



**TRANSPORTATION**  
**Draft Text (July 10, 2023)**

**Goal**

Hanover County will provide an efficient, safe, and attractive multi-modal transportation network that accommodates the needs of residents, visitors, and businesses.

**Why It Matters**

This section of the Comprehensive Plan provides guidance on how to create a safe and efficient transportation network that is able to accommodate the needs of residents, visitors, and businesses.

One major component of this section is the Major Thoroughfare Plan (MTP). The County adopted its first MTP in 1972. Using the existing roadway network as its basis, the MTP identifies needed improvements to the transportation system to accommodate anticipated development shown on the General Land Use Plan, creating a vision of the ultimate road network. In general, changes to the road network will involve improvements to existing facilities, along with new roads to create alternate routes and improve connectivity.

Land use and transportation are closely linked. Development has occurred where there is access to local roads and regional highways. As the County continues to grow, stakeholders will have to work together to address the safety, capacity, and efficiency of the transportation network. Since funding is limited, the County must set clear investment priorities.

The Comprehensive Plan and MTP focus on improving mobility for motorists, as well as for pedestrians and cyclists. Recommendations in this section, along with recommendations within Chapter 7: Active Living, offer guidance on how public and private partners could provide residents and visitors (particularly within the Suburban Service Area) with safe and convenient options to reach their destinations, whether they choose to walk, bike, or drive.

During the public engagement process, many participants commented on the need to improve the local roadway network, and increased traffic/congestion was identified as one of the biggest concerns looking into the future. Recommendations within this chapter provide guidance on how the local transportation network could be improved to address those concerns.

## Measuring Our Progress

- Total Number of Crashes and Injuries
- Number of High-Crash Road Segments and Intersections Identified in VDOT's Potential Safety Improvement Tool (PSI)
- Mileage of Public Roadways
- Number of Road Projects Improving Over-Capacity Roadways

## Quick Facts

- All public roads and bridges (outside of the Town of Ashland) are operated and maintained by the Virginia Department of Transportation (VDOT). VDOT also maintains roadside ditches, performs snow removal functions, and builds new roads.
- In Hanover County, VDOT maintains 2,189.26 miles of roadway (as of December 31, 2021).

## Key Considerations

As Hanover County works collaboratively with public and private partners to improve the local transportation network, the following issues are considered:

Safety	Improve existing facilities and design new facilities to address safety concerns, creating a transportation network safe for motorists, pedestrians, and cyclists.
Capacity	Improve roadways where traffic volumes exceed design capacities.
Connectivity	Make travel more efficient for all users by creating better connections between and within key areas.
Community Character	Design roadway improvements to reflect the character of the surrounding area and planned land uses.
Economic Development	Provide adequate access to planned Economic Development Zones (EDZs), accommodating the transportation needs of new and existing businesses.
Funding	Prioritize planned improvements and leverage different funding sources, as there is not enough funding available to address all transportation needs. Due to funding constraints and criteria used to award state and federal funding, improvements are often not funded until there is a critical need.

## Key Stakeholders

Different stakeholders are involved in maintaining and improving the County's transportation network:

- **Virginia Department of Transportation (VDOT)**

All public roads and bridges (outside of the Town of Ashland) are operated and maintained by VDOT. VDOT also maintains roadside ditches, performs snow removal functions, and builds new roads. As development occurs adjacent to public roads, VDOT approves the location of driveways and other entrances that provide access to properties along state-maintained roadways.

As part of the rezoning, site plan, and subdivision review processes, VDOT partners with the County to review plans for new roadways (and improvements to existing roadways) proposed as part of new development. VDOT also helps review any traffic impact analysis (TIA) submitted in conjunction with a development proposal.

- **Hanover County**

Hanover County adopts plans and policies that identify potential transportation improvements, which describe what infrastructure must be provided as part of new development.

Hanover County partners with VDOT to improve public roads, as the County does not maintain these roadways. The Department of Public Works submits applications to VDOT, the Central Virginia Transportation Authority (CVTA), and the Richmond Regional Transportation Planning Organization (RRPTO) seeking funding for transportation improvements and constructs many projects under local administration agreements with VDOT to advance local priorities. Local CVTA funds (which are generated from a regional gasoline tax and sales tax) are allocated to projects by the Board of Supervisors.

- **Town of Ashland**

The Town of Ashland maintains public roads within its limits.

- **Landowners**

Some properties in Hanover County are accessed by *private roads*. Private roads are not maintained by VDOT or Hanover County, but solely by adjoining property owners. In many instances, a *road maintenance agreement* identifies which property owners are responsible for maintaining and repairing the roadways. These agreements are recorded with the Clerk of the Court and are privately enforced by the associated property owners.

- **Developers**

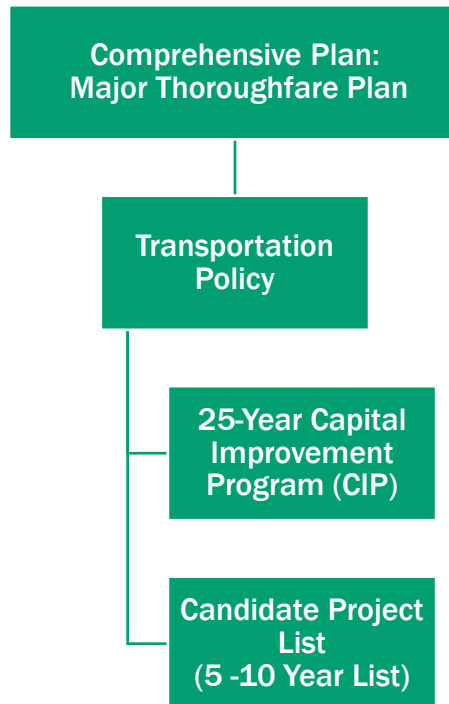
Internal roads must be constructed within residential, commercial, and industrial development in accordance with standards set forth in the zoning and subdivision ordinances. Depending upon the type of development, internal roads may be privately maintained or public roads constructed to VDOT standards. Not only must the internal roadway network be constructed, but entrances to the development from public roads

must be built to VDOT standards. As part of the rezoning process, a traffic impact analysis (TIA) may be required to identify potential impacts a proposed development may have on the local transportation network. The developer may proffer (or guarantee) to build specific transportation improvements (such as installing turn lanes, installing a traffic signal, constructing additional lanes, etc.) and/or proffer cash contributions that the County can use to make transportation improvements. As a site is designed, additional right-of-way may be dedicated to the County or reserved to accommodate future roadway improvements (as indicated in the MTP). Developers may also construct concept roads (proposed thoroughfares) shown on the MTP that are internal to their projects.

<b>Measuring Capacity and Impacts to Local Roadways</b>
Level of service (LOS) is a term used to qualitatively describe the operating conditions of a roadway, based upon speed, travel time, maneuverability, delay, and safety. There are six LOS categories (A through F) used to evaluate roads. LOS A through D are generally considered acceptable, while LOS E and F are considered congested and undesirable. Achieving a LOS D or better during peak hours has been the standard for evaluating transportation impacts in Hanover County.

**Planning for the Future: Relationship between the Major Thoroughfare Plan (MTP) and Other Transportation Policies**

The MTP establishes a high-level framework regarding development of the local roadway network. This framework informs more detailed transportation plans and policies.



The MTP addresses the following components of the local roadway network:

Plan Component	Overview
Functional Road Classifications	<i>Functional Road Classifications</i> describe how different roadways are intended to serve adjacent properties and the community as a whole, based upon existing and future conditions.
Scenic Roads	<i>Scenic Roads</i> are locally-designated roadways that highlight unique aspects of the County's rural, natural, and/or historic character.
Focus Corridors	<i>Focus Corridors</i> include roadways that, based primarily upon existing and/or future traffic volumes, should be the focus of future roadway improvements and transportation planning efforts.
Concept Roads	<i>Concept Roads</i> are future roadways that could be constructed to improve connectivity, reduce congestion, and/or address other mobility issues.

More detail regarding these different components is provided on the following pages.

### Functional Road Classifications

Existing and future roads are classified and shown on the Major Thoroughfare Plan (MTP), based on the transportation function they serve. Different classes of roads must meet different standards of design.

Typical cross-sections have been developed for each type of roadway. There is an urban cross-section, which applies to roadway segments located within the Suburban Service Area (SSA) or along the boundary of the SSA. Urban roadways should typically be designed with curb and gutter, with sidewalks accommodating pedestrian travel. Rural cross-sections apply to roadway segments outside of the SSA. Rural roadways may be designed with open ditches. These typical-cross sections should be referenced when determining the width of right-of-way dedications and reservations. Typical intersection designs have also been included and indicate that additional right-of-way is usually needed at intersections to accommodate turn lanes and other improvements.

Note that the typical sections show a utility corridor. This area is intended to accommodate utilities that may need to be relocated as part of roadway widening projects. While this area may be within dedicated right-of-way, it is preferred that an easement be reserved and left undeveloped to accommodate future utility relocation. It is included in the recommended right-of-way width listed below.

The following is a description of the road classifications used in the County. These classifications differ from functional classifications used by VDOT.

### Functional Road Classifications

Classification	Description	Recommended Right-of-Way Width
Interstate/Freeway	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. Interstate 95 and Interstate 295 are the only roads recommended for this classification.	350 ft.
Major Arterial	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.  Example Roadways: U.S. Route 33, U.S. Route 301, U.S. Route 360	Urban: 140 ft. Rural: 127 ft.
Minor Arterial	Minor arterials are intended to carry vehicular traffic from one part 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.  Example Roadways: State Route 54, Sliding Hill Road, Ashland Road	Urban: 120 ft. Rural: 127 ft.
Major Collector	This road type collects vehicular traffic in the region and directs it towards the arterial road network. Access 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.  Example Roadways: Lee-Davis Road, Shady Grove Road, Cedar Lane	Urban: 120 ft. Rural: 127 ft.
Minor Collector	This road type collects vehicular traffic from the region and directs it towards the arterial road network. Because these roads are generally in less developed areas, access restrictions should be similar to local streets.	Urban: 80 ft. Rural: 60 ft.

	Example Roadways: Old Church Road, Cool Springs Road, Greenwood Road	
Local Road	Local roads typically provide direct access to residential neighborhoods and businesses, providing the greatest access to adjacent properties. They typically carry lower traffic volumes at lower speeds.	50 ft.

### Scenic Roads

*Scenic Roads* are locally-designated roadways that highlight unique aspects of the County’s rural, natural, and/or historic character. For example, these roadways may:

- Provide access and views of battlefield sites and/or other historic resources;
- Offer views of large expanses of farmland;
- Provide unique views of forestland, with a mature tree canopy enveloping the roadway; and/or
- Offer views of rivers, streams, and other scenic waterways.

Chapter 3: Land Use + Growth Management provides recommendations on how new development along locally-designated Scenic Roads can be designed to help preserve the visual character of these corridors. Roadway improvements along these corridors should be thoughtfully designed to preserve and highlight unique characteristics and views of the surrounding area.

VDOT has not designated any State Scenic Byways in Hanover County, but locally-designated scenic roads are listed below.

### Locally-Designated Scenic Roads

Roadway	Segment Designated Scenic
Old Ridge Road	Beaver Dam Road to U.S. Route 1
Parsons Road	Entire Length
Shiloh Church Road	Rocky Ford Road to Woodsons Mill Road
Hollowing Creek Road	Entire Length
Tyler Station Road	Hollowing Creek Road to Beaver Dam Road
New Market Mill Road	Entire Length
Rocketts Mill Road	Entire Length
Scotchtown Road	Entire Length
Greenwood Church Road	Entire Length
Ashland Road	Entire Length
Ashcake Road	Greenwood Church Road to Elmont Road

Blunts Bridge Road	Old Ridge Road to Blunts Road
Hickory Hill Road	Entire Length
River Road	Entire Length
Williamsville Road	River Road to Studley Road
Rural Point Road	Entire Length
Old Church Road	Entire Length
Piping Tree Ferry Road	Entire Length
Crown Hill Road	Entire Length
Cold Harbor Road	Beaverdam Creek to Market Road

### **Focus Corridors**

As part of the planning process, traffic volumes were analyzed based upon existing conditions and potential future conditions in 2045 (as shown on the General Land Use Plan). Traffic volumes were compared to anticipated capacity (how much traffic a particular roadway type can typically handle). Additionally, VDOT's Potential Safety Improvement Tool (PSI) was used to identify roadways and intersections where there are safety issues. Based upon this analysis, the corridors listed below should be the focus of transportation improvements through 2045. Rezoning requests and other land use proposals located along these corridors should be thoroughly reviewed and analyzed to identify potential transportation impacts and mitigating improvements. Along some of these corridors, specific road improvement projects are already funded and/or planned to address identified capacity and/or safety issues. The corridors are not listed in any particular order.



### List of Focus Corridors

Corridor	Rationale			
	Portions of Roadway Approaching Capacity or Overcapacity under Existing Conditions	Portions of Roadway Approaching Capacity or Overcapacity under Potential Future Conditions (2045)	Roadway Provides Access to an Economic Development Zone (EDZ)	Roadway Provides Key Connection
U.S. Route 33 (Montpelier to Henrico County Line)	X	X	X	
Ashland Road	X	X		
Blanton Road				X
Winns Church Road				X
Elmont Road	X	X		
Cedar Lane (Elmont Road to U.S. Route 1)	X	X		
U.S. Route 1 (Town of Ashland to Henrico County Line)		X		
Lewistown Road (Lakeridge Parkway to Ashcake Road)	X	X		
Ashcake Road		X		
Goddins Hill Road + Mount Hermon Road (Goddins Hill Road to Peaks Road/Ashcake Road)				X
New Ashcake Road	X	X		
Atlee Station Road	X	X		
Atlee Road	X	X		
Shady Grove Road (U.S. Route 301 to Meadowbridge Road)	X	X		
Meadowbridge Road (Atlee Road to Henrico County Line)		X		

Corridor	Rationale			
	Portions of Roadway Approaching Capacity or Overcapacity under Existing Conditions	Portions of Roadway Approaching Capacity or Overcapacity under Potential Future Conditions (2045)	Roadway Provides Access to an Economic Development Zone (EDZ)	Roadway Provides Key Connection
Pole Green Road	X	X		
Lee-Davis Road (Pole Green Road to Cold Harbor Road/Walnut Grove Road)	X	X		
Walnut Grove Road (Cold Harbor Road/Lee-Davis Road to U.S. Route 360)	X	X		
Creighton Road	X	X	X	
W. Patrick Henry Road (Town of Ashland to Horseshoe Bend Road)		X		
E. Patrick Henry Road (Town of Ashland to Goddins Hill Road)		X		
Old Church Road (U.S. Route 360 to Piping Tree Ferry Road)		X		
Cold Harbor Road (U.S. Route 360 to Lee-Davis Road/Walnut Grove Road)	X	X		
Cold Harbor Road (Henrico County Line to Market Road)	X	X		
Market Road (Cold Harbor Road to Fox Hunter Lane)	X	X		
Hickory Hill Road (Elletts Crossing Road to Old Ridge Road)			X	
Old Ridge Road (U.S. Route 1 to Hickory Hill Road)			X	

### **Concept Roads (Proposed Thoroughfares)**

The MTP identifies **concept roads**, which are proposed major thoroughfares that, once built, are intended to:

- Create an interconnected road network that offers motorists multiple alternative routes to destinations;
- Provide congestion relief by creating alternative routes parallel to existing roadways experiencing capacity issues; and/or
- Improve access to Economic Development Zones (EDZs).

Concept roads shown on the MTP include:

- Elmont Road/Vaughan Drive Connector
- Lakeridge Parkway Extension
- Lewistown Road Extension
- Sliding Hill Road/Cedar Lane Connector
- Woodside Lane Extension
- Woodside Lane Parallel Road
- Jamestown Road Extension
- Bell Creek Road/Academy Drive/Shady Grove Road Connector
- Verdi Lane/Studley Road Connector
- Creighton Parkway
- Connector Road at Future I-95 Interchange (North of Ashland)
- Richfood Road Extension

Detailed alignment studies have not been completed for all of these proposed roadways, so the MTP typically only shows a general alignment. Future studies could further define the specific route of each concept road. As development occurs, right-of-way should be reserved for these future roadways.

### **Completed Alignment Studies**

Specific roadway alignments have been developed for the following roadways. Some alignment studies address *concept roads*, while others address improvements to existing major thoroughfares:

- **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.

- **Atlee Station Road**

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.

- **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.

### **Funded Transportation Projects**

The candidate project list identifies specific projects that the County is pursuing funding for. Many of these projects are located along *focus corridors* listed previously. The projects below are projects from the 2021 Candidate Project List that have been funded. Note that the Candidate Project List (also referred to as the 10-Year Funding Plan) is updated annually, so may change during the planning horizon.

<b>Project</b>	<b>Description</b>	<b>Cost Estimate</b>	<b>Status (Summer 2023)</b>
U.S. Route 360/ Lee Davis Road	Widen U.S. Route 360 Improve Intersection	\$34,304,420	Underway
Pole Green Road Widening	Widen from 2 to 4 lanes between Bell Creek Road and Rural Point Road	\$26,267,937	Underway
Atlee Station Road Widening (Ph. II)	Widening from 2 to 4 lanes between Warren Avenue and Kings Charter Drive	\$33,729,078	Underway
Sliding Hill Road/Peaks Road/Ashcake Road Roundabout	Intersection Improvement (Roundabout)	\$7,502,000	Funded

Some of these projects are partially funded through funds allocated in the Secondary Six-Year Plan (SSYP), including Pole Green Road Widening and Atlee Station Road Widening (Phase II). The SSYP is a fiscally-constrained plan updated annually to reflect current revenue estimates, project schedules, and project costs, with projects remaining in the plan until they are complete and have undergone financial close-out.

### **Accessibility for Seniors and Residents with Disabilities**

Seniors and residents with disabilities may use alternative transportation options to reach their destinations, as they may be unable to drive their own vehicles. Beginning in late 2019, Hanover County (with support from a grant from the Virginia Department of Rail and Transportation) began offering specialized transportation service to older adults and residents with a disability through Hanover DASH. This program offers direct, non-stop service (with an advanced booking) to residents age 65 or older and/or residents that have a demonstrated short-term or long-term disability.

The County is also working to expand pedestrian and bicycle connectivity, providing active seniors with opportunities to walk and bike to nearby destinations within suburban areas. Chapter 7: Active Living provides recommendations on how to connect neighborhoods with schools, libraries, grocery stores, and other daily necessities through the creation of a pedestrian and bicycle “spine network” within the Suburban Service Area (SSA).

### **Overall Objectives and Strategies for Transportation**

*Objective TR.1: Design road networks that provide alternative route options to help reduce congestion.*

- Strategy TR.1a: Promote interconnections between existing and planned developments during the zoning process to minimize impacts to a single corridor.
- Strategy TR.1b: Encourage the creation of an interconnected internal street and pedestrian/bicycle network within new development, discouraging the use of dead-end streets and cul-de-sacs except in areas where topography and environmental constraints limit connectivity.

- Strategy TR.1c: Complete alignment studies for concept roads shown on the MTP, providing more detail and specificity as to where these roadways may ultimately be constructed.
- Strategy TR.1d: Conduct a study for a new possible interchange along Interstate 95 north of the Town of Ashland at or near Hickory Hill Road or Old Ridge Road.

*Objective TR.2: Consider the impacts of land use decisions on the transportation network.*

- Strategy TR.2a: Require the submittal of traffic studies for rezoning requests in accordance with the latest version of the *Business and Residential Development Road Improvements Transportation Policy* and/or VDOT requirements, especially for proposals located along or near identified *Focus Corridors*.
- Strategy TR.2b: Seek to obtain roadway improvements where development creates a need (or an identifiable portion of a need) for capacity and/or safety improvements, and coordinate other sources of funding to implement projects that will minimize the adverse effect of new development on level of service along major thoroughfares. Achieving a LOS D or better during peak hours should be the standard for evaluating transportation impacts.
- Strategy TR.2c: Maintain the efficient functioning of roadways through development and implementation of access management guidelines (in partnership with VDOT).
- Strategy TR.2d: Work to minimize the number of access points along major thoroughfares, maximize spacing between access points, and ensure adequate entrance design (e.g. appropriate radii for use type/expected traffic, adequate turn lanes/tapers, etc.) during the rezoning process.
- Strategy TR.2e: Discourage “road stripping” (multiple individual driveways and access points) along rural roadways as part of rural residential development to enhance safety, maintain roadway functionality, and improve aesthetics.
- Strategy TR.2f: Ensure that adequate right-of-way is reserved along existing and proposed major thoroughfares to accommodate future improvements (both mainline improvements and intersection improvements).
- Strategy TR.2g: Review local policies regarding transportation proffers.

*Objective TR.3: Create a multimodal transportation network that satisfies all user needs.*

- Strategy TR.3a: Design roads in accordance with the typical cross-sections included within the MTP in balance with transportation needs, existing roadway conditions, and available right-of-way.
- Strategy TR.3b: Design roadway improvements and other public facilities to incorporate safe, convenient, and comfortable pedestrian/bicycle infrastructure that provides thoughtful and direct connections to residential areas and community destinations.
- Strategy TR.3c: Identify the feasibility (including possible funding sources) of retrofitting established neighborhoods to include pedestrian/bicycle infrastructure, traffic calming, street lighting, and/or other amenities that support pedestrian/bicycle mobility within the Suburban Service Area (SSA).

- **Strategy TR.3d: Continue to support transportation options for seniors and residents with disabilities, such as Hanover DASH.**

***Objective TR.4: Design roadways to reflect the character of the surrounding area and create attractive community gateways.***

- **Strategy TR.4a: Consider how the design of proposed development and transportation improvements located along *Scenic Roads* preserves and highlights unique characteristics and views of the surrounding area.**
- **Strategy TR.4b: Consider the character of the surrounding community when designing roadway improvements, with special consideration given to preserve and highlight critical environmental, historic, and cultural resources in the immediate area.**
- **Strategy TR.4c: Investigate funding mechanisms that could be used to support the installation and maintenance of landscaping in medians along key gateway corridors.**