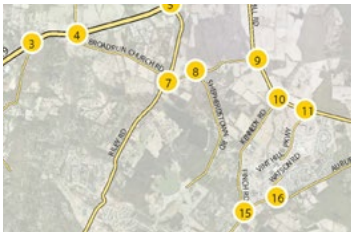
TRANSPORTATION

CHAPTER 10

Fauquier County Board of Supervisors
Adopted November 9, 2017



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Introduction

This chapter will set forth a plan to ensure that transportation systems and infrastructure meet the needs of the planned population and complement service districts, villages and rural areas countywide. Transportation systems planning, identified improvements, recommendations and their implementation are critical to the success of the service district concept, and to the preservation of the County's villages, settlement scaled communities and rural areas.

When planning for the future, few elements have as much impact as the development of roads and their attendant infrastructure. These constitute the skeleton of Fauquier County: Its physical manifestation is determined by the placement of roads. Roads provide the ability to travel, to transfer goods and services, to develop property, and the ability to promote tourism, showcasing the County's beauty through designated scenic byways. The County's transportation system should enable citizens to have access to employment centers and public facilities; contribute to a regional network; and have minimal impact on the County's natural environment.

The County's service districts are building blocks for the transportation system for Fauquier County. To ensure the effective and timely implementation of key elements of each service district plan, it is necessary to refine and integrate them into the Transportation Plan. This chapter combines the adopted transportation general elements for each of the referenced nine Service Districts into one plan, along with key recommendations.

The plan establishes the model for countywide strategic transportation planning. This document can be used in making County recommendations to the Virginia Department of Transportation (VDOT) for the Six-Year Improvement Program (SYIP), as well as safety improvements. This chapter includes planning recommendations focused on the following subjects:

- Roadways
- Bus and rail service
- Airport expansion and access
- Bike and pedestrian paths
- Bridges – historic and new

A Brief Summary of Current Transportation Efforts

Planning Role of VDOT and the County

VDOT has primary responsibility for the design, construction, and maintenance of roadways and bridges within the County. The County's role is to ensure that VDOT adheres to the County's Comprehensive Plan and that roads keep pace with development, thereby assuring the safety of the general public. The County also works with VDOT to identify transportation projects to be funded and prioritized through the county's Secondary Roads Six-Year Plan (SSYP). Also, every other year projects on primary and/or secondary roads are submitted for Smart Scale funding. In addition, the County can pursue funding for projects through VDOT's Revenue Sharing program or the federal Transportation Alternatives (TA) Set-Aside program if the county has funding available for the local match. The County utilizes the expertise of both VDOT planning officials and private transportation consultants in planning the County's road network.

Additionally, the County has a Transportation Committee composed of citizens appointed by the Board of Supervisors, VDOT representatives and a representative of the Rappahannock-Rapidan Regional Commission. The Committee makes recommendations to the BOS in all areas of transportation, including long and short-term planning, primary and secondary road design and improvements, regional transit opportunities and the numerous other matters that arise from management of a countywide transportation system.

VDOT participates directly in the Fauquier County land development process. This agency provides review and approval for public street design at the preliminary plat, construction plan, and site plan stages. They also provide recommendations identifying needed improvements on both existing and proposed public streets as part of the rezoning/Comprehensive Plan Amendment and special exception/special permit legislative processes. Several years ago VDOT enacted Secondary Street Acceptance Regulations, which directly affect the county's road planning and permitting process. These regulations establish design and connectivity standards for public streets.

Regional Coordination

Planning and development in other jurisdictions certainly impact the existing road network in Fauquier County, as commuters and vehicular traffic travel to their individual or business destinations both inside and outside our community. Here the County continues to participate in regional planning and development policy efforts as a member of the Rappahannock-Rapidan Regional Commission (RRRC) and the National Capital Region Transportation Planning Board (TPB).

Existing Air and Rail Transportation

Within Fauquier County there are several modes of transportation beyond the road. This includes air transportation with the Warrenton-Fauquier Airport, rail service with the Norfolk-Southern Railroad, commuter services such as park-and-ride lots and nearby access to the Virginia Railway Express (VRE), and bicycle and pedestrian access.

Air Transportation

While there are several airfields/landing strips, mostly privately owned, within the County, only the Warrenton-Fauquier Airport, in Midland has general utility facilities. This airport is shown in the Virginia Air Transportation System Plan (VATSP) as a Reliever Airport. Reliever Airports, typically non-commercial civil aviation only, are designated by the Federal Aviation Administration (FAA) to reduce congestion at commercial service airports by providing alternative general aviation facilities. To accommodate the full range of general aviation aircraft, Reliever Airports should be developed to accommodate business jets and transport type aircraft, when feasible.

Purchased by Fauquier County in 1992, the Warrenton-Fauquier Airport is located just off Route 28, near the village of Midland, some 12 miles south of Warrenton. The airport is home to 165 aircraft, and base for more than 50,000 flights per year. Following airport purchase, Fauquier County hired engineering consultants and the following documents were completed:

- Master Plan (2011);
- Environmental Assessment (2015); and a
- Finding of No Significant Impact Report (2015).

These plans and reports set the stage for significant airport buildout. This project includes an additional 5,000 x 100 foot facility with full complement of taxiways and aprons, and the construction of additional airplane hangars. Later phases of development include more hangars and a terminal facility, as well as continual upgrading of navigational instrumentation. GPS approaches to both runway 15 and 33, a Localizer distance measuring equipment (DME) approach and a VOR approach to runway 15 larger serve general aviation (corporate) aircraft with wing spans of up to 79 feet, gross weight of up to 70,000 pounds, including the Gulfstream III, Falcon 50 and the Cessna.

Improvements are subsidized through an Airport Enterprise Fund, so the Airport is not a burden on County taxpayers. Capital outlays from the Enterprise Fund serve as leverage for funding and grants available through the Federal Government and the Commonwealth of Virginia. The Enterprise Fund is used as a match to the Virginia Commonwealth Aviation Facility Program and a Federal Airport Expansion Program.

The Warrenton-Fauquier Airport is eligible for these moneys since the FAA designated Warrenton-Fauquier Airport as a "General Aviation Reliever Facility" to Dulles International Airport within the National Plan of Integrated Airport Systems. This designation means that corporate aircraft will be increasingly encouraged to vacate Dulles International Airport, as that airport's runways become used by cargo and commercial passenger airlines. The value of a reliever airport network has been enhanced post September 11, 2001. For security reasons, very severe restrictions have now been imposed on corporate aircraft within 30 nautical miles of the Federal Triangle in an area known as the Washington DC Special Flight Rules Area (SFRA). The County facility is just beyond this radius. The migration of corporate aircraft to the airport would benefit the locality through increased revenues from support services such as jet fuel sales, while also increasing the capital's security.

In addition to the financial assistance provided by the Virginia Commonwealth and the Federal Authorities, the designation of Reliever Airport status has an additional, if indirect advantage. Executives using corporate airplanes make decisions about the location of their own business facilities. As Dulles International Airport becomes busier and corporate aircraft experience longer runway delays, these executives will segue to home-base their jet at a reliever airport.

The Warrenton-Fauquier Airport is well positioned, and has adjacent land zoned for offices and light industrial development. To assist in the economic development of this facility and the adjoining industrial properties, the County is proposing through the CIP to provide water as well as extend sewer service from the Remington Waste Water Treatment Facility as a result of a 2016 infrastructure study conducted by the County. This should increase opportunities for the airport to be utilized by not only corporate jets, but also by smaller freight craft that may be distributing local produce along the East Coast.

Currently the airport is undergoing a project to rehabilitate the drainage of original hangar structures and complete site development for the construction of a clear span hangar to facilitate corporate aviation activities. Grants are in place for construction of a new terminal, corporate ramp and a new entrance road off Route 610 and public parking area. This work should be completed during FY 2019. Future developments in the airport vicinity could include the development of a secure facility for government contracted aircraft refurbishment, though this would be predicated on a defined end user and not a speculative construction.

The new terminal is intended to become a viable community facility with available meeting and catering space to accommodate both public and private functions. It is also designed to have a public safety presence to better facilitate policing and emergency services. At this time, there are no plans to expand the airport beyond the approved Master Plan or for the construction of a tower facility.

In order to provide the airport with the best chance of success, it is important to limit the amount of residential development in its vicinity. Residential development tends to be the most incompatible with airports due to concerns, both real and perceived, related to the noise generated by the aircraft. Caution must be exercised with the residentially zoned land to the north of the airport and south of Route 28 as these developments have the most opportunities for conflict as either the airport usage increases, or the number of residences increases. Industrial zoned land which surrounds much of the airport is an appropriate neighboring use. Agriculturally zoned land, which is in the vicinity, tends to also be compatible with the airport uses. Height restrictions should be imposed surrounding the airport to ensure clear flight paths for aircraft.

Airport Access

As the Warrenton-Fauquier Airport continues to build out, the need for ground transportation, such as rental car facilities, will be critical. In the future, the plan proposes an alternative to Route 28 to the south of the railroad right-of- way and provides the Airport with a minor arterial road with the capacity to accommodate both through and employment industrial traffic to the designated non-residential land bays that surround the Airport. This relocated Route 28 would link the industrial and planned employment land surrounding the Airport with U.S. 17 and U.S. 29 without disrupting Bealeton and Midland.

Rail Service

Rail service in the County is limited to freight. Norfolk-Southern Railway maintains a mainline track through the County roughly paralleling Route 28. The Warrenton Branch connects to an industrial quarry located between Calverton and Warrenton to the mainline at Calverton. The spur once connected the Town of Warrenton to the mainline; due to a lack of ridership, those rails were removed in 1990. The portion of the spur that connected the quarry to Warrenton is being converted to recreational uses. There also exists the potential for economic development off existing rail spurs.

Norfolk Southern Railway also maintains a rail line that roughly parallels Route 55 in the northern portion of the County and provides freight service for The Plains, Marshall, and Markham.

Rail expansion is planned at the Virginia Inland Port (VIP) to accommodate increased volume at ports throughout Virginia. With the expansion of the Panama Canal, wider and deeper containerships are in use, increasing the capacity of waterways. The Port of Virginia is the only U.S. East Coast port with Congressional authorization for the 55-foot deep channels needed to accommodate the larger containerships. In fiscal year 2016, rail cargo increased by nearly ten percent from the previous year.[1]

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1 The Port of Virginia 2016 Annual Report, found at http://www.portofvirginia.com/pdfs/FY2016%20Annual%20Report.pdf

Existing Commuting Services

Virginia Railway Express

VRE service is available to Fauquier County residents through stations in Prince William County, Stafford County and the City of Fredericksburg providing service to Union Station in Washington, D.C. VRE is exploring the possibility of expanding its Broad Run station in Bristow to accommodate an additional six trains on its Manassas line to provide more frequent service. This will require a new storage yard for the trains and additional parking for customers. Future expansion of VRE to Gainesville and Haymarket remains in Prince William County's Comprehensive Plan as a long-term goal.

Rideshare/Vanpool

Fauquier County is served primarily by the Rappahannock-Rapidan Commuter Services. This is organized by the Rappahannock-Rapidan Regional Commission and is a ride matching service that works in conjunction with Metropolitan Washington Council of Government's (MWCOG) Commuter Club, the largest and most experienced of the ridesharing programs. (RRRC van or carpool information is available at www.rrrregion.org). In addition, the Warrenton park-and-ride lot located at the intersection of U.S. 29 and Colonial Road (Route 605) is served by a commuter bus with service to Washington, D.C. Fauquier County encourages private bus service to jobs to promote economic development in the county.

Commuter Parking

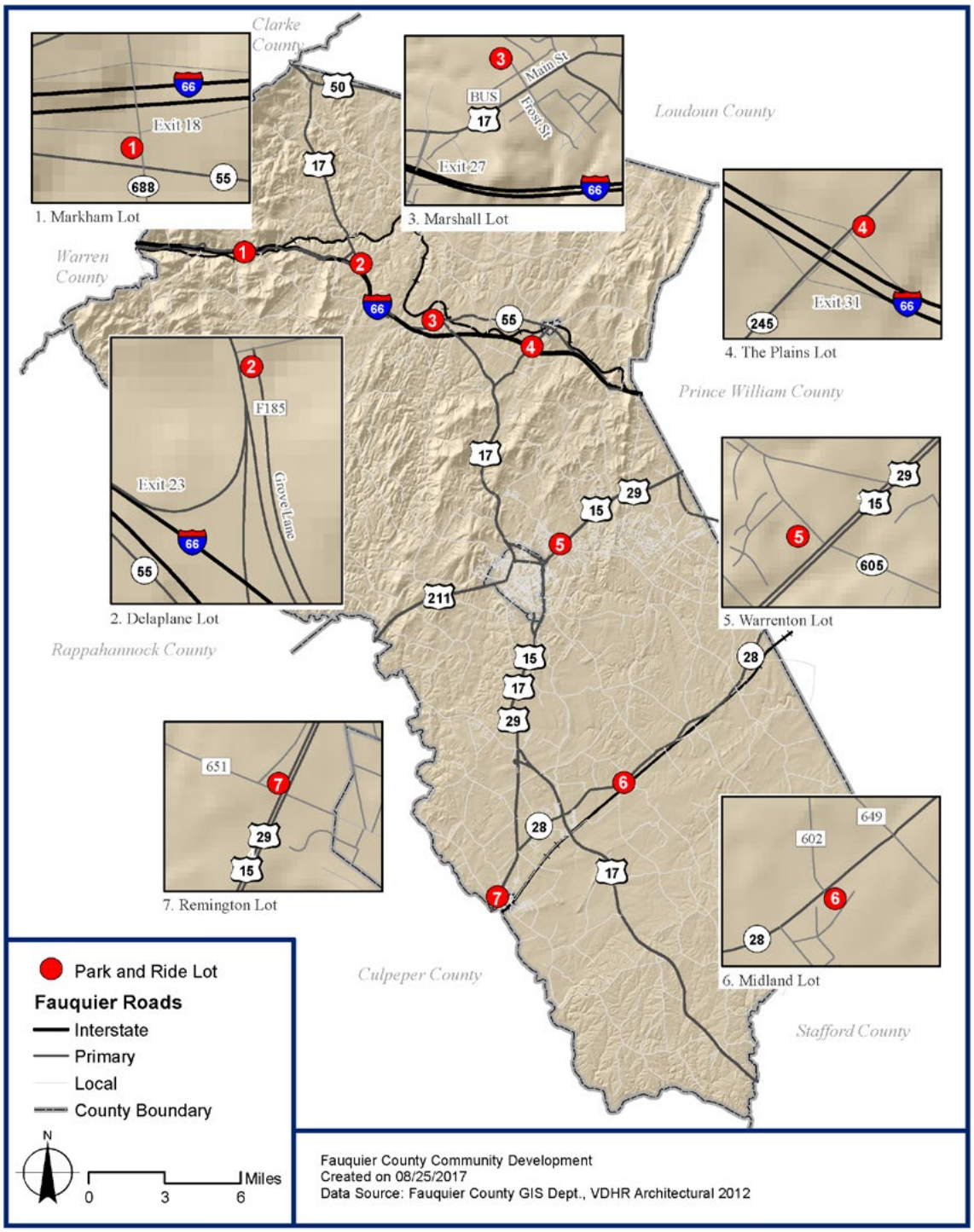
Commuter park-and-ride facilities are parking lots constructed along interstates, primary, and major secondary roadways used by commuters as a primary travel path to work. The most effective location for a park-ride facility is at the crossroads of major highways. Commuter park-and-ride facilities may range from simple graded lots to landscaped lots. They do not have to be newly constructed facilities but can be established in regional shopping centers, churches, or other facilities that have sufficient surplus parking. In addition to an informal lot in Vint Hill, there are seven VDOT commuter parking lots in the County. Refer to the Table 10.1 and Map 10.1 on the following pages.

Table 10.1: Fauquier County Park and Ride Lots

Lot	Location	Spaces[2]	Use[3]	(FY 2015)
1. Markham	Off Leeds Manor Road (Route 688) just south of I-66, Exit 18	9	4	44.44%
2. Delaplane	Off U.S. 17 just north of I-66, Exit 23	17	14	82.35%
3. Marshall	Currently located off Main Street at the end of Frost Street, northeast of I-66, Exit 27. This lot will be relocated to the intersection of Salem Avenue (Route 1006) extended and Route 55 in the near future	34	11	32.35%
4. The Plains	Off Old Tavern Road (Route 245) just north of I-66, Exit 31	15	20	133.33%
5. Warrenton	South side of the intersection of Colonial Road (Route 605) and U.S. 29. This lot will be expanded in the near future.	212	145	68.40%
6. Midland	Off Route 28 just south of the intersection with Old Carolina Road (Route 602)	110	3	2.73%
7. Remington	Northwest quadrant of the intersection of U.S. 29/15 and Freemans Ford Road (Route 651)	22	17	77.27%

2 *Data provided by the Rappahannock-Rapidan Regional Commission, September 1, 2015.*

Figure 10.1: Fauquier County Park and Ride Lot Locations



Bicycle and Pedestrian Planning

Walking and bicycling are two alternative modes of transportation that Fauquier County encourages and supports for public health, recreation, and travel. The Fauquier County Connections Plan (2007), Appendix I, and Fauquier-Warrenton Destinations Plan (2012), Appendix II, focus on the need for safe pathways and greenways for pedestrians and bicyclists in the county. Greenway locations for each of the nine service districts are identified in these documents as well as in the Service District Plans (Chapter 6) of the Comprehensive Plan. Strong bicycle and pedestrian accommodations are a key component in developing the walkable communities that the county desires within its service districts. It should be noted that the Connections Plan and Destinations Plan do not match the County's plans and should be used primarily as a resource for the design standards for trails. Where the Connections Plan or Destinations Plan conflict with the Service District Plans, the Service District Plan prevails. As the Destinations Plan and Connections Plan are updated, they should conform to the County's Comprehensive Plan.

In addition to greenway locations, the Connections Plan and Destinations Plan provide design recommendations that promote safe travel. Design principles and standards for each type of pathway (e.g. multiple-purpose, greenway, equestrian) will need to be defined and considered for inclusion in the Fauquier County Subdivision Ordinance, Zoning Ordinance and the Design Standards Manual (DSM) so that trails built by different entities are consistent, and provide safe and adequate connectivity where possible.

Existing Highway Network

State and Federal highways provide the primary routes within and through the County and include the following:

Virginia Routes	U.S. Routes
28	I-66
55	15
215	17
245	29
	50
	211

The U.S. Highways and Interstate 66 are the most important routes traversing the County: Interstate 66 provides an important linkage between Washington D.C., Interstate 95, and the Shenandoah Valley Interstate 81 traffic corridors. U.S. 17 is a major route connecting Interstate 95, Interstate 66, Interstate 81, and the VIP. U.S. 29/15 serves as a major north-south route along the eastern edge of the Piedmont area. U.S. 50 is a major east-west route connecting Winchester to Washington, D.C. U.S. 211 is a major east-west connector providing access through neighboring Culpeper and Rappahannock Counties to Skyline Drive and Interstate 81 from U.S. 29. (Refer to Map 10.2).

As of December 31, 2014 there were 104.69 miles of State designated primary roads and 815.54 miles of State designated secondary roads (89% of the total County road system). Hard-surfaced roads accounted for 633.47 miles of the system, all weather and light surface roads accounted for 181.28 miles, and un-surfaced roads accounted for only 0.79 miles of the system.[3]

County Designated Scenic Roads and Virginia Byways

Map 10.3 delineates roads that are designated as Virginia Byways and America's Byways. The Virginia Byway program identifies roads in the Commonwealth that have significant aesthetic or cultural value. This designation encourages drivers to travel along these roads with lower traffic volumes to reach interesting destinations. Although these roads differ in functional classification, it is intended that they not be altered except within their existing rights-of-way and then only as necessary for public safety. It is the policy of Fauquier County that these roads be preserved and protected.

Bridges

Appendix III of this document outlines the goals, objectives and policies for bridges in general, with many specific to historic bridges. Fauquier County values its historic resources and has adopted a policy that bridges should be rehabilitated, not replaced, as they become deficient. As structures are identified as being deficient, every effort should first be made to rehabilitate them prior to any consideration for replacement or rehabilitation. The appendix also addresses design goals for highway overpasses and grade-separated interchanges in Fauquier, specifying context-sensitive approaches and bridge treatment and finishes that exemplify the rural aesthetic of the county and recognize its sense of place. A classic example of this approach can be found in the design of the Route 15 overpass of I-66 in Haymarket.

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3 *Taken from VDOT Mileage Tables: The State Highway Systems, December 31, 2014, found at http://www.virginiadot.org/projects/resources/2014_Mileage_Book.pdf*

4 *Taken from the Virginia Department of Transportation website, December 6, 2016, found at http://www.virginiadot.org/programs/faq-byways.asp*

Figure 10.2: U.S. and Virginia Routes

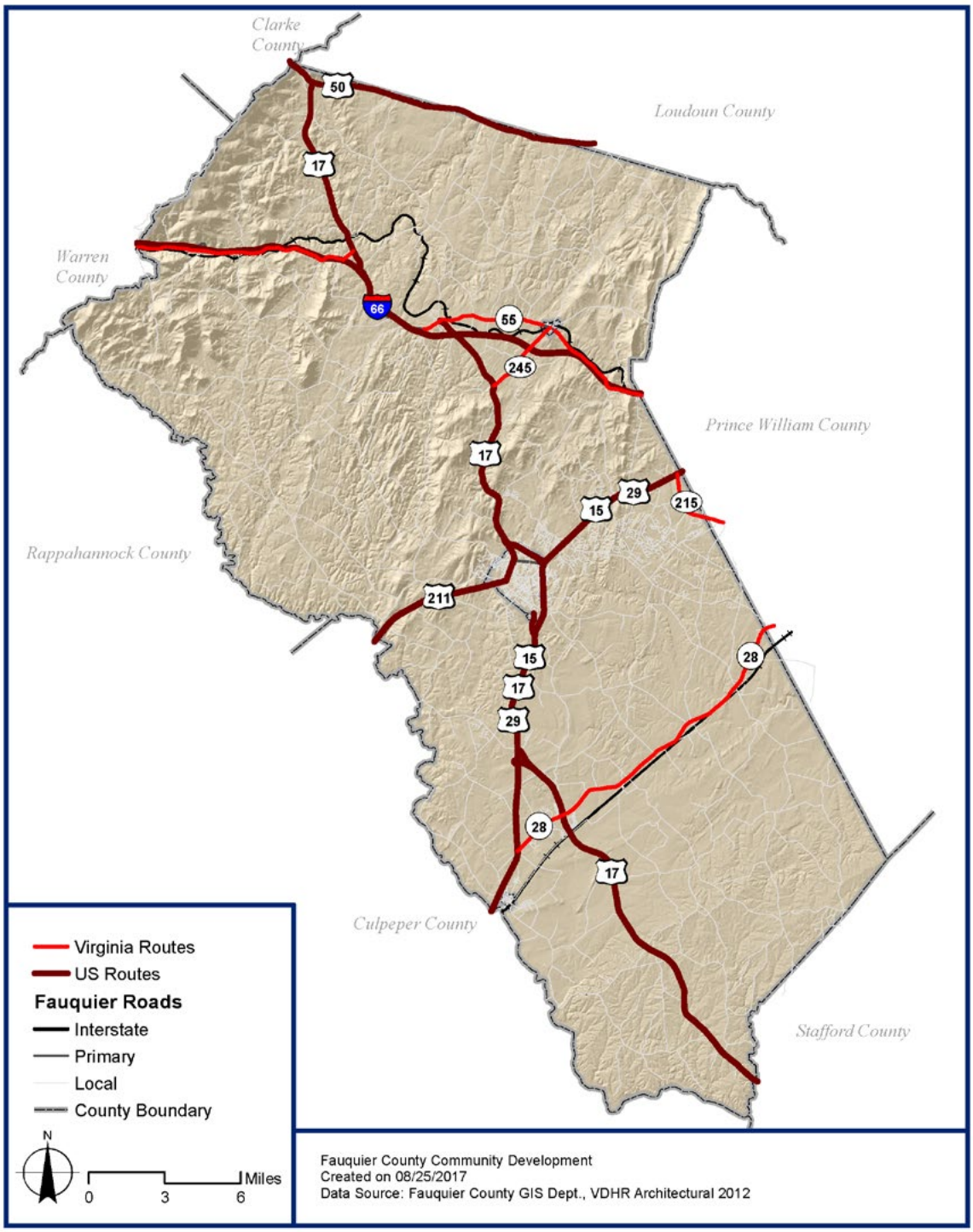
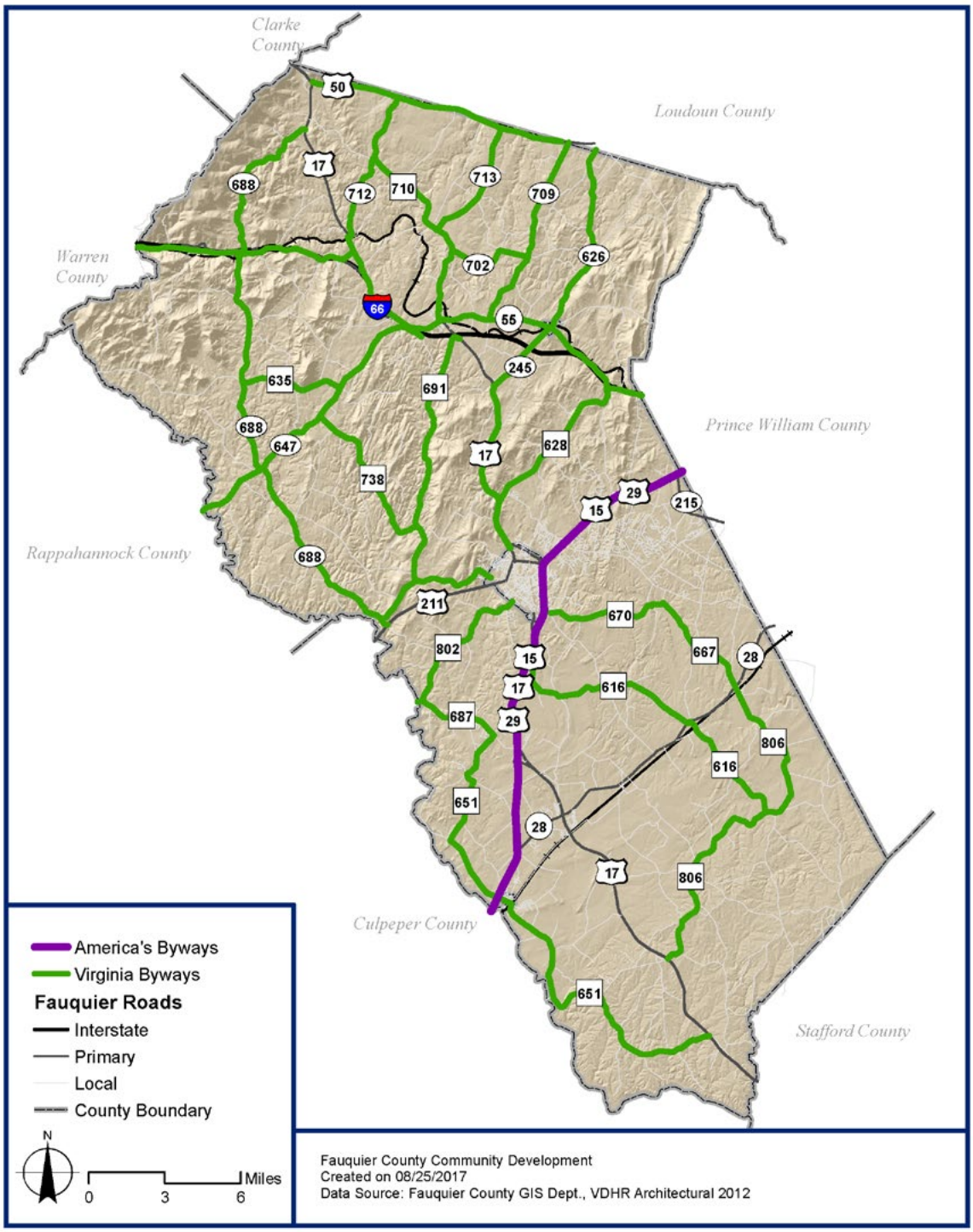


Figure 10.3: Fauquier County Byways



Vision

This chapter and Vision Statement builds upon Guiding Principle D of the overall County vision in Chapter 1 which states that, "Effective public facilities and infrastructure are important components of a thriving community." The following statement provides additional direction regarding transportation planning.

Vision Statement

To create a countywide multi-modal transportation plan that fosters the movement of people and goods in a safe and efficient manner in order to effectively promote economic development while adhering to the County's land use plans, rural character and historic heritage.

Transportation Strategies

In considering transportation strategies for Fauquier County, factors to be mindful of include the function and design of the street, the location and setting, and the users. While the standards in VDOT's Road Design Manual should be met, road design should meet the needs of the specific location. These include pedestrian and bicycle facilities in the appropriate locations, a sense of place in service districts and villages, and exploring alternative design solutions that allow roadways to function efficiently while enhancing the environment. These concepts are expanded on in the following text.

Street Design

Standards for street design in the Fauquier County Subdivision and Zoning Ordinances need to be consistent with the Comprehensive Plan, and updated to current VDOT subdivision street requirements and associated documents. In the service districts and on main streets, the VDOT's stopping sight distance should be used in lieu of VDOT's intersection sight distance based on the speed limit. Streets should function as a conduit for utilities (water and sewer at a minimum.) Village, neighborhood and town center planning within service districts will include streets scaled to be more pedestrian friendly, compatible to a mix of community land uses and activities and to result in less impervious surfaces.

Village/town center concepts should include creative street and access plans to support attendant housing and businesses, provide safety of movements both pedestrian and vehicular and foster community character. Illustrations from the SmartCode, a form-based code that combines principles from New Urbanism and Smart Growth, merit further County technical review with VDOT and integration into the development design manuals. Refer to Figures 10.9 through 10.19 for examples of traditional town and village designs that detail suggested pavement widths, street parking and right-of-way.

Street Network

To provide multiple routes for traveling to destinations, roads in the service districts and villages will be designed on a grid network. Adjacent developments should be interconnected to allow drivers to travel between destinations without having to access the main road. This not only aids in separating local and regional traffic, it also minimizes congestion by dispersing traffic.

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5 *Refer to VDOT's Road Design Manual: Appendix G, Access Management Design Standards for Entrances and Intersections: Minor Arterials, Collectors, Local Streets*

On-Street Parking/Street Width

On-street parking should be provided in the urban areas (service districts) of the county as illustrated in the typical road sections. On local roads, parking on one side of the road will provide spaces for parking and serve as a traffic calming device. Refer to the typical street cross sections in this chapter.

Alternatives to Grade Separated Interchanges

Fauquier County supports the use of alternative intersection design in lieu of grade separated interchanges. Listed below are a few examples of alternative intersections. Two of these alternative designs are recommended at specific locations within the county to improve safety and/or traffic flow. While specific locations are not referenced for the Restricted Crossing U-Turn (RCUT) or Michigan Left, these may be appropriate at certain locations within the county and should be considered on a case by case basis. These are only some examples of alternatives to grade separated interchanges. Other design solutions not listed may be appropriate within the county and should be considered in future planning.

Quadrant Intersection

The quadrant intersection configuration requires the left turns to occur at adjacent intersections rather than the primary intersection. This facilitates the through movement volumes by decreasing delay and queuing, but does require a more circuitous route for those motorists desiring to make a left turn. This is listed in the Bealeton Service District Plan as a solution for the intersection of U.S. 17 with Route 28. This concept results in a smaller intersection at U.S. 17 and Route 28, but an increased footprint at the two adjacent intersections over what would otherwise be required. The quadrant intersection can be converted back to a conventional intersection in the future if other improvements are constructed.

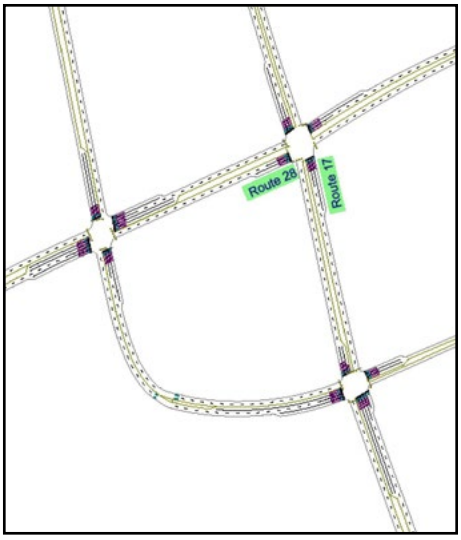

Figure 10.4: Quadrant Intersection

Continuous Green T

The Continuous Green T (CGT) design allows main line through traffic to pass through a signalized intersection without stopping (the top side of the "T"), while also eliminating conflicting vehicular movement. With a CGT, the through movement on the main line approach to the intersection is denoted by a steady green arrow traffic signal as well as by pavement markings or other lane delineation devices, so left turning traffic stays in its respective lane.

Figure 10.5: Continuous Green T Intersection

Restricted Crossing U-Turn

The RCUT, also referred to as the superstreet, is characterized by the prohibition of left-turn and through movements from side street approaches as permitted in conventional designs. Instead, the RCUT intersection accommodates these movements by requiring drivers to turn right onto the main road and then make a U-turn maneuver at a one-way median opening 400 to 1,000 feet after the intersection. Left turns from the main road approaches are executed in a manner similar to left turns at conventional intersections and are unchanged in this design. Left-turn movements from the major road could also be removed at primarily rural unsignalized RCUT designs.

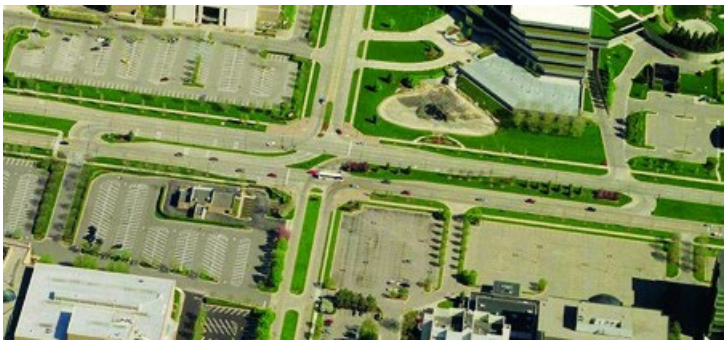

Figure 10.6: Restricted Crossing U-Turn Intersection[6]

6 *Text and image taken from http://www.fhwa.dot.gov/publications/research/safety/09059*

Michigan Lefts

The Michigan Left was developed to avoid the interlocking left-turn movements along divided highways. The only turning movements allowed at such an intersection are right-hand turns. Traffic lights can be placed at busier Michigan Left intersections if warranted. For the most heavily-used "crossovers," specialized traffic signals may be placed to ensure traffic does not back up on the highway waiting to turn left. Research and experience have shown that the Michigan Left relieves congestion; it increases safety by reducing the number and severity of crashes.

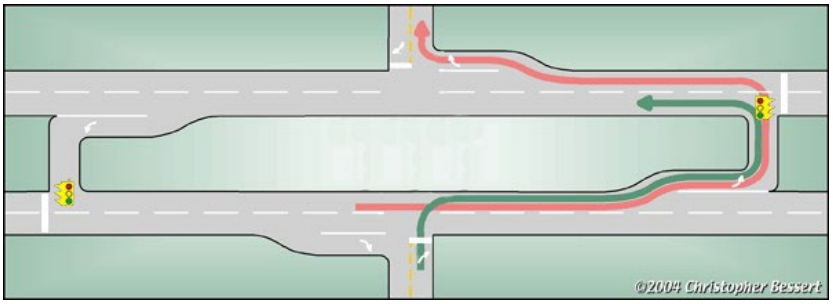

Figure 10.7: Michigan Left Intersection[7]

Traffic Calming

Traffic calming measures are intended to slow vehicles while still providing access. Examples of traffic calming devices include: (a) speed humps, raised intersections (vertical design changes); (b) roundabouts, chicanes, or chokers (lateral shifts in street design); (c) small corner radii; (d) narrow pavement widths and medians; (e) on-street parking; and (f) related streetscaping (surface textures/specialty paving, landscaping and lighting).

Figure 10.8: Street Furniture and Landscaping

Figure 10.9: Specialty Paving for Pedestrian Crossings

7 *Text and image adapted from http://transportation.ky.gov/Congestion-Toolbox/Pages/Michigan-Left-Turn.aspx*

In the County's population centers -- service districts and villages -- natural conflicts between vehicular traffic and pedestrian access need to be minimized to better enable shopping, dining, getting to work, building community in gathering places and enhancing quality of life. Fauquier County supports the efforts of the Town of The Plains, Warrenton, and Remington in reducing traffic speeds before drivers approach and enter the towns. Such efforts should also be considered at entrances to villages in the county.

Loudoun and Fauquier Counties participated in a creative Traffic Calming Plan for the U.S. 50 Corridor from Aldie to Upperville. The project includes roundabouts and design elements that buttress the rural setting and features that have been happily coopted to other locations.

The roundabout shows promise for key locations in Fauquier. The design more applicable to this rural community is the "Mini-Roundabout" and "Urban Compact Roundabout", both used in low speed environments of 35 miles per hour. These are single lane movement, pedestrian friendly with short crossing distances and very low vehicle speeds to accommodate passenger cars (refer to Figures 10.7 and 10.8). The New Baltimore and Marshall Service Districts have designated locations for roundabouts (refer to Chapter 6 and their respective transportation elements); while Marshall has several planned in its internal street network.

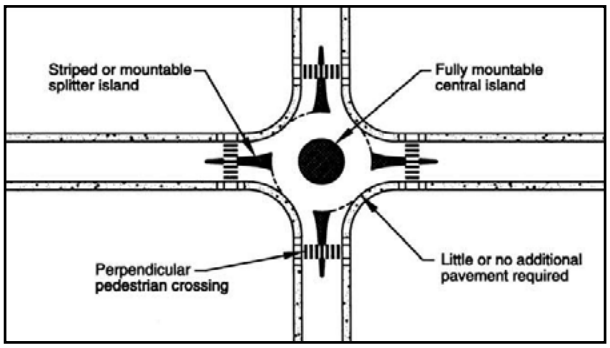

Figure 10.10: Mini-Roundabout[8]

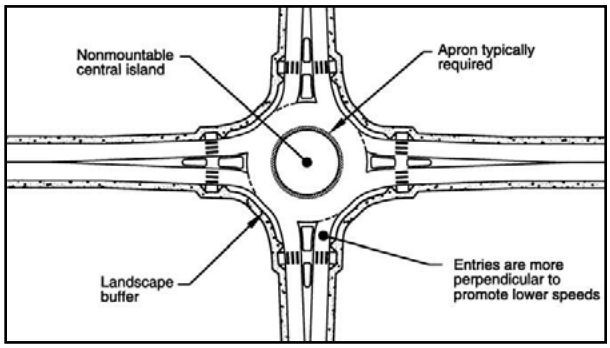

Figure 10.11: Urban Compact Roundabout[8]

Transportation Innovations

Recent innovations in transportation such as autonomous vehicles and the use of drones for delivery create some uncertainty regarding the future of transportation needs and planning strategies. Fauquier County is cognizant of these advances and will continue to update this document and incorporate the appropriate changes when those impacts are better understood.

Context Sensitive Solutions

Context sensitive solutions (CSS) is an approach to develop and redesign transportation facilities that fit into their physical and human environment and preserve the scenic, aesthetic, and historic community and natural environment, while maintaining safety and mobility. CSS considers the total context within which a transportation improvement project will exist including its actual location. Transportation improvements should be sensitive to the rural areas of the county and/or enhance the character of the service districts or villages.

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8 *Images taken from FHWA's Roundabouts: An Informational Guide, Report No. FHWA-RD-00-067, found at https://www.fhwa.dot.gov/publications/research/safety/00067/00067.pdf*

Portals to Service Districts and Villages

The design of the road should contribute to drivers' awareness that they are entering a service district or village. Roundabouts or mini-roundabouts are appropriate as an entry feature on the road to identify points of entry/exit. The Route 50 calming features deployed at the gateways of Upperville are another example of a design that evinces the rural nature of the community while slowing down traffic as it traverses the village. They also encourage drivers to slow down as they enter the more developed areas of the county.

Speed Reduction/Improve Safety

Fauquier County recognizes VDOT's goal to efficiently move traffic on its roadways and acknowledges that residents continue to express preferences for lower speeds on neighborhood streets and traffic calming measures along key roadways countywide. The objectives of integrating traffic calming measures are to:

1. Achieve slower, safer speeds where appropriate for motor vehicles and require drivers to observe posted speeds;
2. Reduce collision frequency and severity;
3. Improve the real and perceived safety for non-motorized users of the street;
4. Provide more landscaping (e.g., trees, shrubs, and associated materials);
5. Increase access to land uses for all modes of transportation; and
6. Reduce cut-through motorized vehicle traffic.

Unpaved Roads

All roads in the county fall into one of two general classifications: private streets, which are owned and maintained by residents living along the road or a homeowners' association, or public roads, which are part of the state system and maintained by VDOT. Unpaved road funds from VDOT may only be used to hard surface public unpaved roads that meet the criteria outlined in the Code of Virginia. Of the nearly 150 miles of unpaved roads in Fauquier County, as of March 2016, fewer than 100 miles are eligible to be hard surfaced.

Private Streets

Many counties in the Commonwealth incorporate design and construction standards for private streets; most do not have a policy identifying when it is appropriate to construct private streets as opposed to public streets. Fauquier County's policy is developed from its position on growth and on its current zoning districts.

- **Private streets are not appropriate in service districts.** Outside service districts, in Rural Agricultural (RA) or Rural Conservation (RC) zones, residential development is typically as a result of family subdivisions, administrative subdivisions, or large-lot subdivisions rather than rezonings. The integrity of these rural areas is better served with the use of private streets to serve such low-density development. Rezonings, on the other hand, would be treated more akin to a development within a service district. Areas zoned Village (V) may be appropriate for a private street where it is in keeping with the village character, in the Village Plan. Within service districts, residential development should be served by public streets. Administrative and family subdivisions in service districts may access private streets to facilitate this development.
- **Multiple access points on public streets from private streets should be avoided.** The primary parcel or subdivision should not have multiple access points onto a public street. Entries onto public streets should be minimized through shared private streets. If a parcel is immediately adjacent to an existing private street, it should access the existing private street rather than constructing a new private street.
- **Private streets should be dead end roads with an approved turnaround at the end of the street.** Private streets should only connect to a public street at one location. The turnaround should be designed to accommodate emergency vehicle access. Pulloffs may be required on private streets. If the Comprehensive Plan calls for a road in the general vicinity of a proposed private street, the street should be designed and constructed as a public street. Areas zoned Village (V) may be appropriate for a through private street, or private street that connects at either end to a public street.
- **Private streets should be constructed in an ingress/egress easement at least 50 feet wide.** A reduction in the easement width may be approved based on engineering plans. The easement should be dedicated along property lines to facilitate access to multiple parcels and minimize entrance points on the public street.
- **A Road Maintenance Agreement should be recorded for all private streets.** All private streets should have a Road Maintenance Agreement addressing maintenance, emergency vehicle access, mowing, snow removal, and street sign maintenance.
- **Private streets should be constructed to the applicable standard.** Private streets should be constructed with an adequate surface for durability. Refer to the construction standards and typical cross sections in the Zoning Ordinance.
- **Private streets should be bonded.** Prior to submitting the plat the private street should be bonded. Family Subdivisions and administrative subdivisions should be exempt from bonding private streets.
- **Private streets should meet the Virginia Department of Transportation (VDOT) requirements for access onto a public street.** The proposed private street should obtain an entry permit from VDOT to access the public street. As such, the private street entrance should meet the VDOT sight distance and access management requirements.
- **Private streets should connect directly to a public street.** Private streets to private street connections should be avoided.

Alleys

Alleys are defined as narrow roads providing rear access to a residential, commercial, or industrial structure that has front access from a public or private street. Alleys should be privately maintained. Alleys should not serve as the sole means of access to a structure unless it is a result of a traditional neighborhood design (TND). In those situations the alley should be wider to accommodate emergency vehicle access. Refer to the construction standards and typical cross section in the Zoning Ordinance.

Rural Rustic Roads

VDOT primarily utilizes one of two methods for "paving" unpaved roads: the Rural Rustic Road program or traditional construction. The Rural Rustic Road program is designed to preserve the rural character of the road and is considerably less expensive than traditional construction. As a result, VDOT is required to consider this method before pursuing the traditional construction method. The following criteria apply to Rural Rustic Roads:

- Must be an unpaved road already within the State Secondary System.
- Must carry no more than 1,500 vehicles per day (vpd).
- Must be a priority (line item) in the locality's approved SSYP if the funding source is from secondary system allocations.
- Must be used predominately for local traffic. The local nature of the road means that most motorists using the road have traveled it before and are familiar with its features.
- Must have minimal anticipated traffic growth.
- The Board of Supervisors, by resolution, must designate the road as a Rural Rustic Road.

Appendix IV contains a list of roads that meet VDOT's minimum criteria for the Rural Rustic Road program. However, these roads would need to be evaluated individually to determine if they are good candidates to be hard surfaced as Rural Rustic Roads and the County would need to conduct public outreach to determine if residents support this before designating the road as a Rural Rustic Road.

The hard-surfaced road should ideally be 16 to 18 feet wide and drain properly. This may involve widening the road, creating new ditches and/or cleaning out existing pipes or installing new drainage pipes as needed. VDOT makes every effort to keep existing vegetation, hillsides, mailboxes, fence lines and utilities. Vegetation may be required to be cut back or removed to improve visibility or provide sufficient road width and drainage. Mailboxes, fences, and utilities may have to be moved slightly to allow for the road. Modifications are identified and completed on site. Rural Rustic Roads are a tar and chip surface, not asphalt.

If an unpaved road is too narrow to be hard surfaced as a Rural Rustic Road, the traditional construction method can be considered. Challenges abound: The cost to hard surface a road using the traditional construction method is significantly higher than a Rural Rustic Road and the road is often less sensitive to the existing character of the area: attendant stormwater management constraints may require stormwater ponds. And, while Rural Rustic Roads can typically be constructed within the 30 feet prescriptive right-of-way that is standard for an unpaved road, additional right-of-way may be required for a road that will be converted to traditional construction.

Functional Classification of Roads and Design Policies

The VDOT Functional Classification system is used to define the role of each roadway segment within the greater roadway network. The system is based upon the functional designations established by FHWA. This system creates a scale, which emphasizes mobility (speed and vehicle throughput) at the upper end of the spectrum and shifts toward access (increased egress and ingress points) for designations at the bottom of the scale. As a whole, the roadway system is designed to collect traffic from local access points and funnel movement into the network. In turn, the classification of a roadway determines design standards for roadway segments and uses for abutting lands.

Roads serve different purposes in the urbanized areas or service districts of the county than in the rural areas. In Fauquier County, collectors and local roads have two sets of design standards. Streets within the six service districts are considered urban, while streets outside the service districts are considered rural. Streets within the three village service districts, Catlett, Calverton and Midland, are considered rural. Refer to Map 10.4 and Table 10.2 for the functional classification of roads in Fauquier County.

Figure 10.12: Functional Classification of Roads in Fauquier County

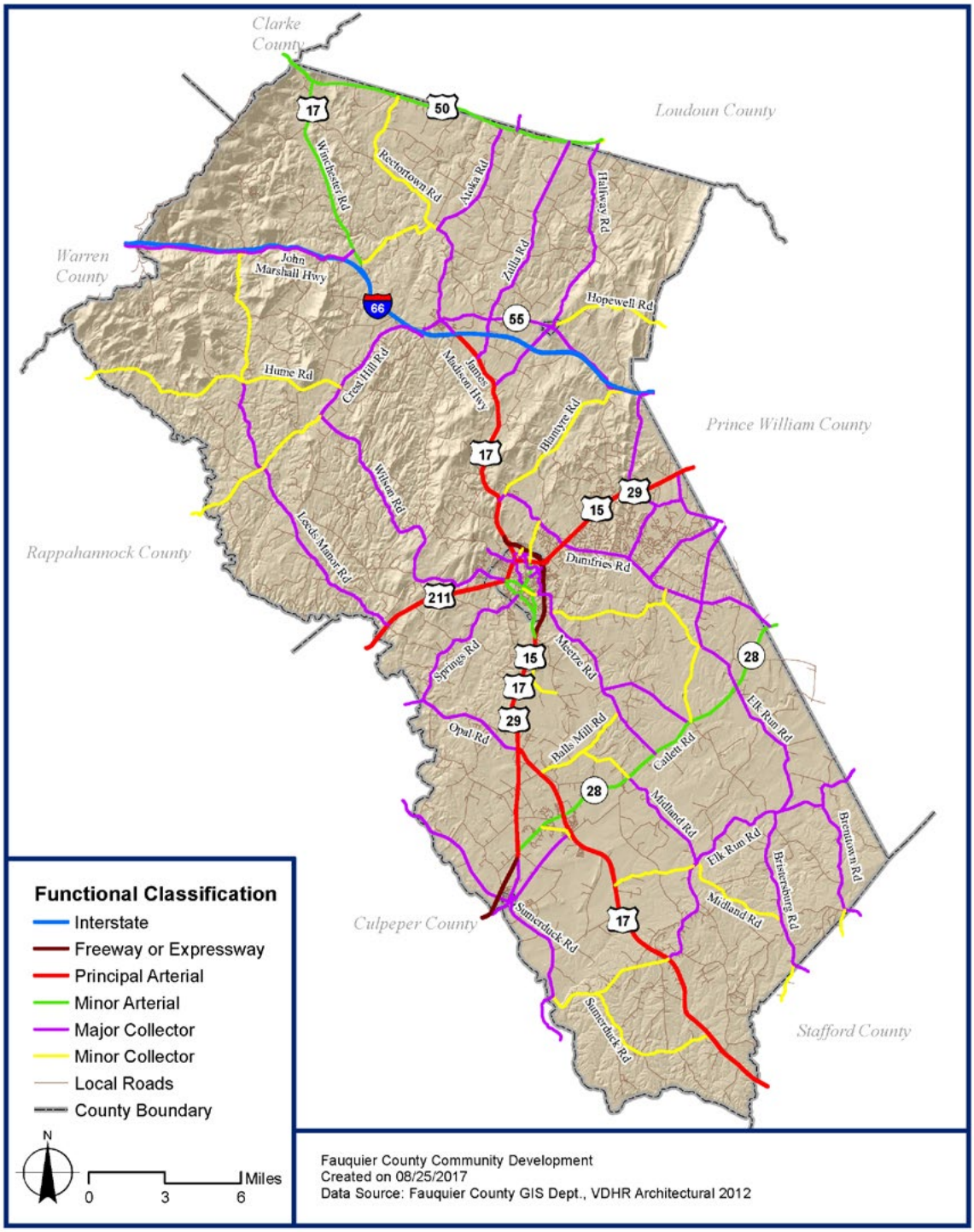

Table 10.2: Functional Classification of Roads in Fauquier County

ROAD ID	Street Name	CLASSIFICATION
I-66	Interstate 66	Interstate
US 15/US 17/US 29	Eastern Bypass	Freeway/Expressway
US 15	James Madison Highway	Freeway/Expressway
US 17	Us 17 spur	Freeway/Expressway
US 15/29	James Madison Highway	Principal Arterial
	Lee Highway	
US 17	Marsh Road	Principal Arterial
	Warrenton Road	
US 17*	James Madison Highway	Principal Arterial
	Winchester Road	
US 211	Lee Highway	Principal Arterial
US 17*	James Madison Highway	Minor Arterial
US 17*	Winchester Road	Minor Arterial
SR 28	Catlett Road	Minor Arterial
US 50	John S Mosby Highway	Minor Arterial
US 17 BUS	Free State Road	Major Collector
SR 55	John Marshall Highway	Major Collector
	West/East Main Street	
SR 215	Vint Hill Road	Major Collector
SR 245	Old Tavern Road	Major Collector
SR 600	Beverleys Mill Road	Major Collector
	Broad Run Church Road	
SR 602*	Rogues Road	Major Collector
SR 603	Greenwich Road	Major Collector
SR 605	Airlie Road	Major Collector
	Dumfries Road	
SR 609	Courthouse Road	Major Collector
SR 610	Garrisonville Road	Major Collector
SR 610*	Midland Road	Major Collector
SR 611	St. Louis Road	Major Collector
SR 611	Sowego Road	Major Collector
SR 612	Brent Town Road	Major Collector
SR 616	Bristersburg Road	Major Collector
	Casanova Road	
SR 620	Kellys Ford Road	Major Collector
SR 626	Halfway Road	Major Collector
SR 628*	Blantyre Road	Major Collector
SR 643	Meetze Road	Major Collector
SR 647*	Crest Hill Road	Major Collector
SR 649*	Germantown Road	Major Collector
SR 651*	Freemans Ford Road	Major Collector
	Sumerduck Road	
SR 656	Remington Road	Major Collector

ROAD ID	Street Name	CLASSIFICATION
SR 667*	Old Dumfries Road	Major Collector
SR 676	Riley Road	Major Collector
SR 678	Old Waterloo Road	Major Collector
SR 687	Opal Road	Major Collector
SR 688*	Leeds Manor Road	Major Collector
SR 690	Bear Wallow Road	Major Collector
SR 709	Zulla Road	Major Collector
	Belvoir Road	
SR 710	Rectortown Road	Major Collector
SR 713	Atoka Road	Major Collector
SR 721	Free State Road	Major Collector
SR 738	Wilson Road	Major Collector
SR 802	Springs Road	Major Collector
SR 806	Elk Run Road	Major Collector
SR 1207	James Madison Street	Major Collector
SR 601	Hopewell Road	Minor Collector
SR 602*	Rogues Road	Minor Collector
SR 603	Bastable Mill Road	Minor Collector
SR 610*	Aquia Road	Minor Collector
SR 610*	Midland Road	Minor Collector
SR 612	Tacketts Mill Road	Minor Collector
SR 614	Elk Ridge Road	Minor Collector
SR 616	Beach Road	Minor Collector
SR 628*	Blantyre Road	Minor Collector
	Trapp Branch Road	
SR 634	Courtneys Corner Road	Minor Collector
SR 635*	Hume Road	Minor Collector
SR 637	Courtneys Corner Road	Minor Collector
SR 644	Ritchie Road	Minor Collector
SR 647*	Crest Hill Road	Minor Collector
SR 649*	Germantown Road	Minor Collector
SR 651*	Sumerduck Road	Minor Collector
SR 661	Schoolhouse Road	Minor Collector
SR 663	Balls Mill Road	Minor Collector
SR 667*	Old Dumfries Road	Minor Collector
SR 670	Old Auburn Road	Minor Collector
	Taylor Road	
SR 672*	Blackwell Road	Minor Collector
SR 688*	Leeds Manor Road	Minor Collector
SR 710	Rectortown Road	Minor Collector
SR 712	Delaplane Grade Road	Minor Collector
SR 713	Maidstone Road	Minor Collector
SR 805	Schoolhouse Road	Minor Collector

Note: Local roads not included. Refer to Figure 10.12 for roadway classification.

The following design policies for roads outline the roadway characteristic envisioned by the county. All public roads should conform to VDOT's most current Road Design Manual standards. In situations where the Comprehensive Plan and Road Design Manual vary, the more stringent requirements should be met.

1. Interstates:[i] These roads are the highest level of classification within the system and are designated by the Secretary of Transportation. Interstates create high speed travel networks that link major urban areas throughout the country and provide travel through and between states. In order to facilitate safe, high speed travel, these roadways utilize separated travel lanes, limited access points and grade-separate interchanges. Interstate 66 in northern Fauquier is the only interstate within the county, linking Interstate 81 to the west and the Interstate 95 and Interstate 495 corridors around Washington, D.C. to the east. Interstates are federally designed and regulated.

2. Freeway or Expressway:[i] This designation is used for high speed highway corridors that are functionally similar to interstates. Like interstates, these roads feature separated travel lanes and limited access points. They may include a limited number of at-grade intersections. The functional design of these roadways facilitates vehicle mobility rather than access to adjacent land. In Fauquier County, Freeway examples include the bypass sections of U.S. 29/15 adjacent to Remington and U.S. 17 and U.S. 29/15 around Warrenton. These roadway sections move significant traffic volumes through at high speeds.

Design Policies

a. 12' wide travel lanes
b. 4' left and 12' right paved shoulders
c. 50-60 mph typical speed limits
d. Does not provide direct access to adjacent land parcels
e. Pedestrian access is prohibited; pedestrian and bike crossings may be possible only at specific locations

Figure 10.13: Typical section of a Freeway/Expressway

i see footnote on page 33

3. Principal Arterials:[i] These roads connect major development areas while providing a high level of mobility. Unlike Freeways/Expressways, Arterials also serve adjacent land uses. Access points may include at-grade intersections and some driveways to individual parcels. However, intersections and access points are carefully spaced to minimize conflicts and facilitate efficient traffic flows. Larger urban areas are typically served by multiple arterials, as evident with the Town of Warrenton, which has multiple Principal Arterials radiating outward. These include U.S. 29/15, U.S. 17 and U.S. 211.

Design Policies

a. 12’ wide travel lanes

b. 4’ left and 8’ right paved shoulders

c. 30-60 mph typical speed limit in urban zones; 50-60 mph in rural zones

d. No on-street parking permitted

e. Pedestrian access should be excluded, with the exception of urban areas that utilize strategically placed signalized intersections or pedestrian/bike paths separated from the road corridor by vegetated buffer

f. Access points should be limited by number, spacing and location. Control over access should be managed by shared entry points, service, and internal access roads

g. Recommended street crossover intervals of 1,300’ for signalized intersections and 1,000’ for non-signalized intersections

h. Private entrances should be a minimum of 500’ from crossovers

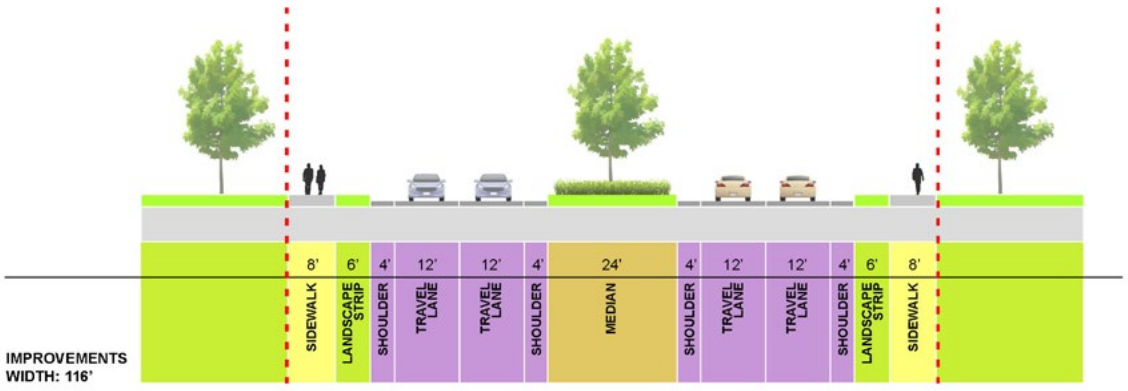

Figure 10.14: Typical section of an Urban Principal Arterial

i see footnote on page 33

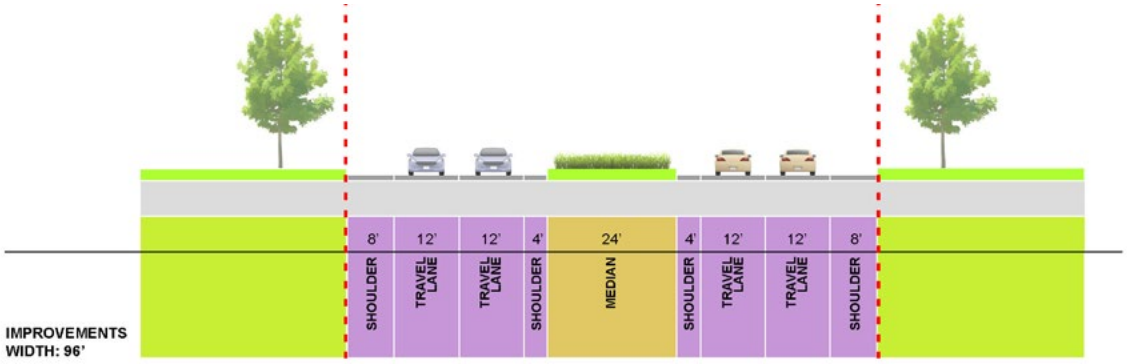

Figure 10.15: Typical section of a Rural Principal Arterial

4. Minor Arterials:[i] These arterials provide a similar function to their primary counterparts, albeit with typically shorter trip lengths and/or service to smaller towns. Within urban areas, Minor Arterials provide support by connecting to higher level arterials, as is the case with sections of U.S. 29 Business and U.S. 15 Business in Warrenton. Within rural areas, they provide relatively high speed travel with minimal interference (few intersections, crossings, etc.).

Design Policies

a. 11-12' wide travel lanes

b. 4' left and 8' right paved shoulders, with the option of curb/gutter construction in urban areas

c. 30-45 mph typical speed limit in urban areas; 45-55 mph speed limits in rural areas

d. As with higher level arterials, access points should be managed by shared entry points, service, and internal access roads

e. Recommended street crossover intervals of 1,000' for signalized intersections and 800' without signals

f. Private entrances should be at least 500' from crossovers

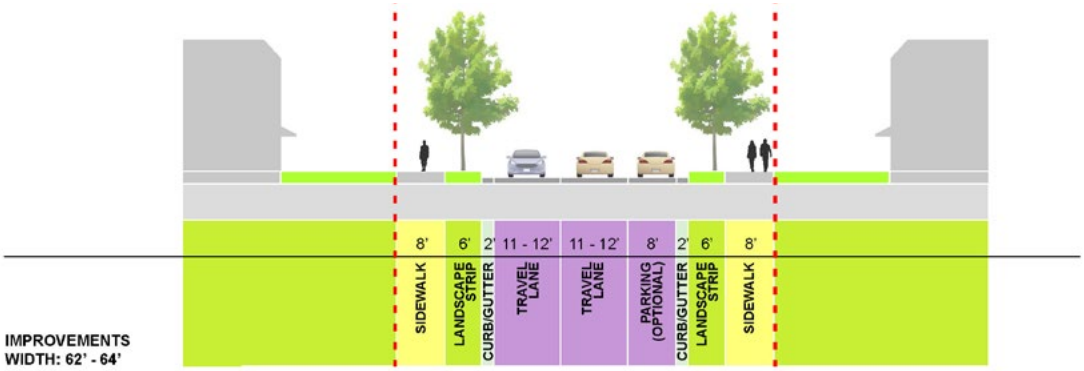

Figure 10.16: Typical section of an Urban Minor Arterial

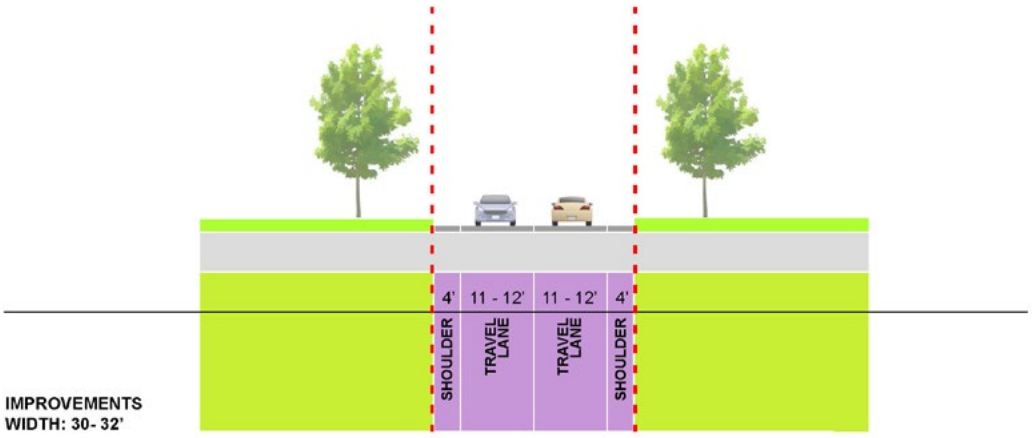

Figure 10.17: Typical section of a Rural Minor Arterial

5. Major Collectors:[i] These roads gather traffic from local roads and connect them to the arterial network. They are designed for shorter distance travel than arterial routes. They provide important intra-county travel routes, connecting towns, residential zones and other areas of county importance such as parks and schools. Differences between Major and Minor collectors may be subtle. Major Collectors generally handle higher traffic volumes, are longer and feature fewer connection points (such as intersections and driveways). Major Collectors occasionally penetrate residential neighborhoods for greater distances than their minor counterparts.

Design Policies: Urban Zones

a. 10-12’ wide travel lanes
b. Curb and gutter construction recommended
c. 30-45 mph typical speed limits
d. On-street parking generally prohibited (excepting certain urban locations)
e. Sidewalks should be provided to facilitate pedestrian access to commercial, retail, civic and other residential uses
f. Individual lot access should be carefully reviewed to minimize conflict points

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i see footnote on page 33

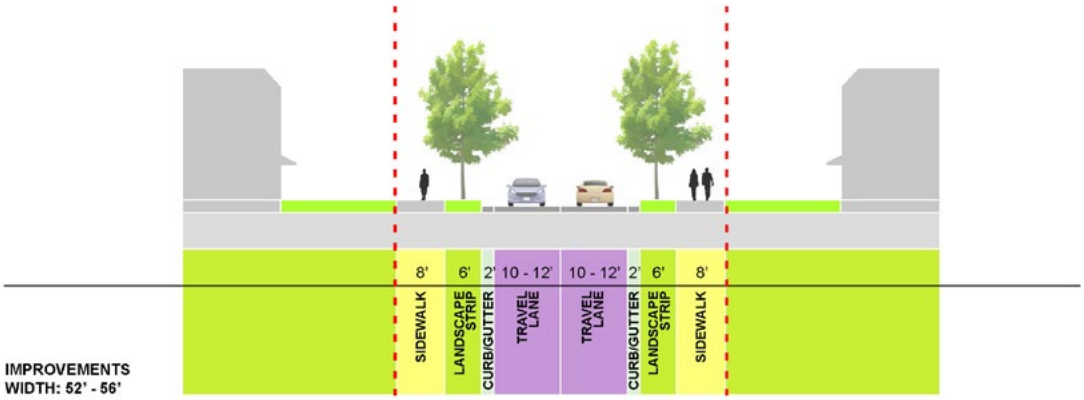

Figure 10.18: Typical section of an Urban Major Collector

Design Policies: Rural Zones

a. 10-12' wide travel lanes

b. 2-8' cut/fill shoulders

c. 40-55 mph typical speed limit

d. On-street parking prohibited

e. Entrance controls should be utilized, including turn lanes, traffic signs and signals, combined access points and internal roads

f. Individual lot access should be carefully reviewed to minimize conflict points

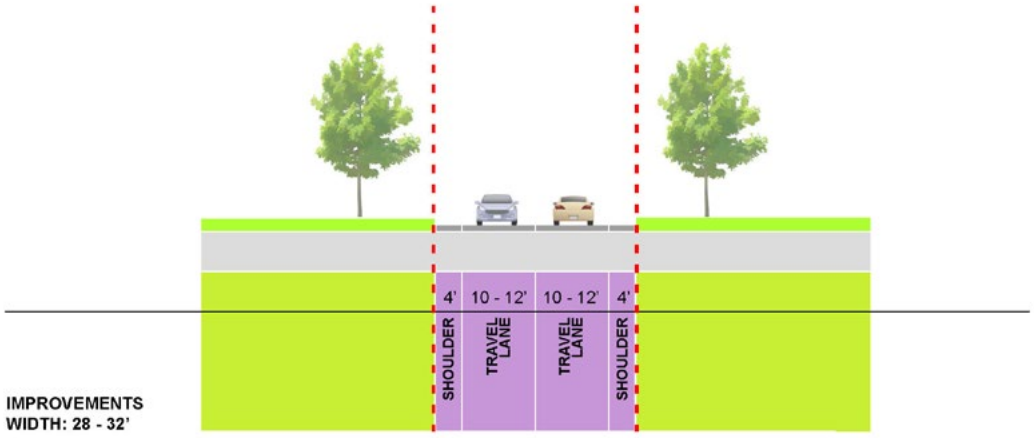

Figure 10.19: Typical section of a Rural Major Collector

6. Minor Collectors:[i] As mentioned previously, Minor Collectors provide functionally similar services to Major Collectors. Travel routes for Minor Collectors tend to be shorter and a generally higher emphasis is placed upon access (more frequent intersections and more parcel driveways). Also, Minor Collectors typically penetrate residential zones for shorter distances.

Design Polices: Urban Zones

a. 10-12’ wide travel lanes
b. Curb and gutter construction recommended
c. 25-50 mph typical speed limits
d. On-street parking prohibited
e. Sidewalks should be provided to facilitate pedestrian access to commercial, retail, civic and other residential uses
f. Individual lot access should be carefully reviewed to minimize conflict points

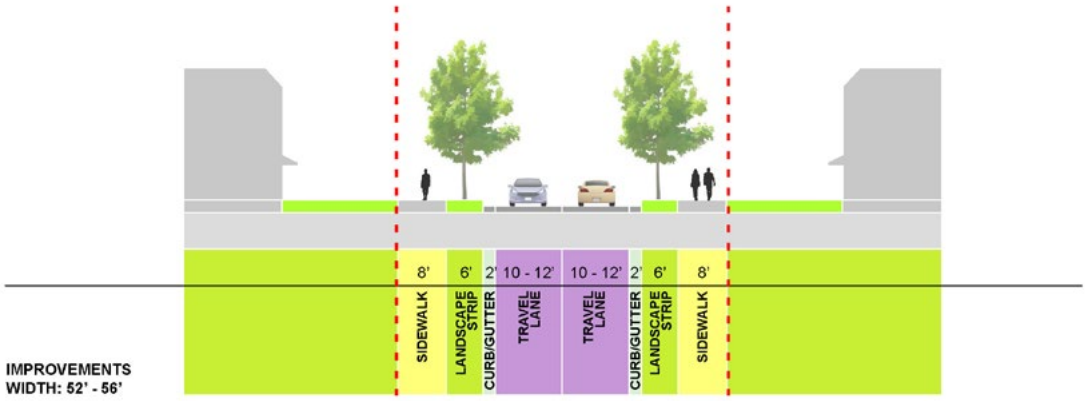

Figure 10.20: Typical section of an Urban Minor Collector

Design Polices: Rural Zones

a. 10-12’ wide travel lanes
b. 2-8’ cut/fill shoulders
c. 25-45 mph typical speed limits
d. Direct access should be limited where possible, except in villages and other settlement areas
e. Limit street access points where possible

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i see footnote on page 33

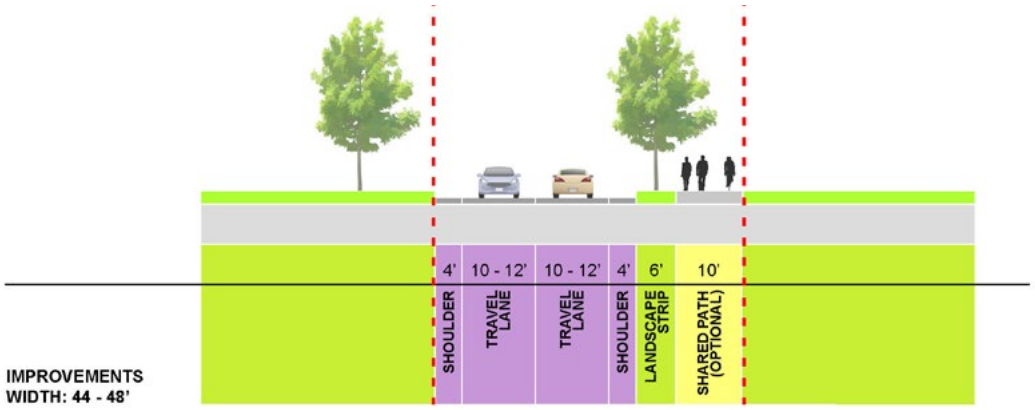

Figure 10.21: Typical section of a Rural Minor Collector

7. Local Roads:[i] These roads comprise the largest percentage of roadways within the entire road classification network. They are designed for access and are thus often the point of departure or destination for vehicle trips. Given the emphasis upon access rather than mobility, Local Roads tend to have lower operating speeds and higher frequencies of intersections and driveways. Through traffic should be discouraged.

Design Policies: Urban Zones

a. 10-12’ wide travel lanes, 10’ travel lanes are preferable on residential streets but require a 2’-6” curb and gutter to meet the minimum VDOT requirements for parking on one side of the street

b. curb and gutter construction recommended

c. 25-35 mph typical speed limit

d. On-street parking, only on one side of the street

e. Sidewalks should be included

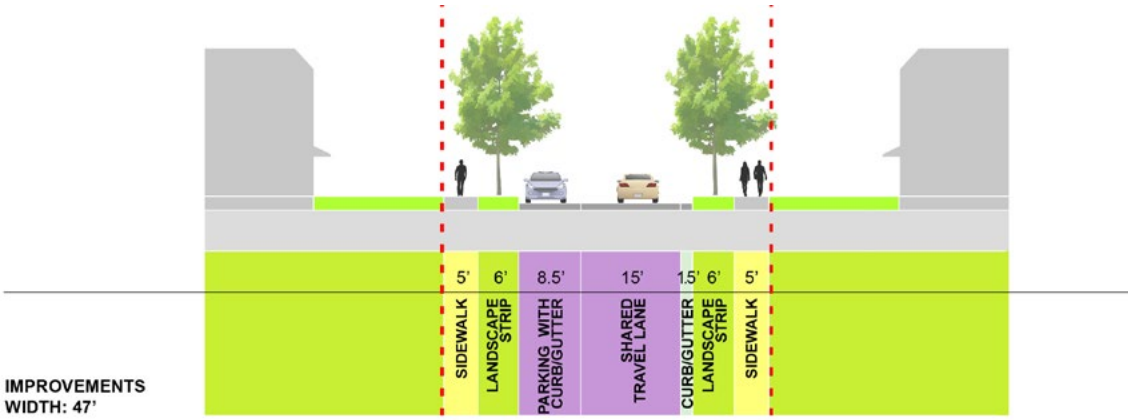

Figure 10.22: Typical section of an Urban Local Road

Design Policies: Rural Zones

a. 10-12’ wide travel lanes, 10’ travel lanes are preferable on residential streets but require 29’ from edge of shoulder to edge of shoulder to meet the minimum VDOT requirements for parking on one side of the street

b. 3-5’ cut/fill shoulders

c. 25-45 mph typical speed limits

d. On-street parking allowed, only on one side of the street

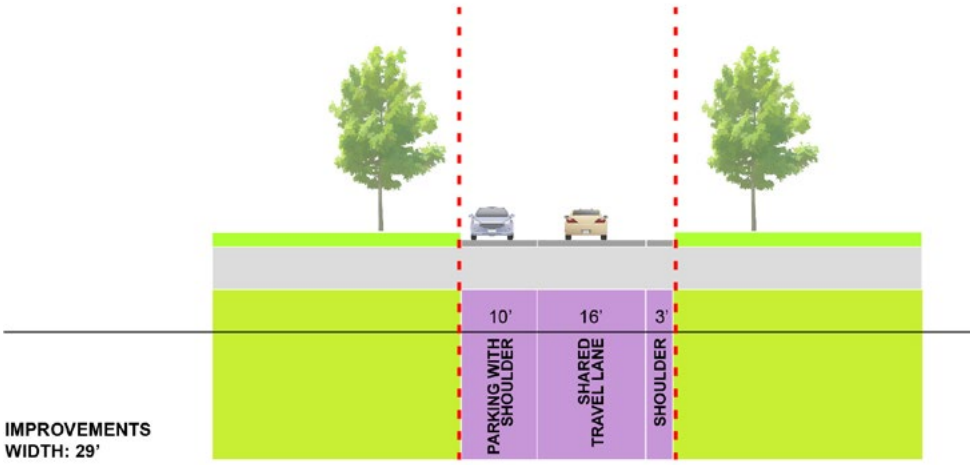

Figure 10.23: Typical section of a Rural Local Road

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i At the time the update to the Transportation Chapter of the Comprehensive Plan was drafted, the following classifications in the Comprehensive Plan are the equivalent of the following classifications in the Subdivision Ordinance and Zoning Ordinance. Upon adoption of revisions to the Subdivision Ordinance and Zoning Ordinance that adopt one standard terminology for streets, this end note can be deleted.

Comprehensive Plan Classification	***Subdivision/Zoning Ordinance Classification***
Interstate	*Interstate/Freeway Street*
Freeway or Expressway	*Freeway*
Principal Arterial	*Arterial Highway*
Minor Arterial	*Major Thoroughfare*
Major Collector	*Major Collector*
Minor Collector	*Local Collector*
Local Road	*Local Street*

Thoroughfare Plan

A Thoroughfare Plan provides a functional hierarchy of major streets that permits travel between two locations with directness, ease and safety. The Thoroughfare Plan is not a promise to build roads. An imminent need for the road must occur and funding secured before the road can be built. When funding is secured for a road corridor, a more thorough study will occur, including environmental coordination and final road alignment.

A Thoroughfare Plan is a planning tool designed to:

- Provide for the orderly development of an adequate major street system as land development occurs or as traffic increases;
- Reduce travel and transportation costs;
- Reduce the costs of major street improvements, mainly through coordination with private action;
- Enable private interests to plan their actions, improvements, and development with full knowledge of public intent;
- Minimize the disruption of people and business. Development can be prohibited in a road corridor, saving future disruption; and,
- Reduce environmental impacts on air-quality, wetlands, historic sites, parks and other publicly used recreational areas, archeological sites, endangered species, and neighborhoods.

Fauquier County's Thoroughfare Plan is based on individual Service District Plans as well as traffic modeling and safety data. The Service District Plans were developed through individual Citizen Planning Committees. Refer to Chapter 6 for the detailed transportation elements and recommendations regarding each Service District. This section provides key links within these districts (Bealeton, Calverton, Catlett, Marshall, Midland, New Baltimore, Opal, Remington, and Warrenton). A travel demand model was developed for the County in 2014 for eight of the nine service districts. VDOT's statewide model of the primary roads supplements missing sections in the county's model. The model projects future demand on existing and proposed roads based on where growth is expected. This information is then mapped in GIS to determine which road segments will be failing or over capacity in year 2040. Throughout the year, VDOT receives listings of road intersections and segments with high crash and fatality ratings. The road segments and intersections are prioritized based on their fatality and injury (FI) rate and potential for safety improvement (PSI).

The Thoroughfare Plan is composed of maps and tables identifying the location and type of improvement for road segments and intersections. The projects included in Tables 10.3 and 10.4 are listed in no particular order. The ID column corresponds to labels for each project on the map to identify the project's location. A series of eight maps is provided: an overall map of the county illustrating all of the projects listed (Map 10.5); the northern, central, and southern sections of the county (Maps 10.6 through 10.8); and four enlargements of areas that cannot be clearly labeled in the previous three maps (Maps 10.9 through 10.12). Note that enlargements are not included based on every service district, rather to clearly display dense road improvements in various areas of the county. Each map organizes the roads in accordance with their functional classification (Freeway, Principal arterial, Minor arterial, Major collector or Minor collector, and Local street) and illustrates the specific actions or improvements.

Bealeton–Opal–Remington Service Districts and the Catlett–Calverton–Midland Village Service Districts Maps 10.8, 10.11 and 10.12 represent the adopted transportation elements of the Comprehensive Plan for Southern Fauquier County, including the safety improvements for specified intersections along the length of Route 28 in Catlett, Calverton, Midland and Bealeton Service Districts.

More technical study is needed to determine how to upgrade existing U.S. 29/15 extending from Warrenton through Opal to Culpeper County as a rural freeway with interchanges or alternative intersections replacing traffic signals. More attention is also needed on the part of VDOT and the County to separate the conflicts created by mixing high volumes of regional through and local traffic using creative access management along rural freeway corridors. These long-term road improvements need to be reflected in the County's priorities for VDOT's SSYP as well as its Primary Road Priorities, included in Appendix V. As traffic increases on U.S. 29/15/17 north of Opal, VDOT must consider capacity improvements to coincide with the U.S. 17 connector partial interchange. To facilitate this, improvements outlined in the Opal and Bealeton service district plans should be implemented.

Roadway and bicycle/pedestrian improvements would deliver a future mobility strategy that actually separates local and regional (through) traffic. This mobility strategy could enable quality communities and permit safer and efficient pedestrian, bicycle and transit movements within and between the Service Districts. The plan would expand airport access, supporting the facility's role in Fauquier County's economy.

Figure 10.24: Fauquier County Thoroughfare Plan

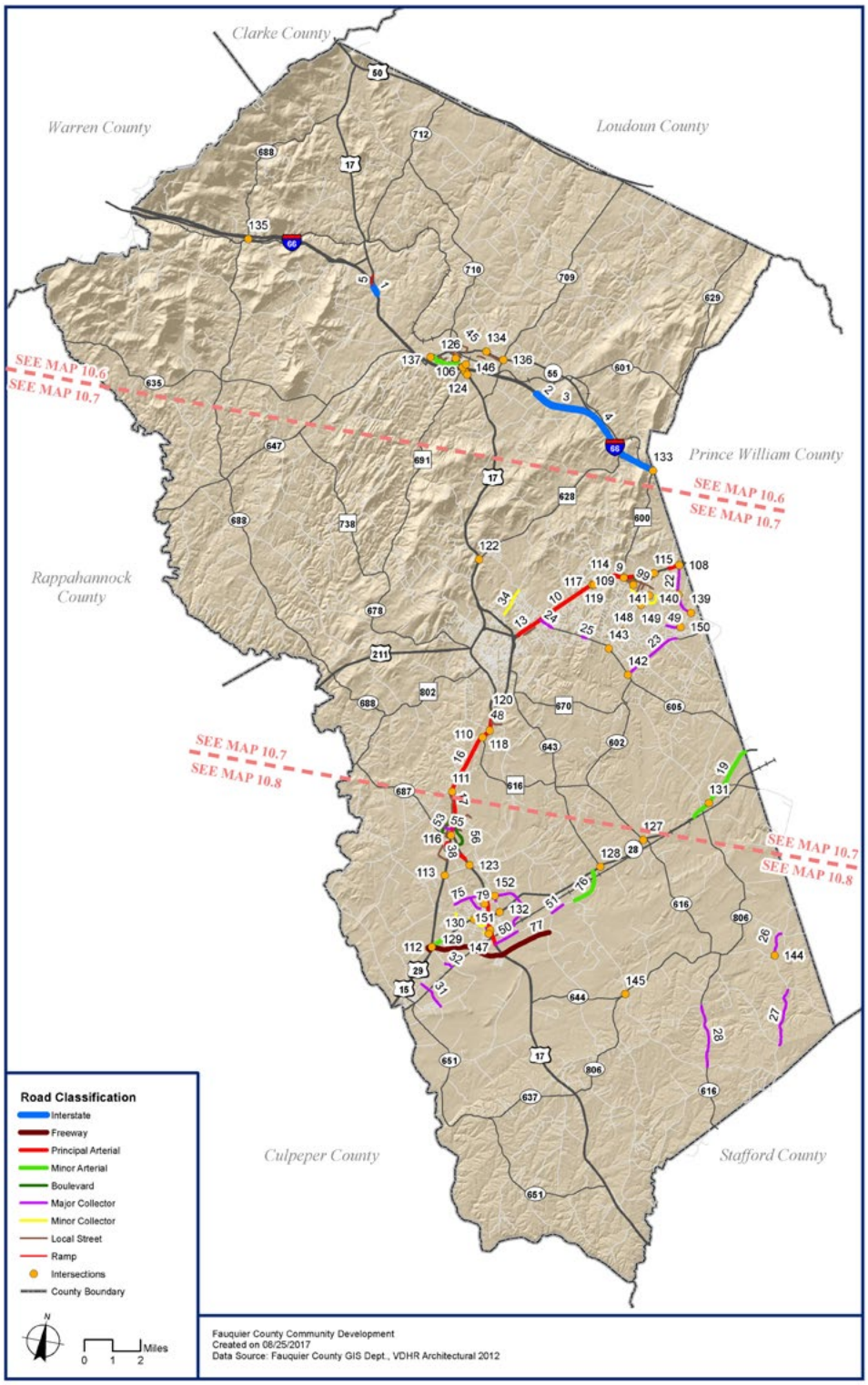

Figure 10.25: Northern Fauquier County Thoroughfare Plan

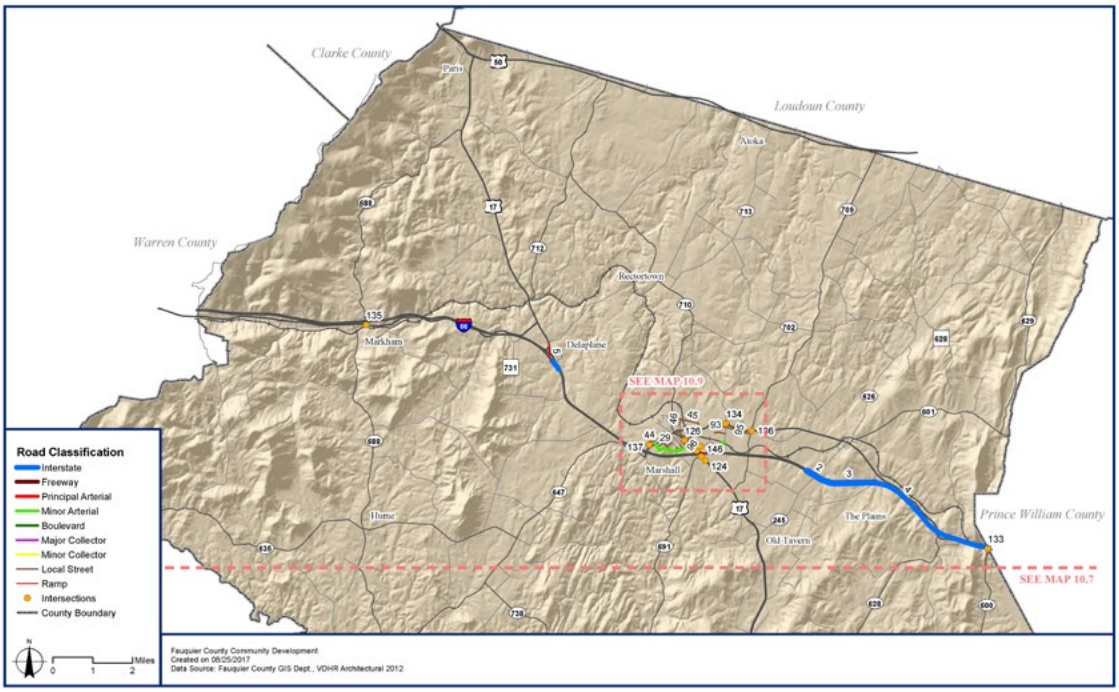

Figure 10.26: Central Fauquier County Thoroughfare Plan

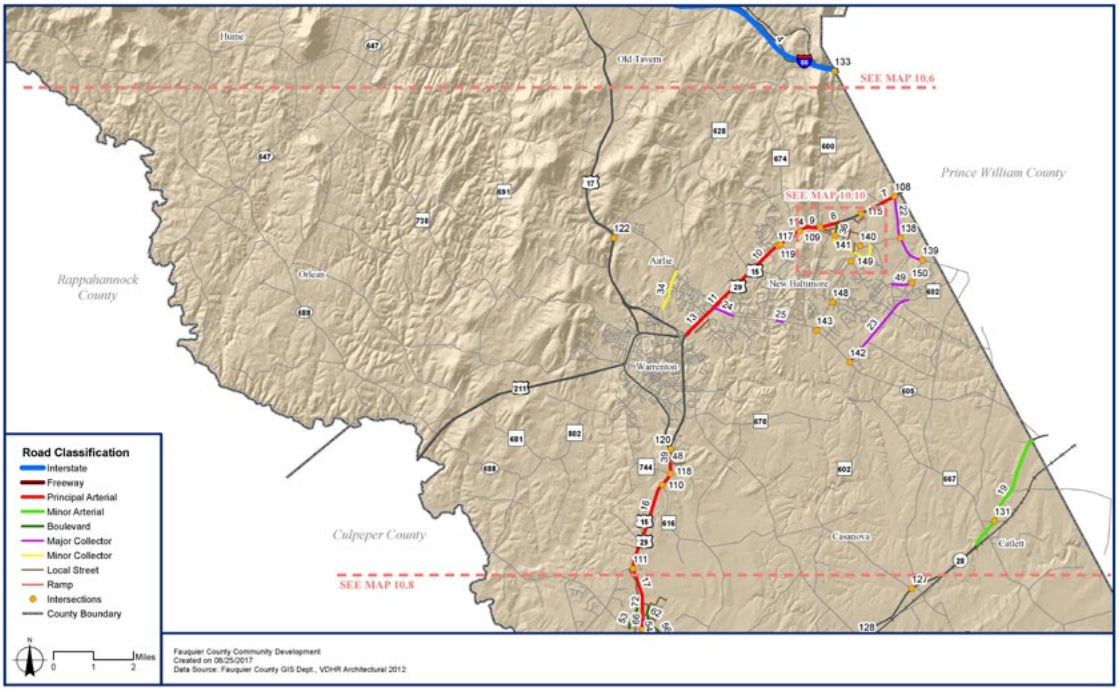

Figure 10.27: Southern Fauquier County Thoroughfare Plan

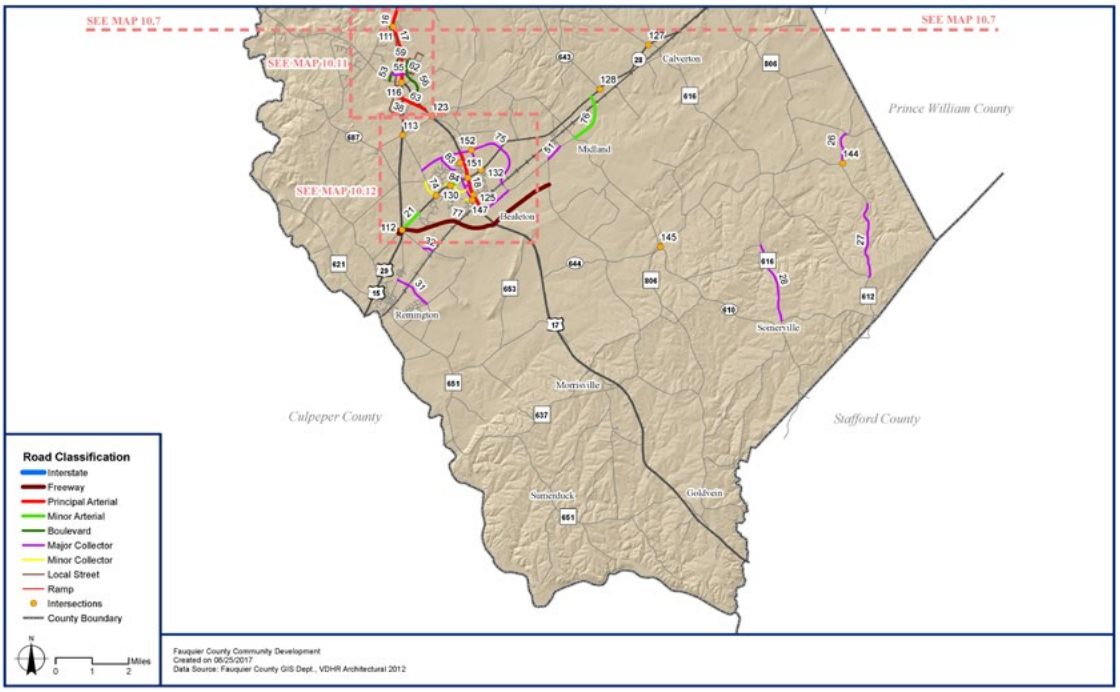

Figure 10.28: Marshall Thoroughfare Plan Enlargement

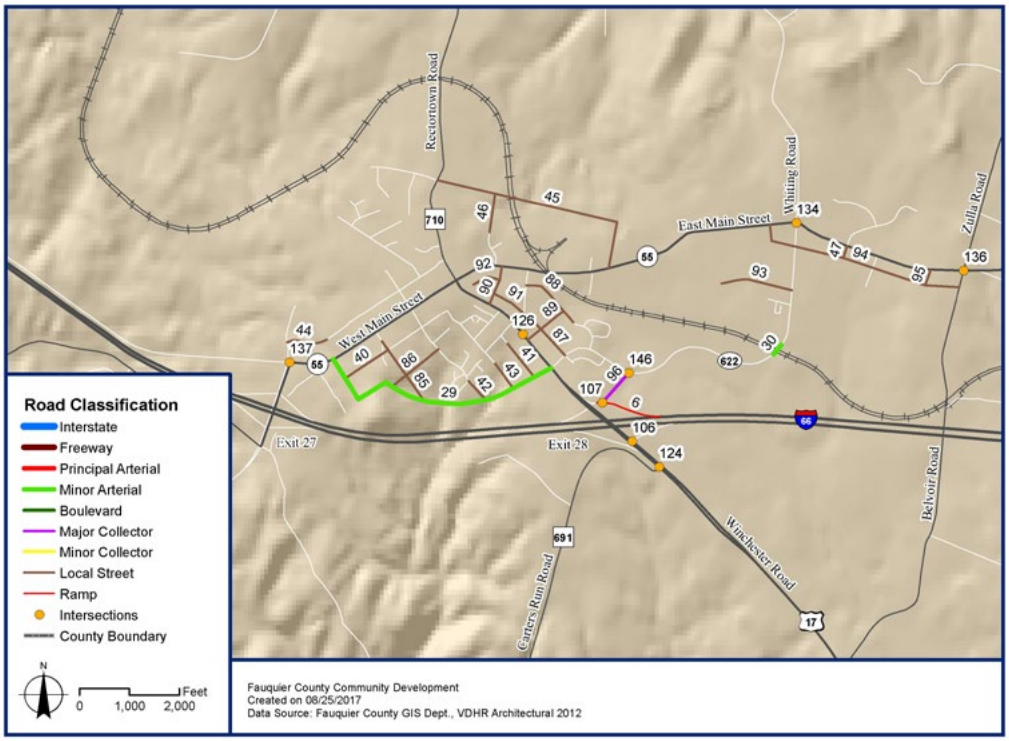

Figure 10.29: New Baltimore Thoroughfare Plan Enlargement

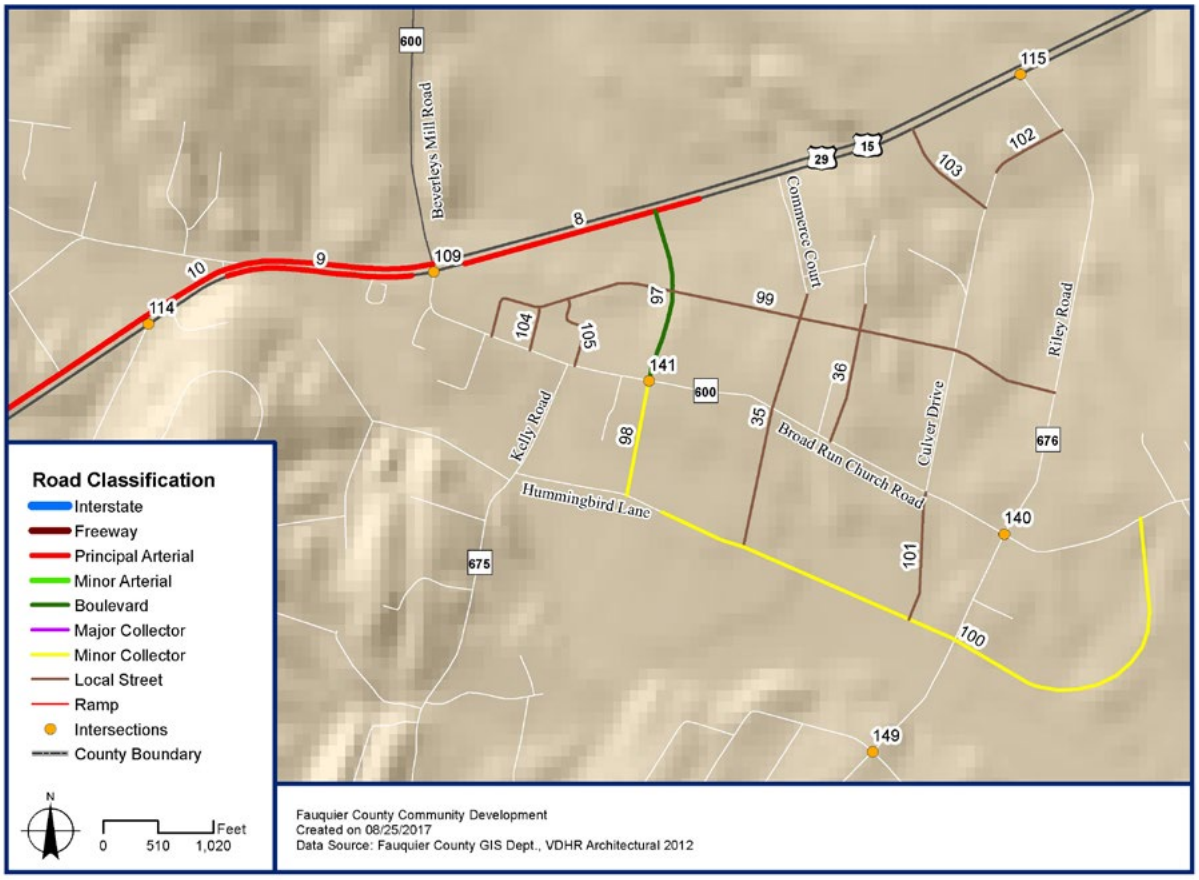

Figure 10.30: Opal Thoroughfare Plan Enlargement

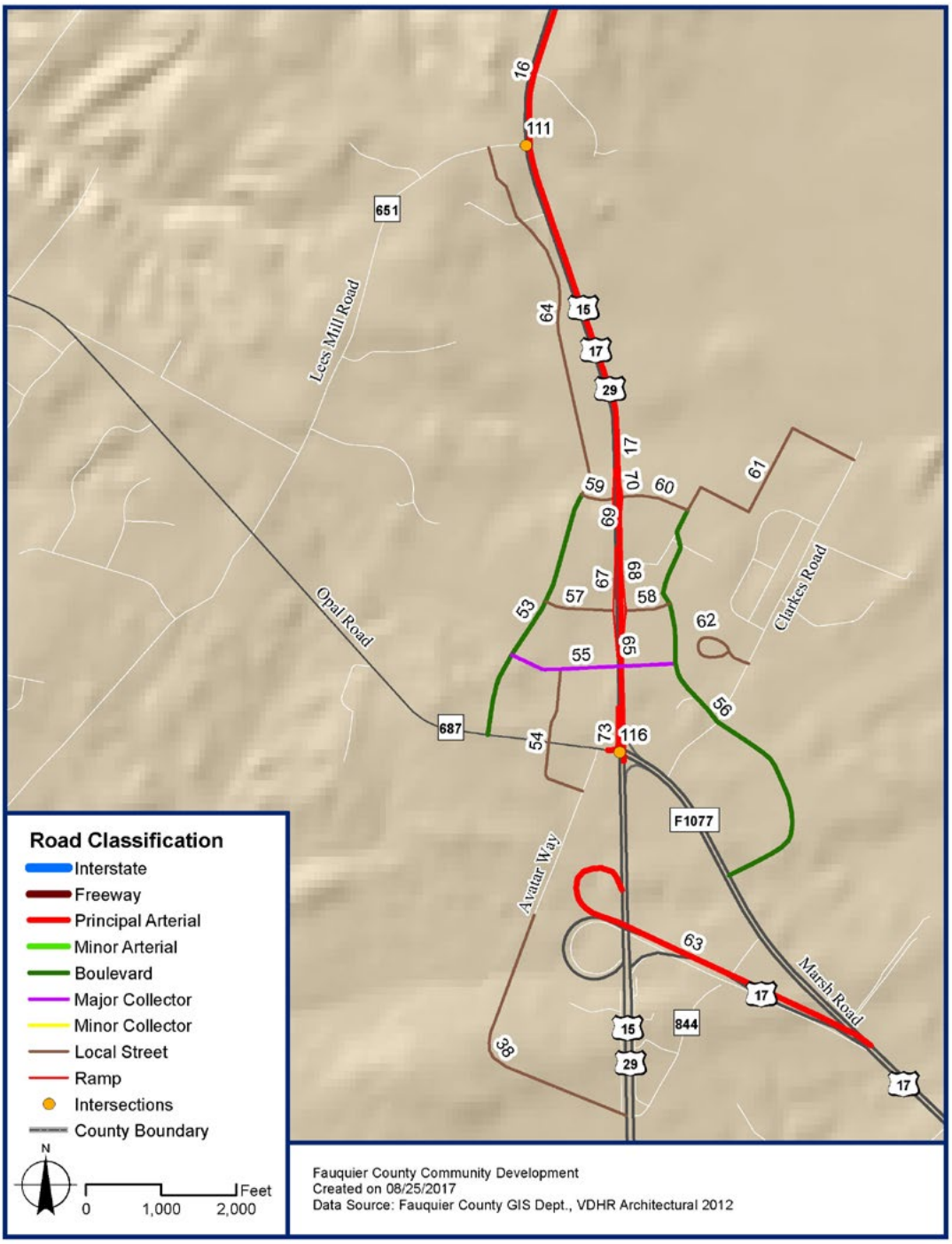

Figure 10.31: Bealeton Thoroughfare Plan Enlargement

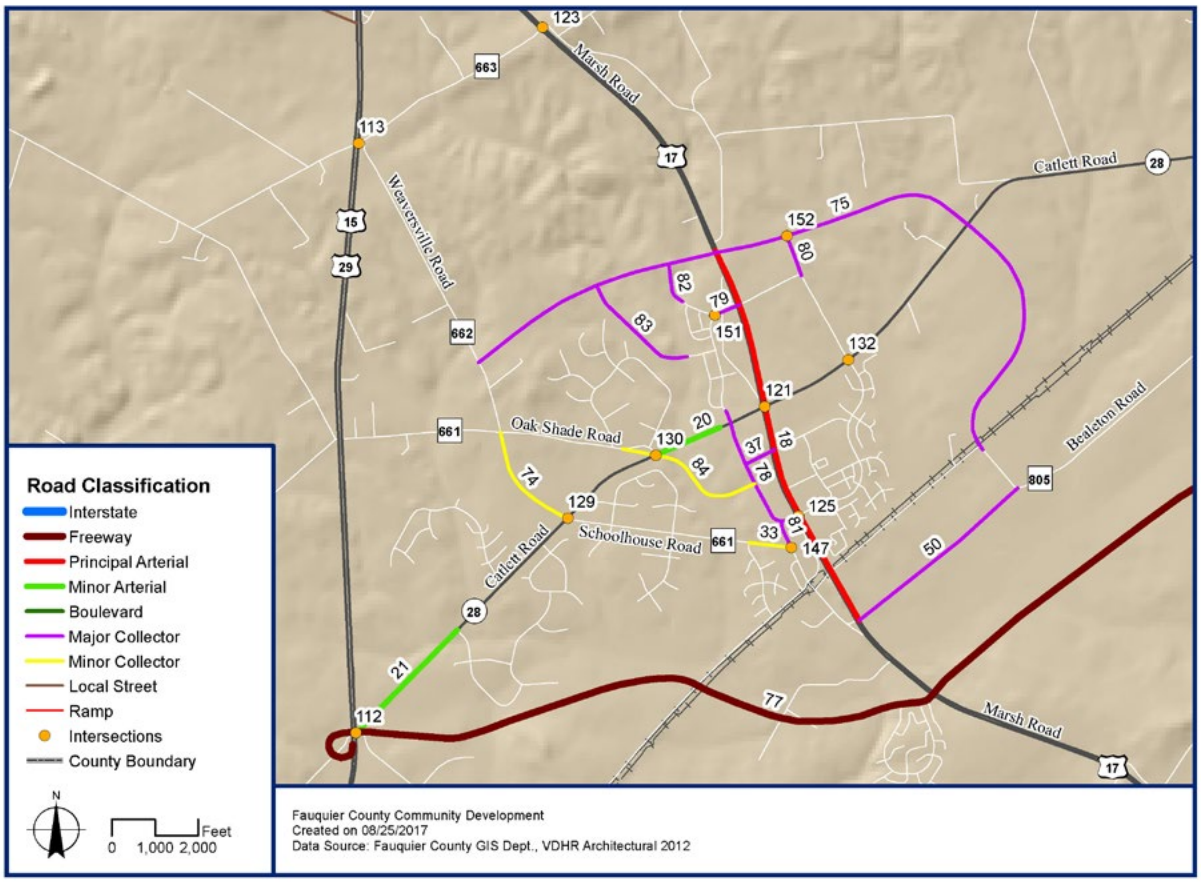

Table 10.3: Combined List of Road Segments for Thoroughfare Plan

Project	Rt.	ID	Map	Project Location				Lane #		Improvement Description	Road Class	Length (mi.)		AADT		Service Level	
				From	Rt.	To	Rt.	2014	2040			2014	2040	2014	2040	2014	2040
Interstate 66 (EB)[a, f]	66	1	10.6	MP 23.83	66	MP 24.12	66			Safety/Operational	Interstate	0.29	0.29	4,560	6,360	A	A
Interstate 66 (WB[a, f]	66	2	10.6	MP 31.73	66	MP 32.07	66	2	2	Safety/Operational	Interstate	0.34	0.34	33,440	42,950	F	F
Interstate 66 (WB)[a, f]	66	3	10.6	MP 32.07	66	MP 33.48	66	2	2	Safety/Operational	Interstate	1.41	1.41	33,440	42,950	F	F
Interstate 66 (EB)[d, f]	66	4	10.6	MP 31.73	66	Prince William Co. line	66	2	2	Safety/Operational	Interstate	5.04	5.04	4,680	6,653	A	A
Interstate 66 Ramp, Exit 23[c, d, e]	66 Ramp	5	10.6	Route 17 SB	17	I-66 eastbound	66	1	1	Extend accel. Ln from Rt 17 SB to I-66 EB	Ramp	0.37	0.37	4,200	N/A	B	N/A
Interstate 66 Ramp, Exit 28[c, d, e]	66 Ramp	6	10.9	Interstate 66 WB	66	Winchester Road	17	1	1	Interchange impr., incl. realign WB off-ramp & roundabouts	Ramp	0.25	0.25	1,800	N/A	A	N/A
US 29 (NB)[a, b, c]	15/29	7	10.7	Pilgrims Rest Rd E	625	Vint Hill Road	215	2	2	Safety/Operational	Principal Arterial	0.36	0.36	12,425	16,554	C	D
US 29 (NB)[a, b]	15/29	8	10.10	Broad Run Church Rd	600	.48 mi. N of Broad Run Church Rd		2	2	Safety/Operational	Principal Arterial	0.48	0.48	9,731	12,427	B	C
US 29 (NB)[a, b]	15/29	9	10.10	Old Alexandria Tpk	693	Broad Run Ch. Rd	600	2	2	Safety/Operational	Principal Arterial	0.36	0.36	9,460	11,626	B	B
US 29 (SB)[b, d]	15/29	10	10.7	Colonial Rd	605	Beverleys Mill Rd	600	2	2	Safety/Operational	Principal Arterial	3.43	3.43	21,555	27,927	E	F
US 29 (NB)[a]	15/29	11	10.7	Dumfries Rd	605	Airlie Rd		2	2	Safety/Operational	Principal Arterial	0.26	0.26	11,953	12,210	B	C
US 29 (NB)[a]	15/29	12	10.7	Nordix Dr	1405	Dumfries Rd	605	3	3	Safety/Operational	Principal Arterial	0.29	0.29	20,275	20,086	C	C
US 29 (NB)[d]	15/29	13	10.7	Warrenton Town Limit.		Nordix Dr	1405	3	3	Safety/Operational	Principal Arterial	0.65	0.65	22,134	21,231	C	C
US 29 Ramp (NB)[d]	15/29	14	10.7	Warrenton Town Limit.		US 29 NB	29	1	1	Safety/Operational	Ramp	0.32	0.32	N/A	13,009	N/A	E
US 29 Ramp (SB)[d]	15/17/29	15	10.7	James Mad. Hwy	15/17/29	US 29 SB	29	1	1	Safety/Operational	Ramp	0.19	0.19	N/A	4,229	N/A	F
US 29 (NB)[b, d]	15/17/29	16	10.7	Lees Mill Rd	651	Lord Fairfax Dr	880	2	2	Safety/Operational	Principal Arterial	3.20	3.20	10,372	18,644	B	D
US 29[a, b]	15/17/29	17	10.7 10.11"	Opal Rd	687	Lees Mill Rd	651	4	4	Safety/Operational	Principal Arterial	1.59	1.59	27,586	31,141	C	D
US 17[b, c]	17	18	10.12	Old Marsh Rd	837	Bealeton Rd	805	2	2	Rt 17 to function as Blvd thru Bealeton	Principal Arterial	1.75	1.75	11,680	11,651	B	B
Route 28[a, d]	28	19	10.7	Old Catlett Rd	818	Prince William Co. line		2	2	Safety/Operational	Minor Arterial	2.97	2.97	14,422	20,382	D	F
Route 28 [d]	28	20	10.12	Oak Shade Rd	661	Proposed Rd		2	2	Safety/Operational	Minor Arterial	0.30	0.30	13,122	20,150	D	F
Route 28[a, b]	28	21	10.12	US 15/29	15/29	Whipkey Dr		2	2	Safety/Operational	Minor Arterial	0.59	0.59	7,918	11,632	B	C
Vint Hill Rd [b, c, d]	215	22	10.7	US 15/29	15/29	Vint Hill Pkwy	1365	2	2	Safety/Operational	Major Collector	2.29	2.29	10,074	16,077	B	D
Rogues Rd[a, c, d]	602	23	10.7	Dumfries Rd	605	Farm Station		2	2	Safety/Operational	Major Collector	2.18	2.18	4,183	9,788	A	C
Dumfries Rd[d]	605	24	10.7	US 15/29	15/29	Bayfield Ln		2	2	Safety/Operational	Major Collector	0.51	0.51	12,834	14,115	D	D
Dumfries Rd[c]	605	25	10.7	Fincham and Linden Courts	1400	Marigold Ln	1407	2	2	Safety Improvements	Major Collector	0.16	0.16	7,086	7,403	B	B
Brent Town Rd[a, d, f]	612	26	10.8	Courthouse Rd	609	Sowego Rd	611	2	2	Safety/Operational	Major Collector	0.90	0.90	5,098	9,382	B	E
Brent Town Rd[a, f]	612	27	10.8	Cromwell Rd	639	MCB 3		2	2	Safety/Operational	Major Collector	2.09	2.09	4,029	6,939	B	C
Bristersburg Rd	616	28	10.8	Aquia Rd	610	Courtney Sch Rd	637	2	2	Safety/Operational	Major Collector	2.21	2.21	1,600	N/A	A	N/A
Extend Whiting Rd[c]	622	29	10.9	Winchester Rd	17	West Main St	55	0	2	Extd. Whiting Rd (Rt 622) pvmt end to W Main St (Rt 55)	Minor Arterial	0.00	0.98	N/A	N/A	N/A	N/A
Whiting Rd RR crossing[c]	622	30	10.9	0.45 mi. S of Rt 55	622	0.51 mi. S of Rt 55	622	0	2	Construct at grade RR cross for Whiting Rd	Minor Arterial	0.00	0.98	N/A	N/A	N/A	N/A
Extend Strodes Mill Rd[c]	654	31	10.8	Lucky Hill Rd	655	James Madison St	1207	0	2	Connect Strodes Mill Rd (Rt 654) to James Madison St (Rt 1207)	Major Collector	0.00	1.02	N/A	2,518	N/A	A
Realign Lucky Hill Rd[c]	655	32	10.12	Remington Rd	656	Lucky Hill Rd	655	0	2	Realign N sgmt of Lucky Hill Rd to int. at Remington Rd	Major Collector	0.00	0.28	199	133	A	A

Table 10.3: Combined List of Road Segments for Thoroughfare Plan (Continued)

Project	Rt.	ID	Map	Project Location				Lane #		Improvement Description	Road Class	Length (mi.)		AADT		Service Level	
				From	Rt.	To	Rt.	2014	2040			2014	2040	2014	2040	2014	2040
Schoolhouse Rd[c]	661	33	10.12	Meadfield Dr	1060	Torrie Way	1070	2	2	Safety Improvements	Minor Collector	0.25	0.25	1,029	1,300	A	A
Blackwell Rd[a, h]	672	34	10.7	Ivy Hill Dr	1460	Airlie Rd	605	2	2	Safety/Operational	Minor Collector	1.03	1.03	1,300	1,385	A	A
Extend Commerce Ct[c]	856	35	10.10	Existing End of Rd	856	Proposed Ext. of Hummingbird Ln		0	2	Extd. Commerce Ct (Rt 856) S: to prop. ext. of Hummingbird Ln	Local Street	0.00	0.46	N/A	171	N/A	A
Extend Merchant Pl[c]	858	36	10.10	Existing End of Rd	858	Broad Run Church Rd	600	0	2	Extd. Merchant Pl (Rt 858) S: pvmt to Broad Run Ch. Rd (Rt 600)	Local Street	0.00	0.25	N/A	1,218	N/A	A
Extend Village Center Dr[c]	859	37	10.12	Marsh Rd	17	Proposed Rd		0	2	Extd. Village Ctr Dr from Marsh Rd (Rt 17) to Proposed Rd	Major Collector	0.00	0.14	N/A	0	N/A	A
Avatar Way[c]	868	38	10.11	Fayettesville Rd	844	Proposed Dead End south of Opal Rd		0	2	End Avatar Way S of Opal Rd & extd. Avatar Way S/E to J. Madison Hwy (Rt 15/29)	Local Street	0.00	1.16	N/A	7	N/A	A
Lord Fairfax Dr (Rt 880)[d]	880	39	10.7	College St	355	J. MadisonHwy	15/29	2	2	Safety/Operational	Local Street	0.40	0.40	5,914	7,158	C	D
Extend Anderson Ave (Rt 1002)[c]	1002	40	10.9	Existing End of Anderson Ave	1002	Proposed Rd		0	2	Extd. Anderson Ave: end of pvmt to Proposed Rd	Local Street	0.00	0.20	N/A	N/A	N/A	N/A
Extend Moseby St (Rt 1002)[c]	1002	41	10.9	Existing End of Moseby St	1002	Proposed Rd		0	2	Extd. Moseby St (Rt 1002) pvmt to Prop. Rd	Local Street	0.00	0.16	N/A	N/A	N/A	N/A
Extend Frost St (Rt 1003)[c]	1003	42	10.9	Existing End of Frost St	1003	Proposed Rd		0	2	Extd. Frost St (Rt 1003) pvmt to Proposed Rd	Local Street	0.00	0.10	N/A	N/A	N/A	N/A
Extend Warren St (Rt 1004)[c]	1004	43	10.9	Renalds Ave	1005	Proposed Rd		0	2	Extd. Warren St (Rt 1004): Renalds Ave (Rt 1005) to Proposed Rd	Local Street	0.00	0.17	N/A	N/A	N/A	N/A
Extend Salem Ave (Rt 1006)[c]	1006	44	10.9	Existing End of Salem Ave	1006	Cunningham Farm Dr		0	2	Extd. Salem Ave (Rt 1006): pvmt to Cuningham Farm Dr	Local Street	0.00	0.33	N/A	N/A	N/A	N/A
Extend Mountainview Ave (Rt 1008)c	1008	45	10.9	Rectortown Rd	710	East Main St	55	0	2	Extd. Mtnview Ave (Rt 1008) Rectortown Rd (Rt 710) to E Main St (Rt 55)	Local Street	0.00	0.88	N/A	N/A	N/A	N/A
Extend Melody Ln (Rt 1010)[c]	1010	46	10.9	Existing End of Melody Lane	1010	Proposed Rd		0	2	Extd. Melody Ln (Rt 1010) pvmt N to Proposed Rd	Local Street	0.00	0.15	N/A	N/A	N/A	N/A
Extend Monroe Pkwy (Rt 1140)[c]	1140	47	10.9	John Marshall Hwy	55	Proposed Rd		0	2	Extd. Monroe Pkwy (Rt 1140) S from J. Marshall Hwy (Rt 55) to Proposed Rd	Local Street	0.00	0.05	N/A	N/A	N/A	N/A
College St (Rt 1355)[d]	1355	48	10.7	Lord Fairfax CC		Lord Fairfax Dr	880	2	2	Safety/Operational	Local Street	0.42	0.42	5,914	7,158	C	D
Vint Hill Pkwy	1365	49	10.7	Brookside Pkwy/ Kennedy Rd	652	Vint Hill Rd	215	0	2-4	Complete constr. of 2 lane pkwy to Rt 215	Major Collector	0.00	0.49	N/A	2,532	N/A	A
"Parallel connector Rd: Warrenton/Fauquier Airport to Rt 17c"		50	10.12	Marsh Rd	17	Bealeton Rd	805	0	4	Constr. parallel conn. Rd to Bealeton Rd (Rt 805) airport to Rt 17	Major Collector	0.00	4.87	N/A	713	N/A	A
"Parallel connector Rd: Warrenton/Fauquier Airport to Rt 17c"		51	10.12	Rogues Rd	602	Midland Rd	610	0	4	Constr. parallel conn. Rd to Bealeton Rd (Rt 805) airport to Rt 17	Major Collector	0.00	4.87	N/A	7,769	N/A	B
Rt 15/29 Serv Rd[c]		52	10.7	Comfort Inn Dr	793	Cedar Run Dr	1405	0	2	Constr. serv. Rd parallel to Rt 15/29	Local Street	0.00	0.46	N/A	0	N/A	A
Proposed Road[c]		53	10.11	Opal Rd	687	Proposed Rd		0	4	Constr. Rd parallel to Rt 15/29 in Opal	Boulevard	0.00	0.65	N/A	2,071	N/A	A
Proposed Road[c]		54	10.11	Avatar Way	868	Proposed Rd		0	2	Enhance local Rd network	Local Street	0.00	0.37	N/A	1,238	N/A	A
Proposed Road[c]		55	10.11	Proposed Rd		Proposed Rd		0	4	Connect the E and W sides of Opal bridging over Rte 15/29	Major Collector	0.00	0.48	N/A	1,310	N/A	A

Table 10.3: Combined List of Road Segments for Thoroughfare Plan (Continued)

Project	Rt.	ID	Map	Project Location				Lane #		Improvement Description	Road Class	Length (mi.)		AADT		Service Level	
				From	Rt.	To	Rt.	2014	2040			2014	2040	2014	2040	2014	2040
Proposed Road[c]		56	10.11	Marsh Rd	F1077	Proposed Rd		0-2	4	Construct a road parallel to Route 15/29 in Opal	Boulevard	0.00	1.15	N/A	1,350	N/A	A
Proposed Road[c]		57	10.11	Proposed Rd		Proposed Rd		0	2	Enhance local Rd network	Local Street	0.00	0.32	N/A	40	N/A	A
Proposed Road[c]		58	10.11	Proposed Rd		Proposed Rd		0	2	Enhance local Rd network	Local Street	0.00	0.32	N/A	800	N/A	A
Proposed Road[c]		59	10.11	Proposed Rd		Proposed Rd		0	2	Enhance local Rd network	Local Street	0.00	0.28	N/A	1,951	N/A	A
Proposed Road[c]		60	10.11	Proposed Rd		Proposed Rd		0	2	Enhance local Rd network	Local Street	0.00	0.28	N/A	709	N/A	A
Proposed Road[c]		61	10.11	Proposed Rd		Clarkes Rd	608	0	2	Enhance local Rd network	Local Street	0.00	0.36	N/A	653	N/A	A
Proposed Road[c]		62	10.11	Clarkes Rd	608	Dead End		0	2	Provide access for future development	Local Street	0.00	0.30	N/A	0	N/A	A
Proposed Road[c]		63	10.11	Marsh Rd	F1077	US 15/17/29	15/17/29	0	2	Provide access: US 17 NB to US 15/29 SB	Principal Arterial	0.00	1.03	N/A	615	N/A	A
Proposed Road[c]		64	10.11	Proposed Rd		Lees Mill Rd	651	0	2	Provide a road parallel to J. Madison Hwy (Rt 15/17/29) in Opal	Local Street	0.00	0.94	N/A	1	N/A	A
Proposed Road[c]		65	10.11	J Madison Hwy	15/29	Opal Rd/ Marsh Rd	17	0	1	Provide ramps for access mgmt on J Madison Hwy (Route 15/17/29) in Opal	Ramp	0.00	0.41	N/A	40	N/A	A
Proposed Road[c]		66	10.11	J Madison Hwy	15/29	Proposed Rd		0	1	Provide ramps for access mgmt on J Madison Hwy (Route 15/17/29) in Opal	Ramp	0.00	0.47	N/A	424	N/A	A
Proposed Road[c]		67	10.11	J Madison Hwy	15/29	Proposed Rd		0	1	Provide ramps for access mgmt on J Madison Hwy (Route 15/17/29) in Opal	Ramp	0.00	0.52	N/A	0	N/A	A
Proposed Road[c]		68	10.11	J Madison Hwy	15/29	Proposed Rd		0	1	Provide ramps for access mgmt on J Madison Hwy (Route 15/17/29) in Opal	Ramp	0.00	0.52	N/A	376	N/A	A
Proposed Road[c]		69	10.11	J Madison Hwy	15/29	Opal Rd/ Marsh Rd	17	0	1	Provide ramps for access mgmt on J Madison Hwy (Route 15/17/29) in Opal	Ramp	0.00	0.41	N/A	250	N/A	A
Proposed Road[c]		70	10.11	J Madison Hwy	15/29	Proposed Rd		0	1	Provide ramps for access mgmt on J Madison Hwy (Route 15/17/29) in Opal	Ramp	0.00	0.47	N/A	459	N/A	A
Proposed Road[c]		71	10.11	J Madison Hwy	15/29	Proposed Rd		0	1	Provide ramps for access mgmt on J Madison Hwy (Route 15/17/29) in Opal	Ramp	0.00	0.52	N/A	58	N/A	A
Proposed Road[c]		72	10.11	J Madison Hwy	15/29	Proposed Rd		0	1	Provide ramps for access mgmt on J Madison Hwy (Route 15/17/29) in Opal	Ramp	0.00	0.52	N/A	1,893	N/A	A
Proposed Turn Lane[c]		73	10.11	J Madison Hwy	15/29	Opal Rd	687	0	1	Provide dedicated Rt turn Ln from US 15/29 SB onto Opal Rd	Principal Arterial	0.00	0.51	N/A	N/A	N/A	N/A
Proposed Road[c]		74	10.12	Oak Shade Rd	661	Catlett Rd	28	0	2	Connect Weaversville Rd (Route 662) to Schoolhouse Rd (Rt 661)	Minor Collector	0.00	0.51	N/A	816	N/A	A
Proposed Road[c]		75	10.12	Weaversville Rd	662	Proposed Rd		0	2		Major Collector	0.00	3.80	N/A	1,790	N/A	A
Proposed Road[c]		76	10.8 &10.12	Midland Rd	610	Catlett Rd	28	0	2		Minor Arterial	0.00	1.49	N/A	8,185	N/A	A
Proposed Road[c]		77	10.12	Rogues Rd	602	J Madison Hwy	15/29	0	2	Future Bealeton Bypass	Freeway	0.00	5.80	N/A	7,648	N/A	A
Extend Lafayette Ave[c]		78	10.12	Lafayette Ave (Existing End of Pvmt)		Marsh Rd	17	0	2	Connect Lafayette Ave to Station Dr (Rt 853)	Major Collector	0.00	0.64	N/A	5,138	N/A	A
Realign Lafayette Ave[c]		79	10.12	Lafayette Ave (Existing End of Pvmt)		Marsh Rd	17	0	2	Realign Lafayette Ave w existing intersect. of Marsh Rd (Rt 17) & Independence Ave	Major Collector	0.00	0.12	N/A	3,551	N/A	A
Extend Independence Ave[c]		80	10.12	Independence Avenue		Proposed Rd		0	2	Extend Independence Ave N to Proposed Rd	Major Collector	0.00	0.23	N/A	1,027	N/A	A
Proposed Road[c]		81	10.12	Schoolhouse Rd	661	Proposed Rd		0	2	Enhance local Rd network	Major Collector	0.00	0.11	N/A	4,336	N/A	A

Table 10.3: Combined List of Road Segments for Thoroughfare Plan (Continued)

Project	Rt.	ID	Map	Project Location				Lane #		Improvement Description	Road Class	Length (mi.)		AADT		Service Level	
				From	Rt.	To	Rt.	2014	2040			2014	2040	2014	2040	2014	2040
Extend Hancock St[c]		82	10.12	Hancock St (End of Pvmt)		Proposed Rd		0	2	Extend Hancock St: end of pvmt N to Proposed Rd	Major Collector	0.00	0.19	N/A	8	N/A	A
Extend Hale St[c]		83	10.12	Hale St (End of Pvmt)		Proposed Rd		0	2	Extend Hale St: end of pvmt N to Proposed Rd	Major Collector	0.00	0.54	N/A	0	N/A	A
Proposed Road[c]		84	10.12	Oak Shade Road	661	Proposed Rd		0	2	Enhance local Rd network	Minor Collector	0.00	0.66	N/A	0	N/A	A
Realign and Extend Manor Dr[c]		85	10.9	Manor Dr		Proposed Ext. of Whiting Rd	622	0	2	Extend Manor Dr to Proposed Rd	Local Street	0.00	0.27	N/A	N/A	N/A	N/A
Proposed Road[c]		86	10.9	Frost St	1003	Proposed Rd		0	2	Enhance local Rd network	Local Street	0.00	0.22	N/A	N/A	N/A	N/A
Extend Quincy St[c]		87	10.9	Whiting Road	622	Old Stockyard Rd	1001	0	2	Extend Quincy St: Whiting Rd (Rt 622) to Old Stockyard Rd (Rt 1001)	Local Street	0.00	0.21	N/A	N/A	N/A	N/A
Extend Market St[c]		88	10.9	Existing End of Market St		Old Stockyard Rd	1001	0	2	Extend Market St: end of pvmt to Old Stockyard Rd (Rt 1001)	Local Street	0.00	0.24	N/A	N/A	N/A	N/A
Proposed Road[c]		89	10.9	Winchester Rd	17	Proposed Rd		0	2	Enhance local Rd network	Local Street	0.00	0.18	N/A	N/A	N/A	N/A
Proposed Road[c]		90	10.9	Winchester Rd	17	East Main St	55	0	2	Enhance local Rd network	Local Street	0.00	0.15	N/A	N/A	N/A	N/A
Proposed Road[c]		91	10.9	Old Stockyard Rd	1001	Proposed Rd		0	2	Enhance local Rd network	Local Street	0.00	0.14	N/A	N/A	N/A	N/A
Proposed Road[c]		92	10.9	Proposed Rd		Dead End		0	2		Local Street	0.00	0.11	N/A	N/A	N/A	N/A
Proposed Road[c]		93	10.9	Whiting Rd	622	Dead End		0	2	Provide access to internal lots off secondary Rd	Local Street	0.00	0.48	N/A	N/A	N/A	N/A
Proposed Road[c]		94	10.9	East Main St	55	Belvoir Rd	709	0	2	Provide Rd parallel to J Marshall Hwy (Rt 55): E Main St (Rt 55) to Belvoir Rd (Rt 709)	Local Street	0.00	0.80	N/A	N/A	N/A	N/A
Proposed Road[c]		95	10.9	J Marshall Hwy	55	Proposed Rd		0	2	Enhance local Rd network	Local Street	0.00	0.06	N/A	N/A	N/A	N/A
Proposed Road[c]		96	10.9	Winchester Rd	17	Whiting Rd	622	0	2	Enhance local Rd network	Major Collector	0.00	0.15	N/A	N/A	N/A	N/A
Proposed Road[c]		97	10.10	Lee Hwy	15/29	Broad Run Ch Rd	600	0	4	Create commercial Blvd in The Triangle	Boulevard	0.00	0.32	N/A	4,667	N/A	A
Proposed Road[c]		98	10.10	Broad Run Ch Rd	600	Hummingbird Lane		0	2	Enhance local Rd network	Minor Collector	0.00	0.21	N/A	370	N/A	A
Proposed Road[c]		99	10.10	Broad Run Ch Rd	600	Riley Rd	676	0	2	Enhance local Rd network	Local Street	0.00	1.08	N/A	735	N/A	A
Extend Hummingbird Ln[c]		100	10.10	Existing End of Rd		Broad Run Ch Rd	600	0	2	Extend Hummingbird Ln: end of pvmt E to Broad Run Church Rd (Rt 600)	Minor Collector	0.00	1.14	N/A	290	N/A	A
Extend Culver Dr[c]		101	10.10	Broad Run Ch Rd	600	Proposed Ext. of Hummingbird Ln		0	2	Extend Culver Dr: Broad Run Ch Rd (Rt 600) S to proposed ext. of Hummingbird Ln	Local Street	0.00	0.22	N/A	0	N/A	A
Extend Culver Dr[c]		102	10.10	Existing End of Road		Riley Rd	676	0	2	Extend Culver Dr: end of pvmt NE to Riley Rd (Rt 676)	Local Street	0.00	0.13	N/A	119	N/A	A
Proposed Road[c]		103	10.10	Culver Dr		Lee Highway	15/29	0	2	Enhance local Rd network	Local Street	0.00	0.19	N/A	184	N/A	A
Proposed Road[c]		104	10.10	Broad Run Ch Rd	600	Proposed Rd		0	2	Enhance local Rd network	Local Street	0.00	0.08	N/A	0	N/A	A
Proposed Road[c]		105	10.10	Broad Run Ch Rd	600	Proposed Rd		0	2	Enhance local Rd network	Local Street	0.00	0.14	N/A	0	N/A	A

[a] contains a road segment with high crash rate
[b] contains an intersection with a high crash rate
[c] listed in a County plan for improvement
[d] contains a congested road segment
[e] taken from VDOT 2014 traffic count
[f] volume and LOS estimated from VDOT's 2045 model data

Table 10.4: Combined List of Road Intersections for Thoroughfare Plan

Project Location				ID	Map	Rank by FI PSI	Improvement Description
Street Name 1	Route 1	Street Name 2	Route 2				
Interstate 66 EB Ramp[b]	66	Winchester Rd	17	106	10.9	69	Safety/Operational
I-66 WB Exit Ramp[c]	66	Proposed Rd		107	10.9	N/A	Roundabout
Lee Hwy[a, b, c, d]	15/29	Vint Hill Rd	215	108	10.10	1	Safety/Operational
Lee Hwy[a, b, c, d]	15/29	Broad Run Church Rd	600	109	10.10	22	Safety/Operational
James Madison Hwy [b, d]	15/17/29	Beach Rd	616	110	10.7	63	Safety/Operational
James Madison Hwy[a, b, d]	15/17/29	Lees Mill Rd	651	111	10.11	10	Safety/Operational
James Madison Hwy[b, c]	15/29	Kings Hill Rd	657	112	10.12	8	Safety/Operational
Lee Hwy[c]	15/29	Covingtons Corner Rd	663	113	10.12	56	Safety/Operational
Lee Hwy[c, d]	15/29	Grays Mill Rd	674	114	10.7	N/A	Safety/Operational
Lee Hwy[b, c]	15/29	Riley Rd	676	115	10.10	60	Safety/Operational
Lee Hwy[a, b, c]	15/29	Opal Rd	687	116	10.11	51	Safety/Operational
Lee Hwy[b, c, d]	15/29	Old Alexandria Tpk	693	117	10.7	73	Safety/Operational
Lee Hwy[b]	15/17/29	Lovers Ln	744	118	10.7	71	Safety/Operational
Lee Hwy[c, d]	15/29	Telephone Rd	838	119	10.7	N/A	Safety/Operational
James Madison Hwy[b, c, d]	15/17/29	Lord Fairfax Dr	880	120	10.7	3	Remove signal, construct grade-separated interchange
Marsh Rd[b, c]	17	Catlett Rd	28	121	10.12	38	Safety/Operational
James Madison Hwy[b]	17	Blantyre Rd	628	122	10.7	91	Safety/Operational
Marsh Rd[b]	17	Covingtons Corner Rd	663	123	10.11	47	Safety/Operational
Winchester Rd[c]	17	Carters Run Rd	691	124	10.9	N/A	Roundabout
Marsh Rd[c]	17	Station Dr	853	125	10.12	N/A	Roundabout
Winchester Rd[c]	17	shopping center entrance to Old Stockyard Rd		126	10.9	N/A	Roundabout
Catlett Rd[c]	28	Casanova Rd	616	127	10.8	N/A	Signalize intersection w possible relocation of Rt 616
Catlett Rd[c]	28	Meetze Rd	643	128	10.8	N/A	Left turn lane at Rt 28
Catlett Rd[b, c, d]	28	Schoolhouse Rd	661	129	10.12	41	Safety/Operational
Catlett Rd[c, d]	28	Oak Shade Rd	661	130	10.12	N/A	Safety/Operational; Roundabout
Catlett Rd[a, d]	28	Gaskins Ln	796	131	10.7	N/A	Safety/Operational
Catlett Rd[c]	28	Station Dr	853	132	10.12	N/A	Roundabout
John Marshall Hwy[b]	55	Beverleys Mill Rd	600	133	10.6	78	Safety/Operational

Table 10.4: Combined List of Road Intersections for Thoroughfare Plan

Project Location				ID	Map	Rank by FI PSI	Improvement Description
Street Name 1	Route 1	Street Name 2	Route 2				
John Marshall Hwy[c]	55	Whiting Rd	622	134	10.9	N/A	Safety/Operational; Roundabout
John Marshall Hwy[b]	55	Leeds Manor Rd	688	135	10.6	75	Safety/Operational
John Marshall Hwy[c]	55	Zulla Rd/Belvoir Rd	709	136	10.9	N/A	Safety/Operational; Roundabout
Main St[c]	55	Free State Rd	721	137	10.9	N/A	Roundabout
Vint Hill Rd[c, d]	215	Broad Run Church Rd	600	138	10.7	N/A	Safety/Operational
Vint Hill Rd[c, d]	215	Vint Hill Pkwy	1365	139	10.7	N/A	Roundabout
Broad Run Church Rd[c]	600	Riley Rd	676	140	10.10	N/A	Roundabout
Broad Run Church Rd[c]	600	Proposed Rd		141	10.10	N/A	Roundabout
Rogues Rd[c]	602	Dumfries Rd	605	142	10.7	N/A	Safety/Operational
Dumfries Rd[c]	605	Riley Rd	676	143	10.7	N/A	Safety/Operational
Courthouse Rd[a]	609	Brent Town Rd	612	144	10.8	N/A	Safety/Operational
Midland R[d, b]	610	Elk Run Rd	806	145	10.8	39	Safety/Operational
Whiting Rd[c]	622	Proposed Rd		146	10.9	N/A	Roundabout
Schoolhouse Rd[c]	661	Proposed Rd		147	10.12	N/A	Roundabout
Riley Rd[c]	676	Brookside Pkwy	920	148	10.7	N/A	4-way stop
Riley Rd[c]	676	Lake Dr	1306	149	10.7	N/A	Safety/Operational; 4-way stop
Farm Station Rd[c]	1352	Vint Hill Pkwy	1365	150	10.7	N/A	Roundabout
Lafayette Ave[c]		Hancock St		151	10.12	N/A	Roundabout
Proposed Rd[c]		Proposed Rd		152	10.12	N/A	Roundabout

[a] *contains a road segment with high crash rate*
[b] *contains an intersection with a high crash rate*
[c] *listed in a County plan for improvement*
[d] *contains a congested road segment*

It needs to be noted that there are future road alignments that are partially or entirely located outside the designated service district boundaries. Specifically, these roads include Route 805-Major Collector; Warrenton-Fauquier Airport-Minor Arterial/Freeway connection to U.S. 17 and the Bealeton Connector, which is proposed to serve as a limited access Freeway connecting U.S. 17 with U.S. 29/15. Where these proposed alignments are located outside designated Service District boundaries, County policy states that these conceptual roadway corridors do not represent future expansion of these districts, but only roadway locations. These corridors are planned to more effectively redirect regional traffic from the communities of Bealeton, Remington and the County airport facility, located in the Midland Service District, to key existing highway routes.

New Baltimore and Warrenton Service Districts

Maps 10.7 and 10.10 represent the adopted transportation elements of the Comprehensive Plan for Central Fauquier County, including New Baltimore and Warrenton. The New Baltimore Plan focuses on connectivity, safety, respect for the existing neighborhoods and inclusion of all modes of transportation and users. Major collector roads along the perimeter of New Baltimore will be improved for safety and level of service. Local road connectivity will be improved to enhance the network and better serve the needs of the growing service district. New roads will also contribute to the local road network. In addition, trails and multi-purpose paths will be constructed to achieve maximum neighborhood connectivity and to link high-activity destinations.

The Warrenton Plan focuses on improvements to U.S. 29/15 Business, U.S. 211, and Broadview Avenue to provide more efficient traffic flows for vehicles traveling from Culpeper and Rappahannock Counties and U.S. 29/15. Small parking lots should also be dispersed throughout the main street areas to make parking convenient for the businesses' patrons.

Marshall Service District

Maps 10.6 and 10.9 represent the adopted transportation elements of the Comprehensive Plan for Northern Fauquier County, including Marshall. The Marshall Service District Plan focuses on road network solutions that are sensitive to the context and quality of life goals of the Marshall community. Similar to New Baltimore, connectivity is a primary goal for this area. In addition, the streets should be designed to create a safe, vibrant environment with sidewalks where pedestrians can share the street with vehicles. Roundabouts are a critical component in Marshall to eliminate unnecessary stopping at intersections and create a sense of arrival at Marshall's gateways.

The following roads are identified in the existing service district plans for future improvements. Refer to Chapter 6 for more detailed information.

Interstate 66

There are multiple projects underway or recently completed in Prince William County on Interstate 66 including the following:

- Interstate 66 was recently widened from U.S. 15 in Haymarket to U.S. 29 in Gainesville to provide three regular lanes and one high-occupancy vehicle (HOV) lane in each direction.
- The U.S. 15 and Interstate 66 interchange reconstruction is underway in Haymarket.
- Plans for Transform 66 Outside the Beltway from U.S. 15 in Haymarket to Interstate 495 is underway to widen Interstate 66 to include three regular lanes and two express lanes in each direction.
- The widening of Interstate 66 from Gainesville to the Fauquier County line to four lanes in each direction.

U.S. 17

U.S. 17 serves as a major route connecting Interstate 95 to Interstate 66, Interstate 81, and the VIP. As a result, truck traffic on U.S. 17 between Warrenton and Interstate 66 is higher than average at 13 percent. Truck traffic on U.S. 17 may increase further as growth at the Port of Virginia (Hampton Roads) increases. As noted in the Bealeton Land Use Plan, Chapter 6, U.S. 17 through Bealeton is planned to function as a boulevard (see Figures BE-3, BE-4 and BE-4A). Any development occurring along U.S. 17 in the short-term, will be expected to provide improvements consistent with the boulevard concept. This allows U.S. 17 to serve as a main street in Bealeton, consistent with the Bealeton service district plan.

Route 28

Route 28 is a two lane road providing access from U.S. 29/15 east to Prince William County and to Route 7 in Loudoun County. This corridor traverses Catlett, Calverton and Midland. Refer to the Catlett, Calverton and Midland Village Service District Plans for the transportation details. The main recommendations for this minor arterial are that the specified intersectional safety improvements need to be installed as they are warranted. Pull outs and shoulder widening are also appropriate to accommodate agricultural equipment on the road with passenger vehicles. It is anticipated that Route 28 will need intersection improvements to address safety and operational issues, staged in response to traffic volumes on availability of funds. Important to this corridor are the continuation of agricultural production around its communities and the character and integrity of its villages and current businesses.

Route 55

Route 55 is a two lane road in the northern portion of Fauquier County that bisects Marshall and the Town of The Plains. It functions as a main street through these areas with parking and sidewalks on both sides of the road and a posted speed limit of 25 mph. Outside these areas Route 55 functions as a rural major collector with a posted speed of 55 mph. In the town of Marshall, traffic calming and pedestrian improvements that allow residents and visitors to safely cross Main Street (Route 55) are recommended. These may include specialty pavement, raised crosswalks or speed humps, raised intersections, and/or chicanes or curb extensions.

Route 602 Corridor Plan

Fauquier County applied for FY 2018-2023 Smart Scale funding for Route 602 (Rogues Road) from its intersection with Route 605 (Dumfries Road) to the Prince William County line. Funding from the Six-Year Plan for Secondary Roads is allocated for improvements on the most dangerous section of Route 602, between Route 1653 (Edington Drive) and Route 652 (Finch Lane).

Route 605 Corridor Plan

Route 605 is currently a two lane road and plays an integral part in moving traffic both to and from Warrenton and northward on U.S. 29 towards the Washington area. Route 605 is planned to be a Major Collector, and it serves as a major component of the New Baltimore/Warrenton area by connecting to U.S. 29 with a signalized intersection. In addition to providing access to the north, east and west, Route 605 also provides an important link to Route 28 to the south. As a part of this long-range plan, the County will be examining this important link to the south as well as the entire Route 605 corridor.

Goals, Objectives, and Actions for Implementation

Goal 1: Ensure that Fauquier County's transportation system is safe, efficient and accessible to meet current and future needs of residents and economic development.

Objective 1.1: Design road improvements to a scale that is appropriate for the envisioned land uses to be served.

Action 1.1.1: Consider innovative and alternative transportation strategies to improve safety on proposed or existing County roads.

Objective 1.2: Improve safety for motorists on primary and secondary roads. (VDOT has the goal of reducing the number of deaths and severe injuries by half by 2030.)

Action 1.2.1: Target safety improvements at high-crash intersections and roadway corridors.

Objective 1.3: Provide safe pedestrian and bicycle options.

Action 1.3.1: Ensure that designated proposed or existing roadways under construction include bicycle/pedestrian accommodations that are separated from the roadways where possible.

Action 1.3.2: Ensure that there are safe bicycle/pedestrian crossings. Consider decorative street lighting, sidewalk textures extending across the intersection, sidewalk "bump-outs" for intersection corners and raised intersections.

Objective 1.4: Provide transportation infrastructure that facilitates economic development within the county.

Action 1.4.1: Adequate transportation infrastructure should be developed to encourage the development of the Midland Service District with the Warrenton-Fauquier Airport and the Opal Service District as economic forces in the County for industrial and commercial development.

Goal 2: Identify and develop the transportation system and infrastructure of the County in conjunction with the County's land use plans to provide an efficient transportation network.

Objective 2.1: Achieve at least a "D" peak hour level of service on all of the County's arterial and major collector roads and a "C" peak hour level of service on all of the County's remaining secondary roads.

Action 2.1.1: Consider alternative transportation strategies to improve levels of service on County roads, i.e. roundabouts.

Action 2.1.2: Evaluate development applications using this standard.

Objective 2.2: Develop a Thoroughfare Plan that proactively identifies existing and future County road improvement needs to address safety and efficiency concerns.

Action 2.2.1: Coordinate transportation improvements with VDOT based on current accident and level of service data for road segments and intersections in the County.

Objective 2.3: Identify and proactively obtain funding for County road improvements.

Action 2.3.1: Pursue SmartScale and/or Revenue Sharing funding for road improvement projects using private funding for the local match for Revenue Sharing projects.

Action 2.3.2: Apply for Highway Safety Improvement Program (HSIP) funds for road improvements identified on VDOT's Top 100 list of road segments and intersections with fatal/injury crashes and potential for safety improvement (FI/PSI).

Objective 2.4: Divert local trips from the rural freeway and major arterial highway system.

Action 2.4.1: Inter-parcel access as well as access roads parallel to major roads should be required, where possible, to allow for the efficient routing of traffic on roads other than the major thoroughfares.

Action 2.4.2: Separate regional traffic from local traffic within service districts by utilizing local roads for local traffic to facilitate efficient mobility to drivers' destinations.

Objective 2.5: Reduce access points onto the County's arterial and collector roads.

Action 2.5.1: Utilize access management techniques to limit access points to arterial and collector roads. This could be accomplished through shared entrances and the use of inter-parcel connections.

Objective 2.6: Promote alternative transportation options to private vehicular use.

Action 2.6.1: Encourage ride-sharing, car/vanpooling, and other means of shared vehicle use.

Action 2.6.2: Support the Rappahannock-Rapidan Regional Commission's Commuter Services ride matching service for carpooling and vanpooling.

Action 2.6.3: Evaluate the locations and needs for additional or expanded park and ride lots, and promote the use of existing ones.

Action 2.6.4: Encourage opportunities for park and ride lots with bus service to Virginia Railway Express (VRE) stations.

Action 2.6.5: Consider supporting local and express bus service.

Goal 3: Ensure that transportation infrastructure is designed in a manner complementary to their surrounding land use.

Objective 3.1: Develop design standards for roads intended to move traffic through the rural lands.

Objective 3.2: Develop design standards for transportation infrastructure incorporated into a particular place, primarily the service districts and villages.

Action 3.2.1: Context sensitive design should be utilized. The visual appearance of the streets should maintain the stated character of the surrounding land use.

Action 3.2.2: Grid patterns with multiple connections and opportunities for routing should be developed within service districts. Similarly, cul-de-sacs should be discouraged within the districts.

Action 3.2.3: Ensure that there are clear entrances/exits to identified places (service districts, villages, etc.). This could be accomplished through signage, landscaping, alternate road design, or other means.

Action 3.2.4: Encourage streetscape enhancements such as landscaping, the undergrounding of utilities, sidewalks and pedestrian scale lighting as well as traffic calming measures.

Action 3.2.5: Work with VDOT to ensure that future planned improvements do not negatively impact community character.

Action 3.2.6: Encourage the construction of context sensitive and aesthetic bridges and overpasses by utilizing the guidance provided in Appendix I, Fauquier County's Historic Bridge Recommendations.

Objective 3.3: Encourage, where possible, the preservation and protection of cultural resources.

Action 3.3.1: Consider adoption of a highway corridor overlay district for corridors running through areas of historic significance including Marshall Historic District, New Baltimore Historic District, and Buckland Mills Battlefield.

Action 3.3.2: Encourage improvements or changes to existing roadways to parallel and preserve existing fence lines, trees and stone walls wherever possible to provide a sense of continuity with the historic land use patterns and character of the area.

Action 3.3.3: Where appropriate, new street name selections should seek to be contextual with local history.

Action 3.3.4: Encourage the use of native vegetation for streetscape improvements.

Action 3.3.5: Encourage the protection, preservation, rehabilitation and reuse of historic bridges by utilizing the guidance provided in Appendix I, Fauquier County's Historic Bridge Recommendations.

Action 3.3.6: Encourage the use of VDOT's Adopt-a-Highway program.

Action 3.3.7: Develop an inventory of and provide recommendations for possible additions to Virginia's scenic byways program.

Goal 4: Expect land development proposals to provide sufficient right-of-way and/or improvements in accordance with the County's Thoroughfare Plan.

Objective 4.1: Land development applications should fully mitigate development impacts upon the County's transportation network.

Action 4.1.1: Land development applications should ensure that they fully mitigate their impact on the County's transportation network through a combination of constructed improvements in the immediate vicinity, cash contributions to the County or VDOT to mitigate their impact on the overall County transportation network and right-of-way dedications for future road improvements.

Action 4.1.2: Ensure that public streets are designed and constructed to meet VDOT's "Secondary Street Acceptance Regulations and Road Design Manual".

Action 4.1.3: Consider innovative methods to mitigate development impacts on the larger transportation system such as the implementation of tax districts.

Action 4.1.4: Work with VDOT to identify needed improvements related to proposed developments that will mitigate development impacts on the regional road network.

Action 4.1.5: Ensure that the appropriate right-of-way is reserved with land development applications.

Goal 5: Ensure that the County offers a network of trails that provides recreational uses as well as transportation opportunities.

Objective 5.1: Establish a regional network of multi-use trails.

Action 5.1.1: Maintain an inventory of existing and proffered trails.

Action 5.1.2: Encourage the dedication of land and/or constructed trails through the land development process.

Action 5.1.3: Construct designated trails with new roadway construction or improvements to existing roads.

Action 5.1.4: Explore opportunities to improve network connectivity using state and federal funding such as the Transportation Alternatives funding, grants, voluntary donations as well as possible incentives for the donation of right-of-way.

Action 5.1.5: Ensure that the trail network connects to key public destinations such as parks, libraries, schools, community centers and commercial areas, as well as to private developments and other trail systems, including regional trail networks.

Action 5.1.6: Ensure that the trail system is available for a range of users and is constructed in accordance with the Americans with Disabilities Act (ADA) standards.

Action 5.1.7: Consider a 'fee-in-lieu' policy/program whereby property owners in locations where a trail or sidewalk may not be warranted, or unlikely to be constructed in the near future, can contribute to the construction of trail facilities elsewhere.

Action 5.1.8: Ensure that new development provides amenities for encouraging the use of alternative modes of transportation such as bicycle parking areas and connections to existing and planned trail systems and sidewalks.

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