# Policy Committee Government Center Complex Large Conference Room, Building A

March 14, 2013 - 3 p.m.

- 1. Roll Call
- 2. Minutes
  - A. December 6, 2012
  - B. January 17, 2013
- 3. Old Business
- 4. New Business
  - A. <u>Update on Coordinated Regional Comprehensive Planning Process</u>
  - B. Planning Division Work Program
- 5. Adjournment

#### MEMORANDUM

DATE: March 14, 2013

TO: The Policy Committee

FROM: Paul D. Holt, III, Director of Planning

Tamara A. M. Rosario, Principal Planner

SUBJECT: Update on Coordinated Regional Comprehensive Planning Process

The information contained in this memorandum is designed to provide the Policy Committee with an update on the regional comprehensive planning effort, and specifically, to prepare for the upcoming joint meeting of the James City County Planning Commission and Board of Supervisors. The overall goals of today's meeting are to:

1. Inform the Policy Committee of the process to-date;

2. Conduct Policy Committee discussion of next-step options for James City County.

Staff offers the following information in relation to these goals, and looks forward to discussion at the meeting.

### **Process To-Date**

In 2006 the governing bodies of James City County, the City of Williamsburg, and York County agreed to coordinate the timing of their comprehensive plan reviews. In James City County, this commitment was re-affirmed and reset to a 2012 timeframe by adoption of a resolution by the Board of Supervisors in August of 2008. The purpose of the coordinated timing was to promote closer collaboration and communication concerning land use, transportation, and other comprehensive plan issues that cross jurisdictional boundaries. It was agreed from the outset that each locality would be conducting its own independent comprehensive plan review and developing its own plan; the coordinated timing of these reviews was intended to provide an opportunity for citizens of all three localities to talk about issues of mutual interest.

Planning and preparation for this coordinated effort began in 2010 as the three Planning staffs began meeting to discuss and outline a work program and to identify opportunities for jointly conducted baseline studies. The proposed schedule and deliverables were presented to the James City County Board of Supervisors in April 2011. In keeping with the material presented to the Board, work continued through 2011 with the preparation of a combined map depicting existing land use (as of October 2011) across the Historic Triangle. At the request of the three localities, the Hampton Roads Transportation Planning Organization prepared a James City County/Williamsburg/York County Comprehensive Transportation Study, which was completed in March 2012. An Economic Diversification Study was prepared by the Historic Triangle Collaborative and provided to the localities. Finally, a project web site (htplanning.org) was developed, with information about the coordinated review process along with reports on demographics, housing, and transportation using data from the 2010 Census and other sources.

The Historic Triangle Coordinated Comprehensive Plan Review process officially kicked off in early 2012 with a series of joint community forums that were held throughout the Historic Triangle. These forums were an opportunity for citizens of all three localities to come together both to learn about the three comprehensive plans and to share their visions and goals for the future of the Historic Triangle, with a particular focus on three key geographic areas where jurisdictional boundaries meet. Although lower York County does not share a common boundary with either James City County or Williamsburg, a fourth forum was held in the Tabb area of York County at the request of the York County Board to provide an opportunity for County residents outside the greater Williamsburg area to participate. Planning Commissioners and Planning staff from the three jurisdictions were present at all four forums to hear the citizens ideas and comments. Meeting dates and locations are listed below:

- February 2, 2012 Magruder Elementary School (Riverside/Marquis/Busch Area)
- February 23, 2012 Warhill High School (Lightfoot/Pottery Area)

- February 27, 2012 Williamsburg Community Building (Northeast Triangle & Surrounding Area)
- March 15, 2012 Tabb Library (Lower York County)

Following the joint community forums, the three Planning Commissions held a joint work session on April 30, 2012 to review and discuss the citizen comments made at the forums (which were all posted on the project web site) and issues of common concern, such housing affordability, transportation, economic development, and land use compatibility along jurisdictional borders.

Following completion of these activities, York County and the City of Williamsburg continued with their comprehensive plan review and update processes with their respective Planning Commissions and Board of Supervisors/City Council. The staffs of the localities continued to meet on a regular basis to share information about the discussions taking place in their respective jurisdictions. These discussions also led to the inclusion of some Historic Triangle-focused language in the draft documents (in addition to the many other discussions of regional issues and cooperation that have carried over from past plans).

### A few examples from York County:

- In the Introduction and Citizen Input sections, the text includes a description of the four regional community forums and the overall regional process. The regional community forums were a substantial component of the public meetings held by York County in the citizen input effort leading into the update. (York also had two separate community meetings and conducted a telephone survey.)
- In the Land Use section, the Lightfoot Sub-area description now states, "Adjoining land in James City County is similarly configured and is designated for economic development, which creates an opportunity for very large-scale development in this area. In any event, development on either side of the jurisdictional boundary in Lightfoot would include opportunities for the other county to participate by reviewing plans and offering input. Alternatively, any master planning exercise or development project involving property on both sides of the county line would require joint participation and close cooperation on the part of both counties."
- In the Transportation section, information and data from the regional Transportation Study noted above were incorporated in the text.
- In the Transportation section, the Regional Bikeways plan and map, which were updated as part of an corollary effort in 2012 by the Historic Triangle Bicycle Advisory Committee, are incorporated in the text.
- In the Transportation section, the walkways description and new map show proposed routes that coordinate
  with proposed routes in the City and James City County.

### A few examples from City of Williamsburg:

- In the Introduction section, wording was added stating "we have also, for the first time, coordinated the update of this Comprehensive Plan with the Comprehensive Plans of our two adjoining jurisdictions James City County and York County."
- In the Goals section, new items were added such as "work with James City County and York County to ensure that the visual quality of the entrance corridors is consistent among the three jurisdictions."
- In the Transportation section, information and data from the regional Transportation Study noted above were incorporated in the text (the Study itself is also included as an Appendix).
- In the Transportation section, the Regional Bikeways plan and map, which were updated as part of an ancillary effort in 2012 by the Historic Triangle Bicycle Advisory Committee, are discussed in the text.
- In the Implementation section, under the Inter-Jurisdictional Cooperation heading, it states "for the first time, Williamsburg, James City County and York County have coordinated their individual 2012 Comprehensive Plan updates, hosting four Regional Community Forums and a joint Planning Commission work session as a part of the process. The comprehensive planning process should continue to be coordinated in future years between the three jurisdictions."

In the memo provided to the James City County Board of Supervisors in 2011, it stated that at the completion of the process, a summary document for all three Comprehensive Plans would be developed, including a consolidated future land use map, to supplement the individual Comprehensive Plans for Board consideration and approval. Therefore,

while the localities have worked on their plans, staff also prepared a draft summary document (attached) that reflects information in each plan. The draft document has been compiled with the purpose of providing the regional scale background information that had been prepared, and describing the areas and topics where the localities had similar approaches as well as those areas where the localities' approaches were different. It is staff's understanding that this summary document, which reflects information in their updated plans, will be going forward to the Williamsburg and York Planning Commissions and Board/Council as informational items. In other words, having adopted their updated Comprehensive Plans, the summary document in the other two localities will be a technical document that is accepted, rather than an adopted component of the localities' plans. Substantial progress towards completion of the updated comprehensive plans in Williamsburg and York has now occurred. Williamsburg's Comprehensive Plan was adopted on January 10, 2013. York County held a public hearing on the Comprehensive Plan at its February 13 Planning Commission meeting and anticipating a vote by the Planning Commission in April.

### **Next Steps for James City County**

As has been discussed with the Commission and Board over the last few years, the situation in James City County is different than in the other two localities due to the last update of our Comprehensive Plan having been completed in 2009. The County has participated in the joint community forums, the meetings of the Commissions and Boards, prepared the specified deliverables, and conducted many meetings with the staff of the other jurisdictions.

Staff now hopes to discuss and define the path forward for the County in relation to the regional work that has been done. The specific discussion points should include:

- 1.) Staff will review the attached draft summary document and the other referenced work products with the Policy Committee and would appreciate input and feedback.
- 2.) Accepting, either for informational purposes, or more formally endorsing, the regional work that has been done to date.
- 3.) Based on that work completed to date, and in keeping with a five-year clock from the County's 2009 Comprehensive Plan, staff would appreciate input and early discussion regarding those elements that should be included as part of the next Comprehensive Plan Update commencing in FY14. Staff anticipates this could at a minimum include the regional elements (Regional Bikeway Map; Regional Transportation Study; and demographic information related to the 2010 Census data); the Land Use Section; and confirmation of the Goals, Strategies and Actions.
- 4.) And finally, staff would appreciate input and feedback from the Policy Committee on the Coordinated Regional Comprehensive Planning Process as it has progressed (e.g., successes/positives, etc.) over the last two years. As a corollary, discussion and input into how the coordination process, including participation in regional meetings and discussions, should be pursued in future years following the upcoming Comp. Plan update would be appreciated.

The process as undertaken in 2012 has not resulted in common text in the plans, nor in the development of unified strategies memorialized in common goals, strategies or actions. However, from staff's perspective, the regional process has resulted in a number of items of value – hearing from citizens about issues that cross jurisdictional boundaries, joint locality meetings of the Planning Commissions and Boards/Council, preparation of comparable technical information on land use, transportation, housing, and demographics, and preparation of information on similar/different approaches on these topics.

#### Conclusion

Staff looks forward to the Policy Committee's discussion and input on March 14, 2013. As noted above, staff anticipates that the Committee's discussion of this issue will be conveyed at the joint meeting of the James City County Planning Commission and Board of Supervisors, which is tentatively scheduled for May 28, 2013.

#### Attachments

1. Draft summary document

### INTRODUCTION

In 2006 the governing bodies of James City County, the City of Williamsburg, and York County agreed to coordinate the timing of their next comprehensive plan reviews. Each of the three localities has an adopted comprehensive plan – a long-range plan for the physical development of the area within its jurisdiction – and by state law these plans must be reviewed at least once every five years. The purpose of the coordinated timing was to promote closer collaboration and communication concerning land use, transportation, and other comprehensive plan issues that cross jurisdictional boundaries. It was agreed from the outset that each locality would be conducting its own independent comprehensive plan review and developing its own plan, the coordinated timing of these reviews was intended to provide an opportunity for citizens of all three localities to talk about issues of mutual interest. This is just one of many examples of inter-jurisdictional cooperation among the three localities. Others include the Williamsburg Area Transport system, the Williamsburg Regional Library system, the Regional Bikeway Plan, the Historic Triangle Bicycle Advisory Committee, and the Regional Issues Committee.

Planning and preparation for this coordinated effort began in 2010 as the three planning staffs began meeting to discuss and outline a work program and identify opportunities for jointly conducted baseline studies. This work continued through 2011 with the preparation of a combined map depicting existing land use (as of October 2011) across the Historic Triangle. At the request of the three localities, the Hampton Roads Transportation Planning Organization prepared a James City County/Williamsburg/York County Comprehensive Transportation Study (which was completed in March 2012). In addition, a project logo was designed and a project web site (<a href="httplanning.org">httplanning.org</a>) was developed, with information about the coordinated review process along with reports on demographics, housing, and transportation.

The Historic Triangle Coordinated Comprehensive Plan Review officially kicked off in early 2012 with a series of joint community forums that were held throughout the Historic Triangle. These forums were an opportunity for citizens of all three localities to come together both to learn about the three comprehensive plans and to share their visions and goals for the future of the Historic Triangle, with a particular focus on three key geographic areas where jurisdictional boundaries meet. Although lower York County does not share a common boundary with either James City County or Williamsburg, a fourth forum was held in the Tabb area of York County to provide an opportunity for County residents outside the greater Williamsburg area to participate. Planning Commissioners and planning staff from the three jurisdictions were present at all four forums to hear the citizens ideas and comments. Meeting dates and locations are listed below:

- February 2, 2012 Magruder Elementary School (Riverside/Marquis/Bush Area)
- February 23, 2012 Warhill High School (Lightfoot/Pottery Area)
- February 27, 2012 Williamsburg Community Building (Northeast Triangle & Surrounding Area)
- March 15, 2012 Tabb Library (Lower York County)

The combined attendance at these forums was 162, representing 131 citizens, some of whom attended more than one forum. Of those who participated, 36% were from James City County, 34% from York County, 24% from Williamsburg. The remaining 6% lived outside the Historic Triangle or did not clearly indicate their place of residence. Following the joint community forums, the three Planning Commissions held a joint work session on April 30 to review and discuss the citizen comments made at the forums and issues of common concern, such as housing affordability, transportation, economic development, and land use compatibility along jurisdictional borders.



Joint Planning Commission Meeting, Legacy Hall, April 30, 2012

Following completion of these activities, York County and the City of Williamsburg continued with their comprehensive plan review and update processes with their respective Planning Commissions and Board of Supervisors. The staffs of the localities continued to meet on a regular basis to share information about the discussions taking place in their respective jurisdictions. Following adoption of the updated Williamsburg and York County comprehensive plans in January and \_\_\_\_\_ 2013 respectively, this document has been compiled with the purpose of providing regional background information and describing the areas and topics where the localities had similar approaches as well as those areas where the localities' approaches were different. The purpose of this document is to serve as a foundation for ongoing dialogue and cooperation.

### A STATISTICAL SNAPSHOT OF THE HISTORIC TRIANGLE

#### Introduction

Virginia's Historic Triangle, defined as the area encompassing the City of Williamsburg, James City County, and portions of York County (Bruton District, the Naval Weapons Station, and the Yorktown village), is located in the Virginia Coastal Plain on the peninsula formed by the James and York Rivers and the Chesapeake Bay. It is part is part of the Hampton Roads region and the Virginia Beach-Norfolk-Newport News VA NC Metropolitan Statistical Area (MSA). This area has been dubbed the Historic Triangle because of its unique role in the founding of our nation. The western point of the triangle, Jamestown, located in James City County, was founded by the first settlers in 1607 and is the site of the first permanent English settlement and the first colonial government in America. Williamsburg, the northern point, served as Virginia's colonial capital during most of America's struggle for independence. The eastern point, Yorktown, where independence was won, is located in York County and is the site of the final major battle of the American Revolutionary War.



With 207 square miles, the Historic Triangle occupies slightly over half the total land area (53%) of the Virginia Peninsula, which also includes lower York County and the Cities of Newport News, Hampton, and Poquoson. In population, however, the Historic Triangle represents only 17% of the Peninsula's total population of approximately 484,000.

- Land Area: 207 square miles
- Population: 94,026
- Population Density: 454 persons per square mile
- Average Household Size: 2.45 persons per household
- Average (Mean) Household Income: \$86,793

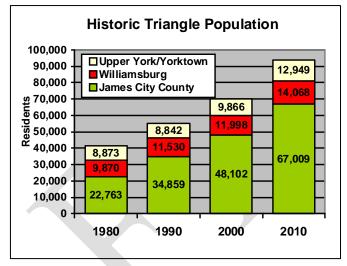


### **Population and Demographics**

According to the 2010 Census, the Historic Triangle is home to slightly more than 94,000 people. The
population has grown by about a third since 2000. Over three quarters of this growth took place in
James City County, which now accounts for 71% of the area's population; Williamsburg and upper

York County/Yorktown account for 15% and 14% of the population respectively. The area's population grew by 34% between 2000 and 2010 – 39% in James City County, 17% in Williamsburg and 31% in York County (upper York/Yorktown). By comparison, the state of Virginia grew by 13%.

 The Historic Triangle is less racially diverse than the MSA or the state as a whole, with whites representing 78% of all residents, blacks 14%, and Asians 3%. American Indians and Alaska Natives, Native Hawaiians and other Pacific Islanders, and other races



represent a combined total of 2% of the population, while another 3% of residents fall into the "Two or More Races" category. The MSA and the state of Virginia have smaller proportions of whites (60% and 69% respectively) and larger proportions of both blacks (31% and 19% respectively) and Asians (4% and 6% respectively). Hispanics make up 5.0% of the population, compared with 5.4% in the MSA and 7.9% in Virginia.

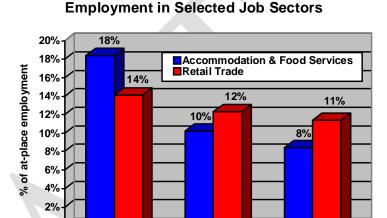
- The average household size in the Historic Triangle at 2.45 persons per household, according to the 2010 Census is relatively low. The MSA has an average of 2.55 persons per household while the Virginia average is 2.54.
- Compared with the MSA and the state, the Historic Triangle has more residents, proportionally, who
  are 55 years of age and older and fewer who are in their teens, twenties, and thirties. Those 55 and
  older constitute 32% of the Historic Triangle's population, 23% in the MSA, and 24% in the state.
  Residents under the age of eighteen, who represent 24% and 23% of the MSA and state populations,
  respectively, constitute 20% of the population of the Historic Triangle.
- The population of the Historic Triangle is relatively well-educated, with 45% of residents age 25 and older holding a Bachelor's Degree or higher (compared to 27.1% in the MSA and 33.4% in the state). Similarly, 92.1% in the Historic Triangle hold at least a high school diploma (compared to 88.8% in the MSA and 85.8% in the state).

### **Economics**

• Residents of the Historic Triangle are relatively affluent, with a mean household income of \$86,793. This compares favorably with the Virginia Beach MSA (\$70,589) and the state of Virginia (\$80,851).



- The importance of tourism in the Historic Triangle is reflected in the high proportion of jobs in the Accommodation and Food Services industry, which, according to the Virginia Employment Commission, represents 18.4% of total employment in Williamsburg, James City County, and York County. By comparison, this sector represents only 10.2% of employment in the MSA and 8.4% in the state. These are relatively low paying jobs \$329 a week, on average which might help to explain why the average weekly wage in the three Historic Triangle localities (\$632) trails the MSA (\$763) and Virginia (\$928) averages. The highest-paying jobs on the Peninsula, on average, are in Hampton and Newport News.
- As of July 2011, the combined unemployment rate for the three localities is 6.1%, lower than both the MSA (7.0%) and the state (6.2%) rates.
- Over three quarters of workers in the Historic Triangle age 16 and over 78.5% drive alone to work. Most of the rest 10.1% of the total carpool, while 3.7% walk, 1.2% use public transportation, 1.2% use other means, and 5.3% work at home. Walking to work is most prevalent in the City of Williamsburg, where walkers represent 24.7% of the employed labor force.



MSA

Virginia

At \$2 billion in 2010, total taxable sales in James City County, Williamsburg, and York County fell for
the third consecutive year. The large role that tourism plays is reflected in the fact that 9.5% of the
three localities' taxable sales come from accommodation (i.e. hotels and motels, bed-andbreakfasts, campgrounds, etc.), which accounts for only 3.3% of taxable sales statewide.

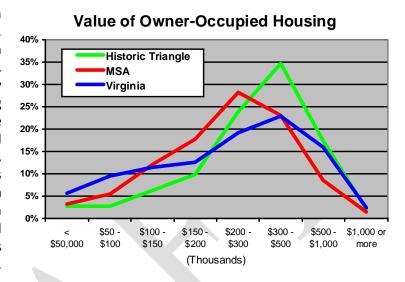
Wmsbg/JCC/York

### Housing

- There are a total of 41,458 housing units in the Historic Triangle an increase of 45% (12,932 units) since 2000. Single-family detached homes make up the majority (69%) of the area's housing stock. For the MSA and the state, they represent 62% and 63% of the housing stock respectively.
- The amount of renter-occupied housing though relatively high in Williamsburg, where it represents 56% of all occupied housing units is disproportionately low in the Historic Triangle as a whole, representing 28% of the occupied housing stock. By comparison, rental housing represents 37% of occupied housing in the MSA and 33% across the state.
- Home vacancy rates in the Historic Triangle are slightly higher than in surrounding areas. For owner-occupied housing, the vacancy rates are 2.8% in the Historic Triangle, 2.5% in the MSA, and 2.1% in Virginia. The corresponding rates for rental housing are 8.0%, 7.6%, and 7.6% respectively.



- With almost a third of all housing units (31%) built in the last ten years, the area's housing stock is relatively young. Only 10% of housing units in the Historic Triangle are at least 50 years old, compared to 23% in the MSA and 24% statewide.
- House values are generally higher in the Historic Triangle than in the MSA or the state as a whole. James City County leads with a median house value of \$334,100, followed bν York County (\$316,100) and Williamsburg (\$311,200). The median house value is \$233,600 in the MSA and \$247,100 statewide. Likewise, the median gross monthly rent is \$1,124 in York County, \$1,017 in James City County, and \$950 in Williamsburg. For the MSA and the state, the median gross monthly rents are \$918 and \$931 respectively.



• Compared with the MSA and the state, the Historic Triangle has a smaller proportion of households that are paying more than 30% of their income on housing. For homes with a mortgage, about a third of households in the Historic Triangle (33.6%) are spending more than 30% of their incomes on housing; for the MSA and the state, the proportions are 38.2% and 34.6% respectively. For rental housing, the figures are 46.3% for the Historic Triangle, 50.2% for the MSA, and 46.8% for the state.

#### Sources:

- United States Bureau of Labor Statistics
- United States Census Bureau, 2000 and 2010 Censuses
- United States Census Bureau, American Community Survey, 2005-09
- Virginia Department of Taxation
- Virginia Employment Commission



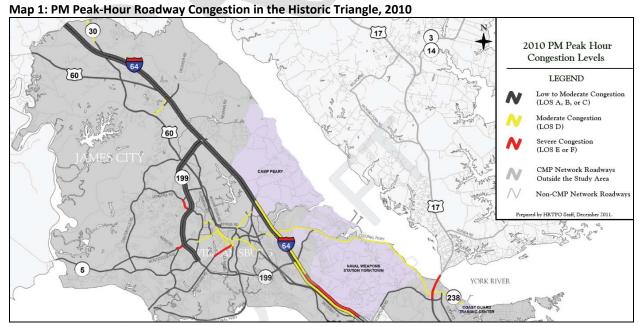
### TRANSPORTATION IN THE HISTORIC TRIANGLE

Traffic does not stop at the county or city line, and neither do most of our roads, bus routes, railroads, bikeways, or sidewalks. Transportation is an inherently regional concern that calls for regional approaches. Residents and businesses in the Historic Triangle rely on a number of major transportation arteries that cross the often invisible boundaries of the three localities, including Interstate 64, Routes 60, 132, 143, and 199, Ironbound Road, Jamestown Road, Longhill Road, Monticello Avenue, Mooretown Road, Penniman Road, Second Street, the Colonial Parkway, and the CSX railroad tracks.

As members of the <u>Hampton Roads Transportation Planning Organization</u> (HRTPO) – the intergovernmental transportation planning agency for the Hampton Roads region – James City County, Williamsburg, and York County have a long history of working closely and cooperatively with one another and their neighbors to develop plans and policies to promote the safe and efficient movement of people and goods. As part of this coordinated comprehensive plan review, the HRTPO prepared the <u>James City County/Williamsburg/York County Comprehensive Transportation Study</u>, which provided much of the background information and technical analysis that have been incorporated into the localities' comprehensive plans.

#### **Roadways**

The HRTPO has identified roads on the Congestion Management Process network (i.e., interstates, freeways and other expressways, principal and minor arterials, and some collector) that are either congested or projected to be congested by 2034. Roadway segments in the Historic Triangle that are currently experiencing severe congestion (as shown on Map 1) are I-64 westbound between the James City County/York County line and the Grove Interchange; Jamestown Road between College Creek and Boundary Street; Longhill Road between Olde Towne Road and Route 199, Monticello Avenue between News Road and Route 199, and Route 17 (George Washington Memorial Highway) between the Gloucester County line and Goosley Road.

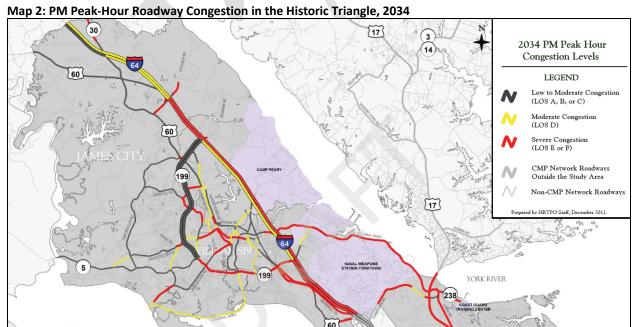


Source: Hampton Roads Transportation Planning Organization



According to the HRTPO's traffic modeling, the Historic Triangle is expected to experience a fourteenfold increase in the amount of severely congested road mileage from 4.1 miles in 2010 to 64.4 miles by 2034, including the roadway segments listed below and shown in Map 2:

- Ballard Street between Cook Road and U.S. Coast Guard Training Center,
- Boundary Street between Jamestown Road and Francis Street,
- Colonial Parkway between Williamsburg city line and Ballard Street,
- Cook Road between Route 17 (George Washington Memorial Hwy) and Ballard Street,
- Croaker Road between Route 60 and Maxton Lane,
- Interstate 64 between the Croaker interchange and the Newport News city line,
- Jamestown Road between Colonial Parkway and Sandy Bay Road,
- Lafayette Street between Richmond Road and Capitol Landing Road,
- Longhill Road between the Longhill Connector and Olde Towne Road,
- Longhill Connector between Longhill Road and Ironbound Road,
- Merrimac Trail between Newport News city line and Route 199,
- Monticello Avenue between Ironbound Road and Richmond Road,
- Newman Road between Interstate 64 and Fenton Mill Road,
- Old Stage Road between the New Kent County line and Barnes Road
- Old Williamsburg Road between Newport News city line and Goosley Road,
- Olde Towne Road between Longhill Road and Richmond Road,
- Pocahontas Trail BASF Road to Newport News city line and JCC line to Grove Interchange,
- Richmond Road between Lightfoot Road and Route 199; between Ironbound Road and Bypass Road, and between Boundary Street and Monticello Avenue,
- Rochambeau Drive between 0.7 mi. east of Ashington Way and Croaker Road, and
- Route 199 between John Tyler Highway and Interstate 64.



Source: Hampton Roads Transportation Planning Organization



### **Transit**

The three localities are partners in the Williamsburg Area Transit Authority (WATA), which operates Williamsburg Area Transport (WAT) – a multi-jurisdictional public bus system serving residents, visitors, and businesses in the greater Williamsburg area with bus routes stretching from Stonehouse in northern James City County to Water Country USA in York County to Lee Hall in Newport News. WATA also operates the Williamsburg Trolley, which runs daily on a continuous loop through Merchants Square, High Street, and New Town, with convenient connection points to both the WAT bus lines and the Colonial Williamsburg bus system. All buses and trolleys are equipped with exterior bicycle racks. Improvements to the WAT system in recent years include the addition of new routes, expanded hours, Sunday service, and the addition of regional connections to Surry County and Newport News.

Mathew Ma

The three localities, together with the other Hampton Roads jurisdictions, transit providers, and various agencies, participated in the development of a <u>Transit Vision Plan</u> for Hampton Roads to map out a series of short- and long-term recommendations for improved transit service in the region. Recommendations for the Historic Triangle area include commuter rail along the CSX corridor between Newport News and the Lightfoot and Toano areas as well as express bus service linking the lower Peninsula with the Williamsburg area and along Route 17 from Oyster Point through Yorktown and to the Middle Peninsula.

#### Rail Travel

A main line of the CSX Railroad runs through James City County, Williamsburg, and York County in a north-south direction. This line connects in Richmond with the broader network of the CSX transportation system and connects with the Port of Virginia's Newport News Marine Terminal. Passenger access to the railroad is provided at the <u>Williamsburg Transportation Center</u> located on North Boundary Street. There are currently two <u>Amtrak</u> trains that operate daily between Newport News and Washington, New



York, and Boston. Expanded and improved passenger service, including higher-speed inter-city rail service and commuter rail, will require significant railroad track upgrades along the Peninsula and in the Richmond area, where the CSX ACCA Yard is a notorious choke point for rail traffic.

Rail plays an important role in moving freight as well as passengers through the Historic Triangle area and the Hampton Roads region. With spurs and sidings to industrial areas, the CSX line serves several industrial users in James City and York Counties, including the Anheuser Busch InBev brewery, Ball Metal, the Dominion Virginia Power Yorktown Power Station, and the Western oil refinery. Because there is only one track throughout much of the CSX rail corridor, the shared use of the rail line for both passenger and freight service represents a major capacity constraint.

### **Bikeways**

There are roughly 104 miles of bikeways in the Historic Triangle, 40 of which run through the Colonial National Historical Park (see Map 4). Bicycle facility planning is a joint effort of the three localities, dating back to 1993 and the adoption of a Williamsburg-James City County-York County Regional Bikeway Plan and the formation of the Historic Triangle Bicycle Advisory Committee (HTBAC). The HTBAC, comprised of citizen appointees and staff from each locality as well as the National Park Service, the Colonial Williamsburg Foundation, and the College of William and Mary, is responsible for recommending bikeway projects for implementation; recommending amendments to the bikeway plan; and developing and implementing promotional, informational, and safety initiatives related to bicycling. This partnership has resulted in the addition of over 35 miles of bikeways throughout the Historic Triangle.

Bikeways fall into three basic categories:

- <u>Multi-Use Paths</u> are constructed physically separate from the highway. They are usually eight to ten feet wide and are designed to accommodate pedestrians and two-way bicycle traffic.
- <u>Bike Lanes</u> are constructed adjacent to traffic lanes and are generally delineated by pavement markings. They are typically four to six feet wide and considerably less costly to construct than multi-use paths. To accommodate two-way traffic, these bike lanes must be constructed on each side of the road. Shoulder bike lanes can often be built in conjunction with highway construction or repaying projects.
- Shared Roadways are travel lanes that are shared by all users of the roadway, Occasionally the travel lanes are widened to 14 or 15 feet rather than the standard 12 feet, but often signage is the only accommodation. There are no bikeway pavement markings associated with these facilities, and the roadway may be signed as a bicycle route. Shared roadways are typically designed on roads with very light traffic and in developed areas where other modes are not feasible.

Bikeways do not necessarily require significant local public investment. For example, bike facilities are less costly to construct when incorporated into a road construction, widening, or repaving project, as in the case of the extension of Mooretown Road in York County, the repaving of Capitol Landing Road/Route 143 and Lafayette Street/York Street in Williamsburg, and the extension of Monticello Avenue in James City County. Official VDOT policy is to initiate highway construction projects with the presumption that the projects will accommodate bicycling and walking. In addition, there are several federal and state funding sources available for bike facilities — such as the Transportation Enhancements, CMAQ (Congestion Mitigation and Air Quality), and VDOT Revenue Sharing programs — that require the locality to pay as little



as 50%, 20%, or even 0% of the project cost. Finally, ensuring that developers install bike and pedestrian facilities along designated routes as a condition of development approval requires no initial local government expenditures and lessens the ultimate cost of providing complete, interconnected linkages.



### Map 4: Historic Triangle Bikeways, Existing and Proposed

### **Walkways**

According to the Census Bureau's American Community Survey, 3.7% of workers in the Historic Triangle who are at least 16 years old walk to work. This is slightly higher than in the Virginia Beach MSA (2.3%) and the state as a whole (2.8%). Walking is most prevalent in Williamsburg, where walkers represent

almost a quarter of the employed labor force (24.7%), and least prevalent in James City County, where 0.8% commute on foot. In upper York County, the proportion of walking commuters is 1.3%, while 9.5% in the Yorktown village walk to work. Williamsburg's relatively compact scale and fairly extensive sidewalk network contribute to the high degree of pedestrian activity in the City. Over the past 25 years the City has filled in many gaps in its sidewalk system while requiring new development to include sidewalks. In James City County, which adopted a Sidewalk Master Plan in 1989, amended it in 1998, and adopted a Pedestrian Accommodations Plan in 2011,





most sidewalks have been constructed by the private sector in conjunction with land development; however, many sidewalk projects have been implemented by the County using state and federal funds. York County, which adopted its sidewalk plan in 1995, has also worked to create a more pedestrian-friendly environment through private as well as public sector efforts. In recent years, York County has eliminated some critical gaps in the Historic Triangle sidewalk network by adding sidewalks along Merrimac Trail, Second Street, and Richmond Road in York County to connect with existing sidewalks in the City of Williamsburg that ended at the County line. The result has been a vast improvement in pedestrian mobility and safety. As the localities continue to identify and address their respective sidewalk needs, the interconnection of local sidewalk networks should remain a priority.

## <u>Airports</u>

The Historic Triangle communities are served by three major commercial airports: Newport News-Williamsburg International Airport (located in Newport News with runways extending into lower York County), Richmond International Airport, and Norfolk International Airport. These three airports offer daily commercial passenger flights serving both domestic and international travel. In addition, the Williamsburg-Jamestown Airport is a small general aviation facility located in James City County that is a base for a flight school and small private planes. There is no scheduled commercial passenger service, and the population served is confined to tourists and business clientele who travel by private plane.

An update of the master plan for Newport News-Williamsburg International Airport is currently underway that will consider runway, terminal, and other enhancements to accommodate projected growth in both passenger and freight activity. The airport is projected to grow from 492,548 enplaned passengers in 2009 to around a million (between 948,000 and 1,092,000) by 2032.

# **Waterways**

The many waterways in and around the Historic Triangle are used by residents and businesses for a variety of purposes, including seafood harvesting, recreation, and passive enjoyment, but only the James and York Rivers serve as transportation arteries for both cargo and passengers. Much of the cargo transported by water along the York River in years past has consisted of military supplies to and from the Naval Weapons Station; crude oil and refined petroleum products to and from the Western refinery; and both raw materials and finished paper products to and from the paper mill in West Point. Along the James River, the Virginia Port Authority (VPA) worked with private interests in 2008 to launch a new James River Barge Service between the Port of Virginia and Richmond. The VPA expects this regularly scheduled express barge service, when fully operational, to remove 58,000 trucks from Virginia's roads.

One heavily used mode of water transportation in the Historic Triangle is the Jamestown-Scotland Ferry service on the James River, which links Surry County with the greater Williamsburg area. The four ferry boats, which carry commuters and tourists alike, are part of Virginia's only 24-hour state-run ferry operation.

On the York River, Yorktown has effectively become the port-of-call for the Historic Triangle, hosting recreational vessels for short-term dockage, tall ships, regional passenger cruise lines, and dinner and sightseeing cruise vessels. This activity was made possible by the construction of new docking facilities as part of the County's Riverwalk Landing waterfront redevelopment project, which opened in May 2005. Facilities include a 395-foot boat pier located at the foot of Ballard Street, which provides ample space for tall ships, large and small motor and sailing vessels, and regional cruise lines; the second, smaller pier is



located between the larger pier and the Coleman Bridge and is available for smaller craft such as day-trippers and pleasure boaters visiting the village shops and restaurants. The piers also provide the ability for overnight stays.

### **Future Plans**

Through the Hampton Roads Transportation Planning Organization (HRTPO), the Historic Triangle Bicycle Advisory Committee, the Williamsburg Area Transportation Authority, and various other efforts, transportation – not just roads but rail, transit, bikeways, walkways, etc. – is an issue on which there is a considerable amount of intergovernmental cooperation and agreement among the Historic Triangle localities. This multi-modal and multi-jurisdictional approach is well captured in one of the strategies set forth in James City County's Plan: "Plan and coordinate transportation improvements at the regional and local levels for all modes of travel to ensure efficient transitions from other jurisdictions without congestion or hazard."

A major deficiency in the transportation network of the Historic Triangle and the entire Peninsula is Interstate 64, which is the major northern gateway into the Historic Triangle and the Hampton Roads region. In 1999 VDOT and the Federal Highway Administration (FHWA) sponsored a Major Investment Study of the I-64 corridor that identified the need to widen I-64 to six lanes between I-95 in Richmond and the southern Route 199 (Water Country USA) interchange, and to eight lanes (including two HOV lanes) between Route 199 and I-664. This recommendation was endorsed by James City County, Williamsburg, and York County, all of whom also urged VDOT to pay particular attention to preserving the aesthetic value of this scenic corridor. Thirteen years later, no progress has been made toward widening I-64, and VDOT is once again studying the corridor to determine whether or not to add lanes, and if so, whether to add lanes in the median or on the outside of the existing lanes and whether or not to add tolls. Running through both James City and York Counties Interstate 64 serves as a major gateway into the Historic Triangle. All three comprehensive plans express support for widening this facility while stressing the need for VDOT to carefully explore the tradeoffs between widening the roadway within the median versus widening along the edge of the right-of-way with the goal of preserving at least some of the wide, partially vegetated grass median.

Another potential problem area is the area surrounding the Route 199 interchanges at I-64 and Route 60/Route 143, where the HRTPO traffic modeling indicates severe congestion on all the major roadways – Route 199, Pocahontas Trail, and Merrimac Trail – by 2034. Although congestion on these roads is currently in the low to moderate range, future development in this area – Quarterpath at Williamsburg, additional phases of The Marquis shopping center, and the expansion of Water Country USA – is expected to add significant amounts of traffic that will greatly reduce Levels of Service.

It should be noted, however, that traffic forecasting is not an exact science, and no traffic model is perfect. Long-range forecasts of severe future congestion do not necessarily indicate that improvements will be needed. For example, the HRTPO modeling indicates that the Colonial Parkway and Route 132 in York County – two roads where traffic appears to flow smoothly, even in the morning and afternoon peak hours – are currently experiencing moderate congestion that will become severe by 2034. Forecasts notwithstanding, York County's Comprehensive Plan does not recommend any future improvements to either of these roads or to Ballard Street in Yorktown, which is a relatively low-volume road with little congestion that provides access to the Coast Guard base and a small residential area (Surrender Field) that has very little privately owned land available for future development. Furthermore, as noted in the HRTPO Comprehensive Transportation Study, several of the roadways that are expected to be congested in 2034



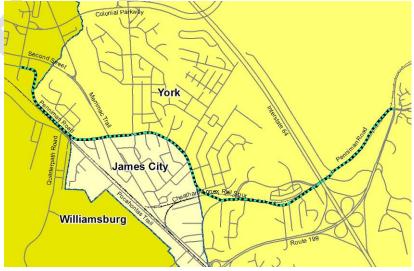
are located in historic, educational, or recreational areas and could not be widened without severe impacts on the character of these areas. Such roadways include the Colonial Parkway, Lafayette Street through downtown Williamsburg, Jamestown Road and Richmond Road around the William and Mary campus, Jamestown Road in James City County, and Cook Road and Ballard Street in the vicinity of the Yorktown battlefield.

One potential future road construction project that is discussed in both the James City County and York County comprehensive plans is the extension of Mooretown Road from its present terminus at Lightfoot Road in York County to Croaker Road in James City County. York County's Plan states that this project would have no significant benefit in terms of alleviating traffic congestion but could potentially yield economic benefits by improving accessibility to the Pottery property. Accordingly, the Plan specifies that any extension of Mooretown Road in York County should be developer-funded and not paid for with scarce public highway funds. James City County's Plan, in contrast, states that while private funding to extend Mooretown Road is expected, public funds might also be used.

The three localities, both individually and collaboratively, have made significant progress toward the creation of seamless networks of bikeways and walkways throughout the Historic Triangle. The Coordinated Comprehensive Plan Review provided an opportunity for the three localities to review existing plans and identify areas where bicycle and pedestrian connectivity can be further enhanced. For bikeways, the HTBAC undertook an exhaustive review of the adopted Regional Bikeway Plan and recommended various changes to the proposed projects.

Opportunities for improved pedestrian connectivity across jurisdictional boundaries were also identified as part of the comprehensive plan review process. One such area is Penniman Road which runs through all three Historic Triangle localities. James City County's Pedestrian Accommodations Plan recommends a sidewalk along its segment of Penniman Road, which serves as the boundary line between James City County and York County. York County's Comprehensive Plan also recommends a sidewalk along its portion of Penniman Road, possibly involving a trail along the inactive Cheatham Annex rail spur that runs

parallel to the road, which would incorporate approximately 800 feet of existing sidewalk west of Merrimac Trail (in front of the Wawa convenience store/gas station and the Animal Clinic of Williamsburg) and an additional 600 feet of existing sidewalk along the eastern end of the road in front of Penniman Road Commerce Park. On the Williamsburg portion of Penniman Road, a mixed-use development known as the Carlton Holdings project has been



approved – with a 13,250-square foot commercial building and 29 condominium units – that will include construction of a sidewalk along the north side of Penniman Road as part of the residential portion. By coordinating these efforts, the three localities could greatly enhance pedestrian mobility along this multi-jurisdictional corridor. The 4.6-mile corridor Mooretown Road is another opportunity for a coordi-



nated effort between James City and York Counties, both of which have identified Mooretown Road as potential future sidewalk corridors.

The three localities worked together recently to develop a conceptual plan for corridor improvements along Pocahontas Trail (Route 60) between the I-64 Grove Interchange and Capitol Landing Road. These include bicycle and pedestrian amenities as well as landscaping and other corridor and gateway beautification efforts, such as the removal of overhead utilities. The three localities have jointly applied for funding for these improvements through the VDOT Transportation Enhancements program. If approved, this grant funding would require the localities to pay 20% of the total project cost of \$4.5 million), with the remaining 80% paid by VDOT. This project can serve as a model for other such collaborative efforts.



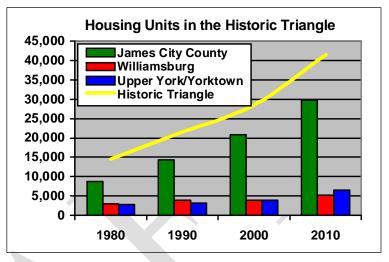


### HOUSING IN THE HISTORIC TRIANGLE

According to the 2010 Census, there are 41,458 housing units in the Historic Triangle – an increase of 45% (12,932 units) since 2000. This includes both year-round units and units that are for seasonal, recreational, or occasional use. Most of the growth in the area's housing stock between 2000 and 2010 was

in James City County, which grew by 9,025 units, followed by upper York/Yorktown, which had a net increase of 2,609 units. The City of Williamsburg experienced a net increase of 1,296 units. (At least a portion of the net increase in York County appears to be attributable an undercount of time-share units by the Census Bureau in 2000.)

Single-family detached homes dominate the area housing market, constituting over two-thirds of the housing stock in the Historic Triangle.



Apartments, townhouses, and duplexes are most prevalent in Williamsburg, where they represent half of the housing stock. Single-family detached homes are most prevalent in upper York/Yorktown, where they make up 86% of all housing.

The development of two higher-density neo-traditional mixed-use developments – New Town in James City County and High Street in Williamsburg – has introduced a new type of compact urban form to the Historic Triangle that brings residential and commercial development together into vibrant, walkable environments where people can live, work, and shop. These two developments have greatly increased the number of townhouses and apartments in the area. Nevertheless, Census Bureau statistics indicate that single-family detached housing has actually *increased* from 67% of the housing stock in 2000 to 69% in the latter part of the decade (based on the American Community Survey for 2005-09).



With the rapid rate of home construction activity in recent decades, the Historic Triangle's housing stock is much newer, on average, than in the metropolitan area or the state. For example, almost half the homes (48%) were built since 1990, compared to 29% in Virginia and 25% in the MSA. Likewise, only 10% of the housing was built before 1960 vs. 23% in the MSA and 24% in Virginia. This is reflected in the fact that homes in the Historic Triangle tend to be larger and have higher assessed values than in the metropolitan area or the state as a whole.



According to the 2010 Census, 87% of the housing in the Historic Triangle is occupied. This is slightly lower than both the statewide occupancy rate of 91%, and the metropolitan area rate of 92%. The overall homeowner vacancy rate is 2.8%, while the vacancy rate for rental housing is 8.0%, both of which are higher than the corresponding vacancy rates for both the metropolitan area and the state.

One-fifth (19.9%) of the housing units in the Historic Triangle are classified by the Census Bureau as being "for seasonal, recreational, or occasional use," including time-share units. This is significantly more than in either the MSA (2.2%) or the state (2.4%) as a whole. Of the 2,906 seasonal units in the area, almost half (49.5%) are located in James City County, while York County and Williamsburg account for 44.3% and 3.5% respectively.

Homeownership is high in the Historic Triangle, where 72% of occupied housing units are owner-occupied. A relatively high percentage (56%) of the occupied units in Williamsburg are renter-occupied in comparison with the surrounding counties (24%). The City of Williamsburg's large college student population accounts for some of the disparity between rental occupancy in Williamsburg and the surrounding areas, but cities generally tend to have higher rental rates than suburban counties; in the Cities of Hampton and Newport News, for example, rental units account for 42% and 49% of all occupied units respectively. William and Mary houses 73% of its full-time undergraduate students and 14% of full-time graduate students, and the demand for rental housing near campus remains high.

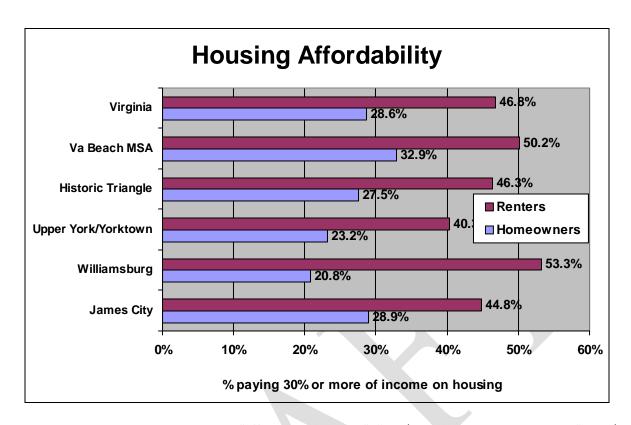
People who live in group quarters (dormitories, correctional facilities, military quarters, nursing homes, etc.) represent 6% of the Historic Triangle's population. Almost three-quarters of these 5,541 residents are William and Mary students who live on campus, while the Virginia Peninsula Regional Jail and the Merrimac (juvenile detention) Center in James City County account for another 471 residents, followed by the Naval Weapons Station Yorktown with 270. Nursing facilities and skilled nursing facilities in James City County and Williamsburg account for most of the remainder (492).

### **Housing Affordability**

In general, housing values are higher in the Historic Triangle than in the MSA or the state of Virginia as a whole. At \$334,100, James City County has the highest median house value in the area, followed by York County (\$316,100) and Williamsburg (\$311,200). The MSA and state averages are somewhat lower at \$233,600 and \$247,100 respectively. Similarly, rents also tend to be higher in the Historic Triangle, with the median gross monthly rent ranging from \$950 in Williamsburg to \$1,124 in York County; the median rent is \$1,017 in James City County. For the MSA and the state, the figures are \$918 and \$931 respectively.

Although house values and rents are generally higher in the Historic Triangle than in the rest of the metropolitan area, Census figures indicate that housing affordability affects a smaller proportion of households. A common measure of housing affordability is the general rule that no household should have to spend more than 30% of its annual gross income on housing. According to the Census Bureau's American Community Survey for 2005-09, 27.5% of households living in owner-occupied homes in the Historic Triangle were paying at least 30%. The figures are 32.9% and 28.6% for the metro area and the state respectively. For rental housing, the figures are 46.3% for the Historic Triangle, 50.2% for the MSA, and 46.8% for the state.





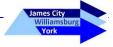
Housing within this range is termed "affordable housing," "low/moderate income housing," and/or "workforce housing." The baseline used to determine affordability is the HUD (U.S. Department of Housing and Urban Development) Area Medium Income (AMI), which for 2012 is \$69,900 for the Virginia Beach-Norfolk-Newport News MSA (Metropolitan Statistical Area). Within this affordable range, 80%-120% AMI is considered to be moderate income (\$55,920-\$83,800), 50-80% is considered to be low income (\$34,950-\$55,920), and 30-50% is considered to be very low income (\$20,970-\$55,920). When you look at the 50-80% of AMI range, this roughly equates to a house value of \$150,000-\$250,000.

A large percentage of the area's housing stock (excluding rental apartments) falls within this affordable range as shown in the 2012 Housing in Affordable Range and 2012 Housing Values tables, based on 2012 real estate tax records. There are over 14,000 existing dwelling units in the 50%-80% of AMI range (house values of \$150,000-\$250,000). Williamsburg has the largest percentage of non-apartment housing stock in this range (32%), followed by York County (30%) and James City County (27%)., there are over 14,000 existing dwelling units in the affordable range, which represents 32% of the City's non-rental housing stock.

2012 Housing Values

	William	Williamsburg		James City County		York County	
Range	Number	Percent	Number	Percent	Number	Percent	
\$100,000 or less	253	8.1%	687	2.6%	168	0.8%	
\$100,000-\$150,000	469	14.9%	2,352	8.9%	1,803	8.8%	
\$150,000-\$200,000	627	19.9%	3,354	12.7%	2,346	11.5%	
\$200,000-\$250,000	389	12.4%	3,825	14.5%	3,762	18.4%	
\$250,000 or more	1,405	44.7%	16,096	61.2%	12,371	60.5%	
Total	3,143	100.0%	26,314	100.0%	20,450	100.0%	

Source: 2012 Property Tax Records for Williamsburg, James City County, and York County



2012 Housing in Affordable Range

	Williamsburg		James City County		York County	
Range	Number	Percent	Number	Percent	Number	Percent
\$100,000 or less	253	8.1%	687	2.6%	168	0.8%
\$150,000 or less	722	23.0%	3,039	11.5%	1,971	9.6%
\$200,000 or less	1,349	42.9%	6,393	24.3%	4,317	21.1%
\$250,000 or less	1,738`	55.3%	10,218	38.8%	8,079	39.5%

Source: 2012 Property Tax Records for Williamsburg, James City County, and York County

Among the three localities in the Historic Triangle, Williamsburg has the smallest proportion of homeowners – but the highest proportion of renters – spending more than 30% of their income on housing. This most likely reflects the City's disproportionately large proportion of homeowners who do not have a mortgage (44%) and the large number of college students living in off-campus rental housing.

Each of the three localities in the Historic Triangle has developed programs for meeting the housing needs of the community. In James City County, some major successes include 661 units voluntarily proffered at reduced rents or sale prices within new developments between 2000 and 2008, implementation of a Cluster Overlay District that gives density bonuses for developments that provide significant public benefits (including affordable housing), and development of a housing fund to use as leverage for state and federal grants or for other revitalization projects. In addition, approximately 100 of the 661 total proffered units have utilized a soft-second mortgage held by James City County. These soft-second mortgages reduce the amount borrowed by the buyer, while still allowing the unit to have a higher sales price. The amount of the soft second equals the difference between the contract sales price and the proffered affordable sales price. This "discount," secured by the County, is forgiven to the homeowner over a period of time as long as the property is not sold or leased. Some noteworthy affordable housing projects in James City County are the Ironbound Square Redevelopment, Michelle's Point, and the Longhill Grove Apartments, which have a combined total of 332 units, 212 of them affordable.

In the City of Williamsburg, recommendations in the 1953 and 1968 Comprehensive Plans led to the establishment of the Williamsburg Redevelopment and Housing Authority (WRHA) in 1969. Projects sponsored by the WRHA include Crispus Attucks Place, a 19-lot subdivision; Strawberry Plains Redevelopment Area, a 56-lot subdivision; the Blayton Building, a 38-unit elderly housing apartment complex on Scotland Street; and three subsidized apartment complexes on Mimosa Drive (14 units), in Highland Park

(29 units), and on New Hope Road (28 units). This a total of 75 single family lots and 104 subsidized rental units. The City's 2006 Comprehensive Plan recognizes the need for more affordable low- and moderate-income housing and has identified several areas as being suitable for this use. These include the undeveloped portion of the Wales subdivision on Ironbound Road, which will support at least 19 additional single-family homes; the Mixed-Use area on Strawberry Plains Road south of Berkeley Middle School, which will support up to 140 dwelling units; a 12-acre undeveloped parcel in the Highland Park neighborhood located on the east side of





North Henry Street north of the 29-unit WRHA-subsidized apartment complex on Dunning Street; and the Blayton Building property on Scotland Street, which can support approximately 39 additional elderly housing units.

York County encourages the construction of moderately priced housing through the *Affordable Housing Incentive Provisions*, which are set forth in the Planned Development regulations of the Zoning Ordinance. This is accomplished through the reduction or elimination of otherwise applicable planned development open space requirements depending on whether the proposed lots are less than or greater than 7,500 square feet. In exchange, these provisions require either modular dwelling units or other approved single-family detached dwelling units and establish a maximum unit size, all with the objective of promoting affordability. Five planned developments, with a combined total of 385 units, have been developed under the Affordable Housing Incentive Provisions since their inception in 1986. Two of these developments – the 88-lot Bruton Glen subdivision and the 22-lot Sunset Meadows subdivision – are located in the upper County.



### LAND USE IN THE HISTORIC TRIANGLE

As with traffic, the development and growth patterns within the Historic Triangle are influenced by factors from all three localities. Although each of the localities retains individual control over the land use designations and zoning of land within its borders, residents, businesses, and visitors alike view the area more holistically when making decisions about where to live, work, and shop. In recognition of this, the City of Williamsburg, York County, and James City County consult with each other not only when considering changes to the future land uses along common border areas, but also when reviewing specific plans for development in these areas.

To further aid in the localities' coordination efforts regarding development, the staffs of the three localities agreed to prepare combined maps of existing and future land uses as part of the coordinated review process. These combined maps allowed staff to analyze more readily the conditions in the focus areas. The existing land use map reflect current conditions on the ground, while the future land use map projects the desired conditions as development occurs and land uses change over the twenty-year horizon.

Conducting this effort required staff to translate the specific land use designations used in each locality into a common language. The table below lists the general categories shared between localities and details the individual future land use designation and densities each locality associates with that category.

LAND USE	WILLIAMSBURG	JAMES CITY COUNTY	YORK COUNTY
Agricultural	None	Rural Lands	None
Residential	Low Density Single Family (3 dwelling units/net acre) Medium Density Single Family (5 du/net ac.) Medium Density Multi-Family (7 du/net ac.) High Density Multi-Family (14 du/net ac.) Downtown Residential (14-22 du/net ac.) Urban Residential (20 du/net ac.	Low Density Residential (1-4 du/gross ac.) Moderate Density Residential (4-12 du/gross ac.)	Low Density Residential (1 du/gross ac.) Medium Density Residential (1.75 du/gross ac.) High Density Residential (3 du/gross ac.) Multi-Family Residential (10 du/gross ac.)
Mixed Use	Mixed Use (8-22 du/net ac.) Economic Development (10-12 du/net ac.)	Mixed Use (18 du/gross ac./0.4 FAR-Floor Area Ratio) Economic Opportunity (Residential development allowed at density in Zoning Ordinance)	Yorktown Mixed Use overlay designation (0 du/gross ac.)
Commercial	Office Downtown Commercial (14-22 du/net ac.) Corridor Commercial (14 du/net ac.) Urban Commercial (14 du/net ac.)	Neighborhood Commercial (0-0.2 FAR) Community Commercial (0.2-0.4 FAR)	Limited Business General Business Economic Opportunity (NO FAR LIMITS)
Institutional	Public and Semi-Public Colonial Williamsburg Historic Area Colonial Williamsburg Support Colonial Williamsburg Resort College of William and Mary	State, Federal, and County Land (portion) Park, Public or Semi Public Open Space (portion)	



LAND USE	WILLIAMSBURG	JAMES CITY COUNTY	YORK COUNTY
Industrial	None	Limited Industry	Limited Industrial
		(0.2 - no limit FAR)	General Industrial
		General Industry	NO FAR LIMITS
		(0.2 - no limit FAR)	
		Airport	
Military	None	State, Federal, and County	Military
		Land (portion)	
Parks, Open	Parks, Parkway and Recreation	Conservation Area	Conservation
Space, Green-	Sensitive Environmental Areas	Park, Public, or Semi Public	
ways		Open Space (portion)	
		State, Federal, and County	
		Land (portion)	

### Notes:

- AC = Acre
- DU = Dwelling Units
- FAR = Floor Area Ratio (Gross floor area of all buildings or structures on a lot divided by the total lot area)
- There are no FAR requirements except where noted.



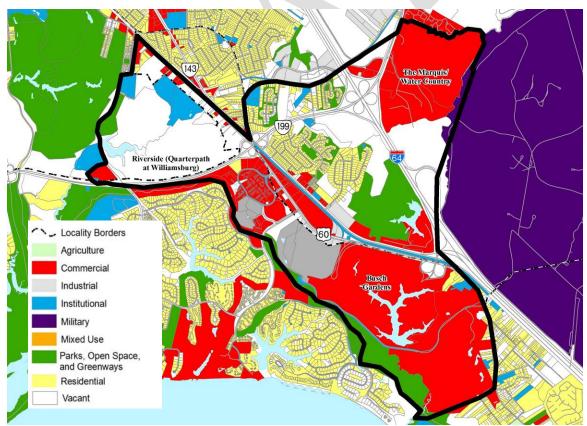
# RIVERSIDE/MARQUIS/BUSCH FOCUS AREA

## **Description of the Focus Area**

The Riverside/Marquis/Busch focus area surrounds the southern Interstate 64/Route 199 interchange and the nearby Route 199/Route 143/Route 60 interchange. This focus area occupies slightly over 3,000 acres of land, 44.3% located in James City County, 41.4% in York County, and 14.3% in the City of Williamsburg.

### **Existing Land Use**

Most of the existing development in this area is commercial, with major uses including Busch Gardens, the InBev brewery, and the Busch Commerce Center in James City County, and, in York County, the Marquis shopping center, Water Country USA, and the Parkside timeshare resort. The Williamsburg portion of this area is largely vacant, except for the Quarterpath Crossing shopping center, the Colonial Williamsburg Distribution Warehouse and the WATA/Penske facility, both of which are accessed from Route 60, and the Colonial Williamsburg Nursery on Quarterpath Road. On the east side of Quarterpath Road is Redoubt Park, a 21.4-acre passive park. Residential development in this area is primarily single-family detached and mostly confined to the area bounded by Penniman Road, Merrimac Trail, and I-64 in York County, with such subdivisions as Carver Gardens, Country Club Acres, Williamsburg Bluffs, Penniman East, and Highgrove. There is also a 14-unit duplex development called Callahan Village.



Existing Land Use - Riverside/Marquis/Busch Focus Area



### **Future Land Use**

The three adopted comprehensive plans essentially call for a continuation of the existing land use pattern, which is mostly commercial and industrial. The biggest change on the horizon is in Williamsburg, where Riverside Healthcare Association is developing а 328-acre mixed-use development called Quarterpath at Williamsburg, located on the north side of Route 199 between Quarterpath Road and Route 60. This is the largest tract of undeveloped land under single ownership in the City. Williamsburg's Comprehensive



Plan designates the lower section along Route 199 as Economic Development, which is a mixed-use category, while the upper section north of Tutter's Neck Pond is designated Medium Density Residential. The development will be anchored by Doctors' Hospital, a 40-bed facility that is now under construction and is slated to open early in 2013. In addition to the hospital, this property will have commercial, office, and medical office uses, and the potential for 1,467 dwelling units.



The Williamsburg Comprehensive Plan calls for a section of Quarterpath Road adjacent to Redoubt Park and Tutter's Neck Pond to be closed to vehicular traffic, with alternate access provided by the future construction of Redoubt Road. The closed section of Quarterpath Road would become a multi-use trail that would connect to the proposed trail system for Quarterpath at Williamsburg and the existing multi-use trail on Quarterpath Road.

Some of the infrastructure improvements associated with the Quarterpath at Williamsburg project are in James City County, where the vacant land along Route 60 north of Route 199 is designated for Mixed Use with the expectation of some spillover retail and office development generated by the project. Otherwise, there is very little vacant land in this area that is located in James City; however, Busch Gardens, is continually making changes, adding new rides and other

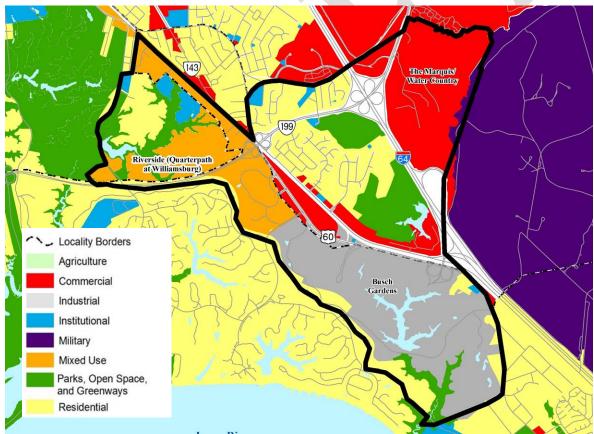
attractions, the latest of which is Verbolten – a thrill ride in the Germany section of the park that opened in 2012.

The York County Comprehensive Plan does not recommend any major changes to the current land use pattern in this area, maintaining I-64 as the dividing line between commercial and residential development. On the east side of I-64 is the Marquis shopping center, which contains approximately 400,000 square feet of commercial space and is planned for at least an additional 200,000 square feet. Adjacent to the Marquis on Route 199 is the Water Country USA theme park, which occupies 221 acres of land and, like Busch Gardens, is constantly adding new attractions. Approved expansion plans will see the water park grow from 41 acres to 84 total acres of attractions, with the additional 43 acres to be devel-



oped in five phases over the next twenty years. On the west side of I-64 are approximately 100 acres of vacant land designated for medium and high-density single-family detached residential development, which can accommodate an estimated 220 or so dwelling units.

Percentage of Focus Area Acreage				
Land Use	% of Existing	% of Planned		
	Land Use	Future Land Use		
Residential	8%	22%		
Commercial	45%	21%		
Mixed Use	0%	15%		
Industrial	6%	28%		
Open Space/Conservation	11%	12%		
Institutional	4%	2%		
Vacant	26%	0%		
TOTAL	100%	100%		



Planned Future Land Use - Riverside/Marquis/Busch Focus Area

### **Summary**

A 2.3-mile segment of Interstate 64 and two interchanges are located in this focus area. As noted previously, VDOT and the FHWA are working on a study of the I-64 corridor from I-95 in Richmond to I-664 in



Hampton. This study will identify transportation needs within the I-64 corridor and evaluate the impacts of proposed improvements. As part of this process a Draft Environmental Impact Statement was completed in October 2012 which identified five build alternatives for further, more detailed study. In addition to the "no build" alternative, construction alternatives being studied involve widening I-64 to the inside (both with and without tolls) and widening it to the outside (with and without tolls). These studies are the first step toward the eventual widening of I-64, which all three comprehensive plans support. Funding for construction has yet to be identified and would be many years in the future.

Another major transportation artery that runs through this focus area is Pocahontas Trail (Route 60), where the three localities have a plan, as yet unfunded, to implement corridor improvements – landscaping, beautification, pedestrian, and bicycle improvements – between the I-64 Grove Interchange and Capitol Landing Road. The three localities have jointly applied for funding for these improvements through the VDOT Transportation Enhancements program as along portions of this 4-mile corridor. If approved, this grant funding would require the localities to pay 20% of the total project cost of \$4.5 million), with the remaining 80% paid by VDOT.



# LIGHTFOOT/POTTERY AREA

## **Description of the Focus Area**

The Lightfoot/Pottery area directly involves only two of the three Historic Triangle jurisdictions – James City County and York County. The focus area's boundaries are largely defined by major transportation features – Interstate 64, Croaker Road, and Richmond Road—as well as large existing and planned activity centers.

### **Existing Land Use**

There are a variety of land uses from one end of the focus area to the other. Agriculture and vacant land are predominant, representing a combined total of 58% of the land area, followed by commercial (16%) and residential (14%). Much of the land in James City County is currently in agricultural or residential uses, with a concentration of commercial uses in and around the Williamsburg Pottery. Existing institutional uses within or adjacent to the focus area include the James City County Library, Warhill High School, Thomas Nelson Community College's Historic Triangle Campus,



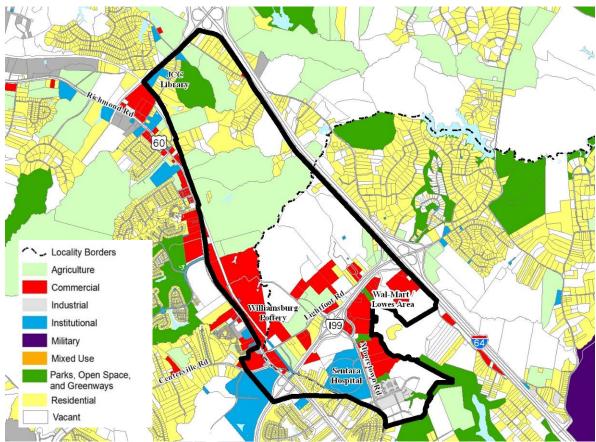
and the new Law Enforcement Center. In York County, most of the land (56%) is vacant, while the developed land is occupied mostly by commercial and institutional uses as the area has grown in recent years with the addition of the Michael Commons office park, the Williamsburg Marketcenter, and the Sentara Williamsburg Regional Medical Center.



Lightfoot has been a hub of activity dating back to the establishment of the Pottery in 1938. Over the years, the surrounding commercial area has grown to include supporting retail and restaurants. The more recent transformation of the Lightfoot area into a major regional activity center is a result of decisions stemming from York County's 1991 Comprehensive Plan. Until that time, much of the area had been designated for low density residential. However, recognizing the need for a larger commercial base to offset the fiscal demands generated by rapid population growth, and seizing on the proximity to the I-64 interchange at Lightfoot and the improved access to be provided by the extension of Mooretown Road and the completion of Route 199 itself, York County designated the entire area Economic Opportunity.



Economic Opportunity designation was created as part of the 1991 Comprehensive Plan with the goal of providing for a mix of retail, office, tourist-related, and light industrial uses in certain areas of York County. Lightfoot is now home to three of York County's six largest private sector employers: Sentara Williamsburg Regional Medical Center, Great Wolf Lodge, and Walmart.



Existing Land Use - Lightfoot/Pottery Focus Area

### **Future Land Use**

Based on the two comprehensive plans, future land use in the Lightfoot/Pottery Area is expected to be nearly 80% Economic Opportunity – split between mixed use and commercial – 11% agriculture, and 5% institutional. The shift from the predominant existing land uses expected over time is attributable to continued implementation of the Economic Opportunity designation first made in the York County's 1991 Comprehensive Plan, and more recently, the decision made during the James City County 2009 Comprehensive Plan update to redesignate approximately 900 acres (shown in orange area on the map) from Rural Lands and Mixed Use to Economic Opportunity. This change eliminated one of the major cross-jurisdictional land use incompatibilities in the Historic Triangle.

On the York County side, there is still considerable potential for additional development beyond the current 2.3+ million square feet of commercial, hotel, timeshare, office, and hospital space, particularly on the north side of Lightfoot Road, where development remains relatively sparse. There are several large parcels under single ownership (Williamsburg Pottery), which creates the potential for a large master

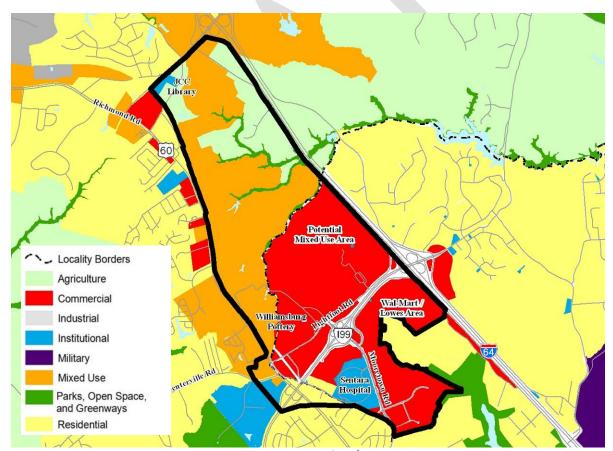


planned development. As mentioned previously, the York County Comprehensive Plan designates this area as Economic Opportunity with a potential mixed use overlay.

For James City County, the Economic Opportunity designation incorporates the Pottery area and surrounding properties, and seeks specifically to maximize the economic development potential of the area with primary uses of industrial, light industrial, and office uses which encourage development types and land uses that have a positive fiscal value, are environmentally friendly, and support local economic stability. Retail and mixed-cost housing is allowed but limited to amounts necessary to support the industrial/office component. The designation further stresses the following considerations:

- The importance of a multi-jurisdictional master planning process to ensure available infrastructure, and compatible community character;
- Inclusion of the master planned areas within James City County's Primary Service Area (PSA) to allow connection to public water and sewer; and
- Matching the preferred development pattern with any plans for commuter rail or other type of transit.

This text was the guidance for the recently developed and adopted Economic Opportunity zoning district in James City County. The majority of the remaining future land use designations in the focus area continue to be in Rural Lands.



Planned Future Land Use - Lightfoot/Pottery Focus Area



One of the considerations going forward for this area that is intimately related to planned land use is transportation. The HRTPO transportation study conducted as part of the coordinated comprehensive plan review projected that a number of roadways in this focus area, including Croaker Road, Richmond Road in the vicinity of its intersection with Centerville Road, and I-64, are projected to have severe congestion in 2034. To deal with this congestion and to help fulfill the economic potential of this area, there are a number of improvements planned for this area. These include preliminary engineering/right-of-way acquisition funds for widening Croaker Road from two to four lanes, as well as preliminary engineering/right-of-way acquisition and construction funding for turn lane/intersection improvements on Richmond Road/Centerville Road and Route 199/Richmond Road. Another potential project identified in the localities' comprehensive plans would extend Mooretown Road from its current terminus at Lightfoot Road to tie into Croaker Road or Rochambeau Road. At the request of James City County, the Hampton Roads Transportation Planning Organization, approved \$400,000 to study this corridor and determine an alignment. The actual construction cost is estimated to be \$15.8 million, for which future funds would need to be secured.

Of final note is the previously mentioned VDOT/Federal Highway Administration study of the I-64 corridor from Richmond to I-664 in Hampton. The study is scheduled to be completed in early 2014 and would be the first step in getting I-64 widened, which has been a goal of the three localities for some time. Funding for construction has yet to be identified and, given the general lack of transportation funding in Virginia, would likely be many years in the future.

In addition to these road projects, there are several noteworthy bicycle, walkway, and transit projects in this focus area. There is one bicycle/pedestrian project with funding for preliminary engineering, right-of-way acquisition, and construction in the study area – a multi-use path along Croaker Road. In addition, the Mooretown Road extension study would examine the road as a "complete street," which is a road that includes facilities for pedestrians and bicyclists as well as cars. Also on the table for discussion during this regional process are shoulder bike lanes along Rochambeau Drive and Richmond Road. As a final note on transit, the Transit Vision Plan for Hampton Roads recommends commuter rail that could include service to this focus area. Among the questions to be answered would be what land use patterns would emerge in this area (since higher densities of commercial and residential would tend to better support this service) and any capacity issues created by commuter rail, Amtrak, and freight rail sharing the same tracks. These are all part of ongoing conversations among the localities, the region, the state, and the transit providers.

#### **Summary**

As noted previously, the vast majority of land in this focus area is designated Economic Opportunity. In James City County, this designation calls primarily for industrial, light industrial, and office uses as well as limited amounts of retail and mixed-cost housing. In York County, the Economic Opportunity designation calls for a mix of retail, office, tourist-related, and light industrial uses. Unlike James City County, York County does not provide for residential development in its Economic Opportunity designation. However, it should be noted that the Economic Opportunity designation for the vast acreage north of Lightfoot Road and west of I-64, most of which is owned by the Williamsburg Pottery, also has a Mixed Use overlay designation. This overlay designation is intended to create well-designed communities with a mix of commercial and residential uses — and different types of residential uses — within a single, relatively compact development under a unified, coherent master plan. The York County Comprehensive Plan does note that the ability of a particular applicant to use the Mixed Use overlay designation is dependent on the availability of infrastructure and public services and the designation of a certain area



should not be construed as a guarantee that a mixed use development would necessarily be approved. Neither comprehensive plan specifies a recommended residential density range in the Economic Opportunity designation description. Both localities also have Economic Opportunity zoning districts, and York County has a Planned Development Mixed Use (PDMU) zoning district that would be used to implement the Mixed Use overlay designation. The James City County EO District permits residential densities of up to 10 dwelling units per acre. The York County EO district does not permit residential uses, but the PDMU District permits residential densities of up to approximately 10 dwelling units per acre, and that the amount is tied to the amount of commercial square footage.

While there are some differences in terminology and technical approaches used, the Economic Opportunity portion of this focus area, particularly the Williamsburg Pottery property, is very similar between the two counties. One key item to note is that the documents of both counties allow substantial flexibility. In each case, the documents would allow a purely commercial use, such as a light industrial park, but also provide for the possibility of a master-planned mixed use community that includes integrated retail and residential uses. Both counties' comprehensive plans recognize the importance and potential of this area without establishing a specific vision. In accordance with longstanding practice, any large-scale development on either side of the jurisdictional boundary in Lightfoot would include opportunities for the other county to participate by reviewing plans and offering input. Alternatively, any master planning exercise or development project involving property on both sides of the county line would require joint participation and close cooperation on the part of both counties.

As noted, both comprehensive plans include the extension of Mooretown Road in their future transportation plans but with one key difference: whereas James City County has pursued public funding for study of this project, York County's Plan states that any extension of Mooretown Road – at least in York County – should be paid for with developer funds and not with increasingly limited public road funds. Ultimately, whether or not public funds will be applied to this project will most likely be decided by the HRTPO based on objective evaluation criteria such as congestion relief, safety, viability, environmental impact, economic utility, and cost-benefit. Since the road extension would be a cross-jurisdictional facility, any such funding request would need to be coordinated between the two counties.

There are also opportunities for inter-jurisdictional coordination on bikeway and sidewalk connections in the focus area. York County may consider pursuing sidewalks on existing Mooretown Road which could connect to a planned sidewalk along the James City County portion of Mooretown Road and to any future extension of this road. In addition, the Regional Bikeway Plan recommends shoulder bike lanes on Richmond Road in this area, particularly in James City County but also a short segment in York County.



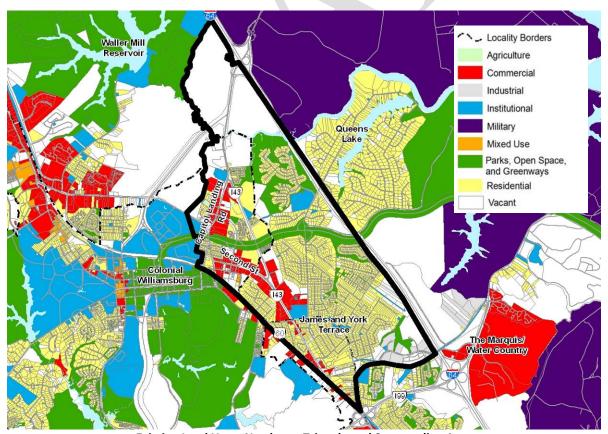
### NORTHEAST TRIANGLE AND SURROUNDING AREA

## **Description of the Focus Area**

The Northeast Triangle and Surrounding Area involves all three Historic Triangle jurisdictions - Williamsburg, James City County and York County. The Focus Area's boundaries are largely defined by major transportation features — Interstate 64, Route 143 (Capitol Landing Road and Merrimac Trail), Second Street, and the CSX Railroad — as well as by the existing residential and commercial areas.

### **Existing Land Use**

York County represents 70% of the Northeast Triangle and Surrounding Area, Williamsburg 22%, and James City County 8%. Within this focus area are a variety of existing uses, the predominant ones being residential and vacant (combined 75%), followed by open space at 11% and commercial at 9%. Commercial uses are concentrated along the major corridors of Capitol Landing Road (Williamsburg), Second Street (Williamsburg and York County), and Merrimac Trail/Route 143 (York and James City Counties). The majority of the commercial uses are located in Williamsburg (56%), with 37% in York County and 7% in James City County along Merrimac Trail. The predominant commercial uses in the focus area are hotels, automotive related businesses, restaurants, and retail. York County has most of the residential land use (66%), with James City County and Williamsburg each containing 17% of the residential acreage. Residential is the primary land use in the James City County portion of the focus area. Most of the vacant land is in York County.

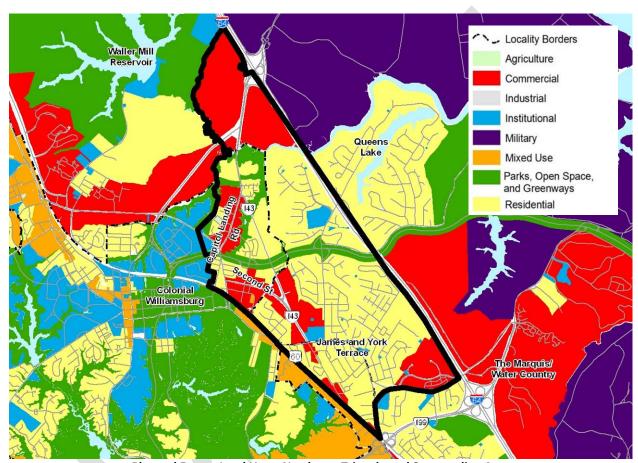






#### **Future Land Use**

Based on the planned future land use designations in each locality's adopted comprehensive plans, the predominant land use in this area will continue to be residential (54%), but commercial land use is planned to grow from 9% to 31% of the area, primarily in York County. Commercial expansion in James City County and Williamsburg will be incremental, and primarily along the existing commercial corridors. Parks and open space land use will remain at 11% for the focus area. Other than the widening of I-64, no major road improvements are planned for this area.



Planned Future Land Use - Northeast Triangle and Surrounding Area

The Williamsburg portion of the Northeast Triangle and Surrounding Area has much potential for future development and redevelopment. There are several projects underway, or soon to be underway, in the area:

- Queen Mary's Port Subdivision, 41 single family detached lots located on Capitol Landing Road at Queen Creek, was approved in 2011;
- Capitol Landing Green, a 16 lot single family detached and duplex subdivision between Capitol Landing Road and Page Street, is now under construction;
- the Second Street Boutique, a mixed-use commercial and condominium development, has been approved with a special use permit, and the site plan and architectural plans for the commercial section have been approved by the City.



In addition to these specific projects, there is a 16-acre parcel between Penniman Road and the CSX rail-road tracks that was originally approved for 400 timeshares which were not built; it is now available for development and is designated for Mixed Use in the Comprehensive Plan.

A seven-member Focus Group appointed by the City Council spent 2011 evaluating its Northeast Triangle Area in the City, and this was used as the basis for the Comprehensive Plan's recommendations for the area. The plan recommends a coordinated program of infrastructure improvements, including underground wiring on Page Street, Second Street and Capitol Landing Road; streetscape improvements such as improved street lighting, directional signage and landscaping; bicycle and pedestrian facility improvements; and further work on the development of a Capitol Landing Park.

The basic future land use designations in Williamsburg's 2006 Comprehensive Plan have been carried over to the 2012 Plan, with the exception of new Mixed Use areas between Penniman Road and the CSX Railroad and The Beeches at 1030 Capitol Landing Road near Queen Creek. Residential future land use remains unchanged, except for the Capitol Heights/Pine Crest/Capitol Landing Green area, which has been redesignated to Medium Density Single Family Detached land use to recognize the existing residential density of the area. Residential uses in mixed use projects in Corridor Commercial areas are proposed to be limited to no more than 75% of the total floor area to ensure commercial development in these identified corridors. Capitol Landing Road, Page Street and Second Street are designated as Entrance Corridors, and Capitol Landing Road between Merrimac Trail and Queen Creek is designated as a Greenbelt Corridor (as is the York County segment between Queen Creek and the I-64 interchange). The majority of the City's Northeast Triangle area is in designated Architectural Preservation and Corridor Protection Districts, subject to review by the Architectural Review Board. The Capitol Heights area and Capitol Landing Road between Merrimac Trail and Queen Creek are in designated Archaeological Review Districts subject to review by the Planning Commission.

The York County portion of the Northeast Triangle and Surrounding Area is mostly developed, but there are opportunities for redevelopment and adaptive re-use – such as the recent proposal to convert the George Washington Inn from a hotel to an assisted living facility – and infill development, such as the 22-lot Sunset Meadows subdivision, which is located between the York Terrace subdivision and the Busch Industrial Park and is being developed under the County's Affordable Housing Incentive Provisions.



Most of the vacant land in this area is on the west side of the Camp Peary interchange, where the Colonial Williamsburg Foundation owns approximately 350 acres on both sides of Capitol Landing Road that are designated Economic Opportunity in the York County Comprehensive Plan. The Colonial Williamsburg property is protected with 300-foot scenic easements along Capitol Landing Road, East Rochambeau Drive, and Route 132, which are gateways into the Historic Triangle. These easements will preserve the natural vegetation and maintain the aesthetic appeal of these properties if and when development occurs. Also along Capitol Landing Road, the County secured state and federal funding to add shoulder bike lanes between East Rochambeau and the Queen Creek bridge, thereby eliminating one of the missing links in the regional bikeway network. VDOT completed this project in early 2013.



Although there has not been a lot of new development in this part of York County in recent years, there have been some important changes. Since the last comprehensive plan update in 2005, York County has worked to address sidewalk deficiencies along Merrimac Trail and Second Street that were first identified in the original 1991 comprehensive plan when the County could be defined as the place where the sidewalk ends. The County funded most of this sidewalk construction, but there was also assistance from the development community – specifically Wawa, the Animal Clinic of Williamsburg, and James York Plaza – all of which agreed to incorporate sidewalks into their development plans. The County also added a sidewalk along Hubbard Lane to safely accommodate pedestrian traffic in the area of Magruder Elementary School and the newly expanded James York Playhouse.

James City County has the smallest portion of the focus area (8%), and the future land use designations in its Comprehensive Plan generally reinforce the existing residential and commercial land uses. Some redevelopment of the uses along Merrimac Trail (Route 143) may occur in the future. All existing and proposed commercial land use is along Merrimac Trail.

#### **Summary**

The basic land use designations for the Northeast Triangle and Surrounding Area have been in place for some time and are basically compatible among the three jurisdictions. Based on the three adopted comprehensive plans, commercial uses will continue to be concentrated along the major corridors of Capitol Landing Road (Williamsburg), Second Street (Williamsburg and York County), and Merrimac Trail (Route 143 in York and James City Counties). The predominant commercial uses in the focus area are hotels, auto-related businesses, restaurants, and retail. Residential land use will continue to be predominant, representing 54% of the total future land use, but commercial land use will grow to 31%, with the major growth in York County.

One area where the land use designations differ on opposite sides of a jurisdictional boundary is Capitol Landing Road (Route 143), where Queen Creek serves as the boundary between the City of Williamsburg and York County. On the Williamsburg side of the line, the land along Capitol Landing Road is designated as a "Sensitive Environmental Area" adjacent to the creek, where most of the land is located within a Chesapeake Bay Resource Protection Area (RPA), and Low Density Residential and Mixed Use between Queen Creek and Merrimac Trail. On the York County side, the land along Capitol Landing Road, which is owned by the Colonial Williamsburg Foundation and extends all the way to I-64 and the Camp Peary interchange, is designated Economic Opportunity, which provides for a range of retail and office uses. The Economic Opportunity designation dates back to the 1991 Comprehensive Plan, which sought to maximize the economic potential of the vast amounts of undeveloped land surrounding the County's three I-64 interchanges in the Williamsburg area, and has been carried forward with each subsequent Plan update. By virtue of restrictive covenants recorded in 1975, Colonial Williamsburg will ensure that any development of this property will incorporate 300-foot vegetative "buffer zones" along East Rochambeau Drive, Capitol Landing Road, and Route 132 within which "no change will be made... [other than entrances into the property] that would alter the character of such lands as forest land." These covenants also prohibit any development on the 10-acre parcel bounded by Route 132, Capitol Landing Road, and Queen Creek. The cumulative effect of these covenants and the Chesapeake Bay RPA buffer along Queen Creek is to reduce the developable acreage from approximately 350 to 215 acres and to preserve the natural, park-like character of these important scenic gateways into Colonial Williamsburg.

Williamsburg's Comprehensive Plan proposes a new Mixed Use area on Penniman Road, replacing the previous Corridor Commercial land use. This will be implemented if an acceptable master plan for rede-



velopment is submitted, which will allow review of the project by both Williamsburg and York County. A second new Mixed Use area is proposed on Capitol Landing Road near Queen Creek, to be implemented only upon receipt of an acceptable master plan.

A major need in the Northeast Triangle and Surrounding Area is for better connectivity of pedestrian and bicycle facilities. This is recognized by the three comprehensive plans, as well as by the Regional Bikeway Plan. Williamsburg and York County have made major improvements to sidewalks in the area over the past ten years, and future needs are recognized in the three comprehensive plans. Critical areas that have been identified for future improvements include Bypass Road and Parkway Drive (Williamsburg) and Penniman Road (Williamsburg and York County). Adjacent to this area, Williamsburg plans to improve the pedestrian connection to the Colonial Williamsburg Historic Area by filling in a missing link on York Street and improving the pedestrian crossing of Lafayette Street. These improvements will improve pedestrian connectivity for all three jurisdictions. Similar improvements are proposed for future enhancements to bicycle facilities. The City's future plans call for bike lanes on Capitol Landing Road between Merrimac Trail and the Colonial Parkway, and along Parkway Drive between Capitol Landing Road and Penniman Road. York County proposes extending the existing Penniman Road bike lanes from the Williamsburg City limits to Route 143, and future bike lanes are proposed along Route 143 in James City and York Counties. These pedestrian and bicycle improvements will improve the connections between and among all three jurisdictions, addressing concerns raised at the Joint Community Forum in February 2012.

All three comprehensive plans recognize the need for preserving the character of the area's important entrance and tourism corridors. Scenic easements have been provided in Williamsburg and York County along Capitol Landing Road, East Rochambeau Drive and Route 132, preserving the character of the main entrance to the Colonial Williamsburg Historic Area from I-64. Williamsburg has identified the need for future streetscape improvements on Second Street, Page Street and Capitol Landing Road, including underground wiring. York County's Comprehensive Plan recommends that the County utilize the VDOT Revenue Sharing Program and/or the Transportation Enhancements Program to obtain matching funding to support new or expanded streetscaping/landscaping enhancements along various "gateway" corridors in the County, including Route 199, Merrimac Trail, Route 60 (Pocahontas Trail, Bypass Road, Richmond Road), Second Street, Mooretown Road, and East Rochambeau Drive. ...



#### CONCLUSION

The Historic Triangle Coordinated Comprehensive Plan Review of 2012 is not the beginning of interjurisdictional communication and cooperation among the three localities of the Historic Triangle; rather, it is the continuation – in a more formalized, structural way – of a cooperative approach to planning that began long before the three governing bodies first agreed to coordinate the timing of their comprehensive plan reviews. James City County, Williamsburg, and York County have a long history of working together on issues of mutual concern. The development and implementation of the Regional Bikeway Plan and the establishment and operation of the multi-jurisdictional Williamsburg Area Transport system are perhaps two of the most concrete examples of joint, cooperative planning in action. In addition, the Regional Issues Committee, which first conceived the idea of a Regional Bikeway Plan as well as a coordinated comprehensive plan review process, provides a regular forum for City Council and Board of Supervisors members, Planning Commissioners, and other stakeholders from across the Historic Triangle to raise and discuss issues that affect the entire area. On a more occasional basis, Planning Commissioners from the three localities have participated with one another in Regional Planning Commission Forums, joint "visioning" exercises, and other such activities. In fact, the September 8, 1953 York County Planning Commission minutes contain a reference to a joint meeting that was held with the Williamsburg and James City County Planning Commissions.

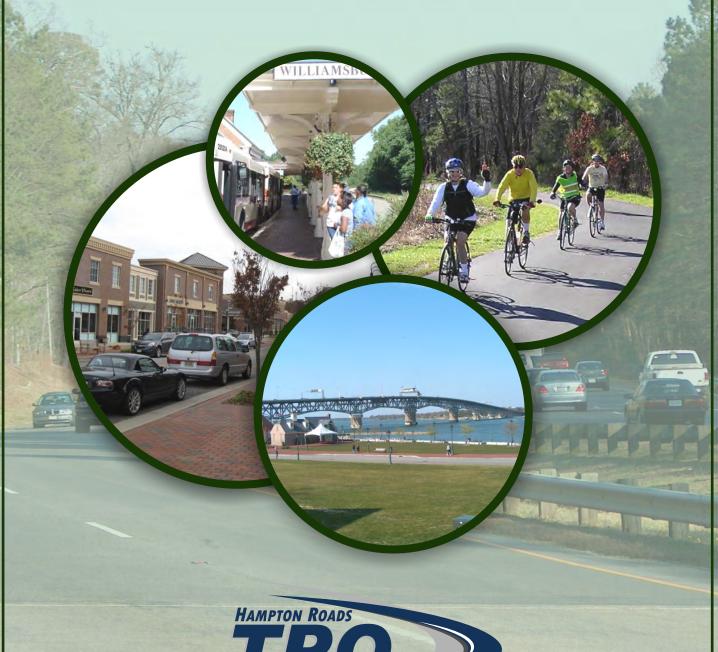
Similarly, there is a considerable amount of interaction in the area of development review. Each jurisdiction notifies neighboring localities of any rezoning or Special Use Permit applications in proximity to the city or county border, in accordance with the *Code of Virginia*. However, the localities also offer adjacent localities opportunities to review and comment on plans for projects near their jurisdiction that are permitted as a matter of right and do not require notification.

Given this history, it should come as no surprise that the comprehensive plans of James City County, Williamsburg, and York County demonstrate a high degree of land use compatibility across jurisdictional boundaries as well as agreement on numerous goals and objectives. Importantly, one of those shared goals is inter-jurisdictional cooperation. James City County's Comprehensive Plan, adopted in 2009, stresses the importance of cooperation among all neighboring localities to ensure compatibility of land uses and sustain a strong community. Toward that end, the Plan states that the County will "communicate with adjacent jurisdictions regarding development plans that have potential impacts on adjacent localities and public facilities" and "work with them to coordinate plans and to identify and mitigate areas where there are conflicts." Likewise, the 2006 and 2013 Williamsburg Comprehensive Plans note that "'regionalism' in planning is widely promoted within the City and surrounding jurisdictions" and that "regional approaches to schools, libraries, parks, and recreation programs have been successfully orchestrated and implemented by and between the three locales." Since 1991, York County's Comprehensive Plan has included language recommending that the County "consider development patterns and plans established in adjoining jurisdictions when making local land use decisions and designations" and strive to "maintain 'compatibility zones' in areas adjoining jurisdictional boundaries to provide for comparable zoning and development patterns."

It should be emphasized that these statements are not new; they have appeared in the three localities' comprehensive plans for many years, providing guidance to local leaders in establishing the land use, development, transportation, and other policies that have helped to shape not just their respective localities but the Historic Triangle as a whole. Perhaps more than anything else, the three localities are in agreement that cooperative efforts among the three localities should continue.



## JAMES CITY COUNTY/WILLIAMSBURG/YORK COUNTY Comprehensive Transportation Study



**MARCH 2012** 

T12-03

## HAMPTON ROADS TRANSPORTATION PLANNING ORGANIZATION

Dwight L. Farmer Executive Director/Secretary

#### **VOTING MEMBERS:**

CHESAPEAKEJAMES CITY COUNTYPORTSMOUTHAlan P. KrasnoffMary K. JonesKenneth I. Wright

GLOUCESTER COUNTY
NEWPORT NEWS
Christopher A. Hutson
McKinley Price
Linda T. Johnson
NORFOLK
VIRGINIA BEACH

Molly J. Ward NORFOLK VIRGINIA BEACH
Paul D. Fraim William D. Sessoms, Jr.

ISLE OF WIGHT COUNTYPOQUOSONWILLIAMSBURGDelores Dee-Dee DardenW. Eugene Hunt, Jr.Clyde Haulman

YORK COUNTY
Thomas G. Shepperd, Jr.

#### MEMBERS OF THE VIRGINIA SENATE

The Honorable John C. Miller The Honorable Yvonne B. Miller

## MEMBERS OF THE VIRGINIA HOUSE OF DELEGATES

The Honorable John A. Cosgrove Vacant

#### TRANSPORTATION DISTRICT COMMISSION OF HAMPTON ROADS

Philip A. Shucet, President/Chief Executive Officer

#### WILLIAMSBURG AREA TRANSIT AUTHORITY

Anthony Conyers, Jr., Executive Director

#### VIRGINIA DEPARTMENT OF TRANSPORTATION

Dennis W. Heuer, District Administrator – Hampton Roads District

## VIRGINIA DEPARTMENT OF RAIL AND PUBLIC TRANSPORTATION

Thelma Drake, Director

#### VIRGINIA PORT AUTHORITY

Jerry A. Bridges, Executive Director

## HAMPTON ROADS TRANSPORTATION PLANNING ORGANIZATION

#### **NON-VOTING MEMBERS:**

CHESAPEAKEISLE OF WIGHT COUNTYNORFOLKSUFFOLKWILLIAMSBURGWilliam E. HarrellW. Douglas CaskeyMarcus JonesSelena Cuffee-GlennJackson C. TuttleGLOUCESTER COUNTYJAMES CITY COUNTYPOQUOSONVIRGINIA BEACHYORK COUNTY

Brenda G. Garton Robert C. Middaugh J. Randall Wheeler James K. Spore James O. McReynolds

HAMPTONNEWPORT NEWSPORTSMOUTHMary BuntingNeil A. MorganKenneth L. Chandler

FEDERAL HIGHWAY ADMINISTRATION FEDERAL TRANSIT ADMINISTRATION

Irene Rico, Division Administrator, Virginia Division Brigid Hynes-Cherin, Acting Regional Administrator, Region 3

FEDERAL AVIATION ADMINISTRATION VIRGINIA DEPARTMENT OF AVIATION

Jeffrey W. Breeden, Airport Planner, Washington Airports Office District Randall P. Burdette, Director

PENINSULA AIRPORT COMMISSIONNORFOLK AIRPORT AUTHORITYKen Spirito, Executive DirectorWayne E. Shank, Executive Director

CITIZEN TRANSPORTATION ADVISORY COMMITTEE FREIGHT TRANSPORTATION ADVISORY COMMITTEE

William W. Harrison, Jr., Chair William Bell, Co-Chair

**MILITARY LIAISONS** 

Mary Jackson, Captain, U.S. Navy Mark S. Ogle, Captain, U.S. Coast Guard Thomas R. Wetherington, Colonel, U.S. Army

## **HRTPO PROJECT STAFF**

Camelia Ravanbakht, Ph.D.

Robert B. Case, P.E.

Keith Nichols, P.E.

Senior Transportation Engineer

Stephanie Shealey

Michael Long

Kathlene Grauberger

Christopher Vaigneur

Deputy Executive Director, HRTPO

Principal Transportation Engineer

Senior Transportation Engineer

General Service Manager

Administrative Assistant II

Reprographics Coordinator

# COMPREHENSIVE TRANSPORTATION STUDY JAMES CITY COUNTY/WILLIAMSBURG/YORK COUNTY

## PREPARED BY:



**MARCH 2012** 

#### TITLE:

James City County/Williamsburg/York County Comprehensive Transportation Study

#### **AUTHORS:**

Keith M. Nichols, PE Stephanie L. Shealey

**PROJECT MANAGER:** Keith M. Nichols, PE

#### **ABSTRACT**

The purpose of this report is to assist James City County, Williamsburg, and York County officials the transportation sections of Comprehensive Plans. A Comprehensive Plan is a policy document that provides direction for policy makers to guide growth and development by providing the long-range vision, goals, and strategies of their communities. Because of the link between communities, **James** City Williamsburg, and York County officials are coordinating the timing of their Comprehensive Plan updates, with all three jurisdictions updating their Comprehensive Plans in 2012.

This report is broken down into sections for each of the following transportation modes - Highway, Public Transportation, Intercity Passenger Rail, Bicycle and Pedestrian, and Air Travel. Both the current and future conditions are examined for each of these transportation modes.

## **REPORT DATE:**

March 2012

GRANT/SPONSORING AGENCY: FHWA/VDOT/LOCAL FUNDS

ORGANIZATION NAME, ADDRESS, & TELEPHONE

Hampton Roads Transportation Planning Organization
723 Woodlake Drive
Chesapeake, Virginia 23320
757.420.8300
<a href="http://www.hrtpo.org">http://www.hrtpo.org</a>

#### ACKNOWLEDGMENTS

This report was prepared by the Hampton Roads Transportation Planning Organization (HRTPO) in cooperation with the U.S. Department of Transportation (USDOT), the Federal Highway Administration (FHWA), the Virginia Department of Transportation (VDOT), Williamsburg Area Transit Authority (WATA), James City County, York County, and the City of Williamsburg. The contents of this report reflect the views of the HRTPO. The HRTPO staff is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the FHWA or VDOT. This report does not constitute a standard, specification, or regulation. FHWA or VDOT acceptance of this does planning study not constitute endorsement/approval of the need for recommended improvements nor does is constitute the approval of their location and design or a commitment to fund any such improvements. Additional project level environmental impact assessments and/or studies of alternative may be necessary.

## TABLE OF CONTENTS

Introduction	1
Current Conditions	
Highway	
Roadway Inventory	
Recent Roadway Improvements	
Traffic Data	
Roadway Congestion	
Public Transportation	
Transit	
Park and Ride	
Intercity Passenger Rail	
Bicycle and Pedestrian Facilities	
Air Travel	
Newport News-Williamsburg International Airport	
Norfolk and Richmond International Airports	
Williamsburg Jamestown Airport	20
Future Conditions	21
Highway	
Programmed Roadway Projects	
Long Range Planning	
2034 LRTP Projects	
2034 Traffic Characteristics	
Unfunded Projects	
Public Transportation	
Funding	
Transit Development Plan	
Service Improvements	
Capital Improvements	
Transit Vision Plan	
Corridor 11: Downtown Newport News to Williamsburg	
Corridor 14: Oyster Point to Gloucester	
Corridor 15a: Oyster Point to Gloucester	
Corridor A: Downtown Newport News to Toano	
Intercity Passenger Rail	
Bicycle and Pedestrian Facilities	
SYIP/TIP Bicycle and Pedestrian Projects	
Bikeways	
Sidewalks	
Maintenance	
Air Travel	
Newport News-Williamsburg International Airport	
Norfolk International Airport	
Richmond International Airport	
Williamsburg Jamestown Airport	
vvinianispurg janiesiown Anport	
Public Review and Comments	57
Appendices	57

List of Maps	
Map 1 - James City County, Williamsburg, and York County	1
Map 2 - VDOT Roadway Functional Classification	3
Map 3 - 2010 PM Peak Hour Congestion Levels	10
Map 4 - Park and Ride Lots in the Study Area	14
Map 5 - Existing Bikeways	17
Map 6 - SYIP/TIP Roadway Projects	24
Map 7 - 2034 PM Peak Hour Congestion Levels	27
Map 8 - Projects/Studies Included in the 2034 LRTP and Candidate Projects Not Funded in the 2034 LRTP	31
Map 9 - SYIP/TIP Bike/Pedestrian Projects	49
Map 10 - Existing and Proposed Bikeways	54
List of Tables	
Table 1 - Miles of Roadway by VDOT Functional Classification (2009)	2
Table 2 - Roadway Improvements Since 2001	
Table 3 - Weekday and Annual Average Daily Traffic Volumes, 2001 to 2010	5
Table 4 - Daily Vehicle-Miles of Travel, 2001 to 2010	
Table 5 - 2010 Congested Roadway Segments	11
Table 6 - Bikeway Projects Completed Since 2001	18
Table 7 - Roadway Projects and Studies Included in the SYIP or TIP	23
Table 8 - Current and 2034 Weekday Traffic Volumes and PM Peak Hour Levels-of-Service	28
Table 9 - Segments of George Washington Memorial Highway in York County Analyzed in the 2034 LRTP Project Prioritization Process	32
Table 10 - Bikeway and Sidewalk Projects Included in the SYIP or TIP	
The 20 To Date with the content of t	10
List of Figures	
Figure 1 - Roadway Functional Class Definition	
Figure 2 - Level of Service Definitions	9
Figure 3 - 2010 PM Peak Hour Congestion by Lane-Mile, CMP Roadway Network	
Figure 4 - WATA Ridership, 2006-2010	
Figure 5 - Williamsburg Area Transit Authority Route Map	
Figure 6 - Amtrak Passenger Activity in Williamsburg, 2002-2010	
Figure 7 - Percentage of Residents Bicycling or Walking to Commute to Work, 2000 and 2005-2009	
Figure 8 - Newport News-Williamsburg International Airport Passenger Activity, 1991-2010	
Figure 9 - Enplanements at Newport News-Williamsburg, Richmond, and Norfolk International Airports	
Figure 10 - 2010 and 2034 PM Peak Hour Congestion by Lane-Mile, CMP Roadway Network	
Figure 11 - WATA Revenues by Source, FY 2012	
Figure 12 - WATA Locality Revenues, FY 2012	
Figure 13 - Williamsburg Trolley Route Map	39
Figure 14 - Williamsburg Trolley Monthly Ridership	
Figure 15 - Jamestown Route - Proposed Silver Line	
Figure 16 - Jamestown Route - Proposed Gold Line	
Figure 17 - Quarterpath Route	
Figure 18 - Newport News Connection Route	
Figure 19 - New Kent Connection Route	
Figure 20 - Peninsula Transit Vision Plan Bus Network Recommendations	
Figure 21 - Regional Transit Vision Plan	46



Introduction 1

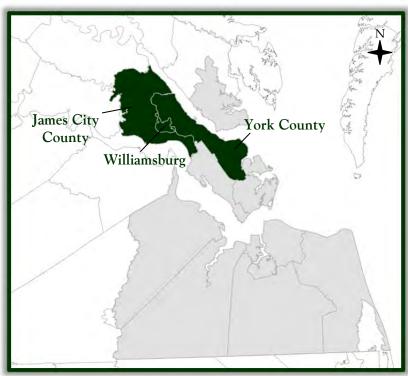
## INTRODUCTION

James City County, Williamsburg, and York County are located in the northwestern section of the Hampton Roads Metropolitan Planning Area (**Map 1**). Transportation in and through this area is not only critical to these three communities but to the Hampton Roads region as a whole. I-64 carries many travelers between Richmond and Hampton Roads, and other major highways, including US Routes 17 and 60, also pass through the area. Amtrak provides inter-city rail service through the area between Newport News and Richmond, with a stop in Williamsburg. A portion of Newport News-Williamsburg International Airport is also located within the study area in York County.

The purpose of this report is to assist James City County, Williamsburg, and York County officials with the transportation sections of their Comprehensive Plans. A Comprehensive Plan is a policy document that provides direction for policy makers to guide growth and development by providing the long-range vision, goals, and strategies of their communities. Every Virginia locality is required by state law to have a Comprehensive Plan.

James City County adopted their most recent Comprehensive Plan in 2009, Williamsburg in 2006, and York County in 2005. Because of the link between these communities, James City County, Williamsburg, and York County are coordinating the timing of their Comprehensive Plan updates, with all three jurisdictions updating their Comprehensive Plans in 2012.

This report is broken down into sections for each of the following transportation modes - Highway, Public Transportation, Intercity Rail, Bicycle and Pedestrian, and Air Travel. Both the current and future conditions are examined for each of these transportation modes.



Map 1 – James City County, Williamsburg, and York County

## **CURRENT CONDITIONS**

This chapter looks at current conditions and how they compare to historical trends on the transportation network in James City County, Williamsburg, and York County. This chapter is divided into the following sections based on each transportation mode:

- Highway Includes an inventory of the existing roadway network, description of recent major roadway improvements, current and historical traffic volume data, and an analysis of peak hour roadway congestion.
- Public Transportation Includes a description of the existing transit service provided by the Williamsburg Area Transit Authority and VDOT Park and Ride lots.
- Intercity Passenger Rail Includes a description of the existing Amtrak service provided in the area.
- Bicycle & Pedestrian Includes an inventory of the existing non-motorized transportation network.
- Air Travel Includes ridership trends and general information for the Newport News-Williamsburg International Airport and Williamsburg Jamestown Airport.

#### HIGHWAY

Roadway Inventory

Roadways are organized into a hierarchy based on their function, and are classified as arterials, collectors, or locals (**Figure 1**). Arterial roadways (which include Interstates, Freeways and

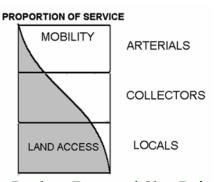


Figure 1 – Roadway Functional Class Definition Source: FHWA.

Expressways, Other Principal Arterials, and Minor Arterials) provide more mobility, which is defined as the ability of traffic to pass through a defined area in a reasonable amount of time. Local roadways provide more accessibility, which is measured in the roadway's capability to provide access to and between land use activities within a defined area. Collectors offer a mix between providing mobility and accessibility.

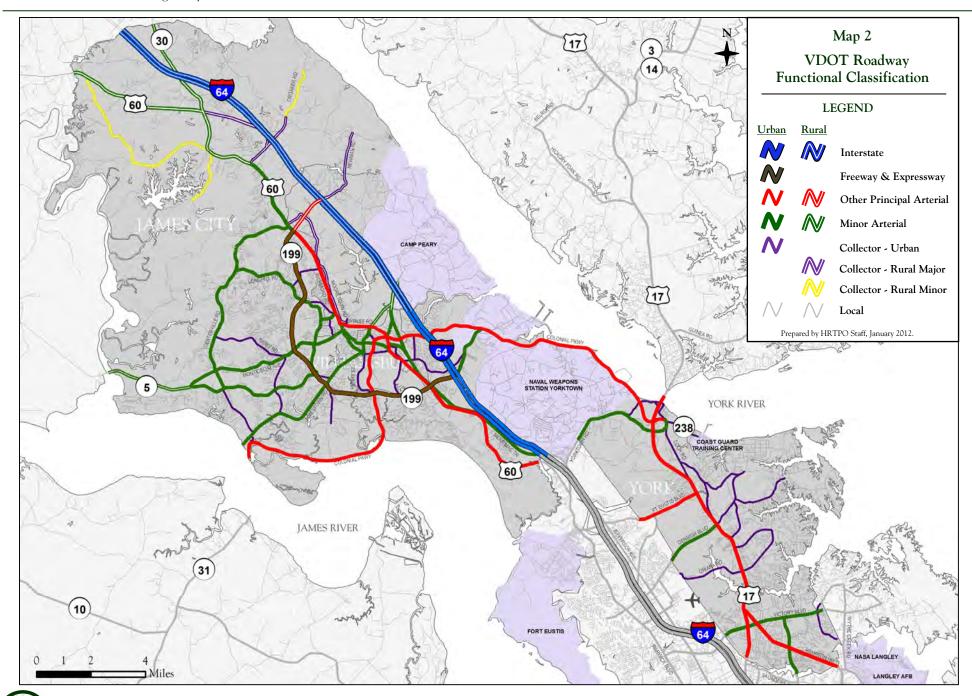
Roadways are also classified as urban or rural based on their location as defined by the Census Bureau. While Williamsburg is entirely classified as an urban area, James City County and York County have both urban and rural areas. In rural areas, collectors are classified as major or minor, depending on the type of service they carry.

**Table 1** shows the miles of roadway in each jurisdiction by the Virginia Department of Transportation (VDOT) roadway functional classification. **Map 2** on page 3 shows the VDOT functional classification for roadways in the area, and **Appendix A** includes these maps broken down by locality.

	James	s City	Willian	nsburg	Yo	rk
Roadway Functional Class	Urban	Rural	Urban	Rural	Urban	Rural
Interstate	2.34	8.70	-	-	5.65	5.58
Freeway & Expressway	9.90		0.40	-	2.82	-
Other Principal Arterial	14.92	-	6.80	-	32.36	-
Minor Arterial	30.85	6.79	9.39	-	17.29	2.22
Collector	12.42	25.38	5.23	-	31.68	7.86
Local	126.06	177.90	37.06	•	264.44	33.89
TOTAL CENTERLINE MILES	415.26		58	.88	403.79	

Table 1 – Miles of Roadway by VDOT Functional Classification (2009)







## Recent Roadway Improvements

A number of roadway improvements have occurred in James City, Williamsburg, and York County over the last decade. The largest of these roadway improvements are shown below in **Table 2**. Two of these projects, widening Ironbound Road and Fort Eustis Boulevard, are both underway, with completion of both projects expected in 2012.

In addition to these major projects, a number of smaller projects have also been completed. This includes projects such as adding or extending intersection turn bays, adding or coordinating traffic signals, installing medians, etc. A list of these projects is included in **Appendix B**.

## Traffic Data

VDOT collects traffic volume data at thousands of locations in the study area, of which approximately 200 are on roadways with functional classifications of collectors or above. At most of these 200 locations, data is collected for a 48-hour period once every three years. In James City County, Williamsburg, and York County, these counts were last taken in 2010.

Based on these triennial counts, VDOT produces Annual Average Daily Traffic (AADT) volume estimates. These estimates provide the average number of vehicles that travel each roadway segment based on the total annual traffic estimate divided by the number of days in the year.

Table 3 on pages 5-8 includes historical weekday



Route 199 in James City County, widened in 2005.

volumes based on the 48-hour counts, and VDOT's AADT volume estimates for those years where VDOT collected data in the study area. VDOT also produces AADT estimates for many smaller, local roadways, particularly within the counties. These AADT estimates are included in VDOT's Daily Traffic Volume Estimates Jurisdiction reports, which are available on VDOT's website at http://virginiadot.org/info/ct-TrafficCounts.asp.

Among the 171 locations in the study area with functional classifications of collectors or above that were counted in both 2001 and 2010, 103 locations (60%) experienced an increase in AADT volumes over this time period, with 53 locations experiencing an increase of 20% or more. Of the 61 locations that experienced a decrease in AADT volumes over this time period, 24 experienced a decrease of 20% or more.

Juris- diction	Facility	From/To	Improvement	Year Completed
JCC/YC	Grove Connector	I-64 to Busch Gardens	New interchange	2002
JCC/WMB	Ironbound Rd	Strawberry Plains Rd to Longhill Connector Rd	Widening - 2 to 4 lanes	Underway
JCC	Monticello Ave	John Tyler Hwy to News Rd	New 2 lane facility	2001
JCC	SR 5	Chickahominy River Bridge	Replacement bridge	2009
JCC	SR 199	Brookwood Drive to Pocahontas Trail	Widening - 2 to 4 lanes	2005
WMB	Richmond Rd	Monticello Ave to Bypass Rd	Widening - 2 to 4 lanes	2006
WMB	Treyburn Dr	Monticello Ave to Ironbound Rd	New 2-lane facility	2007
YC	Fort Eustis Blvd	Newport News CL to George Washington Hwy	Widening - 2 to 4 lanes	Underway
YC	Fort Eustis Blvd Extended	George Washington Hwy to Old York-Hampton Hwy	New 4-lane facility	2006

Table 2 – Roadway Improvements Since 2001 Compiled from various sources.





	_					Weekday	y Volume		Annua	l Average Da	aily Traffic (A	AADT)		
	Route				2224	2224	2225	2212	2224	2224	2225	2212	_	n AADT
	Num	Location	Segment From	Segment To	2001	2004	2007	2010	2001	2004	2007	2010	•	o 2010
	30	Barhamsville Rd	I-64	US 60 - Richmond Rd	7,274	6,215	7,124	9,423	7,100	6,800	6,800	9,400	+2,300	+32.4%
	700	Brookwood Dr	Rte 617 - Lake Powell Rd	Route 199	9,239	8,850	9,845	8,761	8,400	8,400	9,400	8,800	+400	+4.8%
	614	Centerville Rd	SR 5 - John Tyler Hwy	Rte 633 - Jolly Pond Rd	5,569	4,447	4,719	4,248	5,400	4,900	4,300	4,800	-600	-11.1%
	614	Centerville Rd	Rte 633 - Jolly Pond Rd	Adams Hunt Dr	7,291	7,097	9,407	7,414	7,500	7,900	8,700	8,400	+900	+12.0%
	614	Centerville Rd	Adams Hunt Dr	US 60 - Richmond Rd	6,764	8,052	10,319	9,095	6,300	7,600	10,000	9,700	+3,400	+54.0%
	631	Chickahominy Rd	Rte 632 - Cranstons Mill Pond Rd	US 60 - Richmond Rd	1,408	1,572	1,586	1,592	1,400	1,700	1,500	1,700	+300	+21.4%
		Colonial Pkwy	Jamestown Visitor Center	Williamsburg CL	-	1,728	2,118			6,100	1,900	2,400	-	
	607	Croaker Rd	US 60 Richmond Rd	Rte 760 - Maxton Ln	8,245	7,723	8,185	8,364	8,000	8,300	7,800	9,100	+1,100	+13.8%
	607	Croaker Rd	Rte 760 - Maxton Ln	SR 30 - Rochambeau Dr	7,890	7,423	8,059	8,286	7,700	8,000	7,700	9,100	+1,400	+18.2%
	30	Croaker Rd	SR 30 - Rochambeau Dr	I-64	-		10,997	11,021			11,000	12,000		
	607	Croaker Rd	I-64	Rte 602 - Fenton Mill Rd	6,681	6,108	6,773	6,494	6,500	6,700	6,400	6,700	+200	+3.1%
	607	Croaker Rd	Rte 602 - Fenton Mill Rd	Rte 606 - Ware Creek Rd	3,466	3,073	3,515	3,352	3,400	3,300	3,300	3,700	+300	+8.8%
	607	Croaker Rd	Rte 606 - Ware Creek Rd	Rte 605 - Croaker Landing Rd	1,089	935	1,023	1,056	1,100	1,000	970	1,200	+100	+9.1%
	603	Diascund Rd	Rte 610 - Forge Rd	US 60 - Richmond Rd	803	766	863	687	780	840	680	750	-30	-3.8%
	610	Forge Rd	Rte 603 - Diascund Rd	US 60 - Richmond Rd	2,540	2,496	2,527	2,576	2,500	2,700	2,400	2,700	+200	+8.0%
	614	Greensprings Rd	SR 31 - Jamestown Rd	SR 5 - John Tyler Hwy	3,652	3,133	2,959	2,984	3,500	3,500	2,700	3,200	-300	-8.6%
	64	I-64	New Kent CL	SR 30 - Old Stage Rd	44,192	44,583	49,376	48,913	41,000	42,000	47,000	53,000	+12,000	+29.3%
	64	I-64	SR 30 - Old Stage Rd	Rte 607 - Croaker Rd	40,750	49,374	55,206	51,775	41,000	47,000	56,000	58,000	+17,000	+41.5%
County	64	I-64	Rte 607 - Croaker Rd	York CL	51,917	55,234	62,101	58,252	50,000	52,000	63,000	64,000	+14,000	+28.0%
ū	64	I-64	York CL	SR 143 Merrimac Trail	78,634	80,740	86,497	87,885	75,000	76,000	81,000	82,000	+7,000	+9.3%
n	615	Ironbound Rd	Rte 681 - Sandy Bay Rd	SR 5 - John Tyler Hwy	7,424	7,483	7,570	7,150	7,100	7,200	7,300	7,200	+100	+1.4%
2	615	Ironbound Rd	SR 5 - John Tyler Hwy	Rte 613 - News Road	12,548	10,145	10,509	9,675	12,000	9,700	10,000	9,600	-2,400	-20.0%
	783	Ironbound Rd	Rte 613 - News Road	Cul-de-Sac	-		1,073	1,070	990	1,700	1,900	2,000	+1,010	+102.0%
City	615	Ironbound Rd	Cul-de-Sac	Rte 616 - Strawberry Plains Rd	1,638	1,771	2,037	1,988	1,600	1,700	1,900	2,000	+400	+25.0%
$\ddot{c}$	615	Ironbound Rd	Rte 616 - Strawberry Plains Rd	SR 321 - Monticello Ave	7,281	8,104	7,659	9,382	6,900	7,800	7,500	9,000	+2,100	+30.4%
S	615	Ironbound Rd	SR 321 - Monticello Ave	Williamsburg CL	8,741	9,798	9,631	11,023	8,200	9,200	9,300	11,000	+2,800	+34.1%
James	359	Jamestown Festival Pkwy	Colonial Pkwy	SR 31 - Jamestown Rd	2,428	1,214	1,206	1,498	2,200	1,100	1,100	2,200	0	0.0%
Ħ	31	Jamestown Rd	Jamestown Ferry	Rte 681 - Sandy Bay Rd	9,056	5,761	7,910		8,800	6,500	7,600	-	-	-
,	31	Jamestown Rd	Rte 681 - Sandy Bay Rd	Williamsburg CL	10,884	9,381	9,820	9,567	10,000	8,800	9,500	8,900	-1,100	-11.0%
	5	John Tyler Memorial Hwy	Charles City CL	Rte 5000 - Monticello Ave	3,353	3,100	3,214	2,885	3,300	3,500	3,100	3,000	-300	-9.1%
	5	John Tyler Memorial Hwy	Rte 5000 - Monticello Ave	Rte 615 - Ironbound Rd	12,104	8,147	8,147	8,033	12,000	9,000	7,800	8,400	-3,600	-30.0%
	5	John Tyler Memorial Hwy	Rte 615 - Ironbound Rd	Rte 652 - Stanley Dr	13,444	11,242	11,506	10,663	13,000	11,000	11,000	9,900	-3,100	-23.8%
	5	John Tyler Memorial Hwy	Rte 652 - Stanley Dr	SR 199	19,175	17,789	18,522	17,546	18,000	17,000	18,000	16,000	-2,000	-11.1%
	617	Lake Powell Rd	Treasure Island Rd	Rte 700 - Brookwood Dr	1,467	1,432	2,073	1,427	1,400	1,300	2,000	1,500	+100	+7.1%
	615	Longhill Connector Rd	Rte 615 - Ironbound Rd	SR 322 - Ashbury Rd	5,249	5,865	6,223	8,151	5,000	5,600	6,100	7,800	+2,800	+56.0%
	615	Longhill Connector Rd	SR 322 - Ashbury Rd	Rte 612 - Longhill Rd	6,399	7,504	7,920	9,664	6,100	7,100	7,700	9,300	+3,200	+52.5%
	612	Longhill Rd	Rte 614 - Centerville Rd	Rte 658 - Olde Towne Rd	5,496	6,088	7,567	6,577	5,400	6,700	7,000	7,200	+1,800	+33.3%
	612	Longhill Rd	Rte 658 - Olde Towne Rd	Rte 615 - Longhill Connector Rd	15,776	15,730	17,721	16,087	15,000	15,000	17,000	17,000	+2,000	+13.3%
	612	Longhill Rd	Rte 615 - Longhill Connector Rd	SR 322 - Ashbury Rd			-	-	14,000	14,000	14,000	12,000	-2,000	-14.3%
	612	Longhill Rd	SR 322 - Ashbury Rd	Williamsburg CL		4,282	4,215	4,237	9,100	9,200	9,200	8,800	-300	-3.3%
	143	Merrimac Trail	York CL	York CL	19,332	15,902	16,543	16,342	18,000	15,000	16,000	15,000	-3,000	-16.7%
	143	Merrimac Trail	Newport News CL	York CL	13,084	10,195	10,282	10,021	12,000	9,500	10,000	9,300	-2,700	-22.5%
	5000	Monticello Ave	SR 5 - John Tyler Hwy	Rte 614 - Centerville Rd	X	4,237	4,574	-	X		-	-	-	
	5000	Monticello Ave	Rte 614 - Centerville Rd	Rte 613 - News Road	X	10,003	11,395	-	X		-	-	-	
	5000	Monticello Ave	Rte 613 - News Road	SR 199	26,857	36,548	41,348		-			-	-	-
	321	Monticello Ave	SR 199	Rte 615 - Ironbound Rd	16,158	23,662	25,204	24,179	-		23,000	24,000	-	-
	646	Newman Rd	York CL	Rte 768 - North Cove Rd	1,093	1,178	1,247	1,238	1,100	1,300	1,200	1,300	+200	+18.2%
	646	Newman Rd	Rte 768 - North Cove Rd	Rte 606 - Riverview Rd	1,085	886	1,051	1,035	1,100	950	970	1,100	0	0.0%
	613	News Rd	Rte 614 - Centerville Rd	Powhatan Secondary	3,700	3,149	3,349	3,440	3,600	3,500	3,200	3,600	0	0.0%
	613	News Rd	Powhatan Secondary	Rte 5000 - Monticello Ave	6,256	7,472	7,863	7,908	6,100	8,200	7,600	8,300	+2,200	+36.1%
	613	News Rd	Rte 5000 - Monticello Ave	Rte 615 - Ironbound Rd	13,847	12,231	11,003	10,495	-	8,200	10,000	11,000	-	-
	742	Old News Rd	Rte 613 - News Rd	Rte 5000 - Monticello Ave	852	1,383	2,756	2,659	870	1,500	2,600	2,800	+1,930	+221.8%
	30	Old Stage Hwy	New Kent CL	I-64	7,887	7,601	8,516	9,512	7,500	7,500	8,100	10,000	+2,500	+33.3%

Table 3 – Weekday and Annual Average Daily Traffic Volumes, 2001 to 2010

Data sources: VDOT, James City County. 'J' indicates data is not available for that roadway segment and year. 'X' indicates that roadway segment did not exist at that time.





	ъ.					Weekday	Volume		Annua	l Average Da	ily Traffic (A	ADT)	o	4.4.D.T.
	Route Num	Location	Segment From	Segment To	2001	2004	2007	2010	2001	2004	2007	2010	Change i 2001 t	n AADT o 2010
	658	Olde Towne Rd	Rte 612 - Longhill Rd	King William Dr	9,190	8,581	8,325	8,378	8,600	8,100	7,900	8,100	-500	-5.8%
	658	Olde Towne Rd	King William Dr	Chisel Run Rd	9,948	8,981	9,422	8,537	9,400	8,600	9,100	9,100	-300	-3.2%
	658	Olde Towne Rd	Chisel Run Rd	US 60 - Richmond Rd	9,907	9,936	10,439	9,479	9,400	9,600	9,700	9,100	-300	-3.2%
	60	Pocahontas Trail	Williamsburg CL	SR 199	19,301	9,840	8,513	8,165	17,000	9,300	8,300	7,600	-9,400	-55.3%
_	60	Pocahontas Trail	York CL	Newport News CL	11,845	8,950	9,461	9,243	11,000	8,300	9,200	8,600	-2,400	-21.8%
County	60	Richmond Rd	New Kent CL	SR 30 - Barhamsville Rd	4,881	5,816	6,793	5,861	4,800	6,500	6,400	6,400	+1,600	+33.3%
Ξ	60	Richmond Rd	SR 30 - Barhamsville Rd	Rte 607 - Croaker Rd	13,538	12,743	14,015	13,792	13,000	14,000	13,000	15,000	+2,000	+15.4%
5	60	Richmond Rd	Rte 607 - Croaker Rd	Rte 614 - Centerville Rd	18,830	17,891	19,919	21,419	18,000	19,000	19,000	20,000	+2,000	+11.1%
$\circ$	60	Richmond Rd	Rte 614 - Centerville Rd	SR 199	22,629	23,288	24,656	26,430	-			25,000	-	
City	60	Richmond Rd	SR 199	Williamsburg CL	19,224	12,710	13,364	15,206	18,000	12,000	13,000	14,000	-4,000	-22.2%
;=	30	Rochambeau Dr	US 60 - Richmond Rd	Rte 607 - Croaker Rd	4,026	5,442	7,764	7,164	3,900	6,000	7,600	7,500	+3,600	+92.3%
$\circ$	199	SR 199	US 60 - Richmond Rd	Rte 612 - Longhill Rd	14,863	18,366	22,252	23,523	11,000	19,000	22,000	23,000	+12,000	+109.1%
James	199	SR 199	Rte 612 - Longhill Rd	SR 321 - Monticello Ave	19,999	24,063	28,869	29,040	20,000	24,000	28,000	28,000	+8,000	+40.0%
Ξ	199	SR 199	SR 321 - Monticello Ave	SR 5 - John Tyler Hwy	18,891	23,273	30,270	27,515	15,000	23,000	29,000	27,000	+12,000	+80.0%
Ja	199	SR 199	SR 5 - John Tyler Hwy	Williamsburg CL	29,427	30,553	37,160	36,498	23,000	29,000	34,000	35,000	+12,000	+52.2%
	199	SR 199	Williamsburg CL	Brookwood Dr	32,067	33,026	37,015	36,180	24,000	31,000	36,000	36,000	+12,000	+50.0%
	199	SR 199	Brookwood Dr	SR 132 - Henry St	29,353	29,003	33,784	34,542	23,000	27,000	32,000	33,000	+10,000	+43.5%
	199	SR 199	SR 132 - Henry St	Mounts Bay Rd	30,731	29,134	34,021	33,078	24,000	28,000	33,000	33,000	+9,000	+37.5%
	199	SR 199	Mounts Bay Rd	US 60 - Pocahontas Trail	28,732	27,649	32,250	31,169	22,000	26,000	31,000	31,000	+9,000	+40.9%
	681	Sandy Bay Rd	SR 31 - Jamestown Rd	Rte 615 - Ironbound Rd	5,954	5,860	5,452	4,994	5,500	5,500	5,300	5,100	-400	-7.3%
	616	Strawberry Plains Rd	SR 5 - John Tyler Hwy	Rte 615 - Ironbound Rd	6,108	6,530	6,946	8,048	5,700	6,100	6,800	7,500	+1,800	+31.6%
	5	Boundary St	Jamestown Rd	Francis St	11,628	12,282	11,076	12,532	11,000	11,000	9,800	12,000	+1,000	+9.1%
	60	Bypass Rd	Richmond Rd	York CL	28,684	21,871	21,128	26,802	26,000	21,000	20,000	25,000	-1,000	-3.8%
	60	Bypass Rd	SR 132 - Henry St	Parkway Dr	20,073	13,304	13,844	15,868	18,000	12,000	12,000	15,000	-3,000	-16.7%
	60	Bypass Rd	Parkway Dr	SR 5 - Capitol Landing Rd	18,242	10,554	11,409	13,198	17,000	10,000	10,000	12,000	-5,000	-29.4%
	5	Capitol Landing Rd	US 60 - Bypass Rd	SR 143 - Merrimac Trail	8,391	6,859	6,754	-	7,900	6,200	6,300	6,900	-1,000	-12.7%
	90003	Colonial Pkwy	James City CL	York CL	5,881	-	2,919		5,700	6,200	6,200	4,700	-1,000	-17.5%
	0	England St S	Newport Ave	Francis St	2,300	-	-	1,803	2,400	2,100	2,300	1,800	-600	-25.0%
	5	Francis St	Boundary St	SR 132 - Henry St	8,752	8,528	7,660	8,917	8,100	7,600	6,700	8,200	+100	+1.2%
	7075	Francis St	SR 132 - Henry St	Waller St	7,946	7,629	7,087	6,477	7,500	6,800	6,200	6,000	-1,500	-20.0%
	132	Henry St	SR 199	Ireland St	3,874	3,686	4,120	3,801	3,600	3,400	3,700	3,600	0	0.0%
	132	Henry St	Ireland St	Francis St	-	5,155	5,346	5,660	-	4,800	4,800	5,400	-	-
	5	Henry St	Francis St	SR 162 - Lafayette St	6,229	5,997	5,565	5,803	6,000	5,400	4,900	5,500	-500	-8.3%
500	132	Henry St	SR 162 - Lafayette St	SR 132 Y	8,022	7,463	7,504	6,853	7,500	6,800	6,600	6,400	-1,100	-14.7%
ă	132	Henry St	SR 132 Y	US 60 - Bypass Rd	12,423	9,244	9,114	10,116	12,000	8,600	8,000	9,400	-2,600	-21.7%
15	7081	Ironbound Rd	James City CL	Longhill Rd	7,789	8,710	10,115	9,913	7,200	7,900	8,900	9,100	+1,900	+26.4%
Williamsburg	7081	Ironbound Rd	Longhill Rd	Richmond Rd	12,335	12,430	13,632	15,292	12,000	12,000	12,000	14,000	+2,000	+16.7%
1:3	31	Jamestown Rd	Williamsburg CL	SR 199	23,308	18,361	18,414	17,349	21,000	17,000	16,000	16,000	-5,000	-23.8%
7:1	5	Jamestown Rd	SR 199	John Tyler Hwy	10,315	12,010	11,933	11,994	9,800	11,000	11,000	11,000	+1,200	+12.2%
1	5	Jamestown Rd	John Tyler Hwy	Boundary St	11,709	13,548	12,235	13,820	11,000	12,000	11,000	13,000	+2,000	+18.2%
	7077	Lafayette St	Richmond Rd	Bacon Ave	9,621	9,479	8,345	8,911	9,200	8,700	7,300	8,200	-1,000	-10.9%
	7077	Lafayette St	Bacon St	SR 132 - Henry St	12,172	10,935	9,796	9,835	12,000	10,000	8,600	9,300	-2,700	-22.5%
	5	Lafayette St	SR 132 - Henry St	Capital Landing Rd	12,425	10,846	9,682	10,151	12,000	10,000	8,500	9,300	-2,700	-22.5%
	5	Lafayette St	Capital Landing Rd	US 60 - Page St	10,511	9,006	7,890	8,263	9,900	8,200	6,900	7,800	-2,100	-21.2%
	7082	Longhill Rd	Ironbound Rd	James City CL	3,985	4,282	4,215	4,237	3,700	3,900	3,700	3,900	+200	+5.4%
	143	Merrimac Trail	York CL	SR 5 - Capital Landing Rd	6,329	7,285	7,617	7,217	6,000	6,600	6,700	6,700	+700	+11.7%
	143	Merrimac Trail	SR 5 - Capital Landing Rd	York CL	9,112	9,141	9,974	9,445	8,500	8,300	8,800	8,800	+300	+3.5%
	321	Monticello Ave	Rte 615 - Ironbound Rd	Compton Dr	12 044	16 102	18,412	17,358	12 000	15 000	17,000	18,000	. 2 000	. 22 10/
	7083	Monticello Ave	Compton Dr	Richmond Rd	13,944	16,182	15,876	17,074	13,000	15,000	14,000	16,000	+3,000	+23.1%
	60 60	Page St Page St	SR 5 - Capitol Landing Rd Second St	Second St Lafayette St	20,971 20,750	12,309 14,714	13,531	15,332 15,804	20,000 19,000	12,000 13,000	12,000 14,000	14,000 15,000	-6,000 -4,000	-30.0% -21.1%
	7086	Page St Penniman Rd	Page St	York CL	2,422	2,172	2,375	2,822	2,200	2,000	2,100	2,700	+500	+22.7%
	1000	i criminan ixu	1 age of	TOIR CL	2,722	2,172	2,575	2,022	2,200	2,000	2,100	2,700	+ 300	TZZ.[ /0

Table 3 (Continued) – Weekday and Annual Average Daily Traffic Volumes, 2001 to 2010 Data sources: VDOT, James City County. V indicates data is not available for that roadway segment and year. 'X' indicates that roadway segment did not exist at that time.





	Route					Weekday	Volume		Annua	l Average Da	ily Traffic (A	ADT)	Change i	n A ADT
	Num	Location	Segment From	Segment To	2001	2004	2007	2010	2001	2004	2007	2010	2001 t	
	0	Quarterpath Rd	SR 199	US 60 - York St	1,473	629	2001	595	1,400	570	610	550	-850	-60.7%
	60	Richmond Rd	James City CL	Ironbound Rd	22,401	16,902	19,148	23,783	21,000	16,000	17,000	22,000	+1,000	+4.8%
ρn	60	Richmond Rd	Ironbound Rd	Bypass Rd	32,730	26,495	25,776	25,987	30,000	25,000	24,000	24,000	-6,000	-20.0%
Williamsburg	7075	Richmond Rd	Bypass Rd	Monticello Ave	20,168	21,401	19,306	19,001	21,000	19,000	17,000	18,000	-3,000	-14.3%
d.	7075	Richmond Rd	Monticello Ave	Boundary St	13,180	13,668	12,395	13,511	12,000	12,000	11,000	13,000	+1,000	+8.3%
ũ	132	SR 132 Y	Colonial Parkway	SR 132 - Henry St	7,629	5,267	6,115	2,967	7,200	4,700	5,400	5,900	-1,300	-18.1%
_ਜ਼	199	SR 199	James City CL	SR 31 - Jamestown Rd	29,427	30,553	37,160	36,498	23,000	29,000	34,000	35,000	+12,000	+52.2%
$\equiv$	199	SR 199	SR 31 - Jamestown Rd	James City CL	32,067	33,026	37,015	36,180	24,000	31,000	36,000	36,000	+12,000	+50.0%
$\leq$	7079	Second St	Page St	Parkway Dr	16,723	14,472	13,557	13,965	16,000	13,000	13,000	13,000	-3,000	-18.8%
	7079	Second St	Parkway Dr	York CL	17,976	16,042	15,207	15,123	17,000	15,000	13,000	14,000	-3,000	-17.6%
	60	York St	Lafayette St	James City CL	17,894	12,483	10,850	13,385	16,000	11,000	9,900	13,000	-3,000	-18.8%
		1011100	Darayette ot	James Grey GD	11,001	12,100	10,030	15,505	10,000	11,000	,,,,,	13,000	3,000	10.070
	1020	Ballard St	Water St	Colonial Pkwy	2,345	1,689	1,760	1,960	2,400	1,500	1,500	1,800	-600	-25.0%
	1020	Ballard St	Colonial Pkwy	SR 238 - Cook Rd	_,-	3,706	4,940	5,899	_,,,,,	3,500	4,300	5,400		
	238	Ballard St	SR 238 - Cook Rd	Moore House Rd	1,466	3,210	.,	3,329	1,400	2,900	2,600	3,000	+1,600	+114.3%
	238	Ballard St	Moore House Rd	Main Gate Naval Mine Depot	-,,,,,,	-	2,967	2,430	-,,,,,,	2,900	2,600	2,200	-,000	
	600	Big Bethel Rd	Hampton CL	SR 134 - Hampton Hwy	11,090	14,165	10,847	9,444	10,000	13,000	9,600	8,600	-1,400	-14.0%
	600	Big Bethel Rd	SR 134 - Hampton Hwy	SR 171 - Victory Blvd	4,804	6,900	6,359	4,971	4,600	6,400	5,600	4,500	-100	-2.2%
	60	Bypass Rd	Williamsburg CL	SR 132 - Henry St	28,684	21,871	21,128	26,802	26,000	21,000	20,000	25,000	-1,000	-3.8%
	782	Carys Chapel Rd	Poquoson CL	SR 171 - Victory Blvd	5,077	5,462	5,681	5,155	4,800	4,900	5,000	4,700	-100	-2.1%
	90003	Colonial Pkwy	Williamsburg CL	Ballard St	2,812	-	6,218		-	6,100	5,700	6,000	-	-
	704	Cook Rd	US 17 - George Washington Hwy	Rte 634 - Old York Hampton Hwy			5,719	5,354	,	4,900	5,000	4,900		,
	704	Cook Rd	Rte 634 - Old York Hampton Hwy	Rte 634 - Surrender Rd North	5,661	5,454	6,234	6,368	5,400	4,900	5,600	5,800	+400	+7.4%
	704	Cook Rd	Rte 634 - Surrender Rd North	SR 238 - Goosley Rd	6,177	5,678	6,671	6,125	6,000	5,100	6,000	5,600	-400	-6.7%
	238	Cook Rd	SR 238 - Goosley Rd	Ballard St	-		6,500	6,658		2,900	5,700	6,300	-	
	621	Dare Rd	US 17 - George Washington Hwy	Rte 620 - Lakeside Dr	4,517	5,190	4,273	4,946	4,200	4,600	3,800	4,500	+300	+7.1%
	173	Denbigh Blvd	Newport News CL	US 17 - George Washington Hwy	14,842	16,191	16,509	16,203	14,000	15,000	16,000	15,000	+1,000	+7.1%
	782	E Yorktown Rd	SR 171 - Victory Blvd	Poquoson CL	-	5,370	5,681	5,585	-	5,000	5,000	5,100	-	-
	105	Fort Eustis Blvd	Newport News CL	US 17 - George Washington Hwy	15,571	16,373	17,469	-	15,000	16,000	16,000	17,000	+2,000	+13.3%
	1050	Fort Eustis Blvd Ext	US 17 - George Washington Hwy	Rte 634 - Old York Hampton Hwy	X	X	-	-	X	X	3,200	3,300	-	-
County	17	George Washington Hwy	Newport News CL	SR 171 - Victory Blvd	32,720	36,142	37,917	38,983	30,000	34,000	35,000	35,000	+5,000	+16.7%
덤	17	George Washington Hwy	SR 171 - Victory Blvd	SR 134 - Hampton Hwy	-	39,963	41,992	42,347	-	38,000	39,000	38,000	-	-
5	17	George Washington Hwy	SR 134 - Hampton Hwy	Rte 621 - Grafton Dr	52,183	57,045	56,977	54,914	49,000	53,000	53,000	51,000	+2,000	+4.1%
$\circ$	17	George Washington Hwy	Rte 621 - Grafton Dr	SR 173 - Denbigh Blvd	-	36,064	39,975	39,235	-	35,000	37,000	35,000	-	-
7	17	George Washington Hwy	SR 173 - Denbigh Blvd	SR 105 - Fort Eustis Blvd	35,184	35,482	38,995	39,111	33,000	34,000	36,000	35,000	+2,000	+6.1%
York	17	George Washington Hwy	SR 105 - Fort Eustis Blvd	Rte 704 - Cook Rd	-	34,362	38,170	38,988		33,000	35,000	35,000		
$\mathbf{X}$	17	George Washington Hwy	Rte 704 - Cook Rd	SR 238 - Goosley Rd	39,068	27,343	28,938	29,384	37,000	26,000	27,000	27,000	-10,000	-27.0%
r	17	George Washington Hwy	SR 238 - Goosley Rd	Colonial Pkwy	-	27,414	29,300	30,836	-	25,000	27,000	28,000	-	-
	17	George Washington Hwy	Colonial Pkwy	Mathew St	-	30,577	31,764	34,117	-	29,000	30,000	31,000	-	-
	17	George Washington Hwy	Mathew St	Gloucester CL	32,373	34,392	35,778	34,051	27,000	34,000	34,000	30,000	+3,000	+11.1%
	173	Goodwin Neck Rd	US 17 - George Washington Hwy	Rte 630 - Wolf Trap Rd	10,095	9,319	10,528	9,318	9,500	8,400	9,300	8,500	-1,000	-10.5%
	173	Goodwin Neck Rd	Rte 630 - Wolf Trap Rd	Back Creek Rd	3,406	3,880	5,222	3,811	3,200	3,400	4,600	3,500	+300	+9.4%
	173	Goodwin Neck Rd	Back Creek Rd	Dandy Loop Rd	1,593	2,017	1,602	2,299	1,500	1,800	1,400	2,100	+600	+40.0%
	238	Goosley Rd	SR 238 - Old Williamsburg Rd	US 17 - George Washington Hwy	12,348	6,489	6,809	6,878	11,000	6,000	6,000	6,300	-4,700	-42.7%
	238	Goosley Rd	US 17 - George Washington Hwy	Rte 704 - Cook Rd	-		1,668	1,690	-	2,900	1,500	1,600	-	-
	134	Hampton Hwy	US 17 - George Washington Hwy	SR 171 - Victory Blvd		23,062	21,843	21,178	-	21,000	19,000	19,000	-	-
	134	Hampton Hwy	SR 171 - Victory Blvd	Rte 600 - Big Bethel Rd	25,086	33,615	29,902	29,041	23,000	30,000	26,000	26,000	+3,000	+13.0%
	134	Hampton Hwy	Rte 600 - Big Bethel Rd	Hampton CL		27,998	30,486	27,101	-	26,000	27,000	25,000	-	-
	718	Hornsbyville Rd	Rte 634 - Old York Hampton Hwy	Rte 631 - Waterview Rd	2,160	2,593	3,396	3,021	2,000	2,300	3,000	2,800	+800	+40.0%
	718	Hornsbyville Rd	Rte 631 - Waterview Rd	SR 173 - Goodwin Neck Rd	-	-	1,764	1,553	-	2,300	1,600	1,400	-	-
	716	Hubbard Ln	Rte 641 - Penniman Rd	Lakeshead Dr	3,818	4,856	5,425	5,413	3,600	4,300	4,800	4,900	+1,300	+36.1%
	64	I-64	James City CL	SR 199/Rte 646 - Newman Rd	51,917	55,234	62,101	58,252	50,000	52,000	63,000	64,000	+14,000	+28.0%
	64	I-64	SR 199/Rte 646 - Newman Rd	SR 143 - Camp Peary Rd	49,744	55,337	56,042	56,909	46,000	58,000	61,000	61,000	+15,000	+32.6%

Table 3 (Continued) – Weekday and Annual Average Daily Traffic Volumes, 2001 to 2010 Data sources: VDOT, James City County. Windicates data is not available for that roadway segment and year. 'X' indicates that roadway segment did not exist at that time.





No.		Route					Weekday	Volume		Annua	l Average Da	ily Traffic (A	ADT)	Changa i	n AADT
Feb			Location	Segment From	Segment To	2001	2004	2007	2010	2001	2004	2007	2010		
He					5									-	+16.7%
Best   Bush Cardens Interchange   James City CL   78.04   80.740   80.497   87.885   77.800   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   79.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000   78.000															+8.0%
Color   Lakeside Dr															+9.3%
Column   C															+4.9%
Page				0 ,											+13.9%
DOI:   Mathews 61												,			+56.5%
H43 Merrimac Trail   Bruck Canders Inverdange   SR 199   16,433   14,817   16,875   14,675   14,000   15,000   15,000   3,000   14,000   14,000   15,000   3,000   14,000   14,000   15,000   3,000   14,000   14,000   14,000   15,000   3,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14,000   14			O .												+5.7%
143   Merrimac Trail   Fennáman Rd   Second St   11,000   15,000   -500   141   Merrimac Trail   Williamsburg CL   SR 132   8,692   9,154   9,645   9,226   8,500   8,600   8,500   8,700   -200   143   Merrimac Trail   Williamsburg CL   SR 132   164   Camp Peary Main Gate   1,646   2,693   3,509   2,666   1,400   2,500   13,000   2,500   1,100   143   Merrimac Trail   164   Camp Peary Main Gate   1,646   2,693   3,509   2,666   1,400   2,500   13,000   2,500   1,100   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,000   1,00						,	,	,		,					-18.8%
143   Merrimac Trail   Second Sc   Williamsburg Cl.   SR 132   S892   91,54   96,43   92,266   8,500   8,600   8,500   8,700   12,000   143   Merrimac Trail   SR 132   1-64   18,433   17,104   17,947   19,138   18,000   16,000   16,000   18,000   0   0   143   Merrimac Trail   1-64   Camp Pear Main Gate   1,461   19,947   19,138   18,000   16,000   16,000   18,000   0   0   0   14,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000															201070
143   Merrimac Trail   Williamsburg CL   SR 132   8,692   9,154   9,643   9,226   8,500   8,500   8,700   -220     143   Merrimac Trail   164   Camp Pary Main Gate   18,443   17,104   17,947   19,138   18,000   16,000   16,000   16,000   16,000     143   Merrimac Trail   164   Camp Pary Main Gate   1461   2,699   3,509   2,668   14,000   2,500   3,200   2,500   +1,100     603   Mooretown Rd   Waller Mill Rd   Re 645 - Airport Rd   3,863   6,357   8,651   9,285   3,800   4,400   5,000   7,900   8,800   44,500     604   Newman Rd   164   Newmort News CL   Re 660 - Baptis Rd   2,767   10,195   10,769   11,158   8,700   8,900   9,600   9,600   9,600     235   Old Williamsburg Rd   Re 660 - Baptis Rd   Sr 238 - Goodey Rd   8,208   3,013   -2,200   2,300   2,700   -2,000     240   2,500   3,000   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,200   4,															+7.4%
143   Merrimac Trail   154   Camp Party Main Gate   18433   17,104   17,947   19,138   18,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,000   16,0															+2.4%
143   Merrimac Trail   1-64   Camp Peary Main Gase   1.461   2.693   3.509   2.668   1.400   2.500   3.200   2.500   +1.100															0.0%
Feb															+78.6%
Mouretwork Rd   Noveman Rd   1-64   James City CL   2-955   2-538   2-755   2-539   2-900   2-400   2-500   2-700   2-00   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2-300   2					. ,										+57.9%
Head   Section   Head   James City CL   2.955   2.528   2.755   2.859   2.900   2.400   2.500   2.700   2.00					•										+104.7%
Variable								,		.,		,		.,	-6.9%
Variable					,										+10.3%
1020   Old Williamsburg Rd   SR 238 - Goosley Rd   Colonial Pkwy   2, 265   2,590   3,013   - 2,000   2,300   2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,700   - 2,70			0	•					,	,					+14.1%
634 Old York Hampton Hwy   Battle Rd   Rtc 693 - Wormley Creek Dr   3,561   4,983   4,745   4,157   3,400   4,400   4,200   3,800   4+00   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000	t		· · ·												. 1 (12 / 0
634 Old York Hampton Hwy   Battle Rd   Rtc 693 - Wormley Creek Dr   3,561   4,983   4,745   4,157   3,400   4,400   4,200   3,800   4+00   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000	Ξ			,	•			,					,		+22.6%
634 Old York Hampton Hwy   Battle Rd   Rtc 693 - Wormley Creek Dr   3,561   4,983   4,745   4,157   3,400   4,400   4,200   3,800   4+00   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000	2														+23.8%
634 Old York Hampton Hwy   Battle Rd   Rtc 693 - Wormley Creek Dr   3,561   4,983   4,745   4,157   3,400   4,400   4,200   3,800   4+00   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000   4,000	ŭ														. 2510 /0
641 Penniman Rd Williamsburg CL SR 143 - Merrimac Trail - 1,941 2,436 2,810 - 1,800 2,200 2,600 - 641 Penniman Rd SR 143 - Merrimac Trail Fillmore Dr 5,918 5,270 6,294 6,087 5,600 4,800 5,600 0 641 Penniman Rd Fillmore Dr SR 199 1,066 2,005 2,152 2,879 1,000 1,800 1,900 2,600 +1,600 641 Penniman Rd SR 199 Colonial Pkwy 4,473 4,664 5,534 5,479 4,000 4,100 4,900 4,900 +900 60 Pocahontas Trail SR 199 Busch Gardens Interchange 15,054 11,980 15,000 9,300 8,300 8,000 -7,400 60 Pocahontas Trail Busch Gardens Interchange James City CL 12,492 10,806 10,726 11,459 11,000 10,000 9,600 10,000 -1,000 192 SR 132 U.5 60 - Bypass Rd SR 143 - Merrimac Trail 11,544 9,373 8,737 11,135 11,000 8,800 8,300 9,400 -1,600 199 SR 199 P 1-64 Re 603 - Mooretown Rd 18,623 20,584 25,199 29,588 19,000 19,000 23,000 24,000 45,000 199 SR 199 SR 199 Rte 603 - Mooretown Rd U.S 60 - Richmond Rd 15,000 19,733 24,536 27,033 12,000 19,000 22,000 22,000 +10,000 199 SR 199 SR 199 Water Country Pkwy 14,916 7,993 10,826 20,012 11,000 7,300 9,500 16,000 +5,000 199 SR 199 Water Country Pkwy Re 641 - Penniman Rd 6,590 6,031 7,896 9,598 5,100 5,500 7,100 7,800 +2,700 622 Seaford Rd Ellerson Ct Re 718 -Back Creek Rd 6,556 6,764 6,732 6,855 6,200 4,000 27,000 23,000 +100 170 170 170 170 170 170 170 170 170	<u>.</u>		. ,	,		3.561								+400	+11.8%
641 Penniman Rd Williamsburg CL SR 143 - Merrimac Trail - 1,941 2,436 2,810 - 1,800 2,200 2,600 - 641 Penniman Rd SR 143 - Merrimac Trail Fillmore Dr 5,918 5,270 6,294 6,087 5,600 4,800 5,600 0 641 Penniman Rd Fillmore Dr SR 199 1,066 2,005 2,152 2,879 1,000 1,800 1,900 2,600 +1,600 641 Penniman Rd SR 199 Colonial Pkwy 4,473 4,664 5,534 5,479 4,000 4,100 4,900 4,900 +900 60 Pocahontas Trail SR 199 Busch Gardens Interchange 15,054 11,980 15,000 9,300 8,300 8,000 -7,400 60 Pocahontas Trail Busch Gardens Interchange James City CL 12,492 10,806 10,726 11,459 11,000 10,000 9,600 10,000 -1,000 192 SR 132 U.5 60 - Bypass Rd SR 143 - Merrimac Trail 11,544 9,373 8,737 11,135 11,000 8,800 8,300 9,400 -1,600 199 SR 199 P 1-64 Re 603 - Mooretown Rd 18,623 20,584 25,199 29,588 19,000 19,000 23,000 24,000 45,000 199 SR 199 SR 199 Rte 603 - Mooretown Rd U.S 60 - Richmond Rd 15,000 19,733 24,536 27,033 12,000 19,000 22,000 22,000 +10,000 199 SR 199 SR 199 Water Country Pkwy 14,916 7,993 10,826 20,012 11,000 7,300 9,500 16,000 +5,000 199 SR 199 Water Country Pkwy Re 641 - Penniman Rd 6,590 6,031 7,896 9,598 5,100 5,500 7,100 7,800 +2,700 622 Seaford Rd Ellerson Ct Re 718 -Back Creek Rd 6,556 6,764 6,732 6,855 6,200 4,000 27,000 23,000 +100 170 170 170 170 170 170 170 170 170	Z					,									+35.0%
641 Penniman Rd Williamsburg CL SR 143 - Merrimac Trail - 1,941 2,436 2,810 - 1,800 2,200 2,600 - 641 Penniman Rd SR 143 - Merrimac Trail Fillmore Dr 5,918 5,270 6,294 6,087 5,600 4,800 5,600 0 641 Penniman Rd Fillmore Dr SR 199 1,066 2,005 2,152 2,879 1,000 1,800 1,900 2,600 +1,600 641 Penniman Rd SR 199 Colonial Pkwy 4,473 4,664 5,534 5,479 4,000 4,100 4,900 4,900 +900 60 Pocahontas Trail SR 199 Busch Gardens Interchange 15,054 11,980 15,000 9,300 8,300 8,000 -7,400 60 Pocahontas Trail Busch Gardens Interchange James City CL 12,492 10,806 10,726 11,459 11,000 10,000 9,600 10,000 -1,000 192 SR 132 U.5 60 - Bypass Rd SR 143 - Merrimac Trail 11,544 9,373 8,737 11,135 11,000 8,800 8,300 9,400 -1,600 199 SR 199 P 1-64 Re 603 - Mooretown Rd 18,623 20,584 25,199 29,588 19,000 19,000 23,000 24,000 45,000 199 SR 199 SR 199 Rte 603 - Mooretown Rd U.S 60 - Richmond Rd 15,000 19,733 24,536 27,033 12,000 19,000 22,000 22,000 +10,000 199 SR 199 SR 199 Water Country Pkwy 14,916 7,993 10,826 20,012 11,000 7,300 9,500 16,000 +5,000 199 SR 199 Water Country Pkwy Re 641 - Penniman Rd 6,590 6,031 7,896 9,598 5,100 5,500 7,100 7,800 +2,700 622 Seaford Rd Ellerson Ct Re 718 -Back Creek Rd 6,556 6,764 6,732 6,855 6,200 4,000 27,000 23,000 +100 170 170 170 170 170 170 170 170 170	$\chi$		/												0.0%
641 Penniman Rd SR 143 - Merrimac Trail Fillmore Dr 5,918 5,270 6,294 6,087 5,600 4,800 5,600 5,600 0 641 Penniman Rd Fillmore Dr SR 199 1,066 2,005 2,152 2,879 1,000 1,800 1,900 2,600 +1,600 641 Penniman Rd SR 199 Colonial Pkwy 4,473 4,664 5,534 5,479 4,000 4,100 4,900 4,900 +900 60 Pocahontas Trail SR 199 Busch Gardens Interchange 15,054 11,980 - 15,000 9,300 8,300 7,600 -7,400 60 Pocahontas Trail Busch Gardens Interchange James City CL 12,492 10,806 10,726 11,459 11,000 10,000 9,600 10,000 -1,000 132 SR 132 US 60 - Bypas Rd SR 143 - Merrimac Trail 11,584 9,373 8,737 11,135 11,000 8,800 8,300 9,400 -1,600 199 SR 199 1-64 Rte 603 - Mooretown Rd 18,623 20,584 25,199 29,588 19,000 19,000 23,000 24,000 +5,000 199 SR 199 SR 199 Rte 603 - Mooretown Rd 15,000 19,733 24,536 27,033 12,000 19,000 22,000 22,000 +5,000 199 SR 199 SR 199 SR 143 - Merrimac Trail 1-64 27,538 26,961 30,529 30,753 26,000 24,000 27,000 28,000 +2,000 199 SR 199 Water Country Pkwy 14,916 7,993 10,826 20,012 11,000 7,300 9,500 16,000 +5,000 199 SR 199 Water Country Pkwy 14,916 7,993 10,826 20,012 11,000 7,300 9,500 16,000 +5,000 199 SR 199 Water Country Pkwy Rte 641 - Penniman Rd 6,590 6,031 7,896 9,598 5,100 5,500 7,100 7,800 +2,700 22 Seaford Rd SR 173 - Goodwin Neck Rd Ellerson Cr Rte 718 - Back Creek Rd 6,556 6,764 6,732 6,855 6,200 6,100 5,900 6,300 +100 171 Victory Blvd Newport News CL US 17 - George Washington Hwy - 30,801 32,291 33,648 - 29,000 28,000 31,000 - 171 Victory Blvd Newport News CL US 17 - George Washington Hwy - 30,801 32,291 33,648 - 29,000 28,000 17,000 713 Waller Mill Rd US 60 - Bypas Rd Rte 643 - Cata Rd 5,801 5,174 4,572 4,634 5,400 4,700 4,000 7,300 9,000 11,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 71,000 7	′	641	Penniman Rd		0 0 ,	,		, .		,					
641 Penniman Rd Fillmore Dr SR 199 1,066 2,005 2,152 2,879 1,000 1,800 1,900 2,600 +1,600 641 Penniman Rd SR 199 Colonial Pkwy 4,473 4,664 5,534 5,479 4,000 4,100 4,900 4,900 +900 60 Pocahontas Trail SR 199 Busch Gardens Interchange 15,054 11,980 15,000 9,300 8,300 7,600 -7,400 60 Pocahontas Trail Busch Gardens Interchange James City CL 12,492 10,806 10,726 11,459 11,000 10,000 9,600 10,000 -1,000 132 SR 132 US 60 - Bypas Rd SR 143 - Merrimac Trail 11,584 9,373 8,737 11,135 11,000 8,800 8,300 9,400 -1,600 199 SR 199 L64 Rc 603 - Mooretown Rd 18,623 20,584 25,199 29,588 19,000 19,000 23,000 24,000 +5,000 199 SR 199 Rc 603 - Mooretown Rd US 60 - Richmond Rd 15,000 19,733 24,536 27,033 12,000 19,000 22,000 22,000 +10,000 199 SR 199 SR 143 - Merrimac Trail L64 27,538 26,961 30,529 30,753 26,000 24,000 27,000 28,000 +2,000 199 SR 199 Water Country Pkwy 14,916 7,993 10,826 20,012 11,000 7,300 9,500 16,000 +5,000 199 SR 199 Water Country Pkwy Rc 641 - Penniman Rd 6,590 6,031 7,896 9,598 5,100 5,500 7,100 7,800 +2,700 622 Seaford Rd SR 173 - Goodwin Neck Rd Ellerson Ct 8,933 9,473 9,413 9,128 8,400 8,400 8,300 8,300 -100 622 Seaford Rd Ellerson Ct Re 718 - Back Creek Rd 6,556 6,764 6,732 6,855 6,200 6,100 5,900 6,300 +100 171 Victory Blvd Newport News CL US 17 - George Washington Hwy SR 134 - Hampton Hwy - 30,801 32,291 33,648 - 29,000 28,000 31,000 - 171 Victory Blvd SR 134 - Hampton Hwy - Re 660 - Big Bethel Rd - 20,450 19,853 20,304 - 19,000 17,000 19,000 - 1,000 713 Waller Mill Rd US 60 - Bypas Rd Re 661 - Caran Rd 5,801 5,174 4,572 4,654 5,400 4,700 4,000 4,300 - 1,100		641		Ü		5,918				5,600				0	0.0%
641 Penniman Rd SR 199 Colonial Pkwy 4,473 4,664 5,534 5,479 4,000 4,100 4,900 4,900 +900 60 Pocahontas Trail SR 199 Busch Gardens Interchange 15,054 11,980 - 15,000 9,300 8,300 7,600 7,400 60 Pocahontas Trail Busch Gardens Interchange James City CL 12,492 10,806 10,726 11,459 11,000 10,000 9,600 10,000 1,000 132 SR 132 US 60 - Bypass Rd SR 143 - Merrimac Trail 11,584 9,373 8,737 11,135 11,000 8,800 8,300 9,400 -1,600 199 SR 199 1-64 Rte 603 - Mooretown Rd 18,623 20,584 25,199 29,588 19,000 19,000 23,000 24,000 +5,000 199 SR 199 Rte 603 - Mooretown Rd US 60 - Richmond Rd 15,000 19,733 24,536 27,033 12,000 19,000 22,000 22,000 +10,000 199 SR 199 SR 143 - Merrimac Trail 164 27,538 26,961 30,529 30,753 26,000 24,000 7,000 28,000 199 SR 199 SR 199 1-64 Water Country Pkwy 14,916 7,993 10,826 20,012 11,000 7,300 9,500 16,000 +5,000 199 SR 199 Water Country Pkwy Rte 641 - Penniman Rd 6,590 6,031 7,896 9,598 5,100 5,500 7,100 7,800 +2,700 622 Seaford Rd SR 173 - Goodwin Neck Rd Ellerson Ct 8,933 9,473 9,413 9,428 8,400 8,400 8,300 8,300 100 622 Seaford Rd Ellerson Ct Re 718 - Back Creek Rd 6,556 6,764 6,732 6,855 6,200 6,100 5,900 6,300 +100 102 Second St Williamsburg CL SR 143 - Merrimac Trail 17,976 16,042 15,207 15,123 17,000 19,000 23,000 49,000 7,000 171 Victory Blvd US 17 - George Washington Hwy 45,257 52,743 50,111 52,998 42,000 48,000 43,000 49,000 7,000 171 Victory Blvd SR 134 - Hampton Hwy Rte 600 - Big Bethel Rd - 20,450 19,853 20,304 - 19,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 11,000 1										,		,		+1,600	+160.0%
60 Pocahontas Trail SR 199 Busch Gardens Interchange 15,054 11,980 15,000 9,300 8,300 7,600 -7,400 60 Pocahontas Trail Busch Gardens Interchange James City CL 12,492 10,806 10,726 11,459 11,000 10,000 9,600 10,000 -1,000 132 SR 132 US 60 - Bypass Rd SR 143 - Merrimac Trail 11,584 9,373 8,737 11,135 11,000 8,800 8,300 9,400 -1,600 199 SR 199 1-64 Re 603 - Mooretown Rd 18,623 20,584 25,199 29,588 19,000 19,000 23,000 24,000 +5,000 199 SR 199 Rte 603 - Mooretown Rd US 60 - Richmond Rd 15,000 19,733 24,536 27,033 12,000 19,000 22,000 22,000 +10,000 199 SR 199 SR 199 SR 143 - Merrimac Trail 1-64 27,538 26,961 30,529 30,753 26,000 24,000 27,000 28,000 +2,000 199 SR 199 Water Country Pkwy 14,916 7,993 10,826 20,012 11,000 7,300 9,500 16,000 +2,000 199 SR 199 Water Country Pkwy Re 641 - Penniman Rd 6,590 6,031 7,896 9,598 5,100 5,500 7,100 7,800 +2,700 622 Seaford Rd SR 173 - Goodwin Neck Rd Ellerson Ct 8,933 9,473 9,413 9,128 8,400 8,400 8,300 8,300 -100 622 Seaford Rd Ellerson Ct Re 718 - Back Creek Rd 6,556 6,764 6,732 6,855 6,200 6,100 5,900 6,300 +100 162 Second St Williamsburg CL US 17 - George Washington Hwy 45,257 52,743 50,111 52,998 42,000 48,000 43,000 49,000 +7,000 171 Victory Blvd US 17 - George Washington Hwy 8 Re 600 - Big Bethel Rd - 20,450 19,853 20,304 - 19,000 17,000 18,000 20,000 - 171 Victory Blvd Re 600 - Big Bethel Rd - 20,450 19,853 20,304 - 19,000 17,000 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 - 1,100 18,000 20,000 12,000 18,000 20,000 12,000 12,000 12,00															+22.5%
60 Pocahontas Trail Busch Gardens Interchange James City CL 12,492 10,806 10,726 11,459 11,000 10,000 9,600 10,000 -1,000 132 SR 132 US 60 - Bypass Rd SR 143 - Merrimac Trail 11,584 9,373 8,737 11,135 11,000 8,800 8,300 9,400 -1,600 199 SR 199 1-64 Rte 603 - Mooretown Rd 18,623 20,584 25,199 29,588 19,000 19,000 23,000 24,000 22,000 24,000 199 SR 199 SR 199 SR 199 SR 199 SR 199 SR 199 I-64 Water Country Pkwy 14,916 7,993 10,826 20,012 11,000 7,300 9,500 16,000 17,000 18,000 199 SR 199 SR 199 Water Country Pkwy Rte 641 - Penniman Rd 6,590 6,031 7,896 9,598 5,100 5,500 7,100 7,800 8,300 8,300 100 622 Seaford Rd SR 173 - Goodwin Neck Rd Ellerson Ct Rte 718 - Back Creek Rd 6,556 6,764 6,732 6,855 6,200 6,100 5,900 6,300 170 180 180 180 180 180 180 180 180 190 180 180 180 180 180 180 190 181 180 180 180 180 180 190 190 190 190 190 190 190 190 190 19		60													-49.3%
132 SR 132 US 60 - Bypass Rd SR 143 - Merrimac Trail 11,584 9,373 8,737 11,135 11,000 8,800 8,300 9,400 -1,600 199 SR 199					0										-9.1%
199 SR 199				· · · · · · · · · · · · · · · · · · ·	,							,			-14.5%
199 SR 199 Rt 603 - Mooretown Rd US 60 - Richmond Rd 15,000 19,733 24,536 27,033 12,000 19,000 22,000 22,000 +10,000 199 SR 199 SR 199 SR 143 - Merrimac Trail 1-64 Water Country Pkwy 14,916 7,993 10,826 20,012 11,000 7,300 9,500 16,000 +2,000 199 SR 199 Water Country Pkwy Rte 641 - Penniman Rd 6,590 6,031 7,896 9,598 5,100 5,500 7,100 7,800 +2,700 622 Seaford Rd SR 173 - Goodwin Neck Rd Ellerson Ct 8,933 9,473 9,413 9,128 8,400 8,400 8,300 100 622 Seaford Rd Ellerson Ct Rte 718 - Back Creek Rd 6,556 6,764 6,732 6,855 6,200 6,100 5,900 6,300 +100 162 Second St Williamsburg CL SR 143 - Merrimac Trail 17,976 16,042 15,207 15,123 17,000 19,000 21,000 23,000 +6,000 171 Victory Blvd Newport News CL US 17 - George Washington Hwy 45,257 52,743 50,111 52,998 42,000 48,000 43,000 49,000 +7,000 171 Victory Blvd US 17 - George Washington Hwy Rte 600 - Big Bethel Rd - 20,450 19,853 20,304 - 19,000 17,000 18,000 20,000 +2,000 713 Waller Mill Rd US 60 - Bypass Rd Rte 643 - Caran Rd 5,801 5,174 4,572 4,634 5,400 4,700 4,000 4,300 -1,100															+26.3%
199 SR 199 SR 199 L64 Water Country Pkwy 14,916 7,993 10,826 20,012 11,000 27,000 28,000 +2,000 199 SR 199 Water Country Pkwy Rte 641 - Penniman Rd 6,590 6,031 7,896 9,598 5,100 5,500 7,100 7,800 +2,700 622 Seaford Rd SR 173 - Goodwin Neck Rd Ellerson Ct 8,933 9,473 9,413 9,128 8,400 8,400 8,300 8,300 +100 622 Seaford Rd Ellerson Ct Rte 718 - Back Creek Rd 6,556 6,764 6,732 6,855 6,200 6,100 5,900 6,300 +100 162 Second St Williamsburg CL SR 143 - Merrimac Trail 17,976 16,042 15,207 15,123 17,000 19,000 21,000 23,000 +6,000 171 Victory Blvd Newport News CL US 17 - George Washington Hwy 45,257 52,743 50,111 52,998 42,000 48,000 43,000 49,000 +7,000 171 Victory Blvd US 17 - George Washington Hwy Rte 600 - Big Bethel Rd - 20,450 19,853 20,304 - 19,000 17,000 18,000 20,000 +2,000 713 Waller Mill Rd US 60 - Bypass Rd Rte 643 - Caran Rd 5,801 5,174 4,572 4,634 5,400 4,700 4,000 4,300 -1,100															+83.3%
199 SR 199															+7.7%
199 SR 199 Water Country Pkwy Rte 641 - Penniman Rd 6,590 6,031 7,896 9,598 5,100 5,500 7,100 7,800 +2,700 622 Seaford Rd SR 173 - Goodwin Neck Rd Ellerson Ct 8,933 9,473 9,413 9,128 8,400 8,400 8,300 8,300 -100 622 Seaford Rd Ellerson Ct Rte 718 - Back Creek Rd 6,556 6,764 6,732 6,855 6,200 6,100 5,900 6,300 +100 622 Second St Williamsburg CL SR 143 - Merrimac Trail 17,976 16,042 15,207 15,123 17,000 19,000 21,000 23,000 +6,000 171 Victory Blvd Newport News CL US 17 - George Washington Hwy 45,257 52,743 50,111 52,998 42,000 48,000 43,000 49,000 +7,000 171 Victory Blvd US 17 - George Washington Hwy SR 134 - Hampton Hwy - 30,801 32,291 33,648 - 29,000 28,000 31,000 - 171 Victory Blvd SR 134 - Hampton Hwy Rte 600 - Big Bethel Rd - 20,450 19,853 20,304 - 19,000 17,000 19,000 - 171 Victory Blvd Rte 600 - Big Bethel Rd Poquoson CL 18,575 22,254 20,895 21,568 18,000 21,000 18,000 20,000 +2,000 713 Waller Mill Rd US 60 - Bypass Rd Rte 643 - Caran Rd 5,801 5,174 4,572 4,634 5,400 4,700 4,000 4,300 -1,100		199	SR 199	I-64	Water Country Pkwy	14,916	7,993	10,826	20,012		7,300	9,500	16,000	+5,000	+45.5%
622 Seaford Rd SR 173 - Goodwin Neck Rd Ellerson Ct		199	SR 199	Water Country Pkwy	Rte 641 - Penniman Rd		6,031	7,896	9,598			7,100	7,800	+2,700	+52.9%
622         Seaford Rd         Ellerson Ct         Rte 718 - Back Creek Rd         6,556         6,764         6,732         6,855         6,200         6,100         5,900         6,300         +100           162         Second St         Williamsburg CL         SR 143 - Merrimac Trail         17,976         16,042         15,207         15,123         17,000         19,000         21,000         23,000         +6,000           171         Victory Blvd         Newport News CL         US 17 - George Washington Hwy         45,257         52,743         50,111         52,998         42,000         48,000         43,000         49,000         +7,000           171         Victory Blvd         US 17 - George Washington Hwy         SR 134 - Hampton Hwy         -         30,801         32,291         33,648         -         29,000         28,000         31,000         -           171         Victory Blvd         SR 134 - Hampton Hwy         Rte 600 - Big Bethel Rd         -         20,450         19,853         20,304         -         19,000         17,000         17,000           171         Victory Blvd         Rte 600 - Big Bethel Rd         -         20,450         19,853         20,304         -         19,000         17,000         18,000		622	Seaford Rd	SR 173 - Goodwin Neck Rd	Ellerson Ct		9,473	9,413	9,128	8,400	8,400	8,300	8,300	-100	-1.2%
171         Victory Blvd         Newport News CL         US 17 - George Washington Hwy         45,257         52,743         50,111         52,998         42,000         48,000         43,000         49,000         +7,000           171         Victory Blvd         US 17 - George Washington Hwy         SR 134 - Hampton Hwy         -         30,801         32,291         33,648         -         29,000         28,000         31,000         -           171         Victory Blvd         SR 134 - Hampton Hwy         Rte 600 - Big Bethel Rd         -         20,450         19,853         20,304         -         19,000         17,000         19,000         -           171         Victory Blvd         Rte 600 - Big Bethel Rd         Poquoson CL         18,575         22,254         20,895         21,568         18,000         21,000         18,000         20,000         +2,000           713         Waller Mill Rd         US 60 - Bypass Rd         Rte 643 - Caran Rd         5,801         5,174         4,572         4,634         5,400         4,000         4,000         4,300         -1,100		622		Ellerson Ct	Rte 718 - Back Creek Rd	6,556	6,764	6,732	6,855	6,200	6,100	5,900	6,300	+100	+1.6%
171     Victory Blvd     US 17 - George Washington Hwy     SR 134 - Hampton Hwy     - 30,801     32,291     33,648     - 29,000     28,000     31,000     -       171     Victory Blvd     SR 134 - Hampton Hwy     Rte 600 - Big Bethel Rd     - 20,450     19,853     20,304     - 19,000     17,000     19,000     -       171     Victory Blvd     Rte 600 - Big Bethel Rd     Poquoson CL     18,575     22,254     20,895     21,568     18,000     21,000     18,000     20,000     +2,000       713     Waller Mill Rd     US 60 - Bypass Rd     Rte 643 - Caran Rd     5,801     5,174     4,572     4,634     5,400     4,700     4,000     4,300     -1,100		162	Second St	Williamsburg CL	SR 143 - Merrimac Trail	17,976	16,042	15,207	15,123	17,000	19,000	21,000	23,000	+6,000	+35.3%
171     Victory Blvd     US 17 - George Washington Hwy     SR 134 - Hampton Hwy     - 30,801     32,291     33,648     - 29,000     28,000     31,000     -       171     Victory Blvd     SR 134 - Hampton Hwy     Rte 600 - Big Bethel Rd     - 20,450     19,853     20,304     - 19,000     17,000     19,000     -       171     Victory Blvd     Rte 600 - Big Bethel Rd     Poquoson CL     18,575     22,254     20,895     21,568     18,000     21,000     18,000     20,000     +2,000       713     Waller Mill Rd     US 60 - Bypass Rd     Rte 643 - Caran Rd     5,801     5,174     4,572     4,634     5,400     4,700     4,000     4,300     -1,100				Ü											+16.7%
171     Victory Blvd     SR 134 - Hampton Hwy     Rte 600 - Big Bethel Rd     -     20,450     19,853     20,304     -     19,000     17,000     19,000       171     Victory Blvd     Rte 600 - Big Bethel Rd     Poquoson CL     18,575     22,254     20,895     21,568     18,000     21,000     18,000     20,000     +2,000       713     Waller Mill Rd     US 60 - Bypass Rd     Rte 643 - Caran Rd     5,801     5,174     4,572     4,634     5,400     4,700     4,000     4,300     -1,100									,				. ,		-
171 Victory Blvd Rte 600 - Big Bethel Rd Poquoson CL 18,575 22,254 20,895 21,568 18,000 21,000 18,000 20,000 +2,000 713 Waller Mill Rd US 60 - Bypass Rd Rte 643 - Caran Rd 5,801 5,174 4,572 4,634 5,400 4,700 4,000 4,300 -1,100					. ,										
713 Waller Mill Rd US 60 - Bypass Rd Rte 643 - Caran Rd 5,801 5,174 4,572 4,634 5,400 4,700 4,000 4,300 -1,100				• '									,		+11.1%
		713													-20.4%
				**		,			., .				.,		-
630 Wolf Trap Rd US 17 - George Washington Hwy SR 173 - Goodwin Neck Rd 6,483 7,703 8,740 8,219 6,100 6,700 7,700 7,500 +1,400		630	Wolf Trap Rd	US 17 - George Washington Hwy	SR 173 - Goodwin Neck Rd	6,483	7,703	8,740	8,219	6,100	6,700	7,700	7,500	+1,400	+23.0%

Table 3 (Continued) – Weekday and Annual Average Daily Traffic Volumes, 2001 to 2010 Data sources: VDOT, James City County. Vindicates data is not available for that roadway segment and year. 'X' indicates that roadway segment did not exist at that time.





VDOT produces estimates of vehiclemiles of travel based on these traffic counts and AADT estimates. **Table 4** shows the daily average vehicle-miles of travel in the study area in those years between 2001 and 2010 that VDOT collected traffic count data. Both James City County (24.9%) and York County (22.3%) experienced increases in roadway

travel between 2001 and 2010 that were much higher than the regional growth of 11.7%. The City of Williamsburg, however, experienced a 6.7% growth in vehicle-miles of travel between 2001 and 2010, well below the Hampton Roads average.

Between 2001 and 2010, the population growth outpaced travel growth in James City County (33% population growth) and Williamsburg (13%), but did not outpace travel growth in York County (13%). In spite of this increase in roadway travel, roadway congestion levels have not increased significantly in the study area, as shown in the next section.

## Roadway Congestion

The roadway congestion analysis performed for this study is based on the same procedure used in the HRTPO Congestion Management Process (CMP). Congestion levels for each roadway segment were determined using a measure called Level of Service (LOS). Level of Service is categorized on a scale from LOS A through LOS F, with LOS A representing the best operating conditions and LOS F representing the most congested conditions

	2001	2004	2007	2010	Growth, 2001 to 2010
James City County	1,438,900	1,529,800	1,704,200	1,797,700	24.9%
Williamsburg	248,900	253,900	250,300	265,500	6.7%
York County	1,769,800	1,996,300	2,037,900	2,165,000	22.3%

Table 4 – Daily Vehicle-Miles of Travel, 2001 to 2010 Data source: VDOT.

(**Figure 2**). Levels of Service A through D are considered to be acceptable operating conditions, while Levels of Service E and F are considered unacceptable due to severe congestion.

Peak hour congestion levels were calculated using weekday traffic volume data collected by VDOT in 2010. The LOSPLAN software package<sup>1</sup> produced by the Florida Department of Transportation was used to calculate congestion levels. The LOSPLAN software uses methods to calculate Levels of Service based on the Highway Capacity Manual<sup>2</sup>, and takes account various roadway and characteristics. Congestion levels for each roadway segment were determined for the hour (defined as four consecutive 15-minute periods) with the highest traffic volume between 3 pm and 7 pm. This hour is referred to in this report as the PM peak hour.

Map 3 on page 10 shows the current congestion levels during the PM peak hour on major roadways throughout James City County, Williamsburg, and York County. These major roadways are part of the regional Congestion Management Process roadway network, which includes all roadways classified as minor arterials and above and selected collectors.

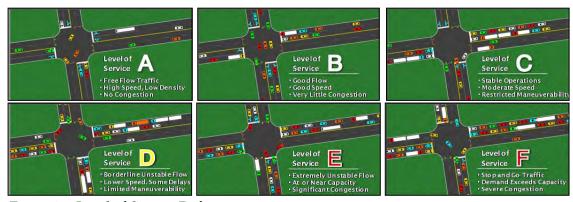


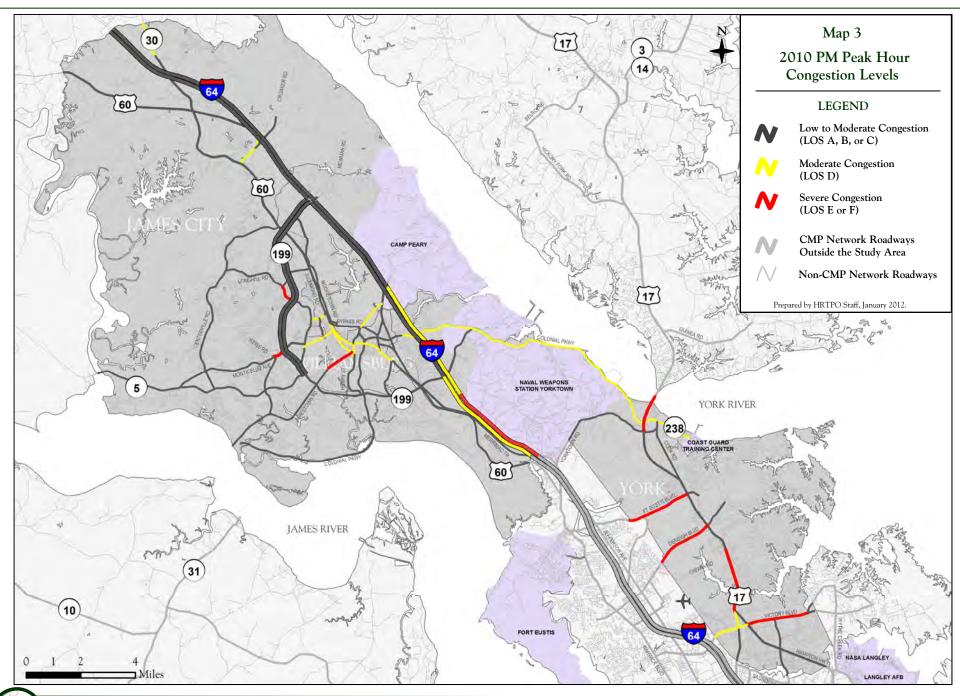
Figure 2 – Level of Service Definitions
Source: HRTPO Congestion Management Process report.





 $<sup>^1\,</sup>$  LOSPLAN Software, Florida Department of Transportation, 2009. Information on LOSPLAN Software is available at http://www.dot.state.fl.us/planning/systems/sm/los.

<sup>&</sup>lt;sup>2</sup> Highway Capacity Manual, Transportation Research Board, 2000.





**Appendix** C includes congestion maps for each jurisdiction, and the existing LOS for each roadway segment is also included in **Table 8** on page 28.

There are eleven roadway segments in the study area that are currently operating at severely congested levels (LOS E or F) during the PM peak hour (**Table 5**). Most of these roadway segments are in York County, including portions of I-64, Denbigh Boulevard, Fort Eustis Boulevard, George Washington Memorial Highway, and Victory Boulevard. Portions of I-64, Longhill Road, and Monticello Avenue in James City County are currently severely congested during the PM peak hour, as is a portion of Jamestown Road in the city of Williamsburg.

These eleven severely congested roadway segments comprise a total of 15.6 centerline miles, or 39.2 lane-miles<sup>3</sup> of roadway. percentage terms, 7% of the CMP roadway network lane-miles in the study area are currently experiencing severe congestion (LOS E or F) during the PM peak hour (Figure 3), with another 13% experiencing moderate congestion (LOS D). On a jurisdictional level, York County has the highest percentage of severely congested lane miles at 12% of its CMP roadway network. James City County and Williamsburg have a much lower level of congestion, with only 3% of their CMP roadway networks currently being congested.

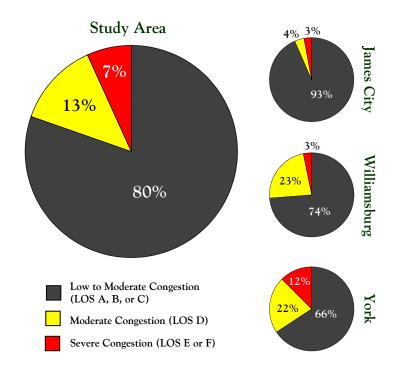


Figure 3 – 2010 PM Peak Hour Congestion by Lane-Mile, CMP Roadway Network
Source: HRTPO.

The study area has less congestion than the region as a whole. 12% of the CMP roadway network lanemiles in Hampton Roads are currently experiencing severe congestion (LOS E or F) during the PM peak hour, with another 20% experiencing moderate congestion (LOS D).

JURISDICTION	FACILITY	FROM/TO	NUMBER OF LANES	LENGTH (MILES)
James City	I-64 Westbound	Newport News CL to York CL	2	2.38
James City	Longhill Rd	Olde Towne Rd to Route 199	2	0.66
James City	Monticello Ave	News Rd to Route 199	4	0.57
Williamsburg	Jamestown Rd	College Creek to Boundary St	2	0.92
York	Denbigh Blvd	Newport News CL to George Washington Hwy	2	2.18
York	Fort Eustis Blvd	Newport News CL to George Washington Hwy	2*	2.36
York	George Washington Hwy	Hampton Hwy to Dare Rd	4	2.37
York	George Washington Hwy	Goosley Rd to Gloucester CL (Coleman Bridge)	4	1.06
York	I-64 Westbound	James City CL to Grove Connector	2	0.85
York	Victory Blvd	Hampton Hwy to Big Bethel Rd	2	1.02
York	Victory Blvd	Big Bethel Rd to Carys Chapel Rd	2	1.25

Table 5 – 2010 Congested Roadway Segments

Source: HRTPO.
\* - Fort Eustis Boulevard is currently being widened to four lanes.

 $<sup>^3</sup>$  A lane-mile is defined as the length of a roadway segment multiplied by the number of lanes. A one-mile long, four-lane wide roadway segment would comprise four lane-miles.





## **PUBLIC TRANSPORTATION**

This section includes details on the public transportation services that are currently provided throughout the study area, as well as the Park and Ride lots that are owned by the Virginia Department of Transportation.

#### **Transit**

Transit services in James City County, Williamsburg, northern York and County are provided by the Williamsburg Area Transit Authority (WATA). These services, which are provided under the brand Williamsburg Area Transport, are geared

towards residents, William & Mary students, and tourists. Approximately 1% of residents in the study area use public transportation to commute to work according to the Census Bureau<sup>4</sup>, which is below the Hampton Roads average of 1.6%.

Year round, WATA operates eight bus routes, ondemand paratransit service, the Surry County Connection, and the Williamsburg Trolley, which provides service to the Merchants Square, High Street, and New Town activity centers (more information on the Williamsburg Trolley is included on page 39). WATA also provides bus service for the Colonial Williamsburg Foundation, which services Historic Triangle tourist destinations. From April through October, WATA also operates the Jamestown Area Shuttle and collaborates with York County in the operation of the Yorktown Trolley. The locations of WATA's routes are shown on Figure 5 on page 13.

WATA also provides connections to the Hampton Roads Transit (HRT) system at two locations. HRT Route 121 runs from the Newport News Transportation Center and Patrick Henry Mall to the Williamsburg Transportation Center. HRT Route 116, which ends at Patrick Henry Mall, connects to WATA's Gray Line at Lee Hall in Newport News.

Figure 4 – WATA Ridership, 2006-2010

Data Sources: WATA, American Public Transportation Association.

An unlinked trip is a passenger trip made on one transit vehicle. If a passenger boards two buses to get from origin to destination, that is considered to be two unlinked trips.



WATA Bus

Transfers can be made from the Newport News Transportation Center and Patrick Henry Mall to the rest of the HRT's system.

In 2010, 2,843,000 trips were served on WATA's system (**Figure 4**). The total number of trips on the WATA system increased between 2006 (when WATA began reporting on Historic Triangle transportation services) and 2007, but decreased in 2008 and 2009 before increasing slightly in 2010.

Intercity bus service is also provided in the study area, with Greyhound service available at the Williamsburg Transportation Center. Greyhound provides two buses that travel from Williamsburg toward Richmond and Norfolk each day.

<sup>&</sup>lt;sup>4</sup> 2005-2009 American Community Survey 5-Yaer Estimates, US Census Bureau.





<sup>3,500,000</sup> 3,000,000 2,500,000 1,500,000 500,000 2006 2007 2008 2009 2010



Figure 5 – Williamsburg Area Transit Authority Route Map Source: WATA. The Surry County Connection route is not shown on this map.





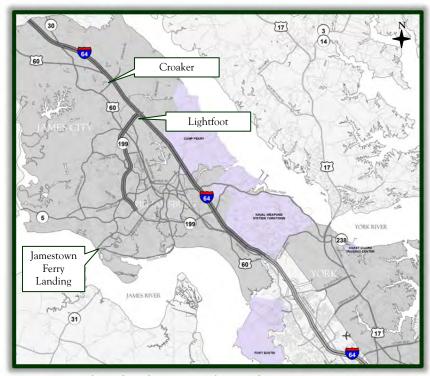
#### Park and Ride Lots

A number of residents in the study area use carpooling to travel to work. According to the Census Bureau, 5,700 residents in the study area carpooled to work on a regular basis in 2005-2009. This percentage (8.7%) is slightly below the regional carpooling average of 9.9%. The TRAFFIX program, which is funded by HRTPO and operated by Hampton Roads Transit, conducts various efforts to increase the use of transportation alternatives such as carpools, rideshares, and public transit throughout the region and study area.

In order to assist with carpooling and ridesharing efforts, VDOT maintains Park and Ride lots throughout the state, including three lots in the study area (**Map 4**). These Park and Ride lots in the study area include:

- Lightfoot This lot is located on East
   Rochambeau Drive just to the south of
   the interchange of I-64 and Route 199.
   The unpaved Lightfoot Lot has space available
   for 76 vehicles.
- Croaker The Croaker Lot is located at the corner of Rochambeau Drive and Croaker Road just to the west of I-64. This unpaved lot has space for 75 vehicles.
- Jamestown Ferry Landing This lot is located on Jamestown Road at the Jamestown Settlement, just to the north of the Jamestown-Scotland Ferry. This paved lot has 132 spaces.

VDOT is currently conducting a study of Park and Ride lots statewide. This study will update VDOT's



Map 4 – Park and Ride Lots in the Study Area Data Sources: VDOT, TRAFFIX.

inventory and usage of Park and Ride lots, identify recommendations for new or expanded Park and Ride lots, update VDOT's website to include an interactive map of official lots, develop VDOT's Park and Ride program polices and goals, and assist VDOT in coordinating its Park and Ride lot program with other state and local agencies and the public. This study is expected to be completed in December 2012.







Croaker Lot

Jamestown Ferry Landing Lot



## INTERCITY PASSENGER RAIL

Amtrak provides intercity passenger rail service through the study area along the CSX Railway corridor. This service is part of the Northeast Regional route, which operates between Boston and Newport News. There is one station in the study area, at the Williamsburg Transportation Center on North Boundary Street in Downtown Williamsburg.

As of June 2011, there are two daily northbound trains passing through the Williamsburg station. One leaves Williamsburg in the morning (reaching Washington, D.C. mid-day and Boston by late evening) and one leaves in the afternoon (reaching Washington, D.C. in the evening and Boston the next morning). There are also two daily southbound trains, one which leaves Boston in the evening, passes through Washington, D.C. in the morning and arrives in Williamsburg mid-day another which leaves Boston in the morning, passes through Washington, D.C. in the afternoon, and arrives in Williamsburg in the evening. On Fridays, there is a third southbound train that arrives in Williamsburg in the evening.

Intercity rail passenger activity is counted via boardings and alightings – the number of people getting on and off of the train at each station. In 2010, there were 47,176 boardings and alightings at the Williamsburg Amtrak Station (**Figure 6**). This number of passengers at the Williamsburg station has decreased slightly since peaking in 2008, but is still above the passenger levels seen from 2002 to 2007.

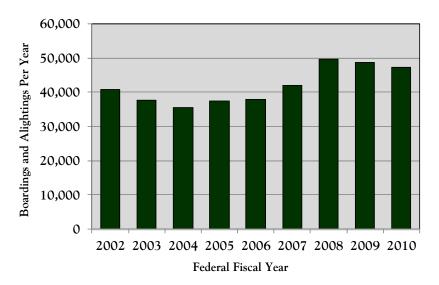


Figure 6 - Amtrak Passenger Activity in Williamsburg, 2002-2010

Data source: Amtrak. Based on Federal Fiscal Years, which run from October 1 - September 30.



Williamsburg Transportation Center





## BICYCLE AND PEDESTRIAN FACILITIES

Bicycling and walking are popular in the study area, not only for recreation but also as an important means of transportation. Approximately 5% of residents in the study area walk or use their bicycle to commute to work according to the Census Bureau, which is more than one and a half times the Hampton Roads regional average. As shown in **Figure 7**, this percentage of residents walking or biking to work is much higher in the City of Williamsburg (26%) than it is in James City County (1%) and York County (5%).

Williamsburg, James City County, and York County joined together in 1993 to take a regional approach to bikeway planning. Together, the three localities developed the *Regional Bicycle Facilities Plan*. This plan was created to encourage the development of a coordinated, comprehensive system of integrated bikeways in the three localities. The benefits of such an integrated bikeway system were expected to be energy conservation, reduced pollution, traffic reduction, improved quality of life, and increased appeal as a tourist destination.

An update to the original plan was completed in 1998. This update included recreational and off-road facilities in addition to the transportation-oriented facilities that were included in the original plan. The updated *Regional Bicycle Facilities Plan* is available on York County's website at <a href="http://www.yorkcounty.gov/Default.aspx?tabid=1720">http://www.yorkcounty.gov/Default.aspx?tabid=1720</a>.

As part of this effort to improve regional bikeway planning, the three localities formed the Historic Triangle Bicycle Advisory Committee (HTBAC). The HTBAC, which meets on a quarterly basis, is comprised of citizen appointees and staff from Williamsburg, James City County, and York County, as well as staff from the National Park Service, the Colonial Williamsburg Foundation, and the College of William and Mary. The HTBAC is responsible for recommending bikeway projects for implementation in accordance with the Regional Bicycle Facilities Plan; recommending amendments to the plan; and promotional, developing and implementing informational, and safety initiatives related to bicycling.

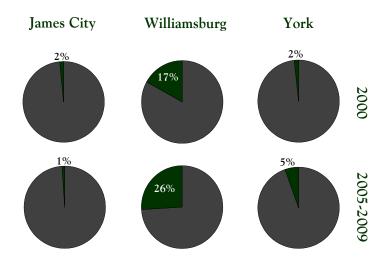


Figure 7 - Percentage of Residents Bicycling or Walking to Commute to Work, 2000 and 2005-2009

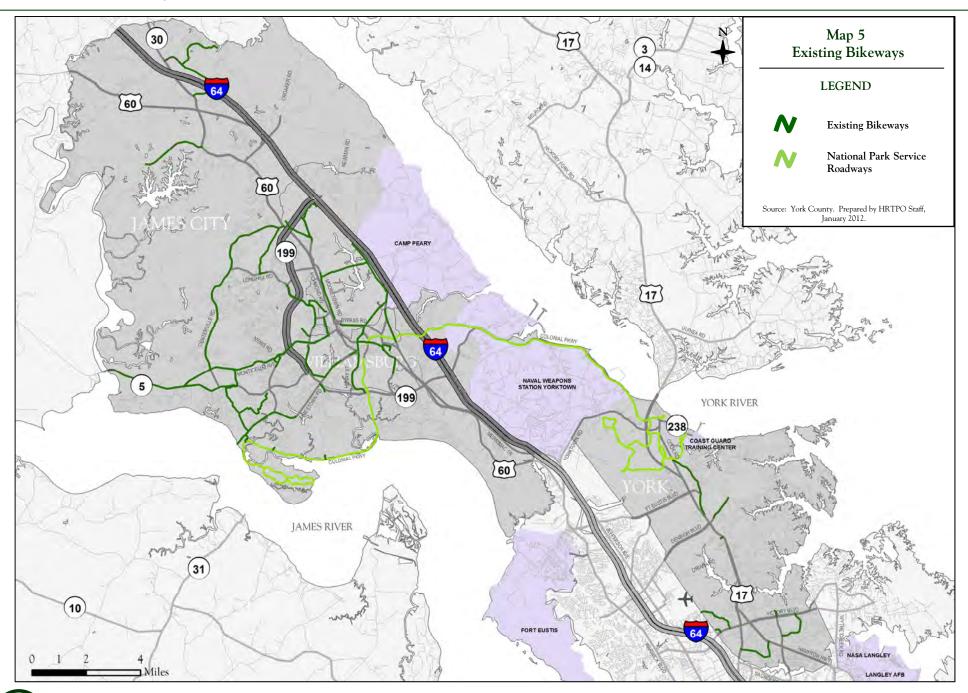
Data source: US Census Bureau.

The three localities also collaborate to produce a Regional Bikeway Plan Map. This map includes existing facilities, proposed bike lanes and facilities, and conceptual locations for future bike paths. **Map** 5 on page 17 shows the existing bikeways based on the Regional Bikeway Plan Map. These existing bikeways include:

- Multi-Use Paths Facilities that are physically separated from the roadway and prohibited for use by motorized traffic.
- Bike Lanes Roadways that can accommodate bicyclists. These facilities include bike lanes within the roadway that are delineated for bicycle use only. This also includes paved shoulders and wide outside lanes that provide enough space to accommodate bicyclists along with motorized traffic in cases where constraints don't allow for a delineated lane.
- Shared Roadways Roadways that are signed as a bicycle route but do not have a portion of the roadway that is either reserved exclusively for bicyclists or can accommodate bicyclists and motorized traffic simultaneously.

There are 69 miles of existing bikeway facilities in the three jurisdictions, plus 40 additional miles of shared roadway facilities on roads maintained by the National Park Service (NPS). This includes the Colonial Parkway, Jamestown Island Tour Road,







and Yorktown Battlefield Tour Road, and all are heavily used by bicyclists.

A number of high profile bicycle facilities are located in the study area. The Virginia Capital Trail, when completed, will connect Williamsburg and Downtown Richmond via the Colonial Parkway and 54-miles of multi-use path. The eight miles of multi-use path within James City County are complete, running from the Chickahominy Bridge parallel to Route 5 and Greensprings Road to the Jamestown Settlement. Seventeen miles of the Virginia Capital Trail are currently complete, with the remainder of the trail expected to be completed by 2014 according to VDOT.

Virginia Bicycle Route 76 also spans the study area. This route is part of both U.S. Bicycle Route 76, which runs from Illinois to Virginia, and the TransAmerica Bike Route, which connects Oregon with Virginia. Virginia Bicycle Route 76 follows the Virginia Capital Trail and the Colonial Parkway before reaching its terminus at Yorktown.

Bikeway projects completed throughout the study area in recent years are included in **Table 6**. More information on proposed and conceptual bicycle facilities is included in the Future Analysis - Bicycle and Pedestrian Facilities section of this report.

In addition to bikeways, all three localities have a network of sidewalks that accommodate pedestrian activity. The pedestrian facility network is robust in high pedestrian traffic destinations such as Colonial Williamsburg, the College of William and Mary, New Town, and Yorktown Village. In many other portions of the study area, however, there is an incomplete or nonexisting network.



New Town

Each of the three localities has taken steps to address the gaps in their sidewalk networks. James City County created a Sidewalk Master Plan in 1989, amended the plan in 1998, and updated it with a Pedestrian Accommodation Plan in 2011. James City County also provided for the design of "Complete Streets" in its 2009 Comprehensive Plan, which are roadways that are not only designed for motor vehicle use but are designed for pedestrians, bicyclists, and transit as well. Williamsburg has removed many gaps in its sidewalk system, and created a map of needed sidewalk improvements that is included in its 2006 Comprehensive Plan. York County created the York County Sidewalk <u>Plan</u> in 1995, which provided the vision for 33 miles of additional sidewalks that would enable people to walk safely to nearby activity centers such as schools, parks, churches, libraries, and shopping areas.

These gaps in the pedestrian facility network are described further in the Future Analysis - Bicycle and Pedestrian Facilities section of this report.

Juris- diction	UPC	Project	Construction Completed	Cost
JCC	17632	Bikeway - Colonial Pkwy Connections at Neck-O-Land Rd and Treasure Island Rd	August 2001	\$84,000
JCC	18087	Shoulder Bike Path - Strawberry Plains Rd from Route 5 to Ironbound Rd	October 2001	\$230,000
JCC	57364	Bikeway - Centerville Rd from North of Jolly Pond Rd to Longhill Rd	April 2003	\$206,000
JCC	54759	Multi-Use Path - Greensprings Trail	November 2006	\$3,575,000
JCC	55051	Virginia Capital Trail - East of Chickahominy Bridge to Greensprings Trail	May 2007	\$4,659,000
WMB	-	Shoulder Bike Lanes - Jamestown Road from John Tyler Lane to Ukrop Way	2002	\$5,496
WMB	-	Shoulder Bike Lanes - Longhill Road	2008	\$3,607
WMB	-	Shoulder Bike Lanes - Penniman Road	2005	\$3,949
WMB	-	Shoulder Bike Lanes - Route 132 from the CSX Railroad to Bypass Road	2006	\$5,328
YC	17635	Goodwin Neck Rd Bike Lanes	May 2001	\$395,000

Table 6 – Bikeway Projects Completed Since 2001
Compiled from various sources.



## AIR TRAVEL

Three commercial service airports are located within 50 miles of Williamsburg. Newport News-Williamsburg International Airport (airport code PHF) is located in the study area, and Norfolk International (ORF) Richmond International (RIC) are also used by the study area's residents and travelers. Corporate aviation service is provided at Williamsburg Jamestown Airport (JGG), as well as at the three commercial airports. Finally, there are military airport and heliport facilities located at Camp Peary and the Yorktown Naval Weapons Station in York County.

## Newport News - Williamsburg International Airport

The Newport News-Williamsburg International Airport is located on the border of Newport News and York County. The airport, which is owned and operated by the Peninsula Airport Commission, is currently served by four commercial airlines - AirTran Airways, Delta Air Lines, Frontier Airlines, and US Airways. These airlines provide non-stop service to Atlanta, Boston, Charlotte, Denver, New York City, Orlando, and Philadelphia.

A number of improvements have been completed at Newport News-Williamsburg International Airport in recent years. A new air traffic control tower and parking garage were constructed in 2007, and a new concourse (Concourse A) was opened in 2010. Renovations have also been recently completed throughout the airport, including the Atrium and Concourse B.

Passenger activity at the Newport News-Williamsburg International Airport has more than tripled over the past 20 years, as shown in **Figure 8**. The majority of this growth occurred between 2001 and 2005, as Airtran Airways introduced new and more frequent service. Since 2005, passenger activity at the Newport News-Williamsburg International



Newport News-Williamsburg International Airport

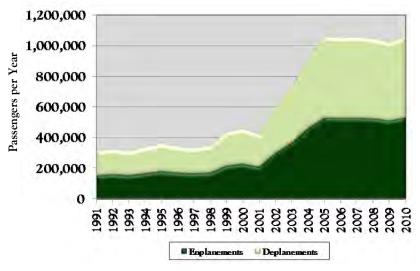


Figure 8 - Newport News-Williamsburg International Airport Passenger Activity, 1991-2010

Data sources: FAA, Newport News-Williamsburg International Airport.



Airport has only increased by 0.4%, due in part to higher airfares and the condition of the economy.

Service and passenger activity will be reduced at Newport News-Williamsburg International Airport in 2012 with Airtran discontinuing service in March. This is addressed further in the Future Conditions - Air Travel section of this report.

## Norfolk and Richmond International Airports

Due to their proximity and service levels, many of the study area's residents and travelers use Norfolk International and Richmond International Airports. Norfolk International Airport is served by six commercial airlines, and is the only one of the three commercial service airports currently served by Southwest Airlines. Richmond International Airport is served by nine commercial airlines, with exclusive service from JetBlue Airways, Vision Airlines, and Air Canada among the three airports.

Both Norfolk International and Richmond International Airport had about 1.7 million enplanements (or 3.4 million passengers) in 2010, which is more than three times the passenger level handled Newport News-Williamsburg International Airport (Figure 9). Unlike Newport International News-Williamsburg Airport, however. both Richmond Norfolk International Airports have seen a decrease in passenger levels since the start of the economic downturn in 2007.

## Williamsburg Jamestown Airport

The Williamsburg Jamestown Airport is a small, privately owned and operated general aviation facility located off of Lake Powell Road in James City County. The airport serves small private planes used for recreational and business travel, with no scheduled commercial passenger service available. The facility also serves as the base for a flight school. As of 2009, there were 77 aircraft based at the airport, with approximately 22,000 takeoffs and landings occurring annually.

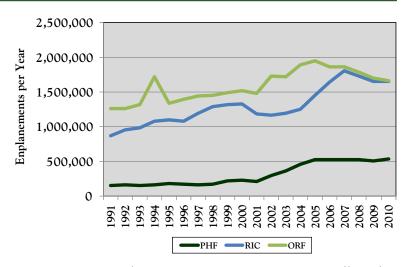


Figure 9 - Enplanements at Newport News-Williamsburg, Richmond, and Norfolk International Airports, 1991-2010

Data source: FAA.



Williamsburg Jamestown Airport

In 2009, the FAA, Virginia Department of Aviation, and James City County authorized and funded a study<sup>5</sup> to "determine the demand for aviation services and the alternatives available to serve this demand in the James City County area". This study was initiated because the existing owners indicated a desire to sell the airport property. There were discussions about the county buying and operating the airport. At the conclusion of the study, James City County decided not to pursue the purchase of the airport. At this time, the airport is still operating under the ownership of the original owners.





<sup>&</sup>lt;sup>5</sup> Airport Feasibility Study, L. Robert Kimball & Associates, Inc., May 2009.

## **FUTURE CONDITIONS**

This chapter looks at the future conditions on the transportation network in the study area, both in the near and long term. Similar to the Current Conditions chapter, this chapter is divided into five sections based on transportation mode. These sections include:

- Highway Includes a description of planned and programmed roadway improvements, projected traffic volume data for the year 2034, an analysis of the projected 2034 peak hour roadway congestion and how it compares to existing congestion levels, and a description of unfunded roadway projects in the study area.
- Public Transportation Includes a description of transit service improvements included in WATA's Transit Development Plan and the regional Transit Vision Plan.
- Intercity Passenger Rail Includes a description of the Virginia Department of Rail and Public Transportation's planned intercity rail improvements.
- Bicycle & Pedestrian Includes a description of needs in the bicycle and pedestrian network, particularly those gaps in the existing bikeway network.
- Air Travel Includes general information and future plans for the commercial service and general aviation airports used by the study area's residents and tourists.

## **HIGHWAY**

Programmed Roadway Projects

Programmed roadway improvement projects in Hampton Roads are included in two documents, the Six-Year Improvement Program (SYIP) and the Transportation Improvement Program (TIP).

The Six-Year Improvement Program<sup>6</sup> is a statewide document through which the Virginia Commonwealth Transportation Board (CTB)

included in the SYIP not only encompass major projects new roadway such as construction and widening existing facilities but also smaller projects such adding traffic signals, paving shoulders, and adding or extending intersection turn bays.



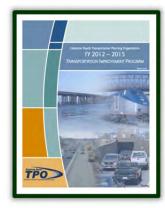
Per its name, the Six-Year

Improvement Program includes information on funding allocations for each project over the course of the upcoming six state fiscal years. The SYIP also includes dates for the expected initiation of preliminary engineering design, right-of-way acquisition, and construction phases of each project. The SYIP is developed annually by VDOT and the CTB and is occasionally revised within fiscal years if funding projections are significantly updated.

In addition to the SYIP, the Hampton Roads Transportation Improvement Program<sup>7</sup> is also a multi-year document detailing the implementation of transportation projects. The TIP is a federally-mandated, regional document that identifies the programming of transportation funds over a four-year period. It lists all projects for which federal funds are anticipated, along with non-federally funded projects that are determined to be regionally significant.

The TIP must be a financially constrained document,

which means that the amount of funding programmed in the TIP cannot exceed the expected amount of available funding. Before any federallyfunded and/or regionally significant surface transportation project can be built, it must be included in the most recent TIP approved by the HRTPO board. The TIP







allocates funds for the construction, development, or study of transportation projects. The projects

<sup>&</sup>lt;sup>6</sup> FY 2012-2017 Six-Year Improvement Program, Commonwealth Transportation Board, June 2011.

Hampton Roads Transportation Improvement Program FY 2012-2015, HRTPO, June 2011, with amendments through November 2011.

must also be consistent with the current Long-Range Transportation Plan, which is described further in the next section.

The Hampton Roads TIP may be revised as needed in order to add new projects, delete projects, and update or change project information. Not only roadway projects are included in the TIP; transit, bicycle and pedestrian, enhancement, and freight-related projects are included as well. Although the TIP (which is a federally mandated, regional document that covers a 4-year time horizon) and the SYIP (which is a statewide document that covers a 6-year time horizon) are different documents, most of the projects included in the TIP are also included in the SYIP and vice-versa.

Both the TIP and SYIP are prepared with the assistance of many stakeholders, including transportation engineers and planners from each city and county, VDOT staff, local transit officials, and the public. This is done through various mechanisms such as HRTPO's Transportation Technical Advisory Committee (TTAC) and other regional subcommittees; consultation between local, regional, and state officials; public meetings and workshops; and public comment periods.

Projects and studies that are included in the SYIP and/or TIP and located within the study area are shown in **Table 7** on page 23. Each project's projected construction start date, estimated cost, and allocated funding levels are also included. This list includes those projects that improve roadway capacity or safety, such as new roadways, roadway widenings, traffic signals, turn lanes, shoulders, and rail crossing improvements. Projects involving only the reconstruction of an existing roadway, such as repaving or drainage improvements, are not shown, nor are projects that do not have a site-specific location. The location of each of these projects is shown on **Map 6** on page 24.

A total of 31 roadway projects or studies in James City County, Williamsburg, and York County are included in the current SYIP or TIP as described above. Combined, these projects account for a total of \$136 million of allocated funding. Most of these projects are of the smaller variety, such as intersection improvements and new traffic signals.



Fort Eustis Boulevard Construction

Only three of these projects are major roadway widenings that are fully funded for construction. These are the Ironbound Road and Fort Eustis Boulevard widening projects that are currently under construction and a section of George Washington Memorial Highway (Route 17) in York County.

In addition to these 31 projects, there are additional roadway projects and studies that have funds allocated in the SYIP/TIP. These projects are not shown, however, since they are not likely to be completed for various reasons. Examples of these projects include the Route 60 Relocation project, Route 60/143 Connector Study, and paved shoulders on Ironbound Road and Longhill Road. Funds that are currently allocated to these projects (\$6.6 million) will likely be transferred to other projects.

## Roadway Projects Programmed for Construction

Juris- diction	UPC	Project	Projected Construction Start	Estimated Cost	Allocated Funding in SYIP/TIP
JCC	82961	Add Turn Lanes - Monticello Ave at Ironbound Rd	2014	\$2,424,000	\$2,424,000
JCC	98823	Bridge Replacement - Route 601 over Diascund Creek	2018	\$726,000	\$726,000
JCC	60512	Improve Curve - Olde Towne Rd	*	\$2,648,000	\$1,523,000
JCC	97010	Intersection Improvements - Richmond Rd at Airport Rd	2014	\$458,000	\$458,000
JCC	*	Intersection Improvements - Route 199 at Brookwood Drive	*	\$275,000	\$275,000
JCC	*	Intersection Improvements - Route 199 Ramp at Richmond Road	-	\$455,000	\$455,000
JCC	98279	Signal Upgrade and Install Median Barrier - Longhill Rd at Olde Towne Rd	2012	\$401,000	\$401,000
JCC	101271	Turn Lane Improvements - Richmond Rd at Centerville Rd/Lightfoot Rd	2012	\$1,000,000	\$1,000,000
JCC	98435	Upgrade Signal - Route 199 at John Tyler Hwy	Underway	\$240,000	\$350,000
JCC/WMB	50057	Widening Ironbound Rd from 2 to 4 Lanes - Strawberry Plains Rd to Longhill Connector Rd	Underway	\$14,079,000	\$14,079,000
WMB	100408	Improve Rail Crossing - Henry St	2012	\$75,000	\$75,000
WMB	84905	Install Traffic Signal - Richmond Road at Waltz Farm Drive		\$260,000	\$260,000 <sup>1</sup>
WMB	84906	Install Traffic Signal - Second St at Parkway Dr		\$266,000	\$40,000 <sup>1</sup>
WMB	84908	Install Traffic Signal - York St at Quarterpath Rd	*	\$216,000	\$200,000 <sup>1</sup>
WMB	89062	Widening Ironbound Rd from 2 to 3 Lanes - Longhill Connector Rd to Richmond Rd $$	*	\$3,500,000	. 2
YC	13714	Construct Turn Lanes - Lakeside Dr between Route 17 and South of Dare Rd	2012	\$6,785,000	\$6,716,000
YC	97019	Improve Rail Crossing - Wolf Trap Rd South of Hornsbyville Rd	2012	\$18,000	\$50,000
YC	98247	Intersection Improvements - Dogwood Rd at Old Williamsburg Rd	2012	\$56,000	\$63,000
YC	95423	Intersection Improvements - East Rochambeau Dr at Airport Rd	2014	\$518,000	\$514,000
YC	83512	Intersection Improvements - Route 17 at Oriana Rd/Lakeside Dr		\$3,000,000	\$800,000
YC	98098	Lengthen Ramp and Weave Section on I-64 WB at Route 199	2015	\$2,677,000	\$2,610,000
YC	101276	Paved Shoulder - Cook Rd	2013	\$360,000	\$360,000
YC	92992	Widening Fort Eustis Blvd from 2 to 4 Lanes - Newport News CL to Route 17	Underway	\$23,644,000	\$22,717,000
YC	60843	Widening Route 17 from 4 to 6 Lanes - Hampton Hwy to Wolf Trap Rd	2013	\$60,376,000	\$60,376,000

## Roadway Projects Programmed for Preliminary Engineering or Right Of Way Acquisition Only

Juris- diction	UPC	Project	Projected Construction Start	Estimated Cost	Allocated Funding in SYIP/TIP
JCC	100200	New Roadway - Skiffes Creek Connector		\$35,000,000	\$10,000,000
JCC	*	Paved Shoulder - Route 60 Corridor		\$6,100,000	\$800,000
JCC	100920 & 17633	Widening Croaker Rd from 2 to 4 Lanes - Richmond Rd to Library (includes multi-use path)	-	\$11,950,000	\$3,374,000
JCC	100921	Widening Longhill Rd from 2 to 4 Lanes - Route 199 to Olde Towne Rd		\$11,800,000	\$1,272,000

## **Programmed Studies**

Juris- diction	UPC	Study	Estimated Cost	Allocated Funding in SYIP/TIP
JCC	98810	Mooretown Rd Extension	\$400,000	\$400,000
JCC	98811	Longhill Rd Corridor	\$300,000	\$500,000
Multi	92212	I-64 Corridor - Richmond to Hampton	\$3,000,000	\$3,000,000

## Table 7 - Roadway Projects and Studies Included in the Six-Year Improvement Program or Transportation Improvement Program

Data sources: VDOT, HRTPO. Based on data collected from the SYIP and TIP as of December 2011. UPC is the Universal Project Code number. Does not include any projects where initial funding is not allocated until after FY 2017.

<sup>-</sup> Multiansburg officials have requested transferring these funds to UPC #89062, Widening Ironbound Road.

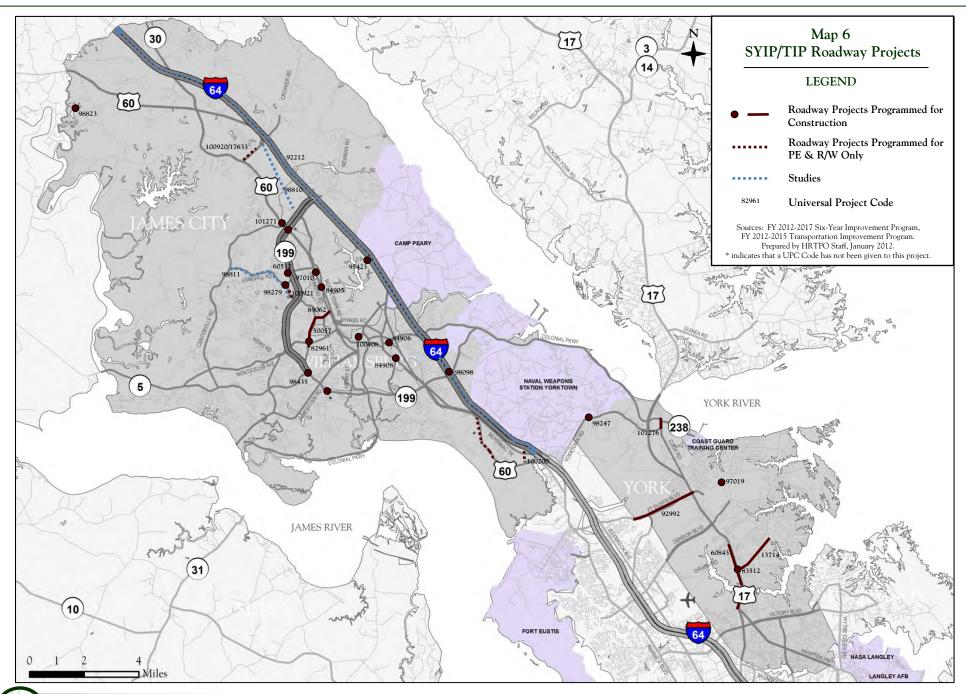
2 - Williamsburg officials have requested transfer of \$500,000 in Urban funds to this project from UPC #84905, #84906 and #84908, Traffic Signal Installation projects.





<sup>\*</sup> indicates that no UPC code has been given.

Future Conditions - Highway 24





# Long Range Planning

The Hampton Roads Transportation Planning Organization is responsible for producing the regional Long-Range Transportation Plan (LRTP). The purpose of the LRTP is to guide investments to projects designed to meet the transportation goals of the HRTPO, which are mobility, safety, economic vitality, and environmental protection.

The LRTP contains a list of transportation projects that are expected to be constructed based on the anticipated funding during the time horizon. These cover several modes of transportation; however, only roadway projects that add capacity to the regional roadway network and fixed-guideway transit projects (which are those that use exclusive right-of-way such as trains) are typically individually identified in the plan. Smaller projects, such as traffic signals and turn bays, are not typically individually identified in the LRTP. This differs from the SYIP and TIP described in the previous section, which include all of these types of projects.

The LRTP is updated on a quadrennial cycle per federal regulations and encompasses a minimum of a 20-year time horizon, much longer than the 6-year time horizon of the SYIP and the 4-year time horizon of the TIP. Many stakeholders are involved in the preparation of the LRTP including transportation engineers and planners from each city and county, VDOT, local transit officials, and the public.

The 2034 Hampton Roads Long-Range Transportation Plan<sup>8</sup> was approved by the HRTPO Board at its January 2012 meeting. A project prioritization process was utilized for the first time to develop this plan. This prioritization process ranked candidate projects by type based on each project's utility in terms of capacity and operational effectiveness; viability in terms of progress in design, funding, and permitting; and economic vitality in terms of its potential to stimulate economic growth.

# 2034 LRTP Projects

Projects included in the 2034 Hampton Roads Long-Range Transportation Plan were chosen based on a variety of factors, including the results of the project prioritization process, recommendations from the HRTPO Transportation Technical Advisory Committee (TTAC), projects in the Governor's Transportation Funding Proposal, and local, state, Federal and public stakeholder input.

Three roadway projects in the study area are included in the 2034 LRTP for construction. These projects are:

- Fort Eustis Boulevard Widening from two to four lanes between the Newport News City Line and George Washington Memorial Highway. The cost of this project, which is under construction, is \$23.6 million.
- Ironbound Road Widening from two to four lanes between Strawberry Plains Road and Longhill Connector Road. The cost of this project, which is under construction, is \$14.1 million.
- George Washington Memorial Highway

   Widening from four to six lanes between
   Hampton Highway and Denbigh Boulevard.

   The estimated cost of this project is \$67.4 million. As mentioned in the previous section, the portion of this project from Hampton Highway to Wolf Trap Road is included in the SYIP/TIP for construction, starting in 2013.

In addition to these three projects slated for construction, the 2034 LRTP also includes five corridors in the study area for preliminary engineering only: Croaker Road, I-64, Longhill Road, Route 60 Relocation, and the Skiffes Creek Connector. Many of these corridors are described further in the Unfunded Projects section of this report.

# 2034 Traffic Characteristics

As part of long range transportation planning efforts, HRTPO staff forecasts traffic volumes and congestion levels on the Congestion Management Process roadway network in the horizon year.





 $<sup>^{\</sup>rm 8}$  2034 Hampton Roads Long-Range Transportation Plan, HRTPO, January 2012.

These volumes are based on output from the regional transportation model, which estimates raw traffic volumes based on socioeconomic projections as well as the assumption that all of the projects included in the LRTP are constructed. Congestion levels are then calculated by applying the methodology described in the Current Conditions - Roadway Congestion section of this report to the forecasted volumes.

Map 7 on page 27 shows the projected 2034 PM Peak Hour congestion levels in the study area. In addition, Table 8 on pages 28-30 shows the current and projected 2034 traffic volumes and PM Peak Hour Levels-of-Service for CMP roadway segments in the study area. Appendix D includes 2034 roadway congestion maps for each jurisdiction.

The amount of vehicular travel and peak hour congestion, both in Hampton Roads as well as in the three jurisdictions in the study area, is expected to grow significantly in the future. A total of 3,774,000 vehicle-miles of travel (VMT) occurred on CMP roadways each weekday in the study area in 2010. By 2034, the vehicle-miles of travel on the CMP network is expected to increase 65%, up to 6,220,000 each weekday. On a jurisdictional level, the amount of weekday VMT on the CMP network in James City County is expected to increase from 1,665,000 in 2010 to 2,789,000 in 2034, a 68% increase. In Williamsburg, this VMT is projected to increase from 231,000 in 2010 to 392,000 in 2034 (a 70%)

increase), and in York County, the weekday VMT on the CMP network is projected to increase from 1,878,000 in 2010 to 3,039,000 in 2034, a 62% increase. The amount of congestion is expected to increase as these traffic volumes grow. There were eleven roadway segments in the study area that were operating at severely congested levels (LOS E or F) during the PM peak hour in 2010. In 2034, this is expected to increase to 72 roadway segments. These severely congested segments include sections of George Washington Memorial Highway, Hampton Highway, I-64, Merrimac Trail, Route 60, Route 199, Victory Boulevard, and many other roadways.

These 72 severely congested roadway segments would comprise a total of 82.5 centerline miles, or 242.1 lane-miles of roadway, in 2034. This is up from 15.6 centerline miles and 39.2 lane-miles in 2010. In percentage terms, 41% of the CMP roadway network lane-miles in the study area are expected to experience severe congestion (LOS E or F) during the PM peak hour in 2034, up from 7% in 2010 (**Figure 10**). On a jurisdictional level, York County is projected to have the highest percentage of severely congested lane miles at 67% of its CMP roadway network in 2034. This is up from 12% of its CMP roadway network in 2010. James City County and Williamsburg are projected to have a much lower level of congestion, with 22% and 24% of their CMP roadway networks being severely congested during the PM Peak Hour in 2034 respectively. In both jurisdictions, this is up from 3% in 2010.

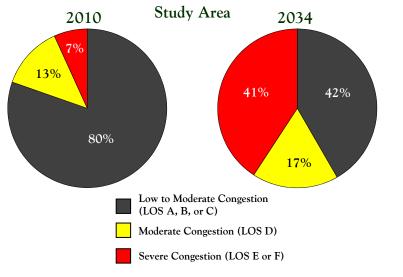
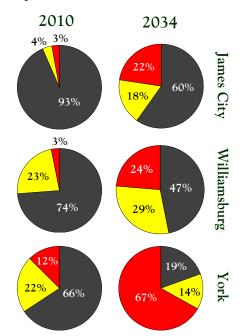
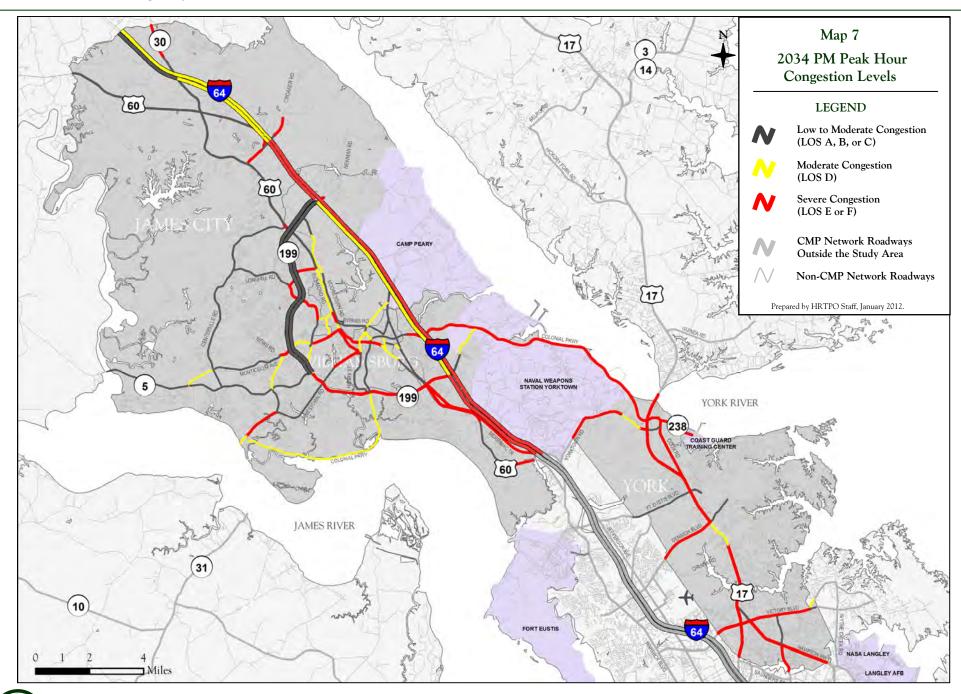


Figure 10 – 2010 and 2034 PM Peak Hour Congestion by Lane-Mile, CMP Roadway Network
Source: HRTPO.





Future Conditions - Highway 27





			Most Recent Weekday	2034 Weekday	2010 PM Peak Hour	
Facility	Segment From	Segment To	Volume	Volume	LOS	LOS
Barhamsville Rd	I-64	Route 60	9,423	29,000	A-C	A-C
Centerville Rd	John Tyler Hwy	Monticello Ave	3,462	8,000	A-C	A-C
Centerville Rd	Monticello Ave	News Rd	4,248	6,000	A-C	A-C
Centerville Rd	News Rd	Longhill Rd	7,414	17,000	A-C	A-C
Centerville Rd	Longhill Rd	Richmond Rd	9,095	17,000	A-C	A-C
Colonial Natl Hist Pkwy	Jamestown/Route 359	Williamsburg CL/Route 199	2,118	7,000	A-C	D
Croaker Rd	Route 60	Maxton Ln (Rte 760)	8,364	16,000	D	Е
Croaker Rd	Maxton Ln (Rte 760)	I-64	8,286	28,000	A-C	A-C
Croaker Rd	I-64	Fenton Mill Rd	6,494	18,000	A-C	A-C
Croaker Rd	Fenton Mill Rd	Riverview Rd	3,352	15,000	A-C	E
I-64 EB	New Kent CL	Route 30	48,913	73,000	A-C	A-C
I-64 WB	New Kent CL	Route 30	70,713	15,000	A-C	D
I-64 EB	Route 30	Croaker Rd (Rte 607)	51 775	90,000	A-C	D
I-64 WB	Route 30	Croaker Rd (Rte 607)	51,775	80,000	A-C	D
I-64 EB	Croaker Rd (Rte 607)	York CL	50.050	400.000	A-C	Е
I-64 WB	Croaker Rd (Rte 607)	York CL	58,252	100,000	A-C	F
I-64 EB	York CL	Newport News CL			D	F
I-64 WB	York CL	Newport News CL	87,885	116,000	E	F
Ironbound Rd	Strawberry Plains Rd	Monticello Ave	9,382	13,000	D	A-C
Ironbound Rd	·				A-C	A-C
	Monticello Ave	Williamsburg CL	11,023	12,000		
Ironbound Rd/News Rd	John Tyler Hwy	Monticello Ave	9,675	18,000	A-C	D
Ironbound Rd/Sandy Bay Rd	Jamestown Rd	John Tyler Hwy	7,150	9,000	A-C	A-C
Jamestown Rd	James River/Ferry	Colonial Parkway (Rte 359)	6,700	10,000	A-C	D
Jamestown Rd	Colonial Parkway (Rte 359)	Sandy Bay Rd (Rte 681)	8,235	17,000	A-C	F
Jamestown Rd	Sandy Bay Rd (Rte 681)	Neck-O-Land Rd	9,567	10,000	A-C	A-C
Jamestown Rd	Neck-O-Land Rd	Williamsburg CL	9,567	10,000	A-C	A-C
John Tyler Hwy	Charles City CL	Monticello Ave	2,885	6,000	A-C	A-C
John Tyler Hwy	Monticello Ave	Centerville Rd (Rte 614)	4,800	8,000	A-C	A-C
John Tyler Hwy	Centerville Rd (Rte 614)	Ironbound Rd (Rte 615)	8,033	10,000	A-C	A-C
John Tyler Hwy	Ironbound Rd (Rte 615)	Stanley Dr (Rte 712)	10,663	15,000	A-C	A-C
John Tyler Hwy	Stanley Dr (Rte 712)	Route 199	17,546	20,000	A-C	A-C
Longhill Connector Rd	Longhill Rd (Rte 612)	Ironbound Rd	9,664	18,000	A-C	F
Longhill Rd	Centerville Rd (Rte 614)	Olde Towne Rd (Rte 658)	6,577	12,000	A-C	A-C
Longhill Rd	Olde Towne Rd (Rte 658)	Route 199	16,087	21,000	F	F
Longhill Rd	Route 199	Longhill Connector Rd	20,000	30,000	A-C	Е
Merrimac Trail	Newport News CL @ I-64	York CL (South Of Grove Int)	10,021	30,000	A-C	Е
Merrimac Trail	York CL @ Route 199	Penniman Rd (York CL)	16,342	29,000	A-C	A-C
Monticello Ave	John Tyler Hwy	Centerville Rd (Rte 614)	4,574	10,000	A-C	D
Monticello Ave	Centerville Rd (Rte 614)	News Rd	11,395	12,000	A-C	A-C
					F F	F F
Monticello Ave	News Rd	Route 199	41,348	45,000		
Monticello Ave	Route 199	Ironbound Rd (Rte 615)	24,179	29,000	A-C	D
Old Stage Rd	New Kent CL	Barnes Rd (Rte 601 S)	9,512	12,000	D	E
Old Stage Rd	Barnes Rd (Rte 601 S)	I-64	9,512	26,000	A-C	A-C
Olde Towne Rd	Longhill Rd	Richmond Rd	8,378	18,000	A-C	F
Pocahontas Trail	Williamsburg CL	York CL @ Route 199	8,165	18,000	A-C	A-C
Pocahontas Trail	York CL	BASF Rd	9,243	20,000	A-C	A-C
Pocahontas Trail	BASF Rd	Newport News CL	11,499	25,000	A-C	F
Richmond Rd	Route 199	Olde Towne Rd (Rte 658)	15,206	35,000	A-C	A-C
Richmond Rd	Olde Towne Rd (Rte 658)	Williamsburg CL	23,783	46,000	A-C	D
Rochambeau Dr	Route 60	0.7 Mi East Of Ashington Way	7,164	11,000	A-C	A-C
Rochambeau Dr	0.7 Mi East Of Ashington Way	Croaker Rd (Rte 607)	7,164	11,000	D	Е
Route 199 EB	York CL	Richmond Rd (Route 60)			A-C	A-C
Route 199 WB	York CL	Richmond Rd (Route 60)	27,033	34,000	A-C	A-C
Route 199 EB	Richmond Rd (Route 60)	Longhill Rd (Rte 612)			A-C	A-C
Route 199 WB	Richmond Rd (Route 60)	Longhill Rd (Rte 612)	23,523	40,000	A-C	A-C
Route 199 EB	Longhill Rd (Rte 612)	Monticello Ave (Rte 321)			A-C	A-C
			29,041	41,000		
Route 199 WB	Longhill Rd (Rte 612)	Monticello Ave (Rte 321)			A-C	A-C
Route 199 EB	Monticello Ave (Rte 321)	John Tyler Hwy (Rte 5)	27,515	38,000	A-C	A-C





				Most			
				Recent	2034	2010 PM	2034 PM
	Facility	Segment From	Segment To	Weekday Volume	Weekday Volume	Peak Hour LOS	Peak Hour LOS
>	Route 199	John Tyler Hwy (Rte 5)	Williamsburg CL	36,498	49,000	A-C	F
County	Route 199	Williamsburg CL	Henry St/Colonial Pkwy	34,542	51,000	A-C	F
no	Route 199	Henry St/Colonial Pkwy	Mounts Bay Rd/Quarterpath Rd	33,078	57,000	A-C	F
Ŭ	Route 199	Mounts Bay Rd/Quarterpath Rd	Rte 60/Rte 143/York CL	31,169	57,000	A-C	F
City	Route 60	New Kent CL	Route 30	5,861	11,000	A-C	A-C
$\ddot{c}$	Route 60	Route 30	Croaker Rd (Rte 607)	13,792	32,000	A-C	A-C
S	Route 60	Croaker Rd (Rte 607)	Lightfoot Rd (Rte 646)	21,419	49,000	A-C	A-C
James	Route 60	Lightfoot Rd (Rte 646)	Centerville Rd (Rte 614)	21,419	49,000	A-C	F
Ja	Route 60	Centerville Rd (Rte 614)	Route 199	26,430	57,000	A-C	F
	Strawberry Plains Rd	John Tyler Hwy/Route 199	Ironbound Rd	8,048	11,000	A-C	D
	Boundary St	Jamestown Rd	Francis St	12,532	17,000	D	Е
	Bypass Rd	Richmond Rd	York CL	26,802	36,000	A-C	A-C
	Bypass Rd	Route 132/York CL	Page St	15,868	30,000	A-C	A-C
	Capitol Landing Rd	Bypass Rd	Merrimac Trail	6,754	11,000	A-C	A-C
	Colonial Natl Hist Pkwy	James City CL/Rte 199	York CL	2,919	15,000	A-C	A-C
	Francis St	Boundary St	Henry St	8,917	15,000	D	F
	Henry St S.	Route 199	Francis St	3,801	7,000	A-C	A-C
	Henry St	Francis St	Lafayette St	5,803	9,000	D	D
	Henry St N.	Lafayette St	Rte 132Y	6,853	13,000	A-C	D
	Ironbound Rd	James City CL	Longhill Connector Rd	11,023	12,000	A-C	A-C
	Ironbound Rd	Longhill Connector Rd	Longhill Rd	9,913	14,000	D	D
	Ironbound Rd	Longhill Rd	Richmond Rd	15,292	19,000	A-C	D
øø	Jamestown Rd	James City CL	Route 199	17,349	23,000	A-C	A-C
ū	Jamestown Rd	Route 199	John Tyler Ln	11,994	13,000	A-C	A-C
-qs	Jamestown Rd	John Tyler Ln	College Creek	13,820	18,000	A-C	A-C
Ħ	Jamestown Rd	College Creek	Boundary St	13,820	18,000	E	F
Williamsburg	Lafayette St	Richmond Rd	Henry St	9,835	18,000	D D	F E
×	Lafayette St Lafayette St	Henry St Capitol Landing Rd	Capitol Landing Rd Page St	10,151	16,000 13,000	D D	D E
	Merrimac Trail	York CL (South)		8,263		A-C	A-C
	Merrimac Trail	Capitol Landing Rd	Capitol Landing Rd York CL (North)	7,217 9,445	13,000 15,000	A-C A-C	A-C
	Monticello Ave	Ironbound Rd	Richmond Rd	17,074	26,000	D D	F
	Page St	Bypass Rd	Second St	15,332	32,000	A-C	D
	Page St	Second St	York St	15,804	35,000	A-C	D
	Quarterpath Rd	Route 199	York St	595	,	A-C	-
	Richmond Rd	James City CL	Ironbound Rd	23,783	33,000	A-C	D
	Richmond Rd	Ironbound Rd	Bypass Rd	25,987	45,000	A-C	F
	Richmond Rd	Bypass Rd	Monticello Ave	19,001	28,000	D	D
	Richmond Rd	Monticello Ave	Brooks St	13,511	19,000	D	F
	Richmond Rd	Brooks St	Boundary St	13,511	21,000	D	F
	Route 132	Route 132Y	Bypass Rd/York CL	10,116	16,000	A-C	A-C
	Route 132Y	Route 132	Colonial Pkwy	6,115	13,000	A-C	D
	Route 199	James City CL (West)	Jamestown Rd	36,498	49,000	A-C	F
	Route 199	Jamestown Rd	James City CL (East)	36,180	49,000	A-C	F
	Second St	Page St	York CL	15,123	24,000	A-C	A-C
	Treyburn Dr	Monticello Ave	Ironbound Rd	3,000	8,000	A-C	D
	York St	Page St	James City CL	13,385	20,000	D	D
	Ballard St	Colonial Pkwy	Cook Rd	5,899	14,000	D	F
County	Ballard St	Cook Rd	Coast Guard Training Center	2,430	10,000	D	F
un	Big Bethel Rd	Hampton CL	Hampton Hwy (Rte 134)	9,444	18,000	A-C	F
ō	Big Bethel Rd	Hampton Hwy (Rte 134)	Victory Blvd (Rte 171)	4,971	11,000	A-C	A-C
7	Bypass Rd	Williamsburg CL	Waller Mill Rd	26,802	43,000	A-C	A-C
York	Bypass Rd	Waller Mill Rd	Route 132/Williamsburg CL	26,802	43,000	A-C	A-C
Ϋ́	Colonial Natl Hist Pkwy	Williamsburg CL	Ballard St	6,218	16,000	D	F
	Cook Rd	George Washington Hwy	Goosley Rd	6,368	18,000	A-C	F
	Cook Rd	Goosley Rd	Ballard St	6,900	19,000	A-C	F
	Denbigh Blvd	Newport News CL	Route 17	16,203	18,000	Е	E

 $Table\ 8\ (Continued)\ -\ Current\ and\ 2034\ Weekday\ Traffic\ Volumes\ and\ PM\ Peak\ Hour\ Levels-of\ Service\ Data\ sources:\ VDOT,\ HRTPO.$ 





	Facility	Segment From	Segment To	Most Recent Weekday Volume	2034 Weekday Volume	2010 PM Peak Hour LOS	2034 PM Peak Hour LOS
	East Yorktown Rd	Victory Blvd	Poquoson CL	5,585	11,000	A-C	D
	Fort Eustis Blvd	Newport News CL	Route 17	18,188	37,000	E	A-C
	Fort Eustis Blvd Ext	Route 17	Old York - Hampton Hwy	5,000	20,000	A-C	A-C
	George Washington Hwy	Newport News CL	Victory Blvd (Rte 171)	38,983	49,000	A-C	Е
	George Washington Hwy	Victory Blvd (Rte 171)	Hampton Hwy (Rte 134)	42,347	52,000	D	F
	George Washington Hwy	Hampton Hwy (Rte 134)	Dare Rd	54,914	87,000	F	F
	George Washington Hwy	Dare Rd	Denbigh Blvd (Rte 173)	39,235	71,000	A-C	D
	George Washington Hwy	Denbigh Blvd (Rte 173)	Fort Eustis Blvd (Rte 105)	39,111	55,000	A-C	F
	George Washington Hwy	Fort Eustis Blvd (Rte 105)	Cook Rd	38,988	61,000	A-C	F
	George Washington Hwy	Cook Rd	Goosley Rd (Rte 238)	29,384	61,000	A-C	F
	George Washington Hwy	Goosley Rd (Rte 238)	Gloucester CL (Coleman Bridge)	34,117	59,000	F	F
	Goodwin Neck Rd	Route 17	Wolf Trap Rd	9,318	15,000	A-C	A-C
	Goosley Rd	Old Williamsburg Rd	Crawford Rd	6,878	8,000	A-C	D
	Goosley Rd	Crawford Rd	Route 17	6,878	12,000	A-C	F
	Goosley Rd	Route 17	Cook Rd	1,690	7,000	A-C	A-C
	Hampton Hwy	Route 17	Victory Blvd (Rte 171)	21,178	43,000	A-C	A-C
	Hampton Hwy	Victory Blvd (Rte 171)	Big Bethel Rd (Rte 600)	29,041	42,000	A-C	F
	Hampton Hwy	Big Bethel Rd (Rte 600)	Hampton CL	27,101	36,000	A-C	F
	I-64 EB	James City CL	Route 199/646	58,252	100,000	A-C	Е
	I-64 WB	James City CL	Route 199/646			A-C	F
	I-64 EB	Route 199/646	Route 143	56,909	87,000	A-C	D
County	I-64 WB	Route 199/646	Route 143			A-C	E
E	I-64 EB	Route 143	Route 199 (East of Williamsburg)	65,349	88,000	A-C	D
2	I-64 WB	Route 143	Route 199 (East of Williamsburg)			D	E
<u> </u>	I-64 EB	Route 199 (East of Williamsburg)	Grove Connector	83,621	111,000	D	F
York	I-64 WB	Route 199 (East of Williamsburg)	Grove Connector			D	F
$\times$	I-64 EB	Grove Connector	James City CL	87,885	116,000	D E	F F
	I-64 WB Merrimac Trail	Grove Connector James City CL	James City CL Busch Gardens Interchange	10,021	30,000	A-C	F
	Merrimac Trail	Busch Gardens Interchange	Route 199/James City CL	14,675	39,000	A-C	F
	Merrimac Trail	Penniman Rd/James City CL	Second St	16,543	23,000	A-C	A-C
	Merrimac Trail	Second St	Williamsburg CL	7,936	13,000	A-C	A-C
	Merrimac Trail	Williamsburg CL	Route 132	9,226	15,000	A-C	A-C
	Mooretown Rd	Waller Mill Rd	Airport Rd	6,289	12,000	A-C	A-C
	Mooretown Rd	Airport Rd	Old Mooretown Rd	9,283	15,000	A-C	D
	Mooretown Rd	Old Mooretown Rd	Route 199	20,000	25,000	A-C	A-C
	Newman Rd	I-64	Fenton Mill Rd	2,859	14,000	A-C	Е
	Old Williamsburg Rd	Newport News CL	Baptist Rd/Main Rd	11,158	15,000	A-C	F
	Old Williamsburg Rd	Baptist Rd/Main Rd	Goosley Rd	9,833	14,000	A-C	F
	Penniman Rd (Rte 641)	Route 199	Colonial Pkwy	5,479	11,000	A-C	D
	Pocahontas Trail	James City CL @ Route 199	Kingsmill Rd	8,600	43,000	A-C	F
	Pocahontas Trail	Kingsmill Rd	Busch Gardens Interchange	11,980	43,000	A-C	F
	Pocahontas Trail	Busch Gardens Interchange	James City CL	11,459	27,000	A-C	F
	Route 132	Bypass Rd/Williamsburg CL	Route 143	11,135	13,000	D	D
	Route 143	Route 132	I-64	19,138	27,000	A-C	A-C
	Route 199 EB	James City CL (Westside)	Mooretown Rd	27,033	34,000	A-C	A-C
	Route 199 WB	James City CL (Westside)	Mooretown Rd	-1,000	* 1,555	A-C	A-C
	Route 199 EB	Mooretown Rd	I-64	29,588	39,000	A-C	A-C
	Route 199 WB	Mooretown Rd	I-64			A-C	A-C
	Route 199	Rte 60/Rte 143/James City Line	I-64	30,753	60,000	A-C	F
	Route 199	I-64	Marquis Pkwy	20,012	31,000	A-C	A-C
	Route 199	Marquis Pkwy	Penniman Rd (Rte 641)	9,598	23,000	A-C	A-C
	Second St	Williamsburg CL	Merrimac Trail	15,123	24,000	A-C	D
	Victory Blvd	Newport News CL	Route 17	52,998	65,000	D	F
	Victory Blvd	Route 17	Hampton Hwy (Rte 134)	33,648	41,000	D	F
	Victory Blvd	Hampton Hwy (Rte 134)	Big Bethel Rd (Rte 600)	20,304	26,000	F	F
	Victory Blvd	Big Bethel Rd (Rte 600)	Carys Chapel Rd (Rte 782)	21,568	27,000	F	F
	Victory Blvd	Carys Chapel Rd (Rte 782)	Poquoson CL Magratage P.4	13,315	14,000	A-C	A-C A-C
	Waller Mill Rd	Route 60	Mooretown Rd	4,634	18,000	A-C	A-C

Table 8 (Continued) – Current and 2034 Weekday Traffic Volumes and PM Peak Hour Levels-of Service Data sources: VDOT, HRTPO.

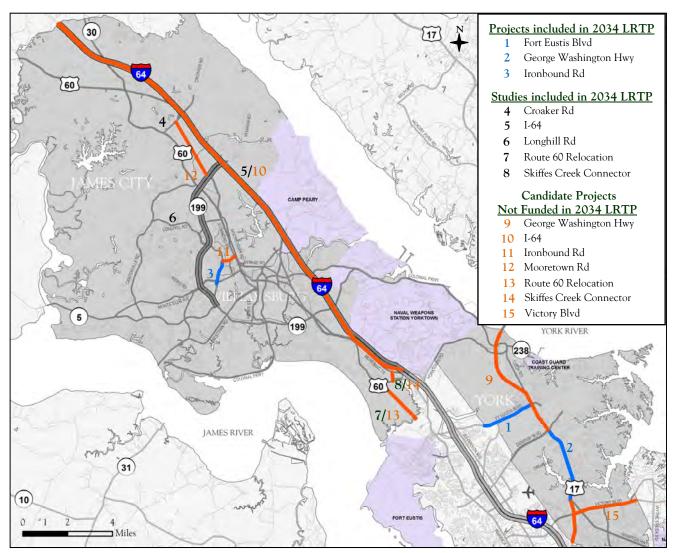




# **Unfunded Projects**

As stated in the previous section, much of the roadway network in the study area is projected to be congested in 2034. Many transportation projects are needed in addition to the three included in the 2034 Hampton Roads Long-Range Transportation Plan to alleviate this congestion. As part of the 2034 LRTP process, over 150 candidate projects throughout the region were analyzed. The candidate projects in the study area that were not included in the final 2034 Long-Range Transportation Plan are shown in orange in **Map 8**. Each of these seven corridors is also described in detail on the following pages.

It should be noted, however, that many areas in James City County, Williamsburg, and York County are unique both to the region and the nation. These areas are historical, educational, or recreational in nature. Many of the roadways that are expected to be congested in 2034 are located in these areas and could not be widened without severely impacting the character of these areas. Examples of these roadways include the Colonial Parkway, Lafayette Street through Downtown Williamsburg, Jamestown Road and Richmond Road around the William & Mary Campus, Jamestown Road in James City County, and Cook Road and Ballard Street in the area around the Yorktown Battlefield.



Map 8 - Projects/Studies Included in the 2034 LRTP and Candidate Projects Not Funded in the 2034 LRTP

Data Source: HRTPO.



• George Washington Memorial Highway (Newport News City Line to Hampton Highway and Denbigh Boulevard to Coleman Bridge) - This unfunded project would widen George Washington Memorial Highway (Route 17) from four to six lanes in those sections throughout York County that are not included in the 2034 Long-Range Transportation Plan.

George Washington Memorial Highway is not only the most heavily-traveled arterial in the study area but also provides the only direct link between the Middle Peninsula (including Gloucester) and Hampton Roads. Washington Memorial Highway is currently congested during the PM Peak Hour between Hampton Highway and Dare Road, and at the Coleman Bridge. By 2034, traffic volumes in most sections of this corridor are expected to grow by more than 50%, and nearly the entire length of George Washington Memorial Highway in York County is expected to operate at severely congested levels during the PM Peak Hour. Widening George Washington Memorial Highway would be expected to relieve much of this congestion and improve traffic flow in this area of York County.

The George Washington Memorial Highway project was broken down into six segments for the 2034 LRTP Project Prioritization Process. These six segments, from south to north, are shown below in **Table 9**. Each of these segments ranked in the top third among the 113 candidate highway projects in the 2034 LRTP Project Prioritization Process.



George Washington Memorial Highway

Two segments of George Washington Memorial Highway were included in the 2034 Long-Range Transportation Plan The section from Hampton construction. Highway to Wolf Trap Road (which is just to the north of Dare Road, the segment break in the Project Prioritization Process) is included in both the 2034 LRTP and is also fully funded in the current Six-Year Improvement Program and Transportation Improvement Program. The section immediately to the north, between Wolf Trap Road and Denbigh Boulevard, is included in the 2034 LRTP but is not currently funded in the SYIP. These two segments account for \$68 million of the estimated \$164 million cost to widen George Washington Memorial Highway from four to six lanes throughout York County. Another \$96 million is required to complete the additional needed projects in this corridor.

Segment	Segment Length	2034 Projected Weekday Volumes	Estimated Construction Cost	2034 LRTP Project Prioritization Rank	Status
Newport News CL to Victory Blvd	1.20 miles	49,000	\$15.3 million	#29 of 113	Not in LRTP
Victory Blvd to Hampton Hwy	0.64 miles	52,000	\$12.4 million	#33 of 113	Not in LRTP
Hampton Hwy to Dare Rd	2.78 miles	87,000	\$59.5 million	#1 of 113	In SYIP/TIP/LRTP
Dare Rd to Denbigh Blvd	0.67 miles	71,000	\$8.1 million	#13 of 113	In LRTP only
Denbigh Blvd to Fort Eustis Blvd	1.38 miles	55,000	\$17.2 million	#29 of 113	Not in LRTP
Fort Eustis Blvd to Coleman Bridge	4.03 miles	59,000	\$51.4 million	#35 of 113	Not in LRTP
			Total = \$164 million		

Table 9 – Segments of George Washington Memorial Highway in York County Analyzed in the 2034 LRTP Project Prioritization Process

Data Sources: VDOT, HRTPO.



 I-64 (Newport News City Line to New Kent County Line) - This unfunded project involves widening I-64 throughout the study area from two lanes in each direction to three general purpose lanes plus a High Occupancy Vehicle lane.

I-64 is a critical link between Hampton Roads and the rest of the state and country, not only for residents but for tourists, freight movement, and the military as well. In the study area, I-64 is currently congested between the Newport News City Line and the Busch Gardens/Grove Interchange during the PM Peak Hour. Weekday traffic volumes on I-64 in the study area are expected to increase from 49,000-88,000 vehicles per day today up to 73,000-116,000 vehicles per day by 2034. This increase will cause nearly the entire length of I-64 in the study area to operate at severely congested levels during the PM Peak Hour in 2034.

For the 2034 LRTP Project Prioritization Process, this corridor was broken down into two segments. The eastern 13-mile segment spans from Newport News near the Jefferson Avenue Interchange (Exit 255) to the Route 199 Interchange (Exit 242) southeast of Williamsburg. The western 18-mile section continues from Route 199 up to the New Kent County Line.

VDOT estimates that the cost of the eastern portion of the project from Jefferson Avenue in Newport News to Route 199/Exit 242 is \$779 million. Among 113 highway projects throughout the region evaluated in the 2034 LRTP Project Prioritization Process, this segment ranked 6th. The western section of this project from Route 199 up to the New Kent County Line is estimated by VDOT to cost \$1.1 billion. In the 2034 LRTP Project Prioritization Process, this segment ranked 24th among the 113 highway projects.

Although not included for construction in the 2034 LRTP, I-64 between Fort Eustis Boulevard and Route 199 was included as one of four Unfunded Projects for Future



I-64 at Croaker Road

Consideration in the plan. According to the HRTPO, these projects — which also include I-64 in Chesapeake, the I-64/Fort Eustis Boulevard Interchange, and the I-64/I-264 Interchange — should be the first projects considered for funding if additional transportation funds become available to the region.

VDOT and FHWA have initiated a study of the I-64 corridor from I-95 in Richmond to I-664 in Hampton. This study, at a cost of \$3 million, will identify transportation needs within the I-64 corridor and evaluate the impacts of proposed improvements. As part of this process a Final Environmental Impact Statement will be issued. This study is expected to be completed in early 2014. More information on this study is available at http://virginiadot.org/projects/hamptonroads/i-64\_peninsula\_study.asp.

This project would be expected to provide many benefits in addition to relieving this congestion, including improved hurricane evacuations, additional opportunities for economic development through the region, and better ingress and egress for the military.





• Ironbound Road (Longhill Connector Road to Richmond Road) - This unfunded project involves widening Ironbound Road from two to three lanes between Longhill Connector Road and Richmond Road. This project would increase the capacity and safety of the roadway by improving lane configurations and creating additional turn lanes.

Mixed-use developments constructed in the Ironbound Road corridor in recent years, including the High Street and New Town developments. Roadway improvements serving these areas have also been planned in recent years. Ironbound Road immediately to the southwest of this segment is currently under construction. Williamsburg has recently completed a transportation study of Ironbound Road from Treyburn Drive to Richmond Road. study determined the most feasible and cost effective lane configuration, which includes widening the roadway from two to three lanes and providing an additional turn lane at the Richmond Road approach. The City of Williamsburg has allocated funds to pay for improvements on this section of roadway. This project is the City's top priority for use of its VDOT Urban Allocation funds, and other funds as they may come available.

Cost estimates for the Ironbound Road project between Longhill Connector Road and Richmond Road are \$3.5 million, and the project ranked 66th among 113 Hampton Roads highway projects in the 2034 LRTP Project Prioritization Process. By 2034, Ironbound Road is expected to carry 14,000-19,000 vehicles each weekday, up from 10,000-15,000 in 2010.

• Mooretown Road Extended (Lightfoot Road to Croaker Road) - This unfunded project involves constructing a new 2.8 mile, two-lane roadway between the current northern terminus of Mooretown Road at Lightfoot Road and Croaker Road near its intersection with Rochambeau Drive. The northern half of this corridor is located in James City County, with the southern half located in York County.



Ironbound Road Construction

The Mooretown Road Extended project would create a roadway parallel to Richmond Road (Route 60). Richmond Road is prone to flooding, and the section of Richmond Road between Route 199 and Lightfoot Road is expected to operate at severely congested levels by 2034.

Mooretown Road Extended would also provide access to undeveloped areas in James City and York Counties. These undeveloped areas are designated in both counties' Comprehensive Plans as Economic Opportunity areas, with the potential for large mixed-use developments. Access to these areas, however, is currently limited due to the location of the CSX Railroad as well as a number of environmentally sensitive areas.

VDOT estimates the cost of the Mooretown Road Extended project at \$15.8 million. Based on modeling done for the 2034 LRTP, Mooretown Road Extended would be expected to carry 16,000 vehicles per weekday in 2034. This project ranked 77th among 113 Hampton Roads highway projects in the 2034 LRTP Project Prioritization Process.

A transportation study of the Mooretown Road Extended corridor has been funded through Regional Surface Transportation Program (RSTP) funds, which are federal transportation funds that are apportioned to each region and are allocated by the HRTPO in Hampton Roads. This study, at a cost of \$400,000, will determine the feasibility of the project as well as its environmental impacts. It is expected to be completed in 2012.





• Route 60 Relocation (Newport News City Line to Blow Flats Road) - This unfunded project involves relocating and widening Route 60 from near Fort Eustis Boulevard to Blow Flats Road in James City County. The northern portion of this new, four-lane roadway would be in James City County, with the southern portion located in Newport News.

Route 60, along with the parallel I-64 and Merrimac Trail, are all expected to be severely congested during the PM Peak Hour in 2034. This project would not only be expected to relieve this congestion along Route 60, but also promote further commercial and industrial development in the vacant parcels around the GreenMount industrial area.

Based on modeling done for the 2034 LRTP, the Relocated Route 60 would be expected to carry 35,000 vehicles per weekday in 2034. This project ranked 17th among 113 Hampton Roads highway projects in the 2034 LRTP Project Prioritization Process.

VDOT estimates the cost of the Route 60 Relocation project at \$55 million, with the 2.2-mile portion of the project within James City County costing \$37 million. There is currently \$3.0 million in RSTP funding allocated to the James City County portion of the project. At one point, there was \$17.5 million in RSTP funding on this project. \$10 million of this funding was transferred to the Skiffes Creek Connector project in 2011 and \$4.5 million was reallocated to other projects at the request of James City County officials since the total amount of funding needed to construct the project was not available.

 Skiffes Creek Connector (Pocahontas Trail to Merrimac Trail) - This unfunded project involves constructing a new two-lane, 0.4-mile roadway between Pocahontas Trail and Merrimac Trail to the north of the GreenMount Industrial Park. This new roadway would span the CSX Railroad, which currently has no crossings between Elmhurst Street near Yorktown Road and the Grove



GreenMount Industrial Park

Interchange, a length of 4.5 miles. In addition to creating this additional rail crossing, the Skiffes Creek Connector would provide better access between Route 60, Route 143, I-64, and the GreenMount industrial area, which currently includes distribution centers for Walmart and Haynes Furniture. This would improve truck movement in the area, as well as make this section of James City County more attractive for industrial development.

VDOT estimates the cost of the Skiffes Creek Connector project at \$35 million. \$10 million is currently allocated to the project in the SYIP/TIP, all of which is the result of a transfer of RSTP funds from the Route 60 Relocation project as stated previously. An additional \$10 million in RSTP funds for FY 2018 has been allocated to the project by the HRTPO Board in November 2011. This leaves the project \$15 million short of being fully funded, which James City County officials hope to cover with future RSTP allocations.

Based on modeling done for the 2034 LRTP process, the Skiffes Creek Connector would be expected to carry 15,000 vehicles per day in 2034. This project ranked 98th among 113 Hampton Roads highway projects in the 2034 LRTP Project Prioritization Process.

A study to determine the feasibility of the Skiffes Creek Connector has also been funded with RSTP funds. This study, at a cost of \$300,000, is expected to be completed in 2012.





 Victory Boulevard (George Washington Memorial Highway to Poquoson City Line) -This unfunded project involves widening Victory Boulevard from five to six lanes between George Washington Memorial Highway and Hampton Highway, and from two to four lanes between Hampton Highway and the Poquoson City Line.

Victory Boulevard is currently congested during the PM Peak Hour between Hampton Highway and Cary's Chapel Road/East Yorktown Road. By 2034, the entire length of Victory Boulevard in York County is expected to be severely congested during the PM Peak Hour. This project would not only be expected to relieve this congestion, but also improve one of the only two access points to the City of Poquoson.

VDOT estimates that widening Victory Boulevard between George Washington Memorial Highway and Hampton Highway would cost \$4 million, and widening the section between Hampton Highway and the Poquoson City Line would cost \$26 million. The right-of-way is available along this corridor for this unfunded widening project.

The section of Victory Boulevard between George Washington Memorial Highway and Hampton Highway, which is expected to carry 41,000 vehicles each weekday in 2034, ranked 53rd among 113 Hampton Roads highway projects in the 2034 LRTP Project Prioritization Process. The section between Hampton Highway and the Poquoson City Line, which is expected to carry 27,000 vehicles each weekday in 2034, ranked 35th.



Victory Boulevard

# PUBLIC TRANSPORTATION

The vision for future public transportation services in James City County, Williamsburg, and York County will largely be driven by regional plans such as WATA's Transit Development Plan and the Hampton Roads Regional Transit Vision Plan. Implementing the services envisioned in these plans, however, will be limited by funding availability.

# **Funding**

Funding for public transportation is provided by a variety of sources. For WATA, like many other transit agencies, these sources include fare box revenues; federal, state, and local grants and contributions; and contracted services. Combined, these revenue sources provided WATA with \$7.4 million in funding in Fiscal Year 2012. WATA's primary sources of revenue are federal grants (which include Congestion Mitigation and Air Quality or CMAQ funds), contracted services Colonial (primarily from the Williamsburg Foundation), and state grants and contributions (Figure 11).

Local contributions are the fourth largest source of revenues for WATA, providing 14% of WATA's total revenues in Fiscal Year 2012. These local contributions help pay for the operations and maintenance costs associated with running each transit route. James City County is providing the highest level of local contributions among the three localities at \$481,158 in FY 2012 (Figure 12). Williamsburg and York County are contributing \$265,000 and \$272,878 to WATA respectively. These annual contributions from James City County, Williamsburg, and York County have remained unchanged since Fiscal Year 2008.

The current SYIP/TIP includes \$10.6 million in funding for upcoming specific service and capital improvements on WATA's system, most of which are financed with CMAQ funds. Of this total, \$2.9 million was allocated in past years, with the remaining \$7.7 million being allocated in the current and future fiscal years (FY 2012-2017). These improvements are included in WATA's Transit Development Plan, as described in the next section.

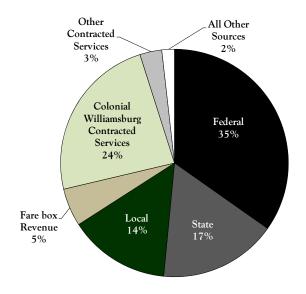


Figure 11 – WATA Revenues by Source, FY 2012 Source: WATA.

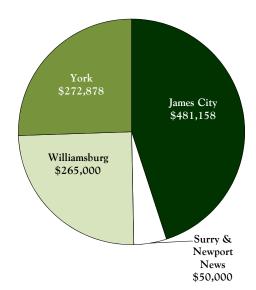


Figure 12 – WATA Locality Revenues, FY 2012 Source: WATA.





# Transit Development Plan

Transit Development Plans (TDPs) are documents that identify the needs and resources required to enhance and modify public transportation services. They provide a guide for transit operators to assist with their planning, funding, and transit service implementation efforts. TDPs have been developed for public transportation agencies throughout the state with assistance from the Virginia Department of Rail and Public Transportation (DRPT). DRPT's goals for Transit Development Plans include:

- Serve as a management and policy document for the transit operator.
- Provide DRPT with the information necessary for programming and planning requirements.
- Provide a clear and up-to-date record of the transit operator's capital and operating budgets in order to assess the operator's financial capacity to carry out proposed levels of service and capital improvements.
- Provide the basis for inclusion of an operator's captial and operating programs in the Six-Year Improvement Program (SYIP), Statewide Transportation Improvement Program (STIP), Regional Transportation Improvement Program (TIP), and Long Range Transportation Plan (LRTP).
- Maximize the investment of public funds and achieve the greatest possible public benefit.
- Improve the efficiency and effectiveness of public transportation services in Virginia.



The Williamsburg Area Transit Authority Transit Development Plan: Fiscal Years 2010-2015 was completed in September 2009. This TDP, which builds on an internal Strategic Plan that WATA officials completed in 2009, includes seven goals and objectives to accomplish over the timeframe of the

TDP. These goals, which were developed in coordination with WATA staff, are:

 Expand WATA transit service to meet customer and community needs.



Williamsburg Transportation Center

- Complete the transition of the regional transit system into the Williamsburg Area Transit Authority to provide effective and efficient public transit service in the Williamsburg area.
- Promote and implement green practices that reduce greenhouse emissions and mitigate traffic congestion.
- Improve the customer's transit experience, integrating technology where applicable.
- Develop and maintain an on-going performance monitoring program.
- Improve coordination between transportation, land use, and economic development activities.
- Continue to provide a safe and secure transit system.

To reach these goals, WATA's Transit Development Plan includes an evaluation of the existing system and service, an assessment of service and facility needs within WATA's footprint, a financial plan, and recommendations for service and capital improvements considered feasible over the six year period.





### Service Improvements

The TDP builds on recent service improvements that have been made by the Williamsburg Area Transit Authority. These improvements include extending service later in the evening and adding Sunday service in 2008, increasing frequency in the middle of the day on certain transit lines from 60-minute service to 30-minute service in 2009, and implementing new services such as the Surry County Connection.

WATA's Transit Development Plan includes various recommendations for additional service improvements. It recommends five transit routes, including the Williamsburg Trolley which has already been implemented. The other routes proposed in the TDP are the Jamestown Route, Quarterpath Route, Newport News Connection, and New Kent Connection. These routes are described in detail below:

• Williamsburg Trolley - WATA provides transit service on the Williamsburg Trolley between Colonial Williamsburg, Merchants Square, the College of William & Mary, and the new mixed-use developments High Street and New Town (Figure 13). Per its name, this service is provided on replica trolley buses that aim to be more attractive to users than typical buses. The service, which is provided on a fifteen minute basis, is geared toward area residents, visitors and William & Mary students, the latter

accounting for 59% of all trolley riders

in September 2011.

WATA began operating the Williamsburg Trolley in August 2009. Funding for the Williamsburg Trolley service was obtained from multiple sources. WATA purchased three trolley vehicles for the service from Flexible STP funds, and obtained CMAQ funding to pay for the first three years of operations on the route.

Changes have been made to the Williamsburg Trolley service since the route began operation. The trolley

route was extended in March 2010 to include Jamestown Road, providing additional service to the William & Mary campus. The hours of operation of the Williamsburg Trolley have also been extended. Originally, the trolley operated from 3 to 10 pm on Monday through Thursday, 3 to 11 pm on Friday and Saturday, and Noon to 8 pm on Sundays. The current hours of operation for the trolley are Noon to 11 pm on Monday through Thursday, Noon to 1 am on Friday and Saturday, and Noon to 8 pm on Sunday.



Williamsburg Trolley



Figure 13 – Williamsburg Trolley Route Map Source: WATA.



In spite of these changes to the route and hours of operation, ridership on the Williamsburg Trolley has only increased slightly (Figure 14). In 2010, 36,206 riders used the Williamsburg Trolley. At 100 riders each day, this is lower than the ridership levels on most of WATA's regular bus routes. Through the first nine months of 2011, 25,050 riders used the trolley, which is an increase of 1.4% from the first nine months of 2010. Commissioners on the Williamsburg Planning Commission have voiced their concern about the usage of the Williamsburg Trolley, and the impact that the current headways have on ridership levels.

Ridership levels on the Williamsburg Trolley have been the highest in the spring and fall, when regular semester classes at William & Mary are in session. Nearly 35% of all ridership on the trolley in 2010 occurred in September, October, and November.

On January 3, 2012, WATA adjusted various fares throughout their system and created a pass program for regular users. The Williamsburg Trolley was included in these fare adjustments, raising the round trip fares from 50 cents to \$1.00. Disabled and senior fares are still half of the regular rate, and William & Mary students continue to ride the Williamsburg Trolley for free. William & Mary students instead pay a fee each semester for general services at the university that includes transit on the WATA system.

It is expected that the increase in fares will only have a small impact on trolley ridership levels, since William & Mary students will not be directly impacted by the fare increase. WATA conducted a survey in June 2011 in which 73% of the respondents indicated that they would be willing to pay this increased fare to ride the Williamsburg Trolley.

Future funding has been allocated for replacement trolleys as the current trolleys near the end of their useful lives. The HRTPO

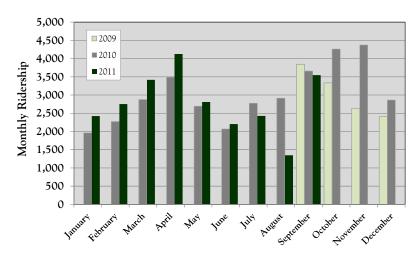


Figure 14 – Williamsburg Trolley Monthly Ridership Source: WATA.

allocated \$432,000 in CMAQ funding to WATA for replacement trolleys in FY 2018. WATA plans to request additional CMAQ funds in future years through FY 2024 for replacement trolleys.



• Jamestown Route - The Jamestown Route would provide transit service along the Jamestown Road and John Tyler Highway corridors of James City County and Williamsburg. The area along this route to the south and west of Route 199 is not served by public transportation service. A survey done for WATA in 2008 indicated that passengers preferred this area for transit expansion over all other areas within WATA's footprint.

WATA is considering using two distinct routes for the Jamestown service, tentatively known as the Silver Line and the Gold Line. The Silver Line (**Figure 15**) would operate on the 180 weekdays throughout the year when public schools in the area are in session. Service on the Silver Line would be provided between the Williamsburg Transportation Center, Jamestown Settlement, and Jamestown High School, which is currently the only secondary school in the Williamsburg-James City County (W-JCC) School District without public transportation service.

The Gold Line (Figure 16) would operate the remainder of the year, which includes weekends throughout the year and seven-daya-week service during the summer. The Gold Line would provide service between the Williamsburg Transportation Center, Colonial Visitor Colonial Williamsburg Center, Parkway, Jamestown Settlement, and Jamestown Island. The use of the Proposed Gold Line will be contingent on acceptance by the Colonial Williamsburg Foundation. The Gold Line service would provide more access to tourist attractions, whereas the Silver Line service would be oriented towards local residents and W-JCC students.

The Jamestown Route is fully funded for three years with a total of \$823,500 in CMAQ funding, and WATA estimates ridership for the Jamestown Route would be approximately 30,000 passengers per year. WATA staff will be presenting its recommendations concerning this potential route to the WATA Board of Directors early in 2012. Particular attention is being given to the sustainability of the route,



Figure 15 – Jamestown Route - Proposed Silver Line Data Source: WATA. Map Source: Google.



Figure 16 – Jamestown Route - Proposed Gold Line
Data Source: WATA. Map Source: Google.

since WATA will need to obtain additional funding to continue this route beyond the three years of CMAQ funding.



Quarterpath Route The Transit Development Plan recommends adding the Quarterpath route which would provide service between the Williamsburg Transportation Center, James City County Government Center, and the Marquis Shopping Center in York County (**Figure 17**). The TDP recommends operating this service on an hourly basis Monday through Saturday, with expanded service if demand warrants it. Estimates for the annual operating costs of the initial service are \$259,500-\$307,700 according to the TDP.

WATA is considering instituting service, tentatively known as the Mounts Bay Route, that would provide bus service along the Route 199 portion of the Quarterpath Route. The Mounts Bay Route would also provide service to the New Town development in James City County. This route should also provide access to the new Quarterpath at Williamsburg development, which include the Riverside Doctors Hospital. There is currently \$677,000 in regional CMAQ funding allocated to the Mounts Bay Route service in Fiscal Years 2014 and 2015. Based on this funding, WATA estimates that 43,000 passengers will use the Mounts Bay Route service annually.

 Newport News Connection - The Newport News Connection would provide additional transit service between the Williamsburg Transportation Center and Patrick Henry Mall in Newport News (Figure 18).

Hampton Roads Transit (HRT) currently provides express bus service between these two points. This service, however, is limited to four trips each day. Conventional bus service is also provided between these two points, but it requires a transfer between WATA and HRT buses at Lee Hall. Surveys have indicated the desire for more frequent service on this route.

The TDP proposes that WATA operate this service on an hourly basis seven days a week. Estimates for the annual operating costs for

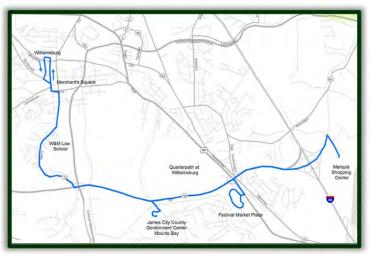


Figure 17 – Quarterpath Route Source: WATA Transit Development Plan.

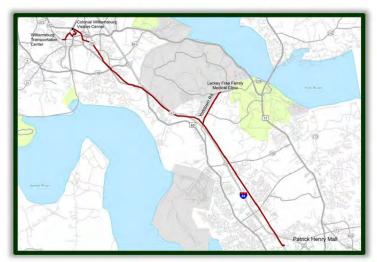


Figure 18 – Newport News Connection Route Source: WATA Transit Development Plan.

the Newport News Connection are \$615,500 according to the TDP. There is currently no funding allocated to this service.



 New Kent Connection - The New Kent Connection would provide service between Providence Forge in New Kent County and the Williamsburg Transportation Center (Figure 19). The TDP proposes operating this service initially every two hours Monday through Friday, with increased service as necessary.

Estimates for the initial annual operating costs for the New Kent Connection are \$229,300 according to the TDP, with costs doubling to \$458,600 if route frequency was increased to hourly service. There is currently no funding allocated to this service.

WATA's Transit Development Plan also includes recommendations for service improvements to existing routes. These additional service recommendations include:

- Later Service WATA extended its hours of service until 8:00 pm (10:00 pm in summer) in 2008. The TDP recommends extending these hours further, providing service until 10:00 pm (Midnight in summer) on Mondays through Saturdays to accommodate workers in the tourism industry. According to the TDP, providing later service in the evening on existing routes would cost an additional \$404,300 in annual operating and maintenance costs.
- Additional Service Frequency WATA increased service frequencies on the Blue, Tan, Orange, and Gray lines from 60 minute headways to 30 minute headways in 2009. The TDP recommends increasing service frequency from 60 minutes to 30 minutes on the Red, Purple 1, and Purple 2 Lines. This would allow for better connections between routes in the WATA system. According to the TDP, increasing frequency on these routes would cost \$108,600 in additional annual operating and maintenance costs.

The TDP also recommends increasing service frequency on the Surry County Connection, which connects The Town of Surry with the Williamsburg Transportation Center.

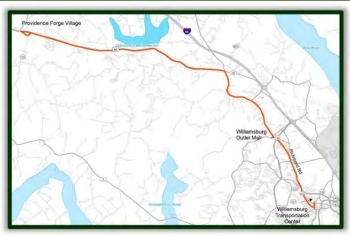


Figure 19 – New Kent Connection Route Source: WATA Transit Development Plan.

Reducing average headways from every three hours to every one and a half hours would cost an additional \$247,400 in annual operating and maintenance costs according to the TDP.

The TDP also contains long range recommendations beyond its six year timeframe. These recommendations include intercity passenger rail service, express service to the Richmond area, and future regional connections to Hampton, Charles City County, and Gloucester County.

### Capital Improvements

In addition to the service recommendations included in the previous section, WATA's Transit Development Plan includes a number of capital recommendations as well. These capital needs reflect investments in vehicles, technology, and infrastructure that are required to maintain and improve the operation of the WATA system. Key capital needs and recommendations listed in WATA's TDP are detailed below:

 Administrative Operations Center - One of WATA's largest capital needs is a new Administrative Operations Center. This operations and maintenance facility would replace the existing leased facility on Pocahontas Trail that is undersized and non-ADA accessible.





The new Administrative Operations Center, which is included in the 2034 Hampton Roads Long-Range Transportation Plan, is estimated to cost \$9 million. A feasibility study was completed for the facility in 2010 and funding has been allocated from Flexible Surface Transportation Program (Flexible STP) funds for preliminary engineering work. Recently, the HRTPO allocated \$3.8 million in Regional Surface Transportation Program (RSTP) funding to the project, with the funding being available in FY 2018.

- GPS/AVL Tracking System This project will employ a Global Positioning System (GPS)/Automatic Vehicle Location (AVL) tracking system for WATA vehicles. The project, at a cost of \$480,000, is fully funded with American Recovery and Reinvestment Act (ARRA) and RSTP funds. This system is expected to be implemented in 2012.
- Automated Fare/Passenger Collection Software - This upgraded software will allow WATA to introduce a multiple pass program starting in 2012, as well as improve reporting of passenger levels. The project, at a cost of \$150,000, is fully funded with ARRA funds.
- Replacement and Expansion Vehicles -WATA operates a variety of vehicle types, including heavy-duty buses, body-on-chassis vehicles, and trolleys. These vehicles should be replaced at the end of their useful lives to provide safe and reliable service and control maintenance costs. As transit routes are created or expanded, vehicles are needed to provide the additional service.

Funding has been allocated to replace many vehicles that WATA currently operates. These replacements include:

o Heavy Duty Buses - The HRTPO allocated \$6,103,000 in CMAQ funds to replace twelve heavy duty buses with more environmentally-friendly vehicles in FY 2012, 2014, and 2015, and four more bus replacements are funded with \$3,208,000 in CMAQ funds in FY 2018.

The HRTPO has also allocated \$878,000 in FY 2018 CMAQ funds to replace Colonial Williamsburg Compressed Natural Gas buses.

- o Body-on-Chassis Vehicles WATA uses body-on-chassis vehicles to provide demand responsive paratransit service and fixed route service in rural areas. \$130,000 was allocated in ARRA funds to replace two of these vehicles, with an additional \$150,000 included in DRPT's Six-Year Improvement Program for FY 2012.
- Yorktown Trolley The Yorktown Trolley provides service to tourist attractions in the vicinity of Yorktown Village. The HRTPO allocated \$315,000 in CMAQ funding to replace the older of the two Yorktown Trolley vehicles. This replacement will likely occur in 2012.

Purchasing buses for expanded service is also included in the Public Transportation section of the FY 2012-2017 SYIP, at a total cost of \$3.2 million.

Bus Shelters - The need for more bus shelters
has been voiced at various stakeholder and
public meetings. \$80,000 in funding was
allocated to bus shelters in ARRA, and the
HRTPO allocated \$300,000 in CMAQ funding
to add a sheltered bus transfer center at Lee
Hall for WATA and HRT.

A number of other capital needs are included in the TDP. These capital needs include administrative and operational support vehicles, lease costs for the Williamsburg Transportation Center and Williamsburg Outlet Mall locations, replacement bus stop signage, replacement bike racks, automated data processing system and software upgrades, and equipment and parts required for system maintenance. These capital needs are included in the Public Transportation section of the SYIP.





#### Transit Vision Plan

The Virginia Department of Rail and Public Transportation, Hampton Roads Transit, and Williamsburg Area Transit Authority developed *The Hampton Roads Regional Transit Vision Plan* over the last two years. The Hampton Roads Transportation Planning Organization, its member localities, and the Hampton Roads Partnership also participated in this effort. The purpose of Hampton Roads

Regional Transit Vision Plan is to provide a concept for a regional rapid transit network that connects major employment and population centers in Hampton Roads. This, in turn, will allow the region to advance transit enhancements in the future guided by a strategic regional plan.



This long-term framework for transit development includes a number of proposed corridors and projects. These projects — which include light rail, commuter rail, streetcar, enhanced bus service, express bus, bus rapid transit, and ferry — are grouped by time frame. Projects are classified as short range (today to 2015), mid range (2016-2025), long range (2026-2035), or extended range (2035+).

The Transit Vision Plan, which is available at <a href="http://www.drpt.virginia.gov/activities/files/Final\_Report\_03-17-11.pdf">http://www.drpt.virginia.gov/activities/files/Final\_Report\_03-17-11.pdf</a>, includes four corridors in the study area. They are Corridor 11 - Downtown Newport News to Williamsburg, Corridor 14 - Oyster Point to Gloucester, Corridor 15a - Oyster Point to Poquoson, and Corridor A - Downtown Newport News to Toano. These corridors are shown in Figures 20 and 21 on page 46.

# Corridor 11: Downtown Newport News to Williamsburg

Corridor 11 runs for 31 miles from Williamsburg to Downtown Newport News. Commuting demand in this corridor is high. According to the Transit Vision Plan, this is due to high employee transit demand in Williamsburg, high employment in both Williamsburg and Newport News, a number of major activity centers along the corridor, and the availability of express bus service provided by Hampton Roads Transit between Williamsburg and Downtown Newport News (Route 121).

The Transit Vision Plan envisions expanding this express bus service along Corridor 11 in the short (today to 2015) and mid (2016-2025) ranges. This service could be provided as a MAX service by Hampton Roads Transit, which serves regional commuter trips with coach bus vehicles. The plan estimates that the capital costs for express bus service in this corridor are between \$3.1 million and \$4.8 million in 2009 dollars.

In the long range, the Transit Vision Plan recommends replacing express bus service between Williamsburg and Downtown Newport News with commuter rail along Corridor A.

# Corridor 14: Oyster Point to Gloucester

Corridor 14 runs through York County along the Route 17 corridor, between Oyster Point in Newport News and the Gloucester Courthouse area. The Transit Vision Plan envisions implementing express bus service along this corridor in the long range (2026-2035). The plan estimates that the capital costs for express bus service in this corridor are between \$2.5 million and \$4.0 million in 2009 dollars, and ridership would be 25 passengers per weekday.

#### Corridor 15a: Oyster Point to Poquoson

Corridor 15a runs for 11 miles between Oyster Point in Newport News and Poquoson. In York County, Corridor 15a follows George Washington Memorial Highway and Victory Boulevard. The Transit Vision Plan envisions implementing express bus service along this corridor in the extended range (2035+). The plan estimates that the capital costs for express bus service in this corridor are between \$1.5 million and \$2.3 million in 2009 dollars, and ridership would be 25 passengers per weekday.





# Corridor A: Downtown Newport News to Toano

Corridor A follows the CSX corridor from Toano in the northern section of James City County to Downtown Newport News. The Transit Vision Plan recommends that commuter rail be operated along the CSX railway in this corridor in the long range (2026-2035), replacing the express bus service in Corridor 11 recommended above for the short (today to 2015) and mid (2016-2025) ranges. Commuter rail, which is commonly used for trips that are from 20 to 60 miles in length, consists of heavy rail equipment such as diesel locomotives pulling multiple rail coach cars. One example of commuter rail service is the Virginia Railway Express (VRE) in Northern Virginia.

According to the Transit Vision Plan, commuter rail service should begin between Downtown Newport News and Williamsburg in the long range, with service being extended to Lightfoot and Toano in the extended range (2035+). One reason for the extended time frame for this recommendation is the capacity problem created by commuter rail, Amtrak, and freight rail sharing the same corridor. This capacity issue would need to be addressed before implementing commuter rail in this corridor.

In addition, the extension of this commuter rail line from Williamsburg to Lightfoot and Toano would be dependent on the land use patterns that emerge in this area. Both counties will need to develop a land use vision to support this service, according to the plan. The James City County and York County Comprehensive Plans designate the likely Lightfoot station location as an Economic Opportunity site, which allows for transit oriented uses such as high density mixed-use development.

The overall ridership for commuter rail in Corridor A is projected to be between 2,200 and 3,700 riders per weekday in 2034 according to the Transit Vision Plan, considered "medium" usage in the report. This ridership level covers the segment between Downtown Newport News and Lightfoot, as ridership on the segment between Lightfoot and Toano was not estimated as part of the study.

The capital cost estimate for commuter rail in this corridor is between \$201 million and \$612 million (in



Figure 20 - Peninsula Transit Vision Plan Bus Network Recommendations

Source: Hampton Roads Regional Transit Vision Plan.



Figure 21 - Regional Transit Vision Plan Source: Hampton Roads Regional Transit Vision Plan.

2009 dollars), considered "high" according to the study. This capital cost does not include the cost for the segment from Lightfoot to Toano, which was also not estimated as part of the Transit Vision Plan.



# INTERCITY PASSENGER RAIL

The Virginia Department of Rail and Public Transportation (DRPT) and Hampton Roads Transportation Planning Organization are cooperatively conducting studies to improve intercity passenger rail to the Hampton Roads region.

DRPT is investigating improved passenger rail service between Hampton Roads and Richmond as an extension of the Southeast High Speed Rail (SEHSR). DRPT Corridor developed Richmond/Hampton Roads Passenger Rail Project Tier I Draft Environmental Impact Statement (EIS), which recommends an additional round-trip train per day (for a total of three) at conventional speeds on the Peninsula, with higher speed rail service being established on the Southside from Norfolk to Richmond via Petersburg. The Draft EIS estimates that the additional train on the Peninsula would almost double the number of passengers in 2025, from 250,000 passengers per year up to 450,000 passengers per year. The Draft EIS has been submitted to the Federal Railroad Administration and is awaiting a Record of Decision. Updates on the Richmond/Hampton Roads Passenger Rail Project can be found online at <a href="http://www.rich2hrrail.info">http://www.rich2hrrail.info</a>.

DRPT is also studying replacing the existing Newport News Amtrak station with two stations in Newport News, one in the Downtown area and the other near Bland Boulevard. The proposed new station at Bland Boulevard would provide more convenient intercity passenger rail options to the southern portion of York County. Currently the station relocation project is in the preliminary engineering phase, with \$20 million allocated to this project in current and future CMAQ and RSTP funding.

Expansion of intercity passenger rail is also a priority of the Hampton Roads Transportation Planning Organization. The HRTPO Board approved a resolution in October 2009 supporting the Commonwealth's efforts to establish high-speed passenger rail service on the Southside and enhance the existing intercity passenger rail service on the Peninsula. In order to improve the region's potential for making these intercity passenger rail



improvements a reality, the HRTPO Board retained a consultant specialized in passenger rail planning. This has resulted in two preliminary studies — the Hampton Roads Passenger Rail Preliminary Vision Plan (Phase 1) and the Hampton Roads Passenger Rail Plan Blueprint Study (Phase 1B) — being completed to examine these improvements.

The HRTPO and the consultant, working with the DRPT, will continue to pursue the passenger rail vision plan for the region and study area in 2012. More information on HRTPO's intercity passenger rail efforts is available at <a href="http://hrtpo.org/TPO HSRIPR.asp">http://hrtpo.org/TPO HSRIPR.asp</a>.





# BICYCLE AND PEDESTRIAN FACILITIES

As stated in the Current Conditions section of this report, bicycling and walking are popular modes of transportation and recreation in the study area. Many non-motorized transportation facilities of varying types have been constructed in the study area in recent years, and there are currently over 100 miles of documented bikeway facilities in James City County, Williamsburg, and York County. In addition, many of the rural low-volume roadways, particularly in northern James City and York Counties, are popular with recreational cyclists.

This section looks at bikeway and sidewalk projects included in the Six-Year Improvement Program and Transportation Improvement Program, the vision of the network provided by the *Regional Bicycle Facilities Plan* and officials in the area, and other issues impacting bicycle and pedestrian facilities.

# SYIP/TIP Bicycle and Pedestrian Projects

A number of proposed bicycle and pedestrian facilities in the study area are included in the Six-Year Improvement Program (SYIP) and Transportation Improvement Program (TIP). These projects are shown in **Table 10** and on **Map 9** on page 49. These facilities range from small sidewalk and shoulder improvements to long multi-use paths along heavily traveled corridors.

In addition to these six projects, there are additional bicycle and pedestrian projects that have funds allocated in the SYIP/TIP. These projects are not shown, however, since they are not likely to be constructed for various reasons. Examples of these projects include bikeways on Airport Road, Cook Road, Longhill Road, and Route 60.



Virginia Capital Trail

# **Bikeways**

In spite of the large existing bicycle facility network, officials in the study area have a vision for a much larger, complete system. This would not only provide further accommodation of people using bicycles as a means of transportation and recreation but also make the area more likely to become a destination for bicycling tourism. The Regional Bikeway Facilities Plan includes this vision of a complete regional bikeway network. This vision includes proposed multi-use paths, bike lanes, and shared roadways, as well as conceptual corridors. Combined, these existing, proposed, and conceptual corridors comprise 400 miles of bike facilities in the study area.

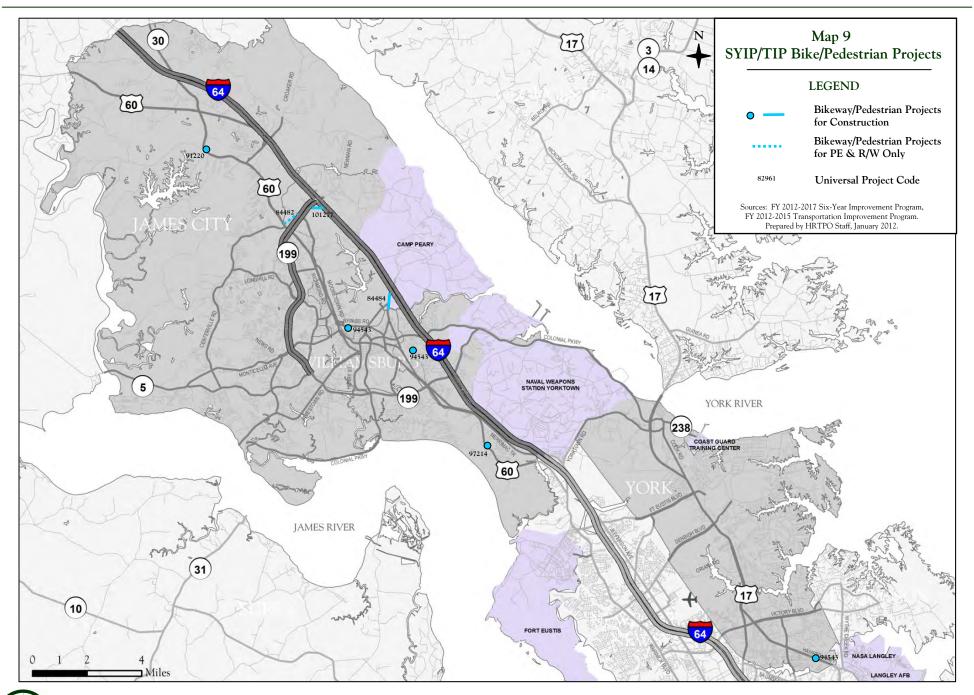
The vision included in the *Regional Bicycle Facilities Plan*, however, will take many decades and millions of dollars to become a reality. In the shorter term, those projects in the *Regional Bicycle Facilities Plan* that address gaps in the existing system are a priority. Officials in James City County,

Juris- diction	UPC	Project	Projected Construction Start	Estimated Cost	Allocated Funding in SYIP/TIP
JCC	91220	Construct Sidewalks - Richmond Road in Toano	2013	\$84,000	\$84,000
JCC	97214	Crossing Improvement at James River Elementary School	2012	\$126,000	\$126,000
YC	84484	Capitol Landing Rd Bikeway	2013	\$491,000	\$491,000
YC	94543	Construct Sidewalks - Hampton Hwy, Hubbard Ln, Commons Way	Completed	\$369,000	\$375,000
YC	84482	Lightfoot Rd Bikeway (PE/RW Only)	-	\$1,269,000	\$184,000
YC	101277	Paved Shoulder - Rochambeau Dr	2012	\$40,000	\$40,000

Table 10 - Bikeway and Sidewalk Projects Included in the Six-Year Improvement Program or Transportation Improvement Program

Data sources: VDOT, HRTPO. UPC is the Universal Project Code number. The Croaker Road bikeway project (UPC #17633) is included in the Programmed Roadway Projects section of this report with the Croaker Road widening project (UPC #100200).







Williamsburg, and York County are targeting those gaps in the existing bikeway system that, if completed, would best connect existing facilities and create an integrated system of bikeways throughout the study area.

Based on discussions with officials from James City County, Williamsburg, and York County, those projects in the *Regional Bicycle Facilities Plan* that are critical gaps in the existing system include:

- 1 Capitol Landing Road (Lafayette Street to Merrimac Trail) - This link would provide another connection between the bikeways on Lafayette Street and Merrimac Trail in Williamsburg. One possible method of providing this facility would be to reduce the number of lanes on the northern section of Capitol Landing Road from 4 lanes to 3 lanes with bike lanes, and signing the southern 2 lane section as a shared facility. Current and future traffic volumes are low enough on the 4-lane section to not impact congestion levels.
- 2 Cook Road (Surrender Road to Ballard Street) This link would provide a more convenient connection between the Yorktown Village/Colonial Parkway and other National Park Service roadways in the Yorktown Battlefield. Combined with Surrender Road and existing bike lanes on Old York-Hampton Highway, this would also provide a connection to the Grafton area of York County. This narrow stretch of Cook Road, which spans between the Battlefield Visitor Center and the National Cemetery, is heavily-used by pedestrians and bicyclists.

Funding is allocated from the CMAQ program for bike lanes on Cook Road. This project, however, is unlikely to happen due to concerns from the National Park Service. Instead, paved shoulders are planned for this section of Cook Road (as shown in the Programmed Roadway Projects section of this report), which will benefit both motorists and bicyclists.

 3 - CSX Railroad Crossings - The CSX railroad creates a barrier to bicycle and pedestrian mobility in the study area. This is especially true southeast of Williamsburg, where there are no authorized crossings between Page Street in Williamsburg and Elmhurst Street in Newport News, a length of 8.5 miles. As a result, bicyclists and pedestrians commonly walk across the tracks illegally along this segment.

Officials from the study area have discussed constructing a crossing for bicyclists and pedestrians between York Street in Williamsburg and Penniman Road in York County. The Regional Bicycle Facilities Plan includes a proposed multi-use path crossing the CSX Railroad in the area of Busch Gardens. These crossings would require approval from CSX officials, and would not prevent many bicyclists and pedestrians from continuing to cross in unauthorized areas.

- 4 East Rochambeau Drive (Mooretown Road to Airport Road) Many sections of East Rochambeau Drive in York County have bike lanes in place. This project would add bike lanes to the remaining two miles of East Rochambeau Drive, creating a continuous bike path between Mooretown Road and Route 143. Funding is included in the SYIP/TIP to complete 0.3 miles of this gap.
- 5 Freedom Boulevard (Old York-Hampton Highway to Goodwin Neck Road) This short link would connect two existing bike lanes and create a continuous bikeway between Seaford Road and Yorktown Battlefield, a length of six miles. Freedom Boulevard is located in an industrial area, and on-street parking is permitted. These two factors currently make Freedom Boulevard less conducive to bicycling.
- 6 Ironbound Road (Strawberry Plains Road to Monticello Avenue) - Bicycling facilities are being added to Ironbound Road north of Monticello Avenue as part of the current widening project. Adding this link, when combined with the widening project, will connect bike facilities on Jamestown Road, John Tyler Lane and Strawberry Plains Road





- with facilities along Longhill Road and Longhill Connector Road.
- 7 Ironbound Road (Longhill Connector Road to Longhill Road) This link would connect existing bike facilities on Ironbound Road, Longhill Road, Longhill Connector Road, and Treyburn Drive. Although the Regional Bicycle Facilities Plan recommends bike lanes for this section, consideration should be given to a multi-use trail on Ironbound Road, which would connect to the existing multi-use trail along Longhill Connector Road. A multi-use trail along Ironbound Road is recommended in the City's recently completed Ironbound Road Corridor Study.
- 8 Ironbound Road/Sandy Bay Road (Jamestown Road to Monticello Avenue) -This link would provide another connection between the Monticello Avenue and Jamestown Road bikeways, and would provide more convenient access to Mid County Park.
- 9 Jamestown Road (Between Route 199 and John Tyler Lane) This link would connect the Jamestown Road and Strawberry Plains Road bikeways to a multi-use trail across Route 199 that connects to Lake Powell Road. This low-volume roadway provides access to many neighborhoods and the Colonial Parkway. This facility would also provide another crossing of Route 199. However, due to the turn lanes at the Route 199 intersection, there is no room in the existing pavement to add bike lanes. Adding this facility would require widening the roadway.
- 10 Jamestown Road (Ukrop Way to Landrum Drive) This short segment in front of the William & Mary campus would connect Downtown Williamsburg with the Jamestown Road and Strawberry Plains Road bike lanes. On-street parking is permitted on this section of Jamestown Road, but it may be possible to modify the existing pavement markings to provide bike lanes with on-street parking on one side of the roadway.

- 11 Lightfoot Road/Richmond Road (Centerville Road to Old Mooretown Road) This corridor would connect the Centerville Road and Warhill Trail bikeways with the Old Mooretown Road bikeway. Although this project is important in filling in a critical gap, York County officials consider the bikeway cost-prohibitive based on a pre-scoping of the project completed by VDOT.
- 12 Longhill Road (Centerville Road to Olde Towne Road) - This link would provide a bike facility from the Centerville Road and Warhill Trail bike facilities to ones entering Williamsburg. A study of the Longhill Road corridor, including this section, is included in the SYIP/TIP and 2034 LRTP.
- 13 Mooretown Road (Airport Road to Old Mooretown Road) - This facility would connect existing sections of bikeway on Mooretown Road and provide better access between Williamsburg and shopping areas in York County, as well as a connection to the Centerville Road bike lanes.
- 14 Quarterpath Road (Redoubt Park to Battery Boulevard) - This facility would connect to the existing multi-use trail on the west side of Quarterpath Road that runs between Redoubt Park and the Quarterpath Recreation Center. The existing section of Quarterpath Road would be closed to vehicular traffic and improved as a multi-use preserving the historic and environmental character of the area. This facility would enable connections to bicycle and pedestrian facilities in the adjacent Quarterpath at Williamsburg development. This facility could also be linked to the South England Street/Country Road facility mentioned on the next page, creating a scenic recreational loop.
- 15 Richmond Road/Airport Road (Waltz Farm Drive to Mooretown Road) This would provide a link between the Mooretown Road and Airport Road bikeways with the neighborhoods to the west of Richmond Road. Low-volume roadways in these





neighborhoods provide a convenient connection between Richmond Road and Longhill Road. This facility would also improve the crossing of the CSX railroad for bicyclists. CMAQ funding has been allocated for a portion of this facility, although more funding would be needed for construction.

- 16 Richmond Road and Old Stage Road (James City County) - Many of the rural lowvolume roadways in northern James City and York Counties are used by recreational However, travel between rural cyclists. roadways is difficult where they intersect Richmond Road and Old Stage Road. Providing bike accommodations along these two roads, which are designated for bike lanes in the Regional Bicycle Facilities Plan, would not only improve safety for recreational cyclists but also provide more convenient access to services used by these cyclists. Many sections of Richmond Road have wide shoulders, so improvements should be targeted to those areas in the corridor without shoulders.
- 17 Route 143 (Williamsburg City Line to Route 132) - This short segment would connect Route 143 bikeways located in York County and Williamsburg. A portion of this gap is covered by project UPC #84484, which is fully funded for construction through CMAQ allocations.
- 18 South England Street/Country Road This facility would establish an important recreational connection for cyclists and pedestrians between Colonial Williamsburg, the James City County Governmental Center and Kingsmill, utilizing the existing South England Street and a portion of the former Carters Grove Country Road. Creating this bikeway will require cooperation between James City County and Williamsburg, and would necessitate the acquisition of the Country Road from the Colonial Williamsburg Foundation.
- 19 Victory Boulevard (North Bowman Terrace and East Yorktown Road) - This facility would connect existing bikeways and

neighborhoods along the Victory Boulevard corridor, as well as provide better access to Tabb High School.

Map 10 on page 54 shows the vision of the regional network included in the *Regional Bicycle Facilities Plan*, as well as those gaps in the existing network listed above that would best create an interconnected bikeway network throughout the study area.

James City County, Williamsburg, and York County officials should work with the Historic Triangle Bicycle Advisory Committee during their 2012 Comprehensive Plan Updates to review these critical gaps as well as the overall *Regional Bicycle Facilities Plan*.

#### Sidewalks

Gaps in the bikeway system are not the only nonmotorized transportation concern in James City County, Williamsburg, and York County. As in many areas, gaps in the sidewalk network are also an issue in the study area.

Gaps are particularly prevalent on major roadways in the counties. Many important corridors in James City County and York County have gaps in their sidewalk networks, or do not have sidewalks at all. Examples include sections of Ironbound Road, John Tyler Highway, Longhill Road, and Olde Towne Road in James City County, and George Washington Memorial Highway, Hampton Highway, Merrimac Trail, and Victory Boulevard in York County.

Williamsburg also has gaps in its sidewalk system, although these gaps are not as widespread as in the counties. Examples in Williamsburg include sections of Bypass Road, Compton Drive, Lafayette Street, and Monticello Avenue.

These gaps in each locality's sidewalk system are due, in part, to past roadway construction policies. In 2004 VDOT changed its policies, publishing the *Policy for Integrating Bicycle and Pedestrian Accommodations*. This policy requires VDOT staff to "initiate all highway construction projects with the presumption that the projects shall accommodate bicycling and walking." In recent years, each





locality's development policies have also been updated to require sidewalks. These policies, however, will not fill those gaps in the sidewalk system where roadway construction or development will not occur in the foreseeable future.

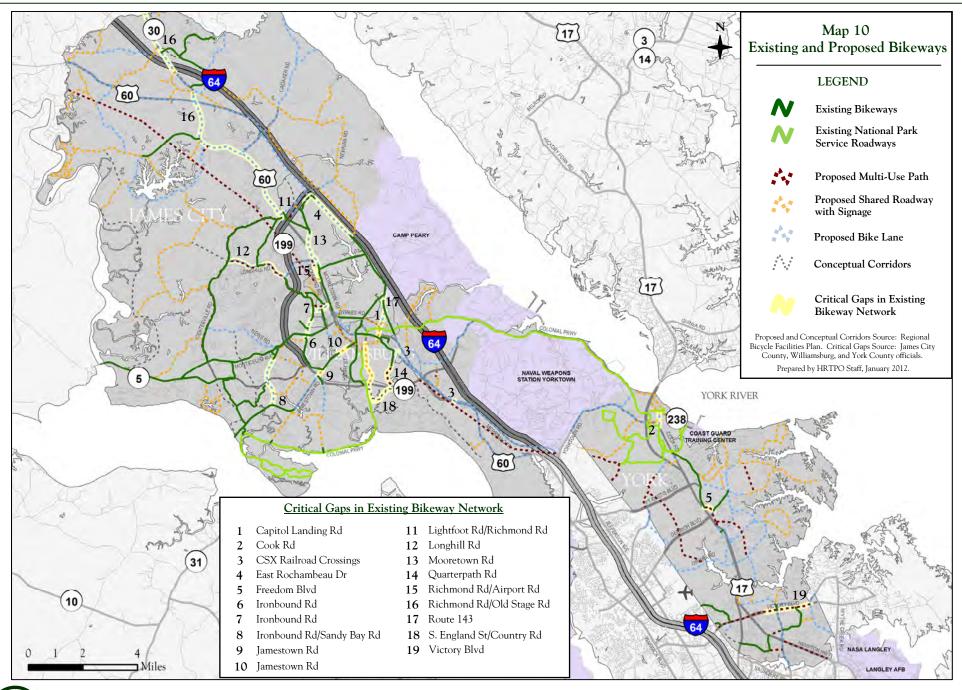
As mentioned in the Current Conditions section of this report, each of these localities will continue to address deficiencies in their sidewalk networks through their Sidewalk Master Plans and Comprehensive Plans.

#### Maintenance

Maintenance of bikeways and sidewalks is also an issue for the localities in the study area. Some sidewalks in older areas have fallen into disrepair, and some bikeways have narrowed due to vegetation growth and crumbling pavement. In many areas, bikeways are compromised by accumulations of sand, gravel and debris.

Per the *Policy for Integrating Bicycle and Pedestrian Accommodations*, VDOT will "maintain bicycle and pedestrian accommodations as necessary to keep the accommodations usable and accessible." Like roadways, however, this is dependent upon the amount of funding available for these efforts, both for VDOT and for cities.









### AIR TRAVEL

While there has not been much growth in passenger air travel in the past few years both on a national and regional level, it is expected that passenger air travel will increase as the economy improves. Each local airport prepares for this anticipated growth through its Master Plan.

# Newport News - Williamsburg International Airport

Passenger service levels at Newport News-Williamsburg International Airport will be greatly impacted in the near future by the loss of Airtran Airways. Southwest Airlines recent acquisition of Airtran Airways will result in a consolidation of their services, with the Airtran Airways name eventually being retired. As part of this consolidation, Southwest Airlines has announced that they will discontinue Airtran Airways service at Newport News-Williamsburg International Airport in March 2012, with Southwest Airlines continuing to serve the region through Norfolk International Airport. Frontier Airlines has also announced that its service between Newport News and Denver will only operate on a seasonal basis. On the other hand, Allegiant Air began four day a week service between Newport News-Williamsburg International Airport and the Orlando area in November 2011.

The Peninsula Airport Commission is currently updating the Newport News-Williamsburg International Airport's Master Plan. Various growth scenarios were developed as part of the plan, with the anticipated number of people using the airport ranging from 622,000 to 1.092 million enplaned passengers per year by 2025, up from 520,000 in 2010. The plan also anticipates moderate growth in commercial aircraft operations and aircraft based at the airport.

The update to the airport's Master Plan is currently in the Solutions Phase, where alternatives for improving the airport are developed and evaluated. Possible recommendations include improving check-in and baggage claim processes, consolidating security lines, reconfiguring existing runways, and



Newport News-Williamsburg International Airport

increasing access to the airport. The Master Plan is expected to be completed in 2012.

# Norfolk International Airport

The last update to the Norfolk International Airport Master Plan occurred in 2008. The Master Plan anticipates significant growth at Norfolk International Airport, from the current level of 1.7 million enplanements per year up to between 3 million and 3.75 million enplanements per year by 2024. The airport anticipates accommodating this growth by closing the current cross-runway and adding a runway parallel to the existing primary Upcoming improvements also include expanded baggage areas, concourses, security checkpoints, and rental car check-in positions, along with a new south access point.

In the short term, Norfolk International Airport will likely gain some flights due to Southwest Airlines acquisition of Airtran Airways, which is resulting in Southwest Airlines discontinuing Airtran Airways service at Newport News-Williamsburg International Airport.

# Richmond International Airport

Richmond International Airport updated its <u>Master Plan</u> in 2009, making recommendations for necessary improvements in order to meet anticipated demand through 2026. The plan forecasts passenger enplanements to increase from the current 1.7 million enplanements each year to between 2.5 million and 3.5 million passengers per





year by 2026. Air cargo is expected to grow at approximately 3.5% per year, matching the expected rate for U.S. domestic air cargo. General aviation operations and the number of based aircraft are expected to increase at 2.5% per year.

The airport has undergone many changes in recent years, including a new two-level terminal, new air traffic control tower, an increase in the total number of gates, widened security checkpoints, new parking garages, and a new terminal roadway. Access to the airport was also improved with the new Airport Connector from the Pocahontas Parkway (Route 895) being completed in 2011.

The airport has plans to add more gates as well as extend two existing runways and reconfigure another runway. Along with the runway changes, a new heavy aircraft maintenance and modification facility, a Federal Bureau of Investigation complex, and additional corporate aviation facilities are planned. Additional possibilities include an East Airside Development Access Road and a connection to the light rail system proposed in the Richmond Rail Transit Feasibility Study.

# Williamsburg Jamestown Airport

The 2009 Airport Feasibility Study projected an increase in total aircraft operations from the current 23,310 operations per year to 29,980 operations per year in 2025. However, as mentioned previously, the future of the Williamsburg Jamestown Airport is unknown due to the current airport owner's interest in selling the facility. James City County officials are supportive of the Williamsburg Jamestown Airport remaining in use as an airport facility.

# PUBLIC REVIEW AND COMMENTS

As part of the Hampton Roads Transportation Planning Organization's (HRTPO) efforts to provide opportunities for the public to review and comment on this draft report prior to the final product being published, a 2-week public comment period was provided. The public review period for the draft version of this study was conducted from February 1, 2012 through February 15, 2012. No public comments were received.

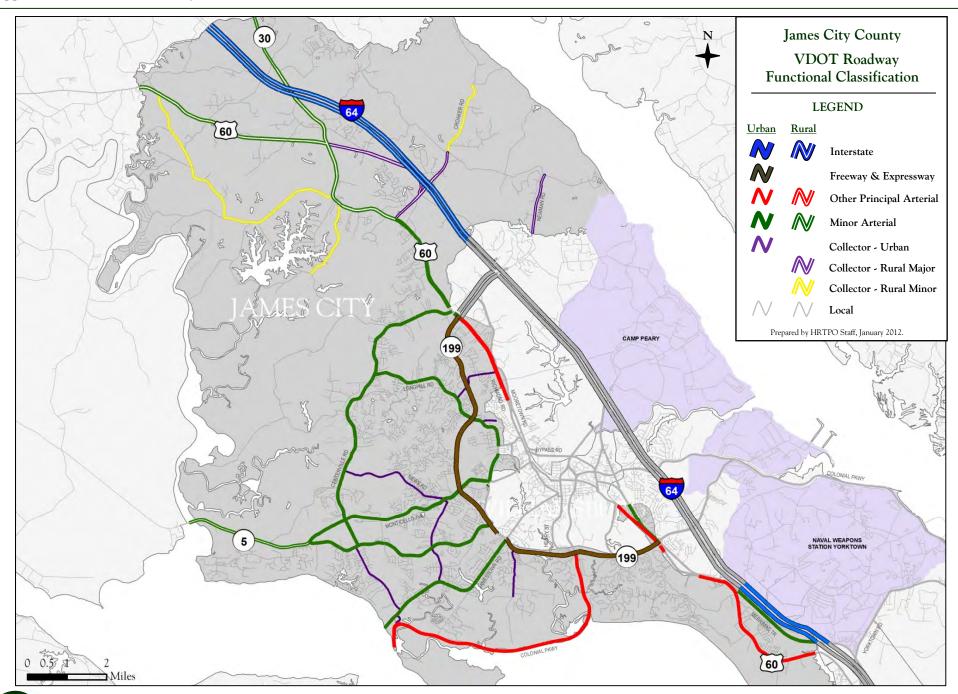
# **APPENDICES**

APPENDIX A - VDOT Roadway Functional Classification by Locality

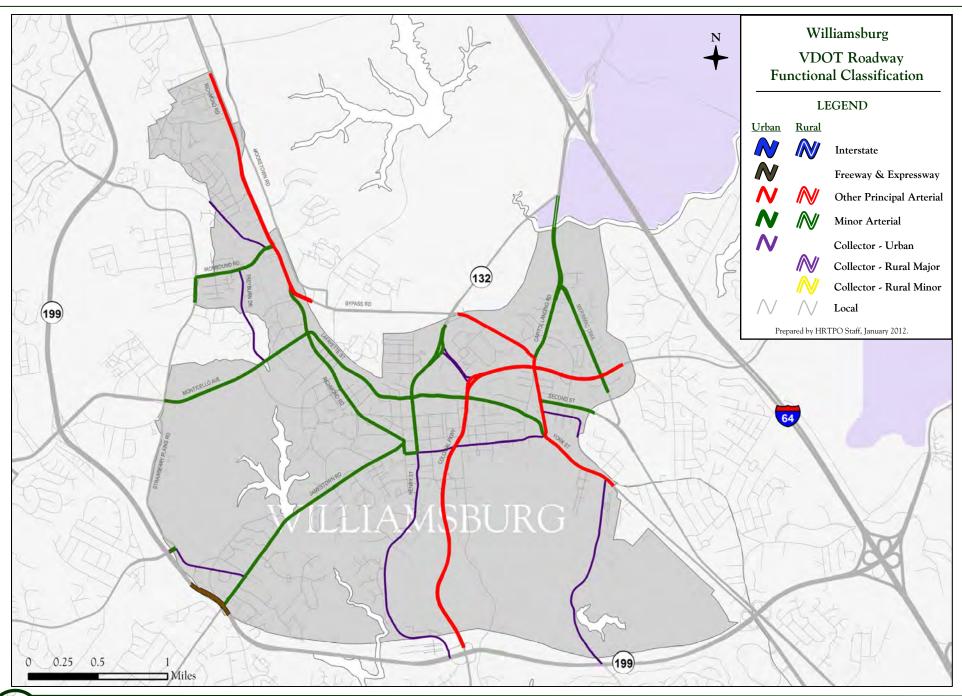
APPENDIX B - Roadway Projects Completed Since 2001

**APPENDIX** C - 2010 PM Peak Hour Congestion Levels by Locality

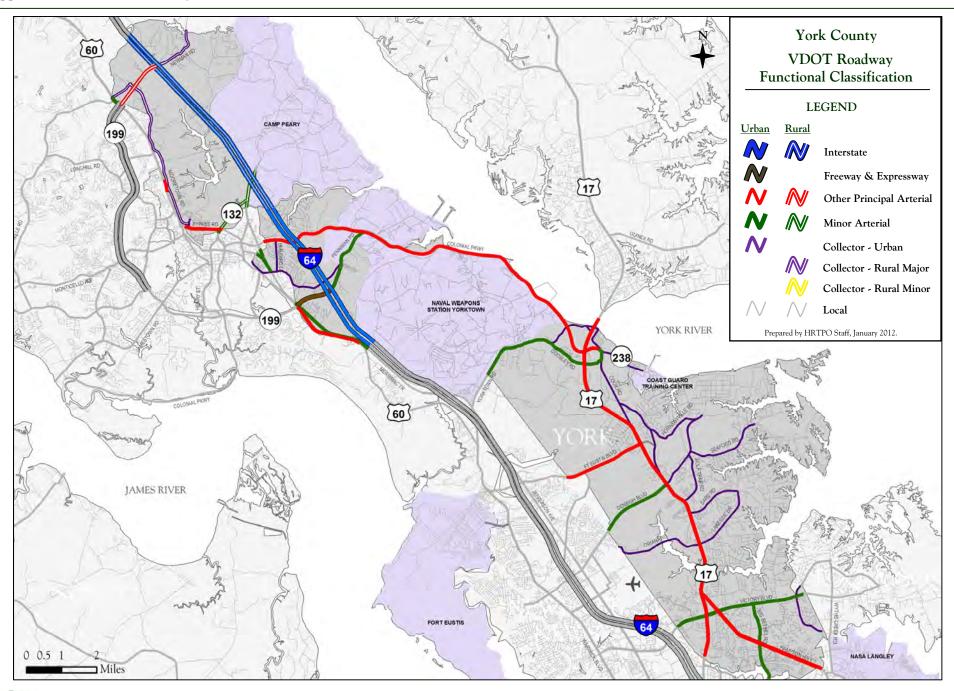
APPENDIX D - 2034 PM Peak Hour Congestion Levels by Locality







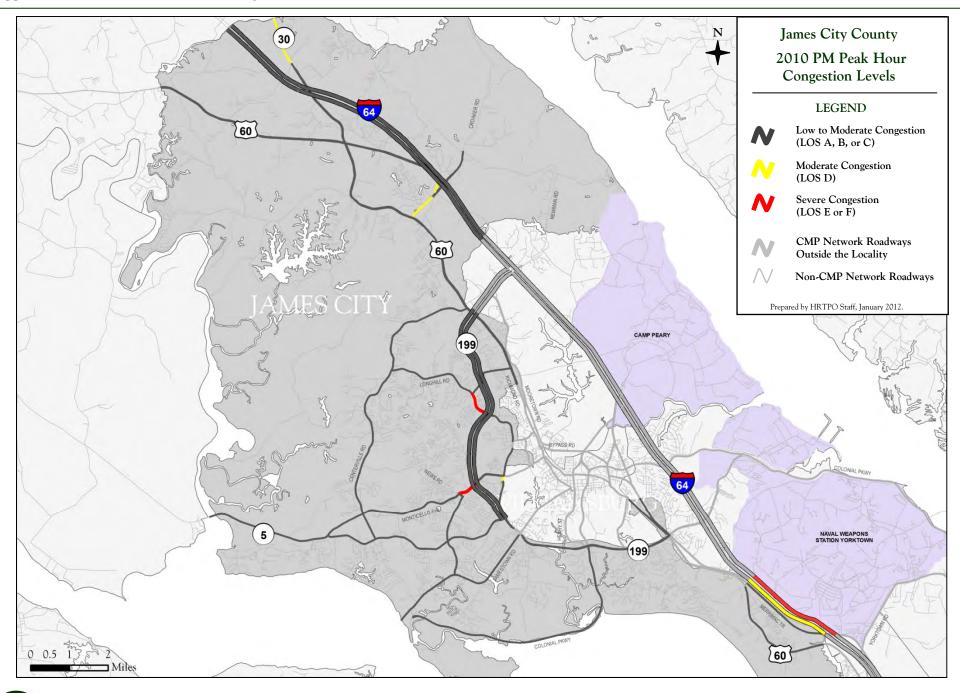




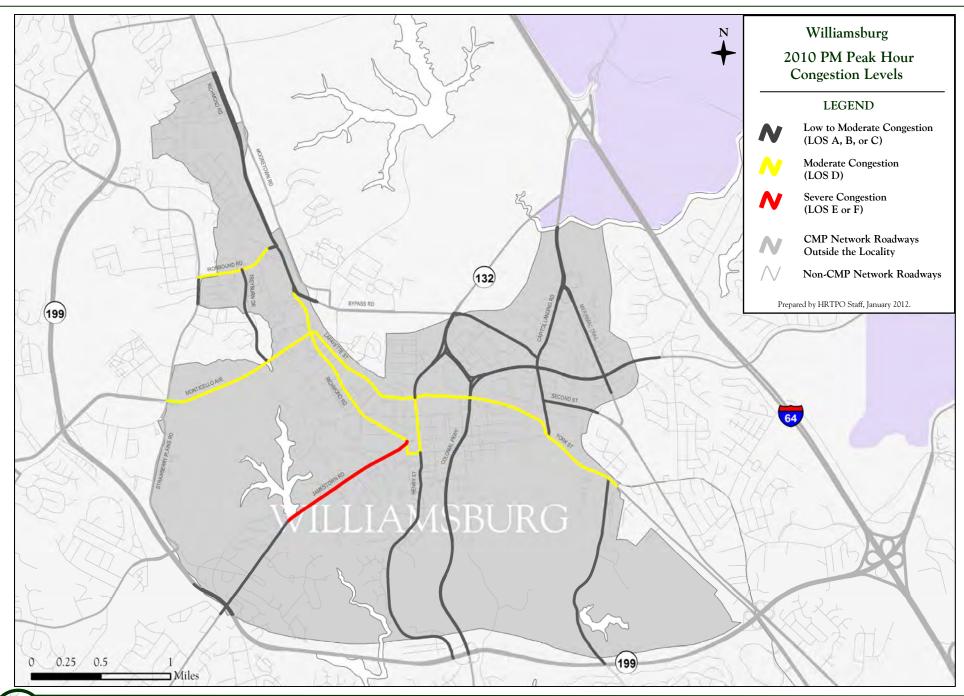


Juris-   diction   UPC	7,000 5,000 000 1,000
JCC         18202         New Roadway - Monticello Ave between John Tyler Hwy at News Rd         December 2001         \$12,44*           JCC         2058         New Interchange - 1-64 Grove Interchange         December 2003         \$43,536*           JCC         60408         Add Right Tum Lane - Croaker Rd at Richmond Rd         November 2004         \$120,4*           JCC         65273         Widening Route 199 from 2 to 4 Lanes - Williamsburg CL to South Henry St         November 2004         \$10,22.           JCC         65191         Widening Route 199 from 2 to 4 Lanes - South Henry St to Pocahontas Trail         November 2004         \$10,22.           JCC         65276         Relocation of Route 359 at Jamestown Settlement         May 2005         \$2,345           JCC         65146         Improve Rail Crossing - Diascund Rd at CSX Railroad         January 2006         \$97,0           JCC         6034         Widen Approaches - Monticello Ave at Ironbound Rd         March 2007         \$3,324           JCC         77065         Add Right Tum Lane - Ironbound Rd at John Tyler Hwy         September 2008         \$393,           JCC         87687         Install Traffic Signal - Richmond Rd at Eris Station #2         October 2010         \$40,800           JCC         94645         Install Traffic Signal - Richmond Rd at Longhill Rd         January 2	7,000 5,000 000 1,000
JCC 2058 New Interchange - 1-64 Grove Interchange  Goundary Borne Statistics   December 2003   \$43,536    JCC 60408 Add Right Turn Lane - Croaker Rd at Richmond Rd   November 2004   \$120,0    JCC 65273 Widening Route 199 from 2 to 4 Lanes - Williamsburg CL to South Henry St   November 2004   \$10,22    JCC 65191 Widening Route 199 from 2 to 4 Lanes - South Henry St to Pocahontas Trail   November 2004   \$16,41    JCC 65276 Relocation of Route 359 at Jamestown Settlement   May 2005   \$2,345    JCC 65146 Improve Rail Crossing - Diascund Rd at CSX Railroad   January 2006   \$97,0    JCC 60034 Widen Approaches - Monticello Ave at Ironbound Rd   March 2007   \$3,324    JCC 77065 Add Right Turn Lane - Ironbound Rd at John Tyler Hwy   September 2008   \$393,0    JCC 87687 Install Traffic Signal - Richmond Rd at Croaker Rd   December 2008   \$111,0    JCC 71883 Route 5 Bridge Replacement   April 2010   \$40,800    JCC 94645 Install Traffic Signal - Richmond Rd at Fire Station #2   October 2010   \$160,0    JCC 94541 Add Turn Lanes - Centerville Rd at Longhill Rd   January 2011   \$714,0    JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd   November 2011   \$241,0    WMB 65275 Intersection Improvements - Route 199 at Brookwood Drive   May 2005   \$3,789    WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St   November 2006   \$15,744    WMB 16054 New Roadway - Treyburn Dr   December 2007   \$4,523    YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd   April 2001   \$1,630    YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd   July 2001   \$612,0    Secure Provided From 2 to 3/4 Lanes - Bypass Rd to Brooks St   July 2001   \$612,0    Secure Provided From 2 to 3/4 Lanes - George Washington Hwy at Victory Blvd   July 2001   \$612,0    Secure Provided From 2 to 3/4 Lanes - George Washington Hwy at Victory Blvd   July 2001   \$612,0    Secure Provided From 2 to 4 Lanes - George Washington Hwy at Victory Blvd   July 2001   \$612,0    Secure Provide	5,000
JCC 60408 Add Right Tum Lane - Croaker Rd at Richmond Rd November 2004 \$120,0 JCC 65273 Widening Route 199 from 2 to 4 Lanes - Williamsburg CL to South Henry St November 2004 \$120,0 JCC 65191 Widening Route 199 from 2 to 4 Lanes - South Henry St to Pocahontas Trail November 2004 \$16,412 JCC 65276 Relocation of Route 359 at Jamestown Settlement May 2005 \$2,345 JCC 65146 Improve Rail Crossing - Diascund Rd at CSX Railroad January 2006 \$97,0 JCC 60034 Widen Approaches - Monticello Ave at Ironbound Rd March 2007 \$3,324 JCC 77065 Add Right Tum Lane - Ironbound Rd at John Tyler Hwy September 2008 \$393, JCC 87687 Install Traffic Signal - Richmond Rd at Croaker Rd December 2008 \$111, JCC 71883 Route 5 Bridge Replacement April 2010 \$40,800 JCC 94645 Install Traffic Signal - Richmond Rd at Fire Station #2 October 2010 \$160,0 JCC 94541 Add Tum Lanes - Centerville Rd at Longhill Rd January 2011 \$714,0 JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,0 JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,0 JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,0 JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,0 JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,0 JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,0 JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2006 \$15,740 WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,740 WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2007 \$4,523 YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630 YC 50552 Add Tum Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,0 July 2001 \$612,0 July 2001	000,000
JCC 65273 Widening Route 199 from 2 to 4 Lanes - Williamsburg CL to South Henry St November 2004 \$10,22.  JCC 65191 Widening Route 199 from 2 to 4 Lanes - South Henry St to Pocahontas Trail November 2004 \$16,412.  JCC 65276 Relocation of Route 359 at Jamestown Settlement May 2005 \$2,345  JCC 65146 Improve Rail Crossing - Diascund Rd at CSX Railroad January 2006 \$97,0  JCC 60034 Widen Approaches - Monticello Ave at Ironbound Rd March 2007 \$3,324  JCC 77065 Add Right Turn Lane - Ironbound Rd at John Tyler Hwy September 2008 \$393,0  JCC 87687 Install Traffic Signal - Richmond Rd at Croaker Rd December 2008 \$111,0  JCC 71883 Route 5 Bridge Replacement April 2010 \$40,800  JCC 94645 Install Traffic Signal - Richmond Rd at Fire Station #2 October 2010 \$160,0  JCC 94541 Add Turn Lanes - Centerville Rd at Longhill Rd January 2011 \$714,0  JCC 94541 Add Turn Lanes - Route 199 at John Tyler Hwy April 2011 \$1,006  R7686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,0  WMB 65275 Intersection Improvements - Route 199 at Brookwood Drive May 2005 \$3,789  WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748  WMB 14751 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630  YC 14701 Construct Through Lane - George Washington Hwy at Victory Blvd July 2001 \$612,0  State Proceedings of the State Procedure of Procedure Procedu	,000
JCC 65191 Widening Route 199 from 2 to 4 Lanes - South Henry St to Pocahontas Trail November 2004 \$16,412  JCC 65276 Relocation of Route 359 at Jamestown Settlement May 2005 \$2,345  JCC 65146 Improve Rail Crossing - Diascund Rd at CSX Railroad January 2006 \$97,0  JCC 60034 Widen Approaches - Monticello Ave at Ironbound Rd March 2007 \$3,324  JCC 77065 Add Right Turn Lane - Ironbound Rd at John Tyler Hwy September 2008 \$393,0  JCC 87687 Install Traffic Signal - Richmond Rd at Croaker Rd December 2008 \$111,0  JCC 71883 Route 5 Bridge Replacement April 2010 \$40,800  JCC 94645 Install Traffic Signal - Richmond Rd at Fire Station #2 October 2010 \$160,0  JCC 90435 Add Turn Lanes - Centerville Rd at Longhill Rd January 2011 \$714,0  JCC 94541 Add Turn Lanes - Route 199 at John Tyler Hwy April 2011 \$1,006  87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,0  WMB 65275 Intersection Improvements - Route 199 at Brookwood Drive May 2005 \$3,789  WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748  WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2007 \$4,523  YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$162,0  July 2001 \$612,0	
JCC 65276 Relocation of Route 359 at Jamestown Settlement  JCC 65146 Improve Rail Crossing - Diascund Rd at CSX Railroad  JGC 60034 Widen Approaches - Monticello Ave at Ironbound Rd  March 2007 \$3,324  JCC 77065 Add Right Turn Lane - Ironbound Rd at John Tyler Hwy  September 2008 \$393,4  JCC 87687 Install Traffic Signal - Richmond Rd at Croaker Rd  December 2008 \$111,4  JCC 71883 Route 5 Bridge Replacement  April 2010 \$40,800  JCC 94645 Install Traffic Signal - Richmond Rd at Fire Station #2  October 2010 \$160,4  JCC 90435 Add Turn Lanes - Centerville Rd at Longhill Rd  JCC 94541 Add Turn Lanes - Route 199 at John Tyler Hwy  April 2011 \$1,006  JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd  November 2011 \$241,4  WMB 65275 Intersection Improvements - Route 199 at Brookwood Drive  WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad  WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St  November 2006 \$15,748  WMB 16054 New Roadway - Treyburn Dr  YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd  April 2001 \$1630  July 2001 \$612,0  July 2001 \$612,0	
JCC 65146 Improve Rail Crossing - Diascund Rd at CSX Railroad January 2006 \$97,0  JCC 60034 Widen Approaches - Monticello Ave at Ironbound Rd March 2007 \$3,324  JCC 77065 Add Right Turn Lane - Ironbound Rd at John Tyler Hwy September 2008 \$393,0  JCC 87687 Install Traffic Signal - Richmond Rd at Croaker Rd December 2008 \$111,0  JCC 71883 Route 5 Bridge Replacement April 2010 \$40,800  JCC 94645 Install Traffic Signal - Richmond Rd at Fire Station #2 October 2010 \$160,0  JCC 90435 Add Turn Lanes - Centerville Rd at Longhill Rd January 2011 \$714,0  JCC 94541 Add Turn Lanes - Route 199 at John Tyler Hwy April 2011 \$1,006  JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,0  WMB 65275 Intersection Improvements - Route 199 at Brookwood Drive May 2005 \$3,789  WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad December 2005 \$73,0  WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748  WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523	,000
JCC 60034 Widen Approaches - Monticello Ave at Ironbound Rd  JCC 77065 Add Right Turn Lane - Ironbound Rd at John Tyler Hwy  September 2008 \$393,  JCC 87687 Install Traffic Signal - Richmond Rd at Croaker Rd  December 2008 \$111,  JCC 71883 Route 5 Bridge Replacement  April 2010 \$40,808  JCC 94645 Install Traffic Signal - Richmond Rd at Fire Station #2  October 2010 \$160,  JCC 94541 Add Turn Lanes - Centerville Rd at Longhill Rd  JCC 94541 Add Turn Lanes - Route 199 at John Tyler Hwy  April 2011 \$1,006  JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd  WMB 65275 Intersection Improvements - Route 199 at Brookwood Drive  WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad  WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St  November 2006 \$15,748  WMB 16054 New Roadway - Treyburn Dr  YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd  YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd  July 2001 \$612,9	,000
JCC 77065 Add Right Turn Lane - Ironbound Rd at John Tyler Hwy September 2008 \$393,  JCC 87687 Install Traffic Signal - Richmond Rd at Croaker Rd December 2008 \$111,  JCC 71883 Route 5 Bridge Replacement April 2010 \$40,808  JCC 94645 Install Traffic Signal - Richmond Rd at Fire Station #2 October 2010 \$160,  JCC 90435 Add Turn Lanes - Centerville Rd at Longhill Rd January 2011 \$714,  JCC 94541 Add Turn Lanes - Route 199 at John Tyler Hwy April 2011 \$1,006  JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,  WMB 65275 Intersection Improvements - Route 199 at Brookwood Drive May 2005 \$3,789  WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad December 2005 \$73,0  WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748  WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523   YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630  YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,9  July 2001	00
JCC 87687 Install Traffic Signal - Richmond Rd at Croaker Rd December 2008 \$111,  JCC 71883 Route 5 Bridge Replacement April 2010 \$40,808  JCC 94645 Install Traffic Signal - Richmond Rd at Fire Station #2 October 2010 \$160,4  JCC 90435 Add Turn Lanes - Centerville Rd at Longhill Rd January 2011 \$714,4  JCC 94541 Add Turn Lanes - Route 199 at John Tyler Hwy April 2011 \$1,006  JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,4  WMB 65275 Intersection Improvements - Route 199 at Brookwood Drive May 2005 \$3,789  WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad December 2005 \$73,6  WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748  WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523  YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630  YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,9	,000
JCC 94645 Install Traffic Signal - Richmond Rd at Fire Station #2 October 2010 \$160, JCC 90435 Add Turn Lanes - Centerville Rd at Longhill Rd January 2011 \$714, JCC 94541 Add Turn Lanes - Route 199 at John Tyler Hwy April 2011 \$1,006 JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241, JCC 87686 Intersection Improvements - Route 199 at Brookwood Drive May 2005 \$3,789 WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad December 2005 \$73, CWMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748 WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523 YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630 YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,9	000
JCC 94645 Install Traffic Signal - Richmond Rd at Fire Station #2 October 2010 \$160, JCC 90435 Add Turn Lanes - Centerville Rd at Longhill Rd January 2011 \$714, JCC 94541 Add Turn Lanes - Route 199 at John Tyler Hwy April 2011 \$1,006 JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241, JCC 87686 Intersection Improvements - Route 199 at Brookwood Drive May 2005 \$3,789 WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad December 2005 \$73,0 WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748 WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523 YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630 YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,9	000
JCC 90435 Add Turn Lanes - Centerville Rd at Longhill Rd January 2011 \$714, JCC 94541 Add Turn Lanes - Route 199 at John Tyler Hwy April 2011 \$1,006 JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241, May 2005 \$3,789 WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad December 2005 \$73,0 WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748 WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523 YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630 YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,9	,000
JCC 94541 Add Turn Lanes - Route 199 at John Tyler Hwy JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd  WMB 65275 Intersection Improvements - Route 199 at Brookwood Drive WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St  WMB 16054 New Roadway - Treyburn Dr  YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd  April 2011 \$1,006  Rapril 2011 \$1,006  \$1,006  \$241,006  \$1,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$241,006  \$	000
JCC 87686 Install Traffic Signal - Centerville Rd at Longhill Rd November 2011 \$241,4  WMB 65275 Intersection Improvements - Route 199 at Brookwood Drive May 2005 \$3,789  WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad December 2005 \$73,0  WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748  WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523  YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630  YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,9	000
WMB 65275 Intersection Improvements - Route 199 at Brookwood Drive May 2005 \$3,789 WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad December 2005 \$73,0 WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748 WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523  YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630 YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,9	,000
WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad December 2005 \$73,0 WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748 WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523  YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630 YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,9	000
WMB 68074 Improve Rail Crossing - Henry St at CSX Railroad December 2005 \$73,0 WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748 WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523  YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630 YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,9	
WMB 14750 Widening Richmond Rd from 2 to 3/4 Lanes - Bypass Rd to Brooks St November 2006 \$15,748 WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523  YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630 YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,9	,000
WMB 16054 New Roadway - Treyburn Dr December 2007 \$4,523  YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630  YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,000	00
YC 14701 Construct Through Lane - George Washington Hwy from York Crossing Rd to Wolf Trap Rd April 2001 \$1,630 YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,000	3,000
YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,	,000
YC 50552 Add Turn Lanes - George Washington Hwy at Victory Blvd July 2001 \$612,	
	,000
	000
YC 13715 Add Tun Lane - Dare Rd East of George Washington Hwy September 2003 \$1,253	,000
YC 64916 Extend Turn Lane - Victory Blvd at George Washington Hwy November 2003 \$69,0	00
YC 52521 Install Left Turn Lanes - Route 143 at Rochambeau Dr/I-64 Ramp March 2004 \$253,	000
YC 57022 Install Traffic Signal and Left Turn Lanes - Mooretown Rd at Airport Rd May 2004 \$576,	000
YC 17935 Intersection Improvements - Carys Chapel Rd/East Yorktown Rd at Victory Blvd April 2006 \$2,620	,000
YC 14627 New Roadway - Fort Eustis Blvd Extended December 2006 \$6,450	,000
YC 11267 Add Turn Lanes - Big Bethel Rd at Victory Blvd and Hampton Hwy May 2007 \$2,930	,000
YC 52342 Intersection Realignment - Grafton Dr at Amory Ln March 2008 \$1,193	,000
YC 87688 Install Traffic Signal - Old Williamsburg Rd at Baptist Rd/Yorktown Weapons Station Ent December 2008 \$109,	)00
YC 94129 Improve Traffic Signal - Route 199 at Merrimac Trail October 2010 \$119,	000
YC 94127 Rebuild Existing Traffic Signal - Route 132 at Route 143 November 2010 \$150,	000
YC 93024 Improve Rail Crossing - Pocahontas Trail at CSX Railroad near Busch Gardens January 2011 \$335,	
YC 94459 Extend Turn Lane - Hampton Hwy at Tabb Smith Trail June 2011 \$117,	
YC 96880 Improve Rail Crossing - George Washington Hwy South of Fort Eustis Blvd October 2011 \$50,0	000

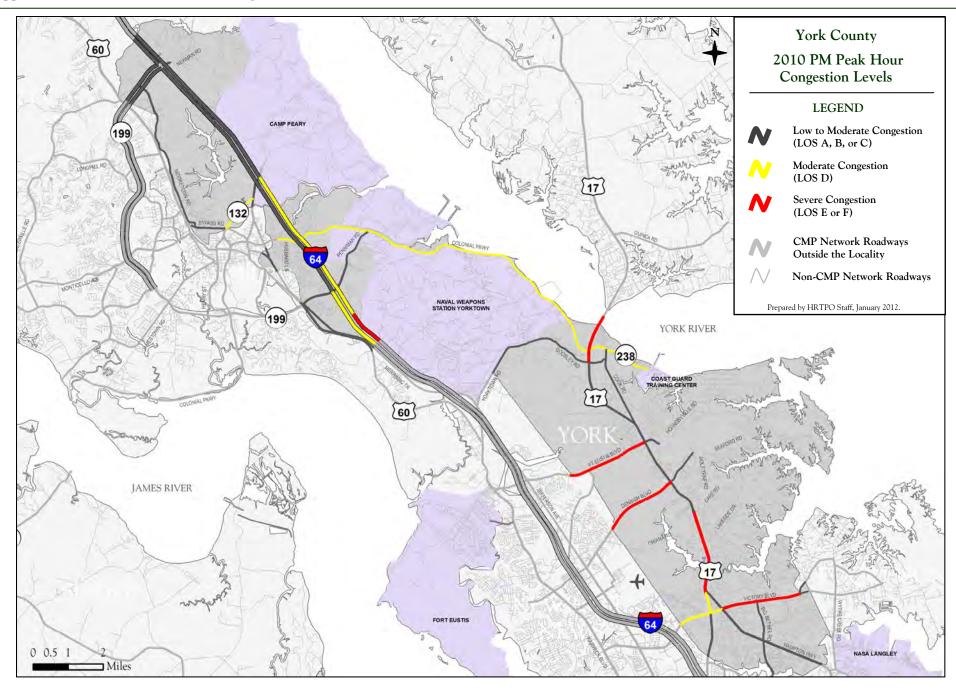
 $Roadway\ Projects\ Completed\ Since\ 2001$  Data sources: VDOT, HRTPO. Based on data collected from the SYIP as of October 2011. UPC is the Universal Project Code number.





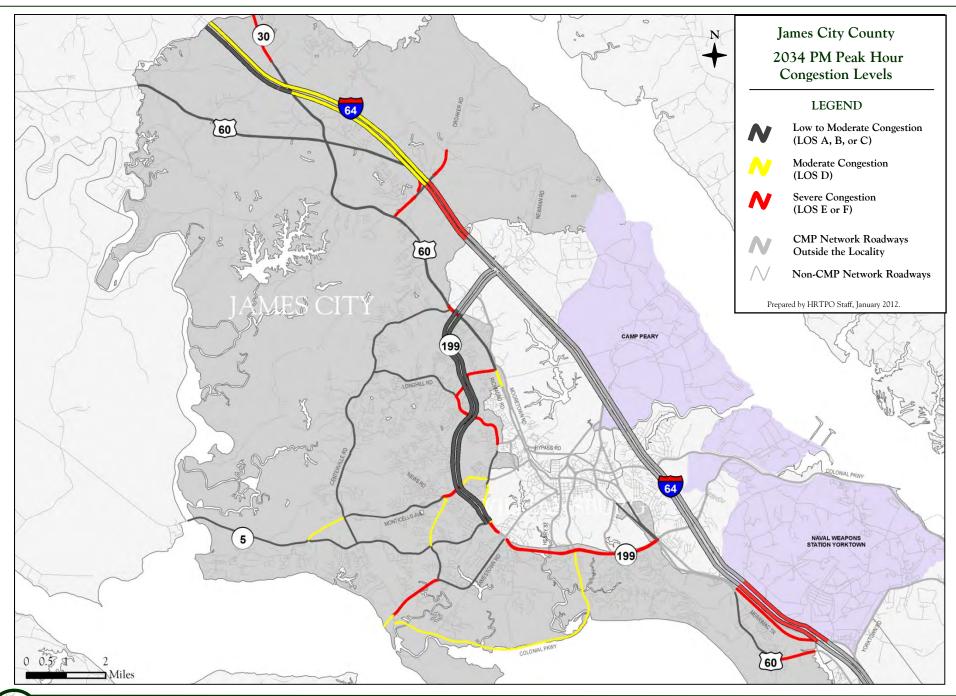




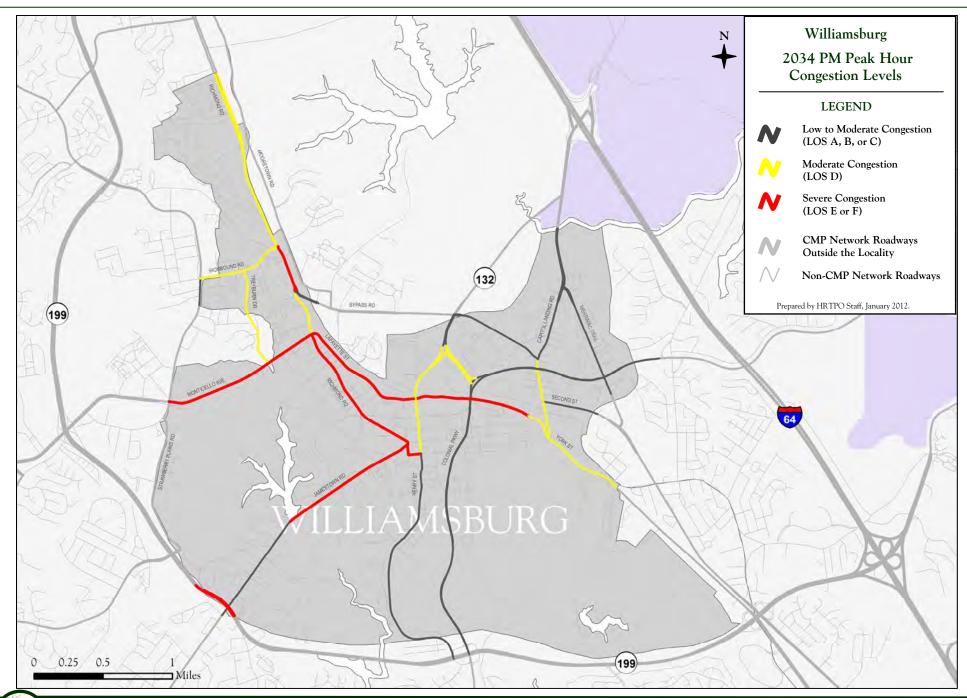




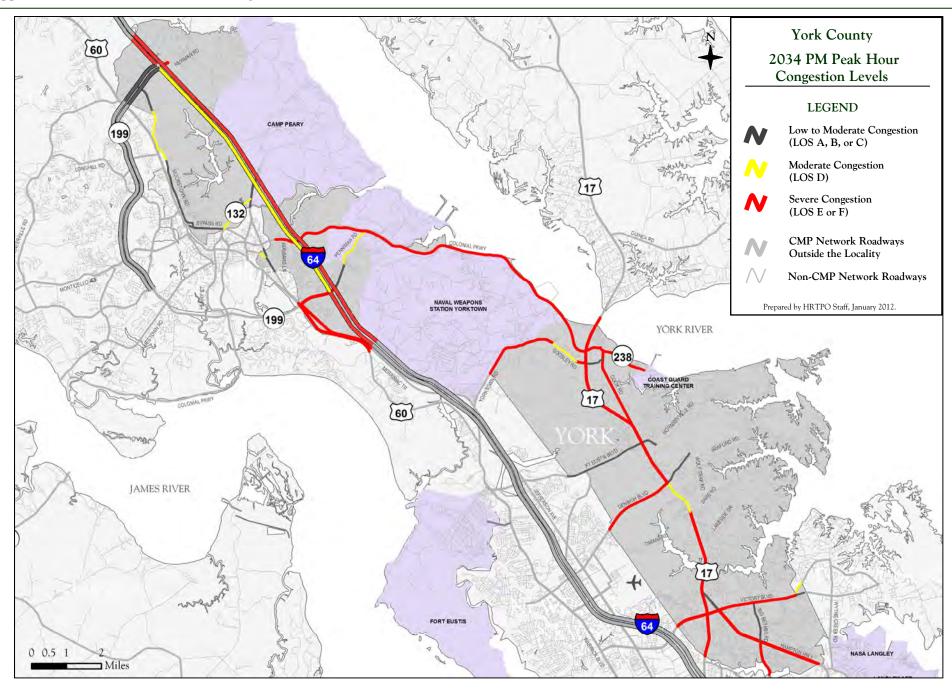




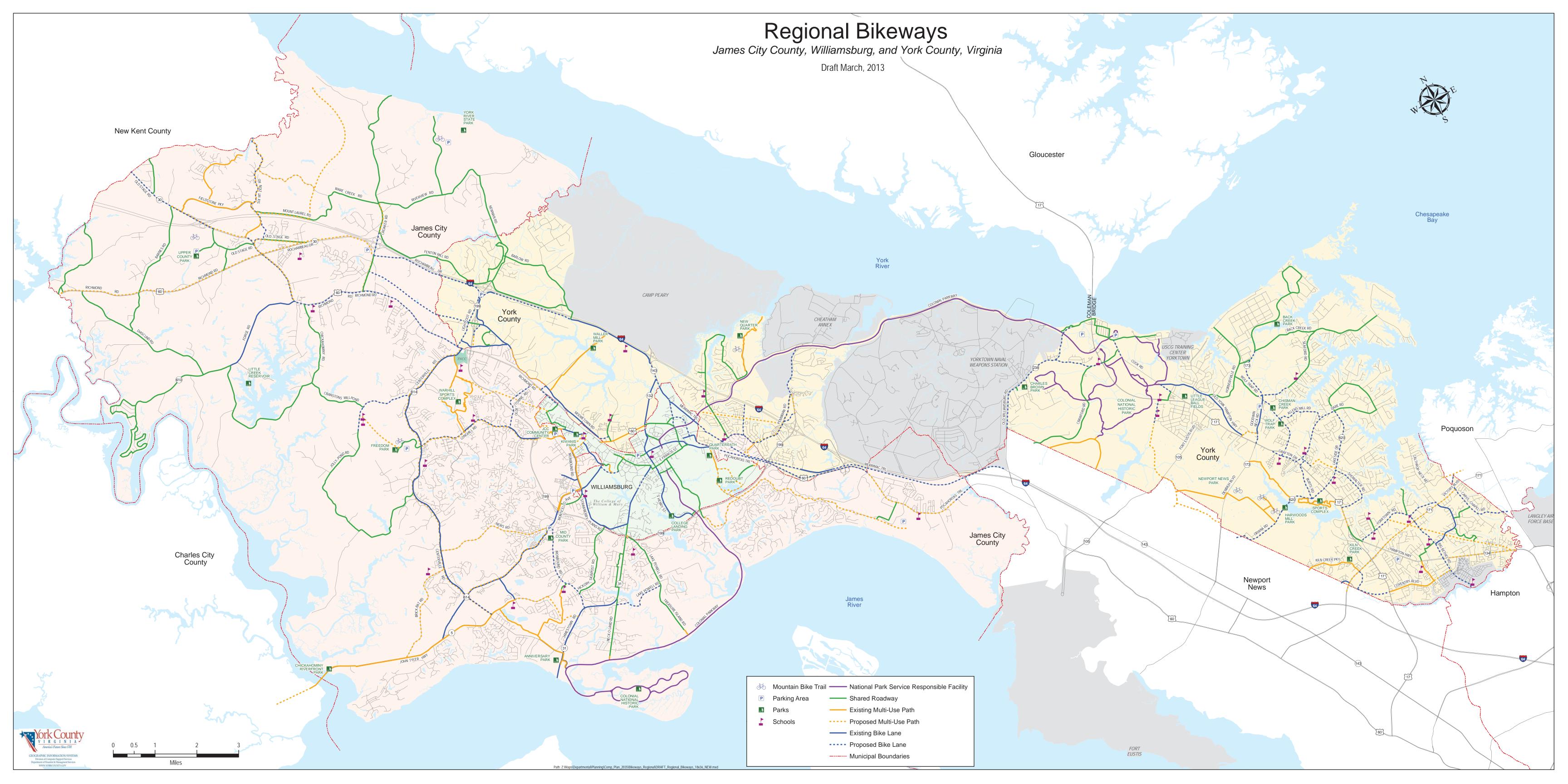












### **MEMORANDUM**

DATE:

March 14, 2013

TO:

The Policy Committee

FROM:

Paul D. Holt, III, Director of Planning

SUBJECT:

Planning Division Work Program - Remainder FY13 and FY14

The information contained in this memorandum is designed to provide the Policy Committee with an update on the Planning Division work program for the remainder of fiscal year 2013 and for fiscal year 2014. Staff is particularly interested in talking to the Committee about item II, Ordinance amendments, in the context of the Comprehensive Plan and the other work program items noted below.

#### I. Comprehensive Plan-related activities

As has already been outlined in a separate memo, staff anticipates some work on the Comprehensive Plan in the next fiscal year, and looks forward to additional discussion and input on this category.

#### II. Ordinance amendments

Currently underway are an examination of pawnshops and changes to the landscape ordinance. Other potential ordinance amendments, together with a short description, are listed below:

Rural Lands Public Engagement	This major item was part of the original Zoning Ordinance Update. Anticipate bringing forward a proposed methodology to define a public engagement process to solicit public/stakeholder input into the commercial and residential aspects of the Rural Lands districts.
Chickens in Residential Districts	This item was brought to Commission's and Board's attention in 2012. Anticipate examining whether to permit chickens, and if so, under what circumstances.
Accessory Apartments	This item was discussed by the Policy Committee. Anticipate re-examining whether to permit/specially permit accessory apartments in the various districts and their associated standards and conditions.
Fast Food Restaurant	Clarify the current definition, based on recent experience/inquiries and the industry.
Other Housekeeping	Based on recent experience, staff anticipates small "tweaks" to the Parking, Wireless Communication Facilities, and R-4 sections of the ordinance.
Wind and Solar Production/ Electric Vehicle Charging	Examine changes to the ordinance to accommodate these technologies.

# III. Transportation projects

Preparation of information and coordination of transportation items has been a significant work program item in past years, and staff anticipates this category continuing and increasing in scope in coming years. In particular, the two County-administered corridor studies will be major planning efforts spanning 12-18 months and will include technical reports and public/stakeholder input.

Management of Corridor Studies - Longhill Road and Mooretown Extended	
Updates to Six Year Plan	
Participation in on-going regional effort to secure a VDOT enhancement money for Rt. 60	
Work with VDOT on approved transportation improvement projects (such as Rt. 60 relocated, Skiffes	Creek
Connector, Racefield Road, Croaker Multi-Use Trail, etc.)	
On-going work with the Hampton Roads Transportation Planning Organization on funding of existing p	rojects
Preparation of new requests for various funding sources (CMAQ, RSTP, Transportation Alternatives Pr	
etc.)	

#### IV. Other "Special Projects"

Cumulative Impact Tracking project – next steps include assigning per unit/lot impacts in various impact categories (especially re: traffic and transportation)

Establishment of an AFDs of Local Significance Program (per recent changes in State Code)

Follow-up to items adopted during the Zoning Ordinance update (green building internal and external training, establishment of protocols for the Housing Opportunity Policy)

#### V. "Routine" duties

In addition to the items above, staff will complete "routine" duties, including, but not limited to; current planning case review and preparation (conceptual, site, subdivision, rezoning, SUP, etc.); demographic and socioeconomic updates and information; work with groups such as the Historical Commission, HTBAC, Williamsburg Botanical Garden, New Town DRB, etc.; greenspace acquisition and monitoring assistance; coordinating updates of the Comprehensive Plan Goals, Strategies and Actions; preparation of Capital Improvement Program materials; tracking State Legislation; and Division management (budget, workload indicators, work program, etc.).

#### **Division Resources**

During the last Comprehensive Plan update, the Division had nine staff planners, plus management and support staff. At the present time, the Division has six staff planners, plus management and support staff.

# Conclusion

Staff looks forward to the Policy Committee's discussion on March 14, 2013. Staff looks to the Committee for its priorities, information about the Committee's expectations (scope, timing, etc.) for the projects described above, and information on any other items the Committee may wish to consider in FY13/FY14. This input will help prepare staff for the Planning Commission/Board of Supervisors joint work session, with an aim toward better aligning the work program and resources to expectations.