deceleration;
- b. A traffic signal might be perceived as a deviation from the existing rural community character, although there are already several signals to the north and south of the Village.
- c. The bulb-outs at the corners would require the removal of 6 to 8 parking spaces, most of which are directly in front of commercial properties.

As with the Snuff Mill Road drawings, the depictions of the potential treatments for this intersection are conceptual only and do not represent final geometric detail.

**Concept C** represents the introduction of a full-size roundabout to the intersection. To accommodate large-vehicle turning movements (based on the SU-30 design vehicle), a 40-foot diameter would be required. This would not accommodate left-turn movements of even larger vehicles, however, and thus would require a design exception from DeDOT's standard Traffic Calming Design Manual (August 2000), which specifies a diameter of 54 feet (not possible here due to property constraints).



7S - Concept C – Roundabout

The main advantages of **Concept C** are as follows:

- a. Left-turn movements from the minor streets to Kennett Pike would be easier, since these motorists would, with the roundabout, have to wait for a gap in only one slow-moving traffic stream to get into the circle, then would be granted the right-of-way to complete their movements.
- b. Straight-through movements on the minor streets would also be greatly simplified for the same reason noted above.

- c. The effect on traffic speed reduction would be more significant and consistent than any other of the design concepts.



7T - Existing Condition Looking North



7U - Concept C Looking North

The main disadvantages of **Concept C** are the following:

- a. Because the intersection would have to be entirely reconstructed, the costs of the roundabout would be higher than that of any other option.
- b. There would be very significant property impacts on either side of the intersection, involving both historic properties and the park, both of which would face severe Federal policy regulations.
- c. Because this option takes up more space than the others and requires a clear approach, more on-street parking spaces would be lost (on the order of 10 to 12 spaces depending on final design parameters).

Care would need to be taken to properly accommodate pedestrians and bicyclists at this intersection with a roundabout. Bicycle lanes would continue through the intersection around the outer perimeter of the circle, as shown in **Figure 19**, which is standard practice and fully safe provided that striping is clear and well-maintained.

Pedestrian crosswalks would be striped across or before the triangular approach islands. A pedestrian crossing at a roundabout is generally deemed safer than a typical high-speed uncontrolled

intersection, for the main reason that traffic speeds are lowered. Additionally, in this case, due to the relatively small circle, the turn angles that are created are not sharp and would not detract from visibility. However, when compared with standard signalized intersection, at which pedestrian movements are clearly defined and controlled, the roundabout crossing condition is less controlled and hence less safe.

### 7.3.3 Center Meeting Road



7V - Center Meeting Road from Kennett Pike Looking North

The intersection of Center Meeting Road with Kennett Pike is subject to the same potential treatments as the other two intersections of evaluation, and exhibits similar ISSUES, according to community feedback:

- LEFT-TURN SAFETY, particularly for turns from Center Meeting Road *onto* Kennett Pike, due to the inadequacy of simultaneous traffic gaps in both directions;
- TURNING VOLUME, from southbound Kennett Pike to Center Meeting Road in the morning, and from Center Meeting Road to northbound Kennett Pike in the afternoon;
- RIGHT-TURN SAFETY, from Center Meeting Road onto Kennett Pike during the afternoon peak, due to added "chances taken" by motorists stemming from the high volume of stacked turning traffic along Center Meeting Road;
- SPEED; and,
- STACKING/PASSING ON RIGHT, particularly for southbound Kennett Pike traffic during the morning peak.

Statistically, there were only five reported accidents at this intersection between 1997 and 2000 (*Source: DelDOT*), meaning that the safety concerns are largely perceptual and based upon personal experiences of "close calls". Nonetheless, the amount of apparent discomfort experienced at this intersection warrants a look at potential alternative improvement concepts.

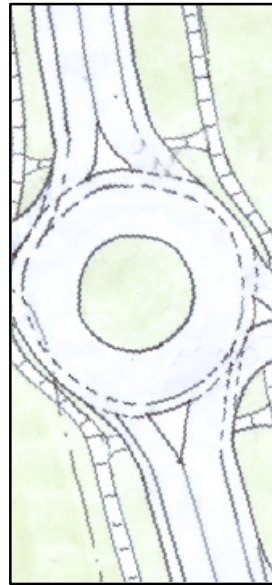
There are varying perceptions about whether the completion of construction of four lanes on Kennett Pike through Greenville will relieve pressure from Center Meeting Road. Either way, turns at this intersection will remain a significant issue. If recent Center Meeting Road traffic increases

have been due purely to Kennett Pike construction, then it follows that the completion of construction will draw more cars back to Kennett Pike, decreasing the available traffic gaps for motorists who continue to use Center Meeting Road.

Conceptual options for addressing these issues are described below.



**7W -  
Concepts A and B -  
Turn Lane/Island**



**7X -  
Concept C -  
Roundabout**

Concepts A and B include the same street level elements. They differ in that Concept B includes a traffic signal while Concept A does not. The advantages of **Concept A** are:

- a. The morning southbound stacking/passing-on-right problem is reduced by providing a separate lane for left-turning traffic.
- b. The costs are low compared to the other options.

In addition to these, **Concept B** has the advantage that:

- a. The right and left-turn problems from Center Meeting Road onto Kennett Pike are addressed through the provision of their own signal phase and hence a better flow balance.

At the same time, **Concept B** has the significant disadvantages that:

- a. Noise levels could increase as mainline traffic would have to stop and start for the signal.
- b. According to some community members, a traffic signal would not match the existing rural character of the community.

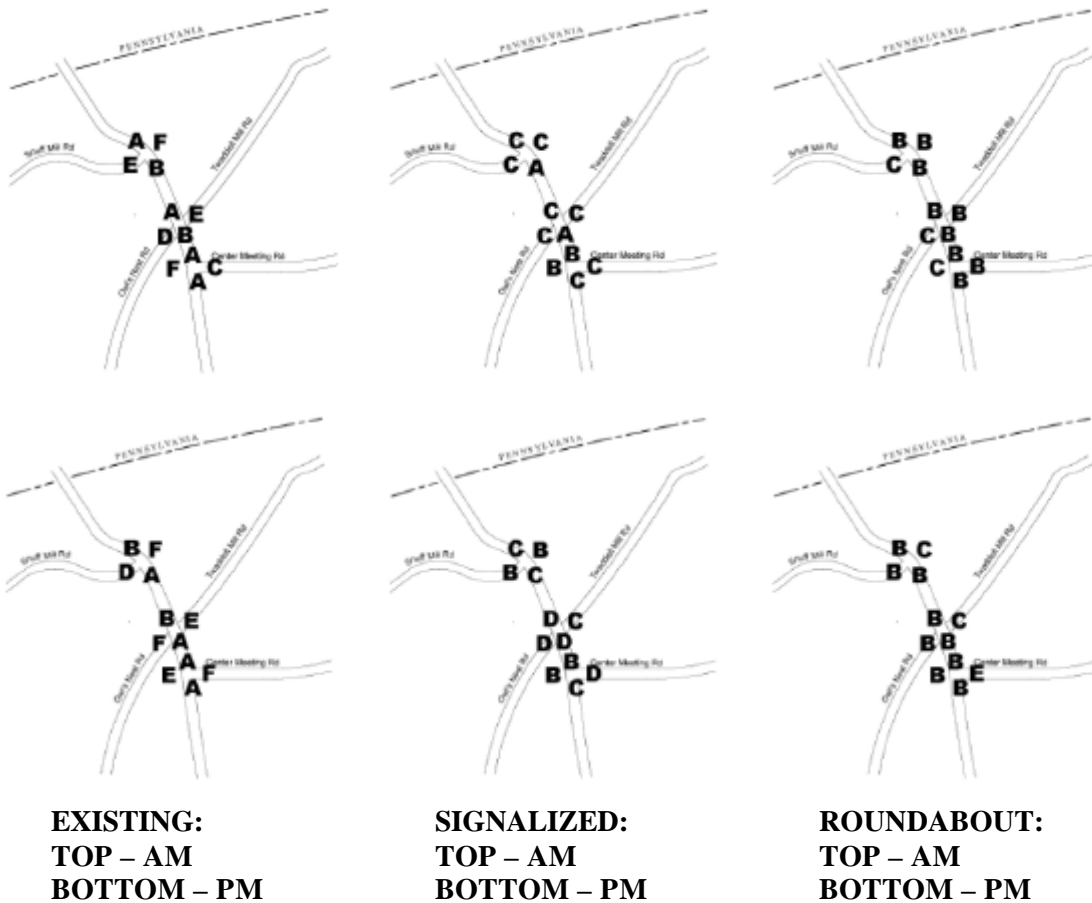
The primary advantages of **Concept C** would be:

- a. Overall speeds at the intersection would be reduced.
- b. Morning left-turns into Center Meeting Road would be further eased since motorists making this move would have right-of-way over northbound Kennett Pike traffic.

The major disadvantages of **Concept C** would be:

- a. Property acquisition would be required. These would include impacts on historic properties and thus entail a lengthy permitting process, as well as alter the community's historic resources.
- b. Costs would be high relative to the other options.

### 7.3.4 Level-of-Service Observations



7Y - Level-of-Service Observations for Unsignalized, Signalized, and Roundabout Conditions (Note: Service definitions vary for each of the three conditions.)

Level-of-service is a standard measure of delay that compares the capacity of intersection movements with the volumes of vehicles on the various approaches. Computerized methods are frequently used to analyze levels-of-service of intersection movements for unsignalized, signalized, and roundabout conditions, based on input volumes. Level-of-service is reported on an A (best) through F (worst) scale, with typical acceptable values falling in the C through E range depending on the context. *However, it must be pointed out that the level-of-service labels (A through F) are not directly comparable for different types of intersections, as they are based on different scales.*

While describing the precise definitions and implications of various levels-of-service is beyond the intentions of this report, the diagrams shown in **Figure 25** illustrate how the balance of service could be affected through various intersection concepts. The levels-of-service for various scenarios are illustrated above, with four values per intersection, each letter representing the level-of-service from a particular approach direction (including driveways). Under existing conditions (left-most two diagrams), levels-of-service for Kennett Pike are very good, while movements from the minor side streets experience longer delays.

Under the signalization option, the ability to tweak the amount of "green time" dedicated to each of the movements would enable transportation planners to strike a new balance between levels-of-service to major and minor streets, i.e., intentionally interrupt the flow (and hence lower the service level) on Kennett Pike for the purpose of improving service on the minor streets. The roundabout option, by making it easier for minor street traffic to make left turns, could likewise help improve minor street movements but, as with the signalization option, do so at the expense of the major street. A notable exception to the roundabout's general good performance according to the general analysis presented here is the large turn movement from Center Meeting Road to Kennett Pike in the PM peak.

The purpose of presenting this summary here is to help describe the operational effects of the various intersection options. The overall challenge--to be studied in greater detail in later phases of project development--is to select a treatment for each of the intersections that optimally balances the goals of the community with regional transportation objectives and design requirements.



## 7.4 Local Collector Roads



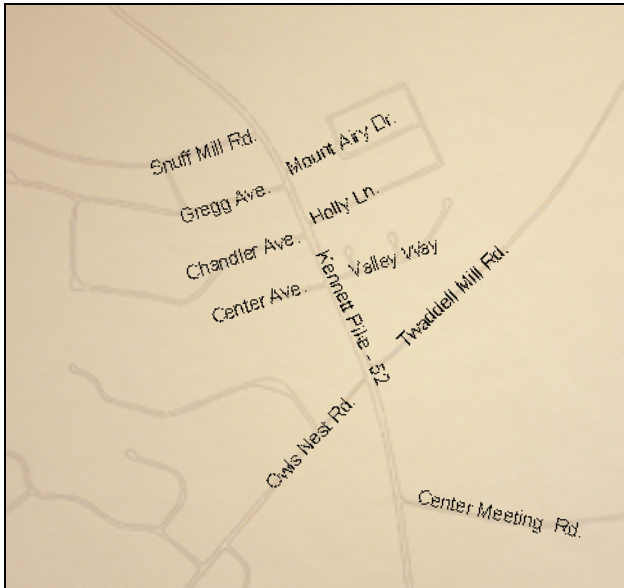
7Z - Typical Centreville Collector Road

Based on the public workshops and meetings, most stakeholders seem to prefer the pristine existing configurations of the numerous local roads that wind their way through tight brush in the areas surrounding Centreville Village. In most cases, the landscape encroaches right up to the edge of the travel lane, creating a sense of narrowness and naturalness unparalleled in the region. Although many motorists drive sensibly through these areas, there are others who engage in unsafe driving practices, endangering themselves and others particularly in locations with blind spots and exceptionally narrow clearances.

Many of these potentially troublesome locations are well-defined and easily identifiable, generally at curves at the bottoms of hills or blind spots at hill crests and tight curves. It is therefore very possible to address these specific locations without changing the roadway's overall character. Some sample problem-specific treatments are listed below:

- a. **Sharp curve, particularly at the bottom of a hill or just over a crested “blind spot”:** *Decorative short sections of guardrail at the critical locations.* These can be made primarily of timber with steel reinforcement, and need not at all resemble the standard silver metal highway guardrails commonly used to address these issues.
- b. **Blind spot around a sharp curve or near an intersection:** *Careful removal of just enough obstructions to eliminate the visibility problem while not detracting from the overall enclosing qualities of the roadway.* One way to accomplish this would be to replace significant visual obstructions with lower-level vertical elements (such as shrubs or hedges) that define the roadway edges without adversely impacting visibility.
- c. **Crest of a hill on a road with narrow lanes:** *Signs indicating the blind spot and expressing that motorists should take care to stay in their own lanes.* Alternatively, the crest could be removed by shaving the profile, but this threatens to alter the overall character of the roadway and should be employed only if other options prove ineffective.

While the detailed examination of specific problematic locations is beyond the scope of this report, the important point is that further study of any specific trouble spots should include the above noted measures as potential treatment options.



7AA - Existing street plan



7BB - Possible street network red

#### 7.4.1 A LOCAL VILLAGE STREET NETWORK

Unlike dead-end cul-de-sac subdivision streets, villages are generally comprised of a network of narrow local streets. Should the community pursue Master Plan and infill proposals for the Village, it is recommended that a local street network be developed within the Village. A street network has several benefits to the village: local streets add relief from all auto trips having to use the Kennett Pike; a local street network also becomes a network of treelined streets with sidewalks and adds to pedestrian mobility within the village; creating streets also creates new frontage for new village-styled development.



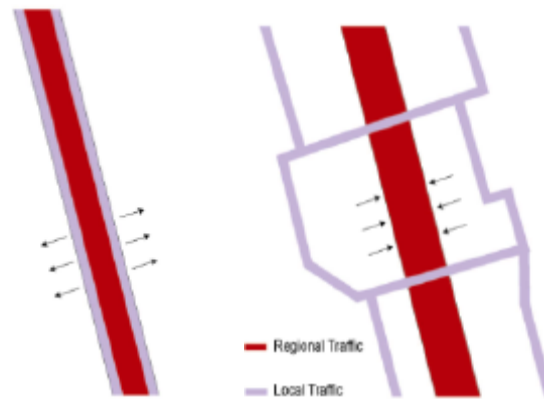
7CC - Existing



7DD - New Local Street & Infill Development

## 7.5 Long-Term Traffic Scenarios

### 7.5.1 Local Traffic



#### 7EE - Road Systems with (right) and without (left) Supporting Local Streets

In general, it is important that new local connections are made wherever possible to ensure the long-term ability of residents to connect with local businesses without being held hostage to Rt. 52. These could take the form of a consistently interconnected local street system (through the minimization of cul-de-sacs in new developments) or simply short connectors between adjacent commercial parking lots. Where existing pieces of roadway are linked with new connections, neighborhood traffic calming measures could be applied to control speeds on existing links and to discourage long-distance cut-through traffic, as high speeds are more important to regional commuters than to local travelers.

In the absence of a well-connected supporting local network, it is conceivable that there could eventually be local pressure as well as regional pressure to expand Rt. 52, due to the absence of alternate routes to and between Centreville residences and businesses. This condition of "outward pressure" is denoted conceptually on the first diagram of **Figure 27** with the series of black arrows. With adequate supplemental local connections, however, as demonstrated in the second diagram, it is far more likely that local residents would continue to support the maintenance of their "main street" as a two-lane roadway with controlled through-speeds.

Rebuilding the village segment of Kennett Pike with bulb-outs, wider sidewalks, and other features that support the creation of a comfortable walking environment (see **Section 7.2**) would, if successfully implemented, remove the future impetus to create a four-lane thoroughfare through town (which could comfortably fit within the existing paved width), provided that local traffic circulation is accommodated. The sketches of village design scenarios presented in the **Land Use and Urban Design** section include provisions for circulation of local traffic, specifically connections between village parking lots and connections to collector roadways.

## 7.5.2 Regional Traffic: Alternatives



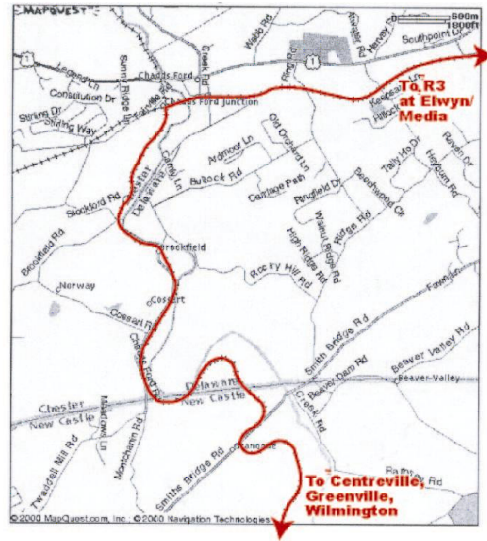
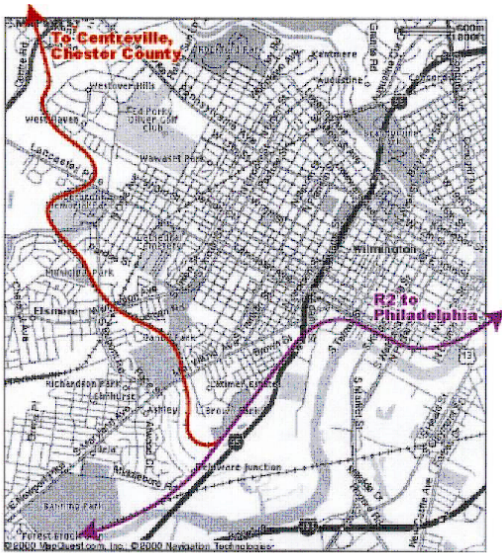
### 7FF - Rail Corridor

In order to ensure that regional travel demand can in some way be accommodated, it is necessary to explore both alternate *routes* and *modes* for regional travel. Although there exist some roughly parallel roadway corridors that could absorb additional traffic, these roadways are mostly very scenic and subject to the same community sensitivities as are present in Centreville. Resultantly, as regional roadways begin to reach their ultimate capacities, it is very reasonable to expect *transit* to absorb an increased share of regional commute trips, but only if new and improved services offer measurable benefits to commuters.

Express bus service between Chester County and Wilmington with limited stops at activity centers near the corridor could begin to appeal to commuters as traffic worsens. However, this appeal would be limited since there would be no *travel time* advantage of riding the bus over driving a car, due to the fact that the bus would sit in the same traffic. Vanpooling and carpooling, likewise viable shorter-term alternatives that should be explored and tested, are subject to the same constraint. The only perceivable benefits would be that the commuter could spend his travel time engaging in productive activities rather than operating his vehicle, and he would not have to pay for parking (or would share the cost). Unfortunately, these benefits are often not large enough to entice a significant share of commuters off the roadways.

To truly make transit competitive with driving, a travel time advantage is imperative, meaning that transit vehicles must in some way be separated from automobile traffic. The opportunities for this type of separation—the main component of what is referred to as *premium transit*—are: buses in dedicated travel lanes or on new *busway* facilities; or, rail service along an existing or assembled railway corridor. Since Kennett Pike and parallel roadways through Centreville are too constrained for dedicated lanes—and since the terrain is too rugged for the construction of new bus-only roadways—only the existing north-south rail corridor east of the community (see **Figure 28**) would remain as an option. However, this line winds through hills and has many geometric constraints compared with typical transit corridors, and is only single-tracked. Hence, it would be a significant challenge, though not necessarily impossible, to achieve running times sufficiently fast to attract commuters away from their cars. This, along with property impacts, ownership implications, road

crossing configurations, noise, potential station locations, and environmental constraints, would have to be studied in detail before it could be officially denoted as a future transit corridor.



**Potential Future Transit Connections: South**

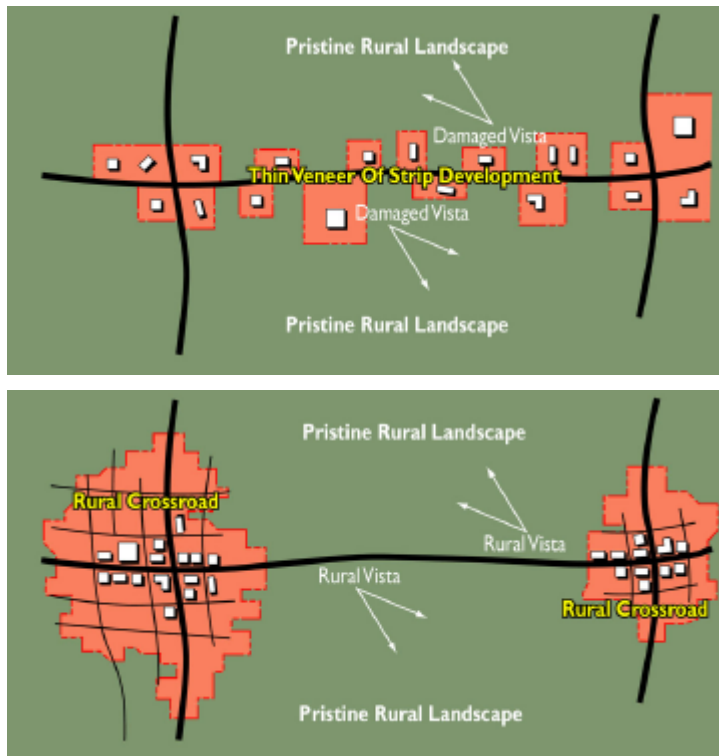
**Potential Future Transit Connections: North**

### 7GG - Potential Regional Rail Transit Connections

That being said, the fact that it directly connects Wilmington and surrounding activity centers with Chester County, via Elsmere and Greenville, makes it an intriguing possibility worthy of further study. Freight operations on the line are limited, and thus it could potentially be shared with a transit provider. Technologically, such a service could be similar to SEPTA's regional rail lines, or, since maneuverability would be an issue, SEPTA's suburban trolley lines. Diesel light rail vehicles such as those to be used on the Southern New Jersey Regional Light Rail Line (Camden to Trenton) could potentially be operated on the freight line if the freight and passenger services were completely time-separated (i.e., freight service in overnight hours only). Passenger service in this corridor could be operated as an extension of, or a connection to, the R2 Wilmington line or the R2 Media/Elwyn line (via Chadds Ford Junction). The success of recent commuter rail extensions into Delaware, particularly the R3 to Newark, sets a good precedent for examining this option in detail.

Although this would be a longer-term action, it is important to recognize this option through this visioning effort. In effect, a commuter rail connection would serve as a north-south bypass of downtown Centreville, reserving additional passenger capacity in the corridor while preserving the valuable historic, aesthetic, and environmental qualities of the Centreville area.

### 7.5.3 Importance of Coordination with Growth Vision



**Top: Uncontrolled Conventional Growth**  
**Bottom: Town and Country Growth**

### 7HH - Alternative Growth Scenarios

Because of the transportation implications of different forms of development, it is critical that transportation impacts are taken into account in the generation of land use plans and design guidelines. For instance, standard strip development and conventional subdivision design tend to encourage a high relative volume of local automobile travel. Without strict attention to cross-access connections or interconnected subdivision streets, this would threaten the "vision" of Kennett Pike as a two-lane, low-speed country road.

Each potential growth scenario has its own implications for the future of transportation in Centreville. Although it seems that less local growth would mean less future traffic congestion, this is not necessarily the case. The ultimate congestion levels on Kennett Pike would likely be comparable for no-growth or low-growth scenarios as compared with other scenarios, but with additional *regional* traffic consuming the majority of corridor capacity. Therefore, ensuring adequate supplemental local roadway and pathway connections is important for all potential scenarios.

Through good land use and design planning, including supplementary local connections, the village of Centreville could limit the projected amount of future *local* traffic on Route 52. Because alternate circulation routes would be available for local traffic, there would exist a perpetual assurance of strong local support for controlling the behavior of regional through-traffic on Route 52 in a manner consistent with residents' vision for their town, i.e., relatively slow-speed and properly channeled so as to avoid dangerous passing-on-right and other illegal maneuvers that presently detract from the village's valued character.

## 7.6 Next Steps and Implementation

The process by which roadway and intersection modifications are made must take into account a wide variety of planning factors. The Federal and State governments employ a series of steps in order to identify worthy projects and fairly disseminate roadway improvement funds throughout the entire community. The culmination of this process is the State Capital Improvement Program (CIP), which is a list of projects to be funded and undertaken by the State highway department within a six year period. Before projects are earmarked for the CIP, however, they must be identified on a longer-range Regional Transportation Plan (RTP), which lists a coordinated program of planned projects and studies.

In order to be listed as part of the TIP, all projects must meet the State requirements with respect to performance and need. This determination entails a variety of technical analyses as well as a mandated public input and information process. These steps would build upon what has been done as part of this visioning process, and would be initiated by DelDOT once a conceptual vision has been reviewed and accepted.

The purpose of this vision plan has been to establish a general consensus on the issues at hand and on a conceptual approach to addressing them. Technical details of the various scenarios have not yet been explored in detail. These would, instead, be evaluated by DelDOT as the planning process continues. For example, with respect to intersections, DelDOT would perform a warrant analysis to determine if the addition of traffic signals at certain locations meets accepted national criteria for these types of expenditure, or if an alternate method of addressing the stated issues would be more suitable. In effect, the series of conceptual alternatives developed by the community and presented in this report will be verified or narrowed down by a more detailed DelDOT study.

Further study must also be conducted to determine the specific impacts of the various options on historic properties and environmental quality. Furthermore, the design of these intersections, as well as of the bulbouts and other recommended mainline elements, would need to be refined by DelDOT to ensure that all geometric arrangements meet DelDOT's safety, aesthetic, and operational standards. The public will be given numerous opportunities to comment on specific design elements before a final design adopted.

This vision serves as a guide for the future development and implementation of measures which address the concerns of Centreville's residents and commercial interests. It serves as an initial articulation of issues and ideas generated by the community that establishes direction for continued evaluation. Most importantly, it serves as a coordinated guiding framework for future decisions by all parties that could have a dramatic impact on Centreville's landscape.

## 8.0

### *Conclusion and the Path Forward*

Much of the fragmented nature of the suburban landscape is a result of the complex and independent nature of development, preservation, village and landscape efforts. The strength of this report is in its attempt to address a broad range of land use issues together, illustrate their relationships and outline strategies to improve Centreville Village and the landscape in a coordinated and comprehensive manner. The potential pitfall of this approach is to discount the issues as too complex or the document as too conceptual and, as a result, the report lies on a shelf.

This process confirmed the fears of many Centreville residents regarding the critical status of remaining open spaces surrounding the village. The process also introduced those Centreville residents who got involved in the process to the tremendous potential and benefits of village growth.

It is proposed that New Castle County, DeIDOT and Centreville residents utilize this report as a "blueprint" and outline of strategies to aggressively move toward the implementation of land use and transportation strategies that address the unique nature of Centreville Village and the surrounding landscape. Each section of this report can be viewed as an individual project, from which detailed proposals can be written and funding sought to work toward land use reform and the implementation of a model Master Plan and supporting ordinances for Centreville and the surrounding landscape.



## 9.0 *Appendix*

### 9.1 Community Comments from October 26 Public Workshop and November 13-14 Stakeholder Interviews

Note: Specific recommendations reflect comments heard from the community and not necessary Recommendations of the project team.

#### **Transportation**

Summary: Primary transportation concerns are the traffic speeds on Route 52, vehicles passing on the right, and difficulty getting out of side streets. Some community members expressed interest in improved walking facilities such as crosswalks and greenways. The community disagreed on whether traffic signals were a good solution and whether street lighting is desired.

- Slow traffic speeds
- Passing on the right dangerous
- Consider tasteful street lights
- Difficult to cross route 52 for both vehicles and pedestrians
- Make Kennett Pike a parkway without trucks
- Consider roundabout at Owls Nest, Snuff Mill or Center Meeting intersections with Kennett Pike
- Ban trucks except local deliveries or have weight limit
- Look at historic rail lines for greenway trails; old buggy roads are good walking and equestrian paths
- Speed and volume on Route 52 makes it difficult to get off Snuff Mill Road
- Resident no longer walks to village center because of traffic noise and trouble crossing Rt. 52
- Construct facility for jogging and walking
- Blind turn coming out of Snuff Mill Road onto Rt. 52 unsafe
- DART Rt. 10 U-turns at Snuff Mill Road and has trouble making the turn
- Prefer other solutions to a traffic signal
- Traffic calm before curve (south bound) by Snuff Mill Road
- Put traffic signal at Center Meeting/Route 52
- Trucks are a problem when the scales are open on Route 7
- Create environment where pedestrians get priority
- Put traffic signals at ends of village timed to create gaps in traffic for cars to exit driveways and side streets
- Snuff Mill Road dangerous for bicyclists
- Create greenways that connect into Route 52
- Add well marked crosswalks at each intersection and Buckley's Safety is number one priority
- Shift Snuff Mill Road to make it meet Route 52 at a better angle
- Give Kennett Pike through village a Main Street atmosphere
- Make Smith Bridge a one lane covered bridge
- Flooding on bridges is a problem
- Traffic signals at intersections to make turning safer
- People park on Owls Nest Road and can't see when pulling out
- Make Smith Bridge two lanes for greater safety
- Extend on street parking further north on Route 52

## **Village**

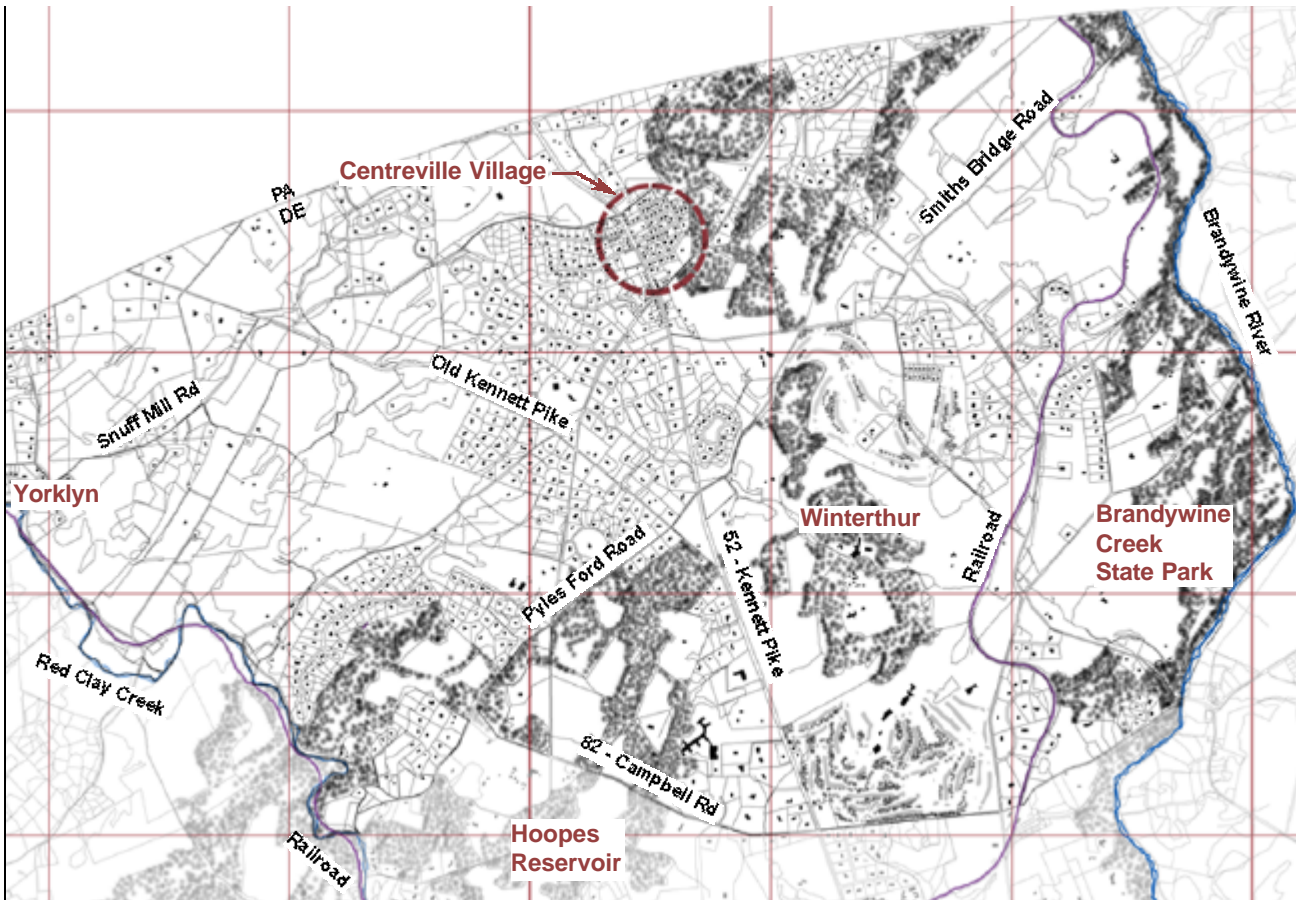
Summary: Community likes the current amount, scale and style of development in the village center but would like some greater variety such as a coffee shop or small country store

- Leases stipulate limited parking and landlords can terminate leases if business takes too much parking
- No uniformity in merchant's hours
- Feel that zoning makes it difficult for new businesses to come in such as requirements of parking and water supply
- Hold weekly farmers market in Canby Grove park
- Some additional variety businesses wanted such as a pharmacy, country store, coffee shop or deli
- Keep rural village character
- Residents can get basic needs in Greenville
- Residents can get basic services in PA
- Happy with amount and type of development
- Would like another restaurant
- Woodstock, Vermont a good example for Centreville
- Put utilities underground
- Develop sign ordinance and design review board
- Village could use a Bed & Breakfast
- Build a small library/community center
- Hold events like the Centreville dog show to build community
- Dry cleaner and video rental
- Keep village compact
- Put apartments above businesses
- Put community center in building with insurance office next to Buckley's or Witsils
- Make Canby Grove Park a village green by putting small library, community center or country store behind it

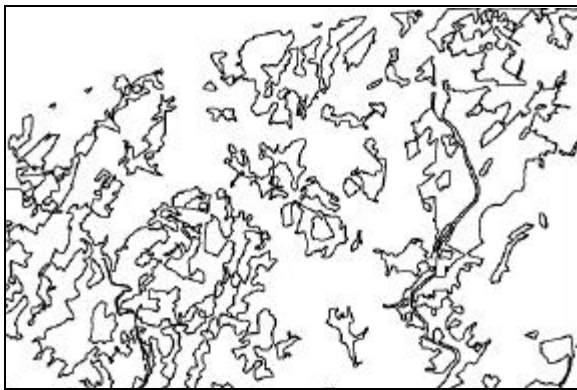
## **Open Space and Development**

Summary: Open space preservation is a top concern for the community. Residents fear that suburban sprawl will worsen traffic problems and destroy the rural character of their community as large parcels of land are sold.

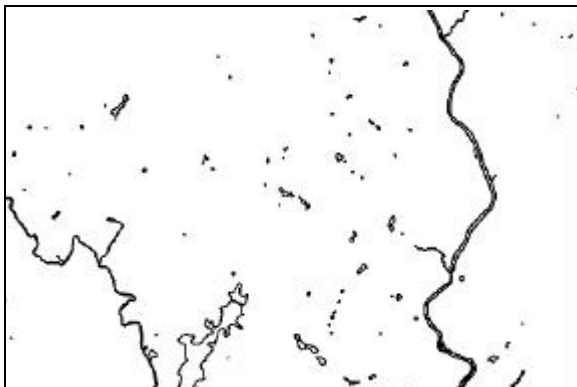
- Development leading to traffic because each house has many cars
- Downzone to one unit per 5 acres
- Area has strong property rights interest
- Septic treatment can be packaged together in village and subdivisions rather than on individual properties
- Need to permanently preserve large estates
- Have open space for public use such as golf course and parks
- Create a trust for people to donate funds to purchase and preserve land
- Development in PA leading to more traffic
- Older homes have inadequate septic systems
- Give tax incentive for clustered development
- Run off from new development worsening flooding
- Improve connectivity within village, and between subdivisions and village



9A - Project Base Map - A combination and manipulation of raw data layers to create a readable, user friendly base map



9B - Forest Cover - Raw Land Use Data Layer



9C - Water Bodies - Raw Land Use Data Layer

*Appendix The Community Master Planning Process*

**9.2 Centreville Area Base Mapping Process & Suggestions**

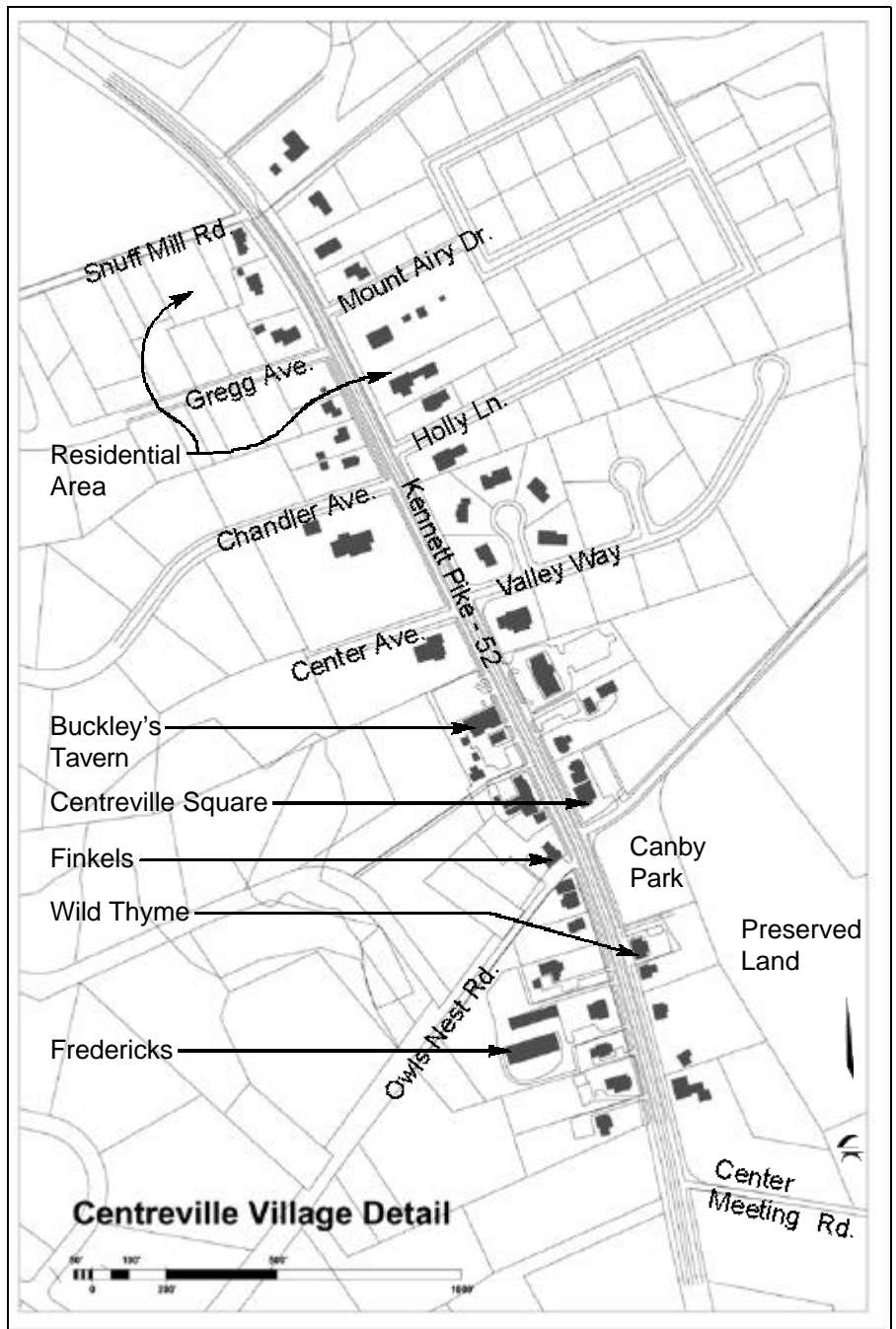
Over the past five years the NCC Land Use Department and the State of Delaware have made tremendous progress transforming hand-drawn land use data to an electronic, computerized format. This data is compiled in computer "layers" and can be manipulated and printed in a variety of useful ways. Among the computer layers that exist are tax parcel/property lines, land use zones, road rights-of-way, waterways, forested areas, floodways, soils and wetlands. While this data is impressive, users of the information need to be reminded that computer mapping is still quite new and for Master Planning purposes, such as in Centreville, the data requires significant input and manipulation to be readable and usable for citizens and planning professional alike. Generally, the data layers are in a very independent, engineered state and are difficult to read and usability is complicated and difficult (Figures 9B, 9C).

The Consultant team expended significant time to create base maps, which resemble more traditional maps that can be easily read and understood by the community. Single engineering lines depicting a forest were rendered to resemble a forest, layers were combined and color coded (waterways, rail lines) and, of greatest significance was the creation and addition of a "building footprint" layer for this study.

Presently, development is only illustrated by property lines and for communities concerned with growth, maps without buildings do not fully illustrate the amount of development that has occurred. The consultant team computer-mapped aerial photography from 1969 through 2000 to digitize the building footprints in the study area so that residents could see the location, density and amount of development that has occurred.

Although easily readable, the base mapping is preliminary and requires additional buildings, landscape, wetlands information and other land use layers to be complete. It is recommended that Centreville and/or New Castle County pursue the creation of readable, engineering-level base maps, including building footprints, for future Master Planning work.

9D



### *Appendix The Community Master Planning Process*

#### **Centreville Village Base Mapping Process & Suggestions**

Similar to public agencies throughout the country, New Castle County base mapping is not to a detail level sufficient to properly plan in historic village centers. Historic areas are generally more dense than suburban areas and have a more detailed mix of uses. The Village Base Plan (Figure 9D) was created by the planning consultant by combining tax map data, County map layers, aerial photography and field measurements. The plan is incomplete but it begins to represent the level of detail necessary to properly plan in historic areas. The above map illustrates, property lines, street cartway widths, driveways, sidewalks, building foot prints and when fully developed should show landscaping, utilities, and street furniture.

The creation of the above base plan permitted the community to clearly see issues and permitted the planning consultants to properly suggest Village Master Plan concepts. It is recommended that New Castle County pursue the creation of a readable, engineering-level Village base map. Historically (and it is proposed for the future) a detailed Village Plan hung in the Village Hall and illustrated the character and growth of the community. Centreville residents can insert actual development proposals into the Village Base Plan to determine the appropriateness (density, setback, adjacent relationships, etc.) of development proposals.

#### 9.4 Centreville Civic Association Boundaries

The associations boundaries as of September 1992 are set out in Article II of its bylaws: The boundaries of this association shall begin at the intersection of Route 52 (Kennett Pike) and the Old Kennett Road and shall extend along Old Kennett Road north to the intersection of Pyles Ford Road, from there southwest along Pyles Ford to the intersection of Owl s Nest Road, from there extending southwest along Owl s Nest Road to Walnut Green Road, extending along Walnut Green Road forming an arch which encompasses Way Ridge and Walnut Ridge, extending to the intersection of Ashland-Clinton School Road and Centre Mill Road, then north on Centre Mill Road to the Pennsylvania line. The boundaries follow Pennsylvania line to Brandywine Creek; then following Brandywine Creek to Thompson Bridge Road to the intersection of Route 100, extend along Route 100 to the intersection of Adams Dam Road, west along Centre Meeting to the intersection of Pyles Ford Road, southwest on Pyles Ford Road to intersection of Route 52 and south on Route 52 to intersection of Old Kennett Road. Properties fronting both sides of described roads are to be included in the CCA geographic are.



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