ROUTE 60 EAST CORRIDOR ADVANCE PLANNING STUDY

OCTOBER 14, 2016

PREPARED FOR:

Powhatan County
Department of Community Development

PREPARED BY:

Dave Anderson PE
1001 Boulders Parkway, Suite 300
Richmond, Virginia 23225
804.200.6398
804.560.1016 fax
Dave.anderson@timmons.com
www.timmons.com

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

SUMMARY

Powhatan seeks to best provide a future for Route 60 that protects the ability for its citizens to live and work in an environment that it has been known for, including its beautiful character while proximate to the state's metropolitan capital. Because of the significant commuter population, Powhatan hopes to identify a corridor strategy that will provide the best balance between economic development that is anticipated and the desire to maintain its rural character.

To achieve this strategy, Powhatan conducted a dual purpose study to identify both land use issues that may impact the future corridor and the transportation network required to achieve the growth anticipated. The first part of this study, and contained in this report, is the evaluation of the current land use plan categories in the Route 60 East Corridor Plan. The second, through a study enabled through VDOT grant funding, is the evaluation of what the future transportation corridor can expect with respect to capacity and level of service (referred to in this report as VDOT Study).

POWHATAN STUDY (this report)

This study and report center on the expectation of the development capacity and potential of the twenty-three communities of land use in the Comprehensive Plan area known as the Route 60 East Corridor. Each of these communities is made up of one of four land use types, Commerce Center (abbreviated in this report as C), Village Commercial (VC), Village Residential (VR), and Low-Density Residential (R). The twenty-three communities are shown and labeled in *Exhibit A*.

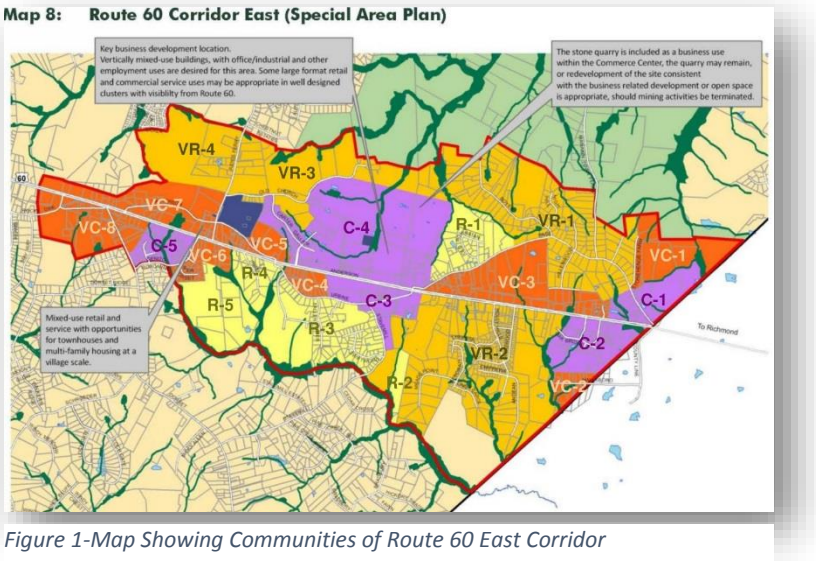


Figure 1-Map Showing Communities of Route 60 East Corridor

Each community has been evaluated on several criteria, including location, topography, current development, and other characteristics, and from those elements, an expected ultimate build-out scenario has been developed. These build-out scenarios are used in assisting with the traffic generation modelling of the VDOT Study.

Additionally, this study includes an evaluation of whether there are any concerns to be considered regarding the categorization of the various land use types, and where appropriate, recommendations for potential changes in areas to better complete the buildout of each community in the corridor.

Ultimately, this report evaluates areas that show particular opportunity for enhancing the Route 60 Corridor that will allow the dual purpose of economic development and rural preservation throughout the county to be achieved.

VDOT STUDY

Subsequent to this study is a vehicular-based study for the Route 60 East Corridor centered on the access to Route 60. The VDOT Study will include information from this report that will help inform a more reasonably accurate prediction of transportation metrics and create a more responsible expectation of future capacity issues that Powhatan County may face as the county grows.

THE PROCESS

STUDY AREA

The study area for this report was taken from the current Powhatan County Comprehensive Plan special area plan known as the Route 60 East Corridor. This area and the stated goals of this area are shown in *Exhibit B* of this report.

COMMUNITY AREAS

The study area is made up of multiple segments, or communities, consisting of multiple parcels that are grouped and recommended for a specific category of future land use. In all, there are twenty-three areas of land use, and each is shown and identified in *Exhibit A*.

The community areas are divided into the following categories that are consistent with the description found in the Comprehensive Land Use Plan. There are four categories found in the Route 69 East Corridor. They are as follows, further described by their intent (from the Comprehensive Land Use Plan):

Commerce Center - Commerce centers should be established at targeted locations along the Route 60 Corridor to accommodate business and industrial development in a location conducive to both the local and regional markets. Commerce centers should be well designed to accommodate these uses in a manner that has limited impact on the surrounding development including but not limited to sustainable stormwater management practices, local roads, and open spaces.

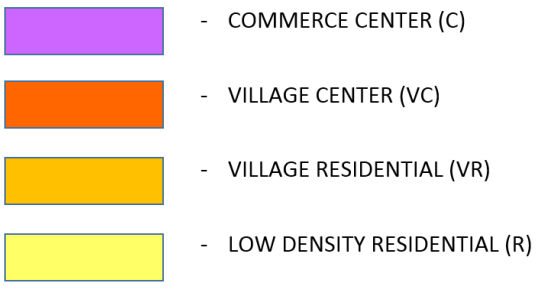


Figure 2-Land Use Designations

Village Center - Quaint village centers should be established in the targeted growth areas of the county to accommodate local business growth and provide services and employment to the local population of Powhatan County. Village centers will serve as an integral component of complete communities within the county and be within walking distance of many village residential neighborhoods

Village Residential - Village residential should include walkable neighborhoods with diverse housing options and integrated parks, and public uses, which are compatible with the residential qualities of the neighborhood

Low-Density Residential - Low-density residential may be permitted at the edges of the village to allow a transition from the more intense village residential areas and the surrounding rural area. Low-density

residential should be permitted in limited areas of the county and used as transitional areas only. Isolated pockets of low-density residential are not appropriate

Note: the detailed description of these four specific land use types is taken directly from the Powhatan County Comprehensive Plan and is shown in Exhibit C.

COMMUNITY AREA CHARACTERISTICS

In each of the community areas, several characteristics were evaluated. These characteristics include Development, Topographical/Environmental, and Road Connections.

Development – For each area, the existing development scenario is identified. The existing development character, potentially more than any other criteria, impacts the capacity to which the remainder of the land area can be developed. In turn, this actual capacity then impacts the maximum traffic that should be expected from each land area.

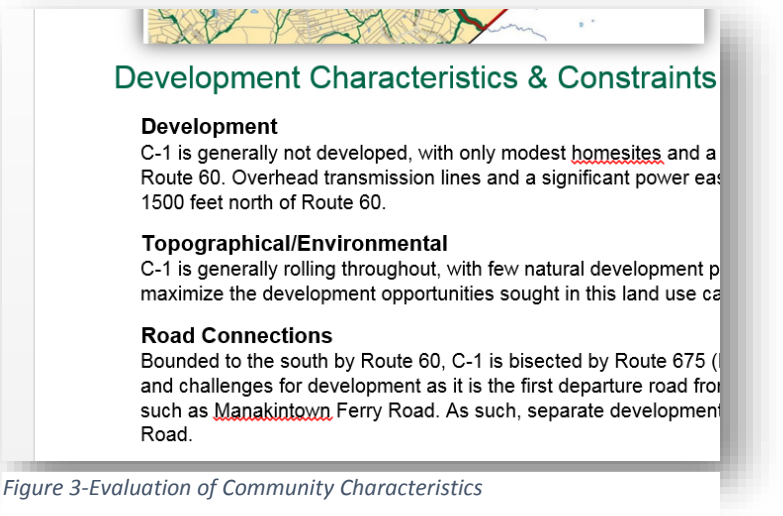


Figure 3-Evaluation of Community Characteristics

For instance, the development potential of a community that is identified as VC is significantly reduced if development of single family residential is already occupied by single family homes and lots because it will be very difficult to secure property needed to form future connected property that will allow for VC uses to be designed and constructed that will accomplish the intent of VC.

Topographical/Environmental

Further affecting the buildout potential of each community are the physical characteristics of the land. Steep slopes can impact the areas where development is feasible. Environmentally sensitive and protected areas, such as wetlands and waters of the US, can produce barriers to connections for development.

Road Connections – Significant to the buildout potential of a community is its proximity to Route 60 and its potential points of connection. These points are limited to those that are existing, or locations of potential future connection. Because VDOT's Access Management Regulations limit the spacing of new connections, there is a limited access potential to Route 60 for future collector and arterial roads that will serve beyond properties immediately adjacent to Route 60.

The Thoroughfare Plan of Powhatan County shows the configuration of existing and proposed access points to Route 60. It is attached as Exhibit D.

DETERMINATION OF BUILDOUT POTENTIAL

Based on the community characteristics, the buildout potential of the communities is determined using approximate limits of anticipated boundaries to development, including, but not limited to, easements, buffers from wetlands, and setbacks from highways.

These estimates are not based on current zoning conditions of individual properties, nor does it derive from any preliminary projected designs for any of the parcels within the communities. Rather, it is a general area analysis, when combined with the area already develops, generates the ultimate expected capacity (future development area) that can be developed.

LAND BAY DATA	
Overall Acreage	155± Ac.
Ex. Built (%)	20%
Fut. Buildout (%)	60%
Total Parcels	20
Parcels > 50 Ac.	1
Parcels > 100 Ac.	0

Figure 4-Current and Future Buildout

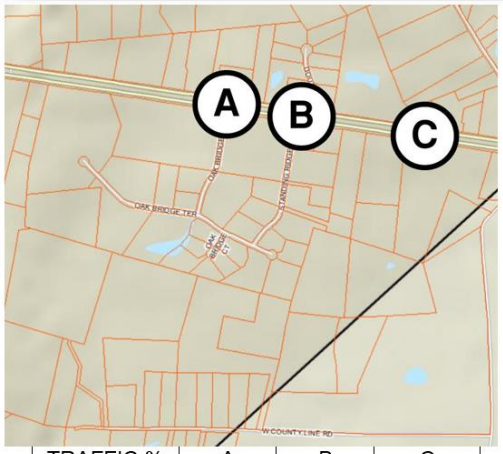
These projections of future buildout potential are expressed in percentage of total buildout, and are shown for each community in *Exhibit E*, along with the other input characteristics that helped to develop the buildout percentage.

TRANSPORTATION FLOW

Each community was analyzed to identify its relationship to Route 60 from an access standpoint. Wherever the community, each was evaluated as to what existing points of connection with Route 60 are available to those communities. Where more than one access to Route 60 is available, an approximation of the estimated percentage of motorist use accesses each point of access.

Additionally, an evaluation is made of the potential for future access to Route 60 from the communities that are immediately adjacent to Route 60. Included in this evaluation is a reference to the Thoroughfare Plan (*Exhibit D*) to determine where potential goals of access are in the current Comprehensive Plan.

The recommended land use for each community is also considered in evaluating the potential future points of access not currently built, since those uses may actually benefit from locational access that differs from the current Comprehensive Plan.



TRAFFIC %	A	B	C
EXISTING	75	25	
FUTURE	60	20	20

Figure 5-Existing and Future Traffic Flow

For each community this evaluation was done, and the resulting percentages of future buildout traffic flow is shown in *Exhibit F*.

USING THE TRANSPORTATION ELEMENTS TO ASSIST IN VDOT STUDY

From the observations and approximations made in the traffic characteristics of the communities in the Route 60 corridor, this information is used to inform the VDOT Study in areas where the actual percentage buildout is significantly different than would be estimated using standard trip generation methods, such as the ITE Trip Generation method. By using the information from this study, the VDOT Study can expect a result more closely estimating the ultimate expected buildout, rather than the maximum possible buildout.

By using this information for the VDOT Study, there is a reduced chance of overbuilding and overallocating lanes for trips that may never materialize from future development.

AREAS WARRANTING FURTHER EVALUATION

In some cases throughout the corridor, the existing Comprehensive Plan designation for the future land use is inconsistent with what the physical features and/or the development trends and existing uses will allow. It is important for the county to have a Comprehensive Plan that is not only aspirational in what it can be, but it needs to be tethered to the reality of what those communities actually are already and subsequently what their potential really is.

To that end, each community was evaluated to identify whether the County should in the future pay attention to these details and potentially change their designation from the current land use to another one after the proper public input.

Exhibit G shows the communities where concerns exist with the existing category of land use, along with a recommendation change that the County could consider at the appropriate time in the Comprehensive Plan Update.

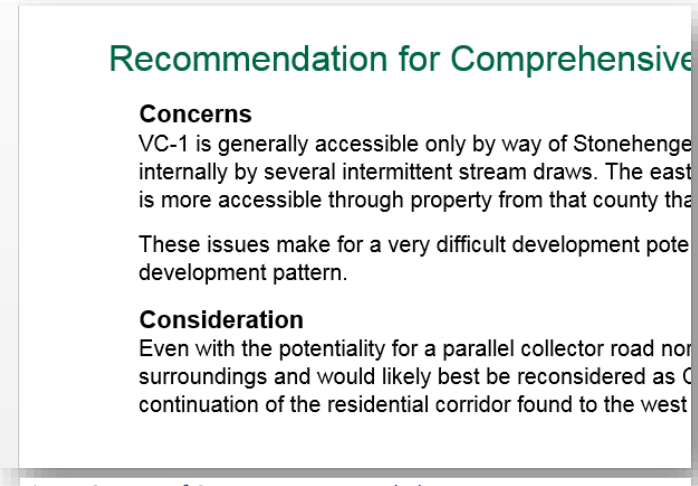


Figure 6-Areas of Concern Recommended

NEXT STEPS

This report performed a “reality check” to inform appropriate future land use, and associated traffic impacts, to the various communities in Route 60 East Corridor. It will help to identify future traffic patterns and potential needs for the County to plan for. The information here will be incorporated into the VDOT Study.

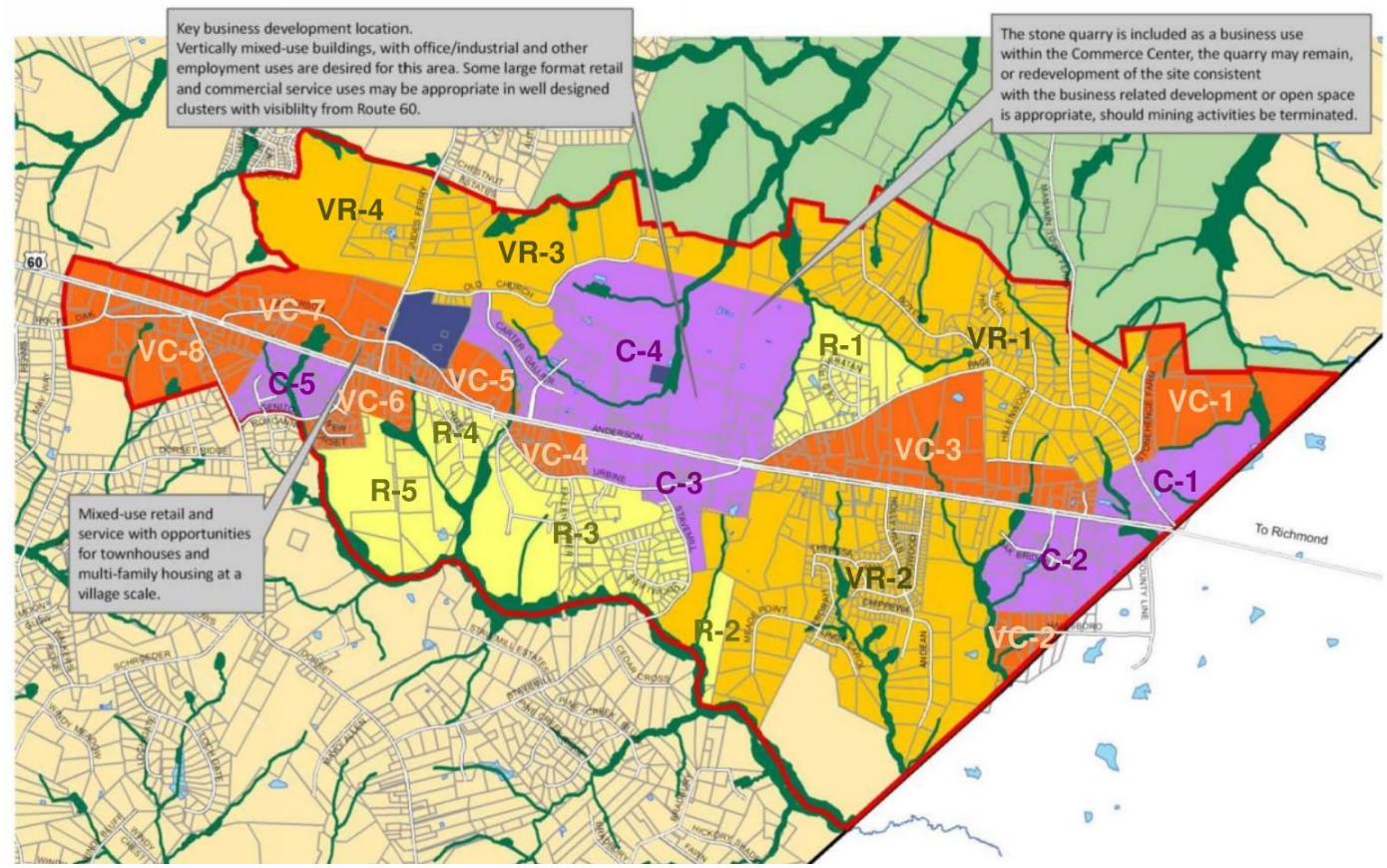
Figure 7-VC-8 Showing Potential Interconnected Development Pattern

Additionally, it is recommended that the information in this report be incorporated into future planning of the next Comprehensive Plan Update. Two areas in particular appear to have great potential for future development as cohesive and community-centered communities, based on their location, topography, and generally large parcel configurations, which increases the potential for successful acquisition needed to create such communities.

Those two areas are VC-8 and the combined areas of VC-7 and VR-4. The County should endeavor to make the most of this area in future Plan updates as it provides the most significant opportunity for placemaking in the Route 60 East Corridor.

THE ROUTE 60 EAST CORRIDOR

Map 8: Route 60 Corridor East (Special Area Plan)



- COMMERCE CENTER (C)
- VILLAGE CENTER (VC)
- VILLAGE RESIDENTIAL (VR)
- LOW DENSITY RESIDENTIAL (R)

Route 60 Corridor East Special Area

The Route 60 Corridor East Special Area is located in the eastern portion of the county centered on Route 60, and extends southward along the Chesterfield County border and approximately 5,000 feet north to follow natural changes in topography and the water flow pattern. The depth from the right-of-way is important to accommodate districts or compact patterns of growth, rather than stripping commercial development along the entire U.S. Route 60 Corridor.

The Route 60 Corridor East Special Area provides the best opportunity for key business development locations and residential growth. The concept includes village centers where local business uses can be accommodated in small-scale buildings in a main street setting with areas designated for the highest density residential up to eight units per acre that may include vertically mixed-use structures, small multi-family buildings, and townhouses. The commerce centers are the appropriate locations for offices, higher intensity retail, and industrial development. This location could support suburban density developments with available sewer and water services.

Surrounding the village and commerce centers are locations of village residential and low-density residential. Village residential should include single-family detached residential at the highest densities in the county with up to four units per acre. These areas should be designed as traditional neighborhoods and include transitions from the high intensity mixed-use town centers areas along the corridor to the rural residential areas outside of the corridor.

The corridor also includes areas recommended for commerce centers and includes the Luck Stone stone quarry currently operating in the county. Commerce centers allow for business and industrial development. The industrial uses can be accommodated with future development through site design and buffering, or if the operations are discontinued, redevelopment of this area with compatible uses would be appropriate.

A small portion of the Route 60 Corridor East Special Area is identified for low-density residential that includes established low-density residential development and could include additional subdivisions at densities of one unit per two acres to one unit per five acres.

Roadways will need to be improved to accommodate increased densities. Sewer and water utilities will not be initially available but may be extended in the period beyond that which is addressed by this plan. Phasing of growth in the Route 60 Corridor East Special Area should be moderated by the **Sewer and Water Phasing Plan** included on page 39.

Land use descriptions shown on the following pages

Low-Density Residential

Description

Low-density residential is based on a suburban residential subdivision pattern. This development design describes an irregular configuration of lots and streets to accommodate small single-family residential properties in a semi-rural setting. Low-density residential is a single-use pattern and does not include businesses, institutional or other uses. The pattern is established by local roads branching off state routes to accommodate the subdivision for residential development. New roads are often curvilinear and cul-de-sacs or stub streets are used to end roads at the edge of the subdivision. This development pattern is the most common style for new residential development in the past few years. The general density in low-density residential should be between one unit per two acres and one unit per five acres.

Intent

Low-density residential may be permitted at the edges of the village to allow a transition from the more intense village residential areas and the surrounding rural area. Low-density residential should be permitted in limited areas of the county and used as transitional areas only. Isolated pockets of low-density residential are not appropriate.

Low-Density Residential Policies

1) Residents in low-density residential areas should not expect urban services. Rural levels-of-service will not include public water, sanitary sewer, and stormwater drainage facilities other than ditches, or sidewalks.
2) The road network in low-density areas will require improvements to serve the increased population. New roads must connect from one existing public road to another to improve the frequency of connections as the low-density residential areas become more populated and to provide multiple routes in and out of a subdivision. Adjacent subdivisions should have connected streets to promote this concept. Stub streets should be provided to allow future connections.
3) The desired character for this area is low-density semi-suburban. New residential development will be accommodated on lots of two or more acres.
4) When possible open spaces should be preserved through conservation easements, conservation subdivisions and easements, or donation of land to the county. The goal of open space preservation is to create an open space network. Therefore, when possible, land adjacent to the natural conservation areas should be of high priority for preservation followed closely by locations where links between existing open spaces can be established.
5) Stream corridors, woodlands, landmarks, historic sites, notable viewsheds, and other valuable natural or cultural resources should be maintained as part of the dedicated open space.
6) Homesteads, historic sites, landmarks and other historic resources should be protected through the design and development process.
7) Roadways and house lots should be located to respect natural features and to maximize exposure of lots to open space (directly abutting or across the street). "Single-loaded" streets (with homes on one side only) can be used to maximize open space visibility, thus increasing real estate values and sales, while costing no more than streets in conventional subdivisions (due to savings from narrower lot frontages).

8) Open space should be used as part of an integrated stormwater management approach to maintain natural drainage patterns, attenuate water quality impacts, replenish groundwater (e.g., through bio-retention facilities such as infiltration trenches and "rain gardens") and incorporate detention facilities as visual and environmental amenities such as ponds.

9) Open space should be carefully located between housing lots, particularly those adjacent to working farms, and other sensitive uses to provide buffers.

10) Roadways should be designed to standards appropriate to the rural context (narrower widths, drainage swales, shade trees, gravel footpaths, etc.).

11) Pedestrian/bike and equestrian trail systems are encouraged in low-density residential areas to provide recreation and mobility options.

Appropriate Land Uses in Low-Density Residential

- Single-family uses, and accessory dwellings
- Institutional uses, such as schools, churches, public safety facilities, and similar uses
- Parks and recreation uses

Village Residential

Description

Village residential generally applies to large areas of land that could be developed under a unified planned development. Village residential recommends thoughtful design to provide a variety of housing options in a layout that respects the low intensity single-family character of adjacent rural areas while providing slightly more intense development. The gross density in these areas may vary by special area between one-half and four units per acre and could include single-family detached, single-family attached, and three- to four-unit multi-family buildings. The average lot size would range between one-fourth acre and two acres.

The primary location for village residential in Powhatan is near the courthouse in the central portion of the county, at the 711/288 interchange, and along the eastern portions of the Route 60 Corridor. Village residential is part of a complete community that occurs at a larger scale than a crossroad. A complete village includes residential neighborhoods, and village centers, with parks and open spaces and places for institutional uses like churches and schools. The village residential represents the residential only neighborhood component of a village.

Intent

Village residential should include walkable neighborhoods with diverse housing options and integrated parks, and public uses, which are compatible with the residential qualities of the neighborhoods.

Village Residential Land Use Policies

1) New village residential development should occur only pursuant to the special area plan and land use, development, and design standards or guidelines adopted by the county.
2) A master plan or planned unit development process should be used to ensure a coordinated plan is prepared for the village residential development.
3) Open spaces and riparian corridors should be included as design considerations in the subdivision of land for village residential.
4) Public sewer and water should be available to support the increased density of development in village residential areas.
5) A subdivision or master plan for village residential areas should provide for a minimum of thirty percent of the site in open spaces or parks.
6) The boundary between village residential and rural areas should be clearly defined. When the line becomes blurred and unclear, villages will begin to lose their sense of identity and community character, and the growth will be perceived as sprawling and losing its quaint character.
7) Transitions from village residential to low-density residential or rural areas should be accomplished through heavily landscaped buffers or location of similarly sized lots of single-family homes at the perimeter of the site.
8) The cross section of new streets in village residential should include sidewalks or paths and moderately narrow street widths that allow parking on at least one side.
9) The street system should allow for multiple opportunities for people to walk to local destinations by a variety of routes. Streets should be designed for lower speeds to allow for mixing of vehicular and pedestrian traffic.
10) Village residential should include semi-regular blocks based on a grid or modified grid street network, with variation in front yard setbacks within a block to provide green space and avoid monotony.
11) A consistent pattern of streets should be established between phases of projects in the various special areas. (See Route 60 Corridor East on page 84, Courthouse Village on page 86, and 711 Village on page 88.)

12) The streets and pedestrian paths should connect with other village residential districts, village centers, or portions of the commerce centers.

13) Appropriate types of attached single-family homes include duplexes or two-family units.

14) Multi-family buildings should resemble large single-family homes.

15) Homes should be designed to relate to the street. The fronts of buildings should be oriented to the street, and the progression of public to private spaces should be characteristic of traditional neighborhoods—street- sidewalk-front yard-front porch.

16) Traditional style homes with detached, side, or rear loading garages are preferred.

17) The façade of a garage should be set back from the primary façade of the home, and all detached garages should be located in the side or rear yard only. Front porches are encouraged on homes in village residential areas.

18) Village residential areas should be located within short distances to amenities; sites should be designated for parks, schools, churches, and other public gathering places within a five to ten minute walk (approximately ¼ mile).

19) Village residential areas should be located within ¼ mile of village centers or services and retail in commerce centers to provide destinations for commercial activity, and create an integrated comprehensive community.

20) Residential densities may vary from one village residential area to another. See special area plans for more specific density/intensity recommendations for the village residential areas.

21) New development should be coordinated and timed relative to public infrastructure. Infrastructure, particularly sewer and water service, and road improvements should be available concurrently with new development.

22) New infrastructure should be planned to be adequate for both the proposed development and any additional planned growth in the village. Level-of-service standards should be developed to ensure that adequate public facilities are provided in both the short- and long-term.

23) New development should pay for itself regarding necessary improvements to public infrastructure including but not limited to new roads, sewer and water services, and schools.

24) Parks and sidewalks should be provided with each phase of development within the villages to create a pedestrian network that ties the neighborhoods together. Particular attention should be paid to links that connect to a countywide green network and connect residential neighborhoods to schools.

25) Villages should have coordinated stormwater management plans. This includes ensuring stormwater impacts of individual developments are properly mitigated, and those local stormwater management efforts are coordinated with countywide efforts.

26) When possible village residential should be designed to meet LEED ND standards and include sustainable features like rain gardens and green roof buildings.

27) As the county begins creating master plans for the special areas it may become feasible to add village centers in the areas designated for village residential. These modifications are appropriate and support the vision of creating complete neighborhoods that promote walking and provide local business in a close proximity to residential areas in a manner, which is architecturally compatible with the neighborhood.

Appropriate Land Uses in Village Residential

- Single-family detached residential with accessory residential structures
- Two- to four-family residential structures (apartments, condominiums, townhouses)
- Bed and breakfasts
- Public and institutional uses including: schools, churches, and community centers
- Parks and recreation
- Village center uses may be appropriate as part of a master plan.

Village Center

Description

A village center indicates land designated for future moderate to high intensity residential, commercial, office, and institutional growth. These areas are currently characterized by limited commercial and moderate density residential development along the Route 60 Corridor, the Courthouse Village, and the 711 Village. These areas should be intensified to take advantage of available sewer and water services and transportation infrastructure, and to create a center for walkable communities with an identity. The village centers are a primary growth area for economic development that has a local focus but may include office uses serving a larger market. Efforts should be made to encourage appropriate scaled development in these areas.

The primary focus of these areas should include a mixture of retail, office, services, and civic uses such as gathering spaces, recreation centers, and open spaces like plazas or greens. These features should be organized and developed in a coordinated manner to provide a focus for neighborhood activities. The central areas should be designed to be pedestrian-friendly with connections via sidewalks and paths to surrounding village residential neighborhoods.

Village center areas typically have a moderate concentration of nonresidential uses to provide services and activities to the immediate vicinity (service radius of approximately one to three miles) but are still of a scale and intensity that is compatible with surrounding village residential neighborhoods. Individual buildings are typically small with maximum footprints of around 15,000 square feet. Total concentrations of commercial building areas in an individual village center should range between 10,000 and 75,000 square feet total, with the balance of the village center form filled out with residential development.

Intent

Quaint village centers should be established in the targeted growth areas of the county to accommodate local business growth and provide services and employment to the local population of Powhatan County. Village centers will serve as an integral component of complete communities within the county and be within walking distance of many village residential neighborhoods.

Village Center Land Use Policies

1) New growth and development in a village center should occur only pursuant to the special area plan and an approved master plan for that development. The plan must establish appropriate development pattern, and land uses, development standards, design guidelines, and adequate public facility requirements.

2) New development in a village center should respect the existing context or the context of the planned village residential neighborhoods. It should help maintain the “small town” feel of the community. The special area plans will define the recommended size parameters for each village center.

3) The street systems in village centers should have multiple interconnections. This allows multiple opportunities for people to walk to local destinations by a variety of routes. Streets should be designed for slower speeds to allow for mixing of vehicular and pedestrian traffic. The network should extend beyond the village center and connect to adjacent village residential areas. See village residential land use policy # 9.

4) Complete streets including on street parking, street trees and sidewalks should be provided with development in village centers.

5) Curbs should be provided where on street parking is permitted within village centers; however, in most cases open channel drainage is appropriate.

6) There should be a short distance between village centers and village residential areas. See village residential land use policy 19.

7) The density of village centers should be relatively high in comparison to what the county has historically supported.

8) Villages are recognized as locations for future growth and development in the county.

9) A mix of commercial, office, service, public and residential uses should be accommodated in village centers with vertical mixed-use buildings being a preferred form.

10) The scale of buildings in village centers should maintain a small town feel, and be limited to buildings with small footprints of 15,000 square feet or less. Buildings should be limited to a maximum height of thirty-five feet or a maximum of three stories for a total area not to exceed 45,000 square feet. Additional study of building scale thresholds should be coordinated with an economic development strategy and study to determine a targeted building size appropriate to achieve the land use and community character goals and vision for this area, and the economic development objectives stated in chapter 4.

11) A central focal point, square, or "main street" should be established as the heart of the village center and development intensities should be graduated from most intense in these areas to less intense residential uses further from the center.

12) Townhouses and larger apartment buildings (four to twelve units per structure) with an average density of four to eight residential units per acre for the whole village center[5], can be accommodated. Expansion of the housing types available in the county and higher-density development encouraged in the villages should help increase the supply of affordable housing.

13) Buildings should be designed to relate to the street. The fronts of buildings should be oriented to the street, and the progression of public to private spaces should be created based on traditional neighborhood models.

14) Village center buildings that are mixed-use or nonresidential should be set to the sidewalk.

15) Awnings and covered sidewalks should be encouraged.

16) Adequate landscape buffering should be provided adjacent to any residential properties, and building design should be compatible with surrounding residential areas in regard to materials, building scale, massing, and the relationship to the streets.

17) The commercial/civic centers are most appropriate near intersections of a collector or arterial street.

18) Signage and lighting should be limited to reduce impacts on surrounding residential areas.

[5] The residential density in a village center is not based on the same basic density assumptions as a purely residential area, because village centers are intended to include a mix of uses with some uses being stacked vertically in mixed-use structures. The recommendation of four units per acre is a gross density recommendation for the whole village center, meaning if a 100 acre site was considered for a village center, the maximum residential unit yield would be 400 residential units. Those units could be developed in a combination of large-lot single-family homes, attached units, and units located above ground floor commercial or office. They would not necessarily all be accommodated on 10,000 square foot lots. An increase of up to eight units per acre gross density could be appropriate in these areas particularly if attained as part of a Transfer of Development Rights program.

19) Depending on the size of a property considered for village centers, they may contain varying amounts of attached residential units. A small development of around twenty acres may be almost entirely nonresidential and serve as a center, while larger areas within this category may include phases of residential development in addition to a commercial center.

20) A village center should be planned with well-defined character that promotes walkability and includes open and green spaces throughout the area.

21) New development should be coordinated and timed relative to public infrastructure. Infrastructure, particularly sewer and water service, and road improvements should be available concurrently with new development.

22) New infrastructure should be planned to be adequate for both the proposed development and any additional planned growth in the village proximity. Level-of-service[6] standards should be developed to ensure adequate public facilities are provided in both the short- and long-term.

23) New development should pay for itself in regard to provision of necessary improvements to public infrastructure including but not limited to new roads, sewer and water services, and schools.

24) Village centers should have coordinated stormwater management plans. This includes ensuring stormwater impacts of individual developments are properly mitigated, and those local stormwater management efforts are coordinated with countywide efforts.

25) When possible, village centers should be designed to meet LEED ND standards and include sustainable features like rain gardens and green roof buildings.

26) Village centers should have a coordinated architectural form, and spatial feel to the village residential areas in the immediate proximity.

27) Village centers should be designed to include a minimum of twenty percent open space in each development or phase of development. Open spaces should be required in addition to areas required for stormwater management. Open spaces should be usable spaces which contribute pervious surfaces, allow for trees, landscaping, and water features, and/or outdoor activities. They may be naturalized or more formal and include plazas, small parks, squares, or greens.

Appropriate Land Uses in a Village Center

- Attached townhouse residential
- Medium scale multi-family residential in neighborhood pattern
- Small- to medium-scale commercial, retail
- Office
- Services including restaurants
- Vertically mixed-use buildings
- Public institutional including government facilities and offices, fire stations
- Plazas, squares, open space

[6] See Implementation Tools on page 110 for more information on Level-of-Service Standards.

Commerce Centers

Description

Commerce centers are designed to accommodate large-scale uses like warehouses or manufacturing facilities that need extensive floor areas. The blocks in these areas are typically based on a campus-like design with large green areas, landscaping and water detention areas surrounding large structures with accessory surface parking. The commerce centers are appropriate where nonresidential uses should be somewhat segregated from residential uses due to potential impacts from noise, dust, or heavy traffic. Although larger in scale than other land use classifications, and more accommodating of automobile traffic, pedestrian areas are still an important component in commerce centers.

Commerce centers include a wide range of office, business, light industrial, research and development uses, and ancillary uses such as restaurants that offer services to the employees of the other businesses. These centers can best be described as a business version of a "subdivision." The term "campus" is used often in that it implies a sense of integration and coordination of uses and a certain quality and character of development. Commerce centers are generally large, unified, and integrated; like a residential subdivision, they are usually developed by a single entity, and as such can be designed in a coordinated way. As a general consideration, a commerce center would typically need to be at least thirty to fifty acres to accommodate several large format businesses.

Commerce centers involve a significant number of vehicle trips, particularly in the morning and evening peak hours. They involve a mixture of passenger vehicle and heavy truck traffic. Access to multi-modal transportation such as rail or water may be an influencing factor on the location of a commerce center. They are typically located near highway access such as along Route 60.

Intent

Commerce centers should be established at targeted locations along the Route 60 Corridor to accommodate business and industrial development in a location conducive to both the local and regional markets. Commerce centers should be well designed to accommodate these uses in a manner that has limited impact on the surrounding development including but not limited to sustainable stormwater management practices, local roads, and open spaces.

Commerce Center Land Use Policies

1) Commerce centers should meet quality standards related to site layout; building configuration, materials, massing, shape, and height; landscaping; signage; parking lot aesthetic and functional design; vehicular and pedestrian circulation; trash removal; lighting; stormwater management; environmental protection; and others.

2) Commerce centers should accommodate large-scale commercial/retail development in clustered centers located near Route 60. However, these uses should not be stripped along the frontage of the commerce centers for their whole length along Route 60. Visibility to other business uses should be prioritized to promote economic development in sectors other than retail and service.

3) Additional study of building scale thresholds should be coordinated with an economic development strategy and study to determine a targeted building size appropriate to achieve the land use and community character goals and vision for this area, and the economic development objectives stated in chapter 4.

4) Commerce centers should be approved only upon a demonstration that adequate public facilities exist or will be established by the time of opening.

5) Commerce centers should be subject to land use impact review and mitigation through the proffer system for topics such as traffic, stormwater, lighting, fiscal impact, noise, and odors.

6) Vehicular access should be designed to maximize efficiency and minimize negative impacts on levels-of-service on adjacent roads.

7) Local roadways should be designed to separate retail/commercial passenger traffic flows from delivery and distribution truck traffic generated in mixed retail/industrial areas.

8) Local roadways should be designed and built to standards to accommodate heavy truck traffic, including load bearing, and turning radius dimensions.

9) Communication technology and utility services should be available in locations indicated for commerce centers.

10) On-site amenities such as walking trails and eating areas are encouraged. Local trails should connect to the proposed regional greenways and trails system.

11) Commerce centers should be designed to include a minimum of twenty percent open space in each development or phase of development. Open spaces should be required in addition to areas required for stormwater management. Open spaces should be usable spaces which contribute pervious surfaces, allow for trees, landscaping, and water features, and/or outdoor activities. They may be naturalized or more formal and include plazas, small parks, squares, or greens.

12) Commerce centers should be encouraged to reuse existing industrial properties and integrate existing mining or industrial operations.

13) Site configuration, landscaping, and maintenance of existing tree cover and topography should be used to buffer commerce centers from adjacent development. However, vehicular and pedestrian connections should be provided between various uses to promote better access.

14) When possible commerce centers should be designed to meet LEED ND and LEED building standards and include sustainable features like rain gardens and green roof buildings.

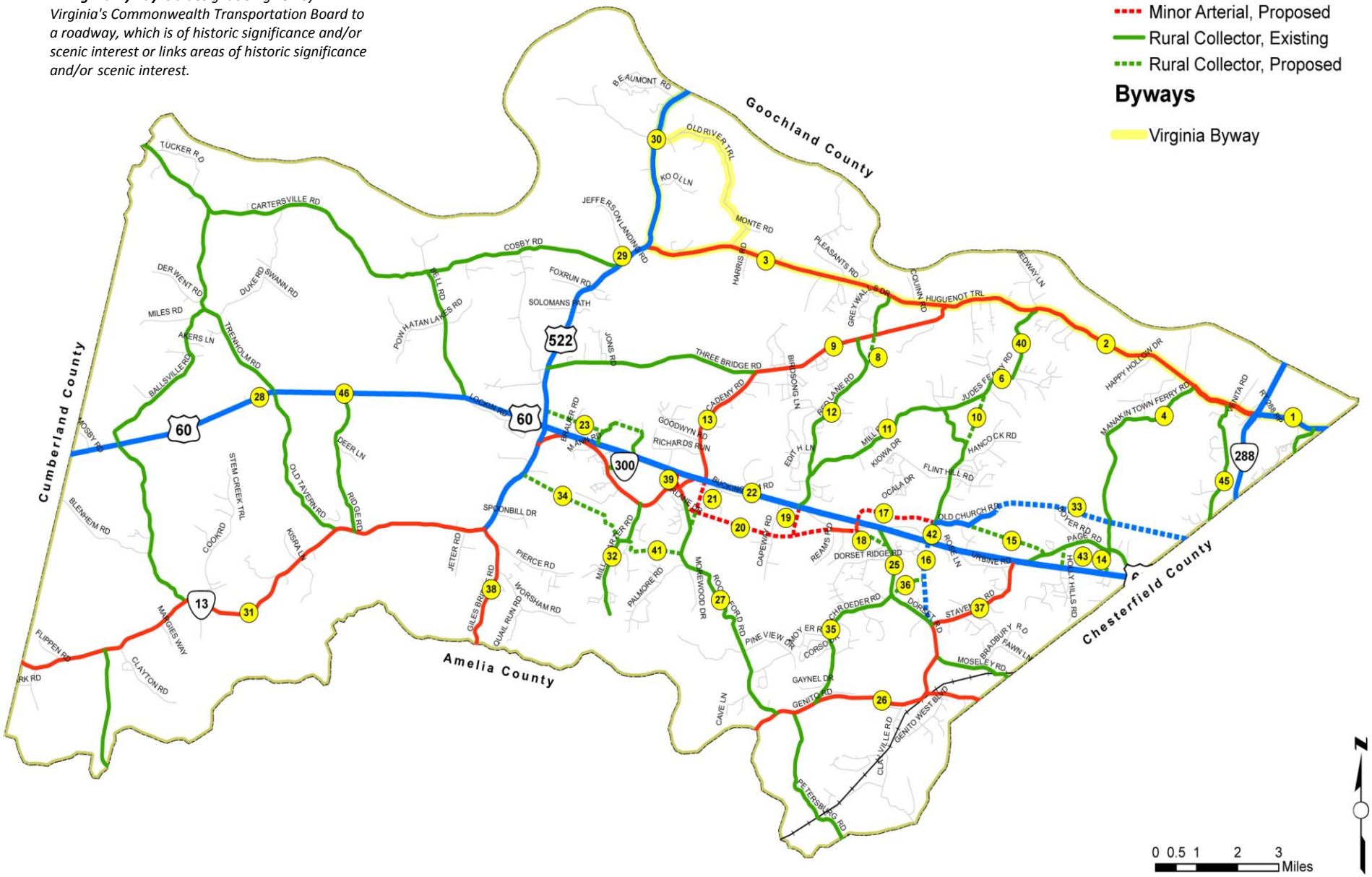
Appropriate Land Uses in Commerce Centers

- Offices
- Large Scale Commercial/Retail
- Services
- Clean Manufacturing
- Distribution
- Warehousing
- Existing Mining Facilities
- Institutional uses, such as schools, churches, public safety facilities, and similar uses
- Parks, open space, recreation

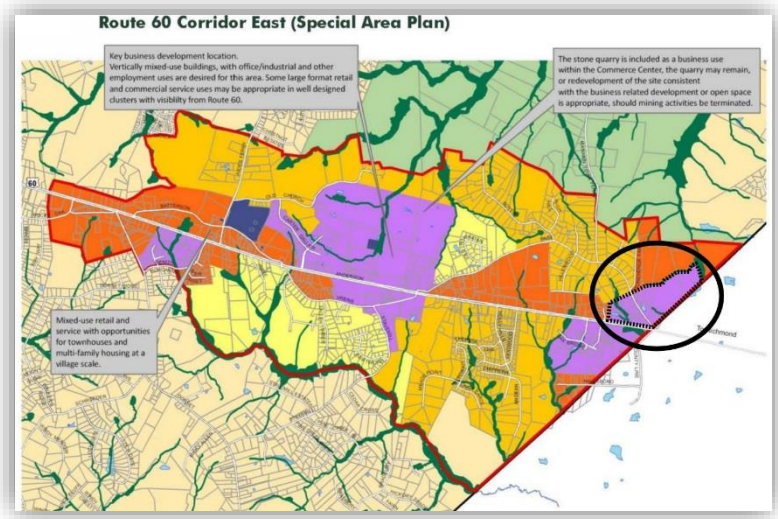
Thoroughfare Map shown on the following page

Map 11: Major Thoroughfare Plan

*A **Virginia Byway** is a designation given by Virginia's Commonwealth Transportation Board to a roadway, which is of historic significance and/or scenic interest or links areas of historic significance and/or scenic interest.*



COMMERCE CENTER C-1



Boundaries of significance - Chesterfield County line (East); Route 60 (South)

Existing Improvements include – no significant development; power transmission lines

Development Characteristics & Constraints

Development

C-1 is generally not developed, with only modest home sites and a few small commercial establishments along Route 60. Overhead transmission lines and a significant power easement run east/west generally parallel to and 1500 feet north of Route 60.

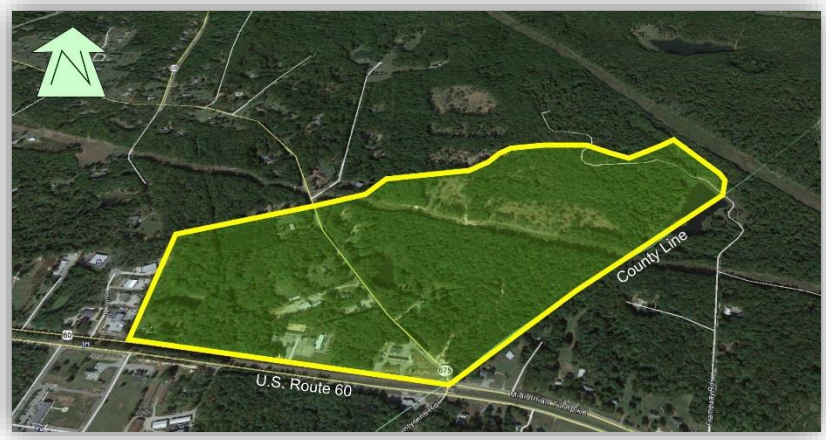
COMMUNITY DATA	
Overall Acreage	155± Ac.
Ex. Built (%)	20%
Fut. Buildout (%)	60%
Total Parcels	20
Parcels > 50 Ac.	1
Parcels > 100 Ac.	0

Topographical/Environmental

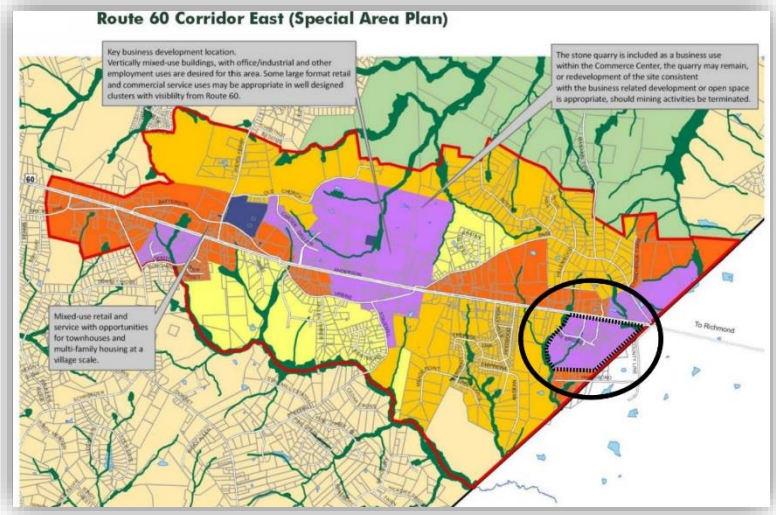
C-1 is generally rolling throughout, with few natural development plateaus. Significant grading is likely necessary to maximize the development opportunities sought in this land use category.

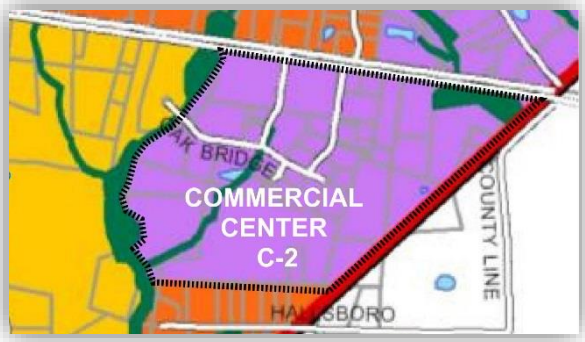
Road Connections

Bounded to the south by Route 60, C-1 is bisected by Route 675 (Page Road), which presents both opportunities and challenges for development as it is the first departure road from the eastern county line and connects to roads such as Manakintown Ferry Road. As such, separate developments will likely occur to the north and south of Page Road.



COMMERCE CENTER C-2





Boundaries of significance - Chesterfield County line (East); Route 60 (North)

Existing Improvements include – Oakbridge Business Park

Development Characteristics & Constraints

Development

C-2 is significantly developed as an industrial/commercial site, most notably Oakbridge Business Park. Based on the infrastructure and zoning in place, it is expected that the long term development prospects of the future mirror those that are already in place. This community should expect efficient development patterns and yield a good taxable base of business use for the County.

COMMUNITY DATA	
Overall Acreage	270± Ac.
Ex. Built (%)	55%
Fut. Buildout (%)	75%
Total Parcels	48
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

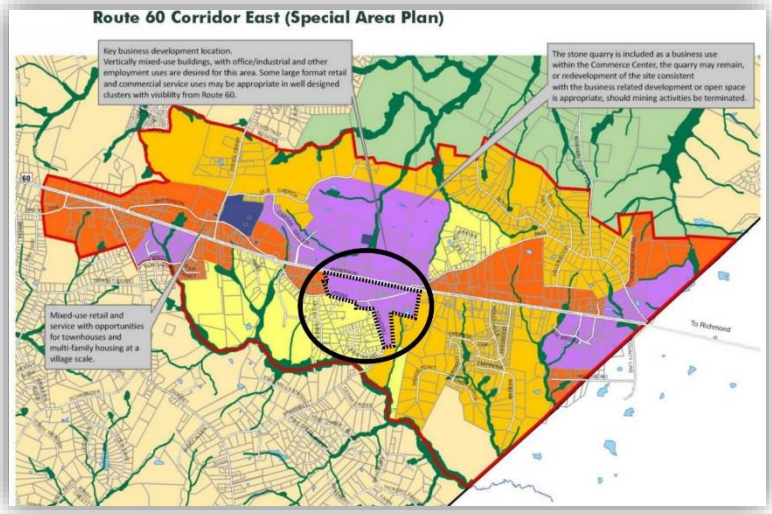
Topographical/Environmental

C-2 is generally level to rolling, with a significant development acreage and relatively low environmental encumbrances.

Road Connections

The development of Oakbridge Business Park has brought significant road access to the communities. Future development should continue this pattern of access to Route 60 via Oakbridge Drive and Standing Ridge Drive, with no further access points to Route 60 required for the full development of the community.

COMMERCE CENTER C-3



Boundaries of significance – Stavemill Road and Urbine Road (through); Route 60 (North)

Existing Improvements include – Blue Gray Storage, Bojangles, Advance Auto, Goodwill

Development Characteristics & Constraints

Development

Significant development is underway on this piece served generally by Stavemill Road and Route 60. Several restaurants and the redevelopment of the Texaco-anchored strip center set in place the general density of this community for the next several decades. A new self-storage facility is located on the western edge of the Stavemill/Urbine Road development corridor.

Topographical/Environmental

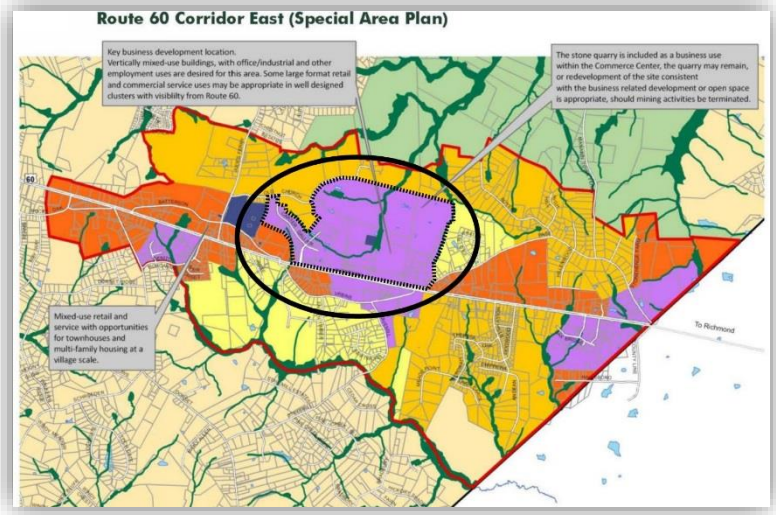
Completely graded to the conditions of the current development projects in the area, neither topography nor other environmental constraints should cause a reduction in the maximum potential use of the properties in this area.

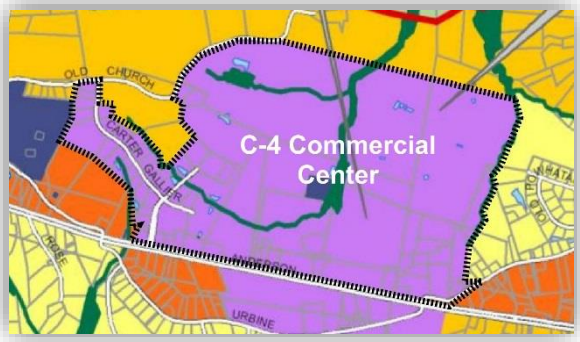
Road Connections

C-3 is significantly developed with the current projects complete and underway. The area is well linked to the Route 60 corridor via Urbine Road and Stavemill Roads.

COMMUNITY DATA	
Overall Acreage	160± Ac.
Ex. Built (%)	30%
Fut. Buildout (%)	85%
Total Parcels	34
Parcels > 50 Ac.	1
Parcels > 100 Ac.	0

COMMERCE CENTER C-4





Boundaries of significance – Old Church Road (West) (East); Route 60 (South)

Existing Improvements include – Luck Stone Quarry, Walmart Supecenter

Development Characteristics & Constraints

Development

C-4 is partially developed with some of the County's most significant landmarks, principally the Walmart Supercenter and the Luck Stone Quarry. C-4 Extends west to the South Creek Shopping Center along Route 60 and several small industrial development sites to the north of the shopping center.

Topographical/Environmental

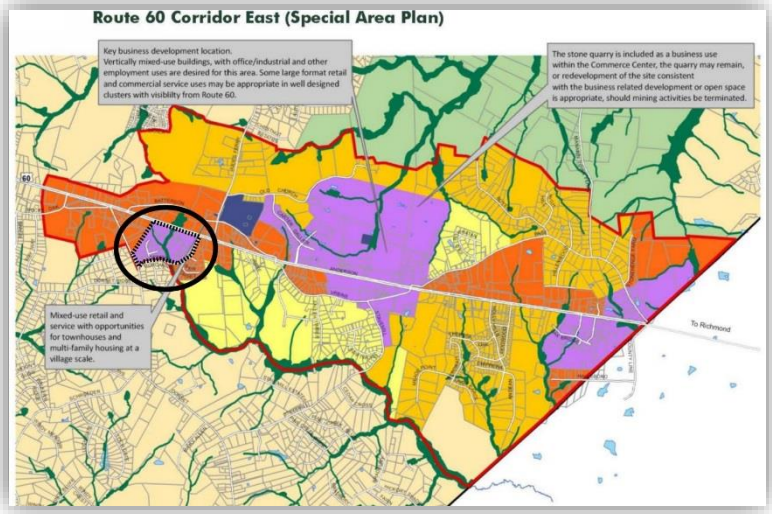
C-4 has significant topographic change throughout the community, with several steep and expansive streams and wetlands and waters of the U.S. (WOUS). These topographic features will limit the ability for future development to be connected.

Road Connections

C-4 developments are served primarily directly onto Route 60 via two roads, South Creek One to the west and Luck Stone Road to the east.

COMMUNITY DATA	
Overall Acreage	730± Ac.
Ex. Built (%)	40%
Fut. Buildout (%)	45%
Total Parcels	83
Parcels > 50 Ac.	0
Parcels > 100 Ac.	1

COMMERCE CENTER C-5



Boundaries of significance – New Dorset Road (South and East); Route 60 (North); Dorset Road (Southwest)

Existing Improvements include – C&F Headquarters, Genito Station Subdivision

Development Characteristics & Constraints

Development

C-5 has mostly small parcel development directed to Route 60, most notably the Central Virginia Bank headquarters building. Genito Station Subdivision is located to the southern extent of the community.

Topographical/Environmental

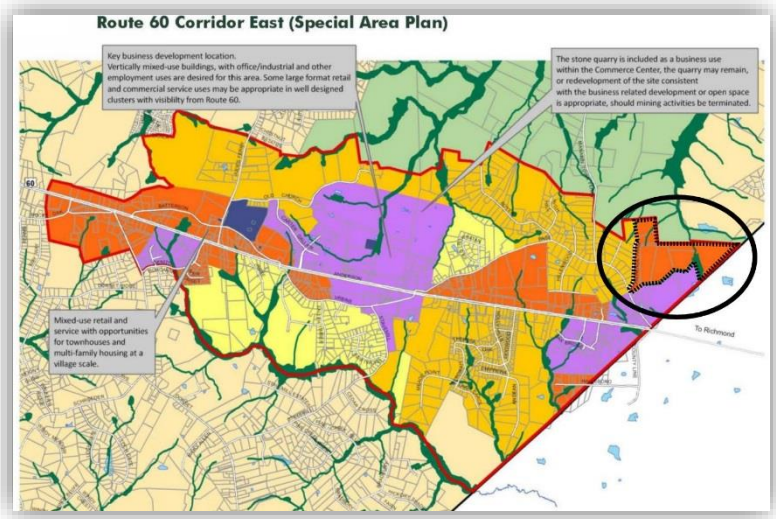
C-5 has two significant valleys cutting north to south through the community, with its tributary streams joining and continuing south through C-5 and across New Dorset Road. These valleys will make development of C-5 as a cohesive development challenging.

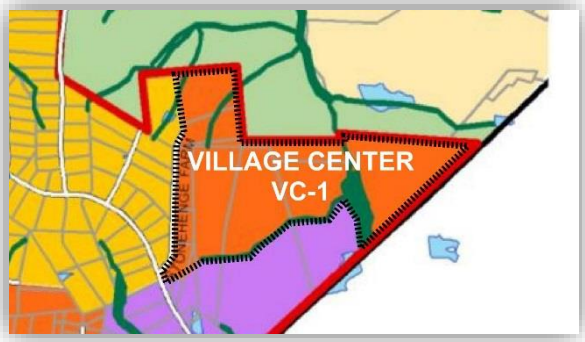
Road Connections

C-5 is bounded by Route 60 to the north, New Dorset Road running south and east, and Dorset Road to the southwest. Existing crossover spacing limits the ability for new significant development entrances to be included without modifications to Route 60 crossovers.

COMMUNITY DATA	
Overall Acreage	105± Ac.
Ex. Built (%)	75%
Fut. Buildout (%)	80%
Total Parcels	48
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

VILLAGE CENTER VC-1





Boundaries of significance - Chesterfield County line (East); Stonehenge Farm Road (West)

Existing Improvements include – no significant development; power transmission lines

Development Characteristics & Constraints

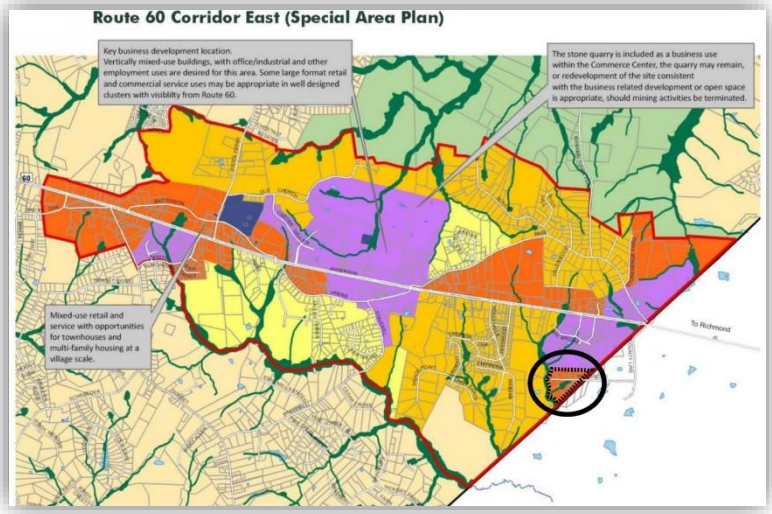
Development
VC-1 is generally undeveloped. Several private homes are in the community that access onto Stonehenge Farm Road.

Topographical/Environmental
VC-1 slopes generally from the high along Stonehenge Farm Road to a low on the eastern boundary of the community. Property to the east of the tributary channel is remote due to significant environmental impacts to cross from the Powhatan side.

Road Connections
Road access to VC-1 is severely limited, with its main access road being Stonehenge Farm Road. Development connections will be limited, if at all, and the segment adjacent to Chesterfield is likely undevelopable (feasibly) without accessing from the Chesterfield direction.

COMMUNITY DATA	
Overall Acreage	180± Ac.
Ex. Built (%)	10%
Fut. Buildout (%)	40%
Total Parcels	12
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

VILLAGE CENTER VC-2



Boundaries of significance - Chesterfield County line (East)

Existing Improvements include – Individual parcel residential development

Development Characteristics & Constraints

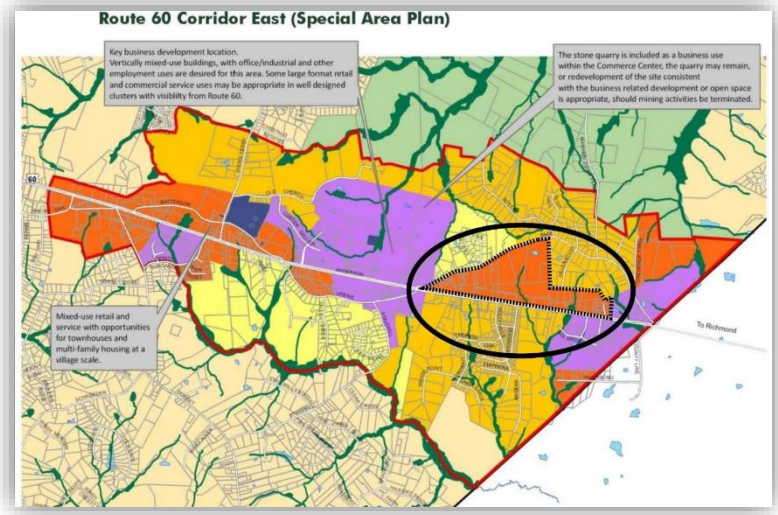
Development
VC-2 is fully developed as private parcel subdivisions that are mostly occupied by single family homes. There is no anticipated future development of this site in the next 30 years due to the cost of land/improvements in order to develop.

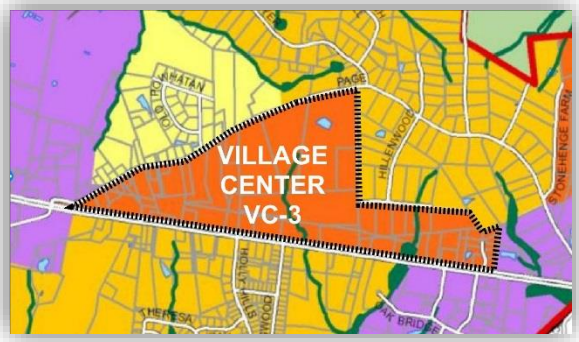
Topographical/Environmental
VC-2 is relatively free from environmental constraints to development.

Road Connections
VC-2 accesses only from County Line Road, a road that originates in Chesterfield County and terminates in a cul-de-sac in VC-2. Development potential is significantly constrained for this parcel as a result.

COMMUNITY DATA	
Overall Acreage	60± Ac.
Ex. Built (%)	95%
Fut. Buildout (%)	95%
Total Parcels	27
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

VILLAGE CENTER VC-3





Boundaries of significance – Page Road (North); Route 60 (South)

Existing Improvements include – existing sudvivision lots at eastern end of community

Development Characteristics & Constraints

Development

VC-3 is generally not developed, with only parcel lot homes and a few small commercial establishments along Route 60. Overhead transmission lines and a significant power easement run east/west generally parallel to and 1500 feet north of Route 60. Homes of significant value are located on the south line of Greenberry Road and pose concern to fully developing the eastern properties between Greenberry and Route 60.

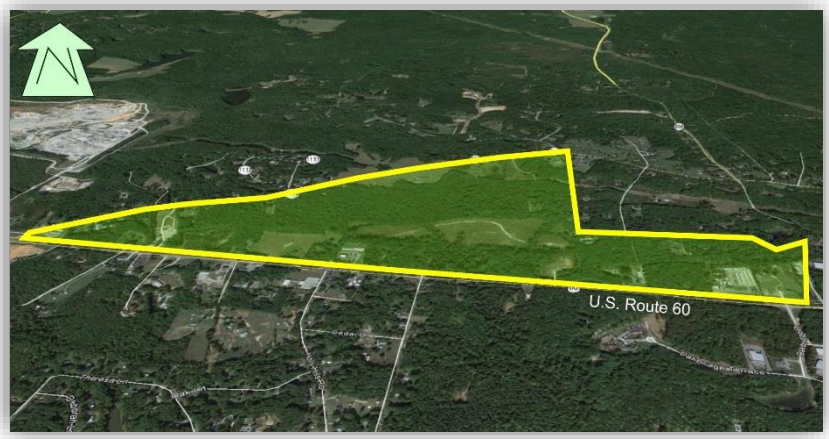
Topographical/Environmental

Two significant ravines challenge the full development of VC-3 and will limit future connected development to the western half of the community.

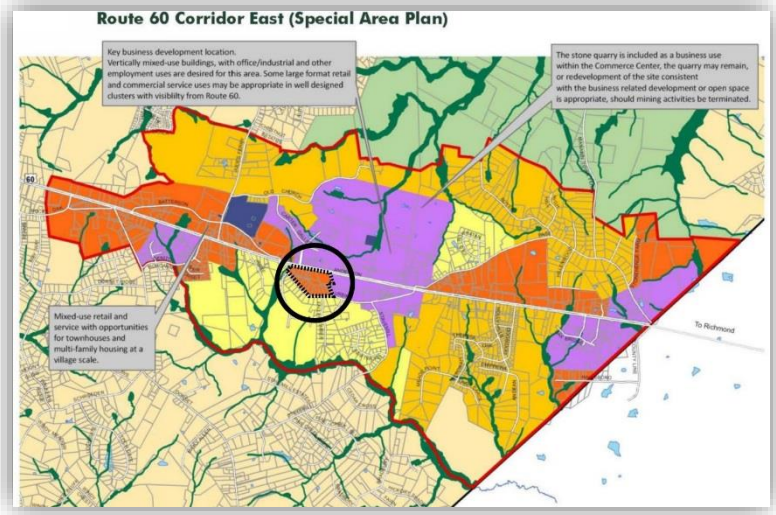
COMMUNITY DATA	
Overall Acreage	340± Ac.
Ex. Built (%)	25%
Fut. Buildout (%)	75%
Total Parcels	67
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

Road Connections

VC-3 is bounded along its entirety to the south by Route 60 and to its northwestern edge by Page Road. Greenberry Road bounds the eastern portion of the community to the north.



VILLAGE CENTER VC-4



Boundaries of significance – Urbine Road (South); Route 60 (North)

Existing Improvements include – church fronting Route 60, residential fronting Urbine

Development Characteristics & Constraints

Development

VC-4 is partially developed, with homesites along Urbine Road and a church (First Baptist) along Route 60. The abundance of small parcels with improvements already built making a connected development challenging from a feasible acquisition perspective. Location is otherwise good due to proximity to South Creek Shopping Center.

Topographical/Environmental

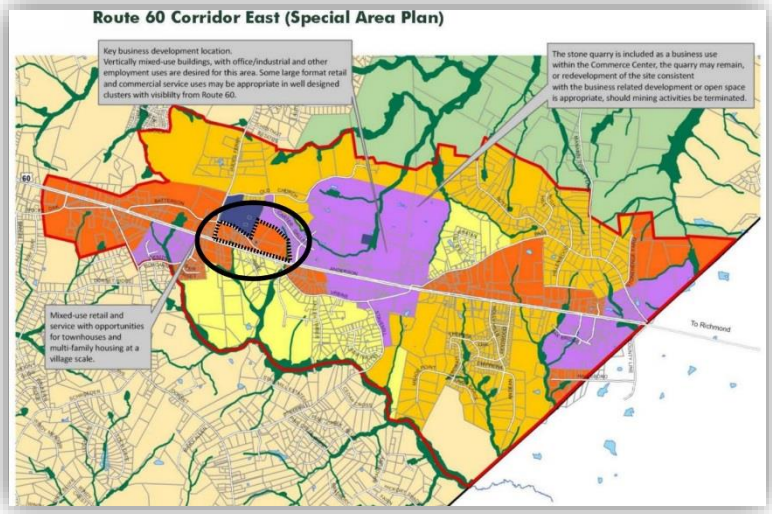
VC-4 is generally rolling with no major environmental barriers to future development.

Road Connections

Significant road improvements at Route 60 might prove cost prohibitive to a single and complete development project, likely lining development with the South Creek Shopping Center.

COMMUNITY DATA	
Overall Acreage	52± Ac.
Ex. Built (%)	15%
Fut. Buildout (%)	100%
Total Parcels	26
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

VILLAGE CENTER VC-5



Boundaries of significance – Batterson Road (North and through); Route 60 (South); Jude's Ferry Road (West)

Existing Improvements include – Flat Rock Elementary School (adjacent)

Development Characteristics & Constraints

Development

VC-5 is generally known for Flat Rock Elementary School. The local landmark Frisbee's is also in this community. The remainder of the property is generally undeveloped with exception of a few large parcel homesites and a small warehouse on Batterson Road.

COMMUNITY DATA	
Overall Acreage	85± Ac.
Ex. Built (%)	40%
Fut. Buildout (%)	80%
Total Parcels	26
Parcels > 50 Ac.	1
Parcels > 100 Ac.	0

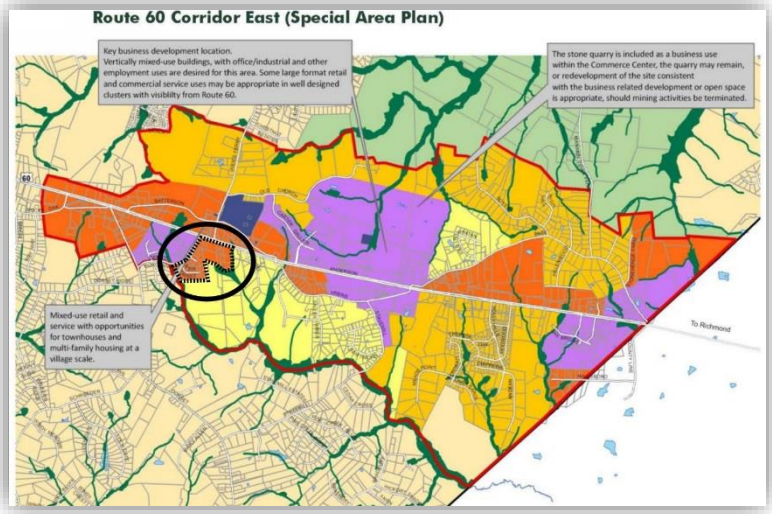
Topographical/Environmental

The undeveloped western parcels (between Batterson and Route 60) have a tributary draw that bisects the properties, but does not appear to be significant enough to limit future development options.

Road Connections

Batterson Road provides very good access to nearly all of the developed and undeveloped properties in this community, providing a good opportunity to take advantage of connected development as the Plan calls for. Due to VDOT's access management regulations, new development accessing onto Route 60 can and should be limited to access points at Batterson and at Jude's Ferry Road, as well as the current crossover located ¼ mile east of Jude's Ferry Road.

VILLAGE CENTER VC-6



Boundaries of significance – Route 60 (North); New Dorset Road (West)

Existing Improvements include industrial development along New Dorset Road.

Development Characteristics & Constraints

Development

Properties on Route 60 in VC-6, particularly those opposite the Jude's Ferry Road intersection, are undeveloped or with only single-family large parcel home sites. VC-6 has considerable development accessing onto New Dorset Road. The scale of these industrial and warehousing sites makes redevelopment into village-style development unlikely in the next several decades.

COMMUNITY DATA	
Overall Acreage	80± Ac.
Ex. Built (%)	55%
Fut. Buildout (%)	70%
Total Parcels	40
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

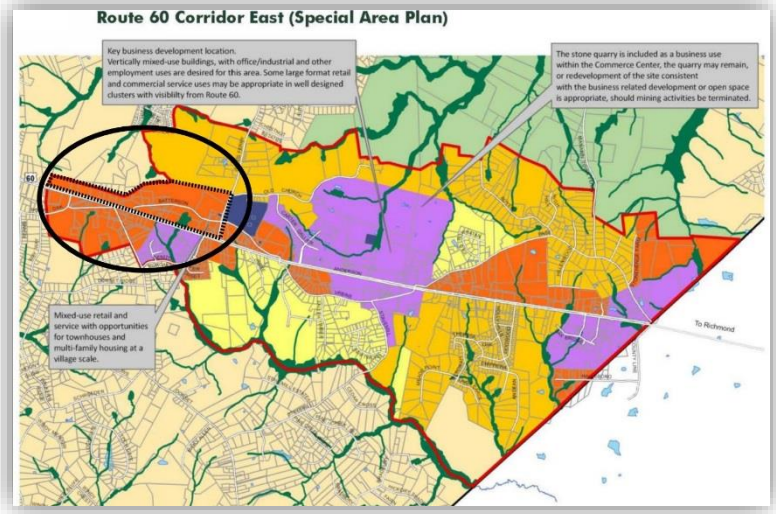
Topographical/Environmental

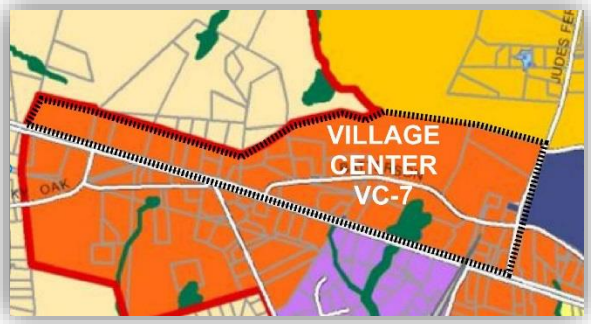
VC-6 is not challenged environmentally and should not have many environmental or stormwater challenges to future development.

Road Connections

VC-6 is generally accessed from the north by Route 60 and from New Dorset Road. Although the configuration of development on New Dorset Terrace is a cul-de-sac, extension of the road is possible to access the undeveloped parcels, along with a principal access from Jude's Ferry intersection.

VILLAGE CENTER VC-7





Boundaries of significance – Route 60 (South); Judes Ferry Road (East)

Existing Improvements include – Flatrock Village; St. John Neumann Catholic Church; Essex Bank, Sheetz

Development Characteristics & Constraints

Development

With the general exception of the Flatrock Village area and Essex Bank, VC-7 is generally undeveloped. Because of the alignment of Batterson running through the community, significant opportunities exist for developing a well-connected village-style development in this community. Significant Route 60-frontage development runs along the western portion of VC-7, including a convenience store and an auto dealership.

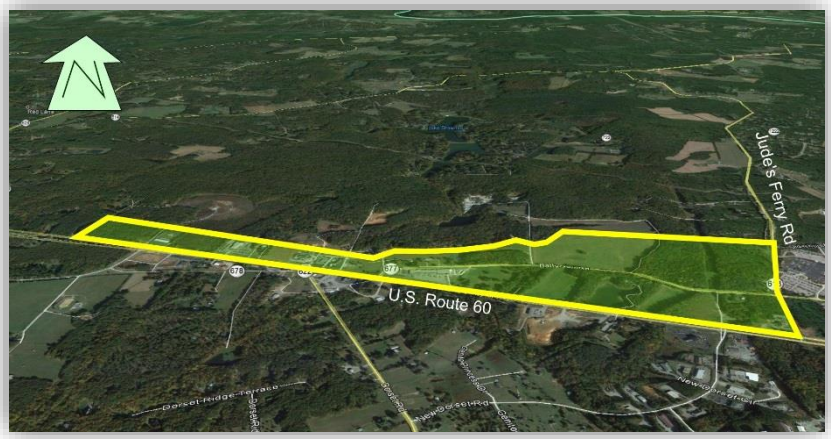
COMMUNITY DATA	
Overall Acreage	280± Ac.
Ex. Built (%)	20%
Fut. Buildout (%)	80%
Total Parcels	46
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

Topographical/Environmental

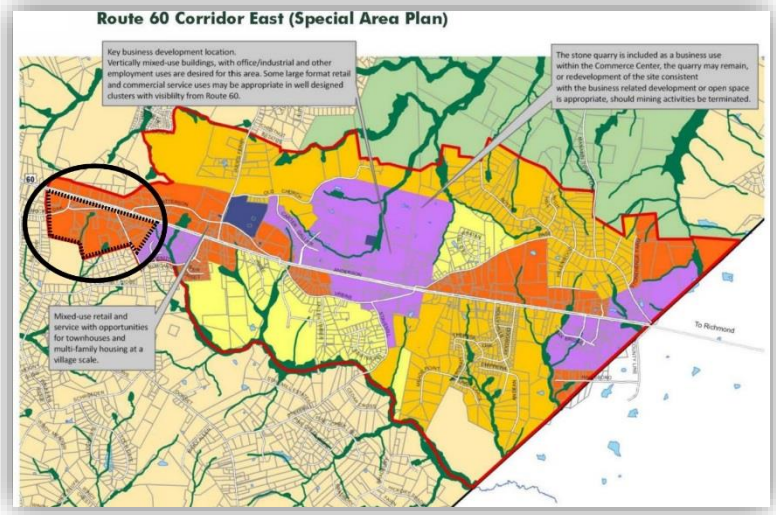
A roughly five-acre pond fronting Route 60 provides the only significant environmental feature in this community. Integrated properly, this feature can be integrated into both stormwater programs and as an amenity to a future connected development. The relatively narrow development strip along Route 60 provides a challenge to development in anything but a Route 60-oriented manner.

Road Connections

Batterson Road provides good access throughout the community and access points to Route 60 at both its western terminus and Judes Ferry Road make this community one of the highest value potential development sites based on vehicular access alone.



VILLAGE CENTER VC-8



Boundaries of significance – Route 60 (North); Dorset Road (East)

Existing Improvements include – Flat Rock development intersection businesses

Development Characteristics & Constraints

Development

VC-8 comprises the developments centered on the Dorset/Route 60 intersection. Included are Napier Realty, Davis Merchant Equipment.

Topographical/Environmental

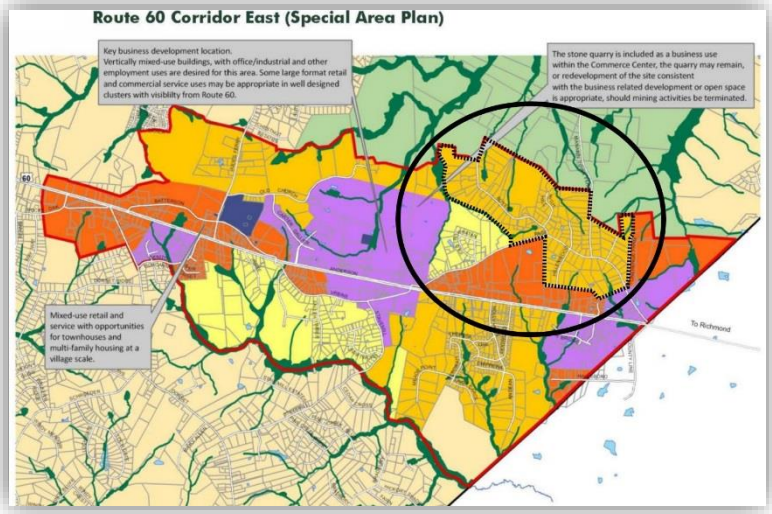
Two significant environmental constraints in the form of farm ponds and their channels impact this community and present challenges for the connecting of future development throughout. The most significant is a farm pond at the southern boundary that shows significant wetlands upstream. Additionally, a smaller farm pond south of Rocky Oak Road indicates wetlands downstream that would provide permitting challenges in that area of the community. Both ponds would likely be useful as future stormwater structures and should be considered.

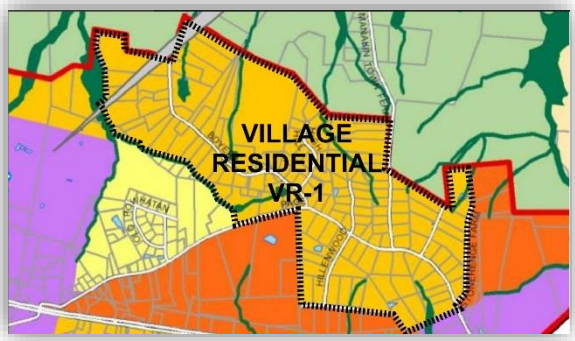
COMMUNITY DATA	
Overall Acreage	240± Ac.
Ex. Built (%)	15%
Fut. Buildout (%)	75%
Total Parcels	45
Parcels > 50 Ac.	2
Parcels > 100 Ac.	0

Road Connections

The connections to roads in VC-8 are good, with Dorset and Rocky Oak providing good non-Route 60 access. However, any significant development at this intersection will require realignment to better accommodate VDOT requirements for safe intersections.

VILLAGE RESIDENTIAL VR-1





Boundaries of significance – Page Road (through)

Existing Improvements include – Branch Creek, Woolridge, The Grange, High Hill, and Stonehenge Farm subdivisions

Development Characteristics & Constraints

Development

VR-1 is effectively fully developed with single family home subdivisions. No redevelopment of this area is likely in the next thirty years. The classification of VR-1 is appropriate, given the goal of consistency with neighboring development already in place.

Topographical/Environmental

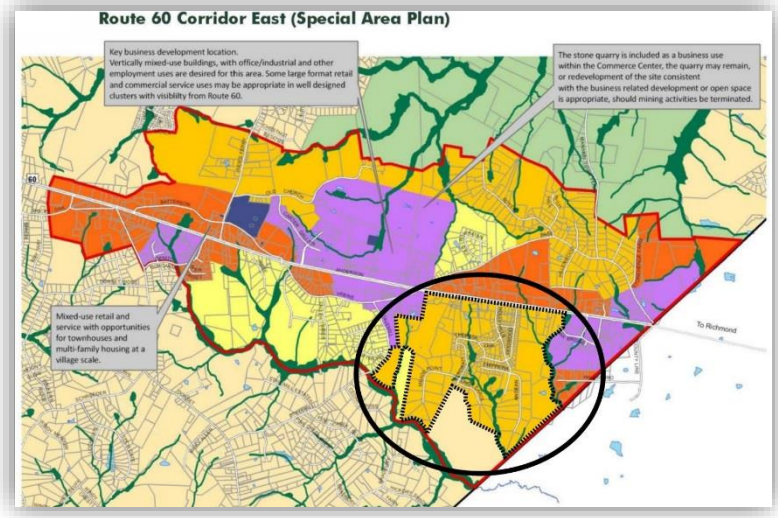
Numerous topographical changes, including existing ponds, wetlands, and steep slopes make development of anything other than the current development pattern of single family homes.

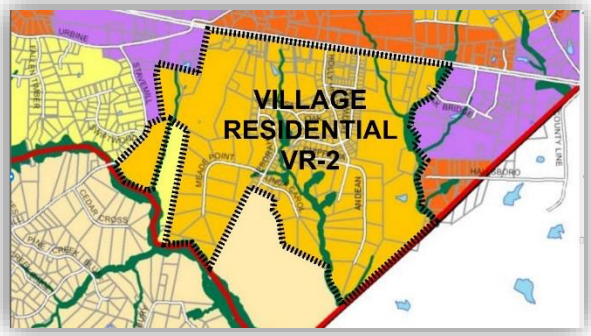
Road Connections

The subdivisions of VR-1 are served by Page Road as the collector, feeding to Boyer Road, Boyer Way, High Hill Drive, Hillenwood Drive, Manakin Town Ferry Road, and Stonehenge Farm Road.

COMMUNITY DATA	
Overall Acreage	800± Ac.
Ex. Built (%)	100%
Fut. Buildout (%)	100%
Total Parcels	173
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

VILLAGE RESIDENTIAL VR-2





Boundaries of significance – Route 60 (North)

Existing Improvements include – Holly Hills, Hollymeade, Tamrick Subdivisions

Development Characteristics & Constraints

COMMUNITY DATA	
Overall Acreage	1,030±Ac.
Ex. Built (%)	85%
Fut. Buildout (%)	95%
Total Parcels	307
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

Development

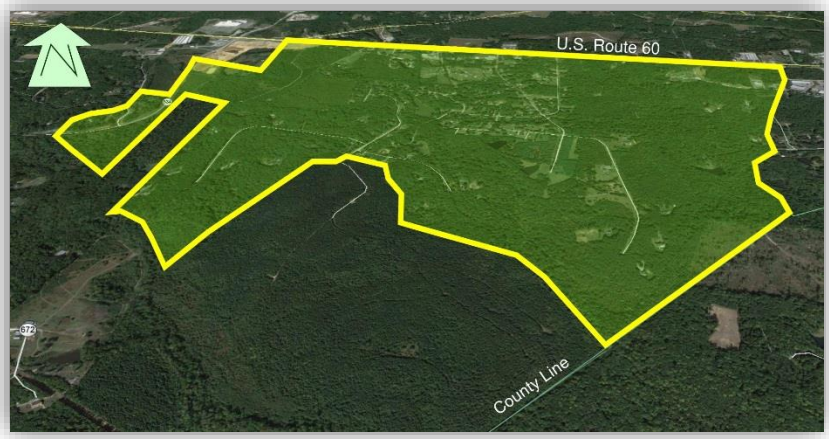
VR-2 is significantly, though not completely, built out as single family subdivisions. Known as the Holly Hills area, these residential communities combine smaller lot (1 acre) to larger (10 acre plus) home sites. Undeveloped acreage lies generally to the far west and far east on parcels fronting Route 60. A portion of this community includes the Stavemill corridor.

Topographical/Environmental

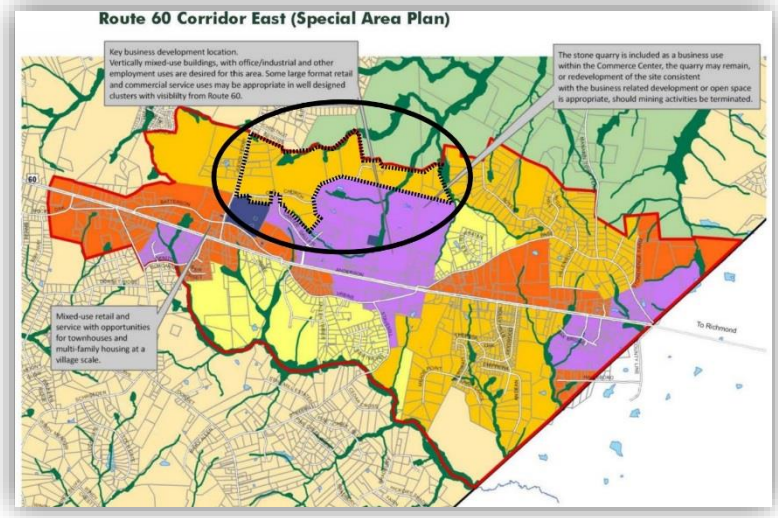
Moderately rolling to steep, this community has several environmental features, including BMPs designed with the various subdivisions served.

Road Connections

Connectivity is limited for the undeveloped parcels except through stub road access points in Holly Hills and Hollymeade subdivisions. There are other challenges to road connectivity for development include lack of crossovers on Route 60, and development (homes) along Route 60.



VILLAGE RESIDENTIAL VR-3



Boundaries of significance – Jude's Ferry Road (West); Old Church Road (South); Luck Stone Quarry (South)

Existing Improvements include – Old Powhatan Baptist Church

Development Characteristics & Constraints

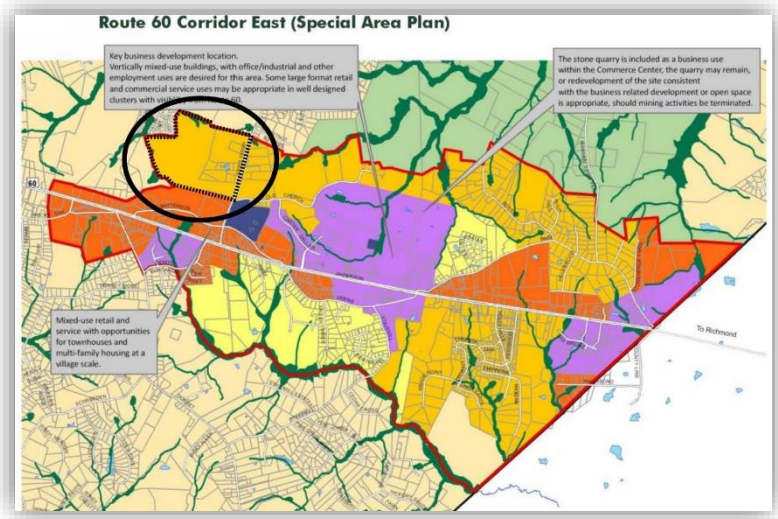
Development
VR-3 is undeveloped with the exception of Old Powhatan Baptist Church and cemetery at the terminus of Old Church Road.

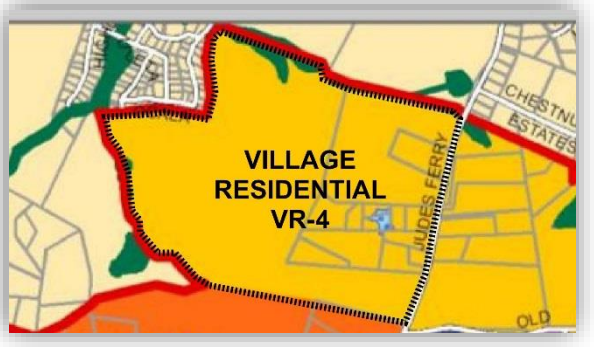
Topographical/Environmental
The topography of this community generally falls from the high along Old Church Road to the north.

Road Connections
The community has been identified largely through its length by Old Church Road, accessed from Jude's Ferry Road. Land use is limited to accessing via Old Church Road, with a secondary access provided by Carter Gallier Boulevard through the South Creek Industrial Park.

COMMUNITY DATA	
Overall Acreage	470± Ac.
Ex. Built (%)	10%
Fut. Buildout (%)	65%
Total Parcels	51
Parcels > 50 Ac.	0
Parcels > 100 Ac.	1

VILLAGE RESIDENTIAL VR-4





Boundaries of significance – Judes Ferry Road (East); Lake Shawnee Subdivision (North)

Existing Improvements include – small single family lots on Judes Ferry Road

Development Characteristics & Constraints

COMMUNITY DATA	
Overall Acreage	320± Ac.
Ex. Built (%)	10%
Fut. Buildout (%)	85%
Total Parcels	27
Parcels > 50 Ac.	1
Parcels > 100 Ac.	1

Development

Development of VR-4 is currently limited to residential single family parcels along Jude's Ferry Road. Significant frontage on this road reduces the impact that these already developed lots will have on the viability of future development.

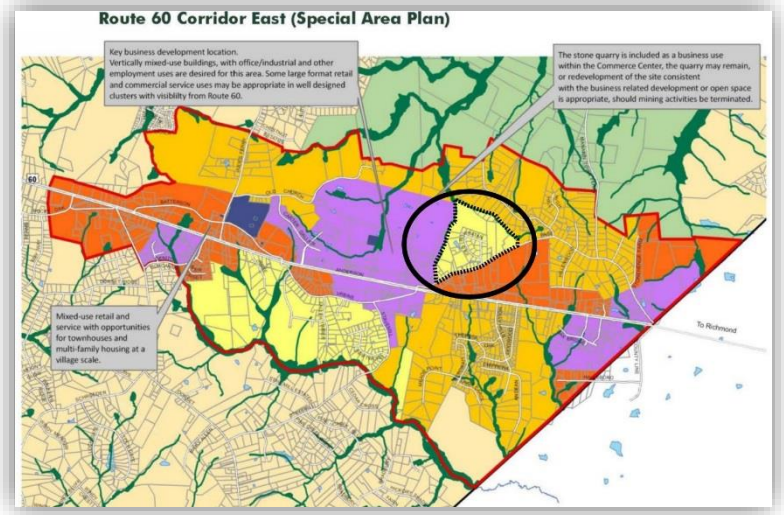
Topographical/Environmental

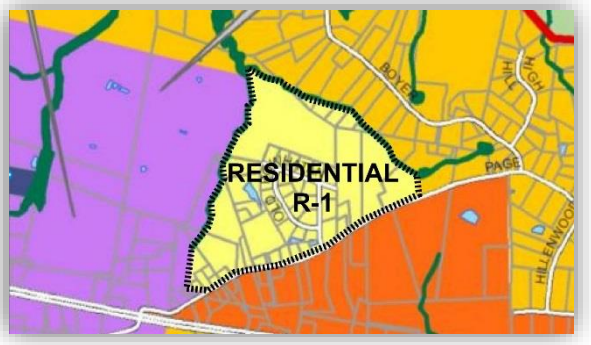
Topographically, the parcels in this community vary from rolling to steep, with the steepest portions to the north and west in the drainage ways feeding to Lake Shawnee. Only modest jurisdictional wetlands and Waters of the US (WOUS) appear to be present, along with several farm ponds.

Road Connections

Parcels in VR-4 are nearly entirely accessed to the east by Jude's Ferry Road. Private roads access the property from the south, but significant public road infrastructure will be required to access the large parcels that make up this community.

LOW DENSITY RESIDENTIAL R-1





Boundaries of significance – Page Road (south)

Existing Improvements include – Existing single family residential homes.

Development Characteristics & Constraints

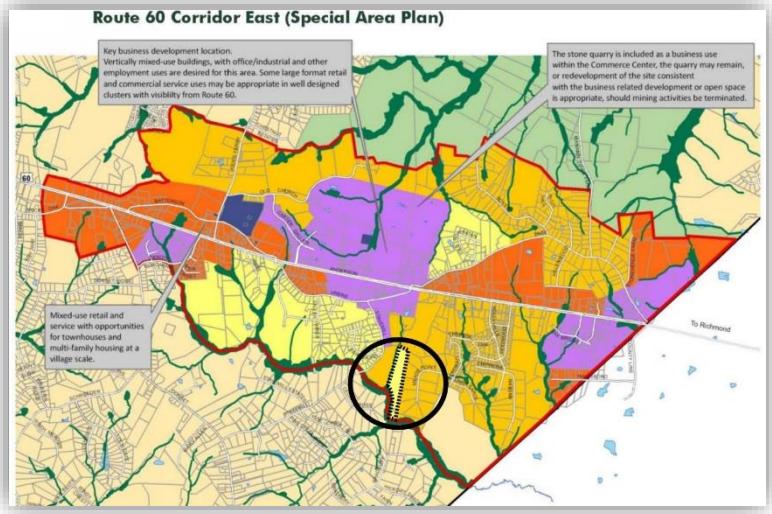
Development
R-1 is generally established residential homes and the neighborhood of Old Powhatan Estates. Overhead transmission lines and a significant power easement run east/west just north of the subdivision and limit the viability of development not already in place.

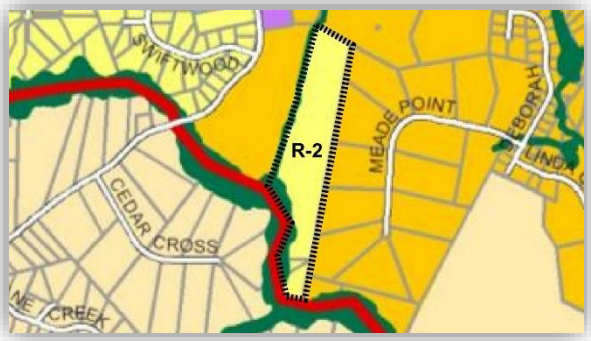
Topographical/Environmental
R-1 is generally rolling and is framed by modest drainage divides that separate it from two other communities, C-4 to the west and VR-1 to the northwest.

Road Connections
R-1 is bound to the south and accessible only to Page Road. While Luck Stone Road provides a potential access to the community from the west, the limited development potential of the remaining community area limits the feasibility of this connection.

COMMUNITY DATA	
Overall Acreage	199± Ac.
Ex. Built (%)	50%
Fut. Buildout (%)	65%
Total Parcels	67
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

LOW DENSITY RESIDENTIAL R-2





Boundaries of significance – property is landlocked from public access. Significant stream boundary to the south.

Existing Improvements include – no significant development.

Development Characteristics & Constraints

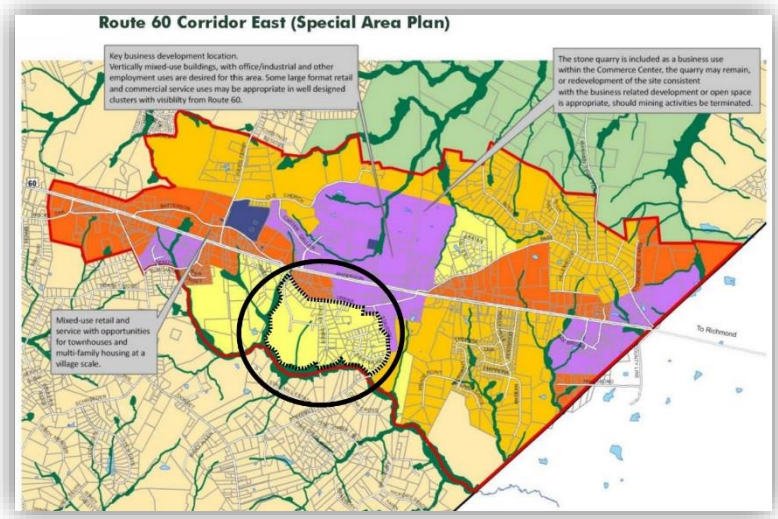
Development
R-2 is not a community, but a parcel with little potential for development other that an attachment to development to the west that fronts on Stavemill Road.

Topographical/Environmental
Geometry of R-2 presents the greatest challenge for the site as it is narrow and as such will have difficulty being developed because of necessary setbacks. As mentioned above, this leaves viability for development largely tethered to development to the west.

Road Connections
R-2 is essentially landlocked from a perspective of public access. Development will need to include public access provided from Stavemill Road.

COMMUNITY DATA	
Overall Acreage	39± Ac.
Ex. Built (%)	0%
Fut. Buildout (%)	10%
Total Parcels	2
Parcels > 50 Ac.	0
Parcels > 100 Ac.	0

LOW DENSITY RESIDENTIAL R-3



Boundaries of significance – Urbine Road (north); significant creek and environmental features frame the west and south.

Existing Improvements include – Huntington and Swiftwood Subdivisions; Powhatan EMS building at eastern boundary.

Development Characteristics & Constraints

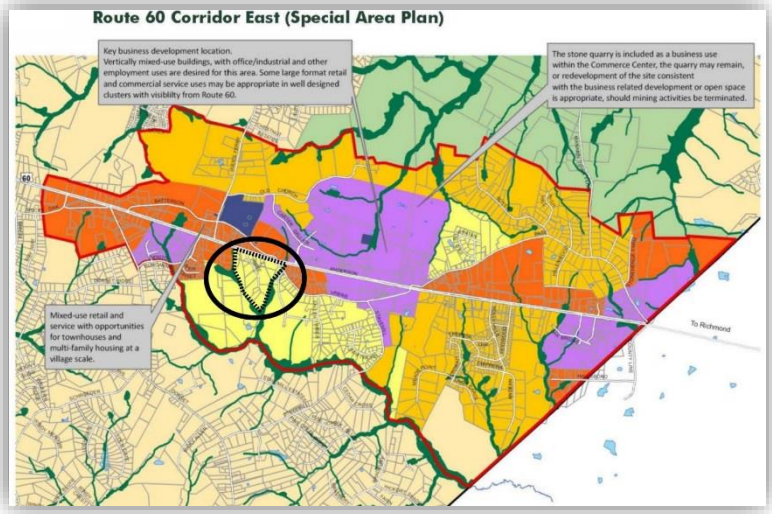
Development
Development in R-3 is largely identified by the Huntington Subdivision fronting on Urbine Road. Proposed development plans have generally locked in the future build-out of this community. The existing classification of low residential is entirely appropriate, given the permitting activity and construction to date.

Topographical/Environmental
Topography in R-3 is generally rolling and appropriate for the development plans for the subdivision community.

Road Connections
R-3 is bound to the north by public access to Urbine Road. Plans approved by the county call for all development in this community to tie into Urbine Road in the future.

COMMUNITY DATA	
Overall Acreage	430± Ac.
Ex. Built (%)	55%
Fut. Buildout (%)	65%
Total Parcels	140
Parcels > 50 Ac.	1
Parcels > 100 Ac.	1

LOW DENSITY RESIDENTIAL R-4



Boundaries of significance – Route 60 (north)

Existing Improvements include – large parcel residential homesites, some undeveloped parcels

Development Characteristics & Constraints

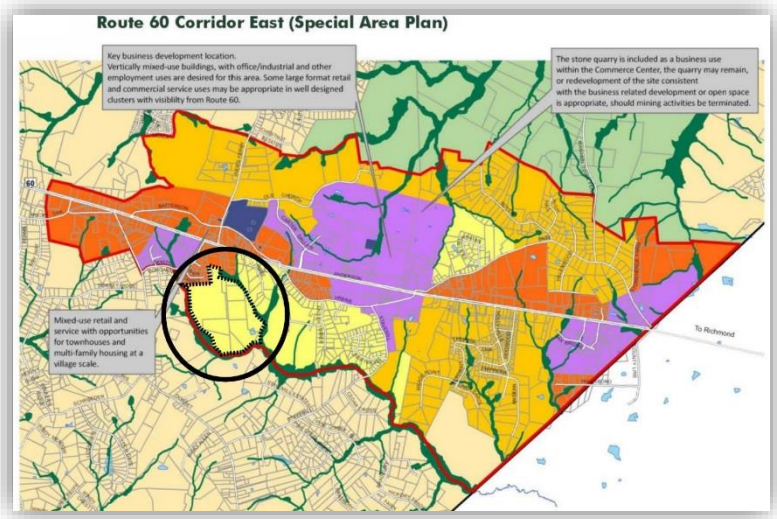
Development
Development of R-4 is limited to existing residential homes and some undeveloped parcels.

Topographical/Environmental
R-4 parcels have a generally rolling topography. Major streams and wetlands form the southeastern and southwestern boundary.

Road Connections
The only connection for the parcels of this community is Rose Lane. Due to the extent of residential activity and the limited accessibility to the parcels, the existing land use category of low density residential is appropriate.

COMMUNITY DATA	
Overall Acreage	105± Ac.
Ex. Built (%)	10%
Fut. Buildout (%)	50%
Total Parcels	29
Parcels > 50 Ac.	1
Parcels > 100 Ac.	0

LOW DENSITY RESIDENTIAL R-5



Boundaries of significance - Chesterfield County line (East); Route 60 (South)

Existing Improvements include – no significant development; power transmission lines

Development Characteristics & Constraints

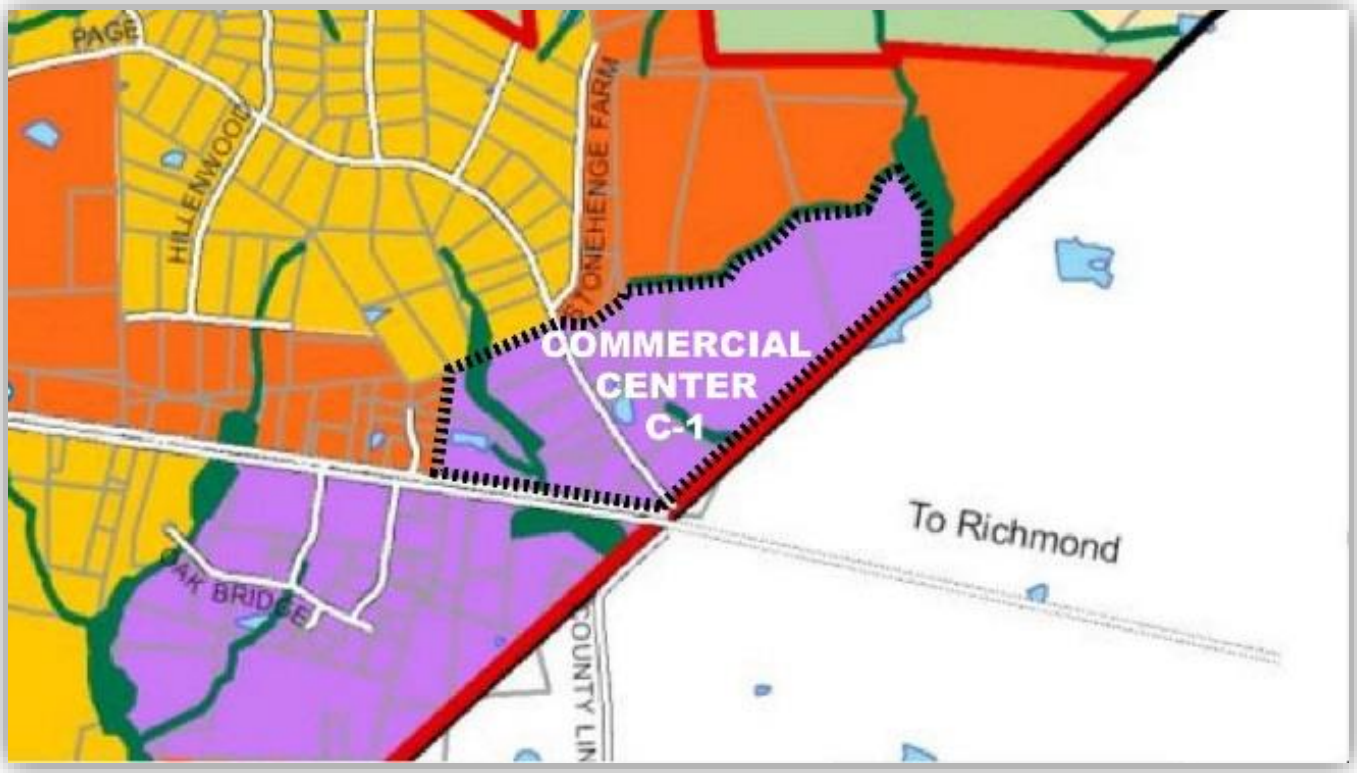
Development
R-5 is comprised of large parcels, mostly open or wooded, with several homesites.

Topographical/Environmental
R-5 is bound on nearly all sides by significant environmental features, steams and wetlands. The northern part of this community is adjacent to the industrial parcels accessing New Dorset Road.

Road Connections
R-5 is inaccessible to any major road without connecting through other communities. VC-6 lies to the north of R-5, through which a private road accessing from Route 60 to the parcels. Because of this configuration and due to the environmental constraints bounding the community, the existing land use category of low density residential is appropriate.

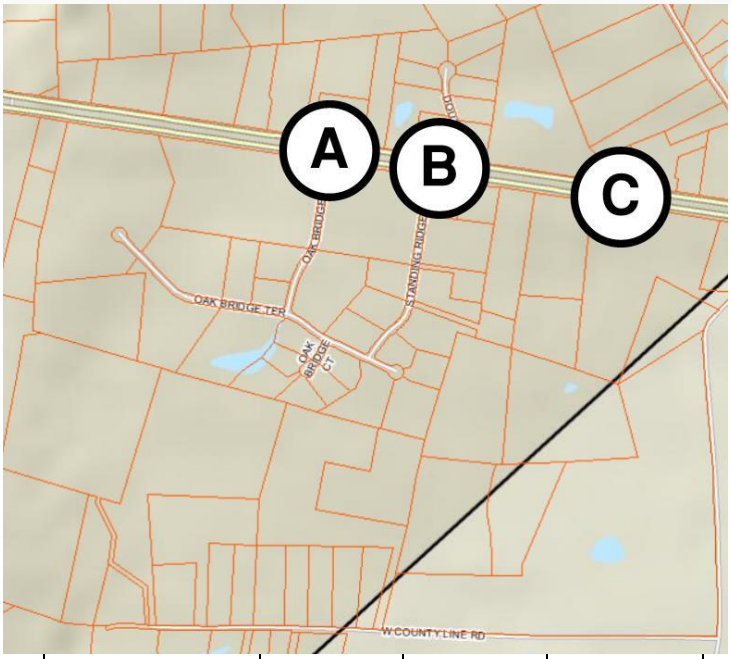
COMMUNITY DATA	
Overall Acreage	249± Ac.
Ex. Built (%)	15%
Fut. Buildout (%)	75%
Total Parcels	20
Parcels > 50 Ac.	1
Parcels > 100 Ac.	0

COMMERCIAL CENTER C-1



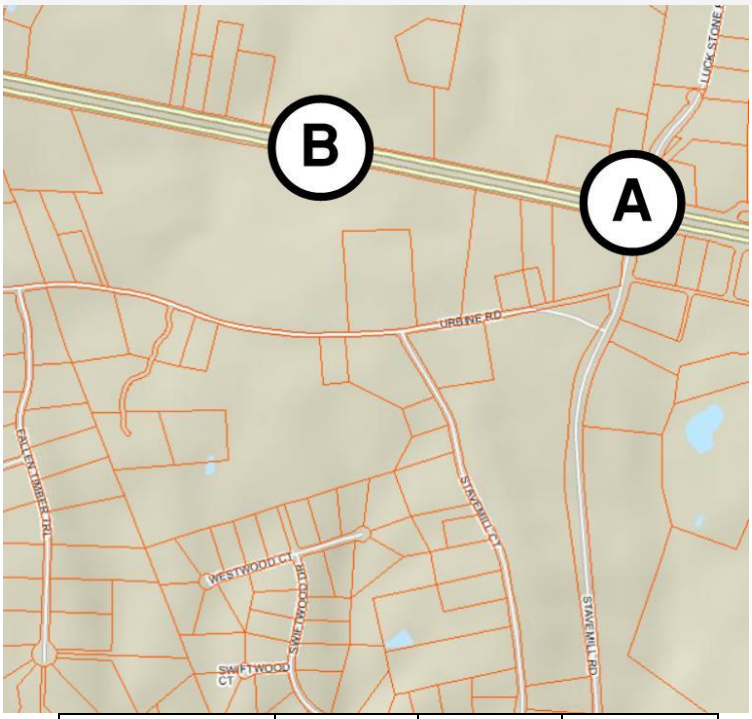
TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	100		

COMMERCIAL CENTER C-2



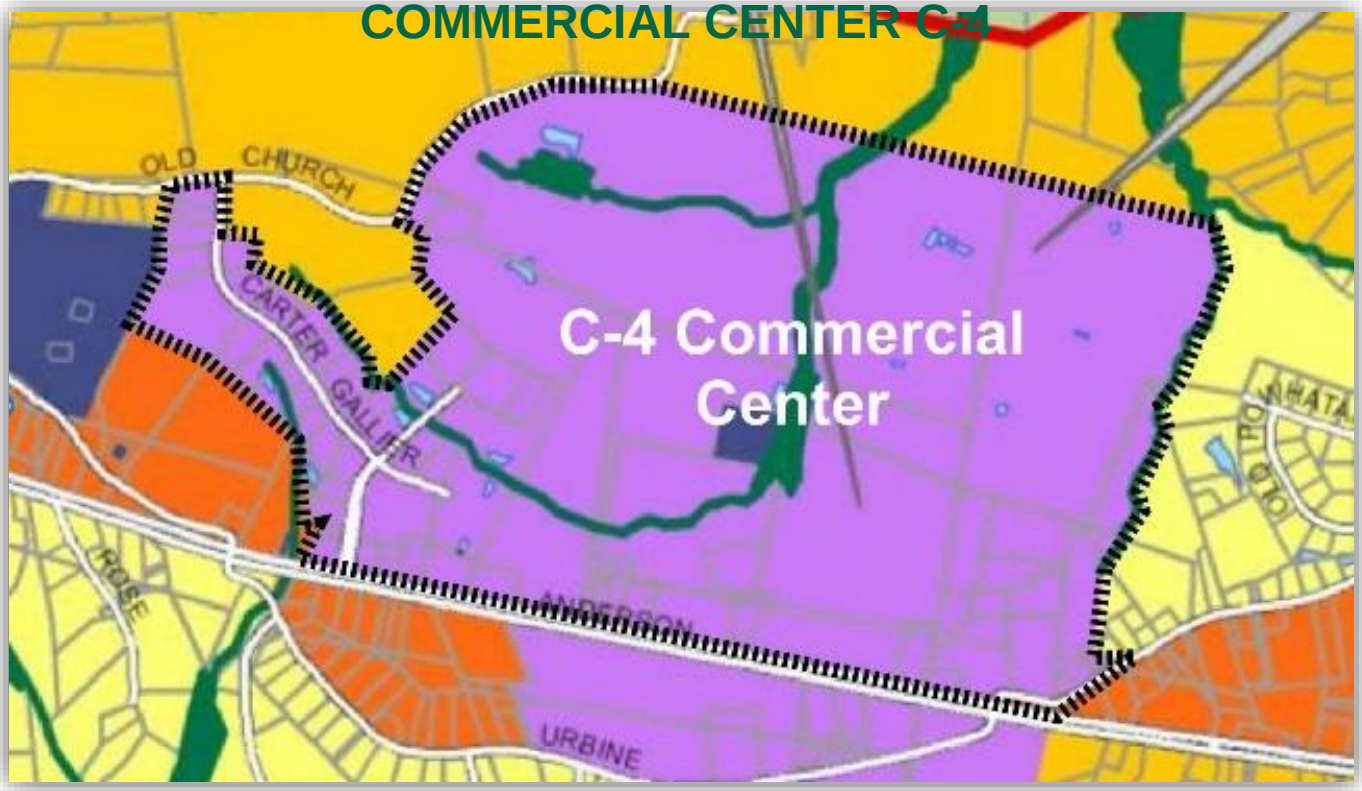
TRAFFIC %	A	B	C
EXISTING	75	25	
FUTURE	60	20	20

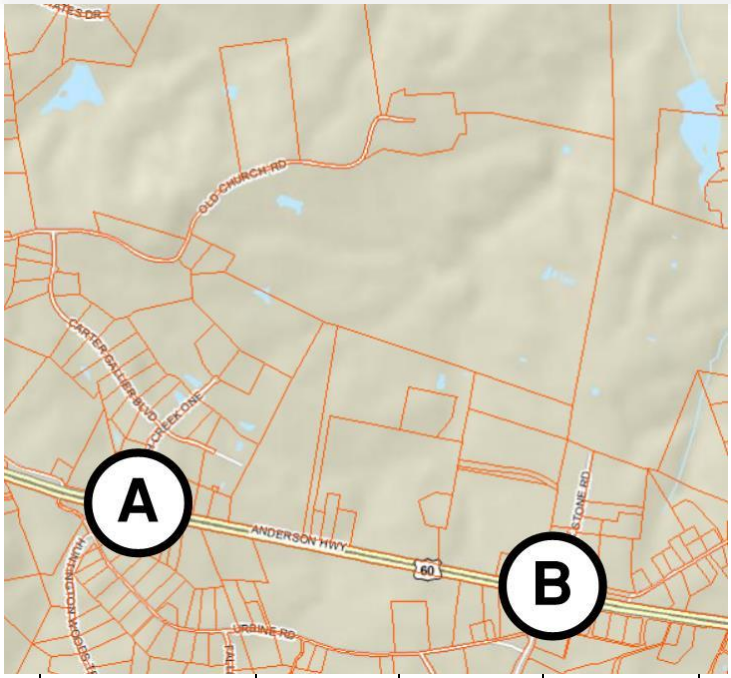
COMMERCIAL CENTER C-3



TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	60	40	

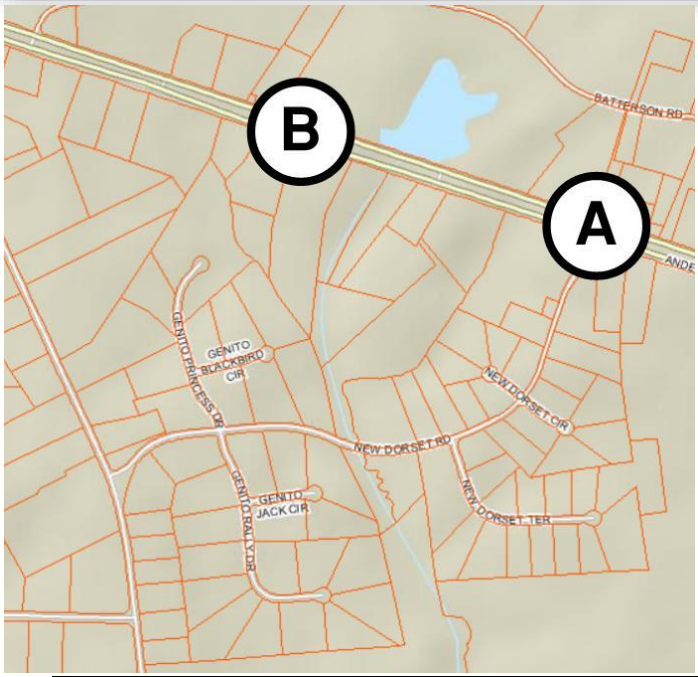
COMMERCIAL CENTER C-4





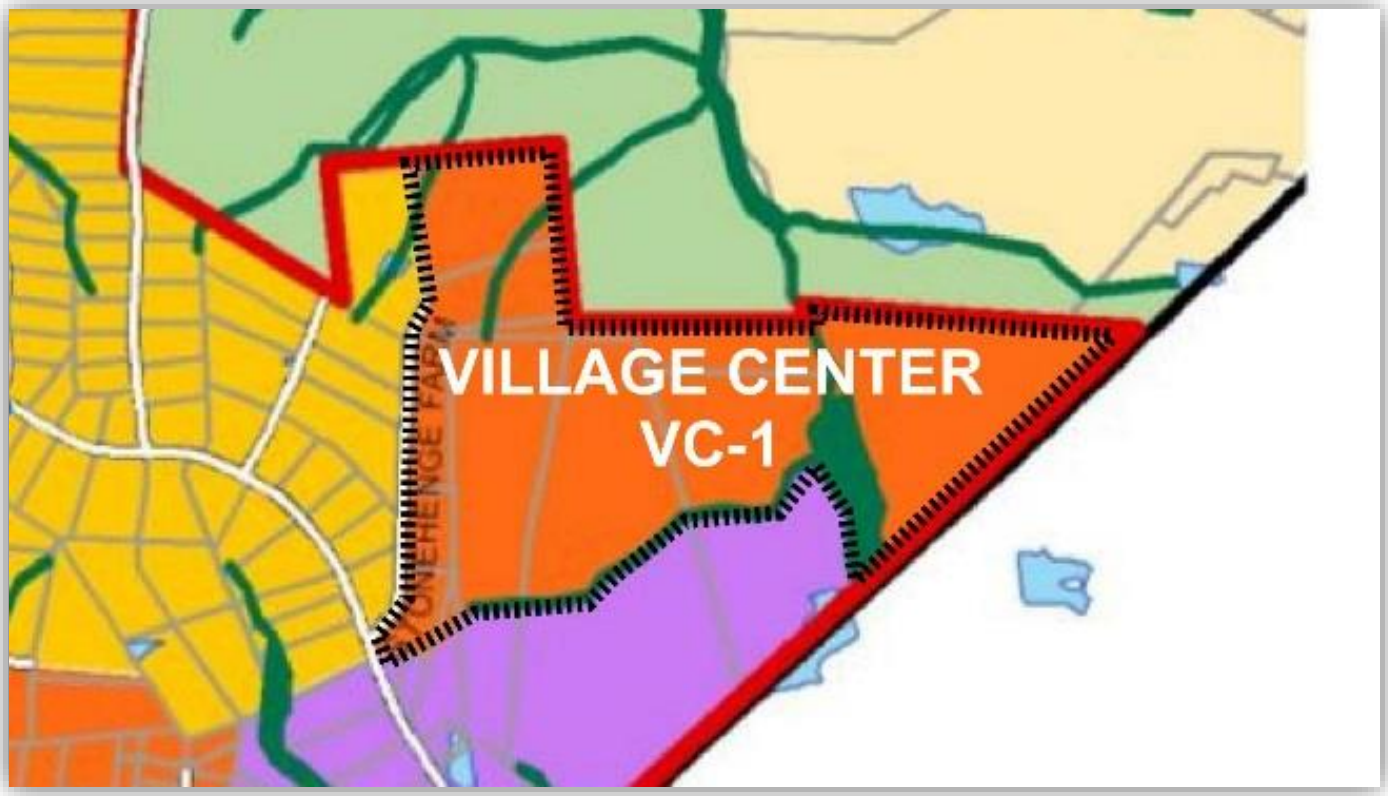
TRAFFIC %	A	B	C
EXISTING	40	60	
FUTURE	40	60	

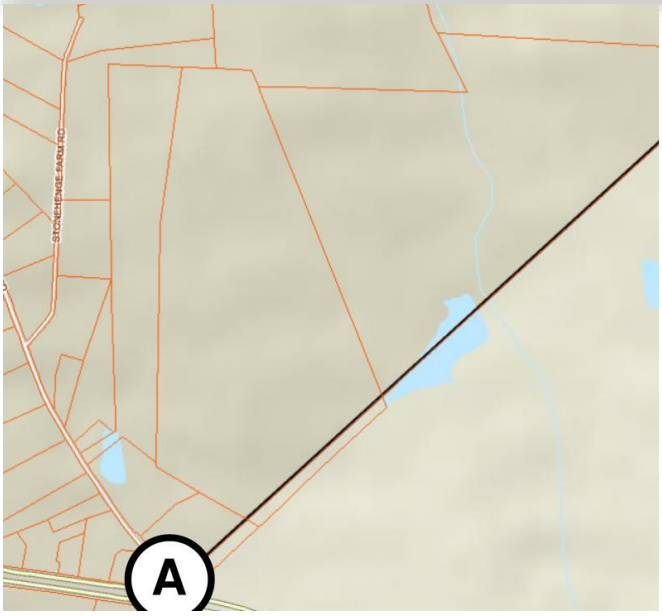
COMMERCIAL CENTER C-5



TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	90	10	

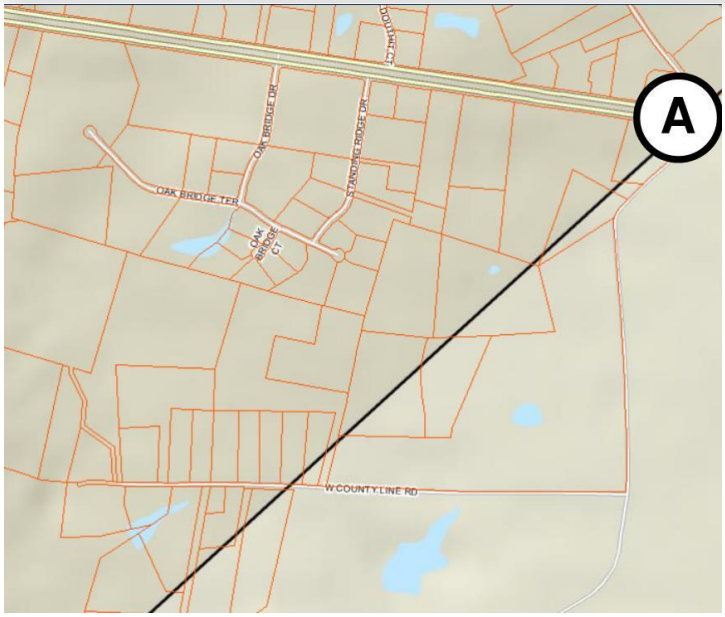
VILLAGE CENTER VC-1





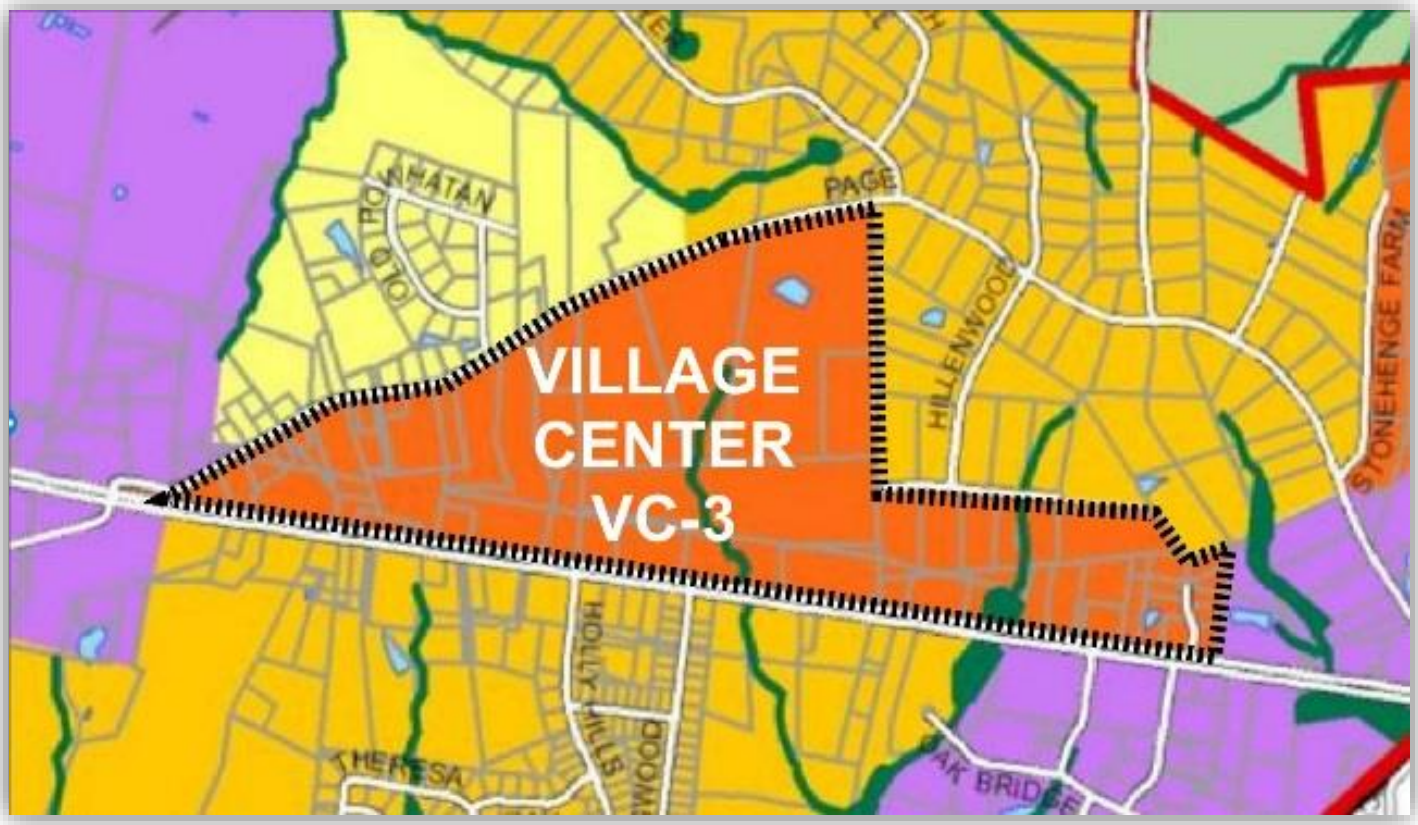
TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	100		

VILLAGE CENTER VC-2



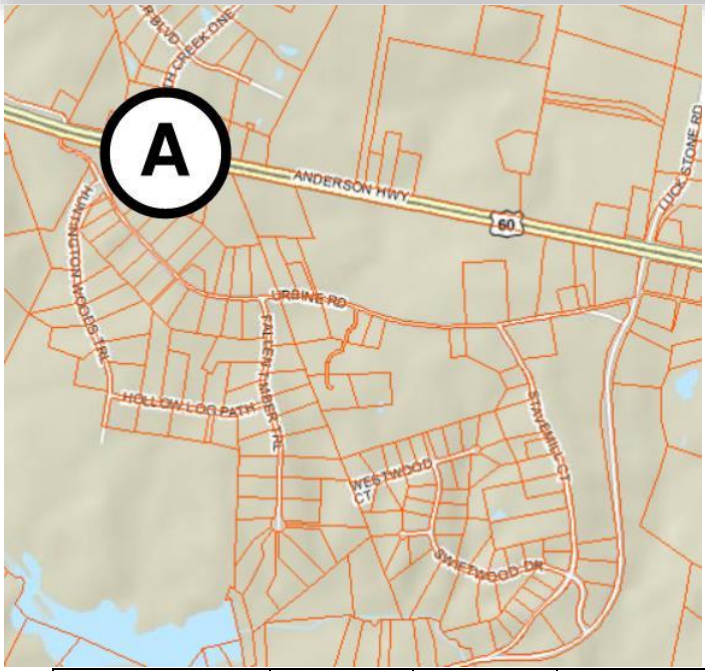
TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	100		

VILLAGE CENTER VC-3



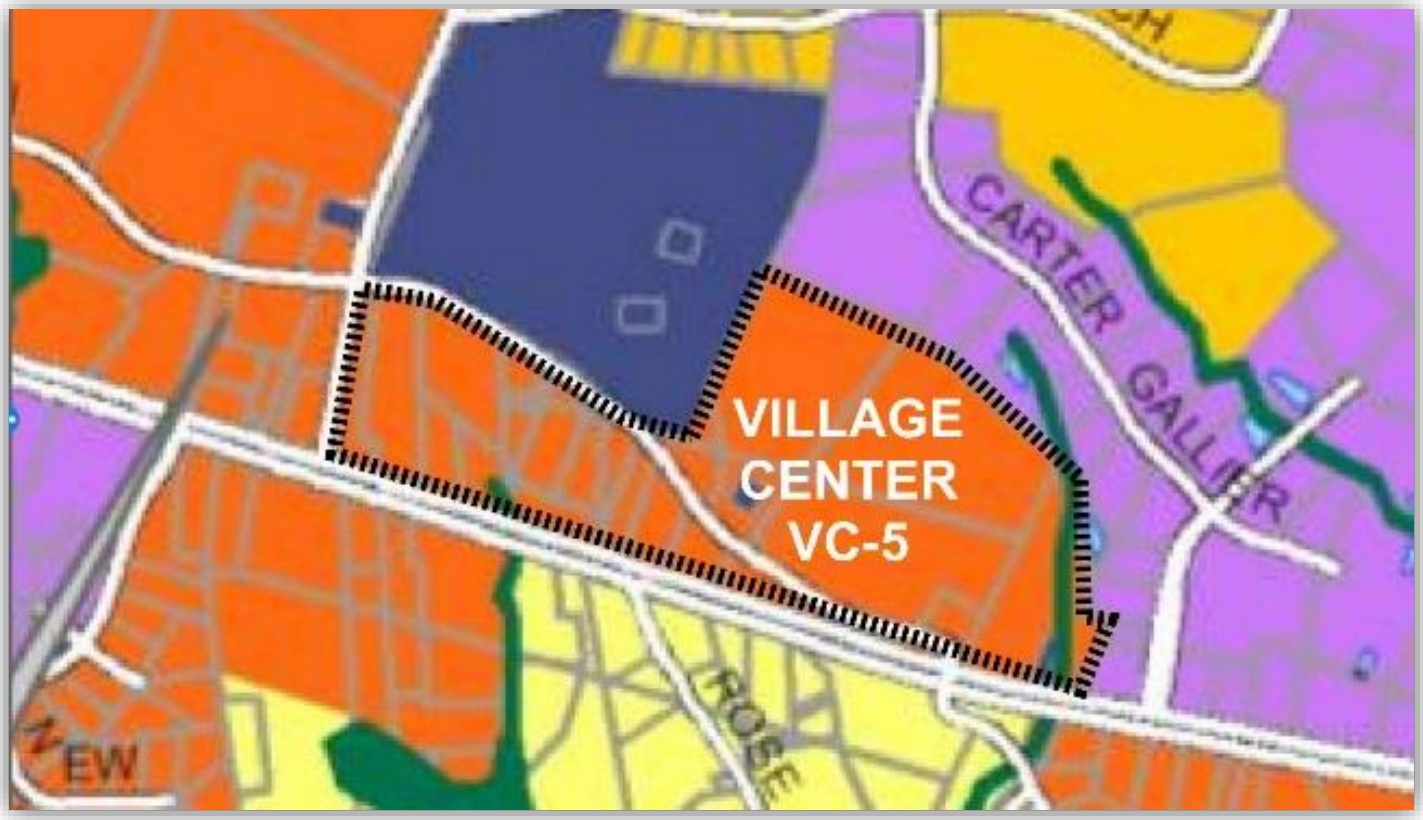
TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	60	25	15

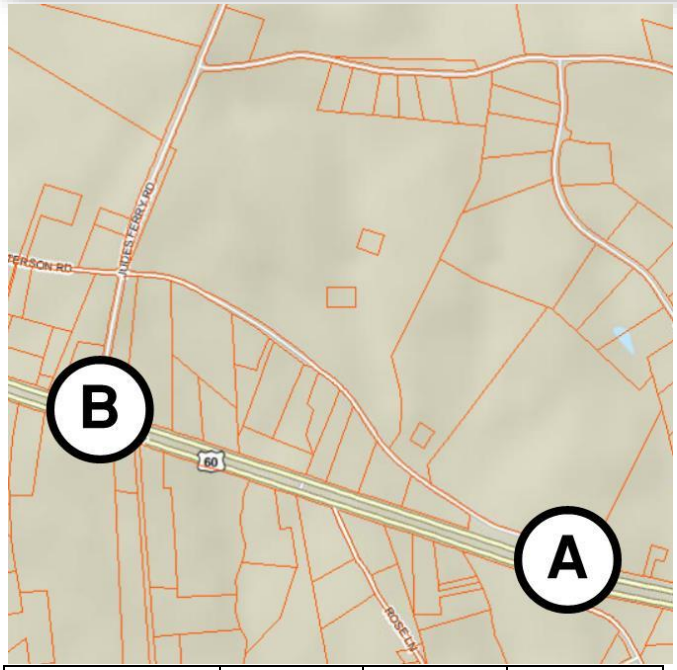
VILLAGE CENTER VC-4



TRAFFIC %	A	B	C
EXISTING	0		
FUTURE	100		

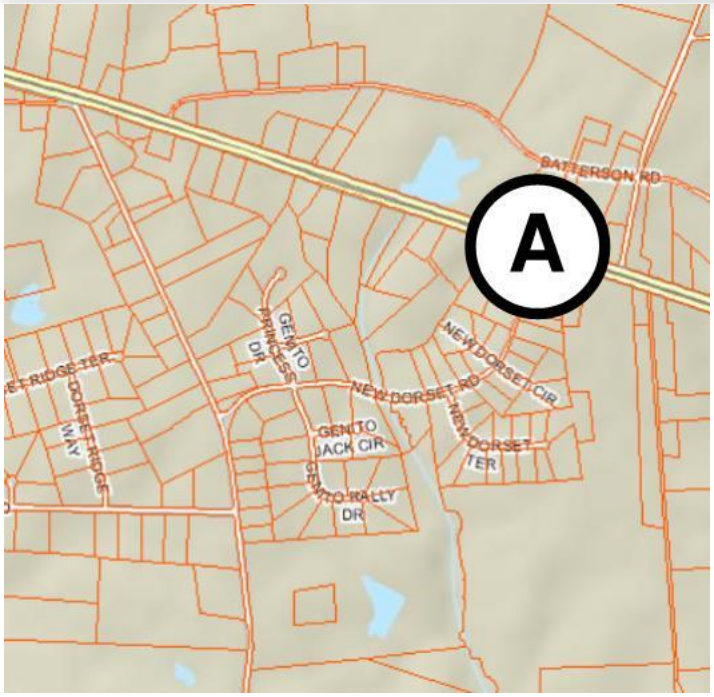
VILLAGE CENTER VC-5





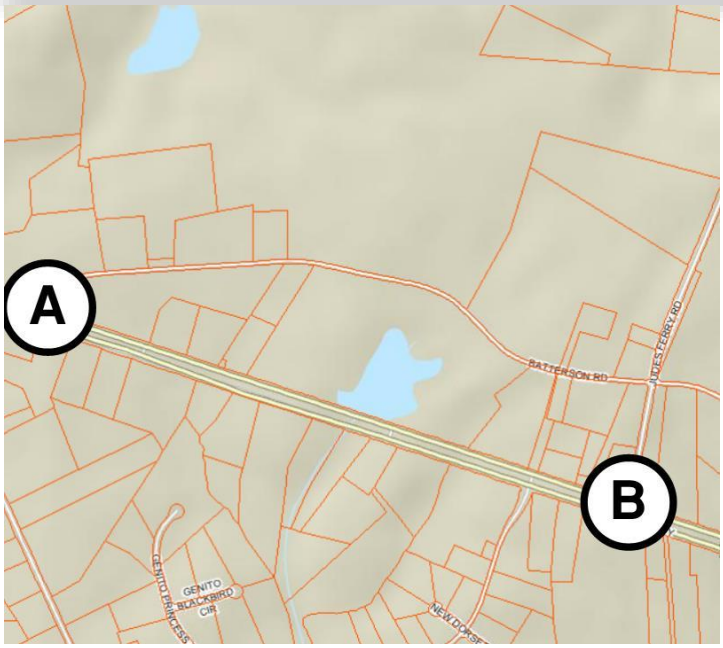
TRAFFIC %	A	B	C
EXISTING	30	70	
FUTURE	40	60	

VILLAGE CENTER VC-6



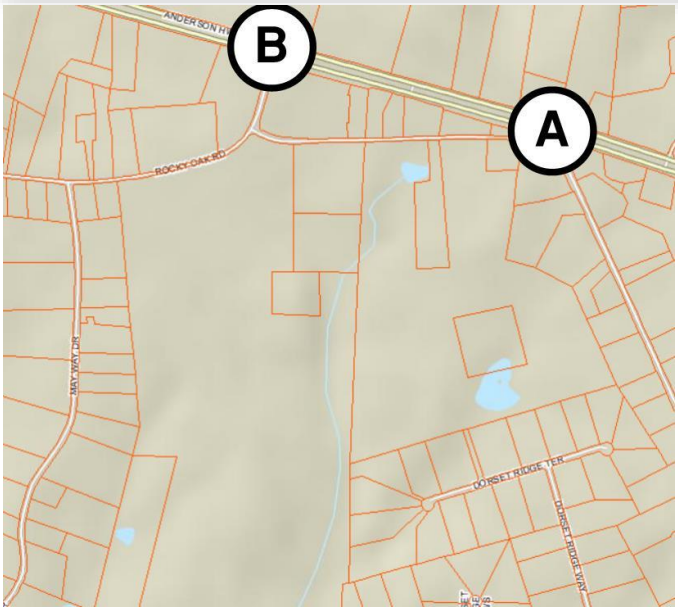
TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	100		

VILLAGE CENTER VC-7



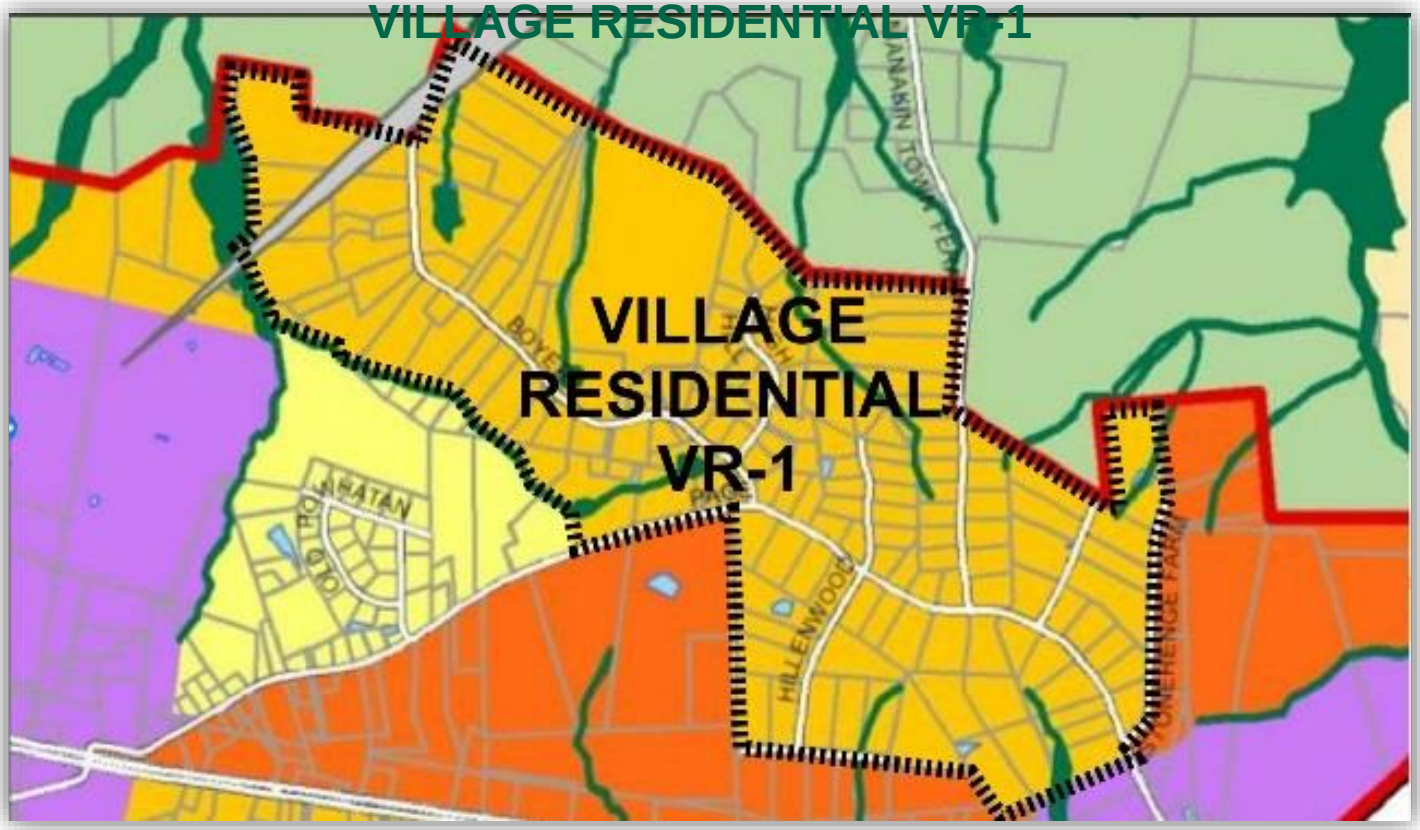
TRAFFIC %	A	B	C
EXISTING	40	60	
FUTURE	50	50	

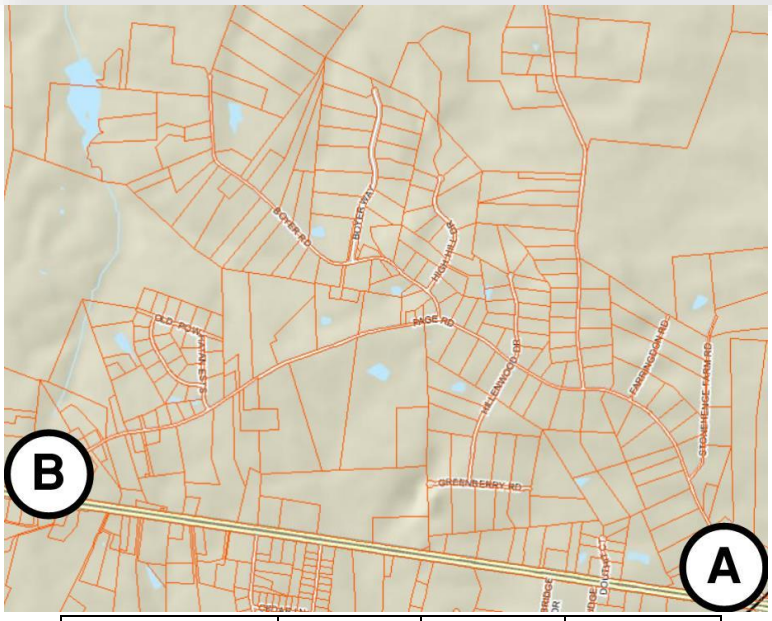
VILLAGE CENTER VC-8



TRAFFIC %	A	B	C
EXISTING	80	20	
FUTURE	75	25	

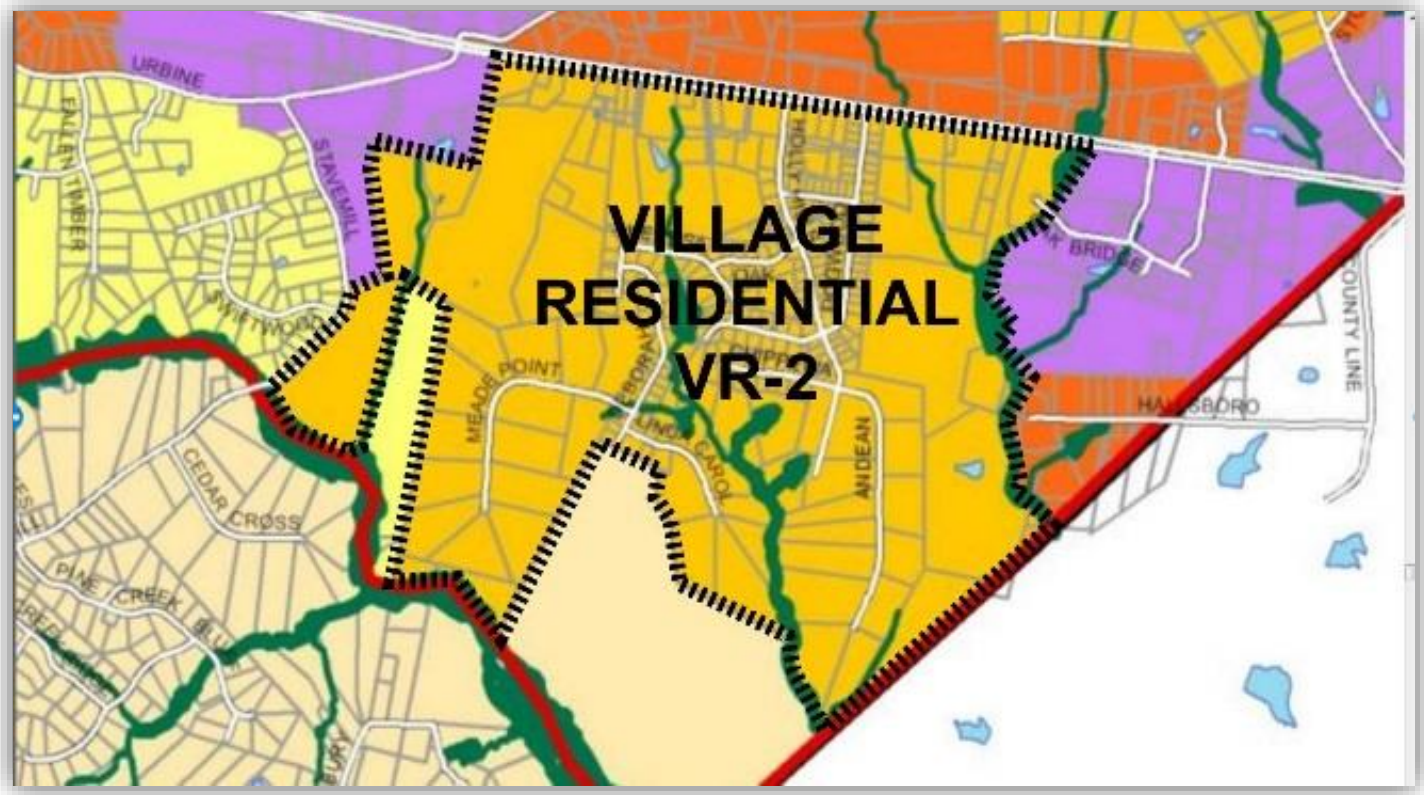
VILLAGE RESIDENTIAL VR-1

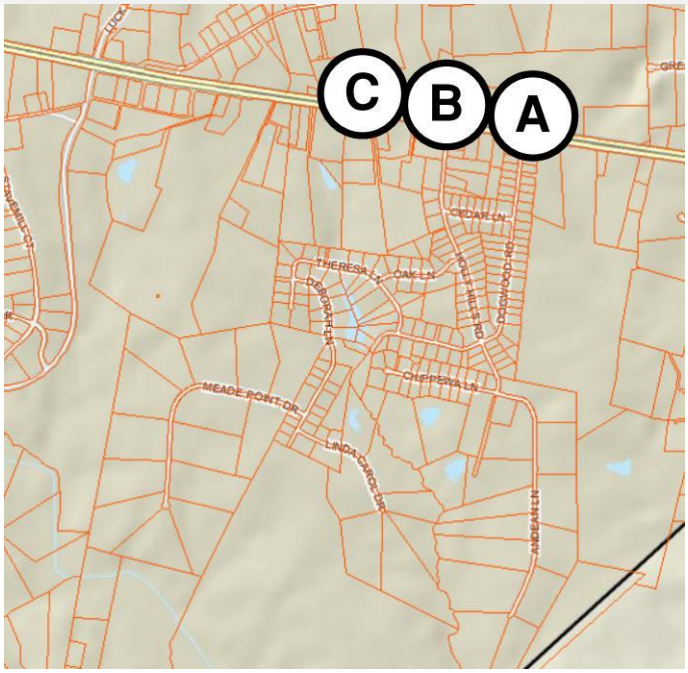




TRAFFIC %	A	B	C
EXISTING	85	15	
FUTURE	75	25	

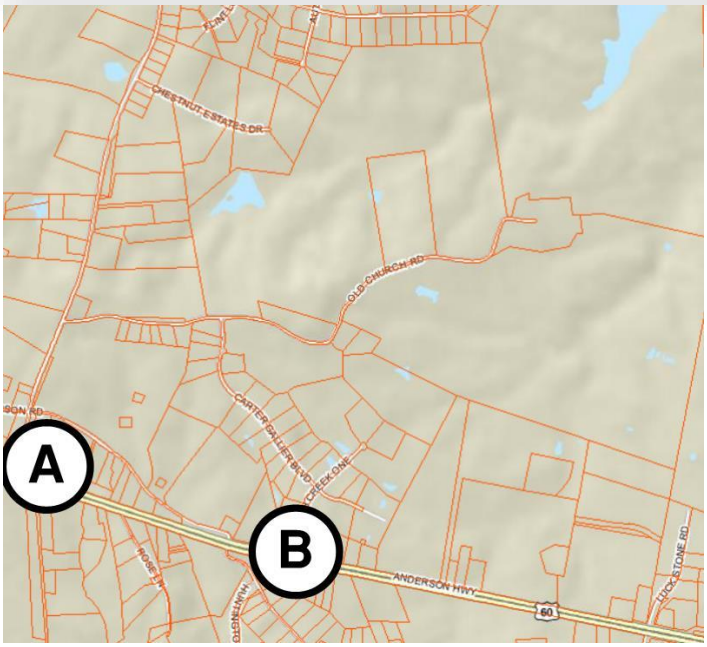
VILLAGE RESIDENTIAL VR-2





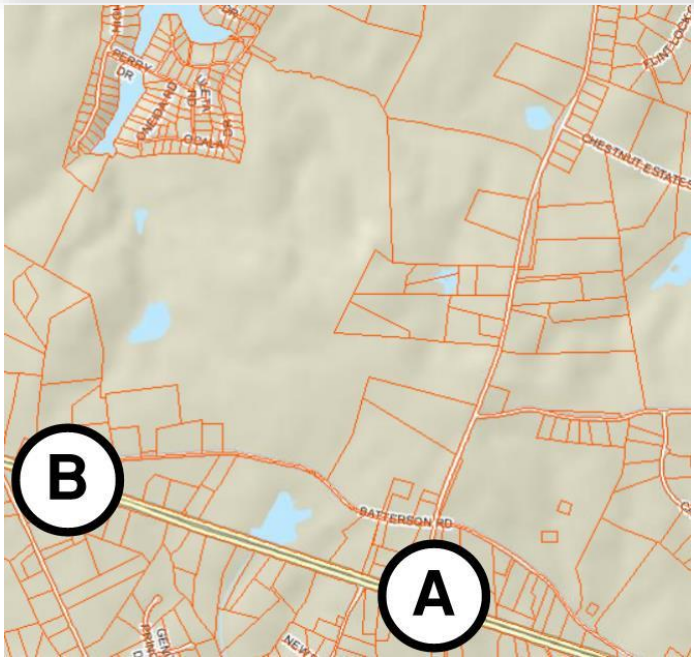
TRAFFIC %	A	B	C
EXISTING	45	45	10
FUTURE	40	40	20

VILLAGE RESIDENTIAL VR-3



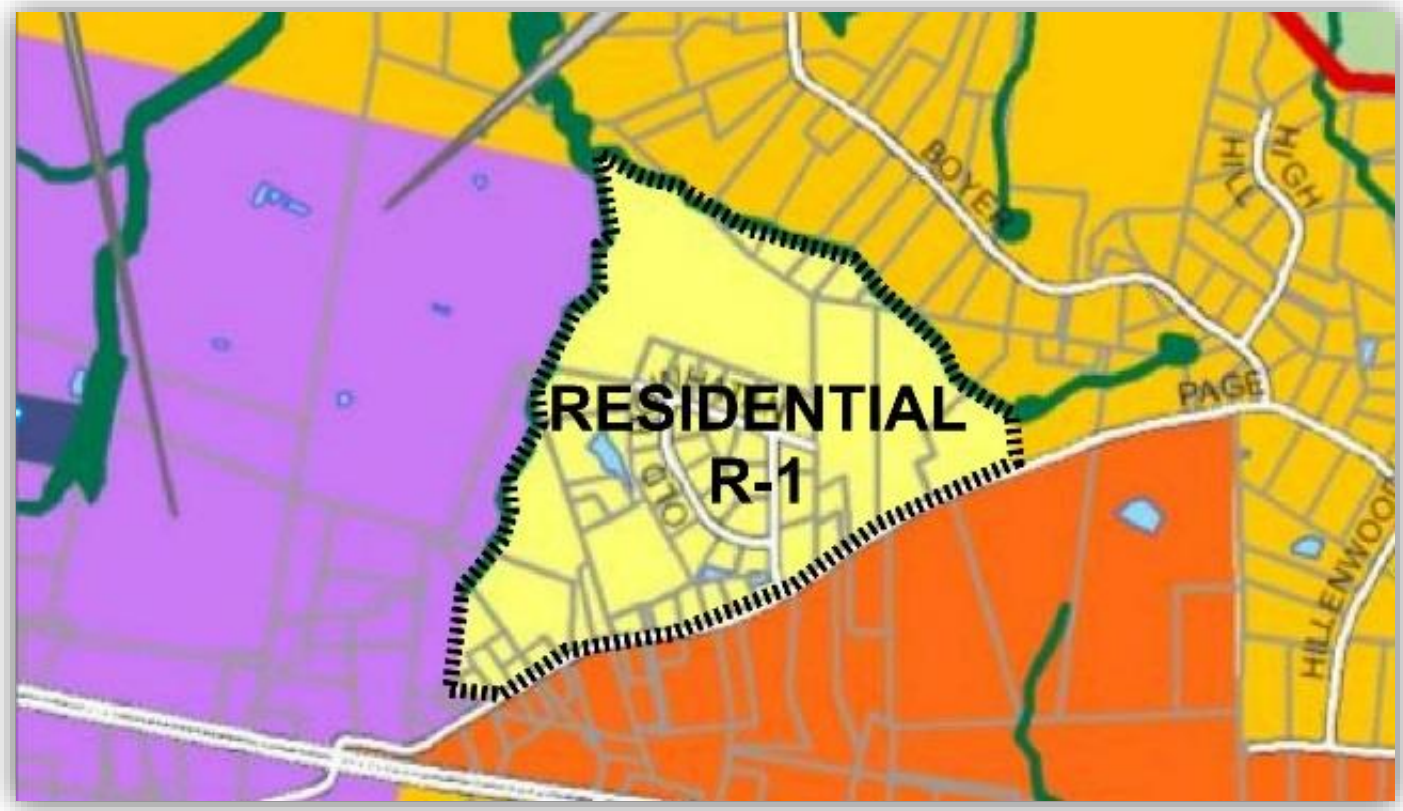
TRAFFIC %	A	B	C
EXISTING	50	50	
FUTURE	30	70	

VILLAGE RESIDENTIAL VR-4



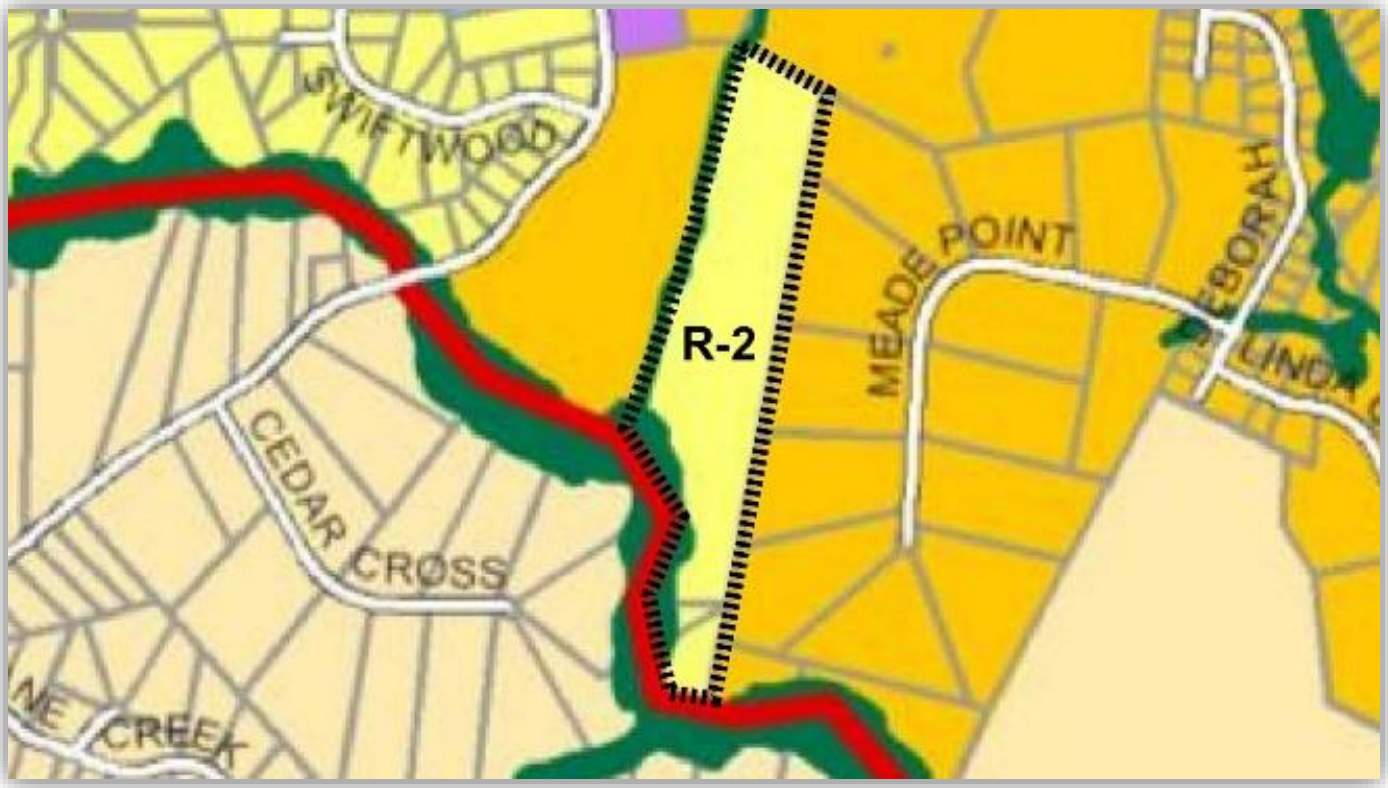
TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	80	20	

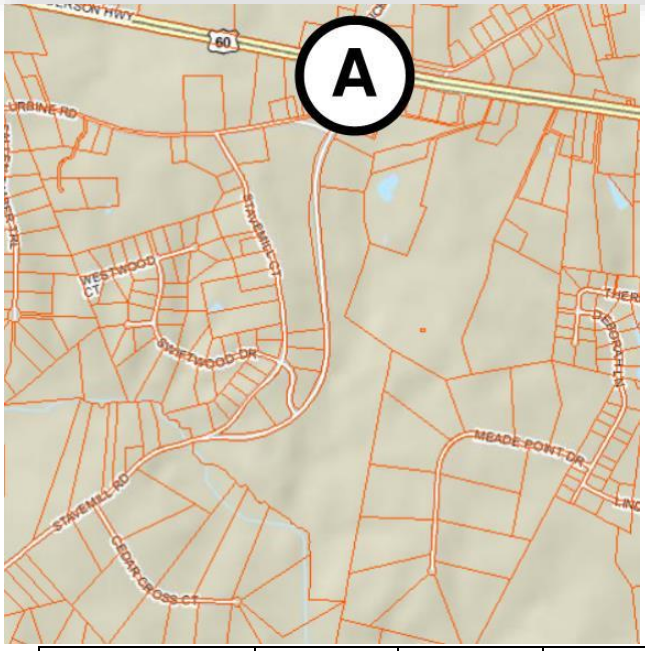
LOW DENSITY RESIDENTIAL R-1



TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	100		

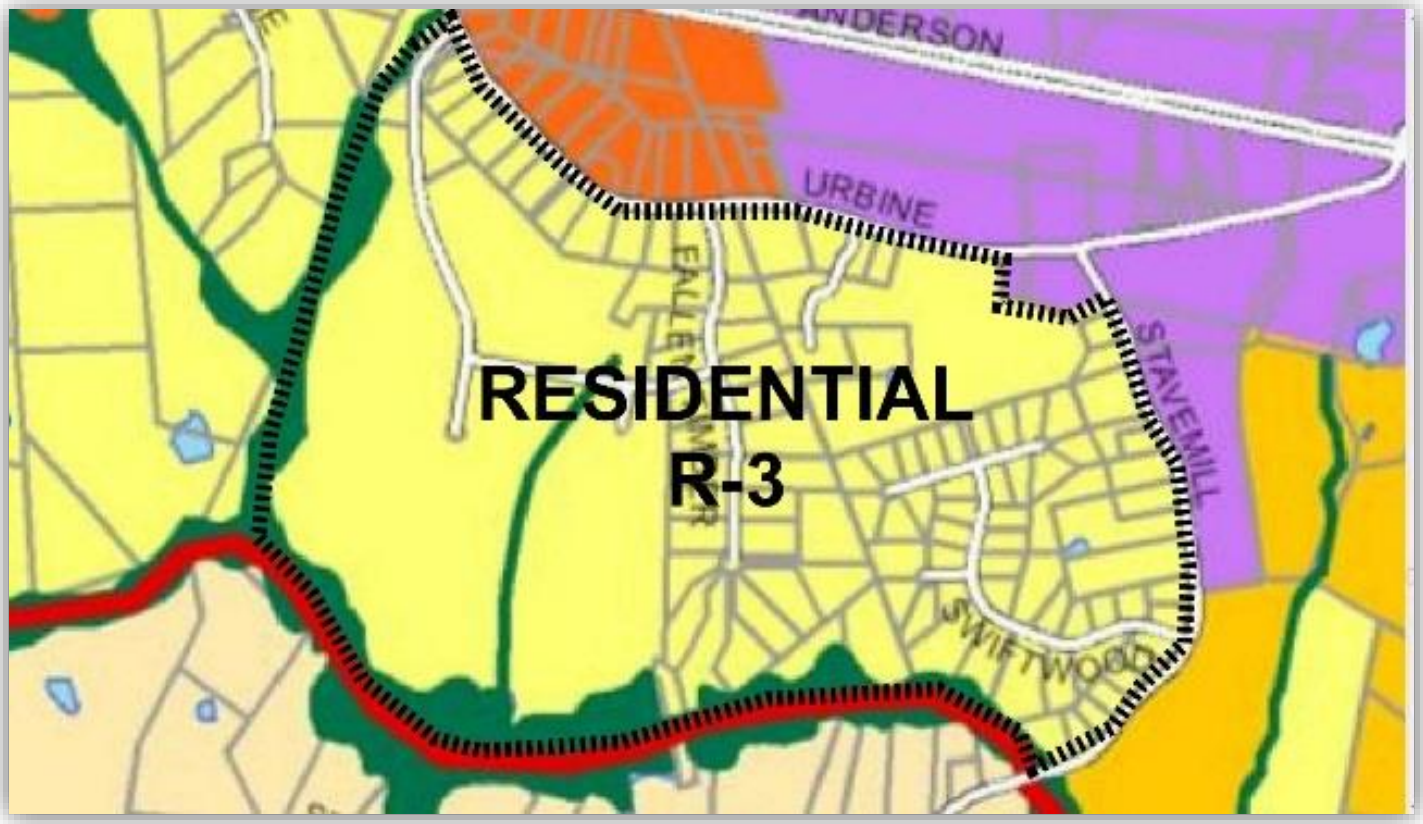
LOW DENSITY RESIDENTIAL R-2

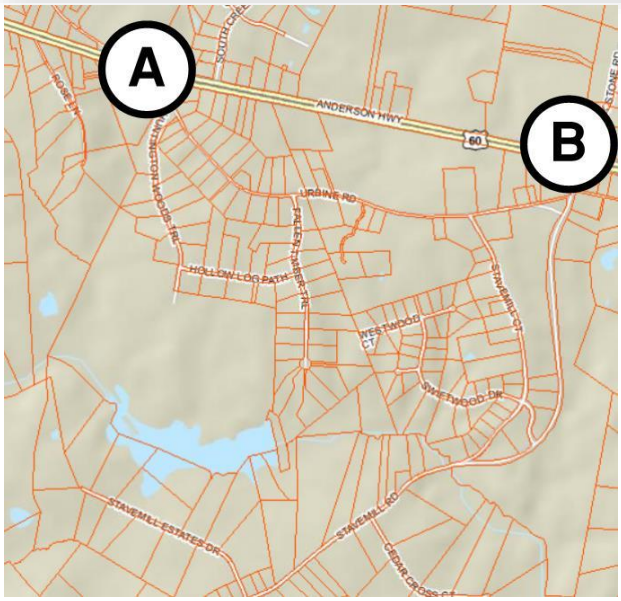




TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	100		

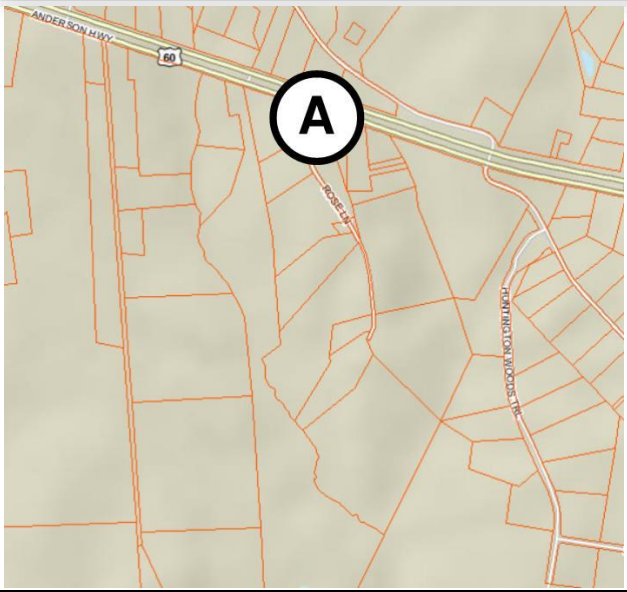
LOW DENSITY RESIDENTIAL R-3





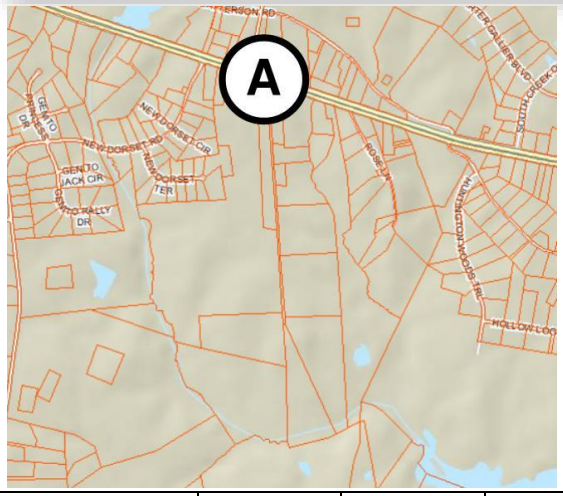
TRAFFIC %	A	B	C
EXISTING	85	15	
FUTURE	75	25	

LOW DENSITY RESIDENTIAL R-4



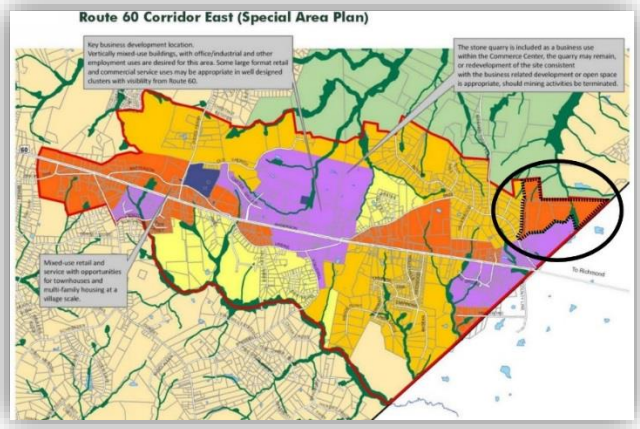
TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	100		

LOW DENSITY RESIDENTIAL R-5



TRAFFIC %	A	B	C
EXISTING	100		
FUTURE	100		

VILLAGE CENTER VC-1



Recommendation for Comprehensive Plan Adjustment

Concerns

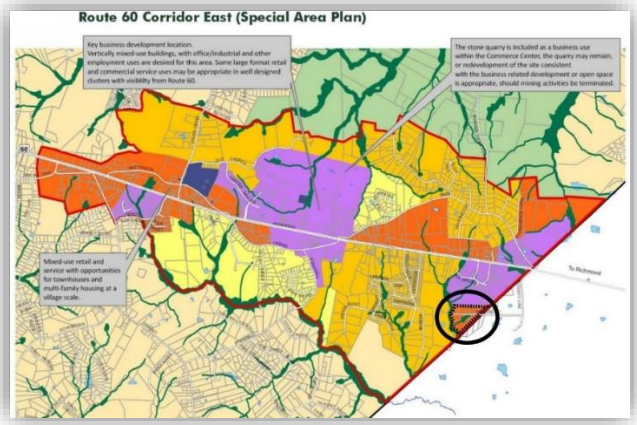
VC-1 is generally accessible only by way of Stonehenge Farm Road. Topographically, VC-1 is isolated and divided internally by several intermittent stream draws. The eastern border of VC-1 abuts the Chesterfield County line and is more accessible through property from that county than internal to Powhatan.

These issues make for a very difficult development potential, and particularly difficult for a Village Center development pattern.

Consideration

Even with the potentiality for a parallel collector road north of Route 60, VC-1 would prove difficult with its surroundings and would likely best be reconsidered as Commercial (tied to C-1 to the south) or VR (as a continuation of the residential corridor found to the west of Stonehenge Farm Road.

VILLAGE CENTER VC-2



Recommendation for Comprehensive Plan Adjustment

Concerns

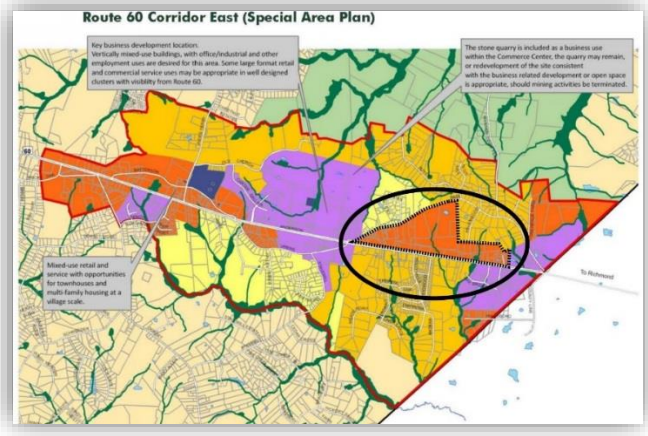
The Village Center district designation for VC-2 is a misdesignation. The requirement for VC success is the access for the ability to mix residential, business, and sometimes, civic uses. VC-2 Is currently a residential use that has little opportunity to evolve to a different use in the future.

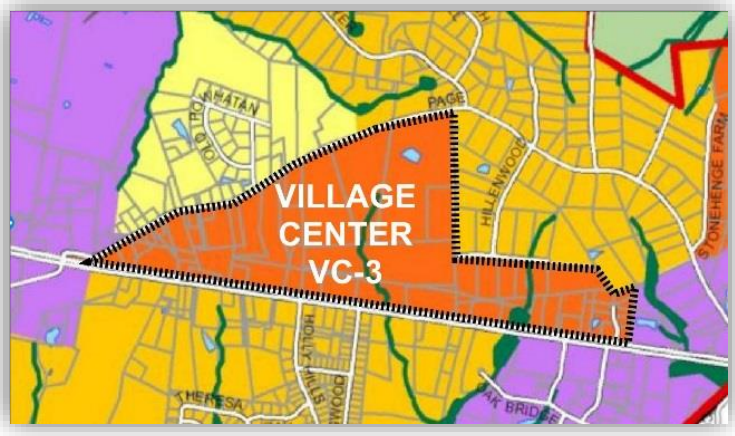
Additionally, access to VC-2 is only available by traveling through Chesterfield County, not Powhatan.

Consideration

Consideration should be given to the future use designation of VC-2 to a residential designation, either VR or R.

VILLAGE CENTER VC-3





Recommendation for Comprehensive Plan Adjustment

Concerns

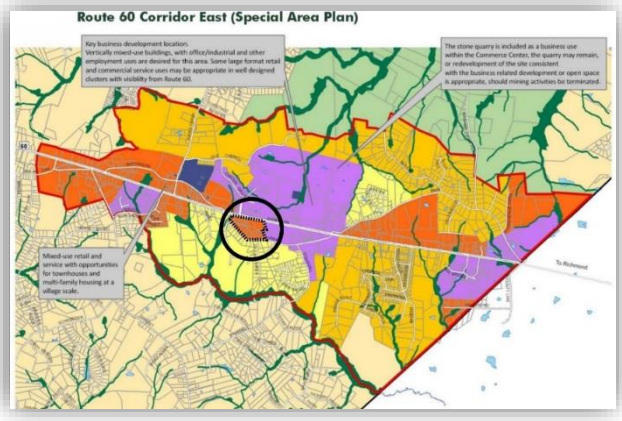
VC-3 has significant opportunity, coupled with challenges to achieving its highest and best use. Two challenges in particular should be referenced for future consideration:

1. The eastern "stem" of VC-3, defined as the land parcels south of Greenberry Road and north of Route 60, is an area where the depth of the land is insufficient to create opportunities that will provide a setting where pedestrian-centered activity can happen. Additionally, this area is bisected by significant environmental drainage way and further divides the property. The parcels directly fronting on Greenberry Road are part of a residential subdivision so there is little potential for redevelopment into a larger planned development.
2. There are over sixty parcels that make up the whole of VC-3, and amassing the required parcels to create meaningful placemaking will be a challenge.

Consideration

The "stem" of VC-3 should be reconsidered as something other than Village Center use.

VILLAGE CENTER VC-4



Recommendation for Comprehensive Plan Adjustment

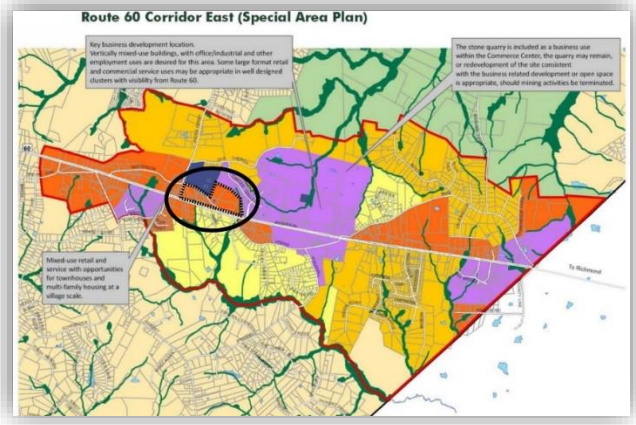
Concerns

The primary concern of VC-4 as a potential Village Center style development is the nature of the parcel division that already exists in the community and existing number of homes already in place. The significant division of the community in small and dependent lots that must be consolidated in order for a cohesive development in the VC style will be difficult and expensive due to the various ownership interests. The location otherwise works well for VC, including being directly across from the South Creek development, but that may not be enough to overcome the parcel divisions.

Consideration

Either Commerce Center or Village Residential use may be reasonable alternatives to Village Center use. Commerce Center use allows for the more cost-effective acquisition of property for larger scale users that it would attract. Village Center use would allow for the development to occur largely as is without further subdivision.

VILLAGE CENTER VC-5



Recommendation for Comprehensive Plan Adjustment

Concerns

The challenge with developing VC-5 is a two-fold problem of area geometry and proximity to Route 60.

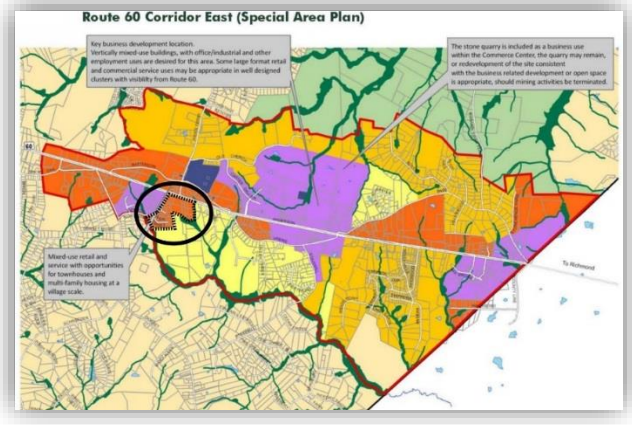
First, the slim geometry from west to east, framed by Batterson and Route 60 create very inefficient spaces that would require a complete shift in Batterson to achieve efficiency needed to create connected communities. This is a cost that would unlikely be feasible to be done as either a privately or publicly funded project. Further, the adjacency of over half of the parcels makes difficult the creation of walkable spaces that will not be functionally auto-dependent.

Consideration

VC-5 is a particular challenge to categorize, and the public process will be needed if and when there is a change made.

One possibility, though not a listed category in this study, is the potential for some or all of the property to build on the public uses already present in the school uses adjacent to VC-5. Potential uses could include park spaces, both active uses like athletic fields, as well as passive spaces. Properly done, the addition of public spaces can create a “center” atmosphere in an area that becomes a community draw and helps the surrounding areas to develop more densely.

VILLAGE CENTER VC-6



Recommendation for Comprehensive Plan Adjustment

Concerns

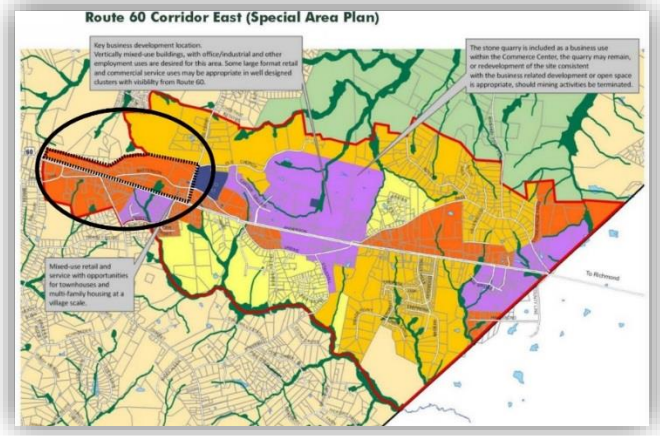
VC-6 is challenged in that it is made of up two "sub-areas." One area, serviced by New Dorset Road, is generally complete as a business park, and should be identified as commercial, not village center since redevelopment into a different and cohesive pedestrian-style community is financially prohibitive to achieve.

Consideration

VC-6 has potential for a continued commercial growth "hub" fronting on Route 60 across from Jude's Ferry. Access is good here due to the existing signalized intersection and can be utilized to further development in a concentrated pattern, reducing the need for commercial activity to sprawl along Route 60 to serve the needs of the county citizens.

It is recommended that the County consider the reclassifying the VC-6 community from the current Village Commercial to Commerce Center designation.

VILLAGE CENTER VC-7



Recommendation for Comprehensive Plan Adjustment

Concerns

VC-7 is unique in its geometry and significantly tethered to the Batterson and Route 60 corridor alignments. The community west of Batterson is generally a “finger” of Route 60 frontage parcels and a question of County leadership is whether there should be a deeper development strategy, incorporating some of the property to the north of VC-7 to allow for more comprehensive planning and development options.

While it is certainly possible to extend the boundary of VC-7 northward to incorporate more land and thus more development opportunity, there are numerous considerations that should be considered before doing so.

First, the topography becomes challenging as the line moves northward, and several stream divides create a need for segregating some of the parcels for development.

A second and more prominent challenge is the potential overplanning of Village districts for the population expectation of the County. Because of the significant opportunities already found in the eastern section of VC-7 and VC-8 (south of Route 60) the expansion of VC-7 comes at the expense of appropriately densified communities nearby. Market realities will likely dictate that the Route 60 East Corridor has more than enough village-planned spaces, and the need for commuter-based commercial activity is appropriately offered in the western “finger” of VC-7.

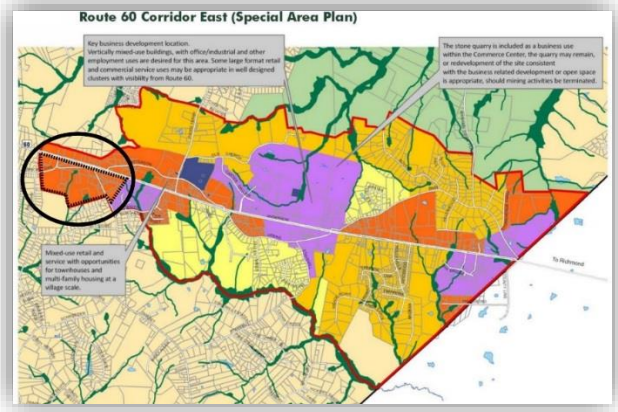
Finally, a commercial component of a village center is limited, and there is already ample space for such commercial activity to happen at the eastern half of VC-7. Extension of the VC-7 line northward on the western half would likely result in high density residential uses, rather than a mixed-use community.

Consideration

There is significant potential for a cohesive village-style community at the eastern half of the VC-7, where Batterson connects between Route 60 and Jude’s Ferry. Village Center designation is entirely appropriate in this area.

The finger of Route 60 fronting parcels along the western half of VC-7 may be better designated as Commerce Center.

VILLAGE CENTER VC-8



Recommendation for Comprehensive Plan Adjustment

Concerns

VC-8 represents the most significant potential for the Route 60 East Corridor. It's combination of land mass, existing access, large parcels, and existing development and identity (Flat Rock) enable it to build on its current character in an economically feasible manner.

There are many concerns that match the opportunities that, if not properly identified and considered, may render the opportunity as one that was missed. The principal concern that exists for the community is the existing road network, including geometries of highly traveled Dorset Road, creating an irregular (and inefficient) connection with Route 60. Careful planning of a future road network that incorporates an east-west local road that connects Rocky Oak to Dorset should be considered, along with a realigned access road from Route 60 to the new east-west road.

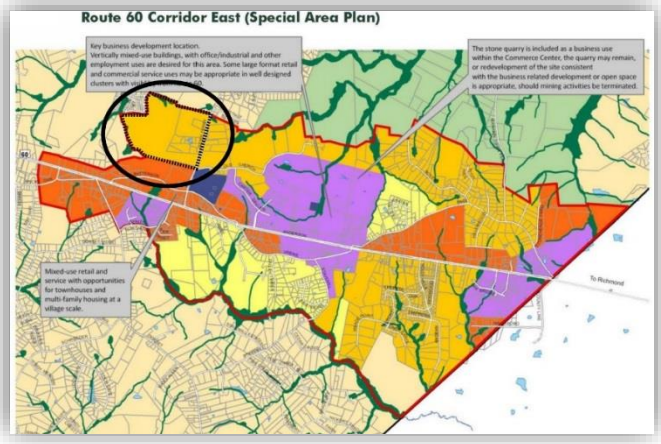
Another concern is the location of existing stormwater ponds. Handled correctly, these ponds could be enhanced and planned into the fabric of the future mixed-use community. Mishandled, it could become a dividing element that keeps the developments from properly connecting to one another. Permitting considerations are important to be handled early in the process.

Consideration

In addition to the comments above, because of the significant opportunity for a vibrant mixed-use community that favors pedestrian style business and residential uses, the County would be prudent in hosting a special meeting or series of meetings for the public to participate in envisioning the community of VC-8. These meetings would yield great value and buy-in from those who will be important in the process when procuring necessary right-of-way and other major land decisions will be needed.

Flat Rock in general, and VC-8 in particular, are well suited to be the significant mixed-use village growth hub for Powhatan in the future, and every effort should be made to ensuring its success.

VILLAGE RESIDENTIAL VR-4



Recommendation for Comprehensive Plan Adjustment

Concerns

VR-4 has much going for it regarding development potential, including large parcels, relatively few landowners for the bulk of the land, and proximity to an active part of the Route 60 East Corridor.

Concerns for this community in its current category include the potential for single family residential (even as higher density) to crowd out the potential synergy with its southern neighbor development of VC-7. Stand alone subdivisions in this prominent location would be an underutilization of the opportunity of this community has at its core.

Consideration

While the total acreage is far greater a scale of development than would be marketable for a village style community, the County may consider the inclusion of some of VR-4, particularly the southern third of the property and eastern edge framing Jude's Ferry Road, as a continuation of VC-7. This will allow for more potential pedestrian friendly development near some of the county's most active areas, including the two schools just east of VR-4.

VR-4 ranks only behind VC-8 as one of the most significant development opportunities, properly designed and implemented, for the county to create places of destination and civic pride, not to mention value for the tenants, owners, and businesses that participate here.

ROUTE 60 EAST CORRIDOR STUDY

VC-8 – Current Comprehensive Plan Designation

NO SCALE

Disclaimer: The development scenarios depicted on this page are identified as possible development scenarios only. The purpose of these development scenarios are to show how development patterns affect the needed land-use categories to encourage them. None of the scenarios are recommended or implied to be recommended, nor do they represent a guidance document to build future land use plans such as Comprehensive Plan Amendments.

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

ROUTE 60 EAST CORRIDOR STUDY

VC-8 Transportation Configuration Scenario

NO SCALE

Disclaimer: The development scenarios depicted on this page are identified as possible development scenarios only. The purpose of these development scenarios are to show how development patterns affect the needed land-use categories to encourage them. None of the scenarios are recommended or implied to be recommended, nor do they represent a guidance document to build future land use plans such as Comprehensive Plan Amendments.

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

ROUTE 60 EAST CORRIDOR STUDY

VC-8 Detailed Potential Transportation Scenario

NO SCALE

Disclaimer: The development scenarios depicted on this page are identified as possible development scenarios only. The purpose of these development scenarios are to show how development patterns affect the needed land-use categories to encourage them. None of the scenarios are recommended or implied to be recommended, nor do they represent a guidance document to build future land use plans such as Comprehensive Plan Amendments.

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.

ROUTE 60 EAST CORRIDOR STUDY

VC-8 Land Use Consideration for Transportation Scenario

NO SCALE

Disclaimer: The development scenarios depicted on this page are identified as possible development scenarios only. The purpose of these development scenarios are to show how development patterns affect the needed land-use categories to encourage them. None of the scenarios are recommended or implied to be recommended, nor do they represent a guidance document to build future land use plans such as Comprehensive Plan Amendments.

TIMMONS GROUP
YOUR VISION ACHIEVED THROUGH OURS.