

Purpose

The Transportation plan identifies existing transportation facilities and provides a framework for future improvements to accommodate orderly growth and development of both residential and non-residential uses. The goals and objectives in this Section are designed to minimize the impact of through traffic on residential, agricultural, and forestal lands, and to maximize the benefits of safe access for commercial, industrial, and commuter uses through a multi-modal transportation system.

The existing County public road network consists of approximately 25 miles of interstate, 90 miles of primary roads, and approximately 830 miles of secondary roads. Hanover's proximity within the Richmond Metropolitan Area has yielded a more extensive major road system than would generally be expected in a county with Hanover's population.

The highway system within Hanover County is under the jurisdiction of VDOT, which builds, operates, and maintains all highways. The VDOT highway network consists of several administrative systems (Interstate, Primary and Secondary), each having distinct funding and operating requirements. It is, therefore, necessary to identify and prioritize the most urgent road needs in order to prepare a rational transportation implementation program.

A major component of the Transportation plan is the Major Thoroughfare Plan, which serves as a complement to the General Land Use Plan. Its purpose is to identify functional classifications for existing corridors and identify new corridors that will accommodate future land development. The functional classifications identify needed right-of-way required for typical road design cross sections.



This section also addresses the Hanover County Airport which is located east of I-95, between the Atlee-Elmont and Lewistown Road interchanges. The airport provides general aviation service to both corporate clientele and the recreational pilot. The airport serves small single-engine and multi-engine aircraft, as well as light business jets.

Goal

A transportation system that supports and enhances the quality of life for Hanover County citizens and businesses characterized by the following:

- < Convenient and accessible multimodal networks that allow the movement of people and goods efficiently
- < Facilities that are designed to ensure safety
- < A road system designed to enhance mobility in the suburban areas and maintains the character of rural areas and cultural resources of the County
- < Cost-effective use of resources to adequately balance the transportation infrastructure with land development

Objectives

- < In cooperation with the Virginia Department of Transportation, identify and develop highway improvement projects that are compatible with the growth policies identified in the Comprehensive Plan for Hanover County and support the General Land Use Plan
- < Maintain a functional road classification system that identifies the intended purpose of existing and proposed roads and is reflective of land development changes
- < Ensure all transportation improvements are designed for safety
- < Provide options for multimodal transportation networks through land development design that reduces dependency on motorized vehicles as outlined in Section 4, Active Living and Healthy Neighborhoods



Functional Road Classifications

The Major Thoroughfare Plan uses the existing highway system as its basis. The Plan identifies needed improvements to the existing system to accommodate future anticipated changes to land use as identified in the General Land Use Plan. In general, changes will involve improvements to existing facilities along with new roads to supplement the network.

The Plan provides a framework for future improvements to accommodate orderly growth and development of both residential and non-residential use. Since actual timing of improvements are not specified, field surveys have not been conducted and many projects will be constructed as part of private development, cost estimates for the total improvements cannot be determined. Hanover County is however a member of the Richmond Area Metropolitan Planning Organization (MPO), an organization that performs policy and technical functions for the Richmond urbanized area transportation planning process. The organization further coordinates work by VDOT to prepare the Annual Listing of Obligated Projects which compares the actual obligations made in the preceding federal fiscal year to obligations that were programmed in the Transportation Improvement Program.

The following Table 1 is a list of transportation projects, not yet completed, as identified in the approved Transportation Improvement Program (TIP), FY18 – FY21 (cost estimates updated based on Board of Supervisors Road Project Status Report, January 10, 2018). A complete list of projects, and additional detail can be viewed on the Richmond Regional Transportation Planning Organization website at <http://www.richmondregional.org/TPO/index.htm>

Table 1

Project Code	Description	Cost Estimate
13551	Rte 360/Lee Davis Intersection	\$24,184,000
81667	Creighton/Cold Harbor Roundabout	\$7,100,000
98236	Atlee Road Extension	\$20,685,000
103014	Rte 1/Cedar Lane Intersection Improvement	\$5,516,000
104875	Rural Point/Studley Road Roundabout	\$2,525,000
104957	Sliding Hill Road Widening	\$11,423,000
109260	Pole Green Widening	\$16,720,000
109988	Route 715 Bridge	\$1,925,000
111468	Route 156/Caitlin Road Intersection	\$1,357,200
56181	Route 33/Ashland Rd	\$8,855,000

Transportation

The Long Range Transportation Project List represents transportation needs over the build-out of the comprehensive plan. Projects appearing on the “Candidate Project” list are constrained by the financial resources expected to be available for design and construction. The need for the projects is driven by the near term 10-15 year traffic demand for capacity, operation, and safety. Funding from all sources will be utilized and prioritized to accomplish the identified needs.

The “Candidate Project” list is updated annually with the assistance of the Roads Committee based on an assessment of the County road network and expected revenues from identified sources. The following Table 2 is the “Candidate Project” list not included in the TIP list in Table 1:

Table 2

Project	Category	Description	Est. Cost
Atlee Station Rd Widening	Capacity	Widen from 2 to 4 lanes between Warren Ave. and Kings Acre Rd	\$31,200,000
Cool Spring Rd Safety Improvement	Safety	Improve the horizontal alignment and add shoulders between Blakeridge Ave. and Hughesland Dr.	\$2,500,000
Rt. 54 / Goddins Hill Rd Left Turn Lane	Operational Efficiency/Safety	Add a left turn lane on Rt. 54	\$1,600,000
E. Patrick Henry Rd Widening	Capacity	Widen from 2 to 4 lanes between Ashland ECL and Frances Rd	\$5,520,000
I-95-Ashland Interchange	Capacity/Operational Efficiency/Econ. Dev.	Add left turn lane from WB Rt. 54 to SB I-95; extend Hill Carter Pkwy to the north as part of a new SB I-95 exit ramp; extend I-95 NB off-ramp acceleration lane; reconfigure interchange to a “diverging diamond” or alternate interim improvement	\$21,000,000
Elletts Crossing Rd Realignment	Econ. Dev.	Realign Elletts Crossing Rd to eliminate skewed intersection	\$1,803,000

In addition to the road project needs listed above, a number of future road projects may emerge and be funded because of eligibility for safety or other funds as road characteristics change.

Functional Road Classifications

The existing and future roads are classified and shown on the Major Thoroughfare Plan Map, based on the transportation function they serve. Different classes of roads must meet different standards of design. The following is a description of the road classifications used in the County. The identified road improvements will be necessary to accomplish goals of the Major Thoroughfare Plan during the next 20 years:

 Interstate (350' ROW) **Interstate/Freeway:** Generally designated as 350 feet of right-of-way. This classification is intended to carry the largest volume of vehicular traffic over the greatest distances. Access to these roads is limited to minimize the interference of cross-street traffic, and road crossings are always grade separated. No roads other than Interstate 95 and Interstate 295 are recommended for this classification.

 Major Arterial (120' ROW) **Major Arterial:** Generally designated as of 120 feet of right-of-way. Major arterials are designed to carry vehicular traffic from one area of the County to another. Additionally, these roads carry traffic to other parts of the Richmond region. While access to these facilities is by at-grade intersections, they should be highly controlled to minimize the interference of cross-street traffic to the efficient flow-through traffic.

 Minor Arterial (100' ROW) **Minor Arterial:** Generally designated as 100 feet of right-of-way. This road classification is intended to carry vehicular traffic from one region of the County to another. Access to these facilities is less restrictive than major arterials but still controlled to facilitate the efficient movement of through traffic.

 Major Collector (100' ROW) **Major Collector:** Generally designated as 100 feet of right-of-way. This functional type of road serves to collect vehicular traffic in the region and direct it towards the arterial road network. Access to this classification of road is less restrictive than arterials and functions primarily to serve local traffic. However, major collectors carry a significant volume of traffic so some access control should be maintained.

 Minor Collector (60' ROW) **Minor Collector:** Generally designated as 60 feet of right-of-way. This functional type of road collects vehicular traffic from the region and directs it towards the arterial network. Because these roads are in less developed areas, access restrictions should be similar to local streets.

Functional Road Classifications, Cont'd.

Scenic Road **Scenic Roads:** Not a functional classification but several roads have been designated as a Scenic Road due to the scenic or historic nature of the countryside and are shown on the adopted *Major Thoroughfare Plan* map. The designation of a road as a Scenic Road is intended to encourage property owners and VDOT to better maintain these roads. While some roads have been identified as a Scenic Road, based on their scenic and/or historic value, not all eligible roads have been formally evaluated; the advisability of further designations will be considered on a case-by-case basis with the assistance from the State.

Rural Roads: Generally designated as 50 feet of right-of-way. Rural roads act like collector or arterial roads since there are great distances that must be traveled to reach many destinations.

Local Roads: Local roads should be designed to include features described and illustrated in Section 4, Active and Healthy Living. New neighborhoods should include street and roadway designs that provide safe travel opportunities for motorists, bicyclists, and pedestrians.



Specific Road Alignment Plans:

U.S. Route 360 - development of the road, between Interstate 295 and Walnut Grove Road (State Route 615), should be in accordance with the design specifications as recommended in a corridor study titled *Final Report Route 360 Corridor Study, Hanover County, Virginia*, prepared by Kimley Horn and Associates, Inc., and dated June 1998), adopted by the Board of Supervisors 10-22-03 (CPA-03-05). A copy of the study is kept at the Planning Department offices. Any changes to the specifications should be consistent with any changes approved by VDOT.

U.S. Route 33 - development of the road, between the Henrico County Line and the Louisa County Line, should be in accordance with the design specifications as recommended in the corridor study titled *Final Report, US Route 33 (Mountain Road) Corridor Study, Hanover County Department of Public Works in cooperation with Virginia Department of Transportation* adopted by the Board of Supervisors 10-22-03 (CPA-03-05). A copy of the study is kept at the Planning Department offices. Any changes to the specifications should be consistent with any changes approved by VDOT.

Specific Road Alignment Plans, Cont'd:

State Route 637 - development of the road should be in accordance with the design specifications titled Atlee Station Road Ultimate Alignment Plan. A copy of the Plan is kept at the Planning Department offices.

Creighton Parkway - development of the future road alignment, between Rural Point Road (State Route 643) and Creighton Road (State Route 156) should be in accordance with the design specifications adopted by the Board of Supervisors September 25, 1996 (CPA-96-1, Creighton Road Corridor Study – Phase 1, Creighton Road to U.S. Route 360) and on September 28, 1998, (CPA-97-1, Five Year update to the Comprehensive Plan, Phase 2, Creighton Road Extended I-295 to Rural Point Road); with subsequent amendments to the alignment in the vicinity of Rural Point Road (State Route 643) at U.S. Route 301 (CPA-99-4), and in the vicinity of where the proposed alignment joins Rural Point Road at Totopotomoy Creek (CPA-12-01, Five Year update to the Comprehensive Plan). A copy of studies and drawings are kept at the Planning Department offices. Any changes to the specifications should be consistent with any changes approved by VDOT. **(APPENDIX T-1)**

New Ashcake Road Extended - development of the future road alignment, between New Ashcake Road (State Route 643) and Lewistown Road (State Route 802) should be in accordance with the design specifications adopted by the Board of Supervisors November 28, 2001 (CPA-00-13) and depicted on drawings titled *New Ashcake Road Extended Preferred Alignment* and *New Ashcake Road Typical Section* prepared by Kimley-Horn and Associates P.C. A copy of studies and drawings are kept at the Planning Department offices. Any changes to the specifications should be consistent with any changes approved by VDOT. **(APPENDIX T-2)**

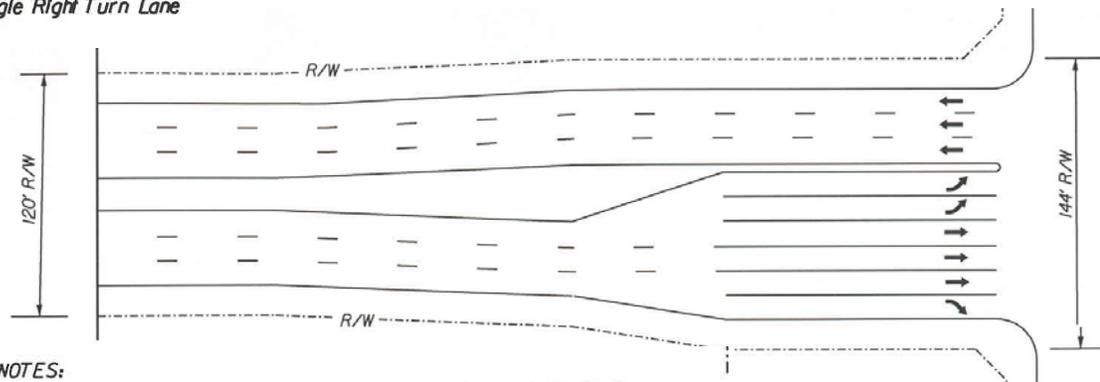
Lewistown Road Extended - development of the future road alignment, between Lewistown Road (State Route 783) and Cedar Lane (State Route 623) should be in accordance with the design specifications adopted by the Board of Supervisors December 16, 1998 (CPA-98-3) and depicted on drawings titled *Proposed Amendment to Thoroughfare Plan* prepared by Wingate and Kestner PLC (7/22/98). A copy of studies and drawings are kept at the Planning Department offices. Any changes to the specifications should be consistent with any changes approved by VDOT. **(APPENDIX T-3)**

Transportation

Essential to the protection and enhancement of the safety and efficiency of the County's road network is the establishment of minimum roadway geometric and access standards. Furthermore, safety and capacity problems can be addressed by establishing access management standards based on roadway designations. The following exhibits reflect the typical cross-sections for the above-identified road classifications. In addition to the identified right-of-way requirements, the exhibits also reflect typical road designs and additional right-of-way requirements at intersections.

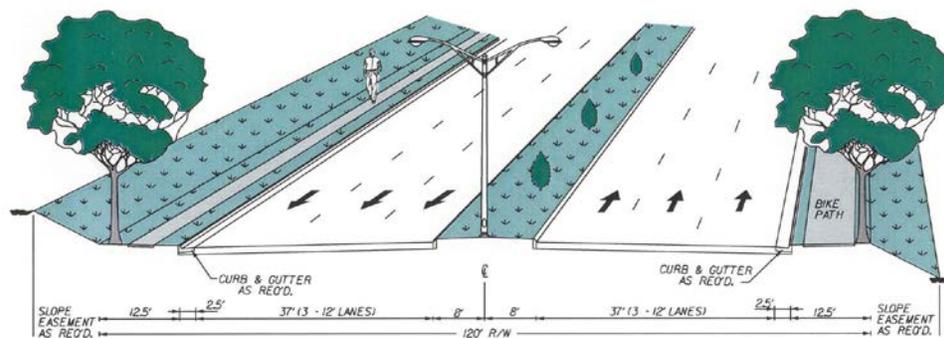
MAJOR ARTERIAL - URBAN SECTION

*Intersection Design with
Dual Left Turn Lanes and
Single Right Turn Lane*



NOTES:

1. TURN LANES SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
2. LANE WIDTHS SHALL BE 12' EACH.
3. TRANSITION LENGTHS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
4. RIGHT OF WAY CHORDS AT THE INTERSECTION CORNERS ARE FOR TRAFFIC CONTROL EASEMENTS.



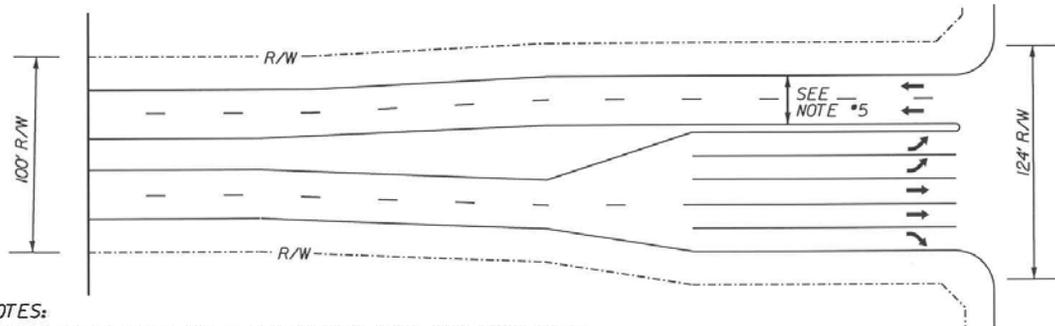
MAJOR ARTERIAL - URBAN SECTION

NOTES:

1. MINIMUM ROADWAY DESIGN STANDARDS SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
2. RIGHT OF WAY REQUIREMENTS MAY VARY DUE TO SITE SPECIFIC DESIGN ISSUES.
3. RIGHT OF WAY REQUIREMENTS INCREASE AT INTERSECTIONS TO ACCOMMODATE TURN LANES.
4. LANDSCAPING, LIGHTING, SIDEWALKS, AND BIKE PATHS ARE FOR ILLUSTRATIVE PURPOSES ONLY.

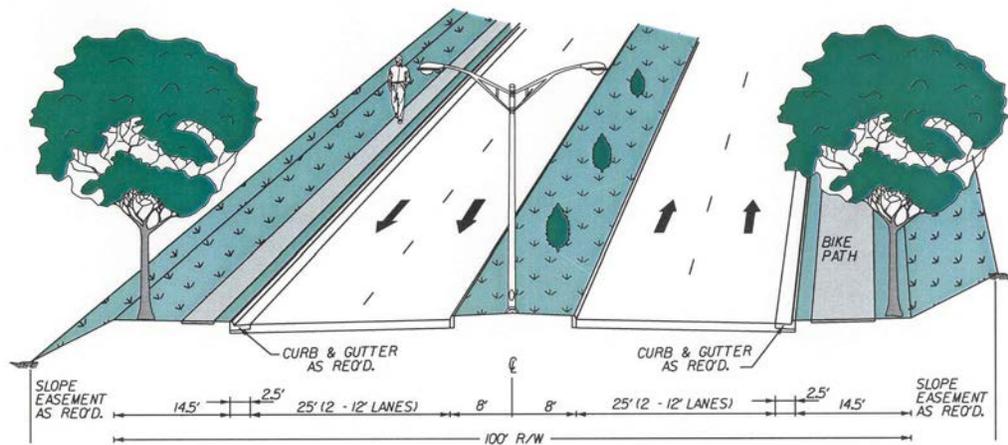
MINOR ARTERIAL - URBAN SECTION

Intersection Design with Dual Left Turn Lanes and Single Right Turn Lane



NOTES:

1. TURN LANES SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
2. LANE WIDTHS SHALL BE 12' EACH.
3. TRANSITION LENGTHS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
4. RIGHT OF WAY CHORDS AT THE INTERSECTION CORNERS ARE FOR TRAFFIC CONTROL EASEMENTS.
5. RECEIVING LANES FOR DUAL LEFT TURN LANES SHALL BE 15' IN WIDTH EACH WHICH WILL INCREASE THE RIGHT OF WAY REQUIREMENTS.



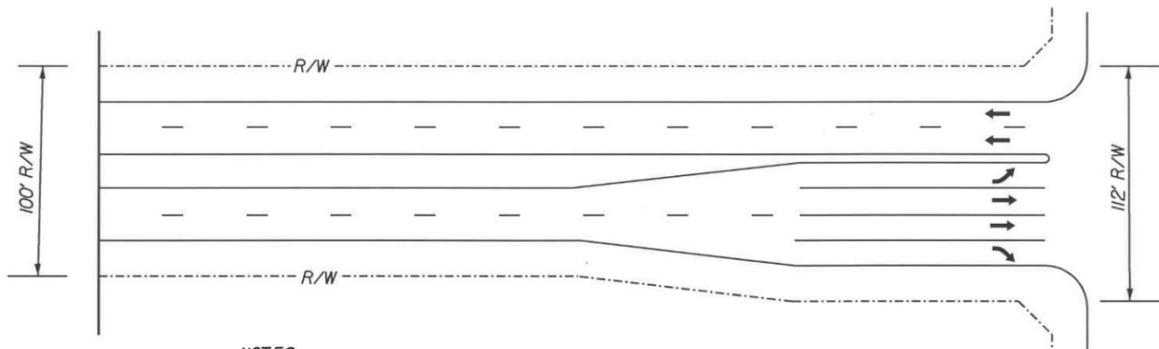
MINOR ARTERIAL - URBAN SECTION

NOTES:

1. MINIMUM ROADWAY DESIGN STANDARDS SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
2. RIGHT OF WAY REQUIREMENTS MAY VARY DUE TO SITE SPECIFIC DESIGN ISSUES.
3. RIGHT OF WAY REQUIREMENTS INCREASE AT INTERSECTIONS TO ACCOMMODATE TURN LANES.
4. LANDSCAPING, LIGHTING, SIDEWALKS, AND BIKE PATHS ARE FOR ILLUSTRATIVE PURPOSES ONLY.
5. MAJOR COLLECTORS AND MINOR ARTERIALS HAVE THE SAME TYPICAL SECTION. HOWEVER, THE HORIZONTAL AND VERTICAL DESIGN REQUIREMENTS ARE DIFFERENT.

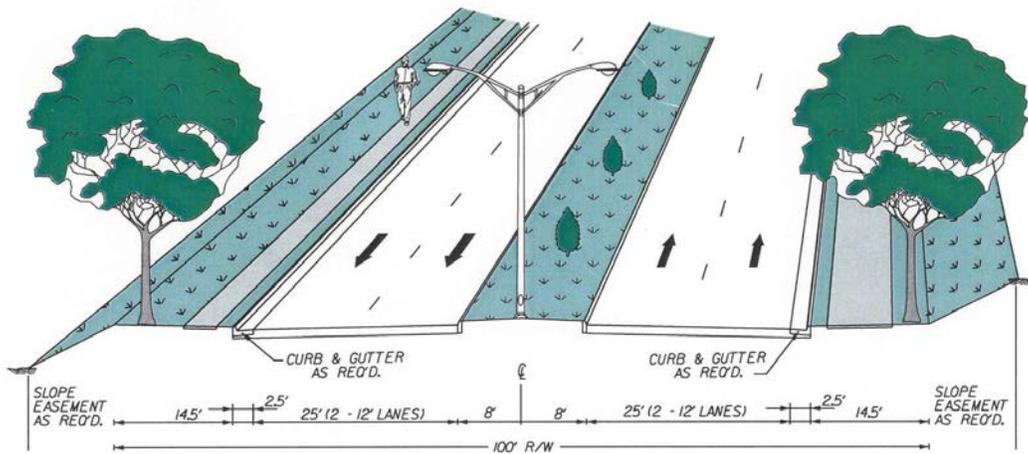
MAJOR COLLECTOR - URBAN SECTION

Intersection Design with Single Left Turn Lane and Single Right Turn Lane



NOTES:

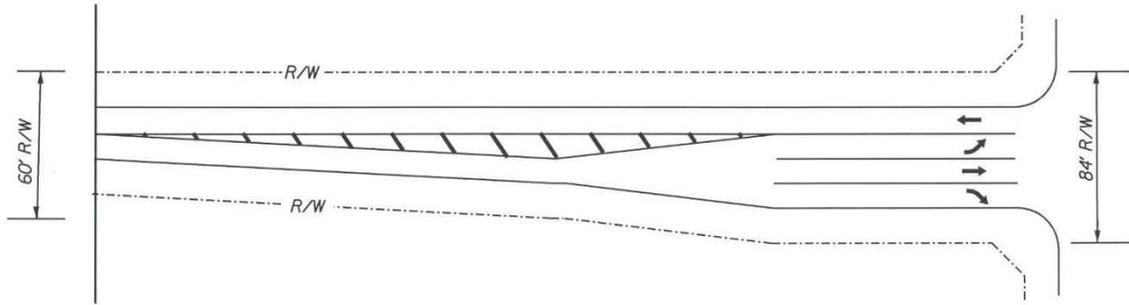
1. TURN LANES SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
2. LANE WIDTHS SHALL BE 12' EACH.
3. TRANSITION LENGTHS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
4. RIGHT OF WAY CHORDS AT THE INTERSECTION CORNERS ARE FOR TRAFFIC CONTROL EASEMENTS.



MAJOR COLLECTOR - URBAN SECTION

NOTES:

1. MINIMUM ROADWAY DESIGN STANDARDS SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
2. RIGHT OF WAY REQUIREMENTS MAY VARY DUE TO SITE SPECIFIC DESIGN ISSUES.
3. RIGHT OF WAY REQUIREMENTS INCREASE AT INTERSECTIONS TO ACCOMMODATE TURN LANES.
4. LANDSCAPING, LIGHTING, SIDEWALKS, AND BIKE PATHS ARE FOR ILLUSTRATIVE PURPOSES ONLY.
5. MAJOR COLLECTOR AND MINOR ARTERIAL HAVE THE SAME TYPICAL SECTION. HOWEVER, THE HORIZONTAL AND VERTICAL DESIGN REQUIREMENTS ARE DIFFERENT.

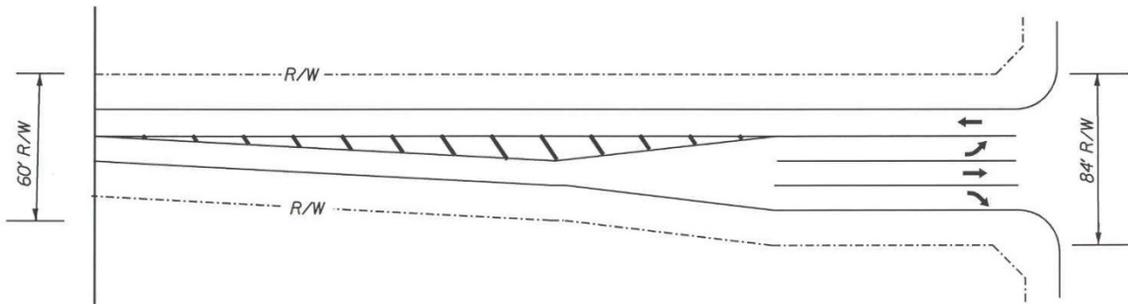


**MINOR ARTERIAL - RURAL SECTION (UNDIVIDED)
MAJOR COLLECTOR - RURAL SECTION (UNDIVIDED)**

*Intersection Design with
Single Left Turn Lane and
Single Right Turn Lane*

NOTES:

1. TURN LANES SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
2. LANE WIDTHS SHALL BE 12' EACH.
3. TRANSITION LENGTHS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
4. RIGHT OF WAY CHORDS AT THE INTERSECTION CORNERS ARE FOR TRAFFIC CONTROL EASEMENTS.



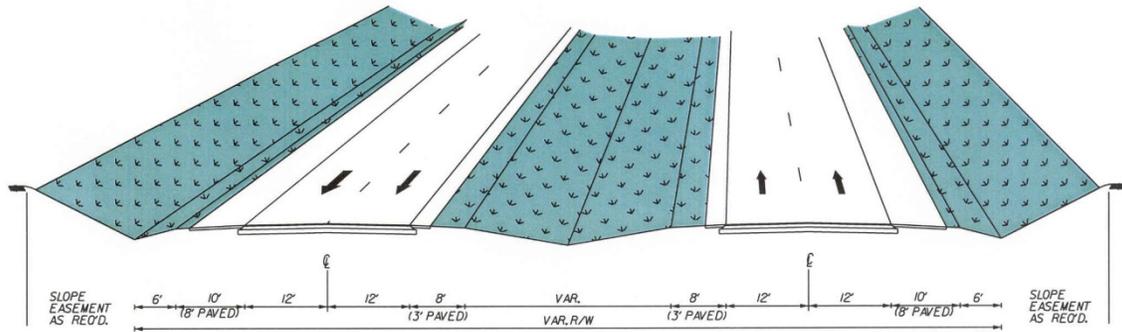
**MINOR ARTERIAL - RURAL SECTION (UNDIVIDED)
MAJOR COLLECTOR - RURAL SECTION (UNDIVIDED)**

*Intersection Design with
Single Left Turn Lane and
Single Right Turn Lane*

NOTES:

1. TURN LANES SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
2. LANE WIDTHS SHALL BE 12' EACH.
3. TRANSITION LENGTHS SHOWN FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
4. RIGHT OF WAY CHORDS AT THE INTERSECTION CORNERS ARE FOR TRAFFIC CONTROL EASEMENTS.

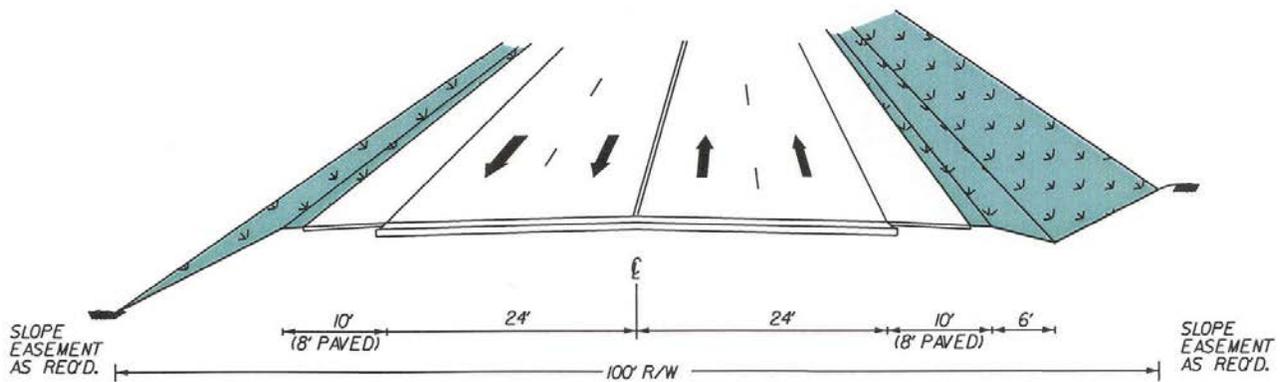
Transportation



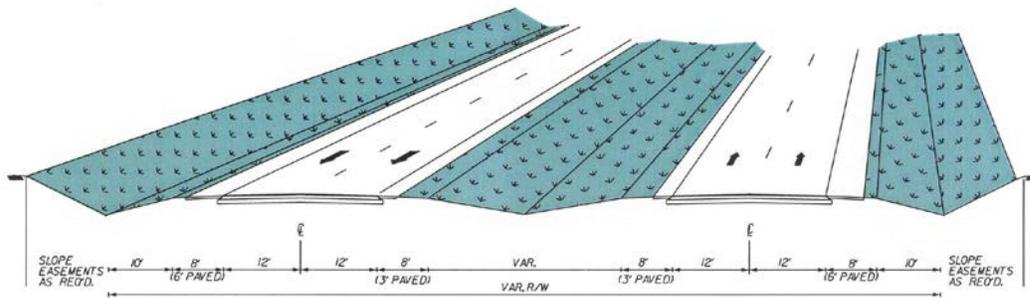
MINOR ARTERIAL - RURAL SECTION (DIVIDED)

NOTES:

1. MINIMUM ROADWAY DESIGN STANDARDS SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
2. RIGHT OF WAY REQUIREMENTS MAY VARY DUE TO SITE SPECIFIC DESIGN ISSUES.
3. RIGHT OF WAY REQUIREMENTS INCREASE AT INTERSECTIONS TO ACCOMMODATE TURN LANES.



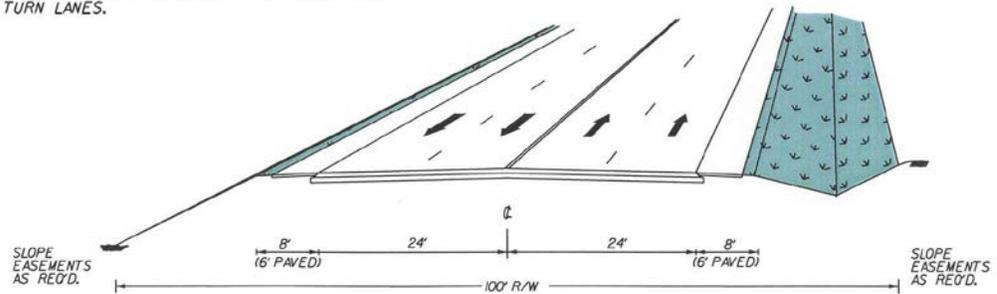
MINOR ARTERIAL - RURAL SECTION (UNDIVIDED)



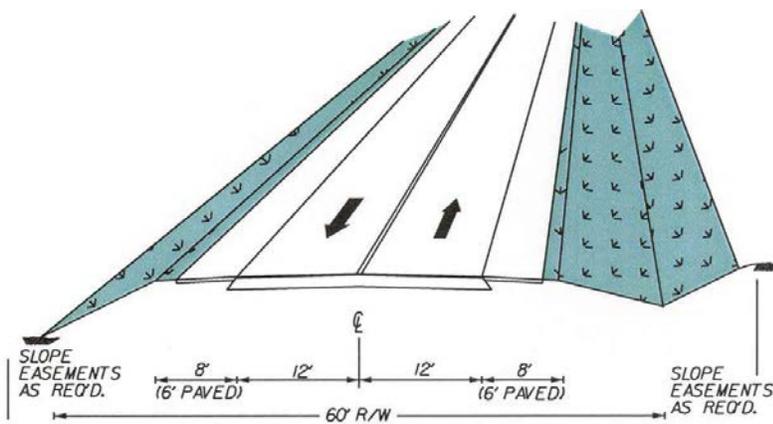
MAJOR COLLECTOR - RURAL SECTION (DIVIDED)

NOTES:

1. MINIMUM ROADWAY DESIGN STANDARDS SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
2. RIGHT OF WAY REQUIREMENTS MAY VARY DUE TO SITE SPECIFIC DESIGN ISSUES.
3. RIGHT OF WAY REQUIREMENTS INCREASE AT INTERSECTIONS TO ACCOMMODATE TURN LANES.



MAJOR COLLECTOR - RURAL SECTION (UNDIVIDED)



MINOR COLLECTOR - RURAL SECTION

NOTES:

1. MINIMUM ROADWAY DESIGN STANDARDS SHALL BE IN ACCORDANCE WITH THE VDOT ROAD DESIGN MANUAL.
2. RIGHT OF WAY REQUIREMENTS MAY VARY DUE TO SITE SPECIFIC DESIGN ISSUES.
3. RIGHT OF WAY REQUIREMENTS INCREASE AT INTERSECTIONS TO ACCOMMODATE TURN LANES

Strategies

- ◀ Prioritize projects which address the Commonwealth's SMART SCALE funding constraints by addressing, corridors of statewide significance, regional networks, safety improvements or Urban Development Area (UDA) needs. SMART SCALE projects compete within the District Grant program against projects in the same District. Projects may also compete in the broader State Grant program for High Priority Projects Program. It is important to identify such projects, and ensure they are included in the Richmond Regional Transportation Planning Organization Metropolitan Transportation Plan, and planned appropriately to meet needs identified within the VTrans Statewide Transportation Plan.
- ◀ Support development that sets aside adequate rights-of-way in accordance with the functional classifications and future roads as shown on the adopted Major Thoroughfare Plan. Promote the interconnection of communities to enhance vehicular, bicycle, and pedestrian circulation and reduce demand along existing and proposed thoroughfares
- ◀ Ensure that new development will not degrade the existing Level of Service at intersections of the applicable transportation network; achieving a Level of Service (LOS) D or better during peak hours should be the standard for evaluating transportation impact. Level of Service is a measure of delay. A road segment or intersection functioning at LOS A experiences no delay, while LOS F experiences unacceptable delay or "gridlock" conditions. LOS D in the AM and PM Peak Hours (rush hour) is generally acceptable. Although traffic does experience delay during the peak hours, traffic continues to move safely. Additionally, LOS D during the peak hours also means that there is little or no delay in the transportation network during off-peak hours
- ◀ Developers should evaluate impacts on existing road segments that would serve a proposed development project. It will be expected, when evaluating a new proposal, that new development will not significantly degrade existing service levels, and in no instance should forecast Levels of Service degrade below D.
- ◀ Participate in the development of long-range transportation plans with Regional, State, and Federal agencies that complement the Land Use, Transportation, and Economic Development policies of Hanover County
- ◀ Heavy trucking operations should be located to minimize truck traffic along secondary roads. Provide adequate transportation service commensurate with the metropolitan area to the extent practical to serve suburban areas of the County

Strategies

- < Reduce congestion in built-up areas and prevent congestion in developing areas by controlling the number of access points between highways and adjoining properties and requiring adequate street connections between developments
- 
- < Design roads in accordance with the typical cross sections contained herein
 - < Implement procedures for objectively establishing primary and secondary highway need priorities based on appropriate technical criteria
 - < Improve the capacity and safety of the major radial arterials through local reinforcement of the Long Range Transportation Plan goals adopted by the Richmond Area Metropolitan Transportation Planning Organization
 - < It is recommended that a study be conducted for a new interchange in an area between Hickory Hill Road (State Route 646) and Old Ridge Road (State Route 738) at Interstate 95
 - < A corridor design study is recommended for the Ashcake/Ashland Road corridor west of the Town of Ashland extending to the Hanover County/Goochland County boundary. The purpose of the corridor design study would be to develop guidelines that will protect the rural view shed and minimize impacts arising from anticipated suburban development along the corridor
 - < Encourage appropriate aesthetic site design for development located along roads designated as a Scenic Road
 - < An access design study is recommended for Old Telegraph Road. The purpose of the access design study is to look at appropriate and efficient alternatives for access from the Business-Industrial designated properties along Old Telegraph Road to Major Thoroughfares and to minimize traffic utilizing Old Keeton Road



Airport

The Hanover County Airport opened in 1971 and is conveniently located on approximately 250 acres of land east of I-95, between the Atlee-Elmont and Lewistown Road interchanges. As part of the National Transportation System, the airport provides general aviation service to both corporate clientele and the recreational pilot. The airport serves small single-engine and multi-engine aircraft, as well as corporate business jets.

The airport has been identified by the Federal Aviation Administration National Plan of Integrated Airport Systems (NPIAS) as a vital link to air service in the Richmond Metropolitan area. The airport has been designated as a reliever airport to Richmond International Airport (RIC) in the Virginia Air Transportation System. The function of a reliever airport is to reduce the amount of general aviation air traffic at airports such as RIC that receive commercial air service.

The airport also serves medical and law enforcement agencies as well as agricultural spray operations. During a disaster or crisis situation, the airport contributes to the relief effort by assisting agencies performing damage assessments, medical evacuations, air ambulance, delivery of emergency supplies, as well as a base/staging areas for search/rescue, media coverage, and other disaster response teams.

As part of the NPIAS, the Airport is required to be safe, convenient and affordable to users, able to meet demand, and available for aeronautical use over the long term. In order to receive Federal and State grant-in-aid support, the airport must maintain a current Airport Layout Plan, showing existing and planned facilities over a 20 year planning period. The last revision was prepared by Campbell and Paris Engineers dated May 2000 and adopted by the Board of Supervisors on March 27, 2002 and approved by the FAA on May 1, 2002. The latest Update was in May 2006 and included demolishing 2 rows of older T-Hangars along with construction of 3 new rows of T-Hangars plus 2 Corporate/Community Clear Span Hangars and extension of the Maintenance Hangar.

Airport Facilities

Development plans for the airport are outlined in Airport Layout Plans and supported by a Master Plan document. The Airport Master Plan document analyzes the trends in demographics and economic development within Hanover County and the trends in aviation activity within Virginia and the nation as a whole. Forecasts of aviation activity are developed to identify the necessary airport facility requirements, and Airport Layout Plans are prepared depicting the development strategy for the airport over the next 20 years. For a capital improvement project to be eligible for FAA and/or VDA funding it must be depicted on the approved/adopted Airport Layout Plan. No federal or state funding is available for capital development not included on the Airport Layout Plan. Prior to any capital development, the airport, as a public facility, is subject to a conditional use permit. The Board of Supervisors grants a conditional use permit after review by the Planning Commission, and after public notice and public hearings, all in accordance with the Zoning Ordinance.

Based on the Master Plan, the airport will not expand beyond its role as a general aviation reliever airport, and no improvements are planned which would change that role. All capital development focuses on improving the airport's public facilities and continued improvement of operational safety in accordance with FAA regulations.

Improvements planned for the Hanover County Airport are intended to maintain its importance in the regional general aviation system. In accordance with the 1990 Airport Master Plan, several capital improvements were made to improve the safety of the airfield, including the widening and pavement strengthening of the runway and taxiway, the addition of apron space for maneuvering of aircraft, improved parking facilities, and the construction of a 750 foot runway extension to improve landing in all weather conditions. All future capital improvements of the airport will be based on the Airport Layout Plan drawings associated with the Airport Master Plan 2000, dated May 2000, prepared by Campbell and Paris Engineers, and adopted by the Board of Supervisors, March 27, 2002. It is the intention of the County to meet aviation demand efficiently and safely.

Airport Master Plan

The 2000 Airport Master Plan includes the following recommendations:

1. Improve Instrument Approaches 0-5 years.

As of 2000, the north approach has ≥ 1 -mile visibility minimums, and the south approach has visual minimums. Planned improvements call for improving the north approach visibility minimums to $\geq \frac{3}{4}$ -mile and the south approach minimums to ≥ 1 -mile. Currently, the requirements of these improved minimums include a larger Runway Protection Zone for the north approach and an increase in the FAA Part 77 Primary Surface width from 500 feet to 1,000 feet. It is anticipated, however, that navigational technology will become more accurate once GPS is fully functional in the aviation environment. This may result in the reduction of the required width of the Part 77 surface below 1,000 feet. The $\geq \frac{3}{4}$ -mile visibility will not be enacted until such time as FAA regulations result in no significant impact to the properties west of the runway. The County may require that buildings be marked and lighted to the west of the runway at such time as the $\geq \frac{3}{4}$ mile visibility is implemented. The cost of installation of lighting will be the responsibility of the County. To improve approaches in all weather conditions, additional lighted navigational aids will be installed on airport property, which will further result in safer operations during decreasing weather conditions.

2. Remove Part 77 Obstructions as appropriate 0-15 years.

Recognizing the improved approaches requires the County to continue to remove obstructions in the FAA Part 77 Approach and Transitional surfaces.

3. Development of new East Side Facilities 0-15 years

Improvements to the terminal facilities should focus on the east side of the runway as originally recommended in the 1990 Airport Master Plan and further detailed in the 2000 Airport Master Plan. Existing west side facilities are constrained, and development to meet anticipated economic growth is inhibited on the west side. New facilities on the east side of the runway will accommodate demand for the next 20 years with opportunities for expansion beyond 20 years, if necessary.