

# PUBLIC WORKS

## DESCRIPTION

The Henrico County Department of Public Works maintains the third largest road network in the State after the State of Virginia and the City of Virginia Beach. The Department is responsible for the construction and maintenance of all secondary roads in the county, storm water drainage, administration of Public Transit services, and enforcement of erosion and sedimentation laws and ordinances. The Department is organized into the following divisions: Administration, Design, Maintenance, Construction, Transportation Development, Traffic Engineering, Environmental Control, Real Property, and Standing Water Initiative.

Most departmental services are funded from gasoline tax revenues from the State of Virginia and license fee revenue collected in the county’s General Fund. In addition, the General Fund provides for certain Board of Supervisors’ directives including the Environmental Control Program, Vacuum Leaf services, the JOBS transit service, the Standing Water Initiative, and supplemental funding for the Mass Transit division.

The Central Virginia Transportation Authority (CVTA) provides additional funding for transportation and mobility projects in the County and across the Richmond region through additional sales and gas taxes. Fifty percent of the revenues are sent directly to the member localities, thirty-five percent of the revenues are targeted for regionally significant projects, and fifteen percent of the revenues are dedicated to public transit and regional mobility. The Department of Public Works has representation on the CVTA Technical Advisory Committee and is responsible for programming the County’s allocation of CVTA funds, as well as project development, programming, and construction.

## OBJECTIVES

- Develop and maintain a safe and efficient road system.
- Develop and maintain an efficient and economical storm drainage system.
- Ensure that road and drainage facility construction is accomplished in accordance with appropriate standards and in an environmentally correct manner.

## FISCAL YEAR 2023 SUMMARY

### Annual Fiscal Plan

Description	FY21 Actual	FY22 Original	FY23 Approved	Change 22-23
Personnel	\$ 17,763,557	\$ 21,043,880	\$ 24,702,954	17.4%
Operation	22,180,043	30,753,040	30,664,946	(0.3%)
Capital	1,933,307	2,854,250	3,050,465	6.9%
Total	<u>\$ 41,876,907</u>	<u>\$ 54,651,170</u>	<u>\$ 58,418,365</u>	<u>6.9%</u>

Personnel Complement 269 281 295 \* 14

\* Seven positions added with Real Property in FY22, three project managers, one transportation engineer, one accountant for the administration division, one traffic engineer, and one design engineer.

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### PERFORMANCE MEASURES

	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>Change 22-23</u>
<b>Workload Measures</b>				
Lane Miles of Road Maintained	3,555	3,563	3,573	10
Traffic Signals Maintained	169	177	180	3
Development Plans Reviewed	882	900	1,000	100
Property and Easements Purchased	\$ 2,600,000	\$ 1,800,000	\$ 3,500,000	\$ 1,700,000

### OBJECTIVES CONTINUED

- Review and provide the most cost-effective public transit system for county residents.
- Provide prompt responses to citizen inquiries or requests for service.
- Enforce Chesapeake Bay Act regulations along with current erosion and sedimentation control ordinances and policies.

### BUDGET HIGHLIGHTS

The Department's budget for FY23 is \$58,418,365, representing an increase of \$3,767,195 or 6.9% from the FY22 approved budget. Within this budget, which combines both Gas Tax and General Fund supported programs, the personnel component is budgeted to increase \$3,659,074, or 17.4%. The increase in the personnel component is due to the addition of seven positions as the former Real Property department is integrated into Public Works, seven positions added for project management, engineering, and administrative functions, funding nine positions that had been unfunded in FY22 due to the pandemic, along with wage adjustments, fringe benefit costs, and a merit-based salary increase.

Despite \$24,621 added from the inclusion of Real Property, and \$68,500 added for CAM rate changes, the operating component decreased \$88,094, or 0.3%, as operating funds are shifted to the capital portion of the budget. Capital outlay costs are budgeted to increase by \$196,215 providing equipment for the new positions, and replacement machinery and equipment needed for transportation projects.

The FY23 budget includes funding of \$47,172,187 from the State's Gas Tax maintenance allocation, \$11,056,178 from Henrico's General Fund subsidy, and \$190,000 from miscellaneous departmental revenue. The total projected Gas Tax for FY23 is based on the allocation for operations and maintenance and does not include a construction allocation. If gas tax were allocated for construction, it would be included in the capital budget section of this document. There has not been a construction allocation funded by gas tax since FY09.

The State's Gas Tax maintenance allocation is used for 80.8% of the operating budget. The gas tax allocation will support all Department of Public Works' divisions except the Standing Water Initiative and Environmental Inspection. This revenue source is restricted to roadway maintenance activities.

The functions supported by the General Fund subsidy total \$8,481,994. The General Fund supports 100% of expenses related to the Standing Water Initiative and the Environmental Inspection Division.

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Public Works has several projects included in Henrico County's FY23 Capital Budget. Countywide land acquisitions (drainage), minor drainage improvements, and countywide creeks and streams projects have a combined budget of \$1,750,000 and are funded by revenues from motor vehicle license fees. Additionally, \$5,000,000 is included in the Capital Budget for countywide pedestrian improvements and \$27,500,000 for CVTA funded projects.

What follows is a discussion of each of the divisions within Public Works.

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### ADMINISTRATION DIVISION

The total budget for the Administration Division is \$2,074,791 and is an increase of 229,934, or 12.5%, from FY22. The personnel component is expected to increase by \$221,058, or 13.2%, which reflects salary investments, associated benefit costs, and the addition of one accounting position. The operating component increased \$6,376 for telecommunications expenses, while capital outlay will increase \$2,500 or 2.5% for equipment supporting the new position.

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### ROAD MAINTENANCE DIVISION

The total budget for the Road Maintenance Division is \$31,669,869, which is an increase of 1,846,482, or 6.2%, from FY22. The personnel component is expected to increase by \$1,389,158, or 14.6%, which reflects salary investments and associated benefit costs. The operating component will decrease by \$154,676, or 0.8%, compared to the prior fiscal year. The capital outlay will increase by \$612,000, or 33.0% for the purchase of machinery and equipment to replace existing road sweepers, tractors, and dump trucks.

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### TRAFFIC ENGINEERING DIVISION

The total budget for the Traffic Engineering Division is \$4,745,011 a decrease of \$158,372, or 3.2%, from FY22. The personnel component is budgeted to increase by \$255,628, or 9.7%, which reflects salary investments, benefit costs, and the addition of one safety engineer. The operating component will remain unchanged compared to the prior fiscal year. The capital outlay provides for the replacement of several trucks but overall will decrease by \$414,000 as funds are transferred for other division's needs.

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### CONSTRUCTION DIVISION

The total budget for the Construction Division is \$4,026,423, an increase of \$245,800, or 6.5%, from FY22. The personnel component is budgeted to increase by \$231,400 or 9.7% for salary and benefit cost increases. The operating request remains unchanged from the prior fiscal year. The budget for capital outlay requests an increase of \$14,400 for new phone and computer equipment.

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### DESIGN DIVISION

The total budget for the Design Division is \$2,485,924, which is an increase of 267,392, or 12.1%, from FY22. The personnel component is expected to increase by \$267,392, or 14.3%. The operating component will increase by \$28,685, or 10.0%, for a variety of costs including an additional motor pool vehicle, education and training, dues, tuition, and uniform expenses while the capital outlay will decrease by the same \$28,685.

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### MASS TRANSIT AND TRANSPORTATION DEVELOPMENT DIVISION

The total budget for the Mass Transit Division is \$5,983,553 an increase of \$434,369, or 7.8%, from FY22. The personnel component is budgeted to increase by \$424,369, or 44.5% with the addition of three project managers and an engineer along with salary investments and benefit costs. The operating component will remain unchanged compared to the prior fiscal year while the capital component increases \$10,000 supporting the new positions.

The budget for transportation and mobility is \$4,246,000. This amount is unchanged from FY22.

### DEPARTMENTAL HIGHLIGHTS

In 2021, the Department of Public Works accepted over 8 miles of new roads into the county road network. In addition, the department completed over 24,500 inspections of active construction projects and reviewed plans for over 590 construction projects. Public Works also secured over \$33 million in grant funding for roadway and pedestrian capital projects through the Virginia Department of Transportation's SMART SCALE program in FY22.

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### SUPPORTING ECONOMIC DEVELOPMENT

Public Works continued facilitating economic development in the county by improving access to the road system. The Department constructed an extension of the westbound Nuckols Road ramp onto I-295 to facilitate traffic flow in the Innsbrook area and is designing an extension of the off-ramp on the eastbound side. In addition, the Department secured a \$650,000 Economic Development Access Program grant from VDOT to extend Engineered Wood Way to accommodate future development.

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### COMMUNITY OUTREACH

Public Works staff conducted citizen information meetings and public hearings for new roadway, sidewalk, and stream restoration projects. They provided information at community association events and hosted interactive booths at Earth Day Spring Energy Fair, Fall Energy Fair, and the Henrico Bug Bizarre where attendees were educated on environmental health compliance related to mosquitoes, proper pet waste disposal, vehicle washing, and proper leaf disposal methods. They also facilitated programs and taught classes in the virtual platform during events such as the Central and Southern Virginia Mosquito Identification and information classes, which are now available on You Tube. Since in-person activities were limited due to the pandemic, biweekly mosquito outreach sessions were offered, including lengthy detailed mosquito management videos, live video Q&A sessions, virtual ride-alongs, extended mosquito biology education, and a variety of other content. Public Works facilitated two Paint Out Pollution inlet stenciling events in 2021, funded by the Middle James Roundtable, at Tuckahoe Library and Fairfield Library with an "Only Rain Down the Drain Message." Public Works participated in two career fairs: (1) hosting a booth related to job opportunities at the County's Public Works Job Fair and (2) providing educational materials regarding the County's Municipal Separate Storm Sewer System Program for the Henrico Schools Life Ready Expo (high school career fair).

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### ROAD PROJECTS

Public Works has 96 road and drainage projects underway. There are also 22 transportation studies ongoing. Updates on several major projects include:

#### Dabbs House Road

A 0.8-mile section of Dabbs House Road between Nine Mile Road and East Richmond Road will be widened with curb-and-gutter, drainage improvements, a sidewalk, and a right-turn lane. Utility lines have been relocated. Construction began in October 2020 and is expected to be complete by September 2022. The total cost of this project is \$13.3 million dollars.

#### N. Gayton Road Interchange at I-64

The Department of Public Works is working with the Virginia Department of Transportation to complete an engineering study supporting a new interchange at N. Gayton Road and I-64 in Short Pump. Upon approval by the Virginia Department of Transportation and the Federal Highway Administration, the county will work to fund and design the interchange.

#### Richmond-Henrico Turnpike

The county leveraged \$14.0 million in bond funds to receive \$11.7 million in Virginia Department of Transportation SMART SCALE funding for the Richmond-Henrico Turnpike Improvement Project. This project will widen and improve the existing 1.9-mile section of roadway between Laburnum Avenue and Hummingbird Road, just south of Azalea Avenue. A private developer is constructing Richmond-Henrico Turnpike from Hummingbird Road to the at-grade railroad crossing located approximately 0.7 miles north of Azalea Avenue. The road will be reconstructed as a four-lane divided roadway with turn lanes, curb-and-gutter, drainage improvements, a 10-foot multi-use trail, and sidewalk. Right-of-way acquisition began August 24, 2021.

#### Sadler Road

A 1.9-mile section of Sadler Road between Dominion Boulevard and Cedar Forest Road is being widened and the alignment improved. The project includes curb and gutter, drainage, a 10-foot-wide shared use path, and two roundabouts. The right-of-way acquisition is complete with utility location scheduled to begin in early 2022. Construction is anticipated to begin August 2023 and end August 2025.

#### Three Chopt Road

A project to improve a 2.1-mile section of Three Chopt Road between Gaskins Road and Barrington Hills Drive continues to advance with right-of-way acquisition. This project will widen the roadway to a four-lane divided section with curb-and-gutter, drainage improvements, and sidewalks. The right-of-way acquisition is nearly complete with utility relocations scheduled to begin in early 2022. Construction is anticipated to begin April 2024 and end June 2026.

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### Woodman Road Extension

The county is partnering with the developer of River Mill to design and construct a 1.4-mile extension of Woodman Road between Greenwood Road and Virginia Center Parkway. In 2021, the county completed construction of a roundabout at the intersection of Woodman Road and Greenwood Road. A 12-foot-wide shared use path adjacent to the roadway extension has begun construction. The developer is concurrently constructing the roadway extension and an additional section of shared use path.

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## PEDESTRIAN AND COMMUTER IMPROVEMENTS

The Department of Public Works is continuing an initiative to improve bicycle and pedestrian accommodations across the county. In addition to projects already funded and under design or construction, the county was awarded \$8.1 million in grant funding in FY22 for 24 bicycle and pedestrian related projects. In total, the Department has 62 programmed projects scheduled to be completed or under construction over the next three years that will add over 10 miles of sidewalks and over 8 miles of paved multi-use trails.

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## BRIDGE PROJECTS

The Department of Public Works has three bridge and culvert repair or replacement projects and one new bridge project under design. Repairs to the Greenwood Road bridge and the Parham Road bridge over the CSX railroad tracks are both under contract with the projects expected to commence in summer and fall of 2022, respectively. The Lakeside Avenue bridge replacement, the Wilkinson Road bridge replacement and the Meadow Road culvert replacement are in final design. The new Magellan Parkway I-95 Bridge and Approaches Section project is in preliminary design.

The Department of Public Works completed repairs to the Richmond-Henrico Turnpike bridge over Upham Brook in the summer of 2021. The County has 98 bridges or culverts that are inspected either annually or biannually as required by the Federal Highway Administration's National Bridge Inventory. The County will begin biannual inspections of an additional 186 bridges or culverts in 2022 that have at least a 36 square foot opening but are not large enough to be included on the National Bridge Inventory. An Invitation to Bid will also be issued in 2022 to solicit bids for a contractor to perform necessary annual bridge and culvert maintenance.

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## MUNICIPAL SEPARATE STORM SEWER SYSTEM PERMIT (MS4)

Work is ongoing to comply with the state permit, which requires watershed restoration and pollution reductions over a 15-year time horizon. The Department has already achieved approximately 50% of the total required pollution reductions to date. This progress puts the county ahead of schedule, as 40% reduction is required by 2025. The Department must achieve 100% of the pollution reductions by the year 2030.

The Water Reclamation Facility Stream Restoration project has achieved "substantial completion". Both the Old Nine Mile Road Landfill Stream Restoration Project and the Deitrick Road Outfall Restoration project are scheduled for 2022. Hidden Creek Park Stream Restoration, Wilder Middle School Stream Restoration, and Adams Elementary Stream Restoration projects are all currently under design and are scheduled for construction in 2023 and 2024. All 6 projects listed have received DEQ grant funding totaling over \$2.4 million (approximately 50% of the total project costs).

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MOSQUITO CONTROL

Public Works standing water initiative (SWI) continues to perform adult mosquito surveillance operations and monitoring for the presence of mosquito borne diseases. This past year (2021) included responding to 257 resident complaints as well as sustained biweekly surveillance of 95 sites through the county. The Department collected 27,455 mosquitoes, which included 31 species. SWI also documented 2,817 mosquito larviciding site visits. West Nile virus (WNV) and mosquito surveillance revealed not only a return to more standard WNV positive (8) mosquito collections (pools) but also a numerical rebound in overall nuisance species such as *Aedes albopictus* (Asian Tiger mosquitoes) whose populations returned to their historical mean (11,274 individuals collected).

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CENTRAL VIRGINIA TRANSPORTATION AUTHORITY

The Central Virginia Transportation Authority (CVTA) was created by the General Assembly in the 2020 legislative session. CVTA provides funding for local and regional transportation projects along with additional funds for Mass Transit for Henrico and Central Virginia. For FY23, it is estimated that \$30 million will be allocated directly to Henrico County for the many transportation projects identified in the 10 year CIP.