

# COUNTY OF CAROLINE, VIRGINIA CARMEL CHURCH COMMUNITY PLAN



ADOPTED BY THE BOARD OF SUPERVISORS  
JANUARY 23, 2007

## APPENDIX B - *CARMEL CHURCH COMMUNITY PLAN*

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## INTRODUCTION

The Carmel Church Community Plan is part of the Caroline County Comprehensive Plan, the official policy guide for future development decisions. Both Plans are long range in nature and provide a picture of how the community wishes to develop over the next 20 to 25 years.

As a policy document, the plan provides a framework for the community's residents and decision makers to conceptualize how the community should look and function. The major goals of the Community Plan aim to guide the community into the future.

### GOALS

- Provide a guide for the numerous public entities and promote decisions that will create the future community;
- Promote the interests of the Community as a whole;
- Enhance, describe and promote the Community's physical development;
- Evaluate short-term actions against long-term goals; and
- Recognize the natural resources, historical, and architectural significance of the Carmel Church Community and the surrounding area so that they can be more effectively preserved, protected, and integrated into an orderly pattern of development.

The overall goal of the Carmel Church Community Plan is best revealed by following the Vision Statement:

*Carmel Church is a strategically located historic community and transportation hub offering opportunities for employment, peaceful living, and a warm shopping environment. The community will retain its rural character through managed growth by attracting and promoting socially and environmentally responsible economic development. Through managed growth it will become a vibrant place to live and work.*

## CARMEL CHURCH PLANNING PROCESS

### PLAN ORGANIZATION

The Community Plan is divided into several sections covering the following topics; architecture/design, land use, resources, economic development, transportation and community facilities. Each section has a general discussion of these topics followed by the Goals and Action Strategies.

### PLANNING PROCESS

The process began in the autumn of 2005 and involved the selection of a citizen committee by the Board of Supervisors who attended the first annual Caroline County Citizen's Planning Academy. This academy was a four week course facilitated by Dr. Michael Chandler, Director of Education of the Virginia Citizen Planning Education Association (VCPEA). The training focused intensely on the history of planning and the legal framework for planning in Virginia. At the conclusion of the academy, the citizen committee developed a mini-land use map, used as a resource in launching this planning effort in the Carmel Church Community.

The mini-land use map was the first attempt to develop a community wide plan for Carmel Church. The process was organized as a citizen driven process, where a Community Survey was conducted, responses tabulated and analyzed. The citizen planning committee used the results of the survey as a basis to formulate the goals, objectives, concepts, and strategies for the community.

The planning committee held semi-monthly meetings advertised in the local media and met with a wide variety of public and private interest groups and agencies. In the spring of 2006, the committee participated in a planning exercise, composed of three parts. First, the committee members were asked to identify a key parcels in the Carmel Church Community that when and if developed, may potentially completely change the nature of the community. Secondly, they were asked to identify all the resources in the community. Finally, the committee members developed a list of "Hot Button" issues. After identifying these items, the committee ranked their findings and compiled the top three items from each part and used the lists to help draft this plan.

#### Key Parcel Analysis

The section of land bounded by I-95 (east), Route 1 (west), Route 207 (north) and the Hanover-Caroline County Line (south)  
The four quadrants of the I-95 interchange  
Commercial area in front of Belmont Development

#### Community Resource Analysis

Sewage Treatment Plant  
VA Sports Complex  
Carmel Church Commercial Center

#### Hot Button Issues

Improve traffic control, safety and management of traffic and provide for better enforcement of traffic laws, in and around the I-95/Route 207 interchange  
Provision of utilities (water & sewer)  
Construction of an elementary school

These same concerns in all three planning exercises were also expressed in the results of a community survey. The survey results provide further evidence that the conclusions of the Committee from the exercises are supported in the Carmel Church Community.

In the summer of 2006, the committee divided itself into sub-committees to work on the various topics of the plan. Upon completion of this work a draft plan was prepared by County staff using the work of the sub-committees. Once this draft plan had been reviewed and revised by the Carmel Church Committee, an *Open House* was held October 21, 2006 to display the results of the Committee's work and draft plan. Some of the interest groups that participated in the Open House and planning process were Fredericksburg Home Builder's Association, Caroline County Chamber of Commerce, and FREDricksburg Regional Transit.

At the conclusion of the Open House, County staff revised the draft document based upon the comments received at the Open House. The Carmel Church Community Plan was presented to the Caroline County Planning Commission on December 20, 2006 and forwarded to the Board of Supervisors with a recommendation of approval. The Caroline County Board of Supervisors approved the Carmel Church Community Plan January 27, 2007.

## DEMOGRAPHICS & GROWTH TRENDS

### OVERVIEW

This section briefly reviews recent trends in demographic factors such as age, household composition, and income. This summary and analysis of existing conditions and trends is intended to provide background information and rationale for the various goals and action strategies outlined in this Community Plan. In order to plan effectively for the future it is important to understand where the community has been, where it is and where it is going.

### SUMMARY OF COUNTYWIDE GROWTH TRENDS

This information is a brief summary of information that is contained in the *2003-04 Caroline County Demographic Analysis*. This summary provides public officials, local citizens, and other interested parties with basic information on past trends and current conditions for the County.

Caroline County has experienced increases in population, housing, and employment over the last thirty years. From 1970 to 2000, the County's population increased from 13,925 to 22,121, which represents a population growth of nearly 59%. In 1980, the County population was 17,904 rising to 19,217 by 1990, which represented an increase of approximately 7.3%. The County's total population reached 22,121 according to the 2000 Census. This is an increase of approximately 15% over the previous Census findings. The Weldon-Cooper Center for Public Service of the University of Virginia, estimates that by 2010 the County population will increase by 13.5% to 25,099.

As of July 2002, the Weldon-Cooper Center released provisional estimates of population indicating a total population of 22,200. This is an increase of 0.5% since the 2000 Census or approximately 0.2% per year. Based upon historical trends and current building permit activity, the population will continue to grow at a similar rate well into the next decade.

The economic strength of the County has also seen significant increase. The County's median household income continues to rise at a steady rate. The 1970 Census reveals a median household income of \$19,991. The 2000 Census indicated that the County's median household income was at \$39,845. Since 1970, the median household income has risen by \$19,854, an increase of almost 100%.

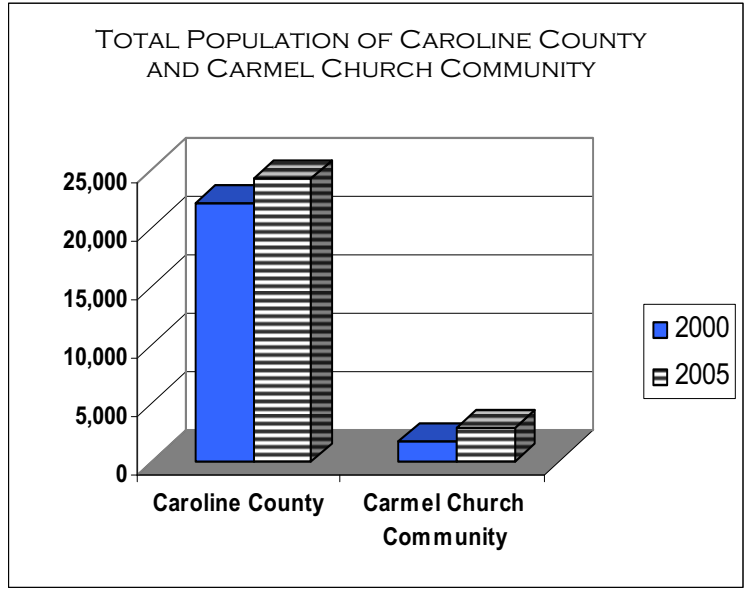
Total employment in the County has also grown steadily over the last 30 years. According to the 1970 Census, Caroline County had 3,569 total employees, which increased to 4,741 employees by 1980 and 5,738 employees by 1990. By 2000, there were 7,978 employees, an increase of 124% from 1970. The economy also became more diversified over this time period, with increases in employment in the Construction, Service, FIRE (finance, insurance and real estate), Wholesale and Retail Trade sectors.

### CARMEL CHURCH COMMUNITY DEMOGRAPHICS

The following statistics reflect the demographics for the Carmel Church community, which provide insight into the community based on the 2000 Census data and a conservative extrapolation of population growth trends based upon the 2000 population and the new homes that have been built in the County between 2000 and August 2006.

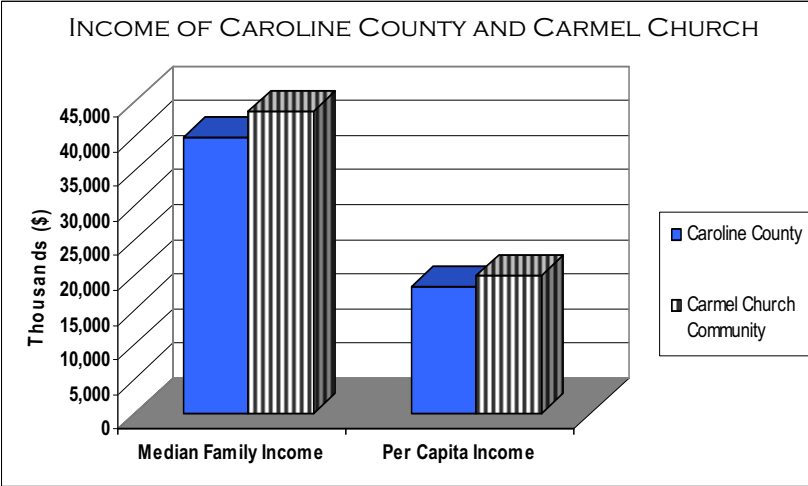
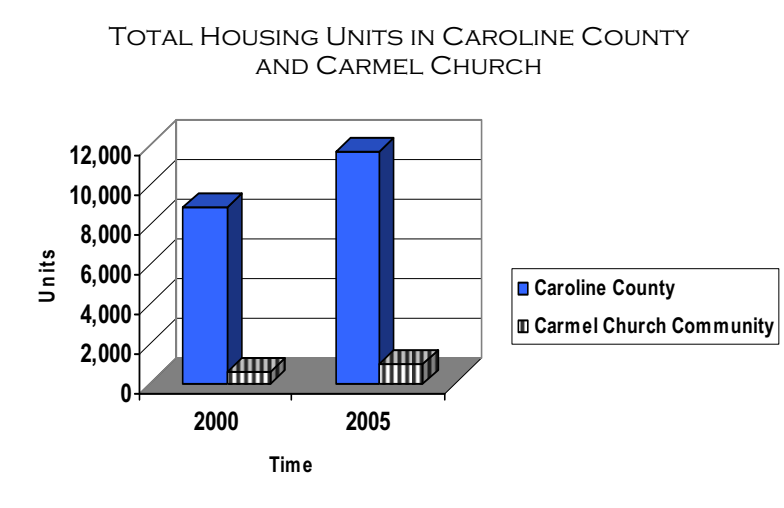
#### *POPULATION*

The population increase in the Carmel Church area is a major component of the growth of Caroline County. Overall, Caroline County has grown by approximately 15.1 percent and based upon building permit records, Carmel Church grew by 74.4 percent. This accounts for over half of the growth in a five year period. Chart 1 shows the growth of population of the County and Carmel Church Community during this time.



*HOUSING*

There were 431 new homes constructed during that time period. This report takes the conservative approach of multiplying the total number of homes by the average house population size of 2.83 for these Census Blocks from the 2000 Census. It is noted that, with the future approved section of the Belmont community and other large potential residential communities, the Carmel Church area will be a major focal point for population growth for Caroline County for many years in the future.



*INCOME*

Income is a measure of change for a rural suburbanizing community. Rising income and decreasing poverty levels are signs that more prosperous residents are migrating to the area and that the economic condition of existing residents is improving. The Carmel Church area has experienced a higher median family income and per capita income than the remainder of Caroline County. Furthermore, the area has fewer people below the poverty level.

*AGE*

Age groups reflect the opportunities and concerns that face a community. Carmel Church has a slightly younger population than that of Caroline County and the Commonwealth of Virginia. Since a majority of the Carmel Church population falls between the ages of 18 and 65, approximately 60 percent of community's population is in the age groups that constitute the bulk of the workforce. This large percentage bodes well for the economic prospects for the future.

**TABLE B.1: POPULATION AGE GROUPS**

<b>Age Category</b>	<b>Number</b>	<b>Percent of Population</b>
<b>Under 18 Years</b>		
Carmel Church	427	26.1
Caroline County	5,386	24.8
<b>Over 18 Years and Less than 65 Years</b>		
Carmel Church	669	40.9
Caroline County	8,240	39
<b>Over Age 65 Years</b>		
Carmel Church	242	14.8
Caroline County	2,854	12.9



## COMMUNITY DESIGN

### OVERVIEW

The Carmel Church Community desires all new construction, as well as any redevelopment, to reflect its heritage through the use of architectural standards and improved site design. Future growth of the community needs to enhance a small town character and significant historic properties located in the area. The improvement of the appearance and design of the community is a major factor that was identified by the citizen planning committee.

### NATURAL ENVIRONMENT

The citizen planning committee and survey identified preservation of the natural environment and the agricultural heritage of the community as vital. Future development should foster a “sense of place” and be consistent with the further development of the “Village of Carmel Church”, instead of the typical suburban development pattern. Threats to this desired development pattern include insensitive and incompatible development, inconsistent regulations, pollution and litter, and the lack of appreciation for the scenic beauty. The committee and the survey also expressed an interest in protecting historic buildings and sites within the Carmel Church Community. Additionally, the survey reflected the desire of residents to protect and enhance existing, as well as future, neighborhoods within the Carmel Church Community



from incompatible development. Other special characteristics of the community are its tranquility, quietness, farmhouses and the large, expansive agricultural landscapes with scattered forests along fence rows and creek basins leading to the South Anna River. The creation of a village in the Carmel Church Community strengthens the preservation of the rural landscape surrounding the community. Use of conservation subdivisions can enhance the preservation of significant tracts of land surrounding the village center.

### GATEWAYS



As identified in the Community Vision Statement, the Carmel Church Community is the southern gateway to Caroline County. A gateway should provide an inviting picture and gesture of welcome to visitors and tourists. The entrance to a community should reflect the care and quality of the environment within. One of the planning exercises that the Committee conducted was to list the community identifiers or symbols that let a person know they are in Carmel Church. The number one ranked community identifier was the commercial development at the I-95 interchange and the Petro sign.

The Carmel Church Community has two major southern entrances into Caroline County: U.S. Route 1 and Interstate 95.

There are a variety of methods to address the appearance of these corridors entering the Carmel Church Community. They range from the Virginia Department of Highway's Adopt-A-Highway program to neighborhood cleanup drives and use of volunteers to establish and maintain entrance feature landscaping. These are the types of programs that need to be initiated by the residents of the Carmel Church Community.

These principal roads leading into the Carmel Church Community need special attention and care as development occurs. Particular attention needs to be paid to signage and landscaping of developments on these corridors. The citizen committee and the survey expressed concern about the landscaping and appearance of non-residential development along these major roads. The creation and implementation of a development standards policy by the County has been identified as one solution to this concern. Ideally, such a policy would require the planting of street trees and other landscaping on non-residential parcels along with architectural treatment to respect the historic character of the community. The integration of Low Impact Development techniques (LID) with the principles of traditional neighborhood design (TND) is strongly supported by the citizen planning committee and would provide a framework for the implementation of a development standards policy.

### COMMUNITY IDENTITY & FUTURE DEVELOPMENT

The Carmel Church Community is a small community with many identities. It is a historic village, a rural farming community, and emerging commercial center. The area exudes nostalgia of a simpler time in its tight-knit residential areas. The real issue is how these identities can survive, while still promoting and preparing for the growth that will eventually come to the Community.

Priority items include issues such as promotion of historic heritage and tourism, preservation of scenic views and the natural environment, and stimulating redevelopment of existing commercial sites in ways that are compatible with the community's historic past.

### ROUTE 207 & I-95

The interchange of these two major roads has already experienced substantial growth. Highway oriented commercial uses extend from the intersection of Route 207 and Route 1 through the interchange and east towards the Belmont neighborhood. To integrate this existing development into a village concept will require the use of grant funds to install sidewalks, landscaping and a reduction in permitted signage. Several new development proposals in this portion of the Community are contributing such improvements as a part of their development process. The County should seek out grant funds to provide further improvements to integrate these uses into the overall community.



Business on 207 adjacent to I-95 interchange

### THE VILLAGE CORE

The citizen committee identified the location of the village core for the future of the Carmel Church Community to be the land lying primarily between U.S. Route 1 and State Route 652. The northern limit of the core is bounded by U.S. Route 207 with the southern boundary being the North Anna River. Lands lying adjacent to these boundaries should serve as transition zones to the more rural areas of the Carmel Church Community. Moving out from the core the use of conservation subdivisions need to be promoted with extensive tracts of land preserved and permanently protected from future development.

### TRADITIONAL NEIGHBORHOOD DESIGN (TND)

The use of TND design principles need to be included in all new developments within the core of the Carmel Church Community. The major theme, or design, elements of TND development involve the following features:

- The development has a discernible center often characterized by a square or a green. A transit stop or facility would be located at this location.

- Most dwellings are within a 5-minute walk of the center or other public spaces such as pocket parks. A 5-minute walk is approximately an average of 2,000 feet.
- There are a variety of housing types which are mixed together. For example, a street may have some row houses and detached single-family dwellings along with live-work units. The housing types are intermixed and not segregated and the designs reflect consistent themes.
- On the edges of the neighborhood are shops and other commercial uses designed to meet the needs of the community.
- Garage apartments are permitted within the backyard of each dwelling unit. It may be used as a rental unit or a craft shop or office for a particular service business.
- Typically an elementary school is located within the community in close enough proximity that many children can walk to school. This facility may be in or close to the center of the development.
- Small playgrounds and/or pocket parks are accessible to every dwelling unit. In order to meet this accessibility factor such facilities need to be not more than one-tenth (1/10) of a mile away.
- Streets within the community form an interconnected network which disperses traffic by providing a variety of pedestrian and vehicular routes to any destination. Additionally, the spine or major entrance road would be designed as a boulevard with a landscaped median. Other streets are relatively narrow and shaded by rows of trees. This design element slows traffic and makes the environment suitable for pedestrians and bicycles.
- Buildings and dwellings are placed relatively close to the street creating a well defined outdoor room. Parking lots and garages rarely front on the street. Parking lots are relegated to the rear of all buildings usually accessed by alleys.
- Prominent sites at the termination of streets are reserved for public buildings or public uses such as churches, commentaries, statues, fountains, and parks, etc. Often these public spaces are developed as part of the development of the community and dedicated to a public entity. These sites are used for public meetings, education, religious or cultural activities.
- Finally, the architecture of all the buildings in a TND are one which promotes and respects the history of the area. Dwelling units typically have front porches, garages located behind the house and served by alleys.

There are several examples of older, possibly historic, dwellings in the Carmel Church Community that reflect the architecture one may find in a traditional neighborhood. Below are two examples.



## GOALS, ACTION STRATEGIES AND IMPLEMENTATION

### **GOAL 1.1: SUPPORT THE CREATION OF THE VILLAGE OF CARMEL CHURCH**

**Action Strategy 1.1-1:** Use traditional neighborhood design principles in the development of the Village of Carmel Church.

**Action Strategy 1.1-2:** Establish a transit stop within the Village of Carmel Church.

**Action Strategy 1.1-3:** Require open space and landscaping throughout the planning area with an emphasis on preserving existing vegetation to the greatest extent possible.

**Action Strategy 1.1-4:** Encourage the use of sustainable development techniques and procedures.

**Action Strategy 1.1-5:** Use drip irrigation systems for maintenance of all landscaping requirements.

**Action Strategy 1.1-6:** Adopt policies encouraging the use of energy star compliant regulations for all new development in relation to mechanical equipment, appliances, and building materials.

**Action Strategy 1.1-7:** Modify policies to require any dedication of land for a public facility be substantially improved, so that such a facility can be implemented in a cost effective manor .

### **GOAL 1.2: PRESERVE THE NATURAL RESOURCES AND RURAL CHARACTER OF THE CARMEL CHURCH COMMUNITY**

**Action Strategy 1.2-1:** Adopt conservation subdivision provisions in the County's ordinance to permanently preserve substantial portions of the rural lands in the community.

**Action Strategy 1.2-2:** Adopt and implement an agricultural and forestal district program.

**Action Strategy 1.2-3:** Adopt a transfer of development and/or purchase of development rights program.

**Action Strategy 1.2-4:** Preserve areas with productive soils for continued agricultural and forestry uses by preserving blocks of land large enough to allow for efficient operations.

**Action Strategy 1.2-5:** Adopt a right to farm provision in the County Zoning Ordinance.

### **GOAL 1.3: ESTABLISH A STRONG SENSE OF COMMUNITY IDENTIFICATION BY THE PRESERVATION OF RURAL LANDSCAPES AND PROMOTION OF A TRADITIONAL NEIGHBORHOOD DESIGN TO SERVE AS THE CORE OF THE CARMEL CHURCH COMMUNITY.**

**Action Strategy 1.3-1:** Preserve areas containing unique and sensitive natural features associated with the rural landscape of the community. Such features may include wildlife habitats, migration corridors, steep slopes, streams, and wetlands.

**Action Strategy 1.3-2:** Minimize land disturbance through retention of existing vegetation and use of Low Impact Development techniques.

**Action Strategy 1.3-3:** Preserve scenic views, the river, historic and archeological sites and incorporate a park/greenway system to link these resources.

**Action Strategy 1.3-4:** Create traditional neighborhoods that are accessible to open space amenities, replicate historic development patterns, and create a strong community identity.

**Action Strategy 1.3-5:** Create a gateway via the use of a marker or monument on the major routes leading into Carmel Church.

**Action Strategy 1.3-6:** Develop a network of community volunteers to assist in community beautification and assistance to property owners who are physically, mentally and/or economically disadvantaged.

*IMPLEMENTATION*

Each method of implementation has the associated action strategy (AS) that correspond to this activity identified.

**WITHIN 5 YEARS;**

- Adopt Traditional Neighborhood Design (TND) principles in an overlay district for the Carmel Church Community (AS 1.1-1 & 1.1-3).
- Adopt policies and revised ordinance provisions promoting sustainable development and energy star compliance for all components of new and re-development projects (AS 1.1-4, 1.1-5, & 1.1-6).
- Adopt conservation subdivision provisions in the County's ordinance (AS 1.2-1, 1.2-3).
- Adopt a TDR provision in the County Code to permit density to be increased in targeted growth areas and to permanently protect valuable agricultural and forestal lands (AS 1.2-3, 1.2-4).
- Revise proffer guidelines to require site improvements and/or actual construction of public facilities in place of land dedications for such facilities (AS 1.1-7).
- Enact an Agricultural and Forestal District Program to preserve valuable crop and forest land resources (AS 1.2-2 & 1.2-5).

**WITHIN 7 YEARS;**

- Adopt a Right-to-Farm provision in the Zoning Ordinance requiring property owners or their representatives to disclose to potential buyers of real estate of the activities associated with agricultural and forestal operations (AS 1.2-5).
- Adopt low impact development techniques in stormwater management provisions of the County ordinance (AS 1.3-2).
- Develop a greenway and open space plan for the Carmel Church Community (AS 1.3-3).
- Explore the creation of a purchase of development rights (PDR) program to preserve valuable natural habitat, agricultural lands and forestry resources (AS 1.2-1, 1.2-4 & 1.3-1).

**WITHIN 10 YEARS;**

- Acquire resources to establish a Carmel Church gateway marker and utilize volunteers for its maintenance (AS 1.3-6).
- Establish a volunteer network through the Community Pride Program to assist disabled and elderly residents to improve and maintain their property (AS 1.3-6).

## LAND USE

### OVERVIEW

The Carmel Church Citizen Planning Advisory (CPAC) was appointed by the Board of Supervisors to assist the County with the update of its current comprehensive plan. The Committee began its mission with three major goals:

- To help establish the boundaries of the Carmel Church Community
- To navigate the future direction of the Carmel Church Community
- To provide a guide toward establishing a community identity for the Carmel Church Community

The Community has experienced rapid residential growth due to increasing development pressure from the metropolitan areas of northern and central Virginia. This growth is starting to make some changes in this region of the County. With a lack of transportation coordination, along with appropriate monetary allocations from the Commonwealth of Virginia, the traffic situation has significantly deteriorated around the I-95 interchange. Furthermore, growth in Carmel Church will require additional public facilities such as parks, recreational facilities, libraries, schools, solid waste, emergency services and senior centers. While growth cannot be stopped, the citizens of the Community desire to control or manage such growth.

### CARMEL CHURCH COMMUNITY BOUNDARY

The western boundary of the Carmel Church Community is designated as the eastern boundary of the Caroline Pines neighborhood and the high voltage transmission lines. The eastern boundary terminates at the Pole Cat Creek crossing of the transmission lines. The northern boundary follows Pole Cat Creek, crossing U.S. Route 207 and branching off along the southern most tributary of the Creek. The boundary then crosses I-95 and U.S. Route 1 terminating at old Telegraph Road. The western boundary follows old Telegraph Road transitioning to the existing Telegraph Road, and then to the intersection of Telegraph and Jordan Smith Roads. The western boundary follows Jordan Smith Road in a straight line to Jericho Road near the western property line of the Carmel Christian Academy. The western boundary line then follows Jericho Road in a western direction terminating at the intersection of Jericho Road and Long Creek. The southern boundary follows Long Creek in a southeasterly direction transitioning to the telephone line right-of-way and then to the North Anna River, terminating where the high voltage transmission lines cross the river.

### GROWTH MANAGEMENT

A growth management strategy needs to be developed to identify and guide new growth to locations where public facilities can be provided. Public facilities include the provision of adequate roads, storm water management, schools, parks, emergency services, and water and sewer. Open space and agricultural areas, as well as environmentally sensitive areas requiring protection, need to be identified and appropriate preservation programs initiated by both the Community and the County. The implementation of such a program will guide growth and help to maintain an important and desired distinction between the village core (growth area) and rural area of the Carmel Church Community.

One method of managing growth is to promote the use of Traditional Neighborhood Designs (TND), which incorporates business and residential uses in a single unified development plan. Such developments promote the linking of residential areas to non-residential areas via sidewalks, trails and bike lanes. Additionally, TND's often promote the use of historic and "human-scale" architecture as it relates to site and building designs. Human scale relates to the height and mass of the building. Typically human scale architecture permits structures to be no more than two to three stories in height. Additionally, this type of development creates unique places for community gatherings while promoting non-motorized modes of transportation.

Another benefit to a the TND type of development is that it typically preserves open space by promoting the clustering of homes and businesses into compact areas within the overall development along with common open spaces for passive recreational uses. The citizen sub-committee and responses from the various partici-

pants during the Open House supported this approach as it relates to managing future growth in the Carmel Church Community.

### RESIDENTIAL DEVELOPMENT

Question 5 of the Community Survey posed to Carmel Church residents asked, “Recognizing that the population growth in the County and the Carmel Church Community will continue to grow, what kinds of residential development would be desirable in the Carmel Church Community?” In general, respondents answered that mixed-use development would be the most desirable. This was followed by single-family homes on parcels of one to five acre, single-family homes on parcels of less than one acre, and single-family homes in conservation subdivisions with surrounding open space. Least desirable proved to be the addition of mobile homes to mobile home parks with less than 1% choosing this option. In total over 80% of the residents preferred mixed use developments, homes on lots less than 5 acres and/or conservation subdivisions.

When asked where new residential development should take place, less than 1% of the community stated that there should be no new residential development, while 52% stated that new residential development should be located off U.S. Route 1. Nearly 30% stated new residential development should occur in Belmont, while 16% stated they preferred new residential development to occur along U.S. Route 207.



Generally, you can find several existing examples of residential developments that exist in the Community. Holly Ridge (right) is a neighborhood with parcels ranging in size from two to four acres,



while Belmont (left), a newer neighborhood, has lots less than one acre, sidewalks and open space. Caroline Pines is an older residential community with parcels generally less than one acre and open space throughout the development.

### NON-RESIDENTIAL DEVELOPMENT

Carmel Church contains all ingredients needed for economic growth. The area is serviced by public water and sewer. The existing wastewater plant will soon be expanded to include more areas and uses. There is an excellent regional and national transportation system and general costs of business, such as land and taxes, are relatively low.

In relation to Caroline County, the Carmel Church area is primed to become the predominant economic development area for the County and the region. The community can become a major employment center that could draw workers not only from Caroline, but also from Richmond, Fredericksburg and , the Washington DC area, with implementation of a commuter rail. As an economic center, the Carmel Church area would provide a positive cash flow to the County and provide a larger tax base contributing the resources needed to implement other initiatives such as parks, new schools and other public infrastructure. It is imperative that the Carmel Church Community Plan promote a TND/Planned Development designation to foster the future development of a town center and/or village core. This designation would provide protection to the more rural landscapes within the Carmel Church Community, while promoting the growth of the County’s tax base in the village center.

### COMMUNITY IDENTITY

Placemaking is the deliberate creation of a living and working environment that brings a sense of community and identity to areas as small as a village and as large as a city. It is difficult to “create” a sense of place from the ground-up without a foundation upon which to build.

Carmel Church must inspire a vision of where it belongs today as an important transportation, commercial, business and residential center. To establish a sense of uniqueness and “place” to Carmel Church, and a place in which a variety of people will wish to live, visit, and work, this area must develop a coherent set of business, retail, and housing structures that follow an architectural standard. Distinct roads with residential homes, loft apartments, and other residential styles combined with restaurants and other retail, entertainment, specialty, and convenience stores need to be designed and built. Most importantly, however, a Town Center (village core) needs to be established with open space for local gatherings, such as farmers and flea markets, musical and outdoor entertainment opportunities such as “Movies on the Lawn”, as well as other public functions for holidays and other occasions.

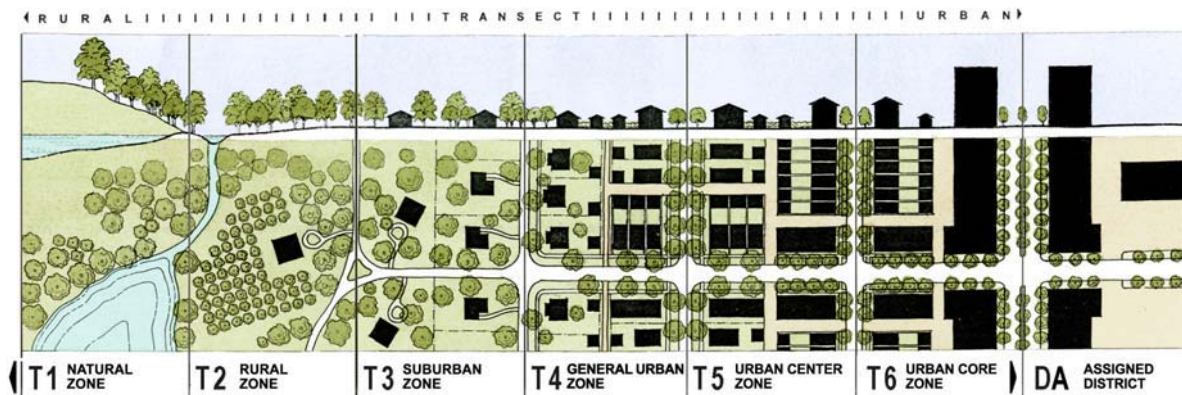


Village Core

### FUTURE LAND USE

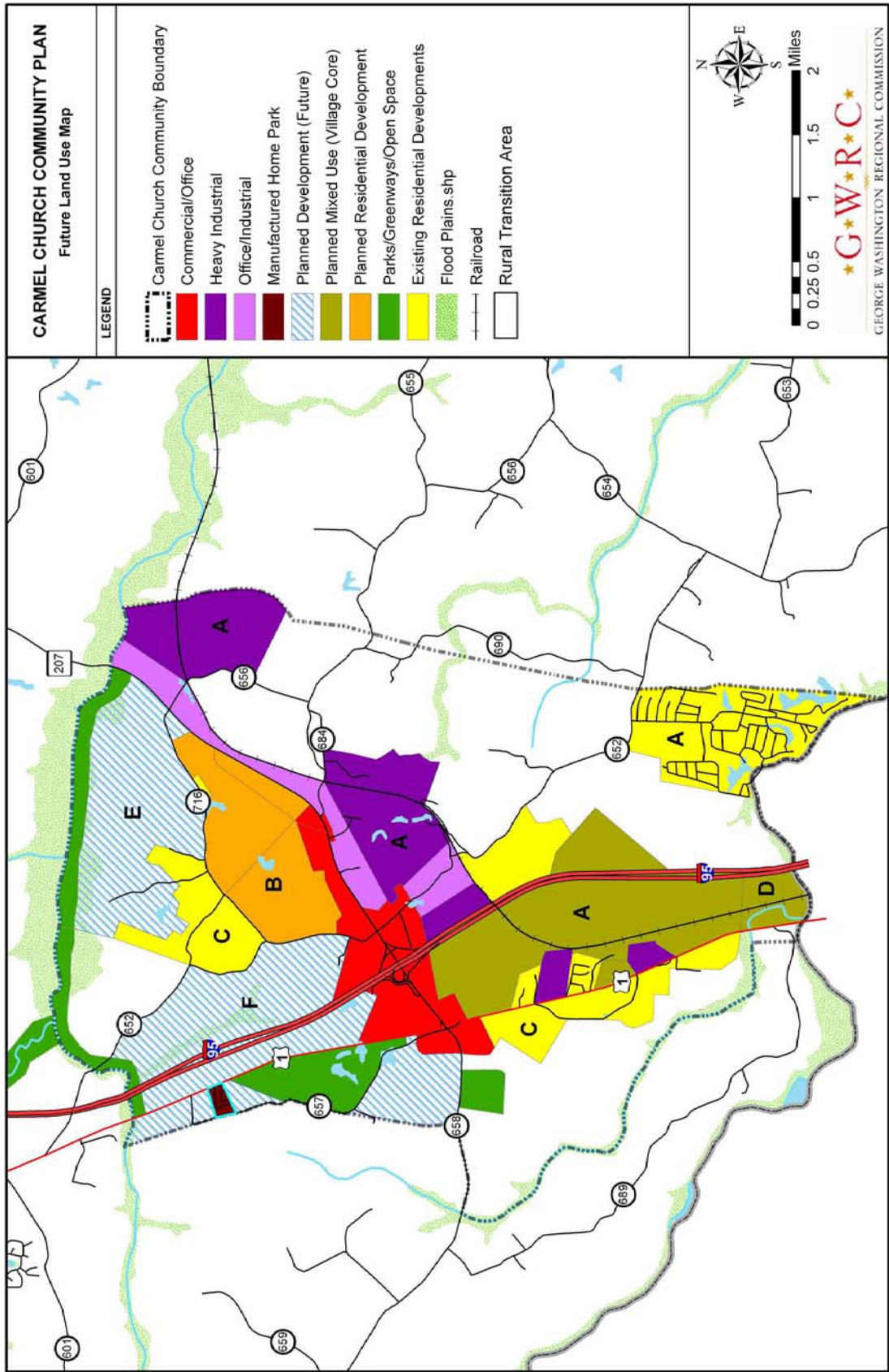
The committee developed a future land use map (Map B.1) based upon the existing land use map in the current Comprehensive Plan and a utility phasing plan consistent to the County’s Water and Wasterwater Master Plan. A land bay method was used to link the land bays to the provision of utility services. Each land bay may have several color coded future land use designations.

This land use map is intended to guide development until 2030 for the Carmel Church Community. Land Bay “A” contains the village core (light blue), planned residential development (orange), commercial/office uses (red), office/light industrial (lavender) and heavy industrial uses (purple). The use of a transect approach would best accomplish the intent of the land use plan and the various land bays associated with the plan. An example of a transect plan is shown below:



The transect approach reveals a dense core with gradually decreasing densities from the center to the outer edges. Therefore, as one moves along the transect from rural to urban conditions the density and complexity of the human elements increase while the density and complexity of the natural elements decrease. The rural end of the transect typically have low density, deeper setback, paths and trails, open swales, and “country roads”. The opposite is found on the urban end of the transect, typically contain higher density, shallow setbacks, streets and alleys, a grid street network, sidewalks, and “formal” gardens and landscaping. The land bays designated on the Future Land Use Map (Map B.1) reflect this pattern of development.





Map B.1

#### *LAND BAY A*

The land use map essentially designates a TND/Planned Development designation on the lands lying between U.S. Route 1 and State Route 652. This is intended to become the village core and includes the establishment of a transit facility. This designation should encourage a high density in the center of the village (10 to 15 units per acre) with density decreasing in concentric rings moving outward from the center. If “big box” retail desires to be within the Carmel Church Community, it should be incorporated into the village core. Public facilities, such as a library and recreational areas, should also be included within the core. In the outer most ring of the village, density should decrease so as not to exceed four and a half units per acre.

The area south of U.S. Route 207 and north of the CSX rail road tracks is designated as a planned industrial area. While all types of industrial development are needed, the heavier industrial uses should be located within the center of this area and lighter uses should act as a transition to the lower density rural lands to the south and east. While there is no specified density recommended in this part of Land Bay A, there should be a minimum requirement of 20% or more open space on individual parcels that have industrial uses.

The area surrounding the County Waste Water Treatment Plant is also designated as industrial with primarily heavier industrial uses located between the plant and the existing Shamrock Industrial Park. Light industrial uses are envisioned to be located along the frontage of Route 207. Open space in this area should be 20% or more of any parcel.

The area north of U.S. Route 207 and south of Moncure Drive is designated as Planned Development. However, any planned development within this area should include elements of the TND development. Overall densities in this area should not exceed three units per acre. However, in light of the more intense industrial land uses immediately south of Route 207, portions of this area may be better suited for light office development as a transition to the rural areas immediately north of Moncure Drive. If residential development is proposed within this land bay, such development should be limited and serve as another transition zone from the light office development to the rural area. The use of such transition zones serves to promote and support the transect model for future development in the Carmel Church Community.

The area around the I-95 interchange, U.S. Route 207 and Route 1 is designated as planned commercial. A variety of commercial uses, office/service uses and light industrial uses is envisioned to be located within this area of the Carmel Church Community. “Big box” retail should not be allowed to locate in these areas without strict design standards consistent with the village core and the highway overlay district guidelines.

#### *LAND BAY B*

This land bay is envisioned to be an extension of the planned residential development north of Route 207 and south of Moncure Drive. An elementary school should be accommodated in any future development within Carmel Church Community. Depending upon the sequence of development, the school should be located either within the village core or within this land bay. Land dedication alone for public facilities, historically, has not been sufficient to mitigate the impacts proposed developments. Applicants may consider alternatives to mitigate the impacts of their proposed developments. Future overall density should not exceed three and a quarter (3.25) units per acre within this land bay.

#### *LAND BAY C*

This section of the Carmel Church Community represents several pre-existing residential neighborhoods and the potential for other such small neighborhoods to be developed. Some of these areas are the result of family divisions of land, while others were platted several decades ago. Developers of properties adjacent to these neighborhoods should provide for inter-parcel connections via street and/or road extensions. The planning committee intends for these developments to be protected and to preserve the existing settlement pattern. The overall density for this land bay should not exceed two units per acre.

#### *LAND BAY D*

This area is intended to be a future extension of the village core with parkland preserved along the North Anna River. The creation of a North Anna River Park would be consistent with a TND approach for this future segment of the village core. Densities in this area need to be low (maximum 2.5 units/acre) to protect and preserve the sensitive environmental lands along the river front.

#### *LAND BAY E*

Land bay E is designated to be preserved until 2020 or until the Pole Cat Creek interceptor has been constructed. This area is envisioned to be developed in a planned development manner with an emphasis on preserving sensitive environmental features associated with the wetlands surrounding the watershed. Rather than clear cutting and removing the forest lands, a more sensitive approach should be followed and only the trees that are within the area needed to construct the roads, utilities and houses are removed. Overall densities should not exceed 2.5 units per acre. Additionally, upgrading Moncure Drive and its intersection with State Route 207 is a necessity to accommodate the increased traffic generated by the development of this parcel.

#### *LAND BAY F*

This land bay is envisioned to be developed in the latter portion of the planning period, approximately 20 years from now. This area will need a new sewer trunk line installed off the future Pole Cat Creek interceptor. When this infrastructure is constructed, the area is intended to be developed in a planned development format with 50% of the development to be residential and 50% of the development to be non-residential. This ratio is based upon the fact that much of the land area lies between I-95 and U.S. Route 1. Additionally, development proposals for this land bay should contain provisions for non-residential development to occur in conjunction with residential development. The commercial areas within this land bay should have a minimum of 25% open space and the residential areas should have a maximum density of two units per acre.

The area now known as *Mt. Olympus* is identified as a park/open space area within this land bay. This site has been identified by the Committee as a community resource and should be protected from development. Therefore, any intense development on this parcel should be avoided.

#### *RURAL TRANSITION*

The remaining lands, not identified within a land bay, are designated as rural transition zones. These areas are intended to be the transition from the community to the more rural parts of the County. The use of conservation subdivisions is envisioned to be located in the areas designated as rural transition. Conservation subdivisions should have a majority of the parcel preserved in permanent open space with an overall density of one-half (0.5) unit per acre. Open space preservation needs to be accomplished through donation to a land trust or some other non-profit entity.

## GOALS, ACTION STRATEGIES AND IMPLEMENTATION

**GOAL 2.1:** FACILITATE THE DEVELOPMENT OF A VILLAGE CORE IN THE CARMEL CHURCH COMMUNITY, WHILE PRESERVING THE SURROUNDING RURAL LANDSCAPE AND QUALITY OF LIFE.

**Action Strategy 2.1-1:** Provide for a diversity of housing types in the areas designated for residential development.

**Action Strategy 2.1-2:** Concentrate housing in the designated areas based upon the land use plan.

**Action Strategy 2.1-3:** Revise ordinance standards to allow higher density development in the village core with a gradual transition to lower density outside the village core.

**Action Strategy 2.1-4:** Encourage development to locate in areas with planned public facilities.

**Action Strategy 2.1-5:** New development should ensure that the Level of Service (LOS) for existing and/or planned public facilities is not less than a LOS B.

**Action Strategy 2.1-7:** Phase development in conjunction with the availability of public facilities.

**GOAL 2.2:** PROMOTE THE USE OF TRADITIONAL NEIGHBORHOOD DESIGN TECHNIQUES.

**Action Strategy 2.2-1:** Integrate TND standards into the County Zoning Ordinance.

**Action Strategy 2.2-2:** Specify acceptable architectural standards.

**Action Strategy 2.2-3:** The Village Core should support the 3 D's of the built environment – density, diversity of uses, and design.

**Action Strategy 2.2-4:** Large tracts and/or developments need to include civic uses, such as parks, plazas, schools, libraries, and senior/community centers.

**Action Strategy 2.2-5:** Actively support and encourage a transit facility to be located within the Village Core of the Carmel Church Community.

**GOAL 2.3.:** PROVIDE FOR CONSERVATION OF OPEN SPACE AND RURAL LANDSCAPES THROUGH CONSERVATION EASEMENTS AND SUBDIVISIONS.

**Action Strategy 2.3-1:** Ensure that rural development is sensitive to the need for rural preservation and the protection of environmentally sensitive areas.

**Action Strategy 2.3-2:** Require open space in rural developments to protect agricultural lands and forests, and preserve the rural character of those areas.

**Action Strategy 2.3-3:** Preserve the rural character of the Carmel Church Community by only allowing rural subdivisions that provide permanent easements on agricultural lands, forest lands, and open spaces.

**Action Strategy 2.3-4:** Encourage the use of conservation easements and land trusts in rural areas to facilitate open space preservation and the protection of agricultural lands, forests, natural areas, and environmentally sensitive areas.

**Action Strategy 2.3-5:** Utilize County utility easements for the development of greenways to connect communities within the County.

**GOAL 2.4: PROTECT EXISTING AND PLANNED DEVELOPMENT FROM ENCROACHMENT OF INCOMPATIBLE LAND USES.**

**Action Strategy 2.4-1:** Evaluate rezonings and special exception permit applications to ensure consistency with the Comprehensive Plan and compatibility with existing and planned land uses, as well as the character of the area.

**Action Strategy 2.4-2:** Require documentation of impacts of a proposed development, including but not limited to, traffic studies, historical and archeological resources, water quality and quantity and other environmental factors and fiscal impact. Recommendations from such studies should be adequately addressed prior to preparation of development plans.

**Action Strategy 2.4-3:** Require usable open space in developments within the Carmel Church Community to provide active and passive recreational activities.

**GOAL 2.5: ESTABLISH AN IDENTITY FOR THE CARMEL CHURCH COMMUNITY AS THE SOUTHERN GATEWAY INTO CAROLINE COUNTY.**

**Action Strategy 2.5-1:** Existing development along U.S. Route 1, I-95, and State Route 207 should be encouraged to maintain and improve their appearance.

**Action Strategy 2.5-2:** The County should seek out grant funding to improve the streetscape along State Route 207.

**Action Strategy 2.5-3:** Enact development standards requiring all new developments to install landscaping, sidewalks, street trees and lighting.

**Action Strategy 2.5-4:** Developers should address civic identity and uses as part of its development plan.

*IMPLEMENTATION*

Each method of implementation has the associated action strategy (AS) that corresponds to this activity identified.

**WITHIN 5 YEARS;**

- All new development projects should be determined to be consistent with the requirements of this plan (AS 2.4-1).
- Adopt provisions to increase the diversity of housing types within the Carmel Church Community and support the provision of accessory apartments and carriage houses in TND developments (AS 2.1-1, 2.1-2, 2.1-3).
- Support and encourage residential and non-residential development in areas where existing infrastructure could support such growth (AS 2.1-4, 2.1-5 & 2.1-6).
- Enact policies and ordinances that establish a Level of Service (LOS) B for the Carmel Church Community. Require any new development proposals to mitigate impacts and install the required infrastructure to maintain a LOS B (2.1-6).
- Apply for transportation improvement grants to improve the existing streetscape from the intersection of Route 207 and U.S. Route 1 east to the site of the County Visitor's Center (AS 2.5-2).
- Develop and implement performance criteria for new development and preservation (AS 2.4-2).

- Incorporate provisions within County ordinances to require preservation of open space for passive recreational use (AS 2.3-1, 2.3-2, 2.3-3 & 2.3-4).
- Revise ordinances to permit density increases in exchange for preserving open space and sensitive environmental features within the Carmel Church Community (AS 2.2-3, 2.2-4).
- Require that the Village Core have a usable, open, public space at its center (AS 2.2-4 & 2.5-4).
- Adopt transportation standards requiring any road constructed within the Carmel Church Community with more than 1,000 AADT to be designed as a boulevard with a raised landscaped median (2.5-3).

**WITHIN 7 YEARS;**

- Establish an Architectural Review Board, or similar entity, to review architecture of new development proposals to ensure it meets TND standards (AS 2.2-1, 2.2-2).
- Adopt an affordable housing provision, as permitted under the State Code of Virginia, to provide a variety of housing for the County's residents (AS 2.1-1).
- Develop a greenway and open space plan for the Carmel Church Community (AS 2.3-5).
- Establish a transit center at the Village Core to occur with any proposed development on land identified on the Future Land Use Map (AS 2.2-5).

**WITHIN 10 YEARS;**

- Acquire the required land for future potential sites for emergency services, schools, and other public facilities in anticipation of the provision of such services (AS 2.2-5).
- Acquire more public access points along the North Anna River in the Carmel Church Community (AS 2.3-4, 2.4-3).

## RESOURCE PROTECTION

### OVERVIEW

The Carmel Church Community has been influenced by both the traditional agricultural forces of farming and forestry and the modern economic forces of industries serving the major east coast transportation routes, of U.S. Route 1 and Interstate 95. As these transportation “magnets” grew, so did typical suburban growth from the Washington D.C./Fredericksburg and Richmond areas. In recent years, this growth has accelerated causing the large conversion of fields and forests to residential, industrial and commercial development. The County is concerned about the protection of its natural resources, such as forests, farmland, groundwater, streams and rivers, as well as the retention of the heritage and history of its rural, agrarian roots. This section deals with the policies that will protect and preserve these vital aspects of the County within the Carmel Church Community.

### RURAL PRESERVATION

Over the years, many industries and occupations have come and gone. One industry that can never completely die out is agriculture. People must have food, shelter, and clothing. All of these needs, especially food, depend on agriculture. Caroline County has been a part of this industry since its founding. The County is made up of hundreds of acres of fertile rich top soil and because of this valuable resource, Caroline County produces abundant crops of corn, wheat, soybeans, hay, timber and livestock each year.



The fertile, rich soils that are good for farming are also very good for residential, business and industrial land uses. Because of this, the farmland and forests are slowly being converted to houses, roads, schools and shopping centers. Once the land is developed for these uses, it will never be used again for agricultural/forestral purposes. The Carmel Church Community is one of the areas of the County that is changing rapidly. At this time, there are still large tracts of land being farmed in the Carmel Church Community. The Community must plan wisely how to secure a compatible mix of uses, and determine what should be developed, where it should be developed and what should be conserved and protected from urban/suburban uses.

### ENVIRONMENTAL PROTECTION



The area has numerous streams, and is bounded to the south by the North Anna River. It is of vital importance that this watershed and the numerous other streams that traverse the Carmel Church Community and flow into the North Anna River remain as pristine as possible. Steps to provide adequate buffers via the Chesapeake Bay Act, use Best Management Practices on land converted to non-agrarian practices, as well as sound farm conservation practices, are included for implementation in this Plan.

Although some of the area within the scope of this Plan is served by water and sewer, many of the residents and businesses are still served by private wells and septic tanks. Because of this, groundwater protection is very important. Many of the policies discussed and advocated stem from this very basic protection.

## MINERAL RESOURCES

There are defined deposits of quality rock types found in the Carmel Church Community; more particularly, the southwest corner of Caroline County. These granitic and gneissic rock types are hard and durable. Once extracted, crushed, and sized; they are used in the construction of roads, water/sewer lines, parking areas and buildings and in the manufacture of ready mixed concrete, concrete blocks, concrete pipes and asphalt. These mineral resource deposits should be identified and protected from unsuitable development, as they may offer the mineral resources that can be used in the future development and advancement of Caroline County. Construction activities in Caroline County are on a significant incline and it is almost certain there will be continued demand for construction aggregates produced at crushed stone operations. Such demand will ensure that Caroline County can benefit from this local mineral resource. It will be an important and valuable economic asset for many years into the future.

Crushed stone operations and related activities in the mineral resource area may present a challenge to County land-use planning. If potential threats (such as: noise, dust, water, traffic and vibration) associated with these operations and facilities are not properly managed or mitigated there may be detrimental impacts to the neighborhood and surrounding environment. The County may establish and maintain zoning regulations for a protective mineral resource zoning district, and which will emphasize the continued viability and compatibility of this important industry.

A possible solution to address these concerns and utilize this valuable resource is to develop a mineral extraction overlay district. Such a district would allow the extraction of such minerals and set basic standards for the extraction of these mineral resources. A second possible process may involve allowing such utilization of resources through the special exception permit process. Regardless of which approach is adopted, the County needs to address the utilization of such minerals in a way which protects our natural environment and mitigates noise, dust and associated traffic impacts with such operations.

## ENVIRONMENTAL DATABASE

An environmental database is an excellent tool for planning, zoning, reviewing projects and for determining priorities and capital project needs for both public and private sectors. It is essential to the implementation of this plan as well as the County's Zoning Ordinance that such a database contain information such as the condition and use of forest and agricultural lands, specific pollution problems, conditions of water bodies, wild-life habitat, steep slopes, wetlands and other environmental information.

This database is most commonly used in conjunction with a Geographic Information System (GIS). In addition to developing this data base the GIS system can assist in many functions of government and provide information to the public, as well as the private sector. Information provided may have a slight fee associated with it in order to help defray the costs of developing and maintaining such a system.



## GOALS, ACTION STRATEGIES AND IMPLEMENTATION

### **GOAL 3.1: PRESERVE AREAS WITH THE MOST PRODUCTIVE SOILS FOR CONTINUED AGRICULTURAL AND FORESTRY USES.**

**Action Strategy 3.1-1:** All Class I land, as designated by the Department of Soil and Water Conservation and Department of Agriculture, that is also shown on the Future Land-Use Map as Rural Preservation should not be rezoned for commercial, industrial or residential or developed for large-lot residential development.

**Action Strategy 3.1-2:** Adopt regulations to permit the use of conservation subdivisions to permanently protect large tracts of open space.

**Action Strategy 3.1-3:** Residential, commercial and industrial developments should be as compact as possible with a transition from the higher density/intensity of development to those areas of lower density and buffered by viable agricultural/forested property that will remain intact and not be converted to residential, commercial or industrial uses.

### **GOAL 3.2: PRESERVE BLOCKS OF LAND LARGE ENOUGH TO ALLOW FOR EFFICIENT AGRICULTURAL OR FORESTAL OPERATIONS.**

**Action Strategy 3.2-1:** Adopt and implement an agricultural and forestal district program to provide additional incentives for land to remain in agricultural and forestal use.

**Action Strategy 3.2-2:** Adopt a right to farm ordinance with an annual notice sent to property owners advising them that certain activities associated with agricultural operations may conflict with traditional residential use of property.

**Action Strategy 3.2-3:** Adopt County Code provisions requiring representatives of the real estate and financial community to disclose to potential buyers of real estate of the activities associated with agricultural and forestal operations in areas where there are potential conflicts.

### **GOAL 3.3: PRESERVE AREAS CONTAINING UNIQUE AND SENSITIVE NATURAL FEATURES, SUCH AS WILDLIFE HABITATS, MIGRATION CORRIDORS, STEEP SLOPES, STREAMS AND WETLANDS**

**Action Strategy 3.3-1:** Future Land Use Map should not propose any residential, commercial or industrial zoning uses that border on the North Anna River.

**Action Strategy 3.3-2:** Implement a county operated GIS system with an environmental database to identify sensitive environmental features and valuable agricultural soils.

### **GOAL 3.4: MINIMIZE LAND DISTURBANCE AND MAINTAIN EXISTING VEGETATION DURING NECESSARY CONSTRUCTION WHEREVER POSSIBLE.**

**Action Strategy 3.4-1:** Retain and preserve as much vegetation as possible by minimizing land disturbance, and prevent erosion through sound farming methods and erosion and sediment control practices.

**Action Strategy 3.4-2:** Encourage and promote the use of “no-till” farming methods in order to retain topsoil and reduce erosion and sedimentation.

**Actions Strategy 3.4-3:** Establish methods and processes to utilize the community’s valuable resources to preserve the rural character and mitigate all impacts from such activities.

**GOAL 3.5: PRESERVE SCENIC VIEWS, THE NORTH ANNA RIVER, AND HISTORICAL AND ARCHEOLOGICAL SITES.**

**Action Strategy 3.5-1:** Create an updated study of any known historical or archaeological site to determine the areas to be protected from incompatible land uses.

**Action Strategy 3.5-2:** Provide the necessary resources to conduct a historic resources survey for the Carmel Church Community.

**GOAL 3.6: PRESERVE OPEN SPACE IN APPROPRIATE RURAL RESIDENTIAL SUBDIVISIONS TO PROTECT ADJACENT AGRICULTURAL, FOREST, AND ENVIRONMENTALLY SENSITIVE LANDS AND THE RURAL CHARACTER OF THE AREAS TO BE MAINTAINED FOR RURAL/AGRICULTURAL LAND USES.**

**Action Strategy 3.6-1:** Explore the use of Transfer of Development Rights/Purchase of Development Rights.

**Action Strategy 3.6-2:** The Future Land Use Map should be strictly followed and agricultural/wooded lands should not be rezoned if the proposals are outside of the areas designated for the various types of uses proposed.

**GOAL 3.7: PRESERVE THE RURAL CHARACTER OF THE CARMEL CHURCH COMMUNITY BY DISCOURAGING RURAL "LARGE LOT" DEVELOPMENT IN THE AREAS DESIGNATED FOR THE PROTECTION OF FARMING AND FORESTRY.**

**Action Strategy 3.7-1:** Implement open space provisions into the Subdivision Ordinance permitting lots of less than ten acre in the RP District provided density requirements are met and open space is provided. Provide a density bonus for the permanent preservation of additional agricultural and forestal lands.

**Action Strategy 3.7-2:** Promote conservation via conservation easements, proffers and deed covenants on large tracts of land for wildlife habitats, large forested areas, swamps, rivers, streams and areas with steep topography.

#### *IMPLEMENTATION*

Each method of implementation has the associated action strategy (AS) that corresponds to this activity identified.

#### **WITHIN 5 YEARS;**

- Adopt an agricultural and forestal district program to protect valuable agricultural land from development pressure (AS 3.2-1).
- Provide the resources needed to implement a fully functioning GIS system to identify valuable agricultural and forestal soils (AS 3.1-1).
- Explore density bonuses if a project provides resources to protect other environmentally valuable land areas in the Community (AS 3.6-1 & 3.6-2).
- Adopt a Right-to-Farm section in the Ordinance requiring that property owners or their representatives disclose to potential buyers of real estate of the activities associated with agricultural and forestal operations (AS 3.2-2 & 3.2-3).
- Revise the Subdivision Ordinance to require preservation of at least 20% permanent open space for passive recreational use by the property owners of the subdivision (AS 3.1-2, 3.7-1, & 3.7-2).

- Enact a Conservation Zoning District providing for the preservation of open space of environmentally sensitive areas such as wetlands, forest lands, and valuable agricultural soils (AS 3.1-3, 3.3-1 & 3.4-3).
- Revise ordinances to require the use of LID methods to improve water quality and reduce over land grading (AS 3.4-1)

**WITHIN 7 YEARS;**

- Fund a complete historic resources survey of Caroline County with a digital component that may be integrated into the GIS system (AS 3.5-1 & 3.5-2)
- Explore the creation of a purchase of development rights (PDR) program to preserve valuable natural habitat, agricultural lands and forestry resources (AS 3.4-3, 3.6-1 & 3.7-2).

**WITHIN 10 YEARS;**

- Implement a TDR program to preserve farmland and encourage development of a viable agricultural economy (AS 3.6-1).

## **PUBLIC FACILITIES**

### OVERVIEW

Public facilities and services are those minimum facilities and services that the County provides for the public welfare. These include institutions, services, and land intended for general use to benefit of the Carmel Church Community as a whole. The quality of these public facilities and services contributes to and enhances the County's quality of life. Ensuring that public facilities are phased with the demand or need is a major growth management concern.

Providing suitable and accessible public facilities and services is one of the essential functions of local government. The efficiency and effectiveness of a local government is often determined by its ability to plan and finance these types of facilities and services.

### PUBLIC SAFETY

The safety of citizens is one of the major concerns of the Carmel Church Community. The threat of crime, fire and individual or community disaster calls for the placement of considerable emphasis on the facilities and services related to the protection of citizens and their property.

#### *EMERGENCY SERVICES*

Caroline County provides the fire and emergency service coverage for the Carmel Church area. The developer of the Belmont Community has proffered a site for the construction of an Emergency Services facility, needed as a response to the growth that is occurring in the area. The new facility is to be located at the intersection of Enterprise Parkway and U.S. Route 207.

A related issue is the use of an emergency pre-exemption signal on the traffic lights in the Carmel Church Community. This device receives a specific signal from emergency vehicles causing the light to change, stopping all vehicle movements except those traveling in the direction of the emergency vehicle. Providing this type of signal will decrease the response time for emergency equipment passing through this intersection. All future traffic control devices installed in the County should have a pre-exemption signal installed.

#### *SHERIFF'S SUBSTATION*

The community survey, along with the Citizen Planning Committee, expressed a desire to have increased police protection in the Carmel Church Community. During a meeting of the citizen planning subcommittee, this desire was expressed to the representative from the Sheriff's Office, who stated that one possible solution to this would be the placement of a substation in the Carmel Church area. He further explained that such a facility exists in the Ladysmith Community, which consists of a small building that serves as an office and interrogation room. However, he stressed that such a facility would require a secure building since there is an interrogation room and the possible storage of evidence collected by law enforcement.

When a new emergency facilities building is located in the Carmel Church Community it should be designed to meet the needs of the fire, rescue services and incorporate a Sheriff's substation.

### PARKS & RECREATION

The use of open space greenways, parks, and recreational programs is essential for the Carmel Church Community. These open spaces and programs enhance the social and psychological well being of citizens by providing them with enjoyable activities and settings in which to spend their leisure time. Conservation benefits are also derived from the preservation of open space and park areas by maintaining the integrity of watersheds and protecting wildlife habitats and water quality in streams and underground aquifers. The economic benefits of preserving open spaces and offering recreational opportunities include increases in the value of surrounding properties and an enhanced quality of life in Carmel Church.

There are no County owned parks or recreation facilities in the Carmel Church Community. The reason is that there was not enough population in this area in the past to justify this as a location for such a facility. However, with recent residential subdivision development in the Community, the demand for facilities and programs has increased and continues to increase with growth and development.

The Citizen Planning Committee and the survey indicated a preference for the provision of some recreational programs to be offered in the Carmel Church Community. The citizen committee identified a site on Jericho Road beside the Carmel Christian Academy as a preferred site for a community park. This site is large enough to offer the potential for several athletic fields, tot lots, and picnic shelter along with associated parking facilities. The Committee also identified Mt. Olympus Farm as a site to be preserved and protected from development. This operating farm should be preserved as open space within the Carmel Church Community.

As part of the park system in the Carmel Church Community, locations for greenways and bike lanes need to be considered. The Belmont neighborhood has trails and sidewalks, but they are not linked to other areas. Greenways and bike lanes could offer such linkages, not only to other communities in Caroline County, but to public buildings in Carmel Church such as the Visitor's Center, Post Office and existing retail operations. The proposed Pole Cat inceptor line offers a great opportunity to establish a Greenway to link the Carmel Church Community to the Ladysmith Community. When this facility is constructed, easements or rights-of-way need to include the use and installation of a non-motorized trail (greenway) along the easement.

### SCHOOLS

The public school system is a primary component of any community. Schools are an area of community focus and a gathering place for community and youth activities. Schools provide the essential function of educating our children and preparing them to enter a diverse, expanding work force. There are two elementary schools that serve the Carmel Church Community; Ladysmith Primary (grades K-2) and Ladysmith Elementary (grades 3-5). Some children who live in the Carmel Church Community are transported over fifteen miles to the Primary & Elementary schools. The citizen committee strongly feels that the next school to be constructed in Caroline County needs to be located within their community.



Carmel Christian Academy

The Carmel Church Community is also home to the Carmel Christian Academy. This school presently operates out of the Carmel Baptist Church. However, the academy is constructing a new facility a few miles from the church's present location on Jericho Road.

### SOLID WASTE



Jericho Convenience Site

The Caroline County Department of Public Works has three facilities that serve the Carmel Church Community. The first site is located on Jericho Road but is only open on Saturdays. There is a second site near the animal shelter on Devils Three Jump Road and another facility off Green Road in Ladysmith. With continued growth the County needs to consider either expanding the operations of the Jericho Road site or to identify another site closer to the Carmel Church Community.

### UTILITIES

The County just conducted an extensive evaluation of its water and sewer system. Due to recent legislative actions regarding the quality

of the discharge from the sewer plant, the County is faced with improving the quality of its discharge, as well as the expansion of the current plant. The initial phase of this expansion and upgrading is expected to be underway in 2007 and completed by 2010. This includes the expansion of the current waste water treatment plant from 0.5 million gallons per day (MGD) to 3.0 MGD.



**Caroline County Wastewater Treatment Facility on Rogers Clark Blvd**

The preferred method of wastewater collection is by gravity flow. This method is preferred due to the lower costs of construction, as well as the lower long term operation and maintenance costs. Pump and lift stations should be minimized and phased out to the greatest extent possible. Therefore, any future expansions of service to areas of the County should be limited to those areas that can be served by gravity. The land use plan is tied to this principle. As a result, Land Bays E and F would be the last areas in Carmel Church Community scheduled to receive service. Therefore, their phasing occurs towards the end of the planning horizon in 2020 or later.

Additionally, the County and the developer of the Haymount Community are working together to acquire the required permits to withdraw water from the Rappahannock River. Once the permitting process is complete the County will be able to supplement its current deep wells with water from the River. The water treatment plant associated with this is also scheduled to be completed by 2010. At this time, there is no anticipated shortage in the quantity of water for the County.

The Water and Sewer Master Plan of Caroline County is hereby incorporated into the Carmel Church Community Plan and its recommendations are included as recommendations of this plan.

### INFORMATION TECHNOLOGY

Information technology is a new component of the Community Plan. Given the rapid rate of technological development and its ever increasing impact on people's daily lives, this topic needs to be addressed as a part of public facilities. Planning for how information technology may impact the Community in the future is impossible due to its rapidity of change. However, we can focus on how this technology can serve the needs of the citizens of the Carmel Church Community.

The County has developed and began to implement a three tier technology plan to provide high speed internet access to local government offices, schools and libraries. Currently, the County is in the midst of implementing this plan, which involves the upgrading of the technology infrastructure of County facilities. The next phase of this program will incorporate the development of a fully functioning GIS system, enabling the last part of the technology plan to be implemented. The final phase is to make all possible business transactions with the County accessible via the internet, otherwise known as "e-government". The impact to the residents of the Carmel Church Community will be a more efficient government operation.

Additionally, with the advent of wireless networks, the County should consider setting up such a network in public buildings in the Carmel Church Community. Potential sites where members of the public could access a wireless network could be at new schools, libraries, or the Visitor's Center in the Carmel Church Community.

## LIBRARY

The Caroline County Library system currently has four branches, Dawn, Bowling Green, Ladysmith, and Carmel Church. Currently, the Ladysmith Branch is to be replaced with a new facility currently under construction by the developer of the Ladysmith Village. The Caroline County system is tied into the state system, but is not part of any other regional or sub-regional system. A branch library in the Carmel Church Community is essential as the area continues to develop and more people move to the Community. Ideally, the location of such a facility should be within the village core where it could serve as a focal point within the village.

## GOALS, ACTION STRATEGIES AND IMPLEMENTATION

**GOAL 4.1:** ESTABLISH AND PROVIDE EFFECTIVE AND EFFICIENT PUBLIC FACILITIES TO SERVE THE EXISTING AND ANTICIPATED NEEDS OF DEVELOPMENT IN THE CARMEL CHURCH COMMUNITY.

**Action Strategy 4.1-1:** Revise proffer policies to require development proposals to provide the sites for and construct public facilities.

**Action Strategy 4.1-2:** Design public facilities for joint use by County agencies whenever possible.

**Action Strategy 4.1-3:** All future expansions of sewer service should utilize a gravity flow design to the greatest extent possible.

**Action Strategy 4.1-4:** Plan development in conjunction with the availability of public facilities.

**GOAL 4.2:** PROVIDE ADEQUATE, HIGH QUALITY PUBLIC FACILITIES FOR SCHOOLS, LIBRARIES, AND INFORMATION TECHNOLOGY INFRASTRUCTURE THAT WILL ALLOW THE CARMEL CHURCH COMMUNITY TO PROSPER WITH A STATE-OF-THE ART COMMUNITY.

**Action Strategy 4.2-1:** Conduct a needs analysis to determine when a library and/or school are warranted based upon growth in the Community.

**Action Strategy 4.2-2:** Identify and acquire sites for new public facilities

**Action Strategy 4.3-3:** Support and encourage the use of technology and a continued expansion and maintenance of technological equipment and infrastructure.

**GOAL 4.3:** PROVIDE ADEQUATE FACILITIES IN THE CARMEL CHURCH COMMUNITY TO ALLOW FOR THE COLLECTION AND DISPOSAL OF SOLID WASTE.

**Action Strategy 4.3-1:** Identify and acquire a site in the Carmel Church Community for future solid waste collection and disposal.

**Action Strategy 4.3-2:** Manage the solid waste collection site and ensure compliance with all environmental policies and regulations.

**Action Strategy 4.3-3:** Support and encourage the use of private contractors for the collection and disposal of solid waste in residential and commercial areas.

**GOAL 4.4:** PROVIDE AN ADEQUATE LEVEL OF EMERGENCY SERVICE PROTECTION FOR THE CARMEL CHURCH COMMUNITY

**Action Strategy 4.4-1:** Recognize the “high-risk” potential of being located next to an interstate highway and provide the appropriate level of service, manpower, and equipment.

**Action Strategy 4.4-2:** Construct a state of the art Public Safety Building in the Carmel Church Community.

**Action Strategy 4.4-3:** Install emergency pre-emption signals on all traffic control devices in the Carmel Church Community.

**Action Strategy 4.4-4:** Development and implement a crime prevention program for business owners and neighborhoods.



**Action Strategy 4.4-5:** Encourage more interaction between the public safety services and the community.

**GOAL 4.5: PROVIDE ADEQUATE, WELL-MAINTAINED RECREATIONAL FACILITIES, SERVICES AND PROGRAMS FOR THE CARMEL CHURCH COMMUNITY.**

**Action Strategy 4.5-1:** Adopt proffer guidelines requiring new developments to construct new facilities.

**Action Strategy 4.5-2:** A community park located near Carmel Christian School with a Community Center should be constructed with appropriate open space and greenway easements within the Community.

**Action Strategy 4.5-3:** Provide supervised transportation services to those interested in participating in recreational programs offered in other parts of the County.

**Action Strategy 4.5-4:** Develop a volunteer network to support the recreational programs.

**Action Strategy 4.5-5:** Encourage joint use of facilities at schools or within neighborhoods to maximize effectiveness, including but not limited to walking trails, sports fields, and greenways.

*IMPLEMENTATION*

Each method of implementation has the associated action strategy (AS) that corresponds to this activity identified.

**WITHIN 5 YEARS;**

- Study options for and construct multi-use facilities for public safety, recreation, and libraries (AS 4.1-2 & 4.5-5).
- Study long term community service requirements and growth patterns to plan for the location of additional public facilities and services (AS 4.2-1 & 4.2-2, 4.5-1, 4.1-3, & 4.1-4)
- Acquire a site within the Community to provide a new solid waste collection site within five years of acquisition (AS 4.3-1, 4.3-2, & 4.3-3)
- Include measures in traffic signal upgrades to help emergency personnel improve response times and to ensure the safety of personnel traveling through signalized intersections (AS 4.3-3 & 4.4-4).
- Establish a partnership with the school system and/or FRED to provide the needed transportation service to allow Carmel Church residents and their children to participate in recreational programs offered by the County (AS 4.5-3).

**WITHIN 7 YEARS:**

- Monitor and upgrade, as necessary, communications equipment and technology for emergency personnel (AS 4.4-1 & 4.4-2).
- Fully implement the technology plan and prepare the way for a fully function GIS and e-government service delivery (AS 4.3-3).
- Dedicate resources to provide first rate technology service to the County Offices and School System (AS 3.4-1, 2 & 3).

- Construct a public safety building that accommodates fire, emergency services and a sheriff substation needs in a single facility (AS 4.4-2, 4.4-3, 4.4-5, and 4.4-6).
- Study the needs for additional personnel as calls for service increase (AS 4.4-1).
- Acquire land along the North Anna River to ensure public access to the river, preserve sensitive environmental areas and provide water based recreational activities (AS 4.1-1 & 4.5-2).
- Develop an open space plan for the Community that includes greenway elements linking different communities of the County (AS 4.5-2).

**WITHIN 10 YEARS:**

- Continually upgrade the GIS system with the latest technology (AS 3.4-1, 2 & 3).
- Encourage and support the installation of curb-to-home fiber optics (AS 4.3-3).
- Connect all County facilities with fiber optics(AS 4.3-3).

## ECONOMIC DEVELOPMENT

### OVERVIEW

Economic development refers the economic changes that occur due to growth and expansion. Economies develop due to interactions among increasing populations, increasing numbers of employers and employees, and increasing numbers of businesses providing goods and services for local consumption and export to other communities.

The Carmel Church Community currently has several businesses that offer an array of employment opportunities. There are several service industries associated with the highway oriented commercial businesses located around the I-95 interchange. A vast majority of the Carmel Church population commutes to other areas within and outside of Caroline County's borders for employment. The three main sources of job creation are: (1) retention and expansion of existing businesses, (2) recruitment of new businesses, and (3) formation of new businesses.

A majority of Carmel Church Community residents recognize that the community is poised for future growth due to its proximity to the Richmond and Fredericksburg metropolitan areas. The challenge for the Carmel Church Community is to manage growth in a manner that retains the quality of life, while creating a village center for the Community.

### RECENT ECONOMIC DEVELOPMENT INITIATIVES

Recent economic development projects include the Culpepper Farmers Cooperative, a farm and garden supply store offering a full line of farm, garden and hardware products. The new Union Bankshares Operations Center, bringing approximately 300 jobs to the Community and County as a whole, is also located in the business park located on Route 1 at Route 207.



**Union Bankshares Operations Center in Carmel Church**

Additionally, the community has seen two older commercial buildings revitalized. The reuse of existing commercial buildings is a cost effective and valuable re-development tool. The Carmel Church Rental Center is now located in the old grocery store at the intersection of Jericho Road and U.S. Route 1. To the west of the Rental Center is the Carquest Automotive Parts store, at the intersection of Telegraph Road and Jericho Road.

### ECONOMIC DEVELOPMENT FACTORS

One of the major factors to consider in promoting economic development is the education level of the workforce. In today's economy of increasing technological advancements, the workforce must continually strive

to add to its skill set and offer the tools and abilities for which industries are looking when hiring new employees.

In 1990, the Census revealed that 24% of the persons over 25 years of age either had attended college or obtained a degree. Based upon the 2000 Census, that number rose to nearly 33.6%. Continued strides in educational achievement should be encouraged and supported to attract future business operations to the Carmel Church Community and Caroline County as a whole.

The presence or availability of infrastructure is a major factor in attracting future employers to the Carmel Church Community. Since this area is the site of the County's waste water treatment plant and has a minimum 8-inch and a maximum 12-inch water main located along State Route 207, there is adequate water supply to support additional economic development incentives.

Another infrastructure factor is the transportation network. While the Community is served by three major highways (State Route 207, U.S. Route 1 and Interstate 95), any significant development in the area should be required to make improvements to the existing road network to maintain the capacity of the road system. Additionally, the Department of Transportation has scheduled significant improvements for the eastern side of the I-95 interchange, scheduled to begin in 2008. However, new developments should mitigate their impacts on traffic and maintain a Level of Service (LOS) of "B" or better as it relates to the road network in the community.

Site selection is also an important factor in economic development. The Carmel Church Community has many sites in varying sizes to accommodate all types of business enterprises. Many of these sites are already zoned for business.

#### TOURISM

One of the major economic development initiatives for the Caroline County Community is to attract more tourists and tourist related service businesses. Although not located in the Carmel Church Community, the Virginia State Fair recently moved its operations to Caroline County, approximately five miles from the Carmel Church Community. Additionally, Caroline County has acquired grant funds to build a Visitor's Center and future office space for the Department of Economic Development in the Carmel Church Community.

## GOALS, ACTION STRATEGIES AND IMPLEMENTATION

**GOAL 5.1:** CAPITALIZE ON THE HISTORIC HERITAGE AND SCENIC BEAUTY OF THE CARMEL CHURCH COMMUNITY TO CREATE AN ENVIRONMENT THAT PROMOTES TOURISM TO FOSTER GROWTH AND EXPANSION OF EXISTING BUSINESSES AS WELL AS ATTRACT NEW BUSINESSES.

**Action Strategy 5.1-1:** Use the recently completed Historic Caroline Map to promote the historic sites in the Caroline County.

**Action Strategy 5.1-2:** Acquire resources to construct “pull-offs” along highways where historical markers have been erected in the County.

**GOAL 5.2:** EXPAND UPON CURRENT AND DEVELOP ADDITIONAL ACTIVITIES AND EVENTS TO MAKE CARMEL CHURCH A DESTINATION LOCATION THAT WOULD BRING PEOPLE TO THE AREA AND PATRONIZE LOCAL BUSINESSES.

**Action Strategy 5.2-1:** Support the establishment of more cultural events located in the Carmel Church Community.

**Action Strategy 5.2-2:** Seek out resources to establish a County History Museum to attract more tourists to the Community and the County as a whole.

**GOAL 5.3:** EXPAND MARKETS FOR LOCAL BUSINESSES AND REDUCE IMPORTS INTO THE COUNTY.

**Action Strategy 5.3-1:** Promote the purchase of local goods by residents, as well as private business and the County.

**Action Strategy 5.3-2:** Aggressively market the County to businesses exporting much of their products and services to other localities.

**Action Strategy 5.3-3:** Maintain and improve, as needed, the adequate public facilities standards policy tied to acceptable levels of service (LOS).

**GOAL 5.4:** PROMOTE THE CARMEL CHURCH COMMUNITY IN THE OVERALL ECONOMIC DEVELOPMENT STRATEGY OF THE COUNTY WITH AN EMPHASIS ON JOB CREATION.

**Action Strategy 5.4-1:** Continue to offer a quality educational system for the County’s youth.

**Action Strategy 5.4-2:** Assist and encourage all local businesses to identify and penetrate new export markets.

**Action Strategy 5.4-3:** Provide the necessary infrastructure to attract new businesses into the Community.

**Action Strategy 5.4-4:** As part of the County’s overall economic development plan, provide adequate resources to make the Carmel Church Community a prime location for incubator or start up businesses.

## *IMPLEMENTATION*

Each method of implementation has the associated action strategy (AS) that corresponds to this activity identified.

### **WITHIN 5 YEARS;**

- Develop a self-directed driving tour of historic sites via brochures available through the State's Tourism Office and County Visitor's Center (AS 5.1-1).
- Place an interactive kiosk in the Visitor's Center to provide tourist related information for visitors entering the Carmel Church Community (AS 5.1-1).
- Support the establishment of community festivals and establish yearly Spring and Fall festivals for the Carmel Church Community (AS 5.2-1).
- Develop a "Buy Caroline First" campaign to support the purchase of goods, services, and materials from local merchants instead of spending resources in other localities (AS 5.3-1).

### **WITHIN 7 YEARS;**

- Seek out transportation enhancement grants or tourism promotion grants to construct pull-off areas promoting tourism (AS 5.1-2).
- Work with the Commonwealth of Virginia and/or Federal Government to access funds to establish a history museum/center within the Community (AS 5.2-2)
- Aggressively market the Community as part of the County overall economic development strategy (AS 5.3-1, 5.3-2 & 5.3-3).
- Support the expansion and improvement of schools and programs in Caroline County to better prepare our youth for employment in local businesses (AS 5.4-1).

### **WITHIN 10 YEARS;**

- Establish adequate infrastructure to provide water and sewer service within the identified service area boundaries (AS 5.3-3, 5.4-3).
- Initiate a shell building program to attract new businesses into the Community (AS 5.4-4).

# TRANSPORTATION

## INTRODUCTION

This section provides an overview of the public transportation system that serves the Carmel Church Community. Future transportation systems need to be designed to offer alternatives to the motor vehicles and encourage the use of other modes of transportation. Additionally, a method of separating “pass through traffic” associated with I-95 from local traffic should be identified. The future system should strive to balance safety, service, cost, community character, and convenience. Each part of the system should be complementary to the other and serve as a network for the community.

## VIRGINIA DEPARTMENT OF TRANSPORTATION (VDOT)



**Interstate 95 at Carmel Church**

There are three major types of roads in the Carmel Church Community; Interstate, Primary and Secondary. The interstate highway is Interstate 95, a major highway connecting Maine and Florida. This highway has an interchange at State Route 207, which is the connection for two primary roads within Caroline County; U.S. Route 1 and U.S. Route 301. These two primary roads run parallel to I-95 and are generally used as detours when I-95 traffic is heavy or slowed. U.S. Route 1 is located within the Carmel Church Community and U.S. Route 301 is located approximately 10 miles east, passing through Bowling Green. Both primary and interstate roads are designed to carry high volumes of traffic, larger motor vehicles at 55+ miles per hour. This class of road typically offers transportation on a regional and/or interstate scale.

In addition to the interstate and primary roads, there are a number of secondary roads in the community. Generally, secondary roads are smaller and not designed to carry high volumes of traffic and larger motor vehicles. Typically, this class of road provides direct access to land and short intra-county trips. Some of the more heavily traveled secondary roads are: Ruther Glen Road (Route 652 - south), Cool Water Drive (Route 652 - north) and Jericho Road.



**Typical Secondary Road**

Together with VDOT, the Caroline County Board of Supervisors identifies road projects for inclusion in the *Secondary Road 6-Year Plan*, revised annually based upon the funds allocated to the County for road improvements. Currently, Phase 1 of the relocation of State Route 652 and the redesign of the southeastern and northeastern quadrants of the I-95/Route 207 interchange are scheduled to be constructed on FY 2008. Future phases of this project have yet to be finalized. However, it is anticipated that as further development occurs within the area such road improvements will be installed as part of the development process. There are no other road improvements in the *6-Year Plan* for the Carmel Church Community.

## HIGHWAY CORRIDOR OVERLAY DISTRICT (HCOD)

In order to maintain the safety and efficiency of primary roads in Caroline County, the Board of Supervisors adopted a highway overlay district (HCOD). This district prevents excessive curb-cuts and promotes the use of shared entrances, service roads, and inter-parcel connections, whenever possible. The overlay regulations

also govern the setbacks and other site design strategies to improve the efficiency of the existing transportation network. Additionally, the district mandates that parking areas be located in the rear of non-residential development to create an attractive relationship between buildings, the street and the surrounding areas. Both U.S. Route 1 and State Route 207 are subject to this overlay district and all new development or re-development must adhere to its provisions.

There are three main points of entry/exit in the Carmel Church Community. The first is I-95 entering Caroline from the north at the Spotsylvania County line and exiting to the south at the Hanover County line. Secondly is U.S. Route 1, also connecting Maine to Florida, entering from the north at the Spotsylvania County line and exiting to the south at the Hanover County line. The final point of entry/exit is State Route 207, beginning at the intersection of U.S. Route 1 and extending northeast to Bowling Green where it merges with U.S. Route 301 and exits the county at the King George County line to the north. **Table B.2** illustrates the major entry and exist points.

**TABLE B.2: MAJOR POINTS OF ENTRY/EXIT - PRIMARY ROADS - CARMEL CHURCH COMMUNITY**

Highway	Entry/Exit	County Border	Entry/Exit	County Border
Interstate 95	Hanover	South	Spotsylvania	North
U.S. Route 1	Hanover	South	Spotsylvania	North
State Route 207/U.S. 301	----	----	King George	North

PRIVATE ROADS

There are many miles of privately owned subdivision roads in the County. These roads were not designed nor were they built to VDOT standards. As a result, these roads often become a burden and a source of conflict to property owners. These substandard roads have become more heavily traveled and the deterioration rate has increased. As of 1990, the use private roads in new subdivisions is prohibited. However, there are many lots platted and recorded that were intended to be served by private roads.



Typical private road, outside of existing developments

In the Carmel Church Community one of the largest residential developments with private roads is Caroline Pines. There are over 1,000 lots in the Caroline Pines neighborhood. Some of the roads in the community are paved, while many of the roads are gravel. Other existing developments with private roads include the Lake Caroline & Land Land 'Or communities.

TRANSIT SERVICE

The Carmel Church Community is served by the Fredericksburg Regional Transit Service (FRED). FRED has service to the Carmel Church Community every day of the week. While there are a number of elderly residents in the Carmel Church Community, there is not a sufficient client base to expand this service at the present time. A systemic review process of the client base should be performed to ensure that there is sufficient demand before expanding transit service in the Carmel Church Community.

RAIL SERVICE

Currently, there is no rail service in the Carmel Church Community. However, the community is transected by an existing rail line owned by CSX Railroad. The Washington D.C.-Richmond Rail corridor has been a major force for economic development in Virginia since before the Civil War. Historically, one of the major



sources of income for the railroads was passenger rail service. In 1943, an average of 103 trains passed through the corridor daily. Since then much of the railway has waned in growth and passenger service has been relegated to Amtrak use only.



CSX Rail line

Better rail service could once again stimulate economic development in Caroline County and the region. From the north, Virginia could aggressively promote tourism fed by passengers already using trains in the Northeast Corridor. The Washington, D.C. – Richmond Corridor feeds the Northeast Corridor with thousands of passengers every year. Rail improvements in Virginia could extend the Northeast Corridor another 110 miles to the Virginia Capitol.

For Caroline County, expanded rail service could positively impact the region and Carmel Church. Given its close access to both I-95 and Route 1, the area would be an ideal extension for the VRE system and could alleviate existing traffic problems. The citizen planning committee recommends that the village core be developed around such a rail facility.

Near the intersection of Jericho Road and U.S. Route 1 is a VDOT commuter parking lot. This facility is used extensively during the week and an expansion may be warranted. However, if other transit services (rail and FRED) are provided in the future, then the existing facility may be sufficient.



Existing Commuter Lot

### AIRPORT

There are no public airports located in Caroline County. Air transportation is provided to the County by Richmond International Airport, Stafford Regional Airport and Shannon Airport in Spotsylvania County. It may be feasible to include a small airport with light air-freight capabilities adjacent to the village core in order to capitalize on a multi-model transportation hub (rail, road and air) located in the future Village of Carmel Church.

### BIKE LANES/GREENWAYS

At this time, there are no dedicated biking facilities in the Carmel Church Community or Caroline County. In the next revision of the Caroline County Comprehensive Plan (due to begin in FY 05/06) there will be a biking element included in the transportation portion of the Plan. An examination of where these facilities are needed and how to fund their construction will be part of that planning process.

### FUEL TAX

The Carmel Church Citizen Advisory Committee supports further investigation of a fuel tax. If this investigation reveals that the funds raised can be reserved to fund transportation improvements in Caroline County, specifically the Carmel Church I-95 interchange, the committee believes that this revenue source needs to be implemented in conjunction with the initiation of transit service in the Village Core of Carmel Church. In fact, in order for light rail service to be instituted in Caroline County this additional tax is required. The committee is under the impression that this special district tax would be paid mostly by the users of the road system.

### TRANSPORTATION PLAN

The transportation plan for Carmel Church Community identifies three major improvements, in addition to the relocation of State Route 652. The first of these improvements is to designate State Route 207 as a six lane divided highway beginning at the intersection of Route 207 and Moncure Drive and extending west to U.S. Route 1. The second improvement is to modify U.S. Route 1 from a four (4) lane undivided highway to

a six (6) lane divided highway. Additionally, Cool Water Drive should be upgraded from a rural secondary road with an easement of 30 feet to a secondary road with a 60 foot right-of-way. This would also include improving the pavement surface and installing appropriate shoulders.

Other improvements are identified, but are not considered major, including widening Jericho Road at its intersection with U.S. Route 1 and State Route 207. This improvement would allow both sides of the intersection to mimic one another and then transition Jericho Road back to an undivided, two lane secondary road. Also of importance is the construction of the service roads parallel State Route 207 to provide connections from U.S. Route 1 across I-95 to Route 652. This road section is intended to be designed as an urban standard with a 60 foot right-of-way. These roads would provide a means to allow local traffic access to each side of I-95, without impacting the interstate oriented traffic at the interchange. This improvement would require two bridges crossing over I-95 (one north and one south). These bridges may postpone or eliminate the current, ultimate VDOT plan to construct flyovers for this interchange. These two roads would also connect the village core to the industrial and lower density residential portions of the Carmel Church Community.

## GOALS, ACTION STRATEGIES AND IMPLEMENTATION

### **GOAL 6.1: MAINTAIN A LEVEL OF SERVICE OF B OR BETTER FOR THE ROAD NETWORK IN THE CARMEL CHURCH COMMUNITY.**

**Action Strategy 6.1-1:** All new developments will provide adequate entrances and turn lanes to accommodate the additional traffic and minimize the impact to existing traffic patterns.

**Action Strategy 6.1-2:** Identify and seek safety improvements at locations where they maybe required.

**Action Strategy 6.1-3:** Identify corridor needs on Route 207 between U.S. Route 1 and Belmont subdivision.

**Action Strategy 6.1-4:** Identify and support the development of alternatives to Route 207 to access the east and west sides of I-95.

**Action Strategy 6.1-5:** Seek and find funding for implementation of the interchange improvement and design of roads that support interchange improvements.

**Action Strategy 6.1-6:** Promote a grid-like road system with an emphasis on East-West connections.

**Actions Strategy 6.1-7:** Promote new linkages from Route 652 to Route 1.

### **GOAL 6.2: PROVIDE FOR THE SAFE AND EFFICIENT MOVEMENT OF PEOPLE AND GOODS THROUGHOUT THE CARMEL CHURCH COMMUNITY.**

**Action Strategy 6.2-1:** Identify and support alternative pedestrian access throughout the community to minimize existing issues.

**Action Strategy 6.2-2:** Continue to support the expansion of transit service and other modes of transportation in the Carmel Church Community.

**Action Strategy 6.2-3:** Promote and support a railroad station to be located in the village core of the Carmel Church Community.

**Action Strategy 6.2-4:** Evaluate the advantages and disadvantages of joining VRE.

**Action Strategy 6.2-5:** Encourage and support the potential to expand Rail Service, PRTC, VRE and High Speed Rail.

**Action Strategy 6.2-6:** Promote and support overland hauling and promote development that complements existing uses.

**Action Strategy 6.2-7:** Have enabling legislation authorizing Caroline County to adopt specific financing mechanisms to address specific transportation related issues.

*IMPLEMENTATION*

Each method of implementation has the associated action strategy (AS) that corresponds to this activity identified.

**WITHIN 5 YEARS;**

- Develop an adequate public facilities and level of service (LOS) policy for the Carmel Church Community (AS 6.1-1 & 6.1-4).
- Develop a policy requiring the dedication and/or right-of-way reservation for future improvements to the highway system in the Carmel Church Community (AS 6.1-3).
- All new developments in the Carmel Church Community should be required to submit a traffic impact analysis (AS 6.1-1).
- Strengthen the provisions of the Highway Corridor Overlay District to protect and enhance the Carmel Church Community (AS 6.1-1, 2; 6.1-2 & 6.2-1).

**WITHIN 7 YEARS;**

- Obtain resources to provide adequate non-motorized transportation facilities in the Carmel Church Community. The use of sidewalks, trails, and biking facilities should be concentrated in and around the Village Core linking neighborhoods and points of interest and allowing residents a viable option to driving motor vehicles (6.2-1 & 6.2-2).
- Seek transportation grant funds to plan, construct, and renovate transportation facilities and link historic sites using these new transportation facilities (AS 6.1-3; 6.1-5, 6.1-7, 6.2-3, & 6.2-4).
- Develop a traffic management or circulation plan for the Carmel Church Community (AS 6.1-6, 6.1-7, 6.2-6).

**WITHIN 10 YEARS;**

- Discourage linear strip development and identify suitable sites for light industrial/commercial parks meeting the LOS policy for the Carmel Church Community (AS 6.1-1, 6.1-2, & 6.1-3).
- Explore the use of special service districts as a financing mechanism for needed service roads and other transportation improvements (AS 6.2-4, 6.2-5 & 6.2-7).