

**MONTGOMERY COUNTY PLANNING COMMISSION
DECEMBER 11, 2013
SITE VISIT AGENDA**

No Site Visits Scheduled

5:15 PM Meet at Government Center for shuttle to dinner

5:30 PM Dinner at Cracker Barrel, 30 Hampton Blvd. NE, Christiansburg, VA

MONTGOMERY COUNTY PLANNING COMMISSION
December 11, 2013 @ 7:00 P.M.
Board Room, Government Center
755 Roanoke Street, Christiansburg, VA

A G E N D A

CALL TO ORDER:

DETERMINATION OF A QUORUM:

APPROVAL OF AGENDA:

APPROVAL OF CONSENT AGENDA:

PUBLIC ADDRESS:

DELEGATION:

- Virginia Tech Environmental Studio Class Presentation

OLD BUSINESS:

NEW BUSINESS:

- Election of Officers (Nominating Committee)
- 2014 Work Program Discussion (Steve Sandy)

WORK SESSION:

- Comprehensive Plan Transportation Chapter Update (Steve Sandy)

LIAISON REPORTS:

- Board of Supervisors- Chris Tuck
- Agriculture & Forestal District- Joel Donahue
- Blacksburg Planning Commission – Coy Allen
- Christiansburg Planning Commission – Cindy Disney
- Economic Development Committee – Bryan Rice
- Public Service Authority – Joel Donahue
- Parks & Recreation – Scott Kroll
- Radford Planning Commission – Frank Lau
- School Board – Bryan Katz
- Tourism Council – Vacant
- **Planning Director's Report**- Steven Sandy

MEETING ADJOURNED:

UPCOMING MEETINGS:

Dec. 18, 2013 Planning Commission Regular meeting – **CANCELLED**

MERRY CHRISTMAS AND HAPPY NEW YEAR!

Jan. 8, 2014 Planning Commission Public Hearing (7:00 pm)

Jan. 15, 2014 Planning Commission Site Visit (To be determined)
Planning Commission Regular meeting (To be determined)

Jan. 29-30, 2014 Certified Planning Commissioner Program; Courtyard by Marriott, Blacksburg

Feb. 12, 2014 Planning Commission Public Hearing (7:00 pm)

Feb. 19, 2014 Planning Commission Site Visit (To be determined)
Planning Commission Regular meeting (To be determined)

**MONTGOMERY COUNTY PLANNING COMMISSION
CONSENT AGENDA
December 11, 2013**

A. APPROVAL OF MINUTES

- November 13, 2013

ISSUE/PURPOSE:

The above listed minutes are before the Planning Commission for approval.

AT A MEETING OF THE MONTGOMERY COUNTY PLANNING COMMISSION ON NOVEMBER 13, 2013 IN THE MULTIPURPOSE ROOM, SECOND FLOOR, COUNTY GOVERNMENT CENTER, CHRISTIANSBURG, VIRGINIA:

CALL TO ORDER:

Mr. Rice, Chair, called the meeting to order.

DETERMINATION OF A QUORUM:

Ms. Disney established the presence of a quorum.

Present: Bryan Rice, Chair
Joel Donahue, Vice-Chair
Cindy W. Disney, Secretary
Coy Allen, Member
Scott Kroll, Member
Frank Lau, Member
Erin Puckett, Senior Program Assistant
Steven Sandy, Planning Director

Absent: Sonia Hirt, Member
Bryan Katz, Member
Chris Tuck, Board of Supervisors Liaison
Brea Hopkins, Development Planner
Dari Jenkins, Planning & Zoning Administrator

APPROVAL OF AGENDA:

On a motion by Mr. Donahue, and seconded by Coy Allen, and unanimously carried the agenda was approved.

APPROVAL OF CONSENT AGENDA:

On a motion by Joel Donahue, and seconded by Cindy Disney, and unanimously carried the consent agenda was approved.

PUBLIC ADDRESS:

Mr. Rice opened the public address. However, there being no comments the public address was closed.

OLD BUSINESS:

None presented.

NEW BUSINESS:

Mr. Rice appointed Coy Allen, Frank Lau, and Scott Kroll to the nominating committee.

Mr. Sandy explained that the nominating committee could meet directly before the next Planning Commission meeting, or whenever is convenient, to determine nominees for Chair, Vice Chair, and Secretary.

Mr. Kroll asked if any qualifications needed to be taken into consideration for these positions.

Mr. Sandy said that anyone on the Planning Commission would be eligible to fill those positions. He further **noted that some Commissioners'** terms were coming to an end over the next few months, but any one of those could be reappointed, other than Mr. Rice, who is currently in his second term.

Mr. Rice asked Mr. Sandy if the Board had said anything in regards to the open Planning Commission position.

Mr. Sandy said that they had not.

Ms. Disney reported that she had submitted her letter of reappointment.

Mr. Rice explained that all current members were eligible to be nominated.

Mr. Kroll asked what would happen if someone does not return after their end of term in June.

Mr. Sandy explained that whoever was appointed to a position would continue until their term was up and then could be reappointed.

Mr. Rice further clarified that a position can be filled again later if that member is not reappointed.

Mr. Kroll suggested that Mr. Lau chair the nominating committee since he has seniority.

Mr. Lau noted that those members on the nominating committee can also be appointed to any of the positions.

Mr. Sandy added that anyone can nominate additional candidates beyond those selected by the committee.

WORK SESSION:

On a motion by Mr. Donahue and seconded by Mr. Allen and unanimously approved, the Commission entered into work session.

Comprehensive Plan Transportation Chapter Update

Mr. Sandy explained that the process of updating the Transportation chapter of the Comprehensive Plan has been ongoing for some time. An intern had begun work on the chapter last year by pulling some of the additional information required now by State Code. Ms. Puckett has been reworking that chapter recently, as much of it needed to be redone. Mr. Sandy further explained that the goal is to get the draft completed and sent to VDOT before he leaves in January 2014. After VDOT reviews and comments on the chapter, a new version can go to public hearing. Originally, staff had hoped to complete the chapter before the end of the year; the new goal is to have it to VDOT by then.

Mr. Sandy then discussed the State Code requirements in regards to the transportation chapter.

Mr. Donahue commented that the State Code only requires plans to discuss roads, and does not mention any other modes.

Mr. Sandy said that this plan includes information regarding rail, bicycle and pedestrian infrastructure, and other modes. The chapter should ultimately be relatively concise, and can link to other regional and state plans to avoid being too lengthy and redundant.

Mr. Sandy explained that Ms. Puckett has reorganized the chapter into seven (7) sections; the first two introductory and background sections have been carried over from the old plan with some updates. The next four (4) sections were added, and the final section will list the goals – this has not been updated yet from the previous version.

Mr. Donahue asked for confirmation that the transportation chapter of the Comprehensive Plan is a new state requirement, and if so, did the county do it voluntarily in 2004.

Mr. Sandy explained that the specific state requirements are new, so the chapter just needed to be updated to meet State Code. However, staff took this as an opportunity to update the entire chapter.

Mr. Kroll asked how projects are determined for the local six year plan.

Mr. Sandy said that the selection and prioritization goes through a public hearing at the Board of Supervisors. Initially, VDOT suggests roads that need improvement, and will talk to the Planning Department during this process. The County Administrator will then schedule a hearing. Board members may also add projects to the **list for discussion depending on their constituents' needs.**

Mr. Kroll asked if the local plan is prioritized.

Mr. Sandy confirmed this. He explained that, for example, Yellow Sulphur Road has been on the local plan for years, but is a low priority, so it may be years before there is enough funding to do that project, and it may also not be completed with VDOT funds. Some of these lower priority projects may not see any activity for five years or more.

Mr. Kroll asked if the local plan projects were included in the draft chapter.

Mr. Sandy said that they are, but there is some overlap with the VDOT SYIP depending on the funding source. They are listed with the VDOT projects for this reason.

Mr. Donahue explained to the Commission that the county's plan is a subplan of VDOT's plan, and that the county has decision-making power in terms of road projects, but the state maintains the roads for the county.

Mr. Sandy stated that it is up to the county to prioritize projects. In many cases, funding may need to be rolled over for several years to have enough funding to complete a project, especially as funding has decreased in recent years. He further explained that the county does revenue sharing which requires the state to match funds. Under this revenue sharing program, the county can ask for up to \$10M and the state must match it; however, the county has been providing approximately \$0.5M annually, meaning there is approximately \$1M in total funding for projects each year with the state matching funds. Just recently, the county completed the Craigs Creek Road project, as well as a section of Yellow Sulphur Road that needed improvements.

Mr. Sandy indicated that the county projects from the MPO's **Transportation Plan** are also reflected in the new chapter, but this only includes roads within the MPO area, not the whole county. Mr. Sandy concluded that this draft represented an update, but is not yet complete, and will have additional maps and goal revisions in the next version. He stated that if the Planning Commission has additional items or feedback, they can discuss these now or email comments to staff. A new version will be provided at the December Planning Commission meeting, and a version with tracked changes can also be made available if Commissioners would like to see it. It will also be available when the chapter goes to public hearing.

Mr. Donahue asked if staff could provide a list of all deletions and insertions.

Mr. Sandy said that there would be too many to put in a concise list as so much of the plan was redone. However, staff can provide the tracked changes version. Staff will also make sure to indicate how the goals are changed.

Mr. Kroll commented that he would prefer to just move forward and not worry about going back to the old version.

Mr. Sandy stated that he hoped to submit the draft to VDOT by the end of the year, or at the latest, after the January Planning Commission meeting.

Mr. Kroll asked about the crash data, and who addresses these safety concerns – the county or VDOT. He also asked if the locations of crashes were available.

Mr. Sandy answered that VDOT does have some safety funds available.

Mr. Donahue added that VDOT collects police reports to identify high numbers of crashes.

Mr. Sandy stated that there are also highway safety funds available, but these are hard to get. However, recently the county participated in a revenue sharing project on Old Sourwood Road that was locally administered by the MPO, to test dirt glue as an alternative to paving. Similar opportunities, which are

mutually beneficial to the county and VDOT, may be available in the future. He also agreed with Mr. Kroll that high crash locations may be good to include in the chapter; staff will look into adding that data.

2014 Work Program Discussion

Mr. Sandy explained that the work program is put together each year to identify what staff and the Planning Commission will be working on that year. He described major accomplishments from 2013. One of these was **the mobile home addressing, which has been completed for Massie's and Mountain Creek mobile home parks,** and is currently in progress for Adams Marke. Previously, addressing was often confusing and out of order, making it hard for emergency services to know where the homes were actually located. The addressing is **being completed in phases so as not to overwhelm the post office. Michael Sutherland, the department's GIS Analyst,** has been working with the mobile home parks, Verizon, emergency services, and the post office to make the transition.

Mr. Donahue asked if roads within the mobile home parks are private.

Mr. Sandy confirmed this.

Mr. Sandy described the goals for the 2014 work program. One of these is to look at the voting districts on the Virginia Tech campus. Currently the campus is divided between three (3) districts. Virginia Tech now wants a polling place on campus to make it easier for students to vote. Staff can use GIS to see how numbers change if there is a change in the location of polling districts. Staff will consult with the County Attorney, Virginia Tech, and others to look into this. Another goal is to get the field piece of LDO up and running for inspectors. Mr. Sandy also asked if the Commission would like to include another chapter of the Comprehensive Plan in the work program. While it is possible to update the whole plan at once, it is an extremely time-consuming task, so it may be wise to address one chapter at a time.

Mr. Donahue commented that this seemed like rolling updates rather than a block update every five (5) years.

Mr. Sandy confirmed this, adding that some localities do update their entire plan every five (5) years, while others may comply by updating it incrementally but more frequently. Mr. Sandy added that staff and the Commission could also update another Village Plan instead of, or in addition to, a chapter of the plan.

Mr. Donahue asked what Mr. Sandy's preference would be in terms of updating the plan.

Mr. Sandy said that he felt the Economic Development chapter or Prices Fork Village Plan would be good sections to look at next. Specifically, there is a need to look at areas for future parks and development sites. Furthermore, given the recent changes in the Prices Fork area, that Village Plan may need a review. Mr. Sandy concluded by saying that staff would provide a new version of the work plan at the next meeting.

On a motion by Mr. Donahue and seconded by Ms. Disney, and unanimously approved, the work session was closed.

LIAISON REPORTS:

- Board of Supervisors – No report.
- Agriculture & Forestal District – No report.
- Blacksburg Planning Commission – Mr. Allen **reported that there weren't any projects under consideration that would impact the county,** although the Town does have several large developments they are looking at currently.

Mr. Lau added that he was also at the most recent Blacksburg Planning Commission meeting, and believes that it may be a good idea for the Town and the county to collaborate to discuss the Prices Fork area as there is so much work going on there.

- Christiansburg Planning Commission – No report.
- Economic Development Committee – No report.
- Public Service Authority – Mr. Donahue commented that the biggest issue for the PSA right now is joining the New River Water Authority. They are working on a contract to tie the water line off of Merrimac Road to Warm Heath and tie the county system into the Town system. The county will also now be responsible for taking some of the sludge from the water treatment plant.
- Parks & Recreation – No report.
- Radford Planning Commission – Mr. Lau reported that he attended the most recent meeting, at which they reviewed various sections of the Comprehensive Plan with a new focus on areas where development is close to Blacksburg and the 177 corridor.
- School Board – No report.
- Tourism Council – No report.
- **Planning Director's Report** – Mr. Sandy stated that the Planning Commission will not meet next week. He added that there are currently two meetings scheduled for December but the second one may be cancelled if there are no applications. He also reminded the Commission of the upcoming Certified Planning Commissioner course to be held in Blacksburg in January.

Mr. Rice reminded the Commission that financial disclosure statements are due to County Administration.

MEETING ADJOURNED:

There being no further business the meeting was adjourned at 8:23 PM.

**MONTGOMERY COUNTY PLANNING COMMISSION
DECEMBER 11, 2013**

DELEGATION

Virginia Tech Environmental Studio

- Students will provide handouts at the time of the meeting.

MONTGOMERY COUNTY, VIRGINIA
PLANNING COMMISSION and PLANNING & GIS SERVICES
DEPARTMENT
2014 WORK PROGRAM

(Major projects in priority order)

1. LAND DEVELOPMENT OFFICE (LDO) IMPLEMENTATION

PLANNING & GIS SERVICES DEPARTMENTS

- Work with LDO vendor consultants in enhancing and modifying the software to better serve the needs of Planning, Zoning, E & S, and Permitting and Inspections for sign permits, site plans, field use and GIS integration.
- Implement the Field Data Application for Code Enforcement/Compliance.
- Work with General Services and IT to further extend LDO to the Web
- Further extend benefits and training of LDO end users for county departments, constitutional offices and where possible to the general public.
- Complete grant project funded from PHMSA Technical Assistance Grant (TAG) to develop a process and client side LDO interface with Virginia Utility Protection Service (VUPS) to identify future development impact on underground utilities and/or an encroachment on a utilities ROW using LDO parcel, building permit, and subdivision information.

2. COMPREHENSIVE PLAN IMPLEMENTATION

PLANNING COMMISSION

- Conduct semi-annual review (Feb & Aug) of any requests to amend the Planning Policy Areas map.
- Conduct joint Planning Commission Meeting with Towns of Blacksburg & Christiansburg
- Review and discuss ordinance amendments (zoning, subdivision) being developed to implement specific Comprehensive Plan strategies.
- Participate in the ongoing plan implementation process along with other boards and commissions.

PLANNING DEPARTMENT

- Administer SRTS grant for Belview Elementary and Auburn School Complex
- Complete the update of transportation chapter of Comprehensive Plan to comply with new state law requirements of 15.2-2223
- Review and revise Village Plan for Prices Fork as necessary
- Review and revise Economic Development Chapter as necessary

GIS AND MAPPING SERVICES

- Provide mapping support for Planning staff and Commission

PLANNING CONSULTANT

- Hire consultants as necessary for special projects

3. GENERAL COUNTY REASSESSMENT

PLANNING DEPARTMENT

- Work with County General Reassessment Team and provide support as requested.

GIS AND MAPPING SERVICES

- Provide mapping support for reassessment process

4. GEOGRAPHIC INFORMATION SERVICES (GIS)

GIS AND MAPPING SERVICES

- Provide GIS and regional radio communications support to NRV 911 Consolidation and Public Safety/Fire Rescue Radio system project for countywide radio propagation study and tower placement including PSAP grant administration.
- Implement and administer VITA Wireless Board PSAP 2013-14 Grant with our towns and Virginia Tech.
- Assist Planning and Zoning staff in reviewing, organizing, and scanning legacy rezoning and special permits for entry or correction in LDO. Work with county departments and constitutional offices to deploy, enhance, train and use the updated Pictometry aerial imagery in office as well as field situations including public safety and fire/rescue vehicles.
- Review, organize, and scan all legacy rezoning and special permits for entry or correction in LDO.
- Work with county departments and constitutional offices to deploy, enhance, train and use of Pictometry aerial imagery in office as well as field situations including public safety and fire/rescue vehicles.
- Continue E911 addressing of mobile home parks.
- Work with libraries to create and publicize a specialty road atlas for cemeteries.
- Migrate with the help of IT GIS applications and web offerings to new ArcGIS Server platform.
- Continue to assist Commissioner of the Revenue with mapping for Use Value Assessment Program
- Assist MCPS Transportation and Facilities with GIS mapping, aerial imagery and data needs.
- Prepare and issue iGIS RFP in consort with Planning & GIS Services staff and county departments. Select vendor/partner to implement new version of iGIS with integrated LDO capabilities.

Ongoing Project: ZONING ORDINANCE ADMINISTRATION

PLANNING COMMISSION

- Review and recommend rezoning requests and special use permit requests.
- Review and recommend amendments to the Zoning Ordinance.

BOARD OF ZONING APPEALS (BZA)

- Review and decide variance requests and appeals of Zoning Administrator decisions
- Review and decide special use permits (as applicable).

PLANNING DEPARTMENT

- Provide staff support to the Planning Commission and the Board of Zoning Appeals.
- Prepare draft Zoning Ordinance amendments for Commission consideration
- Provide information and answer questions concerning the Zoning Ordinance for developers and the general public.
- Enforce the Zoning Ordinance including review of building permit applications, review of site plans, complaint investigation and follow-up, legal enforcement actions, etc.
- Assist CPEAV & VAZO with regional training sessions for Planning Commission and BZA members/alternates.

Ongoing Project: SUBDIVISION ORDINANCE ADMINISTRATION

PLANNING COMMISSION

- Review and recommend plats for major subdivisions.
- Review and recommend amendments to the Subdivision Ordinance.

PLANNING DEPARTMENT

- Provide staff support to the Planning Commission in the review of major subdivisions
- Review and approve plats for family subdivisions and minor subdivisions.
- Prepare draft Subdivision Ordinance amendments for Commission consideration.
- Provide information and answer questions concerning the Subdivision Ordinance for developers and the general public.

Ongoing Project: COMPREHENSIVE PLAN IMPLEMENTATION

PLANNING COMMISSION

- Review implementation priorities and projects.

PLANNING DEPARTMENT

- Prepare legislative priorities for land use matters.
- Prepare Indicators Report

GIS AND MAPPING SERVICES

- Prepare supporting maps and modify GIS layers

Ongoing Project: METROPOLITAN PLANNING ORGANIZATION (MPO)

PLANNING DEPARTMENT

- Provide County representative to the MPO Technical Advisory Committee.

GIS AND MAPPING SERVICES

- Review and support services.

Ongoing Project: NEW RIVER VALLEY PLANNING DISTRICT COMMISSION (NRVPDC)

PLANNING DEPARTMENT

- Provide County representative to the Rural Transportation Advisory Committee (TAC).
- Provide County rep to the Bikeway/Walkway & Regional Transit Coordinating Council.

Ongoing Project: NRV HOME CONSORTIUM

PLANNING DEPARTMENT

- Provide County representative to the New River Valley HOME Consortium

Ongoing Project: REVENUE SHARING/RURAL ADDITION PROGRAM

PLANNING DEPARTMENT

- Work with developers and VDOT on completing revenue sharing projects in Route 177 Corridor area (FY13 & FY14 Projects)
- Complete applications for FY16 projects

GIS AND MAPPING SERVICES

- Prepare supporting maps and modify GIS layers

Ongoing Project: CAPITAL IMPROVEMENTS PROGRAM (CIP)

PLANNING COMMISSION

- Review and recommend draft CIP with respect to Comprehensive Plan. Hold public hearing if deemed necessary.

Ongoing Project: GEOGRAPHIC INFORMATION SERVICES (GIS)

GIS AND MAPPING SERVICES

- Provide staff support to County Administration and Economic Development with property acquisitions and other projects.
- Provide GIS data, maps, and E911 site addresses to citizens, realtors, other interested parties.
- Continue to market/leverage the County's investment in LIDAR, orthophoto and GIS data in order to maximize cost recovery, effectiveness and efficiency to the benefit of the taxpayers.
- Continue cemetery inventory for land development and subdivision requirements
- Continue to inventory billboards and signs for inclusion into LDO and GIS.
- Continue cellular tower, review, mapping and updates.
- Continue GIS and mapping support for the Sheriff's Office for monthly crime incidents, special events, task force, and PSAP dispatch GIS data updates.
- Continue to support NRV 911 Regional Emergency Communications Authority on GIS and regional radio system issues, needs and projects.
- Continue to provide GIS, mapping, and training support to the MC Public Schools. Continue to provide local GIS support for Virginia Game and Inland Fisheries Officers & US Marshals Office
- Continue to work with IT to migrate data to new ArcGIS Server application
- Continue to expand newly implemented iGIS web portal. Provide enhanced LDO capabilities to extend the web portal's usefulness for internal and external end users.
- Continue to determine Landuse Soils Capability Classification for designated agriculture parcels and provide mapping and data sheets to Commissioner of Revenue's Office.
- Review voting districts with Registrar and provide mapping data for any district changes
- Continue to review and enter elevation certificates, LOMR's, LOMA's into GIS database and mapping layers

Ongoing Project: 15.2-2232 REVIEW REQUIREMENT

PLANNING COMMISSION

- Review streets, parks or other public areas, public buildings or public structures, public utility facilities, etc. for compliance with the Comprehensive Plan. Hold public hearings per Board of Supervisors policy.

Ongoing Project: PUBLIC INFORMATION

PLANNING DEPARTMENT

- Prepare and distribute **Planning Commission's** Annual Report.
- Support Public Information Office with **Citizen's Academy and County's Annual Report**

GIS AND MAPPING SERVICES

- Maintain iGIS website for external (general public) and internal inquiries

Ongoing Project: AGRICULTURAL & FORESTAL DISTRICT DISTRICTS

AGRICULTURAL AND FORESTAL DISTRICT ADVISORY COMMITTEE

- Review requests and recommend additions, deletions and withdrawals to agricultural and forestal districts within the County including district renewals for district #14.
- Form a subcommittee to establish forms/templates to assist participants with plan preparation.

PLANNING DEPARTMENT

- Provide staff support to the Agricultural and Forestal District Advisory Committee.
- Receive/assist participants with obtaining conservation/forestry management plans

GIS AND MAPPING SERVICES

- Prepare supporting maps and modify GIS layers.

Transportation Resources: Executive Summary

As Montgomery County continues to grow and develop, a safe, efficient, interconnected transportation system is a necessity. Looking forward, the county hopes to connect new and existing pathways that support a variety of transportation modes, including increased development of walking and biking facilities. A multimodal, interconnected transportation system will help to support the county's continued population growth and economic development.

The transportation component of Montgomery County's Comprehensive Plan, 2025 focuses on four primary goal areas:

1. Land Use and Transportation;
2. Highway System;
3. Mass Transit; and
4. Alternative Transportation.

Transportation is closely tied with the overall development of the county. For this reason, additional transportation goals and objectives are included in the other sections of Montgomery County, 2025, most notably in connection with the following areas of interest:

1. Neighborhood Design (Government and Planning);
2. Corridor Planning (Government and Planning, Cultural Resources, Economic Development);
3. Bikeways, Walkways, Blue ways and Heritage and scenic trails (Cultural Resources, Parks and Recreation, and Environment); and
4. Traffic Safety (Public Safety).

This chapter of the Montgomery County Comprehensive Plan identifies the existing transportation resources available across modes, identifies county-wide transportation needs, and provides a list of transportation improvements to address the needs and goals of the county.



Figure 1: Huckleberry Trail

Transportation Resources: Background

In the past fifty years, Montgomery County has experienced a shift toward greater regional connectivity. The county is crossed by the mainline of the Norfolk-Southern Railroad and by Interstate 81 (a heavily traveled, four- to six-lane, north-south interstate, linking Montgomery County to the upper East Coast as well as to areas southwest of the county). In addition, US 460 has experienced significant expansion.

As the transportation facilities changed and expanded, so too did the economic conditions and character of Montgomery County. In 1950, the economy was based on agriculture, education, and manufacturing. The construction of I-81, in the 1960s and 1970s, brought Roanoke and the rest of Virginia closer, at least psychologically, by significantly decreasing the driving time required to reach Woodrum Field (Roanoke Regional Airport) and the eastern and northern portions of Virginia, including Richmond. In the 1960s and 1970s, the Virginia Department of Transportation (VDOT) added two additional lanes to US 460 through Giles County to what would become the West Virginia Turnpike (now I-77), and I-81 was extended further south

and west. The changes in I-81 and US 460 both effectively decreased the isolation of Montgomery County and the outlying areas, while increasing Montgomery County's viability as a regional center. By the early 1970s, Montgomery County's economy was being defined by the rapid growth of Virginia Tech and nearly 20 years of industrial expansion (including Electro Tec, Poly-Scientific, and Corning). By the 1980s, growth in the retail and commercial sectors not only transformed the economic landscape, but also forever changed the physical landscape in the mid-county area. The development of the New River Valley Mall in the late-1970s contributed to a significant shift in the regional economic patterns – a shift made possible, in large part, by changes in the highway transportation system.

Today, Montgomery County is the regional employment, education, retail, and service center for the New River Valley, a fact underscored by the U.S. Census Bureau's recent designation of Montgomery County and Radford (as well as Giles and Pulaski Counties) as a Metropolitan Statistical Area (MSA) and the 2003 formation of the federally mandated Metropolitan Planning

Organization (MPO), an organization charged with transportation planning in the urbanized portion of the county, including Blacksburg and Christiansburg.

Cohesive planning, both in terms of transportation and land use, is and will be necessary to address the issues created by an expanding population and by expanding needs, both in and outside of Montgomery County. As with the changes created by the growth of highway systems in the past, new expansions are likely to spawn changes in development patterns and increase development pressures in areas of Montgomery County which have, until now, been relatively undeveloped. This is especially true along the I-81, Mud Pike, and US 11 corridors between Christiansburg and Radford; the US 460/11 and I-81 corridors through Elliston/Lafayette, Ironton, and Shawsville; and the Route 8 corridor through the Riner area and the southwestern portions of Montgomery County. The latter of these three corridors creates the greatest amount of concern because the development pressure will most likely originate outside of Montgomery County. As Floyd County develops, there is likely to be increased pressure to provide that

county with a more direct, higher speed link to I-81 and the employment, educational, cultural, and commercial opportunities offered in the urbanized center of Montgomery County.

Metropolitan Planning Organization (MPO)

A Metropolitan Planning Organization (MPO) consisting of Blacksburg, Christiansburg and urbanized portions of Montgomery County was required by the Federal Highway Administration after the 2000 Census found that the Blacksburg/Christiansburg area had an urban population greater than 50,000. The MPO is required to develop and maintain a comprehensive transportation plan and process for this area and receives federal funding to carry out these planning functions. A Memorandum of Understanding (MOU) was executed in 2003 between Blacksburg, Christiansburg, Montgomery County, and VDOT to establish the MPO. This memorandum general review, guidance, and coordination of the continuing planning process, and a Policy Board with representatives from elected boards to assure coordination between those boards and the MPO operations. Based on the 2010 Census, the MPO was expanded to include portions of Pulaski County and the City of Radford.

This change was adopted by the Policy Board on September 6, 2012.

Census data also caused a small portion of Montgomery County in the Elliston/Lafayette area to be added to the Roanoke Valley Area MPO.



Figure 2: Interstate 81

EXISTING FACILITIES

Primary and Secondary Highway System

Montgomery County has six primary categories of roads, totaling over 560 miles:

1. Interstate 81;
2. Expressways and freeways, including parts of US 460;
3. Principal arterials, including parts of US 460;
4. Minor arterials, including Routes 8, 11, 114, 177, 111 and 412;
5. Major collectors, such as Route 314, 694 and 603;
6. Minor collectors, including Routes 637, 609; and
7. Local roads.

These are quantified in Table 1 and displayed in Figure 3.

Montgomery County is also home to portions of two of the Corridors of Statewide Significance (CoSS) as identified by the Commonwealth Transportation Board; corridors that provide a unique state function, have multiple modes and levels of transportation, provide regional or intrastate connections, and links

Table 1: Road Classification

Road classification	Miles	Percentage of Road Miles
Interstate	46.35	8.22%
Other Freeway & Expressway	11.93	2.12%
Other Principal Arterials	9.42	1.67%
Minor Arterials	28.27	5.02%
Major Collectors	124.45	22.08%
Minor Collectors	21.70	3.85%
Local Roads	321.51	57.04%
Total	563.63	

intrastate or interstate economic clusters. These include the Crescent Corridor (I-81) and the Heartland Corridor (US 460). In the future, master plans will be developed for each of these corridors by the Office of Intermodal Planning and Investment.

Public and Alternative Transportation

Public transportation has the potential to produce substantial mobility for all and provide environmental benefits by attracting large numbers of individual trips that otherwise would be made by private automobile. Public transportation can provide support to communities, the economy, and the environment by decreasing auto-related transportation on

the existing highway network. It would be ideal to transport a large number of people to their desired destination without them ever having to set foot in a private automobile, which could be achieved by providing connectivity to various existing network modes.

Montgomery County residents have access to a number of local and regional public transit resources, which provide both local connections for commuting and shopping, as well as the ability to travel longer distances. These include:

The Smart Way Commuter Bus This service provides commuter bus service from the Roanoke Valley to the New River Valley, with a service area that extends from

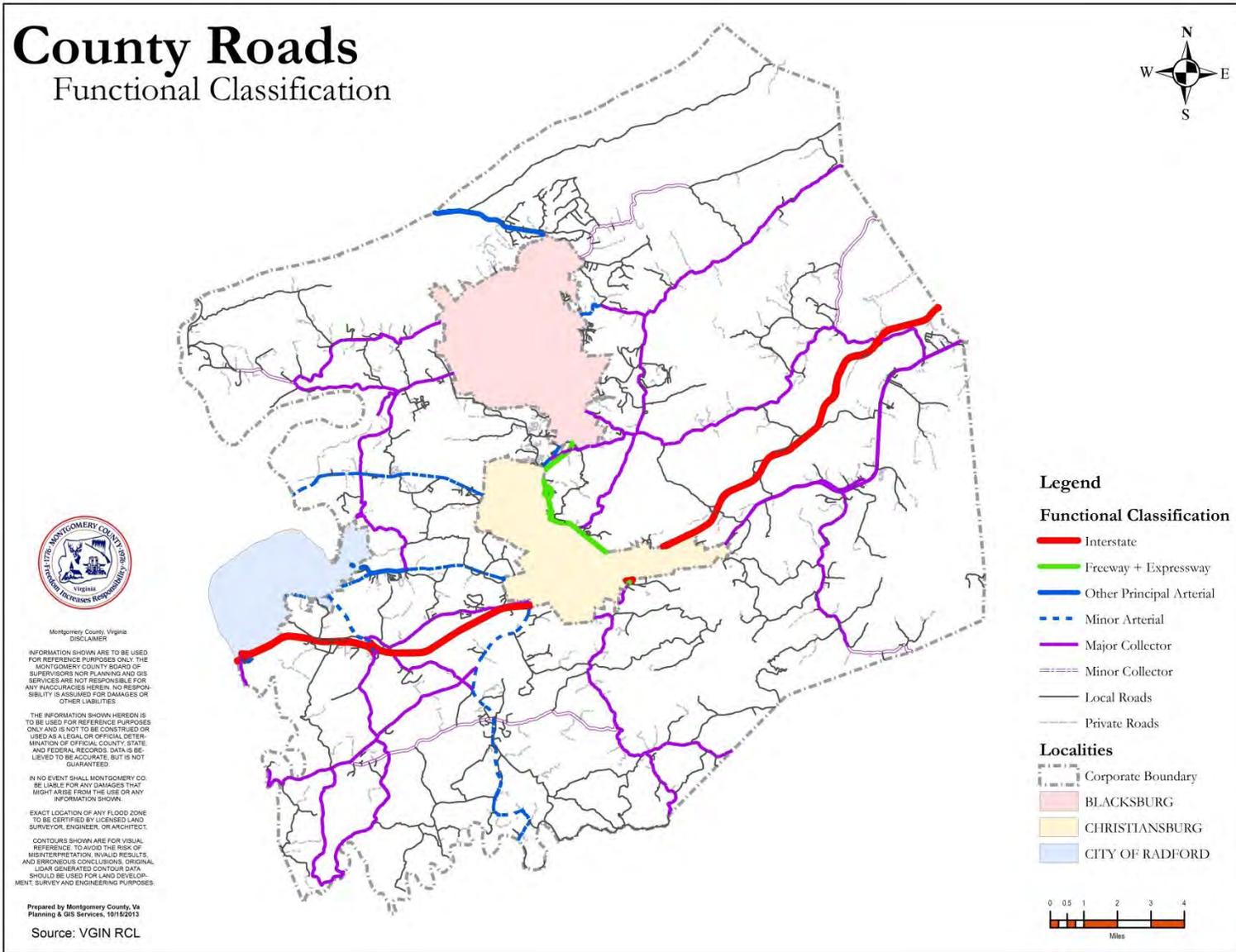


Figure 3: Functional Classification of County Roads

downtown Roanoke to the Virginia Tech campus in the Town of Blacksburg.

Blacksburg Transit

In addition to providing service to students and residents in the Town of Blacksburg, BT also provides a Two-Town Trolley service, along with the Explorer and the Go Anywhere services, which allow riders to get to, from, and around the Christiansburg area. The Explorer is a fixed-route service, while the Go Anywhere service provides an “on-demand” option offering travel anywhere within the Town.

Radford Transit

The NRV Connect route of Radford Transit provides service to and from

Blacksburg, Christiansburg, and Radford from Thursday through Saturday.

Long-Distance

The Megabus stops in Christiansburg and provides connections to Washington, D.C., Knoxville, TN, and elsewhere. The Smart Way Connector also provides trips to the Amtrak station in Lynchburg.

Demand-Responsive Transit

New River Valley Senior Services (NRVSS) is a non-profit organization providing demand-responsive transit in the New River Valley, aimed primarily at elderly and disabled travelers.

The public transit operators described above are closely interconnected to

provide an overall transit network for Montgomery County and the region. However, transit routes are designed primarily around major hubs in the Towns, and do not always provide frequent local stops for commuters or other daytime travelers.

Bikeway, Walkway, Trail System

The current system of trails and other pedestrian and bicycle friendly transportation routes was established in the 1990 Montgomery County Bikeway/Walkway Plan, which described a system of shared roads (roads with lighter traffic counts), bike lanes adjacent to roads with higher traffic counts, and paved, ADA compliant trails. In the years since the passage of the 1990 plan, bike lanes have been added along Route 723 between Lusters Gate Road and Ellett Road and along Route 685 between Blacksburg and Prices Fork. Existing bikeway and walkway facilities include the Huckleberry Trail and US Bike Route 76, as well as the Pandapas Pond recreation area and other area parks and recreation facilities.^{1,2} Some recent road improvements have also provided for increased paved shoulders to enhance safety for bicycle use.



Figure 4: Smart Way Commuter Bus

Table 2: Park and Ride Lots

Lot	Location	Type	Classification
I-81 Exit 128	I-81 Exit 128 Pedlar Road	Official (VDOT)	Park & Pool
Falling Branch	I-81 Exit 118A Route 640	Official (VDOT)	Park & Ride
I-81 Exit 114 (Town of Christiansburg)	I-81 Exit 114 Route 8	Unofficial	Park & Pool
Deli Mart (I-81 Exit 114) (Town of Christiansburg)	Route 8 & Moose Dr.	Unofficial	Park & Pool
K-Mart Parking lot	US 460 BUS N. Franklin St. & Laurel St.	Unofficial	Park & Ride
Marathon Mart	Route 177 & Mud Pike	Unofficial	Park & Pool

Park and Ride Lots and Ridesharing

There are two official VDOT park and ride/park and pool (carpool) lots located in the county, and an additional three unofficial lots which are located in the Town of Christiansburg. These are described in Table 2.³

RIDE Solutions, a regional rideshare program, provides carpool matching services, park and ride and transit information, and guaranteed ride home taxi service for participants. Membership in the program is free. The RIDE Solutions website also provides resources for commuters including bike routes, regional transit information, ride-matching services for carpoolers, and more.

Air and Rail Transportation

Virginia Tech/Montgomery Executive Airport

This airport is a General Aviation Airport, located within the Town of Blacksburg, approximately one mile south of the Virginia Tech campus. It currently houses approximately 38 aircraft on site⁴, and served approximately 15,936 flights in 2005.⁵ The airport sits on 248 acres and uses a non-precision localizer approach. A primary runway of 7,539 feet in length accommodates corporate and private jets. The runway is also lighted for night flight operations and is complemented by instrument approach facilities. A parallel taxiway is currently provided as well as a newly constructed terminal building, parking area, hangar space, and apron area. The Virginia Tech/Montgomery Regional

Airport Authority was formed in 2001 by Blacksburg, Montgomery County and Virginia Tech to administer the airport under a long-term lease from Virginia Tech. In 2010, the Virginia Tech airport contributed over \$9 million in economic activity to the state.⁶

The Virginia Tech Airport Master Plan identifies plans and costs for airport expansion including added hangars and improved fueling facilities. Most significantly, the updated Plan in 2008 recommended extending the primary runway by an additional 5,500 feet for increased efficiency and safety. This project is currently in the planning phase and is expected to be completed in 2017.

New River Valley Airport

This facility, adjoining the New River Valley Commerce Park, has an ample supply of available and affordable land for expansion and installation of shipping terminals. The NRV airport has one of the longest runways in the western portion of Virginia with a 6,201 by 150 foot asphalt runway, and houses 42 aircraft on site. It also contributed nearly \$6 million in economic activity to the state in 2010. There is open space around the facility for both fixed facility improvements and runway improvements. This airport is well positioned to serve all domestic and foreign markets. It is Montgomery County's closest inland port authority. Montgomery County is also a member of the New River Valley Airport Authority.



Figure 5: Virginia Tech/Montgomery Executive Airport

Roanoke Regional Airport

This facility provides full-service passenger and freight air service and is the primary airport serving southwestern Virginia. The airport has approximately 50 scheduled passenger flight arrivals and departures per day, accessing nine major cities with nonstop service. A five-member commission that includes representatives of the City of Roanoke and Roanoke County governs the airports operations. The airport has made major improvements

in recent years to ensure its competitiveness, such as a new terminal and runway extension. The 2011 *Virginia Airport System Economic Impact Study* found that in 2010, the Roanoke Regional Airport contributed over \$200 million in economic activity.⁷

TRANSPORTATION SYSTEM NEEDS

Available transportation and commuting data are indicative of existing transportation needs in Montgomery County. Projections from the Statewide Transportation Plan (VTrans) and the Virginia Surface Transportation Plan suggest that the population in the New River Valley, estimated at 170,200 people in 2010, is expected to increase to 199,490 in 2035, a 17% increase. The aging population in Montgomery County is of particular importance; VTrans 2035 estimates that the percentage of the New River Valley PDC population 65 years or older in 2035 will be 27%, one of the highest rates in the state, which will then have an average senior population share of 18%.⁸ Furthermore, jobs are expected to increase from 94,140 in 2010 to 116,894 in 2035 (24% increase).⁹ The population density (people per square mile) is also expected to increase to 136.9 persons per square mile, an additional 20 people per square mile of land area from 2010.¹⁰

Vehicle Miles Traveled

Since 1975, Montgomery County has witnessed a dramatic increase in the amount of traffic on the county's road system. The total vehicle miles per 24 hour

period has increased 170% (1975-2012). Montgomery County also shows significantly higher daily vehicle miles traveled (DVMT) than the adjacent counties compared in Figure 6, and a more dramatic increase in DVMT over the past decades. Since 2000, there has been a 5.2% decrease in the daily miles traveled in Montgomery County, as seen in Figure 6. This decrease may be in part due to an increase in public transit in the region (Megabus, Smart Way, Blacksburg Transit and Radford Transit) but may also be partially attributed to the recession. The decline is not expected to continue; the VTrans 2035 report predicts that the New River Valley will experience a DVMT of between 6.1 million miles (low estimate) and 8.8 million miles (high estimate) in 2035.¹¹

Pavement Condition and Ride Quality

VDOT issues an annual State of the Pavement report which assesses pavement condition by road type. The 2012 report found deficiencies in the county displayed in Table 3.¹² Secondary roads were found to be most deficient in terms of both road condition and ride quality.

Based on both the current and projected high DMVT rates and the road deficiencies, particularly on the secondary road system, there is a need for road maintenance and added capacity to handle the growing vehicular traffic.

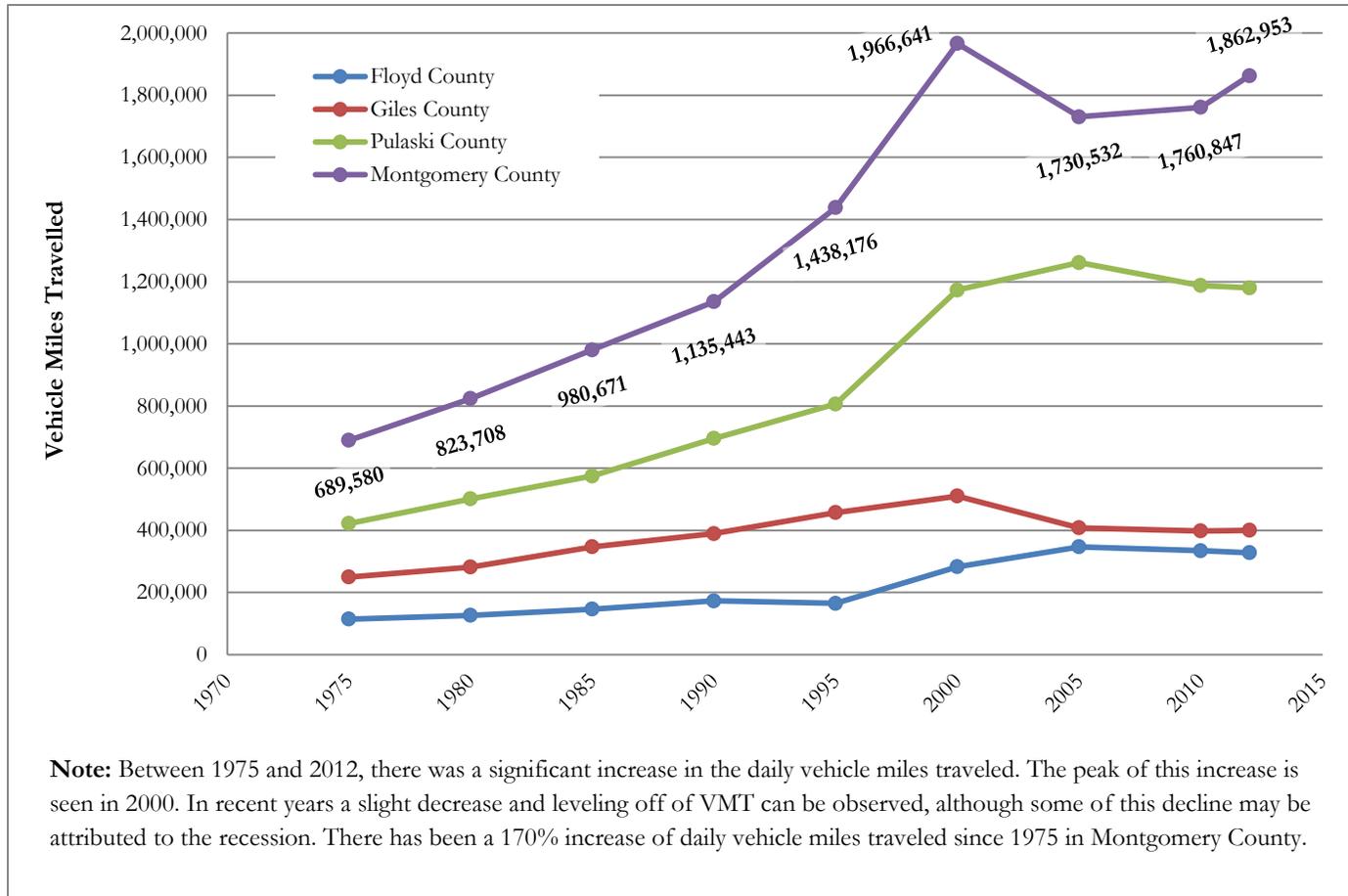


Figure 6: Daily Vehicle Miles Traveled, 1975-2012

Table 3: Deficient Roads in Montgomery County

Road Class	Pavement condition; deficient miles	Pavement condition; percent deficient	Pavement ride quality; deficient miles	Pavement ride quality; percent deficient
Interstate	11.28	10.84%	1.17	1.08%
Primary System	14.89	8.83%	5.60	3.35%
Secondary System	59.68	53.64%	37.01	34.07%

Commuting Patterns and Mode Choice

Based on ACS 2010 3 year data (2000, 2008, and 2011), commuting patterns were identified and are displayed in the following series of figures. The mode of transportation used to commute is displayed in Figure 7. About 84% of commuters traveled to work via private automobile (76% drove alone) while walkers, bikers, and public transit users combined made up less than 10% of commuters. Commute mode choice for the county is much in line with statewide patterns, with the County having a slightly lower proportion of drivers (both solo

drivers and carpoolers) and a slightly higher rate of walkers and those who work from home (Figure 8).

The New River Valley Planning District Commission’s (NRVPDC) draft Livability Report ¹³ indicates that in 2010, 28% of county residents were within walking distance of a transit stop (i.e., 0.25 miles or less) as compared to 17% in the entire New River Valley, and this number is projected to climb to 50% in 2030. In addition, 70% were found to be within biking distance of a transit stop (2 miles or less), compared with 42% in the NRV region. This number is expected to grow

to 74% by 2030. On the other hand, the county has a large proportion of rural areas outside of the Towns; it is expected that these areas will continue to increase their levels of car dependency, and see an increase in costs related to transportation.

While a comparison to state trends suggests that Montgomery County may be performing as well, if not slightly better than Virginia as a whole in terms of alternative transportation, the presence of two universities in the area could influence these numbers to some extent. The NRVPDC’s Draft Livability Report suggests that existing transit in the area is

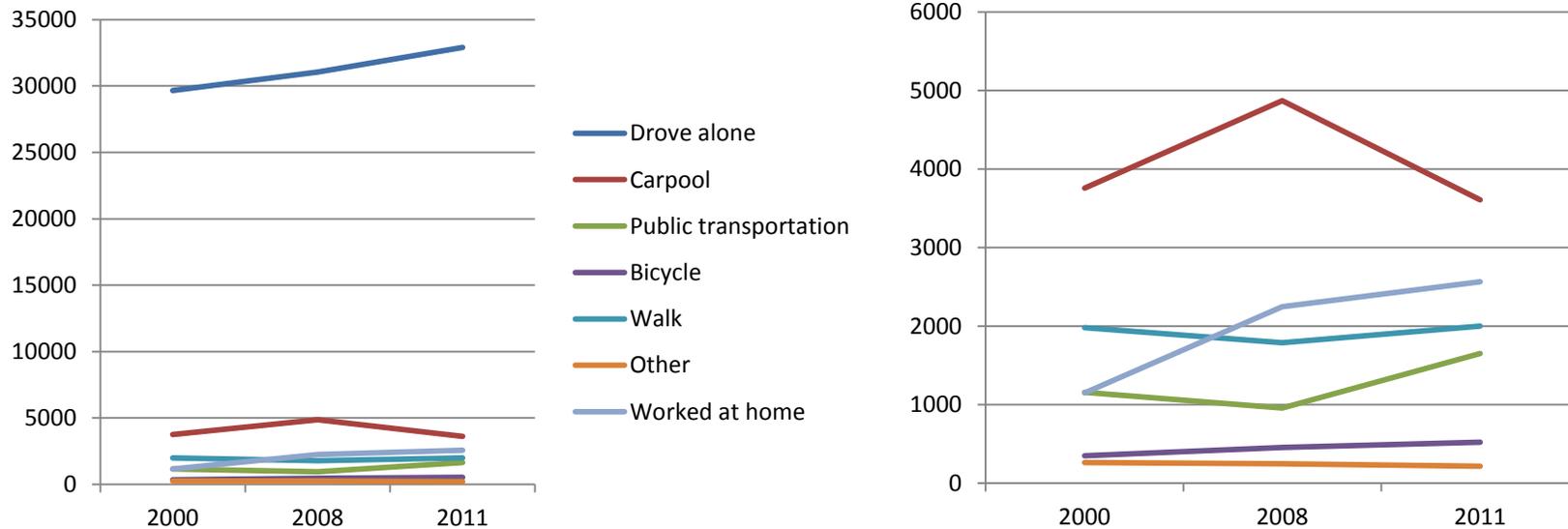


Figure 7: Commute Mode 2000-2011

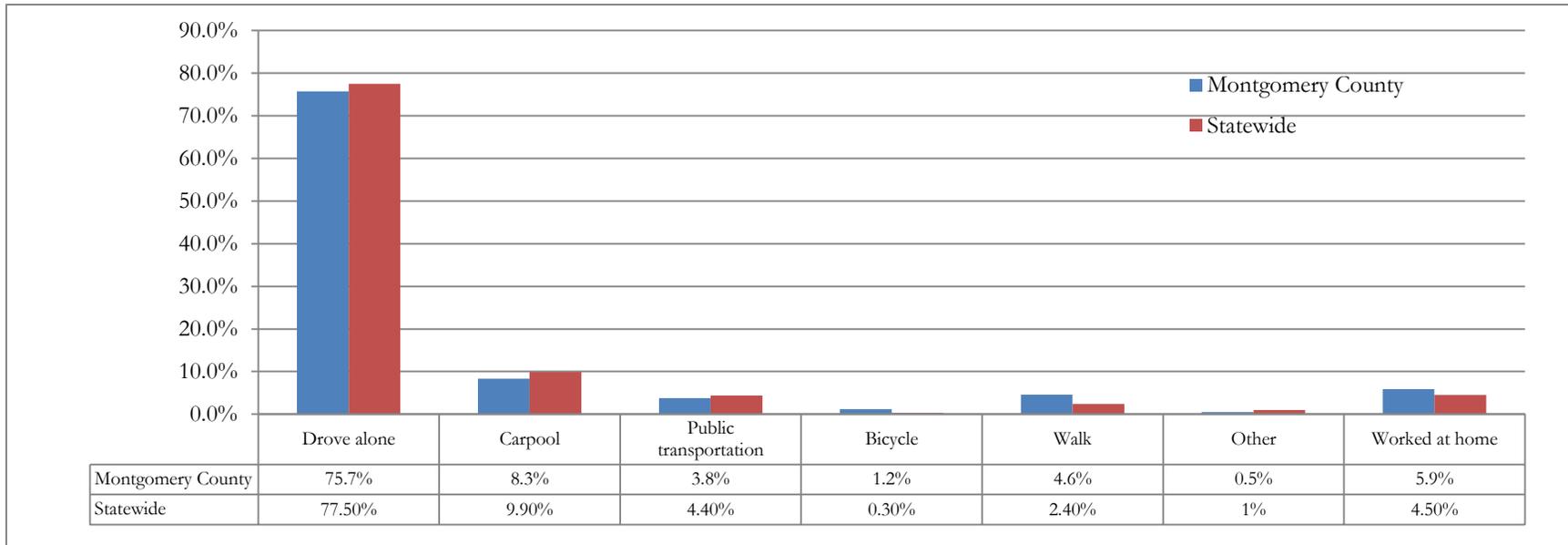


Figure 8: Commuting mode choice; County and State, 2009-2011

primarily designed around student locations and schedules, and a greater focus on non-student traveler needs is warranted.

The average travel time to work in the county in 2011 was 17.8 minutes, compared to a state average of 27.5 minutes. Residents of the county enjoy a relatively short travel time to work, which has remained fairly constant since 2000.

Vehicle Accidents

The number of crashes, along with injuries and fatalities from crashes, are displayed in

Figure 9, and compared alongside DVMT. Fatalities and injuries have generally decreased or remained low from 2000-2012, and actually decreased from 2007 to 2012 even as DVMT increased. However, accidents, injuries, and fatalities all showed an increase in 2012.

From 1999 to 2012, the county’s crash rate per thousand licensed drivers also remained higher than the statewide rate, as seen in Figure 10.

The MPO’s *2035 Transportation Plan* also identifies high-crash locations (2006-2008) of concern. Within the MPO boundary,

seven high-crash locations were identified, all at intersections. The highest number of crashes at any one site was 20, which occurred at the intersection of Union Valley Road (Rt. 669) and Riner Road (Route 8).¹⁴ This intersection is now part of a VDOT safety improvement project.

Pedestrian and Bicycle Crashes

The number of vehicle crashes is not the only safety concern. Pedestrian and bicycle safety is a need of particular importance, especially as the county looks toward adding more and better bicycle and pedestrian connections in the future.

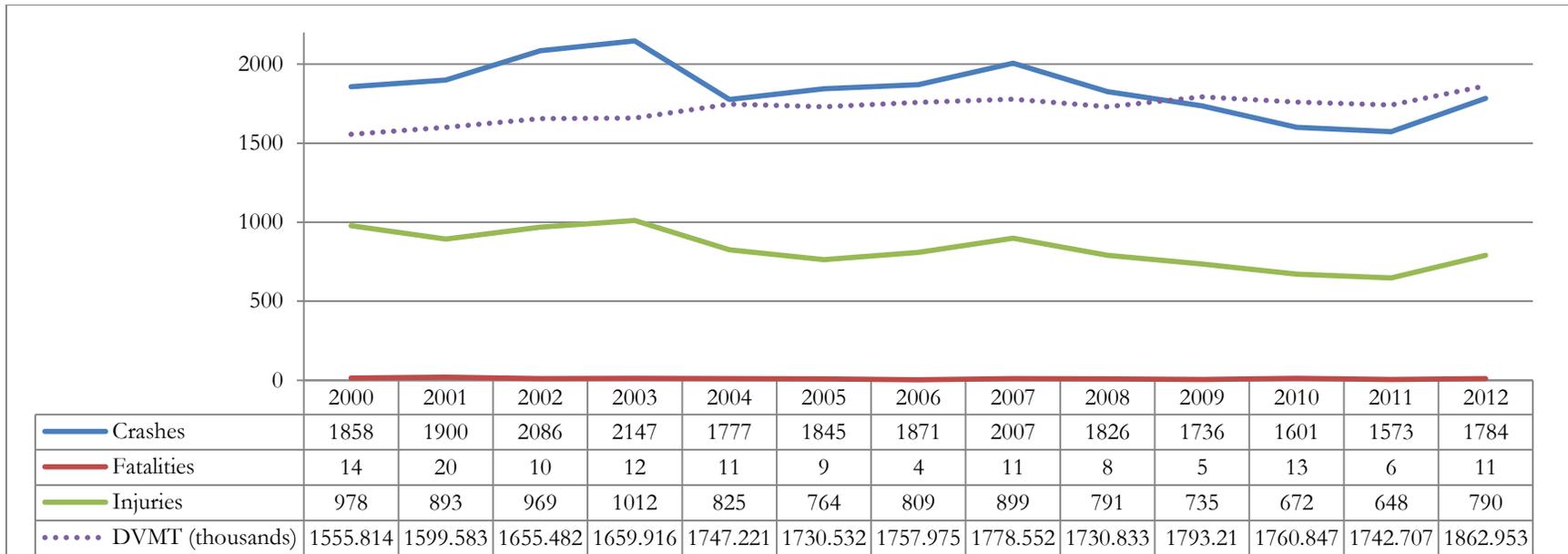


Figure 9: Crashes, 2000-2012

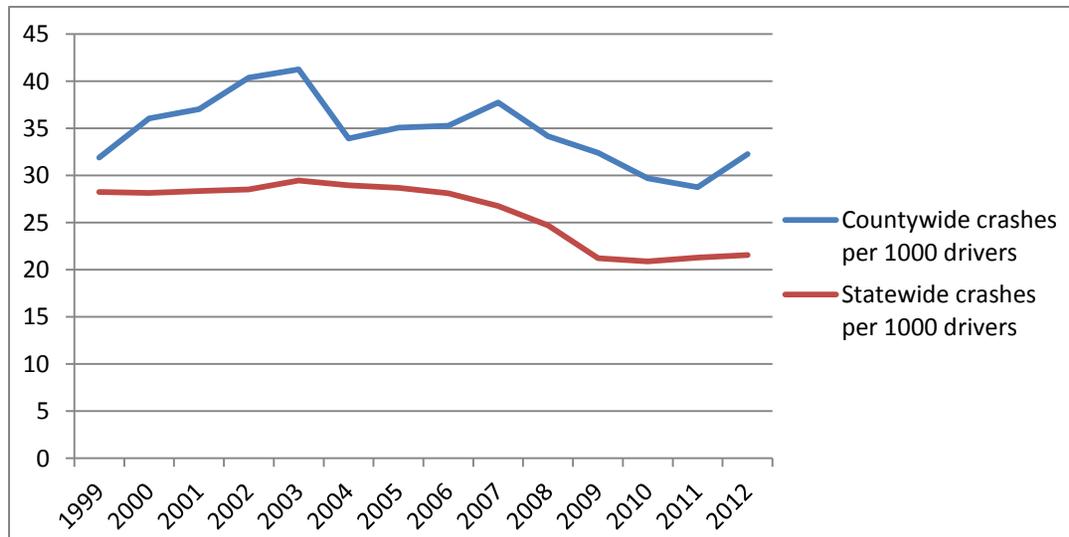


Figure 10: Crash rate, 1999-2012, County and State

Figure 11 indicates the gross number of bicycle and pedestrian crash events. While overall numbers are low, it is worth noting that bicycle crashes in particular showed a substantial increase between 2011 and 2012.

Community Survey Results

Results of the Community Survey conducted in 2003 indicated that maintenance and upgrading of existing roads and traffic congestion were areas of greatest concern to county residents. Additional issues included safety, better corridor planning, and expanded transit options as well as bikeway and walkway facilities.

Statewide Needs

Along with those needs identified through Census data, projections, and the 2003 Community Survey, needs should reflect those identified by the Statewide Transportation Plan (VTrans2035) as per Virginia State Code Sec. 15.2-2223 B. 3-6. The VTrans 2035 Update identified a number of statewide factors influencing transportation planning, which are also relevant on the local level. These include:

- A need for intermodal facilities, especially to connect freight with



Figure 11: Bicycle and Pedestrian Crashes, 2008-2012

- other transportation modes;
- Balanced transportation investments to improve passenger and freight modes;
- Increased travel choices, including transit and pedestrian facilities; and
- Rural connections to support revitalization.

Overall, these identified needs for the state are consistent with the identified county needs from projected population and travel data, as well as the priorities identified in 2003 by the Community Survey. With DVMT projected to increase substantially by

2035, and an overall lack of transit, pedestrian, and bicycle infrastructure in the county, there is an identified need especially for increased travel choices and balanced investments, to meet the needs of a growing and aging population.

TRANSPORTATION AND FUTURE DEVELOPMENT

The Land Use chapter of the Comprehensive Plan, updated in 2011, laid out goals of directing growth in the county to designated areas where utilities and other resources best support growth. Designated Urban Expansion Areas, Villages, Village Expansion Areas and Residential Transition areas will accommodate 80% of growth in the county outside of Christiansburg and Blacksburg, with the remaining 20% planned to occur in more rural areas. Transportation improvements in the specified growth areas will be designed to connect with and reinforce the existing road network, while creating or extending new public roads to rural areas is discouraged. In this way, growth of the transportation system will support areas of desired growth, where existing and future utilities and public facilities will also be located.

Village Plans

Six Village Plans were developed to guide residential growth along with some commercial, institutional, mixed-use, and other uses as part of a village center. In general, transportation goals in these villages stress interconnections of roads,

bikeways, sidewalks, and other greenways and trails, road upgrades to meet anticipated growth where necessary, extended public transportation service, and access management. Goals specific to each village plan can be viewed here: <http://www.montgomerycountywa.gov/planning>

To further ensure that transportation improvements support the areas in which development is slated to occur, the county has been tasked with identifying major transportation corridors within Urban Expansion Areas, and to develop more specific and detailed land use policies for those corridors.

Corridor Plans

The 177 Corridor Plan¹⁵, adopted in 2004, and the Lafayette Route 11/460 Corridor Plan¹⁶, adopted in 2012, detail the patterns and types of growth desired in those areas. The 177 Plan does not specifically make recommendations for transportation improvements. The Lafayette Route 11/460 Corridor Plan does include specific strategies to support growth in this area; these include:

- Engineering study to determine if safety issues warrant a reduction in speed on Rt. 460 from 55 to 45 mph.
- Possible access management programs to consolidate access on major roads while supporting unified access and circulation for maximum safety and mobility.
- Additional pedestrian crossing on Route 460 to support proposed trail and recreation uses.
- Possible new Smart Way stop and/or on-demand paratransit service to meet public transit needs.

In 2012, the NRVPDC completed a Shawsville Area Route 11/460 Corridor Study, which built off of the existing Village Plan and VTTL Plan to make transportation/land use “improvement options” which included general recommendations for safety, access management, alternative transportation, and integrated transportation and land use policies. From these general improvement areas, several more specific improvements were identified, which include:

- Reducing the number of open-median crossings;
- Reducing the number of entrances;
- Creating access between parcels and/or combining entrances;
- Adding turn lanes;
- A signal determination for the Route 11/460 and Alleghany Springs Road intersection;
- Removing vegetation where it impacts sight distance;
- Installing signage in flood-prone areas to alert drivers of possible hazards; and
- Reducing the speed limit.

FUTURE TRANSPORTATION IMPROVEMENTS

Statewide Goals

The Virginia State Code Sec. 15.2-2223 B. 3-6 requires that a locality’s Transportation Plan, as part of the Comprehensive Plan, be in line with the VTrans Statewide Plan. To this end, Montgomery County’s goals and objectives and investment priorities should be in line with seven goals set by VTrans 2035. These are identified in Table 4.

VTrans also identifies additional strategies for localities in advancing the VTrans Plan.

In addition to ensuring that Comprehensive Plans are consistent with the statewide plan, localities should direct resources and projects in such a way as to support the coordination of transportation and land use, and share data and leverage resources for performance-based planning and evaluation.

Transportation improvements have been identified from a number of sources, including the VDOT Six Year Improvement Program (SYIP) which outlines planned spending for projects and

studies by district and locality, the county’s Six Year Road Plan for the Secondary Highway System (SYRP), and the MPO’s 2035 Transportation Plan, as part of the Fiscally-Constrained Long-Range Plan (FCLRP). These projects represent those that have an identified funding source. Table 5 and Table 6 list the current and future projects under these programs in Montgomery County; Figure 12 and Figure 13 display the location of these improvements.

Table 4: VTrans Goals

Vision	Goals	Investment Priorities
VIRGINIANS ENVISION A MULTIMODAL TRANSPORTATION SYSTEM THAT IS SAFE, STRATEGIC AND SEAMLESS	Safety & Security	Increase coordinated safety and security planning Improve safe operations and services by making operational improvements
	System Maintenance & Preservation	Achieve state of good repair
	Mobility, Connectivity & Accessibility	Increase system performance by making operational improvements Preserve and enhance statewide mobility Improve the interconnectivity of regions and activity centers
	Environmental Stewardship	Promote sustainable methods of planning, design, operation and construction that are sensitive to environmental, cultural and community resources.
	Economic Vitality	Advance key economic drivers by making strategic infrastructure investments Reduce the costs of congestion to Virginia’s residents and businesses
	Coordination of Land Use & Transportation	Preserve and optimize system efficiency through proactive planning Increase travel choices to improve quality of life for Virginians
	Program Delivery	Expand opportunities to develop and leverage funds Improve cost-effectiveness of providing programs and services.

Table 5: VDOT and County Improvement Projects

VDOT Six Year Improvement Projects (through FY 2019)					
Map ID (Figure 12)	Project	Type	Route	Cost estimate (thousands)	Road Class
1	Interstate 81 NB bridge replacement and Rte. 232 bridge	VDOT SYIP	81	\$78,110	Interstate
2	Rte. 81 - addition of truck climbing lane on I81 SB	VDOT SYIP	81	\$89,473	Interstate
3	Rte. 81 - Mont. Co. approaches to I-81 bridges over Rte. 8	VDOT SYIP	81	\$5,249	Interstate
4	Rte. 603 - Ironto/Elliston connector	VDOT SYIP	603	\$19,791	Interstate
5	Rte. 8 - construct left turn lane at Rte. 669	VDOT SYIP	8	\$1,772	Primary
6	Rte. 114 – WB lane bridge replacement over the New River	VDOT SYIP	114	\$22,528	Primary
7	"Smart Highway" - 2 lanes on 4 lane ROW	VDOT SYIP	Smart Highway	\$9,577	Primary
8	Smart Road - research & operations (Blacksburg)	VDOT SYIP	Smart Road	\$6,392	Primary
9	Rte. 600 - restoration and rehab	VDOT SYIP	600	\$3,951	Secondary
10	Bridge replacement – Rte. 603 over Craig Branch	VDOT SYIP	603	\$2,113	Secondary
11	Rte. 613 - bridge over Little River	VDOT SYIP	613	\$2,373	Secondary
12	Rte. 617 - reconstruct section of unpaved road.	VDOT SYIP	617	\$250	Secondary
13	Bridge replacement - Rte. 636 over S fork Roanoke River	VDOT SYIP	636	\$2,930	Secondary
14	Rte. 639 - bridge over Elliott Creek	VDOT SYIP	639	\$2,400	Secondary
15	Rte. 639 - spot widening & curve improvements	VDOT SYIP	639	\$500	Secondary
16	Rte. 710 - pave unpaved road	VDOT SYIP	710	\$75	Secondary
17	Rte. 717 - road reconstruction, Old Sourwood Rd.	VDOT SYIP	717	\$175	Secondary
18	Bridge replacement – Rte. 719 over Crab Creek	VDOT SYIP	719	\$1,901	Secondary
19	Rte. 773 - bridge replacement	VDOT SYIP	773	\$2,970	Secondary
20	Rte. 813 over Roanoke River - bridge replacement	VDOT SYIP	813	\$4,736	Secondary
21	Mt. Pleasant Rd. (Rte. 639) – reconstruct and surface treat	County SYRP	639	\$579	Secondary
22	Sidney Church Rd. (Rte. 606) – reconstruct and surface treat	County SYRP	606	\$1,100	Secondary
23	Yellow Sulphur Rd. (Rte. 643) reconstruction	County SYRP	643	\$3,300	Secondary
24	Mt. Pleasant Rd. (Rte. 639) reconstruction	County SYRP	639	\$420	Secondary

Transportation Improvements

VDOT SYIP & County Six Year Road Plan



Montgomery County, Virginia
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Prepared by Montgomery County, Va
Planning & GIS Services, 10/4/2013

Source: VDOT SYIP
Montgomery County R-FY-14-29



Legend

Improvement Projects

Functional Classification

- Interstate
- Freeway + Expressway
- Other Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local Roads

Localities

- Localities

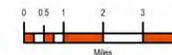


Figure 12: VDOT and County Improvement Projects

Table 6: MPO Fiscally Constrained Projects

MPO 2035 Transportation Plan Fiscally-Constrained Plan Projects			
Map ID (Figure 13)	Project	Route	Cost estimate (thousands)
25	I-81 at West Main St. (Rte. 8) – improve interchange	81	\$5,000
26	I-81 from west boundary of MPO to east of South Franklin St. – widen to 6 lanes	81	\$97,085
27	Riner Rd. (Rte. 8) at Life Dr. (Rte. 1295) – add warning signs	8	\$40
28	Radford Rd. (US 11) at Walton Rd. (Rte. 663) – add signage and clear vegetation	11	\$40
29	I-81 at Tyler Rd. (Rte. 177) – Exit 109A – install signal, pending warrant	81	\$271
30	Peppers Ferry Rd. (Rte. 114) at Walton Rd. (Rte. 663) and Prices Fork Rd. (Rte. 659) – access management	114	\$819
31	Peppers Ferry Rd. (Rte. 114) at Onyx Dr. (Rte. 800) – warning signs	114	\$40
32	Rte. 177 (Tyler Rd.) at Rte. 600 (Mud Pike Rd.) – access management	177	\$800
33	Yellow Sulphur Rd. (Rte. 643) over Wilson Creek – upgrade bridge	643	\$500
34	Coal Bank Hollow (Rte. 649) over Toms Creek – upgrade bridge	649	\$990
35	Mount Zion Road (Rte. 655) over Toms Creek – upgrade bridge	655	\$400
36	Merrimac Rd. (Rte. 657) at Hightop Rd. (Rte. 808) – improve intersection	657	\$1,101
37	Meadow Creek Rd. (Rte. 658) over Meadow Creek – upgrade bridge	658	\$750
38	Nolley Rd. (Rte. 679) over Elliott Creek (South) – upgrade bridge	679	\$1,000
39	Nolley Rd. (Rte. 679) over Elliott Creek (North) – upgrade bridge	679	\$1,000
10	Catawba Rd. (Rte. 785) over Indian Run – upgrade bridge	785	\$547
41	Hightop Rd. (Rte. 808) over Slate Branch – upgrade bridge	808	\$500
42	Smart Road – new roadway from 0.671 kilometer east of Rte. 723 to I-81 – Smart Road (preliminary engineering and ROW)	Smart road	\$81,657

Transportation Improvements

2035 Fiscally Constrained Plan
Identified by BCM MPO

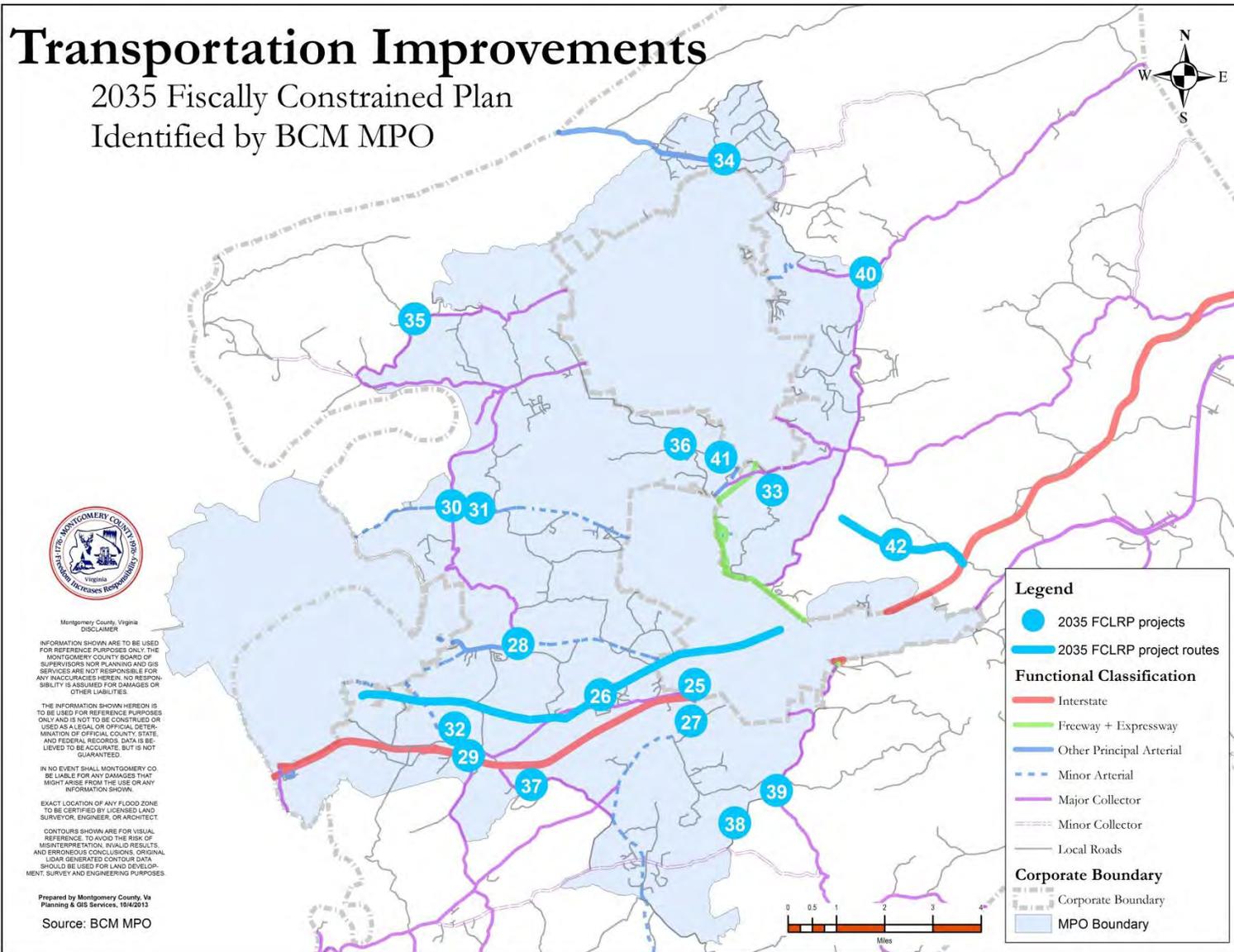


Figure 13: MPO Fiscally Constrained Projects

A number of additional project priorities were developed by the Blacksburg/Christiansburg/Montgomery Area MPO in the *2035 Transportation Plan*; these are identified as projects under the “Vision Plan” – those that have been identified as priorities but exceed the projected funding to the year 2035. A full list of these can be viewed in the most recent version of the plan on the MPO’s website: <http://www.montgomerycountyva.gov/mopo>

Other improvement priorities

A number of additional local and regional plans exist that provide goals and strategies for future transportation improvements, as well as priorities for improvements. In general, these plans offer guidance for future transportation investments, but may not specify projects with set funding sources.

Other Road Improvements

The NRVPCDC released the 2035 Rural Long Range Transportation Plan in 2011 which makes recommendations for transportation improvements for localities in the New River Valley. For the area of Montgomery County outside of the MPO area, the PDC identified 54 potential

improvements. These are as-yet unfunded projects for possible future consideration. The full list can be viewed here: <http://www.nrvpdc.org>

Major Corridors

Two corridor studies were completed in 2013: the *Route 11/460 Corridor Study*, and the *Route 8 Corridor Study*; both are awaiting VDOT approval. These studies set recommended short-, mid-, and long-term actions to improve safety, capacity, and intermodal connections to guide and support future development in the area.

Bikeway, walkway, and trails

The NRVPCDC identified and prioritized desired walkway and bikeway improvements in their 2011 *New River Valley’s Bikeway, Walkway, Blueway Plan* (available at <http://www.nrvpdc.org>). In priority order, these include:

1. The Huckleberry Trail: Extensions to Christiansburg and Jefferson National Forest, and links to Villages and other areas of interest.
2. Western connections to the Radford Riverway and New River Trail State Park
3. Eastern connections to the Roanoke Greenway

4. A Blueway system
5. Community trail systems in Towns and Villages.

Montgomery County has also identified a need for the provision of pedestrian infrastructure in new developments in Village, Village Expansion, Residential Transition, and Urban Expansion areas of the county. There is also a need to interconnect pedestrian and bicycle facilities with existing transportation routes to encourage alternative modes of travel and enhance the overall transportation network. The county’s *Village Transportation Links (VTTL) Plan*, passed in 2007, identifies a need for “a comprehensive Bicycle, Pedestrian, and Greenways Master Plan for each of the villages designated in the 2004 Montgomery County Comprehensive Plan” (p. 1) and designates standards to which to build these facilities. Cost estimates for the proposed facilities in each village are available in the final VTTL Plan document (<http://www.montgomerycountyva.gov/planning>)

The NRVPC is in the process of developing an MPO Bicycle and Pedestrian Master Plan, a draft of which should be complete in summer 2014. Details are available at <http://www.nrvpc.org/>

Park and Ride Lots and Ridesharing

The NRVPC's 2009 *Park-and-Ride Study* made specific recommendations for several areas of greatest traffic, but also made general recommendations for all area park and ride lots, including those in the county.

These include:

- Better/more frequent trash maintenance and addition of recycling bins (possibly with VDOT assistance).
- Bicycle racks at lots, and a more multimodal design overall to encourage ridership and alternative transportation.
- Information kiosks, which can be maintained by RIDE Solutions.
- Agreements with VDOT, where appropriate, to make unofficial lots official to ensure continued availability and use.

The study is currently being updated, and

more details can be found in the full study at <http://www.nrvpc.org/>

Roanoke RIDE Solutions released a draft *Long-Range Transportation Demand Management (TDM) Plan* in 2010 that lays out needs, goals, strategies, and funding for the regional ridesharing system. Full details can be viewed at <http://www.drpt.virginia.gov/>

Safe Routes to School

Safe Route to School (SRTS) Travel Plans have been developed for both the Auburn campus (elementary, middle, and high schools) and Belview Elementary School. Both plans identify a series of strategies across the five "E's" of SRTS: education, encouragement, enforcement, evaluation, and engineering strategies, with the goals of both increasing the number of students who walk or bike to school, and improving those students' safety. In 2013, the county received SRTS infrastructure grants for both of these plans of \$250,000 each.

Public Transit

The NRVPC completed a Regional Transit Organization Study in 2012 that makes general recommendations for regional cooperation in providing transit.

The study can be viewed here: <http://www.nrvpc.org/>

Rail

The *2013 Virginia Statewide Rail Plan* (available at <http://www.drpt.virginia.gov/>) is currently in draft form. The Montgomery County Board of Supervisors voted in August 2013 to support "the extension of rail passenger service to the New River Valley being included in the 2013 Statewide Rail Plan" (R-FY-14-31).

Corridor-specific rail improvements are also identified in the 2035 Virginia Surface Transportation Plan; the most recent version is available at <http://www.vtrans.org/>

Other Regional Plans

New River Valley Livability Initiative: This initiative resulted in a plan for improving livability in the New River Valley region. As of Fall 2013, a draft final plan had been made public (the most recent version can be found at <http://www.nrvlivability.org/>). The draft plan included a number of transportation-related strategies for the region, such as prioritizing projects that integrate multiple transportation modes, adding bicycle and

pedestrian connections between residential and commercial areas, expanding medical transit services, and increasing rural transportation options.

Other Statewide Plans

VTrans: This is the long-range policy plan for the state. It identifies goals and investment priorities and makes policy recommendations for statewide transportation planning. The latest version is available at <http://www.vtrans.org/2035>

Virginia Surface Transportation Plan: A long-range, project-based statewide plan that supports VTrans. Available at <http://www.vtrans.org/>

2025 State Highway Plan: This plan is not fiscally-constrained, but instead provides recommendations for highways, broken down by VDOT districts and jurisdictions. The latest highway plan can be viewed here: <http://www.virginiadot.org/>

Virginia Multimodal Freight Plan: Currently in draft form as of Fall 2013, this statewide plan seeks to direct investment in a way that improves connectivity, reliability, safety, and economic development. The most recent version of the plan can be viewed at <http://www.vtrans.org/>

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Transportation Resources: Goals

TRN 1.0 Land Use and Transportation Goal: Coordinate land use planning with transportation planning in order to reduce traffic congestion and to balance development needs with the desire for livable communities.¹

TRN 1.1 Public Information and Outreach: Actively promote public participation in the transportation planning and decision-making processes and public use of transportation resources in Montgomery County by: 1) providing for public input opportunities; 2) maintaining and publicly distributing transportation-related information; and 3) providing access to a broad range of transportation-related information to increase public understanding and awareness and promote public use of all transportation modes offered in Montgomery County.

TRN 1.1.1 Transportation Related Public Involvement: Increase public involvement in transportation-related decisions, by working with the MPO, NRVPDC, and other local jurisdictions and organizations to encourage significant public input and involvement in transportation, village, and corridor planning.²

TRN 1.1.2 Transportation Map and Public Information: Provide public access to transportation-related information through print materials, the County website, iGIS portal, and social media. These materials should include the Montgomery County Transportation Map and County Atlas, (which should ultimately include all road names, route numbers, walkway/ bikeway routes, public transit stops, park and ride lots, and airports), and any other transportation information generated by Montgomery County and the Metropolitan Planning Organization (MPO), including meeting minutes, alternative transportation information, and any other transportation-related information.

TRN 1.2 Metropolitan Planning Organization (MPO): Provide ongoing, long-term support and assistance to the Metropolitan Planning Organization.

TRN 1.2.1 2030 Long-Range Transportation Plan: Provide input on County land use issues into the MPO's ongoing transportation planning process and the MPO's preparation of the Long-Range Transportation Plan.

TRN 1.2.2 Cooperative Review: Continue to work with the MPO and NRVPDC, their associated Technical Advisory Committees, and other local jurisdictions in addressing transportation issues for major developments.

¹ Specific transportation land use policies are included in the Planning and Land Use chapter.

² Corridor planning is addressed in the Planning and Land Use chapter.

TRN 1.3 Subdivisions: Proactively review, on a regular basis, the Subdivision Ordinance with respect to those issues that involve both land use and transportation.

TRN 1.3.1 Cul-de-sac: Periodically review the Subdivision Ordinance requirement limiting the number of lots permitted on a dead end cul-de-sac rather than limiting the linear feet of the cul-de-sac.

TRN 1.3.2 Right-of-Way Standards: Continue to require new lots, created by subdivision, to abut streets meeting VDOT right-of-way standards. Update Subdivision Ordinance to require the dedication of additional right-of-way when lots are platted along existing streets with substandard right-of-way widths. Exceptions are made for family subdivisions and lots with private access easements.

TRN 1.3.3 Context Sensitive Street Designs: Work with VDOT to develop road standards which allow for context sensitive street designs in Villages and urbanized areas.³

TRN 1.3.4 Private Streets: Review private road standards in the Subdivision Ordinance to ensure agreement with the Zoning Ordinance. Investigate the possibility of a provision that would allow private streets in alleys.

TRN 1.4 Connectivity and Access Management: Provide for the safe, orderly, and efficient flow of traffic along roads classified as major and minor arterials by 1) incorporating access management strategies in the review of development proposals; and 2) asking VDOT to assist in evaluating ingress, egress, and connectivity requirements. This requirement would limit the burdening of any one road with only one ingress and egress and encourage connectivity. Work in conjunction with VDOT to update access management standards. Work with VDOT on corridor plans to identify access locations.

TRN 1.4.1 Strip Development: Discourage strip development, particularly along important transportation corridors by designating areas that can be zoned to serve as compact centers for development, including village and urban centers and major road intersections. Consider requiring high volume commercial establishments to locate with other commercial uses to avoid multiple access points along a thoroughfare.

TRN 1.4.2 Shared Access: Encourage shared access for roads classified as major and minor arterials and major and minor collectors.

³ The need for a flexible, contextual approach to road standards is especially important in the Villages and Rural Communities where historic patterns of development differ from existing state road standards and where the historic fabric of the community could be disrupted or destroyed if current standards were strictly applied. Additional information on transportation issues and contextual road standards as they apply to rural communities and villages can be found in the Planning and Land Use chapter.

TRN 1.4.3 Corridors: Perform regional corridor studies with the NRVPCD and/or VDOT and/or the MPO to evaluate arterial and collector corridors for connectivity and access management.⁴

TRN 1.5 Private Road Standards: Encourage flexibility in the application of private road design standards. The application of any standards should consider a road's context and setting and the impact of the proposed design upon the community and the environment.

TRN 1.6 Comprehensive Plan Compliance: Actively review all transportation and land use projects and proposals to determine compliance with the applicable sections of the Comprehensive Plan and other land use policies.

TRN 1.7 Compliance with State Requirements: Actively review the Transportation Resources chapter of the Comprehensive Plan to ensure compliance with Virginia State Code.

TRN 2.0 Road System: Manage, enhance, and maintain the current network of transportation in order to maximize safety and efficiency and facilitate economic development, while reducing environmental impacts.

TRN 2.1 Maintenance: Encourage the Virginia Department of Transportation and Montgomery County to approach efficient and effective maintenance of existing public roads as a first priority, in order to extend roadway surface life, minimize traffic congestion, and increase public safety during all seasons and under all weather conditions.

TRN 2.1.1 Innovative Solutions: Seek out cost-effective, innovative ways to maintain roads, such as working with VDOT to identify mutually beneficial opportunities to test new products or methods.

TRN 2.2 Alternative Programs: Work with VDOT to capitalize on programs such as the Rural Rustic Road Program and revenue sharing to develop cost-effective solutions for road improvements.

TRN 2.3 Alleviating Traffic Congestion and Accidents: Identify congestion and accident-prone routes and intersections based on VDOT and County law enforcement data/records and adopt policies to alleviate congestion, increase safety, and decrease car trips.

TRN 2.3.1 Problem Intersections and Routes: Identify problematic intersections and routes in Montgomery County, and work with the MPO, the NRVPCD, VDOT, and the Transportation Safety Commission to find solutions.

⁴ Corridor planning is also addressed in the Planning and Land Use chapter.

TRN 2.3.2 Park-and-Ride: Work with the MPO, VDOT, and NRVPCDC to update and implement the regional park-and-ride lot strategic plan which would: 1) provide facilities in outlying areas of Montgomery County and adjacent jurisdictions; 2) evaluate existing, underutilized parking lots for park and ride opportunities; and 3) establish a public awareness program to encourage increased usage of park-and-ride facilities.

TRN 2.4 Interstate 81 Corridor Improvements:

Support the corridor improvements identified in the 1998 VDOT study and any future VDOT studies to meet the needs of County residents and those passing through the county on Interstate 81. Work with the I-81 Corridor Coalition to support continued improvements of the I-81 corridor. Support any goals and strategies identified by the Commonwealth Transportation Board in any future Corridor Master Plans developed for I-81 as a Corridor of Statewide Significance.

TRN 2.4.1 Smart Road: Continue to support the extension of the Smart Road and its connection with I-81, and incorporate considerations of the Smart Road interchange into any future I-81 construction or improvements that may impact the project due to proximity.

TRN 2.4.2 Scenic Beauty: Encourage green medians and discourage soundwalls in order to maintain scenic beauty throughout the corridor.⁵

TRN 2.4.3 Stormwater Management:

Encourage VDOT to work with appropriate local governments in the design and construction of regional stormwater management facilities along the corridor.⁶

TRN 2.4.4 Agricultural & Forestal Districts

(AFDs): Discourage expansion of right-of-ways beyond what was identified in VDOT's 1998 concept study in order to minimize the impact of improvements on this corridor.⁷

TRN 2.4.5 Rest Areas: Encourage funding, maintenance, and enhancement of existing rest areas, which provide separate facilities for cars and trucks, throughout the corridor.

TRN 2.5 Virginia Scenic Byways: Work in conjunction with VDOT and the Department of Conservation and Recreation (DCR) to identify, evaluate and designate roads in the county that have important and unique scenic value and experiences, provide diverse landscape experiences, provide linkages and access, provide leisurely motoring experiences, and are regionally significant.

⁵ The importance of viewsheds is addressed in the Cultural Resources chapter of this plan.

⁶ Stormwater Management is also addressed in the Environmental Resources chapter and the Utilities chapter.

⁷ Agricultural and Forestal districts are addressed in the Environmental Resources chapter.

TRN 3.0 Public Transportation: Create a better public transportation system (rail, bus, trolley, and carpool) that allows for improved mobility of all citizens.

TRN 3.1 Existing Service: Maintain and enhance the existing services in order to maximize safety and efficiency while minimizing environmental degradation.

TRN 3.1.1 Efficient Transit: Encourage transit providers to provide more efficient and well-planned service routes, with safe bus stops and safe access to those bus stops, including: 1) well-planned service routes to decrease time spent waiting for the bus; 2) lit and well-marked bus stops; and 3) sidewalks or walkways/ bikeways to access bus stops safely.

TRN 3.1.2 Service Extension: Work with the MPO, Blacksburg Transit, and the NRVPDC Regional Transit Coordinating Council to evaluate public transportation extensions as part of the MPO's long-range transportation plan and other relevant local and regional plans.

TRN 3.1.3 Micro-shuttle: Support the expansion of the Explorer and Go Anywhere shuttle services, including exploring the possibility of adding a commuter route to and from Christiansburg.

TRN 3.1.4 Smart Way Commuter Bus: Identify future enhancements to the established Smart Way service, including strategies for increasing ridership.

TRN 3.2 Future Service: Encourage the provision of public transportation service in commercial areas and between jurisdictions (Blacksburg, Christiansburg, Radford) and between MSAs (Blacksburg and Roanoke) with a focus on areas with a high proportion of low-income households, to alleviate congestion and decrease the number of personal car trips.

TRN 3.2.1 Alternate Transit Transfer Site: Support the development of a multimodal facility on campus. Work with Virginia Tech, the NRVPDC and the MPO to incorporate regional and national bus service at this location, such as Smart Way, Greyhound, and Megabus.

TRN 4.0 Alternative Transportation: Support viable alternative modes of transportation (walking/biking trails) and provide connectivity to existing transportation networks.⁸

TRN 4.1 Commercial/Public Use: Increase the provision of sidewalks and bike racks for commercial and public use developments in order to encourage the use of alternative transportation and alleviate congestion.

TRN 4.2 Bikeways, Walkways, and Trails: Encourage coordination between the County, Blacksburg, Christiansburg, and regional jurisdictions in order to provide connectivity of all bikeways, walkways and trails.

⁸ The provision of pedestrian-oriented transportation facilities (bikeways, walkways, sidewalks, and Heritage Trails) are further supported by the Planning and Land Use chapter and the Housing chapter of this plan.

TRN 4.2.1 Bikeways, Walkways, and Trails

Coordination: Coordinate with the MPO, NRVPCDC, and other regional bodies to study the connectivity of the bikeway, walkway, sidewalk, and heritage trail network, with a focus on improvements and enhancements to the Huckleberry Trail, including the creation of a connection between the New River Valley and Roanoke Valley.

TRN 4.2.2 Walkway/Bikeway Update: Work with the MPO and NRVPCDC to review and update the Bikeway, Walkway, and Heritage Trails Plan.

TRN 4.3 Bicycle and Pedestrian Infrastructure: Work with VDOT to identify appropriate bicycle and pedestrian improvements to occur in conjunction with future road improvements.

TRN 5.0 Multi-Modal Transportation: Encourage, maintain, and enhance air and rail transportation service in Montgomery County and the New River Valley.

TRN 5.1 Air Transportation: Maintain and enhance the complementary roles of the three airports serving Montgomery County:

TRN 5.1.1 Virginia Tech/Montgomery Executive Airport: Support the implementation of the Virginia Tech Airport Master Plan to

expand its role in meeting corporate and general aviation needs.

TRN 5.1.2 New River Valley Airport: Maintain the NRV airport's role as an inland port for air freight needs.

TRN 5.1.3 Roanoke Regional Airport: Support strategies to increase passenger air service.

TRN 5.2 Rail Transportation: Maintain and enhance Norfolk Southern rail service to businesses, industries, and people in Montgomery County.

TRN 5.2.1 Industrial Rail Spurs: Support increased rail service and spurs to the industrial areas and parks in the county.

TRN 5.2.2 Interstate 81 Freight Diversion Strategy: Support efforts to promote rail alternatives to truck traffic on Interstate 81. Participate in regional freight studies to identify potential improvements, and ensure that any new rail facilities comply with the goals of the Comprehensive Plan.

TRN 5.2.3 Trans Dominion Express Strategy: Support state and regional efforts to encourage high speed passenger rail service for southwestern Virginia.