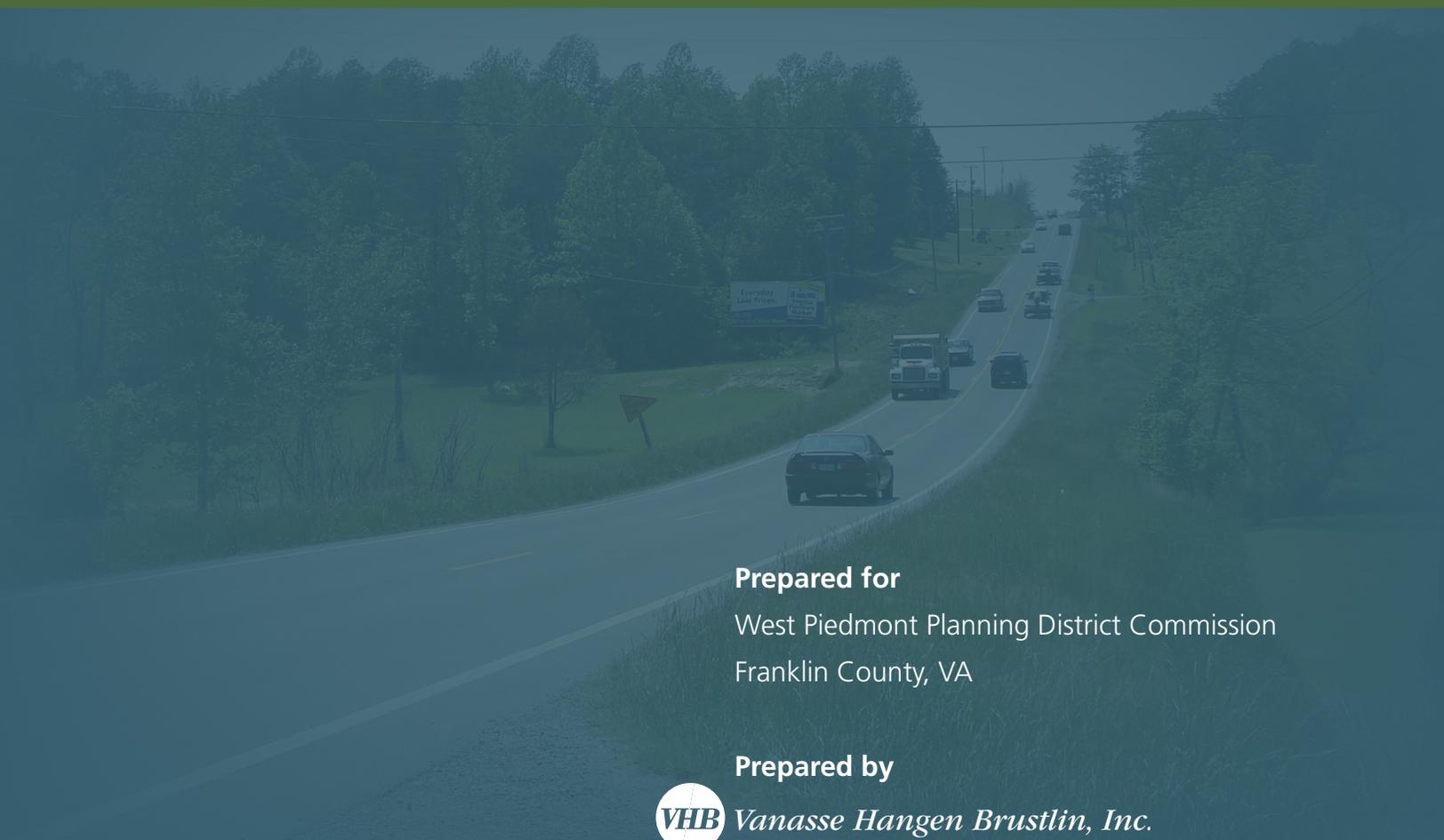


# Franklin County

## Access Management Guidebook



**Prepared for**

West Piedmont Planning District Commission  
Franklin County, VA

**Prepared by**



*Vanasse Hangen Brustlin, Inc.*

# Franklin County



## *Access Management Guidebook*

*Presented to:*



*July 16, 2008  
Baltimore, MD*

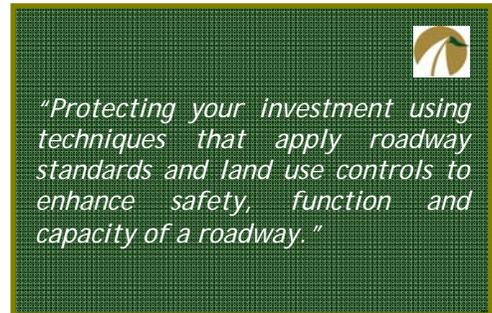
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Franklin County has experienced an unstructured surge in growth over the past 20 years. What began as a rural county with a limited manufacturing presence expanded to large lot subdivisions, water front homes at Smith Mountain Lake, condominiums, and widespread commercial development along the County's major thoroughfares.

Many rural localities across the Commonwealth of Virginia have limited funds to address safety and operational deficiencies on their roadways, particularly when competing with larger jurisdictions for project funding. It is very difficult for these localities to "pave" a solution simply by widening roadways, either through their own annual budgets or through state and federal match programs.

By taking an active role in managing development and growth patterns, Franklin County's Access Management Guidebook provides both immediate and long-term solutions that can be applied to its major roadway corridors - Routes 40, 116, 122, and 220. The strategies to manage future growth in the region directly support the County's motto of "A Natural Setting for Opportunity".



## Project Purpose and Need

Franklin County partnered with Vanasse Hangen Brustlin, Inc. (VHB), T3 Design, P.C. (T3), West Piedmont Planning District Commission (WPPDC), and the Virginia Department of Transportation (VDOT) to develop a Guidebook focused on their major roadways, but one that could also be used as a template for access management in other jurisdictions. The Guidebook applies specific recommendations to Routes 40, 116, 122, and 220 within the county limits, and establishes best practices which can be applied generally on any local or state maintained facility.



In addition to physical roadway improvement techniques, the Guidebook discusses land use control methods such as the placement of overlay zones onto corridor segments. The County is looking to guide development rather than simply reacting to it. Therefore, the VHB Team vision was to furnish Franklin County with an Access Management Guidebook containing action items that can immediately be integrated into the County's comprehensive plan and any land use zoning and subdivision ordinances.

## Project Approach

The VHB Team appreciates the importance of helping local governments develop and implement cost-effective solutions to traffic and safety problems. It is our philosophy that public buy-in is an essential component early in the planning process so that citizens and stakeholders are not only aware of the strategic process, but they can have a sense of ownership in the effort. The first public information meeting was held early in the study process in order to provide background on the project, and to serve as an access management seminar to educate attendees about the topic. The public was kept informed throughout the development of the Guidebook so that the VHB Team could provide a document that incorporated local needs in a regional context.



**Primary Project Tasks**

- Public Involvement
- Data Collection
- Access Management Criteria Development
- Guidebook Development

The VHB Team reviewed the 2025 Comprehensive Plan, previous planning studies, and land use ordinances to become familiar with existing conditions in Franklin County. Aerial photography provided by VDOT was used as the base for mapping the existing and possible future conditions.

National and state level standards were combined to develop access management criteria with direct applicability to Franklin County. Common techniques (crossover treatments, interconnecting roads, signalization, etc.) were considered along with their potential implementation in the study area.

The Franklin County Access Management Guidebook will help maintain a working relationship between VDOT and the County. Both entities were actively involved in the project and now have specific strategies to implement to improve safety and mobility throughout Franklin County.

## Access Management Background

### Relationship to Transportation System

Access management is simply a way to control access points to existing and future development while keeping an acceptable flow of traffic on the roadway network. Three measures of effectiveness are safety, capacity, and speed at and around access points.

Safety is probably the most profound measure, considering every driveway on a roadway increases the crash rate by 4 percent. Capacity on a corridor can be increased by providing turn lanes to separate through traffic from turning movements at driveways and intersections. The number of driveways on a corridor also directly impacts the speed of through traffic. Every driveway reduces the average travel speed by 0.25 miles per hour. Or for every 40 driveways on a corridor, speed is reduced by 10 miles per hour.

#### Goals of Access Management

- Improve safety by decreasing crash rates
- Use existing roadway network more efficiently
- Maintain desirable speeds along arterials
- Balance access with efficient traffic movement
- Coordinate highway function and land use

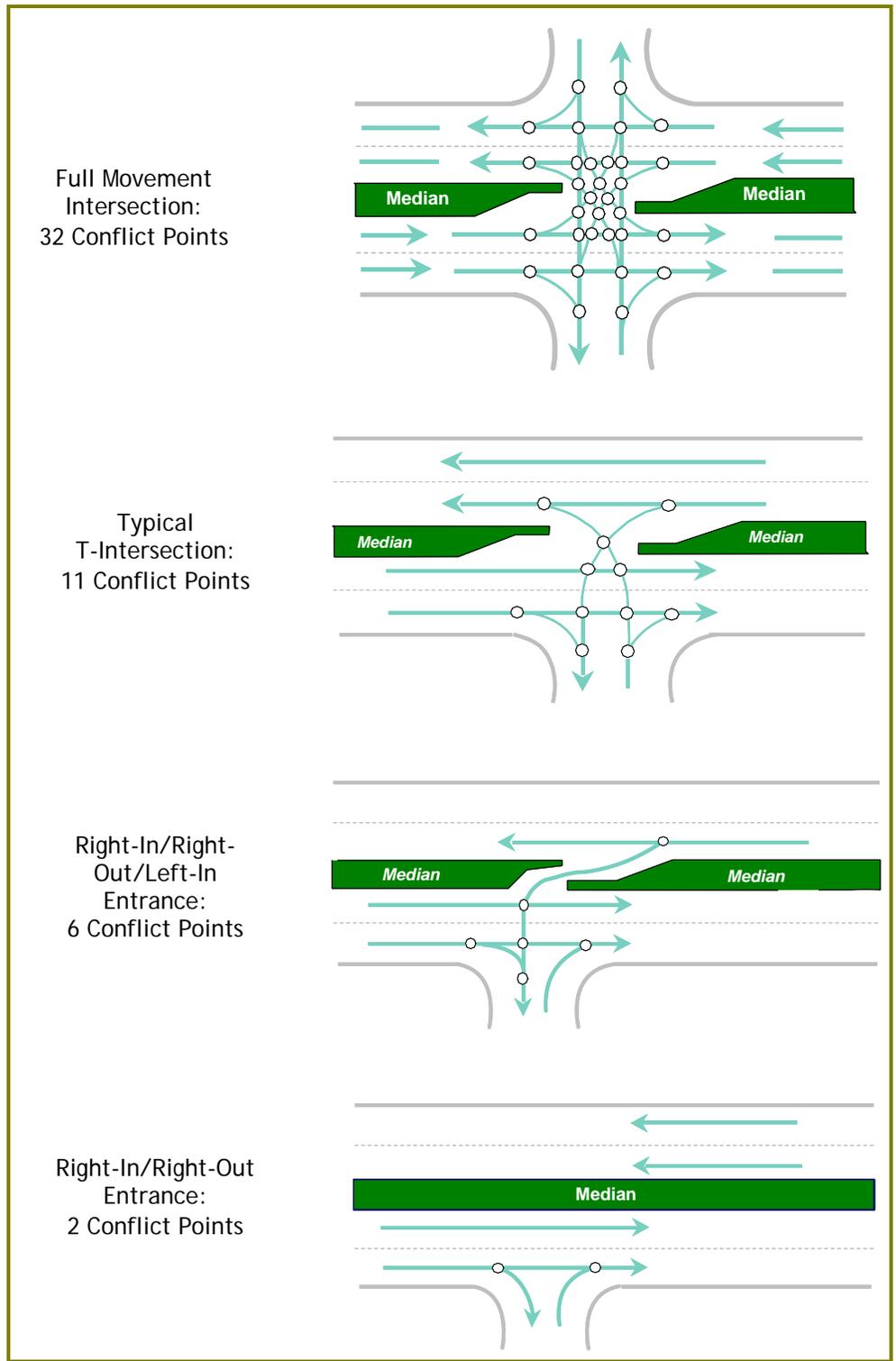


#### Benefits of Access Management

- Fewer crashes
- Reduced congestion/traffic delays
- Reduced travel times
- Reduced air pollution
- Reduced need for widening & new construction
- Better access to businesses
- Improved mobility



A fundamental element of access management is the reduction of conflict points, which is illustrated graphically in the following figures. Vehicle-to-vehicle conflict points increase substantially with the addition of each driveway.



## National Publications and Practices

The Transportation Research Board's Committee on Access Management published the *Access Management Manual* in 2003. The manual provides engineering techniques as well as implementation strategies for municipalities. The Federal Highway Administration (FHWA) produced a brochure entitled *Benefits of Access Management* (FHWA-OP-03-066) that gives a broad overview of the topic, defines common access management terms, and documents the benefits of several treatments.



Many states across the country have begun developing their own statewide access management guidelines, and the two documents mentioned set the tone for nationwide practices. VDOT is currently developing a statewide access management manual which will use "best practices" from across the country as a foundation. More information on national publications and practices are available online at [www.accessmanagement.info](http://www.accessmanagement.info).

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## Access Management Opportunities in Franklin County

Several locations in the study area were used to illustrate good access management principles already applied and opportunities for the County to improve their access management program. The areas listed below are represented graphically in **Figures 1 - 9**. Implementation of specific opportunities is discussed in Chapter 4 and a Corridor Overlay District adopted by the County Board of Supervisors in 2007 is included in Chapter 5.

### Route 40 in Waidsboro

- Consolidate multiple residential driveways into shared driveways

### Route 220 in Fork Mountain

- Share closely-spaced driveways
- Define entrances where existing frontages are wide open
- Identify appropriate median openings prior to new land development

### Route 220 at Route 724 (Goose Dam Road)

- Install north- and southbound left-turn lanes
- Identify appropriate median openings prior to new land development
- Identify access to minor street when vacant land is developed

### Route 116 in Red Valley

- Consolidate multiple residential driveways into shared driveways
- Provide side street access instead of directly onto Route 116

### Route 122 at Route 616 (Scruggs Road)

- Improve inter-parcel access
- Improve commercial driveway spacing



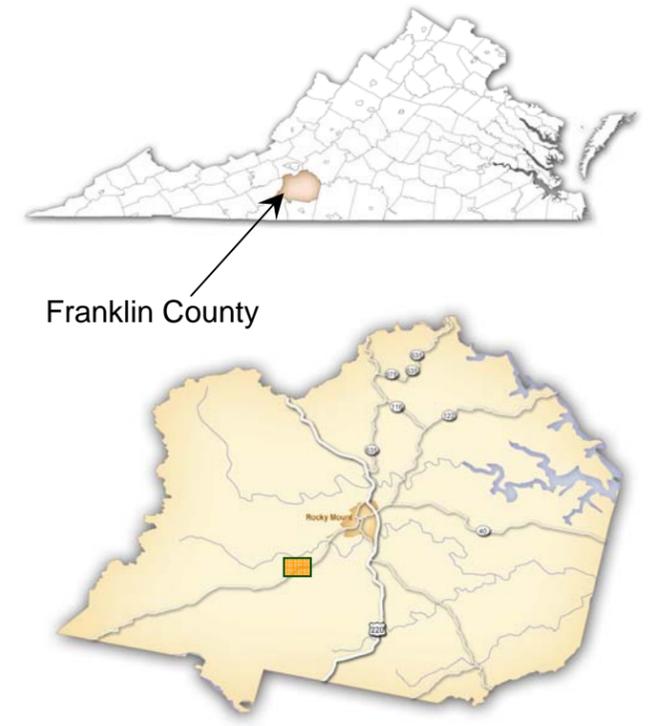
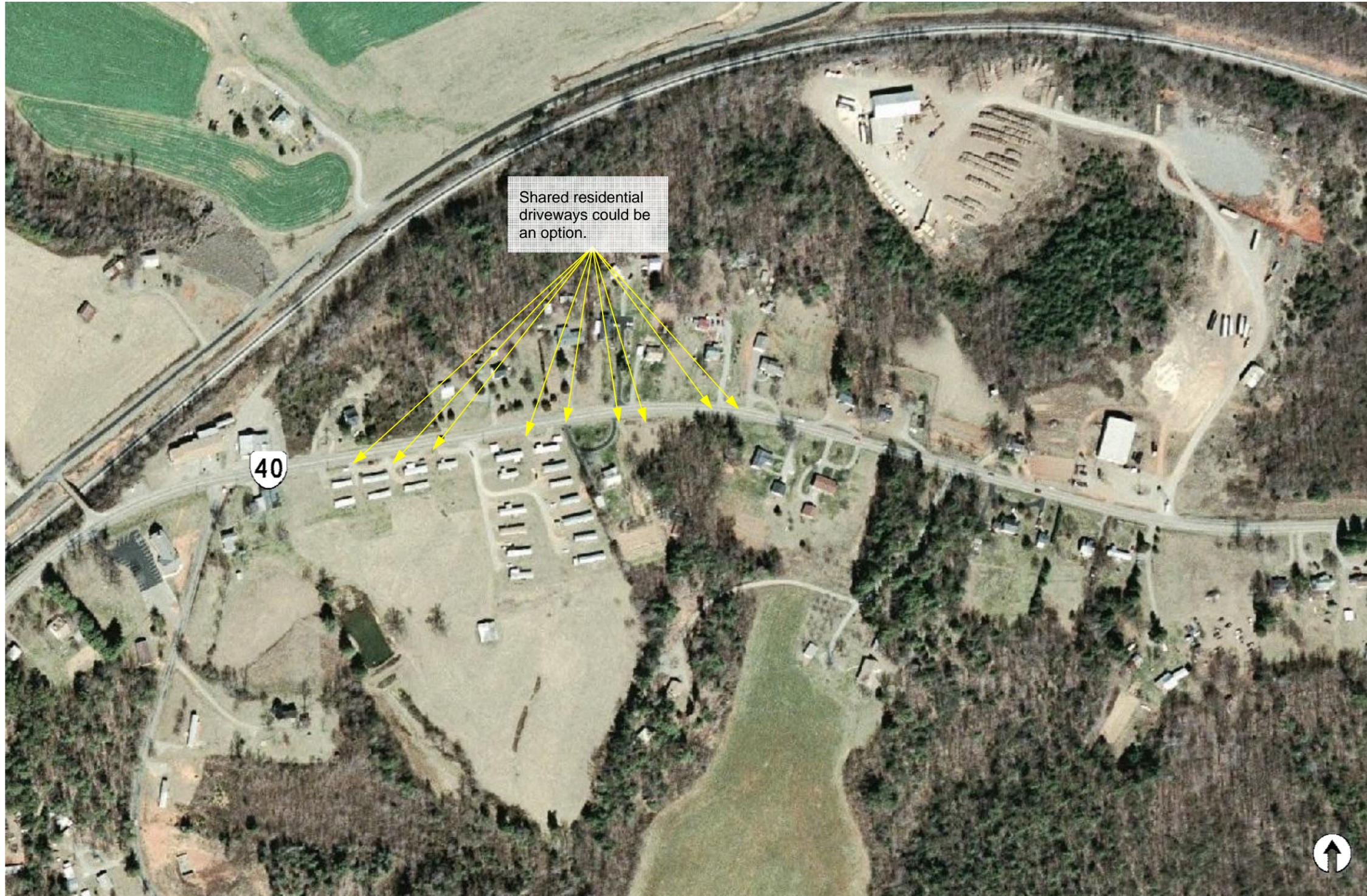
### Route 220 in Boones Mill

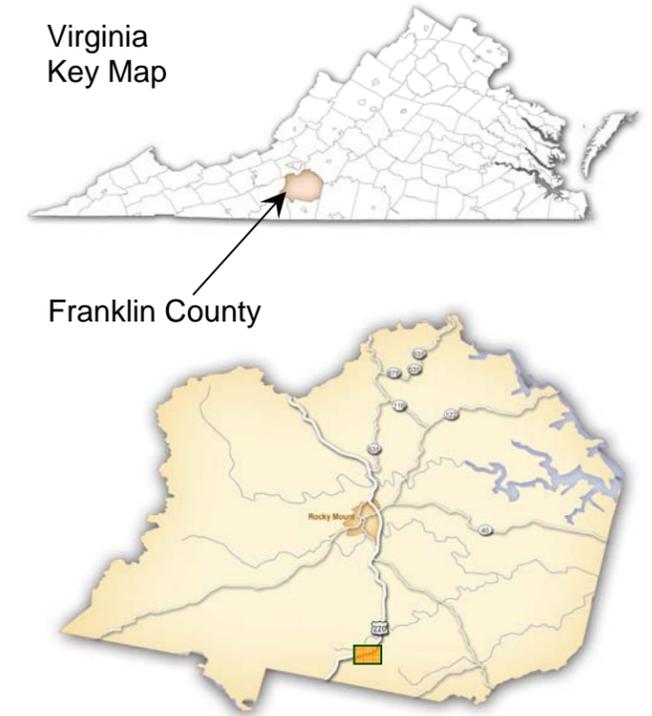
- Define entrances where existing frontages are wide open
- Close redundant commercial entrances
- Install raised median

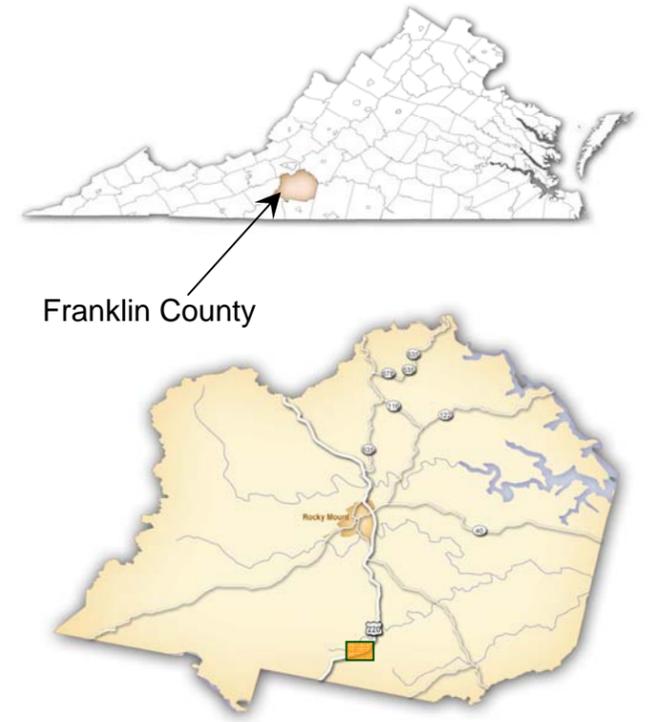


### Route 122 at Route 116 (Jubal Early Highway)

- Define entrances where existing frontages are wide open
- Close redundant commercial entrances







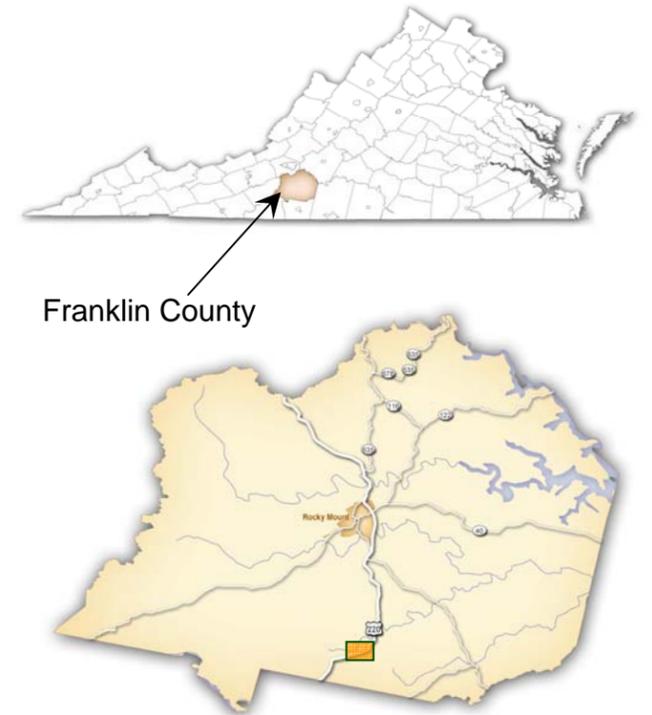
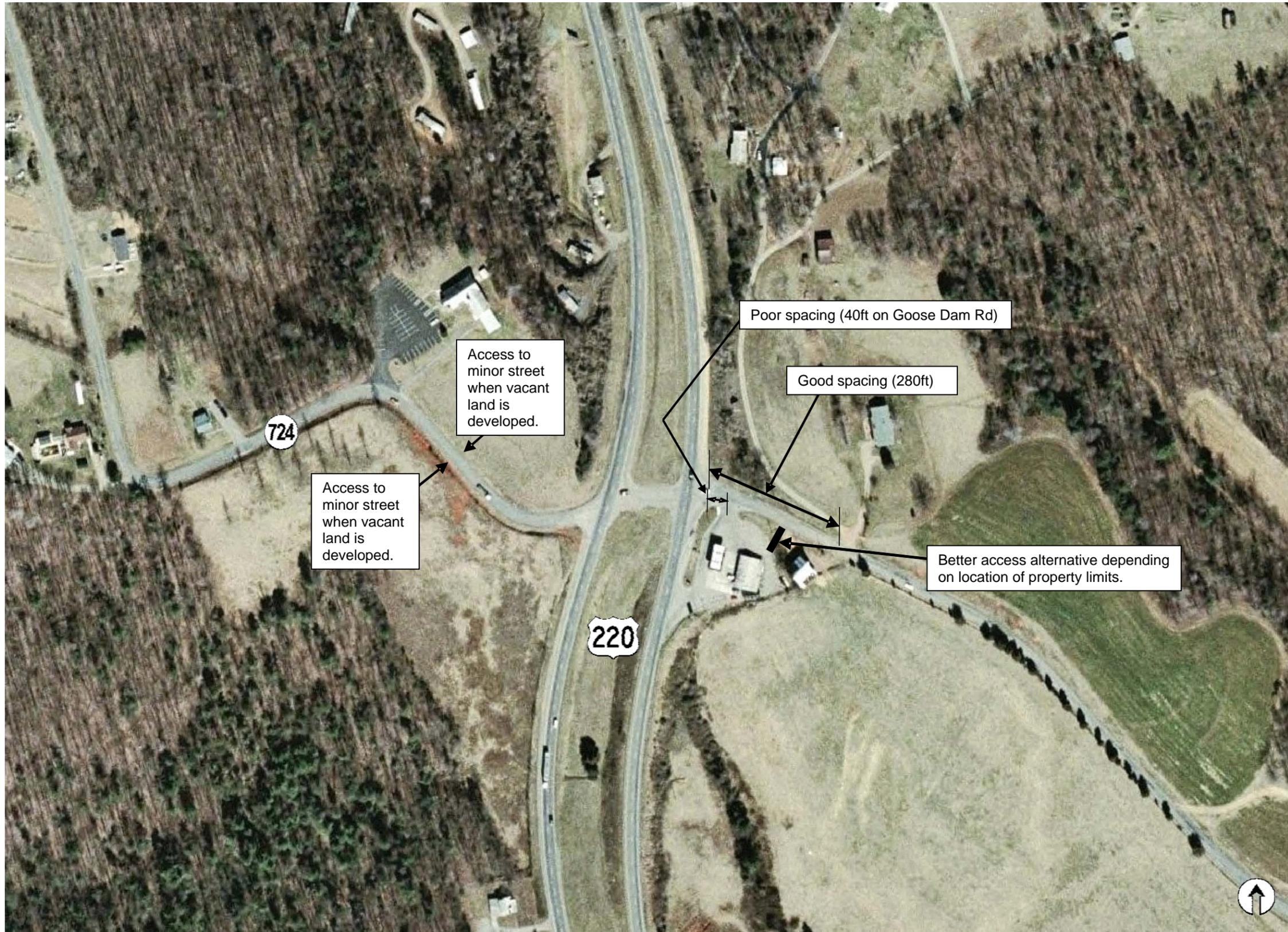
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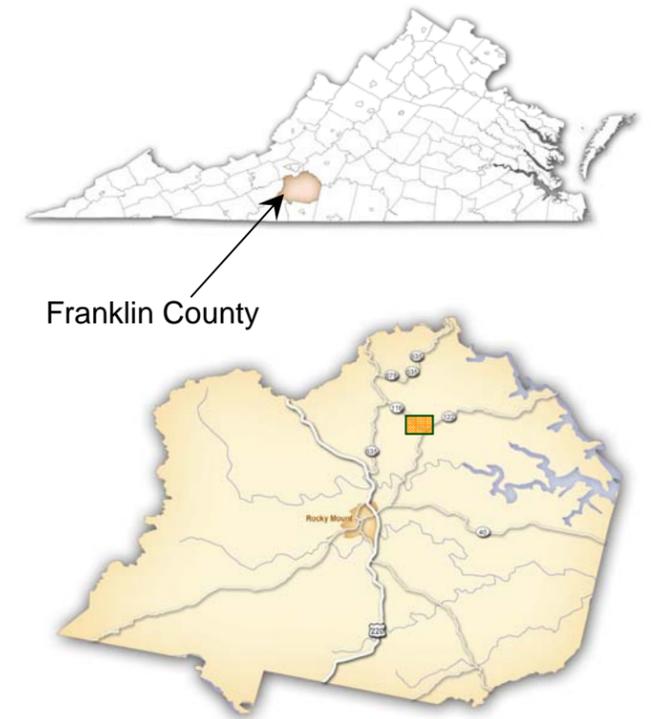
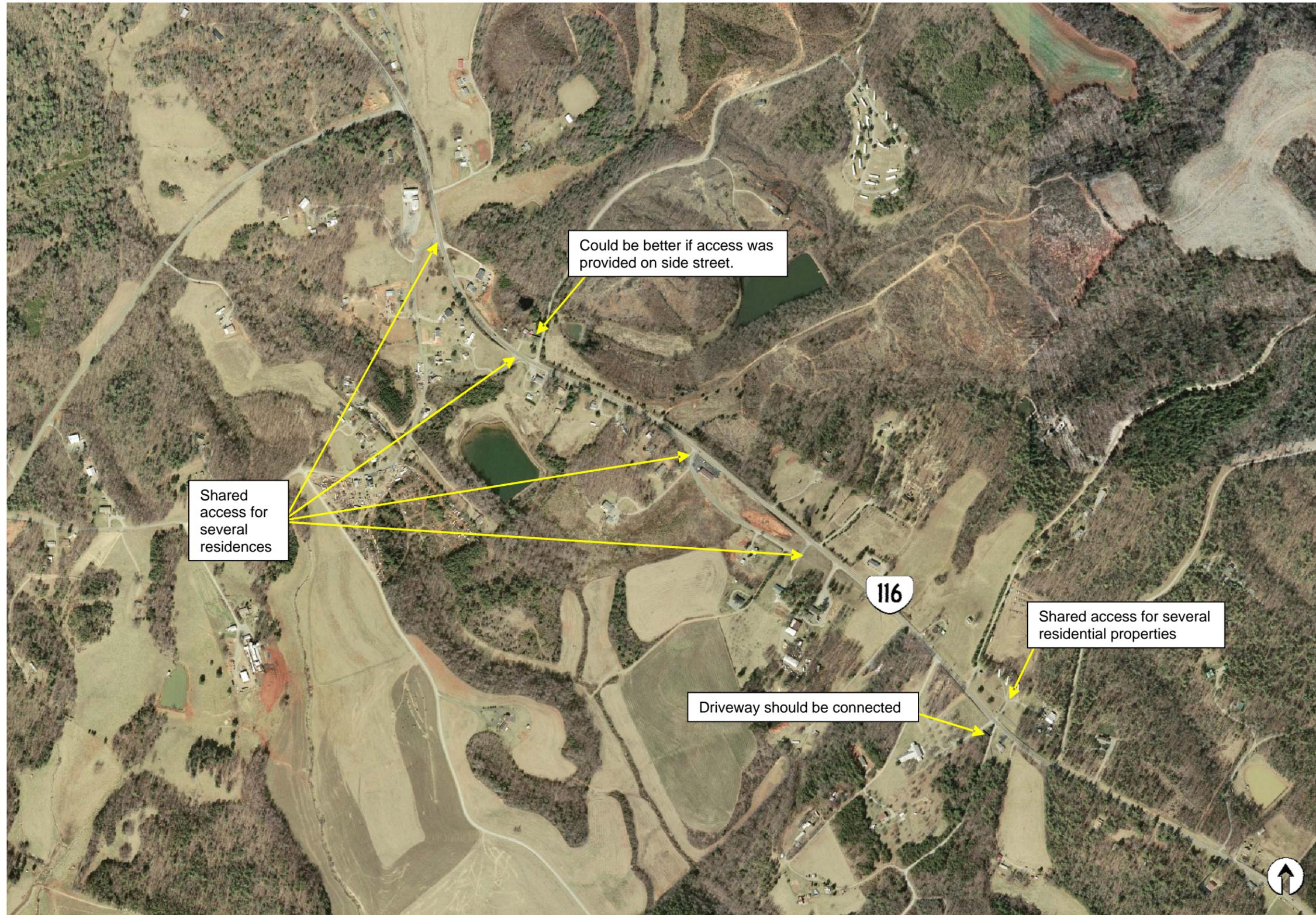


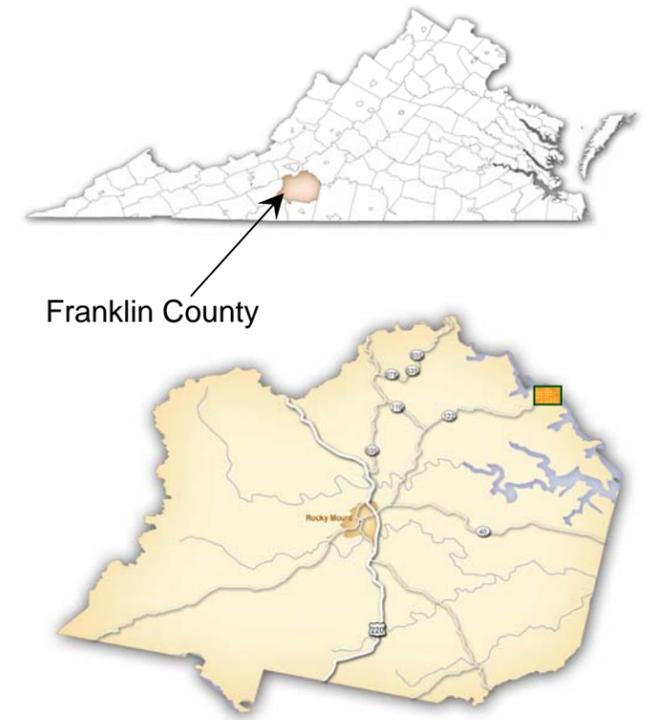
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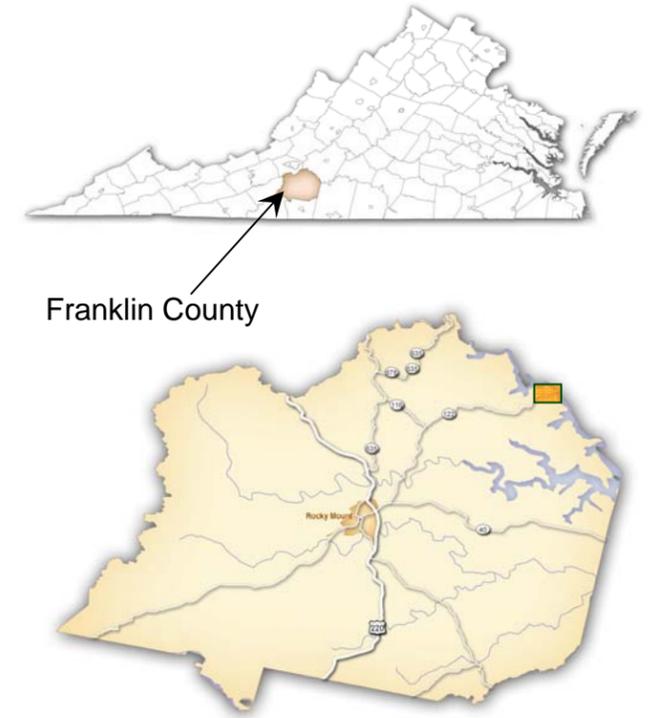
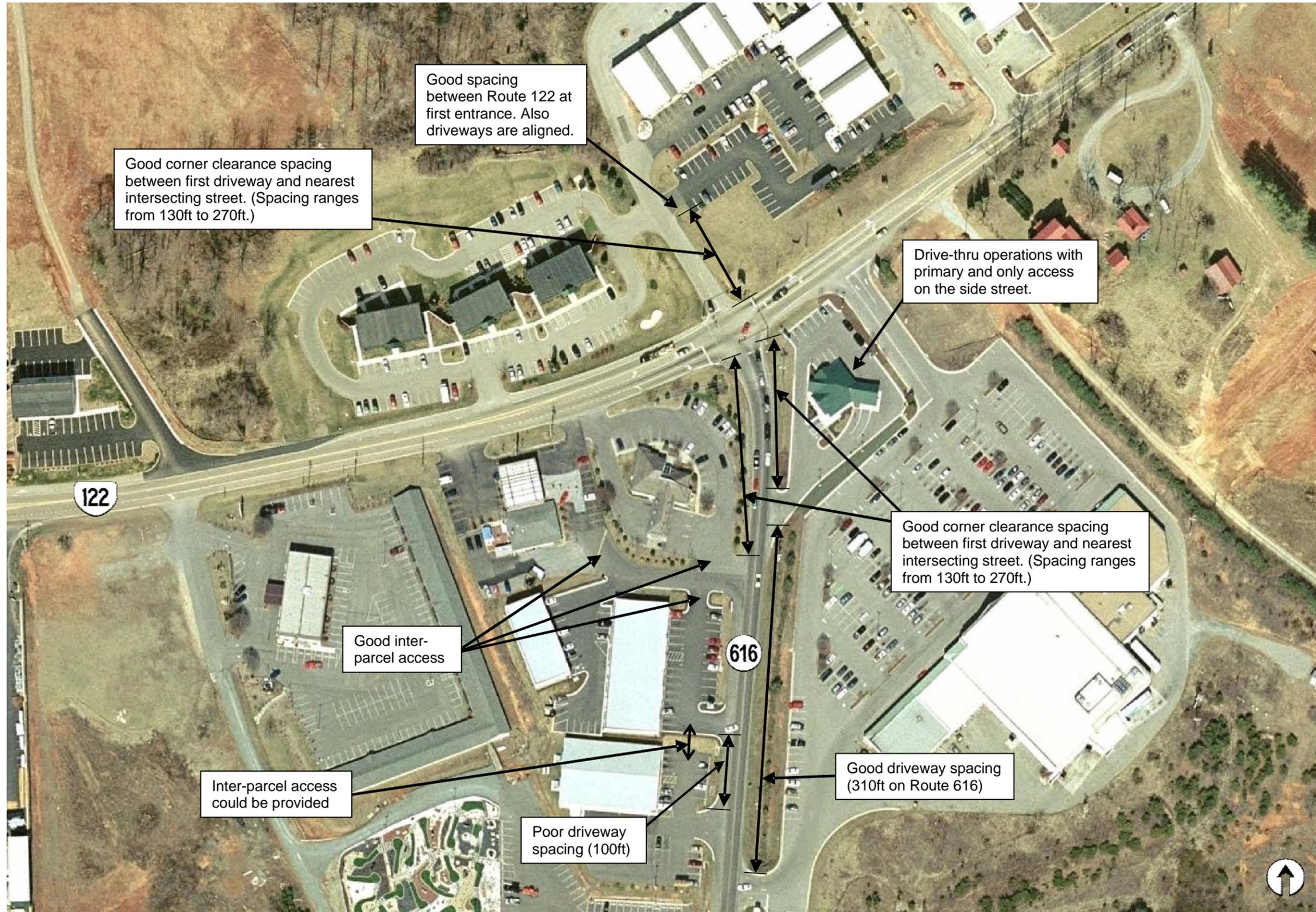
Figure 3

Route 220 at Route 724 (Goose Dam Road)









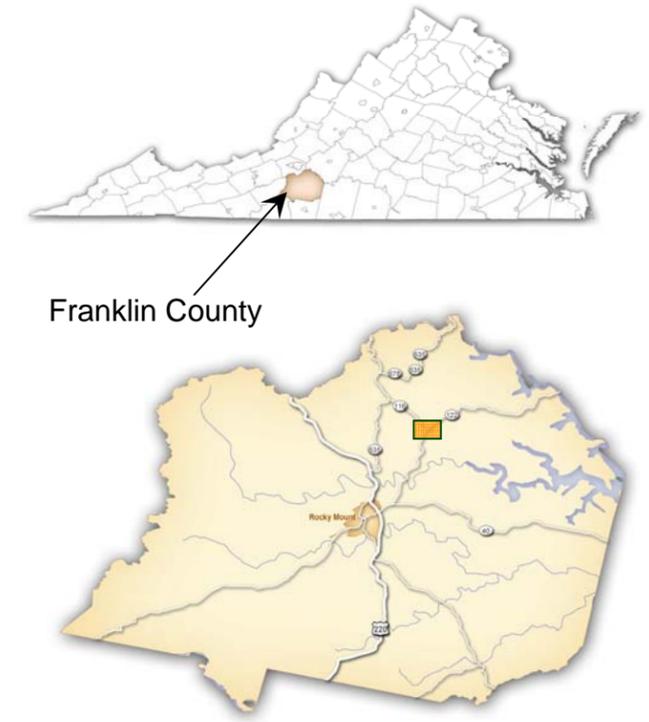


Open driveway ———

Closed driveway ———

Raised median ———





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## Implementation

The Franklin County Access Management Guidebook will only be effective if implementation plans are laid in place. Implementation of access management guidelines developed in this manual requires a joint effort between Franklin County and VDOT.

### Franklin County's Role

Franklin County's Planning Department is prepared to use this Guidebook to help the Planning Commission and Board of Supervisors to evaluate conditions and identify appropriate strategies for implementation.



- Guidebook approved by Planning Commission & Board of Supervisors
- Corridor Overlay District adopted in 2007

The County is responsible for integrating the recommendations of the Guidebook into the Comprehensive Plan in order to responsibly manage future growth patterns and land development to minimize the impacts on the roadway system. That integration should be followed by the County amending existing municipal code as appropriate.

### VDOT's Role

VDOT is responsible for providing a safe transportation network. Although safety improvements are one of the quantifiable benefits of access management, there are currently no formal standard access management procedures in place.

However, VDOT does adhere to minimum design standards such as left- and right-turn lane warrants, signalization warrants, and minimum entrance standards.



VDOT improvements should be consistent with this Guidebook and pursuant updates to Franklin County's code. It should be noted that minimum entrance standards required by VDOT are not necessarily desirable entrance standards, and Franklin County should look for opportunities to promote more conservative entrances in support of the County's efforts to manage access along major corridors.

## Recommended Code Amendment

A Corridor Overlay District (COD) has been drafted for the County’s consideration and is included in Chapter 5. **Table 1** compares existing and proposed sections of the County code. Sections 25-491 through 25-497 are currently designated as Division 3 - Westlake Village Center Overlay District. There are a sufficient number of reserved sections following 25-499 to amend the Westlake portion to sections 25-500 through 25-506. The amended COD would range from 25-481 through 25-499 as shown below.

Table 1  
 FRANKLIN COUNTY CODE - CHAPTER 25 (ZONING)

Section Number	Existing Content	Proposed Content
25-481	Purpose (Division 2)	Authority
25-482	Definitions	Intent
25-483	Area considered	Definitions
25-484	Existing structures and land uses	Area considered
25-485	Permitted uses	Applicability
25-486	Site development regulations for signs	Permitted uses
25-487	(reserved)	Existing structures and land uses
25-488	(reserved)	Access
25-489	(reserved)	(reserved)
25-490	(reserved)	(reserved)
25-491	Purpose (Division 3)	(reserved)
25-492	Area considered	(reserved)
25-493	Permitted uses	Traffic impact analysis
25-494	Prohibited uses	Required improvements
25-495	Site development regulations	Setbacks
25-496	Site plan requirements	Site development regulations for signs
25-497	Waiver or modification of Westlake Village Center Overlay District requirements	Lighting
25-498	(reserved)	Landscaping
25-499	(reserved)	Redevelopment
25-500	(reserved)	Purpose (Division 3)
25-501	(reserved)	Area considered
25-502	(reserved)	Permitted uses
25-503	(reserved)	Prohibited uses
25-504	(reserved)	Site development regulations
25-505	(reserved)	Site plan requirements
25-506	(reserved)	Waiver or modification of Westlake Village Center Overlay District requirements

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## Franklin County Corridor Overlay District

### DIVISION 2. CORRIDOR OVERLAY DISTRICT

#### Sec. 25-481. Authority.

Pursuant to the authority granted by the Code of Virginia, and in particular the legislative intent established in section 15.2-2200 and the purposes of zoning ordinances established in section 15.2-2283, the following standards are established.

#### Sec. 25-482. Intent.

It is the intent of this section to recognize the value of the scenic viewsheds, natural resources, and vital transportation corridors of Franklin County. The major highways - Routes 40, 116, 122, and 220 - serve areas of population and economic growth and facilitate movement from one area to another. To this end, the Corridor Overlay District (COD) seeks to achieve the following community goals and objectives:

- (1) Protect the public health, safety and welfare of the public.
- (2) Promote the economic growth of the county by creating a community image that is conducive to attracting new residents, business and industrial development.
- (3) Accomplish the purposes of the sign regulations set forth in section 25-156.1 of this chapter.
- (4) Preserve and protect the viewsheds.
- (5) Regulate development of the land along the highways to improve visibility and coordinate signage.

(Res. No. 28-10-99, 10-19-99)

#### Sec. 25-483. Definitions.

For the purpose of this section, certain terms are defined as follows:

- (1) *Agriculture* means the tilling of the soil, the raising of crops, horticulture, forestry and gardening, including the keeping of animals and fowl and including any agricultural industry or business such as fruit packing plants, dairies or similar use.

- (2) *Residential* means a building containing dwelling units or rooming units, including single-family or two-family houses, multiple-family dwellings, mobile or manufactured homes, boarding houses or rooming houses, dormitories, fraternity or sorority houses or apartment hotels.
- (3) *Business* means a wholesale, retail or service activity established to carry on trade for a profit and that has paid a retail tax on inventory and a tax on equipment to the commissioner of revenue for two (2) preceding years.
- (4) *Industrial* means an enterprise engaged in the processing, manufacturing, compounding, assembling, packaging, treatment or fabrication of materials from raw or previously manufactured materials and that has paid a tax on machinery and tools for the two (2) previous years.
- (5) Notwithstanding the foregoing definitions of business and industrial, none of the following shall be considered business or industrial:
  - (a) Outdoor advertising structures.
  - (b) Agricultural use as defined above.
  - (c) Residential use as defined above.
  - (d) Transient or temporary activities.
  - (e) Activities not visible from the main traveled way.
  - (f) Activities more than five hundred (500) feet from the nearest edge of the right-of-way.
  - (g) Activities conducted in a building principally used as a residence including, but not limited to, home occupations class A and B as defined in section 25-40 of the Zoning Ordinance.
  - (h) Railroad tracts and minor sidings.

(Res. No. 28-10-99, 10-19-99)

**Sec. 25-484. Area considered.**

This section shall apply to lands located within five hundred (500) feet of the edge of the highway right-of-way of Routes 40, 116, 220 and 122, but excluding the lands within the towns of Rocky Mount and Boones Mill, which lands are regulated by the towns.

(Res. No. 28-10-99, 10-19-99)

**Sec. 25-485. Applicability.**

The COD shall apply to all developments abutting Routes 40, 116, 122, and 220 requiring site plan or subdivision review. The COD shall also apply to redevelopment projects, as defined herein, regardless of whether such redevelopment requires site plan or subdivision review. As an overlay district, the COD shall complement the requirements of the underlying zone, which shall remain in effect. Wherever the requirements of the COD conflict with those of the

underlying zone, the greater or more stringent standard shall apply. For purposes of this COD, Routes 40, 116, 122, and 220 shall mean the mainline highway and bypass sections.

For purposes of this COD, large development projects such as shopping centers shall be considered individual development projects. Logical extensions of completed projects shall be subject to these regulations, regardless of whether they abut Routes 40, 116, 122, and 220. For development subject to these regulations, all required plans may be submitted as a single plan, provided that all information is clearly shown to meet the requirements outlined herein.

To ensure adequate coordination with VDOT regarding highway access management and traffic improvements, no site plan or subdivision plat shall be approved without a written finding from the VDOT Resident Administrator that the proposed roadway, driveway, and circulation systems are consistent with the requirements set forth in Sec. 25-488.

#### **Sec. 25-486. Permitted uses.**

The uses permitted in the COD shall be the same as those permitted in the underlying zoning district. Where there is no underlying zoning district, there shall be no regulation of use except as a part of the application of the minimum standards established in this section.

(Res. No. 28-10-99, 10-19-99)

#### **Sec. 25-487. Existing structures and land uses.**

In areas regulated by an adopted underlying zoning district this section shall apply only to structures constructed or expanded and to land uses established or modified after the effective enactment date of this amendment to the Zoning Ordinance. All existing structures and uses, which do not conform to the provisions of these regulations, shall be considered non-conforming uses and shall be regulated by the provisions of sections 25-161 to 25-166 of this chapter.

In areas not regulated by an adopted underlying zoning district, that is, on Route 220 south of Rocky Mount and Route 40 west of Rocky Mount, only the standards included in this COD shall apply to the land. No other minimum standards of the Zoning Ordinance shall apply.

Where necessary, access management treatments detailed in the County AMG shall be implemented to ensure the public's health, safety, and welfare. To this end, the County shall strive to establish mutual aid agreements, in partnership with VDOT, with owners whose property is subject to the access management treatments detailed in the County's AMG. The AMG's treatments shall be independent of the County's Zoning Ordinance.

(Res. No. 28-10-99, 10-19-99)

#### **Sec. 25-488. Access.**

The purpose of this section is to manage vehicular and non-vehicular access. To achieve this goal, all site plans shall include an access plan drawn to the same scale as the site plan and showing the location and dimension of all streets,

driveways, crossovers, parking areas, access aisles, sidewalks, and any other relevant information.

Access to COD routes shall be provided by direct or indirect means, consistent with the following:

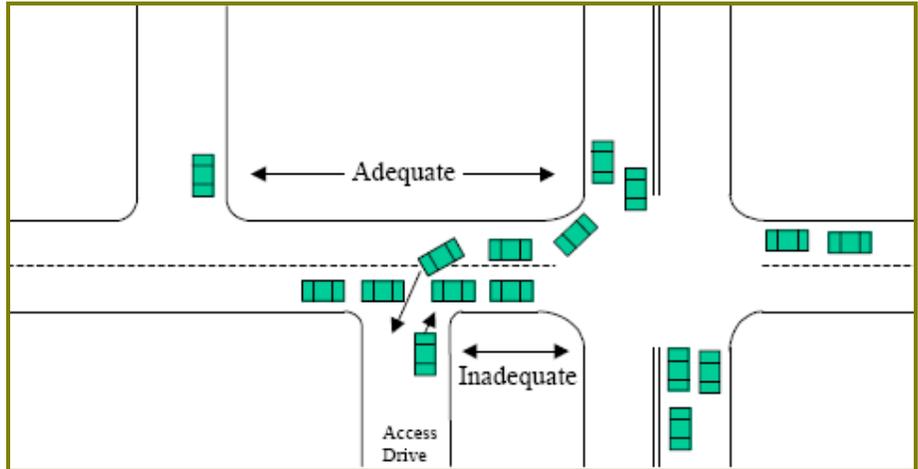
- (1) *Number of access points:* Each tract of land recorded prior to effective date is entitled to one direct or indirect access point to the public roadway network provided that its location and design fulfill, as a minimum, the minimum corner clearance and minimum sight distance requirements of this ordinance. Where the roadway frontage of a tract of land is greater than 500 feet, an additional access point may be allowed, if it is determined that the access point will not adversely affect the capacity of the roadway. Any additional access point must comply with all applicable sections of this ordinance. Where multiple tracts of land are developed as a single large entity, as in the case of a shopping center, office park, or similar development, they shall be treated as one tract of land for the purposes of determining the permitted number of access points.



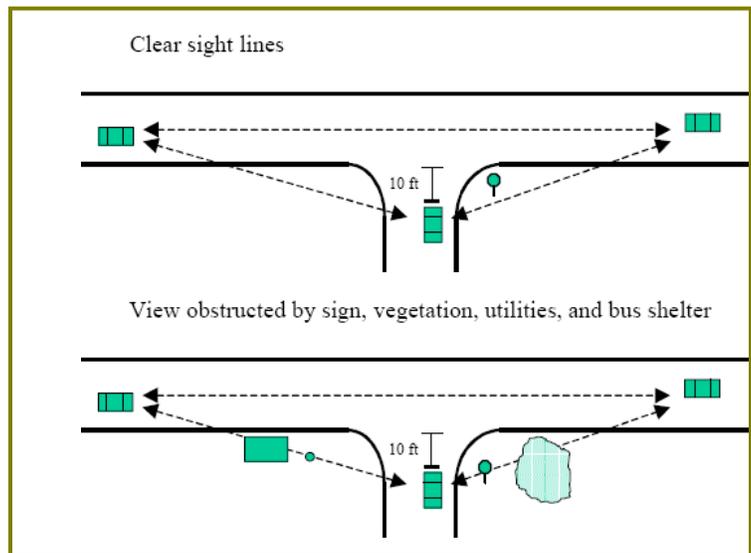
- (2) *Minimum corner clearance:* The minimum corner clearance of driveways from intersecting streets shall be 400 feet approaching the intersection. Downstream corner clearance shall be 250 feet minimum. For side street approaches to Routes 40, 116, 122, and 220, the minimum corner clearance shall be 250 feet. At signalized intersections, corner clearances in excess of these minimum dimensions shall be required, in consultation with VDOT. Where a traffic study is submitted that shows 20-year peak period, 95 percentile queue lengths will not extend past the driveway location, and

corner clearances may be reduced, in consultation with the VDOT Resident Administrator.

Where a minimum corner clearance prohibits access to a parcel, particularly a residence, the County and VDOT shall work together to find the best solution for enabling access and providing adequate corner clearance.



- (3) *Minimum sight distances along the highway:* Minimum sight distances along Routes 40, 116, 122, and 220 shall be provided to allow vehicles to safely turn left or right onto each of the highways. Sight distances provided along the COD shall be a minimum of 1,000 feet.





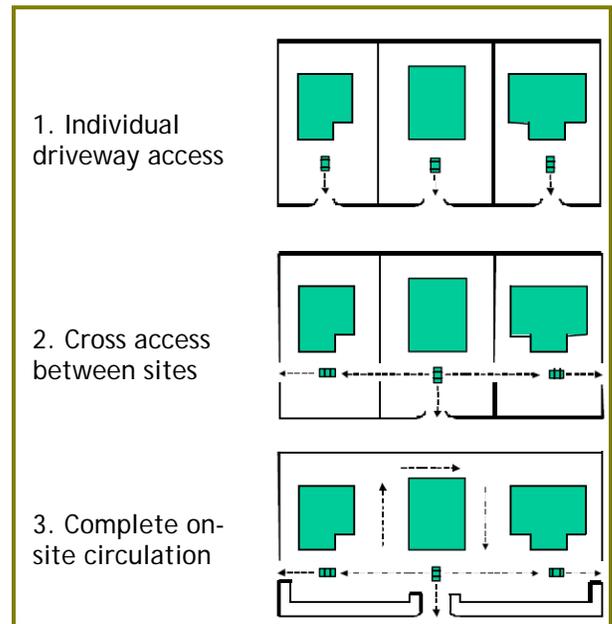
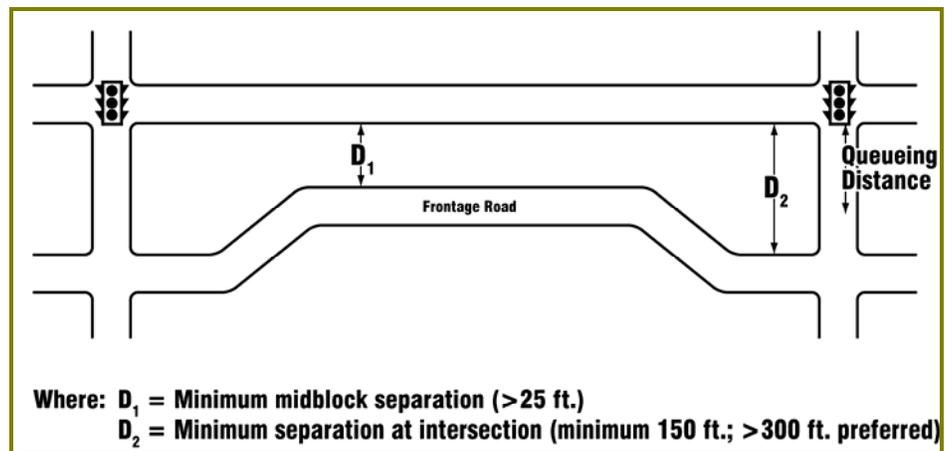
- (4) *Outparcels:* All access to outparcels must be internalized utilizing the main access drive of the principal retail center. Access to the outparcel shall be as direct as possible, avoiding excessive movement across the parking aisles and queuing across surrounding parking and driving aisles. In no instance shall the circulation and access of the principal commercial facility and its parking and service be impaired.



- (5) *New residential subdivisions:* New residential subdivisions shall include an internal street layout, which shall continuously connect to the street of surrounding developments to accommodate travel demand between adjacent neighborhoods without the necessity of using the highway. To this end, applicants seeking local subdivision approval shall be required to record a stub road right-of-way to adjacent vacant property for future connections.



- (6) *Median crossovers:* Where a proposed development fronts an existing or planned median crossover, access from the development to adjacent sites shall be provided, to promote shared access and minimize demand for additional crossovers.
- (7) *Shared access and reverse frontage:* Inter-parcel connections shall be provided to facilitate the local movement of traffic and minimize demand for local trips on Routes 40, 116, 122, and 220. Based on consultation with the VDOT Resident Administrator, inter-parcel access may take the form of direct driveway connections or reverse frontage roads. Achieving inter-parcel access shall be mindful of situations in which a property owner makes a good faith effort to connect, but an adjacent property owner refuses to cooperate. Suggested minimum and preferred distances are illustrated below.



- (8) *Pedestrian access:* Pedestrian walkways shall be incorporated into each project to minimize conflicts with vehicular traffic. Pedestrian circulation systems shall connect uses within individual projects, and shall be extended to adjacent parcels where inter-parcel vehicular access is required.

Secs. 25-489--25-492. Reserved.

#### Sec. 25-493. Traffic Impact Analysis.

Section 15.2-2222.1 of the Code of Virginia requires localities to submit comprehensive plans and amendments to comprehensive plans that will substantially affect transportation on state-controlled highways to VDOT in order for the agency to review and provide comments on the impact of the item submitted. This section of the Virginia Code also requires localities to submit traffic impact statements along with proposed rezonings, site plans, subdivision plats, and subdivision development plans that will substantially affect transportation on state-controlled highways to VDOT for comment by the agency. Chapter 527 of the 2006 Acts of Assembly directs VDOT to promulgate regulations for the implementation of these requirements. The VDOT Resident Administrator may be consulted regarding the application of VDOT Traffic Impact Analysis regulations.

In addition to any requirements defined by the Code of Virginia, a proposal's relationship to the AMG should be carefully examined.

#### Sec. 25-494. Required Improvements.

Required improvements, the need for which is generated by the proposed development, will be determined in consultation with the VDOT Resident Administrator, based on the following:

- (1) The AMG;
- (2) Applicable traffic impact analyses;
- (3) Highway safety and capacity;
- (4) The COD; and
- (5) VDOT entrance design standards and regulations.

The developer shall be responsible for provision of the improvements, which shall be shown on site plans.

#### Sec. 25-495. Setbacks.

To preserve and enhance highway safety and efficiency, setbacks shall be provided for front, side, and rear yards on all developments subject to the COD. Setbacks shall remain free from all development, including buildings, parking areas, gas pumps, canopies, and similar structures and facilities. Signs shall be permitted in setbacks, consistent with the regulations outlined herein. Where necessary to accommodate an approved circulation plan, access driveways are permitted within setbacks. For large developments such as shopping centers, setbacks shall apply to the full perimeter of the project, not to internal property

lines. Specific setbacks, which shall be shown on site plans, shall be subject to the “minimum dimensions” requirements of the district in which the use is located.

**Sec. 25-496. Site development regulations for signs.**

- (1) The requirements for signs as set forth in section 25-156 shall apply to all land within this COD, that is, to land regulated by an underlying zoning district and to land with no underlying zoning district.
- (2) In areas where there is no underlying zoning district, the regulations of section 25-156.10 shall apply to each tract of land that is the site of an agricultural or residential use.
- (3) In areas where there is no underlying zoning district, the regulations of section 25-156.11 shall apply to each tract of land that is the site of a business or industrial use.

All signs within the COD shall comply with the requirements set forth in Division 4.1 of this chapter.

(Res. No. 28-10-99, 10-19-99)

**Sec. 25-497. Lighting.**

The following lighting standards shall apply to all exterior lighting sources including, but not limited to, lighting for parking, access drives, walkways, gasoline canopy lighting, and internally and externally illuminated signs. Site plans shall include a lighting plan, drawn at the same scale as the site plan, to demonstrate compliance with the following standards.

- (1) All lighting shall be designed, located, and arranged so as not to direct glare on adjoining streets or residential properties. The intensity of adjoining streets or residential properties shall not exceed 0.5 foot candles.
- (2) Lighting fixtures shall comply with the shielding requirements of the table below. Exempt from these requirements are: roadway and airport lighting; lighting activated by motion sensor devices; temporary circus, fair, carnival, or civic uses; construction or emergency lighting; temporary lighting; and lighting associated with agricultural pursuits.
- (3) For the purposes of this ordinance, a fully shielded fixture shall be defined as an outdoor lighting fixture that is shielded or constructed so that all light emitted is projected below a horizontal plane running through the lowest part of the fixture.

**Shielding Requirements**

Fixture Lamp Type	Shielding Requirement
Low/High Pressure Sodium, Mercury Vapor	Fully Shielded
Metal Halide and Fluorescent - over 50 watts	Fully Shielded
Incandescent - over 160 watts	Fully Shielded
Incandescent - 160 watts or less	None Required
Any light source of 50 watts or less	None Required

Note: Incandescent includes tungsten-halogen (quartz) lamps.

### Sec. 25-498. Landscaping.

The following requirements shall supplement those in Division 3.B. Landscaping and Buffering.

- (1) *Tree preservation:* Preservation of existing trees shall be maximized. Except when otherwise necessary to provide access, or in accordance with accepted landscape practice, trees of 8 inches or greater diameter at breast height, located within any required setback, shall be preserved. Where any such tree is unhealthy, or needs to be removed in accordance with accepted landscape practice, its removal shall be indicated on the landscaping plan. Any unhealthy tree or shrub that is preserved may be credited toward the requirements of this section. All vegetation to be preserved shall be shown on the landscaping plan, and groups of trees and/or shrubs may be outlined as a single unit.
- (2) *Maintenance:* All landscape areas shall be provided with a readily available water supply, which shall be shown on the landscaping plan. Water sources that require extending hoses over parking areas or access drives do not meet this requirement.

### Sec. 25-499. Redevelopment.

To promote the orderly retrofit of existing developments that do not conform to the requirements of the COD, while encouraging reuse of previously developed properties, the following redevelopment standards shall apply. Given the varying conditions of existing development, some administrative flexibility is required in applying standards to redevelopment. The following standards provide guidelines for use in bringing nonconforming sites as close to conformance as possible. All trip generation shall be based on Institute of Transportation Engineers methods as described herein.

- (1) *Access:* Reconstruction, relocation, or elimination of access points shall be required under any of the following circumstances. In such cases, necessary improvements shall be identified in consultation with the VDOT Resident Administrator, and shall be designed to bring the site as close to conformance as possible with the access provisions of this ordinance.
  - (a) The redevelopment will cause an increase of 10 average daily trips (ADT) and 20 percent or more.
  - (b) The redevelopment will cause any turning movement to increase by 5 ADT and 20 percent or more.
  - (c) The redevelopment will cause an increase in use by vehicles exceeding 30,000 pounds gross vehicle weight of 10 vehicles per day or 20 percent or more.
  - (d) Structural enlargements, building improvements, or other site improvements are made resulting in an increase of 20 percent of building square footage or totaling 20 percent of current building value.
  - (e) As required to address identified safety deficiencies, based on consultation with the VDOT Resident Administrator.

- (2) *Traffic Impact Analysis:* A traffic impact analysis shall be submitted for all redevelopment projects according to the regulations stipulated by the Code of Virginia.
- (3) *Required Improvements:* Improvements required to support the redevelopment shall be based on consultation with the VDOT Resident Administrator, the AMG, required traffic impact analyses, highway safety and capacity, the COD, and VDOT entrance design standards and regulations.
- (4) *Signage:* Reconstruction, relocation, or elimination of freestanding signs shall be required under the following circumstances. Required improvements shall bring on-site signage as close to compliance as possible.
  - (a) Structural enlargements, building improvements, or other site improvements are made resulting in an increase of 20 percent of building square footage.
  - (b) Any freestanding sign is re-faced, re-modeled, or otherwise altered.
  - (c) Existing signs interfere with required sight distances.
- (5) *Lighting:* Where structural enlargements, building improvements, or other site improvements are made resulting in an increase of 20 percent of building square footage, all lighting shall be brought into compliance with this ordinance.
- (6) *Landscaping:* Where structural enlargements, building improvements, or other site improvements are made resulting in an increase of 20 percent of building square footage, landscaping shall be brought as close to compliance as possible. This shall include appropriate landscaping of existing green space, as well as provision of additional green space to the extent that it does not interfere with traffic flow or required parking. Where additional green space is required, priority shall be given to establishing front yard green space.

## Costs and Funding Strategies

Several access management treatments applied to the Franklin County study area were assigned a relative cost index value (see Table 2). Construction and maintenance costs may vary due to geographic location, method of construction, contract amount, time of year, and inflation.

The relative cost index values are accepted by FHWA for planning purposes. An access management treatment that has a relative cost index of 9 (“Close relocate opposing driveways”) is estimated to cost 9 times that of cost index value of 1 (“Curbing to regulate maximum driveway width”).

Table 2  
 RELATIVE COSTS OF ACCESS MANAGEMENT TREATMENTS

Treatment	Construction Option	Relative Cost Index
Install raised median divider with left-turn deceleration lanes	1. Basic construction - raised median with openings on existing paved median	195
	2. Basic construction plus additional pavement widening	738
	3. Basic construction plus additional pavement widening and right-of-way acquisition	1,180
Install physical barrier to prevent uncontrolled access along property frontages	1. Barrier curb	144
Offset opposing driveways	1. Close and relocate driveway	9
Regulate maximum driveway width	1. Curbing	1
Regulate minimum driveway spacing	1. Close one driveway	2
	2. Close and relocate one driveway	8
Regulate minimum corner clearance	1. Close one driveway	2
	2. Close and relocate one driveway	8
Regulate minimum property clearance	1. Close one driveway	2
	2. Close and relocate one driveway	8

Treatment	Construction Option	Relative Cost Index
Optimize driveway spacing in the permit authorization stage	1. Implemented during the permit authorization stage	NA
Regulate maximum number of driveways per property frontage	1. Close one driveway	2
Consolidate access for adjacent properties	1. Close two driveways and construct one driveway on property line	11
	2. Close one driveway and construct one driveway on property line	8
Deny access to small frontage	1. Basic construction - costs are highly variable and dependent on land value	NA
	2. Construct connection between properties	2
	3. Close one driveway and construct one driveway on property line	8
Regulate minimum sight distance	1. Close and relocate one driveway	8
Construct a local service road	1. Frontage road	NA
Install right-turn deceleration lane	1. Deceleration lane	9
Encourage connections between adjacent properties (even when each has highway access)	1. Connection between properties	2
Require adequate internal design and circulation plan	1. Basic construction - costs are highly variable and location-dependent	NA

\* NA - Not Available

VDOT's Local Assistance Division (LAD) develops policy and provides guidance for special funding programs and other programs that impact work performed by localities, and serves as a liaison to local government organizations. The LAD manages special funding programs, urban system changes, provides locally administered project oversight and urban construction coordination, and manages the local assistance payment program.

VDOT's LAD should be used as a resource by Franklin County to develop funding strategies for the recommendations included in the Guidebook. The staff contact, Michael Estes, can be reached at (804) 786-2745.

Some potential funding programs include Transportation Enhancement which includes SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users), and Revenue Sharing. Depending on the benefits of a specific project, the County may have multiple options when identifying funding sources.

## Transportation Enhancement

In 1991, Congress introduced the Transportation Enhancement Program, which required each state to set aside 10 percent of its Surface Transportation Program funds for transportation enhancement projects. This reimbursement program continued with enactment of the Transportation Equity Act for the 21st Century (TEA-21) in 1998 and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005.



SAFETEA-LU stresses mobility and protection of the environment, community preservation, sustainability and livability. Candidate projects for the Transportation Enhancement program are those that provide opportunities to improve the transportation experience in Franklin County. Enhancement categories that will be considered by VDOT include bike and pedestrian facilities, scenic or historic highways, and landscaping and scenic beautification.

It is important to note that localities may not use traditional highway funds or revenue sharing funds as the local match for this program.

## Highway Safety Improvement Program

The Highway Safety Improvement Program (HSIP) was established through SAFETEA-LU with the purpose of reducing highway fatalities and serious injuries. These are benefits often realized following the implementation of access management measures. VDOT uses the HSIP to identify high crash locations; analyze hazards, problems, and countermeasures; and prioritize and schedule improvement projects.

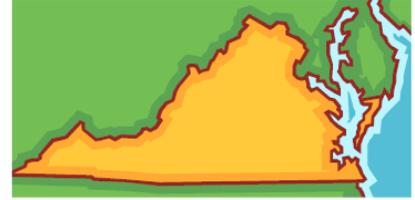
VDOT's Traffic Engineering Division serves as the focal point for administering the HSIP, and anticipates providing the required 10 percent local match for Fiscal Year 2007-08 projects.



However, the County should be willing and able to provide the 10 percent match in the event that VDOT funds are unavailable.

## Revenue Sharing

This program could provide additional funding for use by Franklin County to construct, maintain, or improve corridors such as Routes 40, 122, 220, and 116 with statutory limitations on the amount of state funds authorized. The intent of the Revenue Sharing Program is to fund relatively small, immediately needed improvements, but larger projects may be considered.



Locality funds are matched with state funds for qualifying projects. An annual allocation of funds for this program is designated by the Commonwealth Transportation Board (CTB).

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## Application to Other Jurisdictions

The Franklin County Access Management Guidebook was assembled in such a way that other jurisdictions could adapt the access management concepts, and use the Corridor Overlay District (COD) language as a template. The photo below illustrates over a dozen properties with their own access points onto Route 221 in Roanoke, VA. Many of the properties have multiple access points. As noted earlier, each driveway adds 4 percent to the crash rate of the corridor.



While it is often quite difficult to retrofit shared access points and consolidate existing driveways, the COD in Chapter 5 provides language that can be incorporated into the existing codes of other jurisdictions. Redevelopment standards were drafted to promote the orderly retrofit of existing developments that do not conform to the requirements of the COD, while encouraging reuse of previously developed properties. Nonconforming sites should be brought as close to conformance as possible.