

# 2016-18 Strategic Plan

## Department of Transportation [501]

### Mission

VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life.

### Vision

Virginians envision a multimodal transportation system that is safe, strategic, and seamless.

We will “Keep Virginia Moving”; Travel for people and goods will be safe and uninterrupted. Transportation improvements will protect the environment and enhance the quality of life in Virginia’s communities while improving economic opportunity. Transportation improvements will respect and reflect the varied needs of Virginia’s diverse communities and regions. Investments in transportation will be adequate to meet current and future needs. Transportation decisions will be guided by sustained, informed involvement of Virginia’s community leaders and citizens. Full accountability and enduring trust will be the hallmarks of transportation planning and investment decisions throughout the Commonwealth.

### Values

#### Shared Values in Public Service

- Be responsive to customer needs, consider what VDOT does in terms of how it benefits our customers, and treat customers with respect, courtesy, and fairness
- Commit to safety and continuous improvement in everything we do, learning from mistakes and successes alike
- Trust, respect, support, and encourage each other
- Respect and protect the public investment
- Make decisions based on facts and sound judgment and accept accountability for our actions
- Strengthen our expertise in using information, tools, and technology to achieve high performance and stay on the cutting edge
- Think ahead, acting and planning creatively for today and tomorrow

### Finance

#### Financial Overview

The Virginia Department of Transportation’s funding comes from several sources of dedicated revenue. Federal revenues have been the largest single source of funding to the highway construction program for several years. The 1986 Special Session of the Virginia General Assembly created the Transportation Trust Fund (TTF). Until the TTF, there was only one fund, the Highway Maintenance and Operating Fund (HMOF), into which all transportation revenues were deposited. The TTF is distributed among the modes of transportation and within those modes according to the Code of Virginia (the modes include roads, mass transit, ports, and airports).

Funding for transportation was addressed during the 2013 General Assembly Session by House Bill (HB) 2313 (Chapter 766). The revenues generated by HB 2313 brought renewed financial investment for Virginia’s transportation program. Significant efforts are focused on pavement rehabilitation. HB 2313 also generated additional revenues in Hampton Roads and Northern Virginia to address the special transportation needs of those areas. Implementation of these new revenues has required an enhanced partnership with local governments to deliver much needed transportation projects.

HB 1887 (Chapter 684, 2015) modified how the commonwealth distributes transportation revenue to maintain a state of good repair. The Commonwealth Transportation Board (CTB) will prioritize funding for state of good repair work based on needs. The prioritization system, SMART SCALE, was developed for HB 2 (Chapter 726, 2014) and will prescribe the projects that will be eligible for the distribution of high priority project funding statewide and for the district grant program. Together, HB 2 and HB 1887 enhance transparency of the funding process and improve the commonwealth’s ability to fund the right projects generating the greatest benefit.

This legislation replaced a 30-year-old funds distribution formula put in place by special session legislation in 1986. The new formula distributes funding as follows:

- State of Good Repair of structures and pavement – 45 percent
- High-Priority Projects Program for key statewide needs – 27.5 percent
- Highway Construction District Grant Programs – 27.5 percent

#### Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	40,000,000	5,602,906,380	40,000,000	5,267,408,233

Changes to Initial Appropriation	0	137,238,092	0	-42,945,193
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(Changes to Initial Appropriation will be 0 when the plan is created. They will change when the plan is updated mid-biennium.)

## Customers

### Anticipated Changes to Customer Base

#### Current Customer List

Predefined Group	User Defined Group	Number Served Annually	Potential Number of Annual Customers	Projected Customer Trend
Federal Agency	US Federal Government	1	1	Stable
Local or Regional Government Authorities	Counties within Commonwealth of Virginia	95	95	Stable
Local or Regional Government Authorities	Independent cities within Commonwealth of Virginia	39	39	Stable
Resident	Virginia Population	8,400,000	8,700,000	Increase

## Partners

Name	Description
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## Agency Goals

- **Plan: Use transparent, data-driven prioritization models to help determine allocations of transportation funding and ensure ongoing accountability, as well as plan programs, projects and services to deliver a safe and reliable multi-modal transportation system.**

#### Summary and Alignment

Planning includes monitoring existing conditions and forecasting future growth; engaging stakeholders through Metropolitan Planning Organizations, Planning District Commissions and local governments; identifying needs; and short and long range planning and prioritizing, programming and funding programs (Transportation Improvement Program, Statewide Transportation Improvement Program and Six-Year Improvement Program).

#### Associated State Goal

Transportation: Ensure that Virginia has a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life.

#### Associated Societal Indicator

Land Use

#### Objectives

##### » Transparent Planning

###### Description

Develop a nimble and evolving Six-Year Improvement Program adaptable to changes and properly linked to land use and economic development opportunities that ultimately delivers a transportation system of optimal benefit to the citizens and traveling public.

###### Objective Strategies

- Institutionalize the business processes and tools supporting the development of the Six-Year Improvement Program to ensure that they comply with requirements of §33.2 of the Code of Virginia: • Continue public outreach • Monitor the prioritization processes as adopted by the Commonwealth Transportation Board (CTB)

###### Measures

- ◆ Institutionalize the business processes and tools supporting the development and implementation of the Six-Year Improvement Program to ensure that they comply with requirements of Section 33.2-214.1 of the Code of Virginia. • Continue public outreach • Monitor the prioritization processes as adopted by the Commonwealth Transportation Board

##### » Stakeholder Engagement

###### Description

Ensure that local governments and citizens play a meaningful role in transportation decision-making.

###### Objective Strategies

- Enhance the content, format and accessibility of public meetings with local, regional, state and federal stakeholders to provide

interactive information sharing and public education of transportation funding and the Six-Year Improvement Program

- Work collaboratively to support the Northern Virginia Transportation Authority (NVTA) and the Hampton Roads Transportation Accountability Commission (HRTAC)

#### Measures

- ◆ Continue partnerships to foster local government and citizen involvement: • The District Local Projects Advisory Group (DLPAG) will lead the implementation of strategies to improve local project delivery • Work collaboratively to support the Northern Virginia Transportation Authority (NVTA) and the Hampton Roads Transportation Accountability Commission (HRTAC) • Continue
- ◆ Institutionalize the business processes and tools supporting the development and implementation of the Six-Year Improvement Program to ensure that they comply with requirements of Section 33.2-214.1 of the Code of Virginia. • Continue public outreach • Monitor the prioritization processes as adopted by the Commonwealth Transportation Board

### » Public Safety

#### Description

Identify opportunities early in the planning process to reduce fatal and serious injury crashes that occur on Virginia's highways.

#### Objective Strategies

- Maximize the programming and construction of Strategically Targeted Affordable Roadway Solutions (STARS) program recommendations to address safety and congestion challenges on high fatality and serious injury incident corridors and intersections, based on available funding
- Ensure Highway Safety Improvement Plan (HSIP) funding is applied to the highest priority safety needs to maximize the reduction of severe injuries and fatalities within a district given the investment. Continue monitoring before-and-after results for each project to assess the degree to which serious accidents and fatalities are reduced as a result of the project

#### Measures

- ◆ Number of traffic crash related deaths on Virginia roadways
- ◆ The annual Recordable Incident Rate reported to the Occupational Safety & Health Administration (OSHA)

### » Customer Service and Economic Opportunity

#### Description

Improve VDOT's services and interactions with customers and partners to promote development and economic opportunities in Virginia.

#### Objective Strategies

- Enhance land development services. • Leverage technology to improve online interaction (i.e. online plan and fee submittal) • Facilitate a multi-modal (bike, pedestrian and transit) approach in coordination with the Department of Rail and Public Transportation and other stakeholders

#### Measures

- ◆ Number of congestion-related hours of delay experienced per traveler, per year, on state highways in Northern Virginia.
- ◆ Number of congestion-related hours of delay experienced per traveler, per year, on state highways in Richmond.
- ◆ Number of congestion-related hours of delay experienced per traveler, per year, on state highways in Virginia Beach.
- ◆ Percentage of congestion-free travel on key interstate roadways

- **Deliver: Effectively engage the public and local governments in preliminary engineering and project development activities, programs and services through the construction of transportation system projects that support multi-modal solutions.**

#### Summary and Alignment

Delivery includes preliminary engineering (project scoping, evaluation of environmental impacts, obtaining comments, developing plans, specifications and estimates), right of way acquisition and construction project activities (mobilization, maintenance of traffic, construction and inspection).

#### Associated State Goal

Transportation: Ensure that Virginia has a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life.

#### Associated Societal Indicator

Infrastructure Condition

#### Objectives

## » Multi-Modal Opportunities

### Description

Guarantee that local governments and citizens have the opportunity to play a meaningful role in transportation decision-making; strengthen coordination and partnerships with state and federal agencies, localities and industry to support project delivery; and support multi-modal solutions that expand the role of non-highway modes of transportation in the commonwealth's transportation network.

### Objective Strategies

- Continue to work with Department of Rail and Public Transportation (DRPT) to ensure rail and transit elements are included in highway projects, and document this as part of the Six-Year Improvement Program (SYIP) process
- Monitor the ongoing process developed with local governments and advocacy groups to expand opportunities to integrate pedestrian and bicycle solutions into projects

### Measures

- ◆ Continue partnerships to foster local government and citizen involvement: • The District Local Projects Advisory Group (DLPAG) will lead the implementation of strategies to improve local project delivery • Work collaboratively to support the Northern Virginia Transportation Authority (NVTA) and the Hampton Roads Transportation Accountability Commission (HRTAC) • Continue

## » Environmental Compliance

### Description

Facilitate environmental protection through regulatory compliance.

### Objective Strategies

- Assess the success of the Environmental Commitments and Compliance Assistance Program
- Monitor compliance of VDOT's storm water management compliance and monitoring program

### Measures

- ◆ Percentage of environmental permits for VDOT-managed projects that are issued by the project's advertisement date

## » Accountable Project Delivery

### Description

Integrate continuous improvement techniques in project delivery processes to improve performance

### Objective Strategies

- Create efficiencies in the Construction Engineering and Inspection program to optimize the level of inspection and better align Construction Quality Improvement Program (CQIP) reviews to assess quality of the final constructed product.
- Ensure project level decision-making and problem resolution continues to be integrated into core duties of staff and consultant partners.
- Monitor guidance and practices to ensure projects are properly scaled to meet project objectives, with estimates based on practical solutions within budgetary constraints, developed in collaboration with the construction and maintenance disciplines.
- The District Local Projects Advisory Group (DLPAG) will continue to work with the Local Assistance Division to lead the implementation of strategies previously identified to improve local project delivery.
- Identify and implement business and procedural changes and project management techniques for utility relocations during the construction phase to enhance on-time and on-budget delivery.

### Measures

- ◆ Continue partnerships to foster local government and citizen involvement: • The District Local Projects Advisory Group (DLPAG) will lead the implementation of strategies to improve local project delivery • Work collaboratively to support the Northern Virginia Transportation Authority (NVTA) and the Hampton Roads Transportation Accountability Commission (HRTAC) • Continue
- ◆ Percentage of completed projects delivered within budget
- ◆ Percentage of Construction Quality Improvement Program (CQIP) specification checkpoints deemed to be in compliance
- ◆ Percentage of due projects delivered by their original specified completion date

- **Operate: Ensure efficient use and provide capacity solutions to the existing transportation system and services to meet customer demand and expectations of a system that is safe and reliable and to enable the easy movement of goods and people across all**

## modes.

### Summary and Alignment

Operate includes integrated corridor management, integration of system performance and safety data, Intelligent Transportation Systems, Park and Ride intermodal facilities, tunnel and moveable bridges management, traveler information and support systems and incident management.

### Associated State Goal

Transportation: Ensure that Virginia has a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life.

### Associated Societal Indicator

Traffic Congestion

### Objectives

#### » Multi-Modality and Customer Service

##### Description

Ensure multi-modal travel opportunities are considered in the commonwealth's transportation network and improve travel time and travel time reliability on key transportation corridors.

##### Objective Strategies

- Develop and integrated corridor management program to improve travel time that incorporates High Occupancy Vehicle (HOV) / Express Lanes, parallel arterial routes, real-time travel information and increased multi-modal options to include parking management systems at Park and Ride facilities, transit and rail through local coordination and key providers.
- Develop engineering plans to improve traffic flow in key corridors that advance integrated corridor management, connected and automated vehicle applications and other innovative congestions management strategies.
- Deploy advanced traffic signalization technologies and resources, including advanced transportation controllers, a statewide central signal system software platform and signal performance metrics to support real-time monitoring and control of VDOT signal and arterial systems.
- Implement a secure, cloud-based data portal to exchange connected and automated vehicle (CAV) data with the public sector, private partner, media, application developers, and other participating original equipment manufacturers (OEM) devices to accelerate innovative technologies and services.

##### Measures

- ◆ Continue developing an integrated corridor management program to improve travel time that incorporates High Occupancy Vehicle (HOV) / Express Lanes, parallel arterial routes, real-time travel information and increased multi-modal options to include parking management systems at Park and Ride facilities, transit and rail through local coordination and key providers.
- ◆ Median interstate roadway clearance time expressed in number of minutes
- ◆ Number of congestion-related hours of delay experienced per traveler, per year, on state highways in Northern Virginia.
- ◆ Number of congestion-related hours of delay experienced per traveler, per year, on state highways in Richmond.
- ◆ Number of congestion-related hours of delay experienced per traveler, per year, on state highways in Virginia Beach.
- ◆ Percentage of congestion-free travel on key interstate roadways

#### » Public Safety

##### Description

Reduce number and severity of traffic crashes on Virginia roadways.

##### Objective Strategies

- Develop and implement pilot projects from statewide connected and automated vehicle program plan to maximize the safety and operational benefits of these emerging technologies.
- Improve traffic safety features along accident-prone corridors / locations
- Monitor the implementation of the Strategic Highway Research Program 2 Multi-Disciplinary Traffic Incident Management training.
- Develop solutions to enable quick clearance of tractor trailer crashes by developing and implementing programmatic changes.

##### Measures

- ◆ Number of traffic crash related deaths on Virginia roadways

- **Maintain: Use a systematic, needs-based process to effectively manage VDOT's assets, preserve and maintain the condition of the transportation system, and safely maximize existing resources.**

**Summary and Alignment**

The Maintain goal includes budget spend plans and work plans for preventative maintenance, inspection activities, activities to improve or rehabilitate pavements and bridges, upkeep of roadside assets and ensuring the requisite tools and equipment are readily available to execute the work.

**Associated State Goal**

Transportation: Ensure that Virginia has a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life.

**Associated Societal Indicator**

Infrastructure Condition

**Objectives**

» **Public Safety and Prioritization**

*Description*

Using an investment approach for system preservation, develop a data-driven strategic plan for the state of good repair of major highway assets that will improve the long-term condition.

*Objective Strategies*

- Align the risk-based, financially constrained strategic plan for routine and capital repair or replacement of specialized major highway assets, such as tunnels and large bridges, with new transportation funding processes.
- Utilize a data-driven, needs-based approach to prioritize, rehabilitate and replace bridges and pavement.

*Measures*

- ◆ Percentage of interstate roadway pavement lane miles rated in fair or better condition
- ◆ Percentage of interstate system structures rated in good or fair condition
- ◆ Percentage of primary roadway pavement lane miles rated in fair or better condition
- ◆ Percentage of primary system structures rated in good or fair condition.
- ◆ Percentage of secondary and urban system structures rated in good or fair condition.
- ◆ Percentage of secondary roadway pavement lane miles rated in fair or better condition
- ◆ Percentage of statewide structures rated in good or fair condition.

» **Fiscal Stewardship**

*Description*

Efficiently prioritize and use financial resources available to the maintenance program.

*Objective Strategies*

- Enhance flexibility in the program to allow for a reduction in revenue or increased spending while still allowing for a year-end unspent balance of less than \$100 million.
- Continue the Highway Maintenance Management System initiative to develop and integrated solution for improving planning, operation and maintenance of broad range of VDOT's assets, including ancillary structures.

*Measures*

- ◆ Percentage of interstate roadway pavement lane miles rated in fair or better condition
- ◆ Percentage of interstate system structures rated in good or fair condition
- ◆ Percentage of primary roadway pavement lane miles rated in fair or better condition
- ◆ Percentage of primary system structures rated in good or fair condition.
- ◆ Percentage of secondary and urban system structures rated in good or fair condition.

- ◆ Percentage of secondary roadway pavement lane miles rated in fair or better condition
- ◆ Percentage of statewide structures rated in good or fair condition.

• **Support: Efficiently and effectively provide the appropriate tools, guidance, and processes that enable core programs and services to meet their objectives, maximize the use of human resources, funding, information, and time, and encourage citizen awareness and participation in transportation decision-making.**

**Summary and Alignment**

Support includes areas such as information technology, financial and fiscal services, purchasing, communications, auditing, research, policy, civil rights, human resources, tolling, safety and business transformation.

**Associated State Goal**

Government and Citizens: Be recognized as the best-managed state in the nation.

**Associated Societal Indicator**

Government Operations

**Objectives**

» **Workforce Safety**

*Description*

Provide a safe and secure work place and facilities.

*Objective Strategies*

- Utilizing the Workforce Safety Guidance Documents as a guide, the agency will sustain its culture of continuous safety improvement and reinforce the agency core values and employee safety first – always.
- Continue to assess and prioritize (to include funding) VDOT facility needs statewide in the development of an agency Long-Range Facilities Plan to ensure that VDOT facilities meet agency business needs.

*Measures*

- ◆ The annual Recordable Incident Rate reported to the Occupational Safety & Health Administration (OSHA)

» **Workforce Development**

*Description*

Ensure that VDOT is an "Employer of Choice" through training, employee engagement and succession planning.

*Objective Strategies*

- Establish career maps for 10 critical groups and introduce training and development programs that support advancement within each and execute the training and development programs.
- Execute leadership enhancement programs for mid-level and senior managers, and focus the Core Development Program to broad VDOT operations.
- Implement a robust workforce engagement program. Components of the program will include recruitment and training, morale and recognition and communication and engagement.

*Measures*

» **Workforce Efficiency**

*Description*

Improve workforce efficiency through technology solutions, administrative tools and policy guidance.

*Objective Strategies*

- Reduce time to deliver information technology services and solutions through better coordination with business units during software selection and development.
- Ensure the right contracting tools, processes and practices are in place to meet business needs in support of field operations.
- Ensure all requirements relating to agency functions are documented formally. Develop a formal agency process for generating and storing documents containing mandates and requirements (governance documents).

*Measures*

## » Customer Service and Engagement

### Description

Foster stronger relationships with the public through customer-centric work processes, user-friendly technology and improved engagement at the local level.

### Objective Strategies

- Analyze and deploy strategies for improving internal and external customer service with the goal of improving VDOT customer service. Determine if customer service training is effective.
- Deploy electronic customer-facing systems to expand electronic payment capability and electronic application intake.
- Implement end-user technologies and solutions to improve internal work processes and enhance citizen engagement.
- Integrate Customer Service Center with Residency staff to enable improved, timely, efficient and accurate communications with citizens.
- Continue to clarify the role of the Residency. Empower the Residency Engineer/Administrator to function as an extension of the Commissioner of Highways in local government transactions including: • Informing local officials on new legislation • Increasing the role of the residency in project delivery, to include a more active role in project scoping and estimates, especially in residency tier projects
- Develop additional interactive web resources and other media for public engagement, outreach and participation in the transportation decision-making process. As needed, establish individual websites and outreach communications for high profile projects.

### Measures

- ◆ Percentage of resident satisfaction survey respondents rating their overall satisfaction with VDOT as satisfactory

## » Innovation

### Description

Deliver a timely and effective research and technical assistance program.

### Objective Strategies

- Continue to institutionalize the processes that have been developed and implemented to ensure research gets implemented. Monitor the utilization of the processes that allow for research and technical assistance projects to be established and implemented beyond the research advisory committee process.

### Measures

- ◆ Percentage of interstate roadway pavement lane miles rated in fair or better condition
- ◆ Percentage of primary roadway pavement lane miles rated in fair or better condition
- ◆ Percentage of secondary roadway pavement lane miles rated in fair or better condition
- ◆ Percentage of statewide structures rated in good or fair condition.

## » Performance Management

### Description

Incorporate federal requirements into VDOT's performance management program.

### Objective Strategies

- Respond to notices of proposed rulemakings within designated time frames and coordinate cross-functional working teams.

### Measures

## Major Products and Services

VDOT is responsible for oversight of all of the commonwealth's approximately 21,000 bridges and structures, and directly maintains the majority of them (approximately 19,500). Major products and services can be categorized into the following focus areas:

- **Planning the transportation system:** Includes providing assistance to the Office of Intermodal Planning and Investment (OIP); monitoring existing conditions; forecasting future growth; engaging stakeholders through Metropolitan Planning Organizations (MPO), Planning District Commissions (PDC) and local governments; identifying needs; and short and long range planning and prioritizing,

programming, and funding programs.

- **Delivering the transportation system:** Includes preliminary engineering (project scoping, evaluation of environmental impacts, obtaining comments, developing plans, specifications and estimates); right-of-way acquisition; and construction project activities (mobilization, maintenance of traffic, construction and inspection).
- **Operating the transportation system:** Includes signs, signals, roadway markings, guardrails and other highway assets; integrated corridor management; integration of system performance and safety data; Intelligent Transportation Systems; Park and Ride intermodal facilities; tunnel and moveable bridges management; traveler information and support systems; and incident management.
- **Maintaining the transportation system:** Includes planning and budgeting for preventative maintenance; inspection activities; activities to improve or rehabilitate pavements and bridges; upkeep of roadside assets; roadway clearance (e.g., clearance of snow, trees, rocks, debris); and ensuring the requisite manpower, equipment and tools are readily available to execute the work.
- **Supporting the agency and the public we serve:** Includes research and innovations in the field of transportation; collaborations with and support to localities, regional transportation authorities, and other public entities; communications; customer-facing interactive information technology; and responding to citizens' needs and inquiries, including through local offices (VDOT Residencies) and VDOT's Customer Service Center.

## Performance Highlights

Encouraging trends continue to be seen for Virginia's highways in key areas of performance: roadway safety; pavement condition; and bridge condition.

### Roadway Safety

- Traffic crash deaths decreased by almost 26% from 2007 (1,026) to 2016 (761). The number of traffic crash deaths is a function of many components, including the volume of traffic (measured by vehicle miles traveled), the number of licensed drivers, and the number of registered vehicles.
- The Virginia Department of Transportation continues to focus on funding and delivering proactive safety projects such as Highway Safety Improvement Plan (HSIP) and Strategically Targeted Affordable Roadway Solutions (STARS) program to identify and pursue needed safety improvements.
- VDOT received two 2015 National Roadway Safety Awards recognizing highway safety improvement projects from the Roadway Safety Foundation and the Federal Highway Administration.
- Safety criteria have been factored into the SMART SCALE [House Bill 2(2014)] selection process for projects within the Six-Year Improvement Program, as adopted by the Commonwealth Transportation Board on June 14, 2016.

**Pavement Condition:** Condition is measured using the Critical Condition Index (CCI), and CCI ratings run from "0" for very poor to "100" for excellent condition. VDOT's target for interstate highway and primary roadway pavement condition is that at least 82 percent of lane miles are rated fair or better, while eliminating road segments with a "35" CCI rating or less. As of 2016, condition targets were attained for both road systems. VDOT's target for secondary road condition is 63 percent, and pavement construction and maintenance plans are in place to work towards that target.

**Bridge Condition:** Condition is measured in terms of the percent of structures not rated as being structurally deficient, based on rigorous inspections. VDOT's statewide target is that at least 95.5 percent of the commonwealth's approximately 21,000 structures are not rated as being structurally deficient by the end of the current biennium.

- Bridge condition (all structures): Statewide bridge condition was 93.1% in FY2014, improved to 93.8% in FY2015, and further improved to 94.7% in FY2016

With more than 21,000 structures in the statewide inventory, a change of 1% represents a net improvement of at least 210 structures

## Staffing

Authorized Maximum Employment Level (MEL)	7725
Salaried Employees	7459
Wage Employees	468
Contracted Employees	0

## Key Risk Factors

Several factors will have a significant impact on the agency over the next four years.

**Customers:** Weldon Cooper Center estimates Virginia's current population as 8.4 million and forecasts Virginia's 2020 population to be 8.7 million. This type of change typically impacts the number of licensed drivers, registered vehicles, and vehicles miles traveled which increases demand for our products and services. However, the future use of vehicles and consumption of gasoline, and the impact on gasoline sales based revenues, is unknown at this time based on patterns of use of different age groups.

**Congestion:** While the vast majority of the state roadway system remains uncongested most of the time, recurring congestion continues to be a

problem in urbanized areas during peak travel periods. As economic conditions improve, roadway use and associated congestion typically increases as well.

**Asset Condition:** VDOT continues to maintain and improve roadway pavement and bridge condition. However, roadways and bridges continue to need regular inspection, repair and replacement, and day-to-day wear and tear will increase as the number of vehicles increase and the population grows. Funding to address the needs of special assets (tunnels, high profile bridges, etc.) as they mature, and the need of the pavement on our secondary road system, is key to preserving our highway infrastructure.

**Weather-related Events:** VDOT plans for a normalized level of expenditures related to snow and other weather events and also for alternate scenarios. However, significant weather events can cause unanticipated spending which negatively impacts funding available for other highway work.

**Workforce:** VDOT works to mitigate the potential impact of the 15.0% of the classified workforce currently eligible to retire using programs focused on core development, job skills training, and leadership skills enhancement, in conjunction with strategies to retain key talent.

## Management Discussion

### General Information About Ongoing Status of Agency

As we move into the next biennium, the Department will continue to emphasize our efforts to plan, deliver, operate and maintain the transportation system that is safe, enables the easy movement of people and goods, enhances the economy and improves our quality of life in Virginia.

We will be diligent in preserving the condition of our key infrastructure assets such as pavement and bridges. House Bill 1887 (2015) dedicated 45% of construction revenues to "State of Good Repair," and VDOT has made a commitment to maintain Virginia's highway assets at a specific performance level. We will develop plans for routine and capital repair and replacement of major highway assets that involve significant and higher than normal costs. In the previous biennium we focused heavily on Interstate and Primary system paving in order to reach pavement condition targets. In the current biennium, we plan to focus on secondary pavement and investment in key areas of the state, including Northern Virginia and the Richmond metropolitan area. While VDOT has historically scanned 20% of secondary roadway as a representative sample of the entire system's condition, the 2016 condition assessment included a scan of 100% of secondary roads so that we have a detailed condition report for accurate, timely prioritization of efforts.

As VDOT plans, to the extent possible, we will seek to provide a greater emphasis on the tie between land development and economic development. While collaboratively and cooperatively supporting the Northern Virginia Transportation Authority and the Hampton Roads Transportation Accountability Commission, the Department will build the right projects using the appropriate funding mechanism. Leveraging our position as a leader in utilizing technology to provide real-time information to citizens, we will further seek to integrate corridor management to better mitigate congestion, increase accessibility, clear incidents, manage severe weather events, and enhance the movement of traffic in the safest manner possible.

There has been a paradigm shift in how transportation funding decisions are made. Starting in FY2016, VDOT has utilized a process for identifying and prioritizing transportation projects as called for by Section 33.2-214.1 of the Code of Virginia -- a process that ensures that limited tax dollars are invested in the right transportation projects to meet the critical infrastructure needs of the Commonwealth. Public entities can submit candidate projects at the "SMART SCALE" website, and those candidate projects are prioritized based on the benefits they would provide. Once projects are approved by the Commonwealth Transportation Board as part of the Six-Year Improvement Program (SYIP), VDOT works diligently to ensure that the best decisions are made in regards to the procurement method for each project.

Having implemented "SMART SCALE," VDOT's next focus is to develop crisp delivery goals aimed at reducing the time it takes to progress projects from planning into construction.

Emphasized with the implementation of the new Chief of Innovation directorate, VDOT will also continue to focus on developing innovative practices to bring about advancements in the state's infrastructure system. By working together across the agency, with other agencies, and with industry leaders, VDOT will take advantage of new transportation technologies (such as connected and autonomous vehicles) to foster economic development and implement safety opportunities.

In order to be successful, we will continue to invest in our greatest resource – our people. We will continue with our workforce development programs to ensure our core business has competent talent and to develop our leaders of tomorrow. We will leverage technology and research and remain innovative. We will continuously seek to improve our processes and transform how we deliver our services and products to our customers and stakeholders.

As "We Keep Virginia Moving," the Virginia Department of Transportation will do its part to ensure Virginia remains one of the best managed and best states in which to live and do business.

### Information Technology

#### Major IT investments underway include:

- **SMART SCALE - SMART Portal Enhancements Project** -- The purpose of this project is to enhance the existing web-based application tool that was created as part of a legislatively required project prioritization process. Enhancements to the tool will allow applications to be submitted for multiple prioritization based grant programs to include Transportation Alternatives, Revenue Sharing, Highway Safety, Bike/Ped Safety, Systemic Safety Improvements, State of Good Repair, High Priority and District grant funding programs, supporting three VDOT divisions and three agencies under the Secretary of Transportation.

- **Highway Maintenance Management System (HMMS) Project** -- VDOT Executive Management and the Steering Committee has recommended the implementation of the Highway Maintenance Management System that would accomplish the following:
  - Implement Asset/Inventory Management
  - Work Order Management
  - Resource Planning, Scheduling and Utilization
  - Work Planning and Budgeting
  - Mobile Application support
  - Analysis and Reporting
  - Improve integration across new and existing systems by implementing HMMS
- **Construction Documentation Management Project** -- This project is to implement a consistent way of managing construction documents, and in particular electronic documents, across all districts. This project will also automate the Advertisement and Award's process workflow and optimize its document management.

### Information Technology Plans/Needs

- **Road Network System (RNS) Improvements** -- Over time the amount of information managed within the Linear Referencing System at VDOT, known as RNS, has grown while the level of investment and the current state of the solution (both business processes and technology) have become inadequate. Challenges include near constant data integrity problems, slow or no response to enhancement requests, and little or no capability to handle additional data types within the system. In order to support the continued and growing need for managing current and future roadway data, a future implementation plan for processes and technology is needed.
- **Digitize Bridge Inspection Reports** -- Fully digitize the Bridge Inspection Report process so that paper is no longer generated and stored. VDOT is required to retain and have the ability to retrieve all Bridge Inspection Reports for every structure, for the life of the structure, per the National Bridge Inspection Standard. Currently signed paper inspection reports are the official record.
- **Agency e-Authorization and Document Management Solution** -- There are needs from business units across VDOT to streamline and improve document management. For example, a holistic solution is needed to reduce paper, manual processes, and duplicate approvals associated with financial business processes. Business process re-engineering and technology are both required to meet this need. The technical solution will leverage standardized tools and platforms approved for document management at VDOT.
- **e-Invoicing** -- Project to enable electronic submission, processing, approval and document storage for invoices submitted to VDOT. Solution will leverage technology for an agency enterprise solution for e-Authorization and Document Management.
- **SharePoint 2016 Platform Upgrade** -- VDOT has a major investment in the SharePoint 2010 platform that will go out of support by 2020. VDOT needs to start work now to establish the new SharePoint 2016 platform to avoid continued new development in a soon-to-be discontinued application.
- **InsideVDOT / OutsideVDOT Re-implementation** -- The InsideVDOT / OutsideVDOT applications will need to be re-deployed with the new SharePoint 2016 upgrade. These applications provide teamsite collaboration and document management for internal and external partners.
- **Google Mapping Solution** -- Google has revolutionized the way that geospatial intelligence system data is presented. VDOT is expected to apply the Google Mapping solution to complement our existing investments in our Road Network System (RNS) to provide better mapping data to consumers.
- **AASHTOWare Project - Materials Implementation** -- The Materials Division seeks to leverage VDOT's existing enterprise license to the web-enabled version of AASHTOWare Project. AASHTOWare Project's Construction and Materials module has the capability to support Materials processes (currently performed manually) and future integration between Materials and Construction technology. The COTS product implementation will require a significant configuration effort.
- **AASHTOWare Project -Construction Implementation** -- Construction Division seeks to leverage VDOT's existing enterprise license to the web-enabled version of AASHTOWare Project. AASHTOWare Project's Construction and Materials module has the capability to support Construction processes and future integration between Materials and Construction technology. The COTS product implementation will require a significant configuration effort. This project will replace the existing Site Manager solution for Construction.
- **VDOT Dashboard Replacement** -- This is a request to develop a SmartScale-like Project Performance dashboard to replace the existing customer-facing dashboard. The Dashboard will utilize modern enterprise reporting technologies that can be configured by business on an ongoing basis.
- **CEDAR Enhancements** -- In response to EPA audit findings and needed application improvements, provide major enhancements to the Comprehensive Environmental Data and Reporting System (CEDAR); the flagship application used by VDOT to manage Environmental projects and regulatory compliance. Project includes major enhancements for Fish, Plant and Wildlife Resources, GIS, mobile capabilities, Facilities Compliance and M4 TMDL (Total Maximum Daily Load).
- **MS4 Management Solution** -- Create a system of record for Municipal Separate Storm Sewer Systems reporting requirements. This project consolidates data sources, and eliminates standalone, and manual (paper) records for meeting EPA reporting requirements. The project supports VDOT Business Plan Objective 2.2.2 - Monitor compliance of VDOT's storm water management compliance and monitoring program:
  - Providing Annual MS4 report to VDEQ under our general permit
  - Submitting quarterly reports to EPA describing VDOT's oversight of its statewide MS4 program compliance.
- **Snow Operations Technology Consolidation** -- VDOT Snow Operations includes maintenance, operations, public affairs and call center functions. This project seeks to enable more efficient functions through process improvements and consolidated technology for statewide use.
- **PPM@ VDOT** -- Project Portfolio Management (PPM) is the management of processes, methods, and technologies used by project managers and program managers to analyze and collectively manage current of proposed projects/programs based on numerous key characteristics. VDOT is managing an increasingly complex portfolio of projects, set of funding sources, data requirements, business rules, and integrations in connection with its Six-Year Improvement Program. The current iSYP technologies no longer adequately address the complexity of the process. To replace the technologies with a positive benefit to the organization, VDOT must determine the system requirements and identify opportunities to improve the process.

## Estimate of Technology Funding Needs

### Workforce Development

The department is authorized a maximum employment level of 7,725 and, as of March 1, 2017, employed 7,459 classified staff for a calculated vacancy rate of 3.4%.

With the dynamic nature of VDOT's workforce, the areas of recruitment, development and retention are of paramount importance to the agency. VDOT remains concerned about the number of employees who are currently eligible to retire representing 1,119 employees or 15% of the current workforce, as well as, the shrinking pool of people interested in the transportation industry. VDOT continues to implement strategies to meet upcoming employment demands that will help create a diverse, skilled workforce for the transportation industry. Workforce development embraces a holistic approach geared towards increasing an interest in transportation, in partnership with technical schools, community colleges and institutions of higher learning, along with initiatives focused on the development and retooling of existing employees in both technical and leadership skills. Workforce development is about the balance of education, learning and on-the job experiences that lead to business success and overall economic growth.

Technical skills are being developed through a variety of approaches that include classroom instruction, use of online resources and real job experiences. Technical training is being provided in many areas such as project management, environmental compliance, safety, procurement, technology and numerous other technical areas. The development of leadership skills is being accomplished through multiple programs as such the Leadership Development Program for Teammates, Supervisor, Managers and the Leadership Enhancement and Development Program. VDOT also continues to participate in state and national leadership programs focused on building our future leaders.

### Physical Plant

In addition to the capital investments that the department manages for the highway network, the agency must ensure that its 2,700 facilities in over 350 statewide work locations, of which more than 20% are more than 50 years old, are safe and adequate for VDOT employee and contractor use. As part of its business planning, the department is only pursuing new capital outlay and maintenance reserve projects that have already been planned through the Capital Outlay Six Year Planning process.

For the current biennium, \$39.9 million was made available for FY 2017 and \$30.6 million will be available for FY 2018. Thirty-four projects are currently under construction, 13 more projects are scheduled to begin construction this FY and eight projects are scheduled to begin in FY 2018. Over 100 new capital projects have been identified through the Department's last six year planning process.

The need for preventative maintenance and replacement of facilities will continue as buildings exceed their useful life and/or problems arise. New facilities and/or renovations of existing facilities are needed to ensure efficiency and effectiveness of program operations. Planned future allocations are for new facilities (capital outlay) and repair and replacement of major systems and structural components in existing facilities (maintenance reserve).

## Supporting Documents

Title	File Type
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**Environmental Monitoring and Compliance for Highway Projects [51408]****Description of this Program / Service Area**

VDOT's Environmental Division provides management and administrative support and obtains environmental clearances on projects undertaken by the agency in order to provide stewardship of the state's natural and cultural resources as part of a balanced consideration of environmental and transportation needs.

**Mission Alignment**

This service area will facilitate regulatory compliance and environmental protection through leadership, accountability, and continuous improvement while delivering the Commonwealth's transportation program.

- 23 CFR 450 establishes the requirements for MPOs.
  - 23 CFR 771 establishes the policies and procedures of the Federal Highway Administration (FHWA) for implementing the National Environmental Policy Act of 1969 as amended (NEPA), and the regulation of the Council on Environmental Quality (CEQ), 40 CFR 1500-1508. The regulations require that FHWA consider environmental factors through systematic interdisciplinary approach before committing to a course of action and apply to actions requiring FHWA approval.
  - 23 CFR 771.135 establishes the requirement that FHWA preserve publicly owned public parklands, waterfowl and wildlife refuges, and significant historic sites, unless a determination is made that a selected alternative cannot avoid protected areas because it is neither feasible or prudent; and the selected alternative includes all possible planning to minimize harm.
  - 23 CFR 772 establishes the requirement that all Federally funded projects for the construction of a highway on new location, or the physical alteration of an existing highway which significantly changes either the vertical or horizontal alignment or increases the number of through-traffic lanes, must have a noise impact analysis completed that incorporates feasible and reasonable noise abatement measures to mitigate substantial noise impacts.
  - 36 CFR 800 establishes the requirements of Section 106 of the National Historic Preservation Act designed to protect, rehabilitate, restore, and reuse districts, sites, buildings, structures, and objects significant in American architecture, archeology, and culture.
  - 40 CFR 61 establishes the standard for asbestos emissions related to roadways, demolitions and renovations.
  - 40 CFR 260-281, which implements the Resource Conservation and Recovery Act of 1976 (RCRA), as amended (42 USC 6901 et seq.), establishes that any project that takes right-of-way containing hazardous waste must be coordinated with EPA or State Hazardous Waste Agency on remedial action.
  - 40 CFR 300-399, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended, and Superfund Amendments and Reauthorization Act of 1986 (SARA), as amended, establishes the requirements for cleanup of areas containing a hazardous substance. These requirements apply to any project that may take a right-of-way containing such substance.
  - 40 CFR 761 concerns manufacturing, processing, distribution in commerce, and use of Polychlorinated Biphenyls (PCBs). Compliance with this regulation is mandated by the Toxic Control Substances Act which establishes the requirements related to the handling of these materials.
  - Land and Water Conservation Fund Act (16 USC 460I-4 to 460I-11), requires approval from the Secretary of the Interior for any conversion of property acquired or developed with assistance under this act to other than public, outdoor recreation use. The State must, therefore, seek approval of all projects which impact recreational lands purchased or improved with land and water conservation funds.
  - 16 USC 1531-1544, the Endangered Species Act of 1973 (as amended), establishes that any action that is likely to jeopardize continued existence of endangered/threatened species or result in destruction or modification of critical habitat must consult with the Secretary of the Interior or Commerce, as appropriate.
  - 23 USC 109(j) directs the EPA to promulgate guidelines to ensure that highways constructed pursuant to Title 23 of the U.S. Code are consistent with approved plans for implementing and maintaining national ambient air quality standards in nonattainment areas.
- 42 USC 7410, as set forth by the Clean Air Act (as amended), establishes that each state develop an implementation plan that provides for attainment of the national ambient air quality standards and prohibits activities, which would include transportation programs and projects, that contribute to nonattainment of such standards.
- 33 USC 1341 and 1344 of the Clean Water Act establishes that any discharge of a pollutant into waters of the U.S., must obtain a permit from EPA or the U.S. Army Corps of Engineers and a Section 401 Water Quality Certification from the State Water Resource Agency (or, if appropriate, a permit from the interstate water pollution control agency having jurisdiction at the point of origin of any such discharge).
  - 33 USC 401 et seq., as amended, the Rivers & Harbors Act of 1899, establishes that any construction affecting navigable waters and any obstruction, excavation, or filling must obtain approval of plans for construction, dumping, and dredging and all related permits and bridge permits from appropriate federal and state agencies.
  - 42 USC 300F-300J-6, the Safe Drinking Water Act of 1974 (as amended) establishes that actions which may have a significant impact on an aquifer or wellhead protection area which is the sole or principal drinking water Service Area Statutory Authority must not result in such water not

complying with national primary drinking water regulations.

- §10.1-1188 of the Code of Virginia establishes that state agencies must submit an environmental impact report (EIR) for projects costing more than \$100,000. VDOT prepares EIRs for Capital Outlay facilities built by VDOT.

23 CFR 450 establishes the requirements for MPOs.

## Products and Services

### Description of Major Products and Services

**Air and Noise Analysis Management:** • In accordance with federal and state requirements, air quality and noise studies are conducted on transportation projects in accordance with applicable air & noise regulations. • To support program delivery, Environmental Division functions as a liaison with federal, state, regional, and local agencies on all air quality and noise matters. Transportation policies and procedures related to air and noise programs are published as well as specifications and special provisions for consistent implementation of air and noise requirements. • Provide technical support to district personnel during public hearings, citizen, agency, and legislative inquiries. Conduct training needs assessments and provide air quality and noise program training to VDOT personnel and VDOT stakeholders as needed. • Identify noise abatement requirements in compliance with Noise Abatement Program procedures to meet the Contract Documents and Processing Cut-off Dates for Advertisement schedules. Review noise abatement construction plans and chair the sound barrier review committee. • Perform and/or oversee the development of air quality conformity analyses for long-range transportation plans and transportation improvement programs developed for Virginia's non-attainment and maintenance areas. Conformity determination approvals are obtained from FHWA in coordination with EPA.

**Environmental Data Management:** • Administers the statewide environmental data management program, including the Comprehensive Environmental Data and Reporting (CEDAR) application and the environmental component of the Departments Geographic Information System.

**Cultural Resource Management:** • Advise and assist cultural resource staff in the resolution of cultural resources issues with federal and state agencies to meet the requirements of the six-year program and the maintenance program. Develop, disseminate, and update VDOT procedures regarding cultural resources in accordance with federal and state statutory and regulatory requirements. Negotiate programmatic agreements with federal and state agencies. • Provide guidance on procurement and assignment of contracted cultural resource services. Provide training for district, division, and consultants related to cultural resource procedures.

**Compliance:** • Hazardous materials studies and remediation activities (where necessary) are provided on projects in the six-year program for construction and maintenance. Construction and maintenance project schedules are monitored to ensure hazardous materials issues are being cleared or presented to management for consideration a minimum of 90 days before VDOT's advertisement or activity implementation date. • Ensure that hazardous material and solid waste program guidelines, specifications, and MOA's are kept current to govern Department programs. Develop and provide targeted training for hazardous materials and other Compliance Program issues. • Monitor proposed federal and state legislation and recommend amendments where appropriate. Track Environmental Commitments for all Program Areas and provide Compliance Evaluation assistance through Environmental Compliance Inspector (ECI) program. Support the CO and District Safety Programs through implementation of the VDOT Industrial Hygiene Program.

**Natural Resources:** • Provide oversight and guidance to District natural resources staff, including standard operating procedures, manuals, and workshops. Provide quality assurance reviews of permit applications and other natural resource program deliverables. • Develop natural resources standards and specifications. Provide natural resource surveys, reviews, and guidance. Manage natural resources consultants under contract with the Department. • Develop wetland, stream compensation strategies. • Secure and allocate funding for the wetland and stream compensation monitoring requirements and wetland and stream banks. Purchase wetland and stream credits and construct wetland and stream compensation sites.

**District Environmental Programs:** • Provide technical guidance and procedural support to the District environmental sections for the State Environmental Review Process, federal and state environmental documents, right of way re-evaluations, and plans, specifications, and estimates re-evaluations. • Manage District NEPA Practitioners program through oversight and technical guidance by providing EM's and training. • Develop and implement the Division semi-annual quality-assurance reviews of environmental deliverables provided by the Districts and local governments. • Develop, monitor, and produce advertisement reports for the central office and Districts. • Manage contracted environmental documents that involve non-location studies, Manage the LAP Program as Environmental POC.

**Project Studies Management:** • Manage new location studies program. • Manage process resulting in highway location decisions by the Commonwealth Transportation Board • Provide legal support regarding NEPA related decisions. • Develop scopes of work and budgets for new location projects. • Manage consultants hired to produce NEPA documents relating to location studies, and other documents as requested. • Manage the Department's partnering program for NEPA documents.

**Alternative Project Delivery Support:** • Manage environmental program component for procurement and implementation of PPTA and design/build projects. • Develop environmental technical requirements for PPTA and design/build contract documents. • Develop environmental program component of locally administered projects. • Provide assistance to local government in obtaining environmental approvals.

**Consultant Services:** • Manage all aspects of the procurement and contract administration of consultant services, both professional and non-professional. • Establish independent cost estimates of consultant contracts prior to negotiation and document consultants' performance in semi-annual and end of contract evaluations. • Manage specialized university/private consultant services dealing with cultural resources, hazardous materials, endangered and threatened species, wetlands, streams and other environmental resource topics.

### **Anticipated Changes**

As more localities assume responsibility for their highway construction and maintenance, the demand for training and oversight from VDOT will increase.

### **Factors Impacting**

Factors:

- Environmental procedures are the targets used by project opponents to adjudicate unpopular decisions or to halt highway projects. Public interest, which is increasingly concerned with preservation and enhancement of the Commonwealth's resources, will provide external influences on project delivery.
- The continued expansion of electronic government will increase the efficiency of environmental processes and procedures in VDOT. The implementation of CEDAR and further enhancements and improvements to the GIS will provide greater efficiencies in the conduct of environmental reviews and transparency to the public regarding reporting compliance.
- Routinely changing regulatory procedures and law will change the dynamics of daily environmental activities in the Department.

### **Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	<b>2017 General Fund</b>	<b>2017 Nongeneral Fund</b>	<b>2018 General Fund</b>	<b>2018 Nongeneral Fund</b>
Initial Appropriation for the Biennium	0	10,766,957	0	10,963,364
Changes to Initial Appropriation	0	122,000	0	682,277

### **Supporting Documents**

**Title** **File Type**

**Environmental Monitoring Program Management and Direction [51409]**

**Description of this Program / Service Area**

This service area provides activities related to the management and direction of the program. Adequate and effective management and direction is critical to the success of the program.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life,” through a commitment to appropriate management and direction.

**Products and Services**

**Description of Major Products and Services**

See Service Area 51408

**Anticipated Changes**

See Service Area 51408

**Factors Impacting**

See Service Area 51408

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	2,645,280	0	2,711,150
Changes to Initial Appropriation	0	0	0	29,789

**Supporting Documents**

**Title** **File Type**

## Ground Transportation System Planning [60201]

### Description of this Program / Service Area

This area provides efforts to lead and plan a comprehensive system of ground transportation, including the planning of particular ground transportation projects through surveying, mapping and studies. These studies are the basis for decisions on proposed highway plans, programs and projects, as well as other travel modes and routes throughout Virginia.

### Mission Alignment

This service area is aligned to VDOT's mission "VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life," through a commitment to identify cost-effective and efficient highway alternatives.

Roads are a critical public resource and constitute a major investment of the public's money. Traffic impacts caused by new development – a reduction in the traffic carrying capacity of the highways, more crashes and traffic congestion – can be very costly for state government and local governments, as well as the broader community.

The LandTrack system is used to track the Virginia Department of Transportation's (VDOT) review of Traffic Impact Analysis submissions.

Virginia enacted a program of traffic impact review into law statewide through Chapter 527 of the 2006 (regular session) Acts of General Assembly (SB 699). This revised Virginia's laws for Counties, Cities and Towns in sections 15.2-2222.1 and 15.2-2223 and directed the development of regulations to provide procedures for VDOT review and comment on those pending local government land use actions that would substantially affect transportation on state controlled highways.

VDOT adopted and currently applies the Traffic Impact Analysis Regulations, codified at 24 VAC 30-155

### Products and Services

#### Description of Major Products and Services

- Local comprehensive plans
- Zoning actions

#### Anticipated Changes

The traffic impact reviews are expected to provide a useful basis where many local governments now may opt to establish traffic impact development fees (Code of VA sections including 15.2-2317 through 15.2-2329 under Chapter 896 of the 2007 General Assembly (HB 3202)). Such fees would help fund the mitigation of the land use impacts assessed and discussed in traffic impact reviews.

Traffic impact review procedure also interrelates with other VDOT programs including the 24 VAC 30-92 secondary street acceptance requirements, 24 VAC 30-151 land use permits, and 24 VAC 30-73 access management regulations implemented under Chapter 863 of the 2007 General Assembly (HB 2228).

Also, the 2009 General Assembly developed a program to provide incentive financing to assist Major Employment and Investment (MEI) projects (Chapter 246, 2009 General Assembly). An MEI project is a high impact regional economic development project in which a private entity is expected to make a capital investment in real and tangible personal property exceeding \$250 million and create more than 400 new full-time jobs, and is expected to have a substantial direct economic impact on surrounding communities. An MEI project is likely to involve considerable traffic impact review.

As stated earlier, after consideration of a land development's features and its traffic impacts, then the approval, modification or disapproval of pending land use actions remain at the discretion of local government.

#### Factors Impacting

The traffic impact reviews provide identification, open discussion and consideration of how land use changes impact transportation. If the information available regarding the developments is adequate, the state must respond to requests for review within required timelines. After consideration of a land development's features and its traffic impacts, the approval, modification or disapproval of pending land use actions remain at the discretion of local government.

Weldon Cooper Center estimates Virginia's current population as 8.4 million and forecasts Virginia's 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

### Financial Overview

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	56,151,798	0	51,508,270
Changes to Initial Appropriation	0	2,390,126	0	8,638,943

**Supporting Documents**

**Title** **File Type**

**Ground Transportation System Research [60202]**

**Description of this Program / Service Area**

Virginia Transportation Research Council (VTRC) plans and delivers a comprehensive ground transportation research, development, technical consulting, and technology transfer program covering all areas of transportation system construction, maintenance, operations, and administration including, but not limited to innovative technology development, design, materials, structures, traffic engineering, safety, planning, environmental stewardship, policy, and improved business practices.

**Mission Alignment**

This service area supports a nationally recognized applied research, development, consulting, and technology transfer program to support the Virginia Department of Transportation in the planning, delivery, operation, and maintenance of Virginia's transportation system.

23 CFR 1, revised as of January 1, 2007, specifically 23 CFR 420.101 et seq., establishes the Federal Highway Administration (FHWA) policies and procedures for the administration of activities undertaken by State departments of transportation (State DOTs) and their sub recipients, including metropolitan planning organizations (MPOs), with FHWA planning and research funds. Subpart A identifies the administrative requirements that apply to use of FHWA planning and research funds both for planning and for research, development, and technology transfer (RD&T) activities.

**Products and Services**

**Description of Major Products and Services**

- Technical consulting, applied research and technical assistance
- New technologies deployment
- Development and dissemination of best practices
- Management and coordination of university contract research
- Development of future transportation professionals through Graduate Assistant Program
- Library services
- Legislative studies
- Scientific papers
- Presentations

**Anticipated Changes**

While there are no anticipated changes, VTRC works cooperatively with a variety of state and federal entities. As additions or modifications are made to state law, changes often occur which alter research demands, agreements, efficiencies, responsibilities, or staff.

Every four years, state executive administration changes can affect the objectives, goals, strategies and responsibilities of this service area and its working relationships between agencies.

**Factors Impacting**

Numerous factors are increasing the demands to plan, build, maintain, and operate transportation facilities better, faster, and more cost-effectively and to use technology and innovation to improve transportation service delivery to citizens and businesses. These increase demands for VTRC's programs of research, consulting and technical assistance, and increase the central role that research must play. These factors include:

- Growth in vehicle miles of travel.
- Extensive service life-related deterioration of roads and bridges in Virginia and nationally.
- Traffic congestion in large urban areas and quality of life impact on Virginia's citizens.
- Deployment of autonomous vehicles
- Federal funding levels for transportation
- State and Federal funding levels for transportation research.
- State and Federal regulations applicable to transportation.

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund

Initial Appropriation for the Biennium	0	9,086,239	0	9,266,770
Changes to Initial Appropriation	0	1,354,460	0	-119,429

**Supporting Documents**

**Title** **File Type**

**Service Area Plan**

**Ground Transportation Program Management and Direction [60204]**

**Description of this Program / Service Area**

This service area provides activities related to the management and direction of the program. Adequate and effective management and direction is critical to the success of the program.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life,” through a commitment to appropriate management and direction.

See service areas 60201 and 60202.

**Products and Services**

**Description of Major Products and Services**

See service areas 60201 and 60202

**Anticipated Changes**

See service areas 60201 and 60202

**Factors Impacting**

See service areas 60201 and 60202

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	3,757,210	0	3,850,022
Changes to Initial Appropriation	0	45,052	0	79,721

**Supporting Documents**

**Title** **File Type**

**Dedicated and Statewide Construction [60302]**

**Description of this Program / Service Area**

To design and prepare plans, acquire needed land and construct roads and bridges or support transit or operational activities across the state that are not dedicated to a specific highway system. This includes statewide programs such as the Revenue Sharing and the Safety programs. Funding for the federal Congestion Mitigation and Air Quality Improvement (CMAQ) and Regional Surface Transportation programs which have yet to be distributed by the respective Metropolitan Planning Organizations are included in this service area and will be transferred when identified. It also includes non-toll-related bond-funded construction.

**Mission Alignment**

This service area will deliver a quality transportation system by advertising and executing contracts to build and maintain the system and by providing professional construction management, program oversight, and training.

- §§33.1-1 through 33.1-223.9 of the Code of Virginia specifically provides authority to plan, designate, acquire, construct, reconstruct and improve highways within the Commonwealth of Virginia.
- The Public-Private Transportation Act of 1995, as amended (§§56-556 et seq. of the Code of Virginia), enables VDOT to partner with private entities to acquire, build, improve, maintain, and/or operate transportation facilities. VDOT had signed PPTA comprehensive agreements on contracts valued at \$1.2 billion from 2002 through June 2005, most of which is for highway construction projects.
- Title 49 of the Code of Federal Regulations, revised as of October 1, 2006, specifically Part 1, establishes that the Federal Highway Administration is responsible for planning and improving, in cooperation with the States, the national highway system (Federal-aid primary, secondary, interstate highway systems and urban extensions thereof).
- Title 23 of the Code of Federal Regulations, revised as of January 1, 2007, specifically 23 CFR 1.3, establishes that the Federal Highway Administration shall cooperate with the States, through their respective State highway departments, in the construction of Federal-aid highways.

**Products and Services**

**Description of Major Products and Services**

Design, right-of-way acquisition, and construction for dedicated and other statewide highways, interstates, primary, secondary and urban roadways, including access roads.

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	0	0	0
Changes to Initial Appropriation	0	0	0	0

**Supporting Documents**

**Title** **File Type**

**Interstate Construction [60303]**

**Description of this Program / Service Area**

To design and prepare plans, acquire needed land, and construct roads and bridges on the interstate highway system.

**Mission Alignment**

This service area will deliver a quality transportation system by advertising and executing contracts to build and maintain the system and by providing professional construction management, program oversight, and training.

§§33.1-1 through 33.1-223.9 of the Code of Virginia specifically provides authority to plan, designate, acquire, construct, reconstruct and improve highways within the Commonwealth of Virginia.

- The Public-Private Transportation Act of 1995, as amended (§§56-556 et seq. of the Code of Virginia), enables VDOT to partner with private entities to acquire, build, improve, maintain, and/or operate transportation facilities. VDOT had signed PPTA comprehensive agreements on contracts valued at \$1.2 billion from 2002 through June 2005, most of which is for highway construction projects.
- Title 49 of the Code of Federal Regulations, revised as of October 1, 2006, specifically Part 1, establishes that the Federal Highway Administration is responsible for planning and improving, in cooperation with the States, the national highway system (Federal-aid primary, secondary, interstate highway systems and urban extensions thereof).
- Title 23 of the Code of Federal Regulations, revised as of January 1, 2007, specifically 23 CFR 1.3, establishes that the Federal Highway Administration shall cooperate with the States, through their respective State highway departments, in the construction of Federal-aid highways.

**Products and Services**

**Description of Major Products and Services**

Design, right-of-way acquisition, and construction for dedicated and other statewide highways, interstates, primary, secondary and urban roadways, including access roads.

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	0	0	0
Changes to Initial Appropriation	0	0	0	0

**Supporting Documents**

**Title** **File Type**

**Primary Construction [60304]**

**Description of this Program / Service Area**

To design and prepare plans, acquire needed land, and construct roads and bridges on the primary highway system.

**Mission Alignment**

This service area will deliver a quality transportation system by advertising and executing contracts to build and maintain the system and by providing professional construction management, program oversight, and training.

§§33.1-1 through 33.1-223.9 of the Code of Virginia specifically provides authority to plan, designate, acquire, construct, reconstruct and improve highways within the Commonwealth of Virginia.

- The Public-Private Transportation Act of 1995, as amended (§§56-556 et seq. of the Code of Virginia), enables VDOT to partner with private entities to acquire, build, improve, maintain, and/or operate transportation facilities. VDOT had signed PPTA comprehensive agreements on contracts valued at \$1.2 billion from 2002 through June 2005, most of which is for highway construction projects.
- Title 49 of the Code of Federal Regulations, revised as of October 1, 2006, specifically Part 1, establishes that the Federal Highway Administration is responsible for planning and improving, in cooperation with the States, the national highway system (Federal-aid primary, secondary, interstate highway systems and urban extensions thereof).
- Title 23 of the Code of Federal Regulations, revised as of January 1, 2007, specifically 23 CFR 1.3, establishes that the Federal Highway Administration shall cooperate with the States, through their respective State highway departments, in the construction of Federal-aid highways.

**Products and Services**

**Description of Major Products and Services**

Design, right-of-way acquisition, and construction for dedicated and other statewide highways, interstates, primary, secondary and urban roadways, including access roads.

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	0	0	0
Changes to Initial Appropriation	0	0	0	0

**Supporting Documents**

**Title** **File Type**

**Secondary Construction [60306]**

**Description of this Program / Service Area**

To design and prepare plans, acquire needed land, and construct roads and bridges on the secondary highway system.

**Mission Alignment**

This service area will deliver a quality transportation system by advertising and executing contracts to build and maintain the system and by providing professional construction management, program oversight, and training.

- §§33.1-1 through 33.1-223.9 of the Code of Virginia specifically provides authority to plan, designate, acquire, construct, reconstruct and improve highways within the Commonwealth of Virginia.
- The Public-Private Transportation Act of 1995, as amended (§§56-556 et seq. of the Code of Virginia), enables VDOT to partner with private entities to acquire, build, improve, maintain, and/or operate transportation facilities. VDOT had signed PPTA comprehensive agreements on contracts valued at \$1.2 billion from 2002 through June 2005, most of which is for highway construction projects.
- Title 49 of the Code of Federal Regulations, revised as of October 1, 2006, specifically Part 1, establishes that the Federal Highway Administration is responsible for planning and improving, in cooperation with the States, the national highway system (Federal-aid primary, secondary, interstate highway systems and urban extensions thereof).
- Title 23 of the Code of Federal Regulations, revised as of January 1, 2007, specifically 23 CFR 1.3, establishes that the Federal Highway Administration shall cooperate with the States, through their respective State highway departments, in the construction of Federal-aid highways.

**Products and Services**

**Description of Major Products and Services**

Design, right-of-way acquisition, and construction for dedicated and other statewide highways, interstates, primary, secondary and urban roadways, including access roads.

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	0	0	0
Changes to Initial Appropriation	0	0	0	0

**Supporting Documents**

**Title** **File Type**

**Urban Construction [60307]**

**Description of this Program / Service Area**

To design and prepare plans, acquire needed land, and construct roads and bridges on the urban highway system.

**Mission Alignment**

This service area will deliver a quality transportation system by advertising and executing contracts to build and maintain the system and by providing professional construction management, program oversight, and training.

- §§33.1-1 through 33.1-223.9 of the Code of Virginia specifically provides authority to plan, designate, acquire, construct, reconstruct and improve highways within the Commonwealth of Virginia.
- The Public-Private Transportation Act of 1995, as amended (§§56-556 et seq. of the Code of Virginia), enables VDOT to partner with private entities to acquire, build, improve, maintain, and/or operate transportation facilities. VDOT had signed PPTA comprehensive agreements on contracts valued at \$1.2 billion from 2002 through June 2005, most of which is for highway construction projects.
- Title 49 of the Code of Federal Regulations, revised as of October 1, 2006, specifically Part 1, establishes that the Federal Highway Administration is responsible for planning and improving, in cooperation with the States, the national highway system (Federal-aid primary, secondary, interstate highway systems and urban extensions thereof).
- Title 23 of the Code of Federal Regulations, revised as of January 1, 2007, specifically 23 CFR 1.3, establishes that the Federal Highway Administration shall cooperate with the States, through their respective State highway departments, in the construction of Federal-aid highways

**Products and Services**

**Description of Major Products and Services**

Design, right-of-way acquisition, and construction for dedicated and other statewide highways, interstates, primary, secondary and urban roadways, including access roads.

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	0	0	0
Changes to Initial Appropriation	0	0	0	0

**Supporting Documents**

**Title** **File Type**

**Highway Construction Program Management [60315]**

**Description of this Program / Service Area**

To provide activities related to the management and direction of the program. Adequate and effective management and direction is critical to the success of the program.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life,” through a commitment to appropriate management and direction.

- §§33.1-1 through 33.1-223.9 of the Code of Virginia specifically provides authority to plan, designate, acquire, construct, reconstruct and improve highways within the Commonwealth of Virginia.
- The Public-Private Transportation Act (PPTA) of 1995, as amended (§§56-556 et seq. of the Code of Virginia), enables VDOT to partner with private entities to acquire, build, improve, maintain, and/or operate transportation facilities. VDOT had signed PPTA comprehensive agreements on contracts valued at \$1.2 billion from 2002 through June 2005, most of which is for highway construction projects.
- Title 49 of the Code of Federal Regulations, revised as of October 1, 2006, specifically Part 1, establishes that the Federal Highway Administration is responsible for planning and improving, in cooperation with the States, the national highway system (Federal-aid primary, secondary, interstate highway systems and urban extensions thereof).
- Title 23 of the Code of Federal Regulations, revised as of January 1, 2007, specifically 23 CFR 1.3, establishes that the Federal Highway Administration shall cooperate with the States, through their respective State highway departments, in the construction of Federal-aid highways

**Products and Services**

**Description of Major Products and Services**

Construction Program Management provides for materials testing, Design Build and Design Bid Build program management, program level design services during construction of roadways and bridges, right of way management, and program level construction engineering services by the Districts during the construction phase of projects.

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	26,741,888	0	27,397,557
Changes to Initial Appropriation	0	260,000	0	11,608,227

**Supporting Documents**

**Title** **File Type**

**State of Good Repair Program [60320]**

**Description of this Program / Service Area**

State of Good Repair Program service area includes efforts to address state of good repair purposes for reconstruction and replacement of structurally deficient state and locally owned bridges and reconstruction and rehabilitation of pavement on the Interstate System and primary highway system determined to be deteriorated by the CTB.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life,” through a commitment to complete projects that address the greatest needs of our existing infrastructure.

**Products and Services**

**Description of Major Products and Services**

Work to address state of good repair purposes for reconstruction and replacement of structurally deficient state and locally owned bridges and reconstruction and rehabilitation of pavement on the Interstate System and primary highway system determined to be deteriorated by the CTB.

Projects in this program are funded for design, right of way, and construction phase services as necessary for their completion. These services include design of plans for roads and bridges and other infrastructure, right of way acquisition and management as necessary, and construction engineering and inspection services needed to manage contracts. In addition, the construction phase of projects includes funding for construction work performed by Contractors.

**Anticipated Changes**

As previous funding formulas expire, more funding will be available to dedicate to State of Good Repair purposes in future biennia. The program requires this dedicated funding to be distributed via a prioritization process to address to greatest needs first, including both VDOT-maintained and locality-maintained infrastructure.

**Factors Impacting**

Aging infrastructure will continue to impact the inventory that will need to be addressed by these funds. VDOT and localities deploy preventative measures with highway maintenance funding where possible.

**Financial Overview**

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	164,835,012	0	103,997,402
Changes to Initial Appropriation	0	7,122,962	0	-16,874,028

**Supporting Documents**

**Title** **File Type**

**High Priority Projects Program [60321]**

**Description of this Program / Service Area**

High Priority Projects Program service area includes efforts to deliver projects and deploy strategies that address a transportation need identified for a corridor of statewide significance or a regional network in the Statewide Transportation Plan.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life,” through a commitment to complete projects that address the needs for statewide or regional projects.

**Products and Services**

**Description of Major Products and Services**

Deliver projects and deploy strategies that address a transportation need identified for a corridor of statewide significance or a regional network in the Statewide Transportation Plan.

Projects in this program are funded for design, right of way, and construction phase services as necessary for their completion. These services include design of plans for roads and bridges and other infrastructure, right of way acquisition and management as necessary, and construction engineering and inspection services needed to manage contracts. In addition, the construction phase of projects includes funding for construction work performed by Contractors.

**Anticipated Changes**

Population growth and other factors drive transportation needs identified for a corridor of statewide significance or a regional network.

**Factors Impacting**

Population growth and regional transportation needs.

**Financial Overview**

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	95,776,727	0	45,444,527
Changes to Initial Appropriation	0	24,119,038	0	-10,028,918

**Supporting Documents**

**Title** **File Type**

**Construction District Grant Programs [60322]**

**Description of this Program / Service Area**

Construction District Grant Program service area includes efforts to deliver projects and strategies that address a need in the Statewide Transportation Plan.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life,” through a commitment to complete projects that address transportation needs in the Statewide Transportation Plan.

**Products and Services**

**Description of Major Products and Services**

Deliver projects and strategies that address a need in the Statewide Transportation Plan.

Projects in this program are funded for design, right of way, and construction phase services as necessary for their completion. These services include design of plans for roads and bridges and other infrastructure, right of way acquisition and management as necessary, and construction engineering and inspection services needed to manage contracts. In addition, the construction phase of projects includes funding for construction work performed by Contractors.

**Anticipated Changes**

Population growth and other factors drive transportation needs identified by localities in the Statewide Transportation Plan.

**Factors Impacting**

**Financial Overview**

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	95,776,727	0	45,444,527
Changes to Initial Appropriation	0	24,119,036	0	-10,028,918

**Supporting Documents**

**Title** **File Type**

**Specialized State and Federal Programs [60323]**

**Description of this Program / Service Area**

Specialized State and Federal Programs service area includes efforts to allocate funds to State and Federal Construction Programs that are not components of other funding distributions.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life,” through a commitment to complete projects that are funded via special allocations or distribution methodology.

**Products and Services**

**Description of Major Products and Services**

Deliver projects and strategies that are funded through special allocations, such as special federal funding distributions, Revenue Sharing and bond funded construction projects.

Projects in this program are funded for design, right of way, and construction phase services as necessary for their completion. These services include design of plans for roads and bridges and other infrastructure, right of way acquisition and management as necessary, and construction engineering and inspection services needed to manage contracts. In addition, the construction phase of projects includes funding for construction work performed by Contractors.

**Anticipated Changes**

None currently known. Unique funding provided to the agency for construction will be appropriated in this service area.

**Factors Impacting**

New specialized funding programs may be allocated in this service area.

**Financial Overview**

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	1,226,436,233	0	933,338,307
Changes to Initial Appropriation	0	64,552,427	0	68,339,998

**Supporting Documents**

**Title** **File Type**

**Legacy Construction Formula Programs [60324]**

**Description of this Program / Service Area**

Legacy Construction Formula Programs service area includes efforts to allocate funds to the Commonwealth Transportation Board Alternate Formula outlined in the Code of Virginia, section 33.2-358 C. This service area will also have appropriation to support spending of prior-year allocations of formula distributed funding.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life,” through a commitment to complete projects that were funded via previous distribution methodologies.

**Products and Services**

**Description of Major Products and Services**

Deliver projects and strategies that are funded through previous distribution methodologies. These methodologies include the previous 40-30-30 formula (40% Primary System; 30% to each – Secondary System and Urban System) and the CTB Alternate Formula (effective through FY 2020).

Projects in this program are funded for design, right of way, and construction phase services as necessary for their completion. These services include design of plans for roads and bridges and other infrastructure, right of way acquisition and management as necessary, and construction engineering and inspection services needed to manage contracts. In addition, the construction phase of projects includes funding for construction work performed by Contractors.

**Anticipated Changes**

This use of this service area for expenditure activity will diminish over time, particularly after FY 2020

**Factors Impacting**

Projects’ advancement impact spending in this service area.

**Financial Overview**

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	652,654,116	0	657,000,080
Changes to Initial Appropriation	0	0	0	0

**Supporting Documents**

**Title** **File Type**

## Interstate Maintenance [60401]

### Description of this Program / Service Area

To preserve the public's investment through the delivery of an effective and efficient statewide interstate highway maintenance program to protect and enhance the transportation infrastructure and the safety of the traveling public.

### Mission Alignment

This service area will ensure that VDOT manages its infrastructure assets in a manner that preserves their value to the public, maximizes the Commonwealth's return on transportation investments, and ensures the safe and efficient movement of people, goods, and services.

Title 33.1, Chapter 1, Code of Virginia:

- §33.1-23.02 defines "maintenance" and "asset management" and requires the Department to develop asset management practices in the operation and maintenance of the state system of highways, and sets forth outcome-based performance planning and reporting requirements.
- §33.1-23.03:6 grants the Commonwealth Transportation Board (CTB) the authority to provide for exceptionally heavy expenditures for repairs or replacements made necessary by highway damage resulting from extraordinary accidents, vandalism, weather conditions, or acts of God and to respond to federal funding initiatives which require matching funds.
- §33.1-23.1 provides the CTB with authority to allocate highway funds annually for the maintenance of roads within the interstate system of highways, the primary system of state highways, the secondary system of state highways and for county, city and town street maintenance payments in accordance with §§33.1-41.1 and 33.1-23.5:1.
- §33.1-25 construes the terms "State Highway System" or "primary system of state highways", differentiates such systems from the secondary system of state highways, and sets forth that the State Highway System shall be constructed and maintained by the State under the direction and supervision of the CTB and the Commonwealth Transportation Commissioner.
- §33.1-37 provides that the State Highway System shall be established, constructed and maintained exclusively by the Commonwealth under the direction and supervision of the Commissioner, using funds appropriated or made available by the state, the federal government, or localities for such purposes.
- §33.1-49 prescribes the general powers and authority of the CTB, including the authority to plan, designate, acquire, open, construct, reconstruct, improve, maintain, discontinue, abandon and regulate the use of the Interstate System and the primary system of state highways and to vacate, close or change the location of any street or public way.
- §33.1-57 defines the term "Limited access highway".
- §33.1-69 provides that VDOT shall control, supervise, manage, and have jurisdiction over the secondary system of state highways, and that the Commonwealth, under the supervision of the Commonwealth Transportation Commissioner, shall be responsible for the maintenance and improvement, including construction and reconstruction, of such secondary system of state highways.

### Products and Services

#### Description of Major Products and Services

- Smooth ride – Maintaining a low International Roughness Index (IRI) value on pavements
- Structural Integrity – Maintaining the structural integrity of pavements, bridges and other infrastructure assets through the use of inspection, assessment and utilization of appropriate maintenance actions
- Safety features – Maintaining the pavement markings, signing and other features of the infrastructure to ensure safe travel.
- Tunnel Maintenance - Preserving and enhancing VDOT's tunnel infrastructure to provide safe and efficient ingress and egress to the traveling public.
- Planned preventive maintenance program

#### Anticipated Changes

Weldon Cooper Center estimates Virginia's current population as 8.4 million and forecasts Virginia's 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

Significant increases in vehicle miles traveled are expected. Congestion is expected to increase throughout the Commonwealth

#### Factors Impacting

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

### Financial Overview

This service area is funded as noted in the following table:

Biennial Budget

	<b>2017 General Fund</b>	<b>2017 Nongeneral Fund</b>	<b>2018 General Fund</b>	<b>2018 Nongeneral Fund</b>
Initial Appropriation for the Biennium	0	341,106,819	0	347,845,934
Changes to Initial Appropriation	0	-3,369,079	0	8,234,222

**Supporting Documents**

**Title** **File Type**

## Primary Maintenance [60402]

### Description of this Program / Service Area

To preserve the public's investment through the delivery of an effective and efficient statewide primary highway maintenance program to protect and enhance the transportation infrastructure and the safety of the traveling public.

### Mission Alignment

This service area will ensure that VDOT manages its infrastructure assets in a manner that preserves their value to the public, maximizes the Commonwealth's return on transportation investments, and ensures the safe and efficient movement of people, goods, and services.

Title 33.1, Chapter 1, Code of Virginia:

- §33.1-23.02 defines "maintenance" and "asset management" and requires the Department to develop asset management practices in the operation and maintenance of the state system of highways, and sets forth outcome-based performance planning and reporting requirements.
- §33.1-23.03:6 grants the Commonwealth Transportation Board (CTB) the authority to provide for exceptionally heavy expenditures for repairs or replacements made necessary by highway damage resulting from extraordinary accidents, vandalism, weather conditions, or acts of God and to respond to federal funding initiatives which require matching funds.
- §33.1-23.1 provides the CTB with authority to allocate highway funds annually for the maintenance of roads within the interstate system of highways, the primary system of state highways, the secondary system of state highways and for county, city and town street maintenance payments in accordance with §§33.1-41.1 and 33.1-23.5:1.
- §33.1-25 construes the terms "State Highway System" or "primary system of state highways", differentiates such systems from the secondary system of state highways, and sets forth that the State Highway System shall be constructed and maintained by the State under the direction and supervision of the CTB and the Commonwealth Transportation Commissioner.
- §33.1-37 provides that the State Highway System shall be established, constructed and maintained exclusively by the Commonwealth under the direction and supervision of the Commissioner, using funds appropriated or made available by the state, the federal government, or localities for such purposes.
- §33.1-49 prescribes the general powers and authority of the CTB, including the authority to plan, designate, acquire, open, construct, reconstruct, improve, maintain, discontinue, abandon and regulate the use of the Interstate System and the primary system of state highways and to vacate, close or change the location of any street or public way.
- §33.1-57 defines the term "Limited access highway".
- §33.1-69 provides that VDOT shall control, supervise, manage, and have jurisdiction over the secondary system of state highways, and that the Commonwealth, under the supervision of the Commonwealth Transportation Commissioner, shall be responsible for the maintenance and improvement, including construction and reconstruction, of such secondary system of state highways.

### Products and Services

#### Description of Major Products and Services

- Smooth ride – Maintaining a low International Roughness Index (IRI) value on pavements
- Structural Integrity – Maintaining the structural integrity of pavements, bridges and other infrastructure assets through the use of inspection, assessment and utilization of appropriate maintenance actions
- Safety features – Maintaining the pavement markings, signing and other features of the infrastructure to ensure safe travel.
- Tunnel Maintenance - Preserving and enhancing VDOT's tunnel infrastructure to provide safe and efficient ingress and egress to the traveling public.
- Planned preventive maintenance program

#### Anticipated Changes

Weldon Cooper Center estimates Virginia's current population as 8.4 million and forecasts Virginia's 2020 population to be 8.7 million.

This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

#### Factors Impacting

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

### Financial Overview

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	487,940,892	0	492,032,519
Changes to Initial Appropriation	0	-6,714,947	0	-6,189,557

**Supporting Documents**

**Title** **File Type**

## Secondary Maintenance [60403]

### Description of this Program / Service Area

To preserve the public's investment through the delivery of an effective and efficient statewide secondary highway maintenance program to protect and enhance the transportation infrastructure and the safety of the traveling public.

### Mission Alignment

This service area will ensure that VDOT manages its infrastructure assets in a manner that preserves their value to the public, maximizes the Commonwealth's return on transportation investments, and ensures the safe and efficient movement of people, goods, and services.

Title 33.1, Chapter 1, Code of Virginia:

- §33.1-23.02 defines "maintenance" and "asset management" and requires the Department to develop asset management practices in the operation and maintenance of the state system of highways, and sets forth outcome-based performance planning and reporting requirements.
- §33.1-23.03:6 grants the Commonwealth Transportation Board (CTB) the authority to provide for exceptionally heavy expenditures for repairs or replacements made necessary by highway damage resulting from extraordinary accidents, vandalism, weather conditions, or acts of God and to respond to federal funding initiatives which require matching funds.
- §33.1-23.1 provides the CTB with authority to allocate highway funds annually for the maintenance of roads within the interstate system of highways, the primary system of state highways, the secondary system of state highways and for county, city and town street maintenance payments in accordance with §§33.1-41.1 and 33.1-23.5:1.
- §33.1-25 construes the terms "State Highway System" or "primary system of state highways", differentiates such systems from the secondary system of state highways, and sets forth that the State Highway System shall be constructed and maintained by the State under the direction and supervision of the CTB and the Commonwealth Transportation Commissioner.
- §33.1-37 provides that the State Highway System shall be established, constructed and maintained exclusively by the Commonwealth under the direction and supervision of the Commissioner, using funds appropriated or made available by the state, the federal government, or localities for such purposes.
- §33.1-49 prescribes the general powers and authority of the CTB, including the authority to plan, designate, acquire, open, construct, reconstruct, improve, maintain, discontinue, abandon and regulate the use of the Interstate System and the primary system of state highways and to vacate, close or change the location of any street or public way.
- §33.1-57 defines the term "Limited access highway".
- §33.1-69 provides that VDOT shall control, supervise, manage, and have jurisdiction over the secondary system of state highways, and that the Commonwealth, under the supervision of the Commonwealth Transportation Commissioner, shall be responsible for the maintenance and improvement, including construction and reconstruction, of such secondary system of state highways.

### Products and Services

#### Description of Major Products and Services

Smooth ride – Maintaining a low International Roughness Index (IRI) value on pavements

Structural Integrity – Maintaining the structural integrity of pavements, bridges and other infrastructure assets through the use of inspection, assessment and utilization of appropriate maintenance actions

Safety features – Maintaining the pavement markings, signing and other features of the infrastructure to ensure safe travel.

Tunnel Maintenance - Preserving and enhancing VDOT's tunnel infrastructure to provide safe and efficient ingress and egress to the traveling public.

Planned preventive maintenance program

#### Anticipated Changes

Weldon Cooper Center estimates Virginia's current population as 8.4 million and forecasts Virginia's 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

Significant increases in vehicle miles traveled are expected. Congestion is expected to increase throughout the Commonwealth

#### Factors Impacting

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	<b>2017 General Fund</b>	<b>2017 Nongeneral Fund</b>	<b>2018 General Fund</b>	<b>2018 Nongeneral Fund</b>
Initial Appropriation for the Biennium	0	597,154,768	0	599,494,559
Changes to Initial Appropriation	0	-9,129,322	0	-16,213,992

**Supporting Documents**

**Title** **File Type**

## Transportation Operations Services [60404]

### Description of this Program / Service Area

To improve mobility, safety, travel time reliability and security on the transportation system through the deployment of a variety of operational strategies including regional traffic centers, emergency services, traveler services, multimodal integrated corridor management, congestion management, traffic signalization optimization and the review and adoption of emerging transportation technologies including but not limited to connected and automated vehicles.

### Mission Alignment

This service area will serve the traveling public and ensure the efficient, reliable and safe operation of our transportation system in real-time.

- §2.2-3705.2 of the Code of Virginia, relating to the Freedom of Information Act; Exclusions to application of chapter; records relating to public safety.
- §33.2-116 of the Code of Virginia requires the Secretary and Department to revise and update statewide transportation programs by evaluating and incorporating, new technologies and other innovations in transportation.
- §33.2-352 defines "maintenance" and "asset management", and requires the Department to develop asset management practices in the operation and maintenance of the state system of highways, and sets forth outcome-based performance planning and reporting requirements.
- 23 USC 152 requires each State to survey all public roads to identify hazardous locations, sections, and elements, and establish and implement a schedule of projects for their improvement. 23 USC 130 requires each State to survey all highways to identify those railroad crossings which may require separation, relocation, or protective devices, and establish and implement a schedule of projects for this purpose, to include, at a minimum, provision of signs for all railway-highway crossings.
- 23 USC 150 establishes national goals and performance management measures for states to report to the U.S. Department of Transportation. Measures include asset conditions, highway safety, congestion mitigation, and national freight movement.
- 23 USC 166 (d) requires each state to operate, monitor and report on travel conditions of High Occupant Vehicle (HOV) facilities.
- Section 1201 of the Safe, Accountable, flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETA-LU) requires states to monitor in real-time the traffic and travel conditions of major highways and provide a means of sharing these data with state and local governments and with the traveling public.

### Products and Services

#### Description of Major Products and Services

- **Emergency Products/Services:** • Incident management, traffic control, interagency and interstate response planning and coordination, and training to include: • Traffic Incident Management (TIM) program development • Signal preemption • Traffic control • Response coordination – Coordinating with local governments, law enforcement and other emergency services to maintain mobility and safety during major incidents (Natural Disaster, Security, COOP (Continuity of Operations Plan), Incident Management, Motorist Assistance, Safety Service Patrol). • Emergency and Incident Response Planning – Developing, coordinating and participating in response planning in conjunction with local governments, law enforcement and other emergency responders. • Security and emergency management training
- **Safety Products/Services:** • Hazard Elimination Projects – use federal funds to address and eliminate highway safety hazards. • Scheduling planned incidents – Coordinating with appropriate government agencies, contractors, event organizers, and others to make preparations for planned incidents and traffic disruptions, such as large special events. • Security threat analysis and response to security threats. • Statewide Safety Strategic Plan – Develop and deliver the comprehensive safety plan outlining VDOT's strategies for highway safety. • Highway Safety Statistics – Analyze crash data and other safety statistics to provide information to construction, maintenance and operation services to reduce or eliminate safety hazards. • Work zone safety – Develop and deliver effective processes and procedures to ensure the safety of travelers and workers in highway work zones. • Engineering standards for traffic control devices – Develop and implement guidelines used in the installation and maintenance of traffic control devices to optimize safety.
- **Managing Congestion Products/Services:** • Incident management – Identifying, responding and removing any planned or unplanned incident that disrupts the flow of traffic or poses a safety risk as quickly as possible. Implement incentives for rapid incident response such as incentive towing and pre-staged towing services. • Managed lanes (HOT/HOV/Congestion Pricing) – Operating and promoting the use of high occupancy toll, and/or high occupancy vehicle lanes, and use of dynamic tolls to provide alternatives to congestion. • Ramp metering • Policy and data analysis to improve operating capacities and incident management capabilities in major corridors. • Integrated Corridor Management Supporting multi-modal approaches to congestion using bus priority, bus only lanes, and signal priority among other techniques to enhance transit operations. Providing and managing Park and Ride Lot facilities to enhance transit operations. – Providing future parking information. • Trip Traveler Information – Providing information via 511, Web-based, and various broadcast media to assist motorists in making multimodal and alternative route travel decisions. • Transportation Systems Management – Actively controlling and managing the flow of traffic on the road transportation system. • Freight Travel – Providing travel time information and parking information at state rest area facilities.
- **Operations Products/Services:** • Operations data collection and analysis, such as: • Traffic volume and classification • Travel time, speeds and reliability • Camera-enforced speed control programs • Condition of assets and road system • System Operations annual reporting • Condition of network – ability of network to support throughput • Traffic and Security surveillance • Planning and budget for all system operations needs • Evaluation and deployment of new technologies to improve safety, capacity and manage the system. •

Development of life-cycle models for replacing operations devices, software, communication networks and establishment of replacement programs. • Evaluating and promoting the advancement of emerging transportation technologies including connected vehicles, automatic vehicles, and communication systems. • Promotion of private sector participation with traffic management app and system development and travel demand management.

- **Improved Traveler Services:** • Rest areas facilities improvements • Enhanced traveler information (Evacuation/alternate routes, 511, Pre-trip traveler information , Directional and Informational signing, Road Condition and Event Advisories, Parking Management Systems)
- **Regulation Products/Services:** • Regulating outdoor advertising – Monitor and enforce compliance with outdoor advertising regulations. • Establishing speed limits – Application of engineering methods to determine appropriate limits following state code.
- **Aesthetics** – Maintaining the visual integrity of shoulders, medians and back slopes by managing and controlling drainage, storm water, turf, brush, trees, slope stability, and the removal of litter, mowing grass and landscaping
- **Customer Service** – Responding to complaints related to highway maintenance and requests for service
- **Road Inventory Information** - Provide guidance with respect to highway changes and update and maintain roadway mileage inventory and attributes including additions, abandonments, relocations, route numbering, road and bridge naming, etc. Submit accurate data to FHWA for the Highway Performance Monitoring System (HPMS), and MAP-21 / FASTLANE reporting requirements.
- **Access management** - Preserve the operation of highways by providing policies, program guidance, and land use permit oversight to provide appropriate controls on access to the state's highways.
- **Equipment** – Providing high-quality, safe, and cost-effective mobility, equipment, services, and tools to VDOT employees in support of the performance of their jobs
- **Statewide contracting initiatives for programs or services**
- **Snow / ice removal**

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia's 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth • Automated vehicle introduction

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	<b>2017 General Fund</b>	<b>2017 Nongeneral Fund</b>	<b>2018 General Fund</b>	<b>2018 Nongeneral Fund</b>
Initial Appropriation for the Biennium	0	188,047,830	0	188,518,707
Changes to Initial Appropriation	0	-2,965,739	0	-5,967,112

**Supporting Documents**

**Title** **File Type**

**Highway Maintenance Operations, Program Management and Direction [60405]**

**Description of this Program / Service Area**

To provide activities related to the management and direction of the program. Adequate and effective management and direction is critical to the success of the program.

**Mission Alignment**

See service areas 60401, 60402, 60403 and 60404

**Products and Services**

**Description of Major Products and Services**

Smooth ride – Maintaining a low International Roughness Index (IRI) value on pavements

Structural Integrity – Maintaining the structural integrity of pavements, bridges and other infrastructure assets through the use of inspection, assessment and utilization of appropriate maintenance actions

Safety features – Maintaining the pavement markings, signing and other features of the infrastructure to ensure safe travel.

Tunnel Maintenance - Preserving and enhancing VDOT’s tunnel infrastructure to provide safe and efficient ingress and egress to the traveling public.

Planned preventive maintenance program

Maintaining the Infrastructure

Emergency Products/Services

Safety Products/Services:

Managing Congestion Products/Services

Operations Products/Services

Improved Traveler Services:

Regulation Products/Services:

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	83,695,871	0	83,869,856
Changes to Initial Appropriation	0	-1,332,143	0	-2,771,097

**Supporting Documents**

**Title** **File Type**



**Toll Facility Acquisition and Construction [60601]****Description of this Program / Service Area**

To provide efforts to acquire, construct, and renovate ground transportation toll facilities. To construct needed highway facilities earlier than would be possible with traditional funding sources and without general tax increases, toll facilities have, when practical, been funded through the issuance of bonds. Revenues collected from toll facilities contribute to Virginia's safe and effective transportation system. Facilities currently owned and operated by VDOT include Powhite Parkway Extension Toll Road in Chesterfield County and George P. Coleman Bridge in Gloucester County. By December 2017, it is anticipated that VDOT will deliver and become the operator of two additional Toll Facilities: I-66 Inside the Beltway, and I-64 Express Lanes. The remaining toll facilities are either privately owned or owned by other public entities.

**Mission Alignment**

This service area will improve the mobility of our citizens by planning, implementing, directing, and enhancing systems and processes associated with user fee based facilities; and, further by operating and maintaining these facilities in the safest and most efficient manner possible.

*Acts of Assembly:*

- Legislation enacted by the Acts of the Virginia General Assembly of 1940 authorized the issuance of bonds to finance the purchase of ferries and bridges and the construction of the George P. Coleman Bridge.
- Chapter 221 of the 1979 Acts of Assembly authorized the issuance of Commonwealth of Virginia Transportation Facilities Bonds to construct a new highway called the Dulles Toll Road.
- Chapter 89 of the Acts of the General Assembly of Virginia of 1984, as amended by Chapter 373 of the Acts of the General Assembly of 1986 authorized the issuance of \$78,000,000 in bonds for the construction of approximately 13.2 miles of highway in Chesterfield County to be operated as a toll facility known as the Powhite Parkway Extension.
- Legislation enacted by the 1993 session of the Virginia General Assembly authorized the issuance of bonds in the amount of \$38,100,000 for reconstruction of the George P. Coleman Bridge.

*Code of Virginia:*

- §33.1-50 established that State funds for repayment of federal construction advances may be raised by toll facilities, if approved by the Federal Highway Administration.
- §33.1-269:5 established that the Commonwealth Transportation Board has the power to fix and collect tolls for the use of certain projects and refinancing of these projects.

*Commonwealth Transportation Board (CTB)***I-66 Inside the Beltway**

On December 9, 2015, the CTB approved an agreement with the Northern Virginia Transportation Commission (NVTC) in which the Virginia Department of Transportation will deliver and manage the tolling operation, and the NVTC will invest toll revenues in multimodal improvements to directly benefit users of the corridor. On December 3, 2015, the NVTC approved its part of the agreement to invest toll revenues.

Under the 40-year Framework Agreement between the CTB and NVTC, which will be implemented jointly by VDOT and NVTC:

- VDOT will be responsible for operations and maintenance, tolling, and roadway improvements.
- NVTC will be responsible for selecting multimodal improvements, ensuring compliance with the law and agreement, and reporting on the use of funds.

**I-64 HOT Lanes**

Due to underutilization of the HOV Lanes on Interstate 64 in Hampton Roads, the CTB voted on October 19, 2016 to authorize VDOT to convert eight miles of Interstate 64 High Occupancy Vehicle (HOV-2) reversible lanes to High Occupancy Toll (HOT) or Express Lanes from the Interstate 264/64 Interchange to Interstate 564. The CTB also agreed to allow VDOT to use its current toll revolving account to begin constructing infrastructure needed to build the Express Lanes. Funding for this project was approved in a subsequent CTB Resolution dated March 15, 2017.

**Federal Highway Administration (FHWA)**

VDOT has been granted permission by FHWA to convert both I-66 Inside the Beltway and I-64 HOV Lane to High Occupancy Toll Lanes via a Memorandum of Understanding.

**Products and Services****Description of Major Products and Services**

Construction of Toll Facilities

Renovation or reconstruction of Toll Facilities

Acquisition of Toll Facilities

### **Anticipated Changes**

Construction of the I-66 Inside the Beltway Toll Facility should be complete by June 30, 2017; the facility is expected to become operational mid-way through FY2018. Modifications to I-64 for conversion to HOT Lanes are expected to be completed by December 2017.

As toll facilities age, it is necessary to renovate and update current facilities.

Weldon Cooper Center estimates Virginia's current population as 8.4 million and forecasts Virginia's 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

### **Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

### **Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	<b>2017 General Fund</b>	<b>2017 Nongeneral Fund</b>	<b>2018 General Fund</b>	<b>2018 Nongeneral Fund</b>
Initial Appropriation for the Biennium	0	12,300,000	0	42,700,000
Changes to Initial Appropriation	0	42,700,000	0	-32,700,000

### **Supporting Documents**

**Title** **File Type**

**Toll Facility Debt Service [60602]**

**Description of this Program / Service Area**

To provide for the debt service requirements of the debt-financed toll facilities. The bond indentures for the toll facilities require Commonwealth Transportation Board (CTB) to set toll rates for all classes of vehicles which will provide sufficient net revenues to meet the facilities' obligations. Toll roads are typically constructed with debt financing and the subsequent toll collection revenues are used for debt service payments.

**Mission Alignment**

This service area will improve the mobility of our citizens by planning, implementing, directing, and enhancing systems and processes associated with user fee based facilities; and, further by operating and maintaining these facilities in the safest and most efficient manner possible.

- Legislation enacted by the Acts of the Virginia General Assembly of 1940 authorized the issuance of bonds to finance the purchase of ferries and bridges and the construction of the George P. Coleman Bridge.
- Chapter 89 of the Acts of the General Assembly of Virginia of 1984, as amended by Chapter 373 of the Acts of the General Assembly of 1986 authorized the issuance of \$78,000,000 in bonds for the construction of approximately 13.2 miles of highway in Chesterfield County to be operated as a toll facility known as the Powhite Parkway Extension.
- The bonds for the Powhite Parkway Extension were paid off in Fiscal Year 2011.
- Legislation enacted by the 1993 session of the Virginia General Assembly authorized the issuance of bonds in the amount of \$38,100,000 for reconstruction of the George P. Coleman Bridge.

**Products and Services**

**Description of Major Products and Services**

- Financing review and program development services.
- Program administration, including compliance and continuing disclosure, investor relations, and rating agency relationships to maintain the high credit quality of bonds
- Issuance of bonds or other securities
- Review of refunding opportunities on outstanding debt obligations
- Debt affordability analysis and recommendations to executive branch and legislature
- Technical assistance on the financial aspects of legislative proposals, impact on debt capacity, financial studies and initiatives.

**Anticipated Changes**

Variable rate debt and synthetic structures are increasingly popular with issuers and may present opportunities for interest rate savings, flexibility, portfolio diversity, and hedging interest rate exposure. Some level of variable rate exposure could be prudent and cost-effective for VDOT.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	3,188,200	0	3,193,400
Changes to Initial Appropriation	0	0	0	0

**Supporting Documents**

**Title** **File Type**

**Toll Facility Maintenance And Operation [60603]**

**Description of this Program / Service Area**

To provide for the operational costs of the George P. Coleman Bridge and the Powhite Parkway Extension Toll Road. Beginning in December 2017, it is anticipated that VDOT will become the operator of two additional Toll Facilities: I-66 Inside the Beltway, and I-64 Express Lanes. All operating costs associated with that facility are to be paid out of the revenues generated by that facility. Customer service and toll collection are Toll Facilities main operations.

**Mission Alignment**

This service area will improve the mobility of our citizens by planning, implementing, directing, and enhancing systems and processes associated with user fee based facilities; and, further by operating and maintaining these facilities in the safest and most efficient manner possible.

- Section 9 (c) of Article X of the Constitution of Virginia provides that the General Assembly may authorize the creation of debt secured by a pledge of anticipated revenue derived from revenue-producing capital projects.
- §33.1-261 of the Code of Virginia provides that no toll bridge erected after March 19, 1928, can be constructed, maintained or operated across or over navigable waters in Virginia unless and until a permit is obtained from the Commonwealth Transportation Board.

**Products and Services**

**Description of Major Products and Services**

The maintenance and operations budget provides funding for salary costs and overhead expenses associated with the program, such as training, office incidentals, for the employees at the facilities.

Use of Automatic Vehicle Identification (AVI) technology. With AVI, electronic scanners at tollbooths read vehicle transponders and payment is deducted from the driver’s pre-paid account. This technology is in use at all facilities that are operated by VDOT.

Implementation of a Violation Enforcement System. The system provides a cost effective means for pursuing and collecting funds from toll violators.

The Commonwealth Transportation Board granted VDOT the authority to operate I-66 Inside the Beltway and I-64 Express Lanes as toll projects utilizing demand pricing.

The Federal Highway Administration granted VDOT the authority to convert portions of I-66 and I-64 from HOV to HOT Lanes.

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth • Maintaining adequate staffing levels to ensure that the facilities are adequately operated and maintained.

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	12,912,050	0	13,000,750
Changes to Initial Appropriation	0	0	0	0

**Supporting Documents**

**Title** **File Type**

## Service Area Plan

### Toll Facilities Revolving Fund [60604]

#### Description of this Program / Service Area

To provide a method to finance and/or refinance existing and potential toll facilities. Interest earnings on the Construction Fund and Highway Maintenance and Operating Fund are deposited in this account. Funds allocated from the Toll Facilities Revolving Account intended for planned or operating toll facilities are considered advance funding in which the Toll Facilities Revolving Account must be reimbursed.

#### Mission Alignment

This service area is aligned to VDOT's mission "VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life," through the operation of toll facilities to collect revenues to ensure the efficiency and safety of Virginia roadways.

- Subdivision 4 of §33.1-23.03:1 established a subaccount for the Transportation Trust Fund. This subaccount includes funds from toll and other revenues derived from the projects that are payable to the state treasury and other revenues derived from other transportation projects.
- §33.1-23.03:4 established that funds deposited into the Transportation Trust Fund, held in the previously described separate subaccount would be designated as the "Toll Facilities Revolving Account." Interest, dividends, and appreciation earned are deposited into this account. Funds received from the Account to finance, in whole or in part, planned toll facilities or for refinancing existing toll facilities are made available in terms of loans and the Account must be reimbursed.
- §33.1-23.03:10 allows the CTB, in accordance with all applicable federal and state statutes and requirements, to impose and collect tolls for the use of any component of the interstate highway system within the Commonwealth, with the proceeds to be deposited into the TTF and allocated by the Board.

#### Products and Services

##### Description of Major Products and Services

Advanced Funding for planned or operating toll facilities

##### Anticipated Changes

Funding has been authorized for I-66 Inside the Beltway and I-64 HOT Lanes from the Toll Facility Revolving Fund.

##### Factors Impacting

Civil reparations from toll violators are deposited into the Toll Facilities Revolving Fund. If the driver is found guilty of failing to pay the toll, a fee, in addition to the unpaid toll, is charged against the individual. This fee is then deposited into the Toll Facilities Revolving Account. These deposits are used to off-set outstanding Toll Facilities Revolving Fund liabilities of the facility where the violation is incurred.

The amount of funding available for allocation in the Toll Facilities Revolving Account is based on projections of interest earnings on revenues and the cash balance in the Highway Maintenance and Operations Fund (HMO) and the Transportation Trust Fund (TTF).

#### Financial Overview

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	19,848,000	0	20,900,000
Changes to Initial Appropriation	0	0	0	0

#### Supporting Documents

Title	File Type
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**Financial Assistance for City Road Maintenance [60701]**

**Description of this Program / Service Area**

To provide monetary support to localities for capital improvements (limited to maintenance activities) and/or maintenance of roads and/or transportation facilities. Direct financial assistance is provided to cities and towns to maintain, operate, and improve their arterial and collector roads and local streets. The level of assistance to the respective local governments for maintenance expenditures is based on the number of qualifying lane-miles in each locality and available funding.

**Mission Alignment**

This service area will promote and facilitate partnerships between localities and VDOT to successfully deliver transportation programs and projects.

- §33.2-358 – Allocation of funds among highway systems
- §33.2-319 – Payments to cities and certain towns for maintenance of certain highways

**Products and Services**

**Description of Major Products and Services**

Distribution of funds to localities: The goal of the Department is to equitably distribute the limited funds made available for local road maintenance and to provide funding for the maintenance and operation of the eligible roads and streets for cities and towns that maintain their own systems. These localities are free to use their own distribution of road maintenance funds to enter into contracts with firms of their own choosing, or to help fund work crews already employed by their agency.

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

- Growth in customers, traffic, and congestion.
- Costs/Inflation growth
- Distribution of funds is based on a formula.
- The funding source is the Highway Maintenance and Operating Fund (HMO)
- Localities continue to add lane miles of eligible roadway that also have to be maintained.

**Financial Overview**

This service area is funded as noted in the following table. When localities suffer storm damage that is federally reimbursable, this service area also receives federal funds on a reimbursement basis.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	370,126,317	0	376,415,683
Changes to Initial Appropriation	0	1,012,044	0	-1,060,157

**Supporting Documents**

**Title** **File Type**

**Financial Assistance for County Road Maintenance [60702]**

**Description of this Program / Service Area**

To provide monetary support to localities for capital improvements (limited to maintenance activities) and/or maintenance of roads and/or transportation facilities. Direct financial assistance is provided to specific counties to maintain, operate, and improve their secondary roads. The level of assistance to the respective local governments for maintenance expenditures is based on the number of qualifying lane-miles in each locality and available funding.

**Mission Alignment**

This service area will promote and facilitate partnerships between localities and VDOT to successfully deliver transportation programs and projects.

- §33.2-358 – Allocation of funds among highway systems
- §33.2-366 – Funds for counties that have withdrawn or elect to withdraw from the secondary state highway system

**Products and Services**

**Description of Major Products and Services**

Distribution of funds to county government: The goal of the Department is to equitably distribute the limited funds made available for local road maintenance and to provide funding for the maintenance and operation of the eligible roads and streets for these two counties that maintain their own secondary systems. These localities are free to use their own distribution of road maintenance funds to enter into contracts with firms of their own choosing, or to help fund work crews already employed by their agency.

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

- Growth in customers, traffic, and congestion.
- Costs/Inflation growth
- Distribution of funds is based on a formula.
- The funding source is the Highway Maintenance and Operating Fund (HMO)
- Localities continue to add lane miles of eligible roadway that also have to be maintained.

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	65,998,123	0	67,119,622
Changes to Initial Appropriation	0	2,582	0	-366,880

**Supporting Documents**

**Title** **File Type**

**Financial Assistance for Planning, Access Roads, and Special Projects [60704]**

**Description of this Program / Service Area**

Manage and distribute funding for recreational and economic development access programs and the Metropolitan Planning federal grant program. The Recreational Access Program provides funding for roads and bikeways to new or expanding non-federal, non-commercial public parks and historic sites. Access roads for qualifying airports and economic development sites, and access tracks for qualified rail users are provided through VDOT’s Economic Development, Airport, and Rail Access Fund. The Metropolitan Planning Grants are federal funds available to support activities undertaken by Metropolitan Planning Organizations (MPOs) to develop long-range transportation plans and transportation improvement programs.

**Mission Alignment**

This service area will promote and facilitate partnerships between localities and VDOT to successfully deliver transportation programs and projects.

- §33.2-1509 – Funds for access roads to economic development sites and airports; construction, maintenance, etc. of such roads
- §33.2-1600 – Fund for construction of industrial access railroad tracks
- §33.2-1510 – Fund of access roads and bikeways to public recreational areas and historical sites; construction, maintenance, etc., of such facilities

**Products and Services**

**Description of Major Products and Services**

Provides financial assistance for construction, reconstruction, and improvement of recreational access roads, bikeways, airport access roads, development access roads to benefit economic development and economic development railroad tracks and facilities.

Provides funding for Metropolitan Planning Grants

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	14,458,825	0	14,458,825
Changes to Initial Appropriation	0	1,278,504	0	911,778

**Supporting Documents**

**Title** **File Type**

**Distribution of Northern Virginia Transportation Authority Fund Revenues [60706]**

**Description of this Program / Service Area**

This service area provides activities related to the management of VDOT efforts to process and report on the transfer of regional tax revenue to the Northern Virginia Transportation Authority (NVTA) to fund local and regional transportation projects.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, develop, deliver, operate and maintain a transportation system that is safe and enables efficient movement of people and goods, enhances the economy and improves the quality of life,” through a commitment to provide funds-transferring service to the Northern Virginia Transportation Authority in an efficient and effective manner.

- §33.2-2500 *et. seq.* – Northern Virginia Transportation Authority

**Products and Services**

**Description of Major Products and Services**

VDOT plans, organizes, directs, and provides support activities related to the processing of, and reporting on, the transfer of regional tax revenue to the Northern Virginia Transportation Authority (NVTA).

**Anticipated Changes**

None at this time

**Factors Impacting**

Fund sources include components of local sales tax, regional congestion relief fees, transient occupancy tax and sales tax on motor fuels. Economic conditions can affect the level of funds collected by the entities performing collection activities including Virginia agencies like the Department of Motor Vehicles and the Department of Taxation.

Availability of funds for VDOT to transfer to NVTA is dependent on the level of service of the entities collecting such funds.

VDOT’s level of service, the timely and accurate transfer of available funds to NVTA, may be dependent on the timely and accurate collection of such funds by partners in the process.

**Financial Overview**

The revenue distributed to the Northern Virginia Transportation Authority is the regional revenue created by House Bill 2313 during the 2013 General Assembly Session. This includes the addition of 0.7 percent in additional Retail Sales and Use Tax. A regional congestion relief fee of \$0.15 per \$100 was also implemented. A Northern Virginia transient occupancy tax of 2 percent was also included in the transportation funding legislation

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	331,900,000	0	340,900,000
Changes to Initial Appropriation	0	-4,700,000	0	-10,300,000

**Supporting Documents**

**Title** **File Type**

**Distribution of Hampton Roads Transportation Fund Revenues [60707]**

**Description of this Program / Service Area**

This service area provides activities related to the management of VDOT efforts to process, apply and report on the use of regional tax revenue to fund local and regional transportation construction projects in Hampton Roads.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, develop, deliver, operate and maintain a transportation system that is safe and enables efficient movement of people and goods, enhances the economy and improves the quality of life,” through a commitment to provide funds for approved, eligible local or regional transportation construction projects in Hampton Roads.

- §33.2-2600 *et. seq.* – Hampton Roads Transportation Accountability Commission

**Products and Services**

**Description of Major Products and Services**

VDOT plans, organizes, directs, and provides support activities related to the processing of, reporting on, and forecasted funds availability in the use of regional tax revenue to fund local and regional transportation projects in Hampton Roads

**Anticipated Changes**

None at this time

**Factors Impacting**

Fund sources include components of local sales tax and sales tax on motor fuels. Economic conditions can affect the level of funds collected by the entities performing collection activities including Virginia agencies like the Department of Motor Vehicles and the Department of Taxation.

Availability of funds for VDOT to apply to approved transportation projects is dependent on the level of service of the entities collecting such funds, and also on other funding-level and project-level stipulations that must be met in order for application of such funding to occur.

VDOT’s level of service, the timely and accurate application of available funds to approved transportation projects, may be dependent on the timely and accurate collection of such funds by partners in the process.

**Financial Overview**

The revenue provided for the Hampton Roads Transportation Planning Organization is the regional revenue created by House Bill 2313 during the 2013 General Assembly Session. This includes the addition of 0.7 percent in additional Retail Sales and Use Tax and a 2.1 percent Sales Tax on Fuel.

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	171,400,000	0	177,100,000
Changes to Initial Appropriation	0	-2,500,000	0	-17,500,000

**Supporting Documents**

**Title** **File Type**

## Highway Transportation Improvement District Debt Service [61201]

### Description of this Program / Service Area

Provide for the debt service requirements of the bonds sold to finance transportation improvements in special tax districts. There is currently only one such district, the State Route 28 Highway Transportation Improvement District in Fairfax and Loudoun counties.

Debt service is a long-term, fixed expense. Obtaining the most favorable rates on our non-toll supported debt programs directly benefit the Commonwealth and taxpayers by saving tax dollars. The information gathered by this objective will benchmark the interest rates achieved in actual bond issues against one or more indices. This will provide a measure of investor acceptance of the issue structure, as well as investor perception of the financial management of the bond program.

### Mission Alignment

This service area is aligned to VDOT's mission "VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life," through responsible stewardship of funds.

Chapter 647 of the Acts of Assembly of 1995 (Public-Private Transportation Act of 1995) was passed to encourage investment in the Commonwealth by private entities that facilitates the development and/or operation of transportation facilities and allows for assistance by the state on the condition that no agreement result in an action by the public body party to the agreement that would impact the Commonwealth's debt capacity. In 1987, the Virginia General Assembly authorized localities to create special tax districts to finance transportation improvements. The current authorization for this is provided in the Code of Virginia, Title 33.2, Chapter 21, Transportation Districts within Certain Counties. In 1988, the Boards of Supervisors for Fairfax and Loudoun counties each approved a petition from Route 28 landowners to form the first transportation improvement district in the Commonwealth, the State Route 28 Highway Transportation Improvement District (the "District"). A special tax levy of a maximum of 20 cents per \$100 of assessed fair market value on all commercial and industrial zoned property inside the District is used to pay debt service for bonds issued to partially fund construction of Route 28 improvements. An initial phase of improvements was completed in 1991 that widened the route from a 14-mile two-lane road to six lanes and constructed three above-grade interchanges.

### Products and Services

#### Description of Major Products and Services

Financing review and program development services

Program administration, including compliance and continuing disclosure, investor relations, and rating agency relationships to maintain the high credit quality of bonds Issuance of bonds or other securities

Review of refunding opportunities on outstanding debt obligations

Debt affordability analysis and recommendations to executive branch and legislature

Technical assistance on the financial aspects of legislative proposals, impact on debt capacity, financial studies and initiatives

#### Anticipated Changes

Weldon Cooper Center estimates Virginia's current population as 8.4 million and forecasts Virginia's 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

No additional debt is anticipated to be issued for this program by the Commonwealth Transportation Board.

#### Factors Impacting

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

### Financial Overview

This service area represents the debt service obligations of the program. This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	7,215,019	0	7,212,269
Changes to Initial Appropriation	0	0	0	0

**Supporting Documents**

**Title** **File Type**

**Designated Highway Corridor Debt Service [61202]**

**Description of this Program / Service Area**

Provide for the debt service requirements of the bonds sold to finance transportation improvements in special designated highway corridors. The Commonwealth Transportation Board has issued transportation revenue bonds for the U.S. Route 58 Corridor Development Program, the City of Chesapeake Oak Grove Connector Project, and the Northern Virginia Transportation District (NVTD) Program.

Debt service is a long-term, fixed expense. Obtaining the most favorable rates on our non-toll supported debt programs directly benefit the Commonwealth and taxpayers by saving tax dollars. The information gathered by this objective will benchmark the interest rates achieved in actual bond issues against one or more indices. This will provide a measure of investor acceptance of the issue structure, as well as investor perception of the financial management of the bond program.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life,” through responsible stewardship of funds.

Chapter 12 of the Acts of Assembly of 1989, Special Session II established the U.S. Route 58 Corridor Development Program (Code of Virginia 33.2-2301.); Chapter 391 of the Acts of Assembly of 1993, as amended by Chapters 470 and 597 of the Acts of Assembly of 1994 established the Northern Virginia Transportation District Program (33.2-2400); Chapters 233 and 662 of the Acts of Assembly of 1994 established the Oak Grove Connector Project. (§ 58.1-816.1. Transportation Improvement Program Set-aside Fund.) • Since 1988, the Commonwealth Transportation Board has issued transportation revenue bonds for the Route 28 Transportation Improvement District, the U.S. Route 58 Corridor Development Program, the City of Chesapeake Oak Grove Connector Project, and the Northern Virginia Transportation District (NVTD) Program. The NVTD Program is comprised of the Fairfax County Parkway, Route 234 Manassas Bypass, Route 7 Improvements, and Metro Capital Improvements including the Franconia-Springfield Metro rail Station.

**Products and Services**

**Description of Major Products and Services**

Financing review and program development services

Program administration, including compliance and continuing disclosure, investor relations, and rating agency relationships to maintain the high credit quality of bonds

Issuance of bonds or other securities

Review of refunding opportunities on outstanding debt obligations

Debt affordability analysis and recommendations to executive branch and legislature

Technical assistance on the financial aspects of legislative proposals, impact on debt capacity, financial studies and initiatives

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

Variable rate debt and synthetic structures are increasingly popular with issuers and may present opportunities for interest rate savings, flexibility, portfolio diversity, and hedging interest rate exposure. Some level of variable rate exposure could be prudent and cost-effective for VDOT.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

This service area represents the debt service obligations of the program. This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	40,000,000	26,590,136	40,000,000	27,372,022

Changes to Initial Appropriation	0	329,510	0	-624,844
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### Supporting Documents

Title	File Type
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**Commonwealth Transportation Capital Projects Bond Act Debt Service [61204]**

**Description of this Program / Service Area**

Provide for the debt service requirements of the bonds sold to finance transportation improvements under the Commonwealth Transportation Capital Projects Bond Act.

Debt service is a long-term, fixed expense. Obtaining the most favorable rates on our non-toll supported debt programs directly benefit the Commonwealth and taxpayers by saving tax dollars. The information gathered by this objective will benchmark the interest rates achieved in actual bond issues against one or more indices. This will provide a measure of investor acceptance of the issue structure, as well as investor perception of the financial management of the bond program.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life,” through responsible stewardship of funds.

House Bill 3202, Chapter 896 of the 2007 Acts of Assembly, enacted on April 4, 2007 authorized \$3 billion of new statewide funding for the Commonwealth’s highway and transit needs. Chapter 879 of the 2008 Acts of Assembly authorized the additional issuance of \$180 million Capital Projects Bonds to fund projects that were initially to be funded from General Fund. These authorizations will generate funding for highway construction and transit capital projects as well as highway maintenance and transit operating costs. The allocation of the proceeds by the Commonwealth Transportation Board is guided by the Code of Virginia §33.2-365.

**Products and Services**

**Description of Major Products and Services**

Financing review and program development services. • Program administration, including compliance and continuing disclosure, investor relations, and rating agency relationships to maintain the high credit quality of bonds. • Issuance of bonds or other securities. • Review of refunding opportunities on outstanding debt obligations. • Debt affordability analysis and recommendations to executive branch and legislature. • Technical assistance on the financial aspects of legislative proposals, impact on debt capacity, financial studies and initiatives.

**Anticipated Changes**

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

Variable rate debt and synthetic structures are increasingly popular with issuers and may present opportunities for interest rate savings, flexibility, portfolio diversity, and hedging interest rate exposure. Some level of variable rate exposure could be prudent and cost-effective for VDOT.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

This service area represents the debt service obligations of the program. This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	189,784,202	0	214,423,212
Changes to Initial Appropriation	0	-23,470,603	0	-23,891,679

**Supporting Documents**

**Title** **File Type**

## Federal Transportation Grant Anticipation Revenue Notes Debt Service [61205]

### Description of this Program / Service Area

Provide for the debt service requirements of the bonds sold to finance transportation improvements under the Commonwealth of Virginia Federal Transportation Grant Anticipation Revenue Notes Act of 2011, Article 4, Chapter 15, Title 33.2 of the Virginia Code (the "GARVEE Act").

Debt service is a long-term, fixed expense. Obtaining the most favorable rates on our non-toll supported debt programs directly benefit the Commonwealth and taxpayers by saving tax dollars. The information gathered by this objective will benchmark the interest rates achieved in actual bond issues against one or more indices. This will provide a measure of investor acceptance of the issue structure, as well as investor perception of the financial management of the bond program.

### Mission Alignment

This service area is aligned to VDOT's mission "VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life," through responsible stewardship of funds.

Commonwealth of Virginia Federal Transportation Grant Anticipation Revenue Notes Act of 2011, Article 4, Chapter 15, Title 33.2 of the Code of Virginia ( "GARVEE Act"). The GARVEE Act authorizes the Transportation Board to issue GARVEE Notes as revenue obligations of the Commonwealth pursuant to the provisions of the State Revenue Bond Act, in one or more series from time to time, provided that the aggregate principal amount outstanding at any time shall not exceed \$1.2 billion, less the aggregate principal amount of any outstanding FRANs, and exclusive of (i) the aggregate principal amount of any revenue obligations that may be issued to refund GARVEE Notes or FRANs in accordance with §33.2-1727 – Revenue refunding bonds and revenue bonds for combined purposes, and (ii) any amounts issued for financing expenses (including, without limitation, any original issue discount).

The proceeds of GARVEE Notes will be used exclusively for the purpose of providing funds, together with any other available funds, for paying the costs incurred or to be incurred for construction or funding of eligible projects designated by the Transportation Board. The proceeds of GARVEE Notes, including any premium received on the sale thereof, shall be made available by the Transportation Board to pay costs of the projects and, where appropriate, may be paid to any authority, locality, commission, or other entity for the purposes of paying costs of the projects. The proceeds of GARVEE Notes may be so used together with any federal, local, or private funds that may be made available for such purpose.

The GARVEE Notes Program is expected to be used to finance large projects (or a program of projects) that have the following characteristics: (i) the costs of delaying the project or program outweigh the costs of the financing, (ii) other borrowing approaches may not be feasible or are limited in capacity, (iii) the project or program does not have access to a revenue stream, and other forms of repayment are not feasible and (iv) the project or program sponsors are willing to reserve a portion of future-year Federal-aid highway funds to satisfy debt-service requirements.

### Products and Services

#### Description of Major Products and Services

Listing of Products and/or Services

- Financing review and program development services.
- Program administration, including compliance and continuing disclosure, investor relations, and rating agency relationships to maintain the high credit quality of bonds.
- Issuance of bonds or other securities.
- Review of refunding opportunities on outstanding debt obligations.
- Debt affordability analysis and recommendations to executive branch and legislature.
- Technical assistance on the financial aspects of legislative proposals, impact on debt capacity, financial studies and initiatives.

#### Anticipated Changes

Weldon Cooper Center estimates Virginia's current population as 8.4 million and forecasts Virginia's 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

Variable rate debt and synthetic structures are increasingly popular with issuers and may present opportunities for interest rate savings, flexibility, portfolio diversity, and hedging interest rate exposure. Some level of variable rate exposure could be prudent and cost-effective for VDOT.

#### Factors Impacting

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

### Financial Overview

This service area represents the debt service obligations of the program. This service area is funded as noted in the following table:

Biennial Budget

	<b>2017 General Fund</b>	<b>2017 Nongeneral Fund</b>	<b>2018 General Fund</b>	<b>2018 Nongeneral Fund</b>
Initial Appropriation for the Biennium	0	74,865,271	0	94,204,281
Changes to Initial Appropriation	0	15,706,446	0	16,766,579

**Supporting Documents**

**Title** **File Type**

**General Management and Direction [69901]**

**Description of this Program / Service Area**

Provide general administrative management, direction and support activities of VDOT. This includes, but is not limited to, accounting services, human resources, succession planning, health and safety services, procurement, facilities management, management studies, policy analysis, process improvements, performance management, internal auditing, innovative financing, financial planning services and oversight of compensation programs for all VDOT employees.

**Mission Alignment**

This service area is aligned to VDOT’s mission “VDOT will plan, deliver, operate and maintain a transportation system that is safe, enables easy movement of people and goods, enhances the economy and improves our quality of life,” through a commitment to providing administrative and management expertise in an efficient and effective manner.

§33.2-1701 – General powers of Commonwealth Transportation Board

2006 Appropriations Act, item 427 I.1 requests the Intermodal Office to coordinate efforts of VDOT and DRPT to work with local governments to develop specific performance measures and criteria by which to measure the success of transportation projects funded with any revenues derived from legislation enacted by the General Assembly to provide local governments or regional authorities with dedicated transportation revenues. Such criteria shall measure performance, including but not limited to, improvements related to safety, connectivity, economic development, improved air quality, and traffic mitigation. • 2006 Appropriations Act, item 427 I.2 requires the Intermodal Office to work with the relevant state agencies and representatives of local government to develop a standard cost/benefit methodology to analyze projects.

**Products and Services**

**Description of Major Products and Services**

Plans, organizes, directs, and provides support activities to implement agency goals and objectives, which in turn help deliver transportation projects on-time and on-budget. Ensures that the right people are in the right jobs at the right time and providing the right services.

**Anticipated Changes**

VDOT depends on specialized knowledge, skills, and abilities and a high-performing workforce. The exact competencies and required skills will change as technology and outcomes evolve. The agency must be alert to shifts in the human capital requirements before the need to retool the workforce is required.

Weldon Cooper Center estimates Virginia’s current population as 8.4 million and forecasts Virginia’s 2020 population to be 8.7 million. This change will impact the number of licensed drivers, registered vehicles, and vehicles miles traveled which will impact the demand for our products and services.

**Factors Impacting**

Factors: • Growth in customers, traffic, and congestion. • Costs/Inflation growth

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	141,356,888	0	144,670,733
Changes to Initial Appropriation	0	1,305,293	0	-8,452,014

**Supporting Documents**

Title File Type

**Information Technology Services [69902]**

**Description of this Program / Service Area**

Provide administrative management, direction and infrastructure support for tasks including, but not limited to, automated data processing services for citizens and visitors to the Commonwealth, Virginia’s legislative bodies, Federal Transportation Agencies, other state and local government agencies as well as its own Department of Transportation employees.

**Mission Alignment**

This service area will help the people that keep Virginia moving by enabling them with information technology solutions that serve as a force multiplier for their work. VDOT people work better because of our contributions.

23 CFR 500, revised as of April 1, 2010, provides the authority for the establishment and implementation of systems for managing highway pavement of Federal-aid highways (PMS), bridges on and off Federal-aid highways (BMS), highway safety (SMS), traffic congestion (CMS), public transportation facilities and equipment (PTMS), and intermodal transportation facilities and systems (IMS). This regulation also implements 23 USC 303(b) which directs the U.S. Secretary of Transportation to issue guidelines and requirements for State development, establishment, and implementation of a traffic monitoring system for highways and public transportation facilities and equipment (TMS).

**Products and Services**

**Description of Major Products and Services**

The Information Technology Division (ITD) and the Office of Technology Strategic Planning (OTSP) both operate in support of the Information Technology Service area. The IT Division is led by the Information Technology Director, and employs state-of-the-art technologies to develop and support IT applications and special projects, using innovative development methodologies, industry-standard best practices, and agency-wide project management tools and measures. Management oversight will ensure compliance with all accountability mandates including: standardized review and updates (as appropriate) to all Directives under the purview of the VDOT Information Technology Division, standardized and regular reviews to ensure processes, procedures, and IT standards are followed according to approved directives. The Office of Technology Strategic Planning is led by VDOT’s CIO and supports VDOT by strategic planning for technology, assessing business needs for implementation of innovative, cost-effective solutions and providing information security management for all of VDOT’s business functions.

**Anticipated Changes**

Changes: • Technology advancements that affect product and service delivery. • VITA and NG directives that impact technology and project management which, in turn, affect product and service delivery. VITA’s contract with Northrop Grumman to manage the State’s computer network will end in July 2019. Continued exploration and use of the latest technologies to improve process efficiencies, including mobile technologies, cloud services and improved business data analytic tools.

**Factors Impacting**

Factors: • Ability to provide competitive salaries to highly skilled professional applicants. • Creating a forum to discuss business integration and inter-operative issues related to technology requirements. • Continued issue with ambiguity in infrastructure support services. Balance of demands and constraints: Demands require innovation and obsolescence management that balances portfolio management of modern business solutions, supported by reliable technical platforms, with inevitable funding and resource constraints. • Business process change: As business organizations and processes change, IT must respond accordingly. Both anticipated and unanticipated changes affect an already constrained Information Technology Program.

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	2017 General Fund	2017 Nongeneral Fund	2018 General Fund	2018 Nongeneral Fund
Initial Appropriation for the Biennium	0	86,742,447	0	88,829,308
Changes to Initial Appropriation	0	1,980,747	0	2,093,960

**Supporting Documents**

**Title** **File Type**

Service Area Plan

Facilities and Grounds Management Services [69915]

Description of this Program / Service Area

Provide physical plant maintenance needs to VDOT facilities. This maintenance work is considered ordinary or routine nature and includes the cost of labor, equipment and materials to make minor repairs to utilities such as plumbing, heating, and electrical; and the maintenance of driveways, parking lots, and yards. The service area also funds small renovation/alteration projects that cost no more than \$10,000. Projects may cost up to \$150,000.

Mission Alignment

This service area is responsible for the development and administration of the agency building program in compliance with all applicable laws and regulations in support of VDOT's mission. It is committed to continuous improvement through enhanced operational efficiency and customer satisfaction. It promotes best practices to provide and champion the right service to the right customer at the right time.

§33.2-358 Allocation of funds among highway systems

Products and Services

Description of Major Products and Services

VDOT's Capital Outlay Section plans, develops, delivers and maintains VDOT's Capital Outlay and Facility Management Program including the assessment and prioritization of VDOT facility needs statewide as a part of the agency Long-Range Facilities Plan.

It is the responsibility of the Facility Manager in the VDOT Districts and Central Office to manage daily operations and provide services needed to maintain and protect VDOT facilities and the personnel within those facilities to ensure a safe, functional and productive work environment.

Anticipated Changes

Factors Impacting

The buildings in which VDOT currently reside are aging. Major renovations will be required to maintain a safe working environment for employees.

Financial Overview

This service area is funded as noted in the following table:

Biennial Budget

Table with 5 columns: 2017 General Fund, 2017 Nongeneral Fund, 2018 General Fund, 2018 Nongeneral Fund. Rows include Initial Appropriation for the Biennium and Changes to Initial Appropriation.

Supporting Documents

Title File Type

**Employee Training and Development [69924]****Description of this Program / Service Area**

To meet upcoming employment demands that will help create a diverse, skilled workforce for the transportation industry encompassing the public sector and private industry. VDOT's workforce development service area embraces a holistic approach with K-12 programs geared to increasing an interest in transportation, to partnerships with technical schools, community colleges and institutions of higher learning, along with initiatives focused on the development and retooling of existing employees in both technical and leadership skills. Workforce development is about a balance of education, learning and on-the-job experiences that lead to business success and overall economic growth.

Workforce development includes the development and delivery of traditional classroom training and on-line learning through mobile and desktop devices, tuition assistance, funding for professional certifications required and preferred for current positions along with renewals and funding for required professional licenses or certifications and renewals. Leadership and technical training is managed through a Learning Management System (LMS) referred to as the VDOT University. Leadership training and development activities are targeted for teammates, supervisors, managers, senior managers and executives. Technical training is position based. Activities include engineering and business trainee programs, engineering scholarship, interns and apprenticeships.

All activities support a workforce that is skilled and knowledgeable in industry and professional current and best practices.

**Mission Alignment**

This service area will attract, develop, and retain the right talent that Keeps Virginia Moving.

**Statutory Authority:**

- OSHA Standard #1910, Subpart H for Hazardous Materials Handling as well as 5(a)(1) of the OSHA Act, "General Duty Clause", (29 USC 654).
- §2.2-1201 Code of Virginia: Duties of Department [of Human Resource Management], #8. Establish and administer a comprehensive and integrated program of employee training and management development. In furtherance of this duty, DHRM issued Policy Number: 5.05 - Employee Training and Development (rev. May 16, 2006), requiring Executive Branch agencies to provide "employee training necessary to assist the agency in achieving its mission and accomplishing its goals.
- §2.2-1201 Code of Virginia: Duties of Department, #8. Establish and administer a comprehensive and integrated program of employee training and management development.
- Section 54.1 Chapter 20.1 • CFR Title 23: Highways, Code of Federal Regulations, Chapter 1, Part 260, "Education and Training Programs".
- CFR Title 40: Protection of Environment.
- CFR Title 29: 1926, Safety and Health Regulations for Construction.
- CFR Title 29 1910 Occupational Safety and Health Standards.
- Code of Virginia, Title 54.1 Professionals and Occupations, Chapter 4 Architects, Engineers, Surveyors, Landscape Architects, and Interior Designers.
- HSPD-5, HSPD-8, Executive Order 102, National Incident Management

**Products and Services****Description of Major Products and Services**

Proactive identification of current and future skill/knowledge gaps with efficient and effective application of interventions to address gaps and meet future needs. Management of development activities to ensure the effective and efficient use of funds.

**Anticipated Changes**

- Increased focus on holistic approach to workforce development for the transportation industry across modals.
- Rapidly changing technology and work processes will have impact of training and development needs.
- Further exploration and exploitation of training delivery methodologies that include mobile device.

**Factors Impacting**

- Identifying the appropriate training needs for the agency will determine the courses offered. As VDOT's population continues to change, suitable training to enable staff to ensure the agency achieves its goals and objectives should be offered. Needs assessments should be performed on a constant basis to stay current with industry needs.

**Financial Overview**

This service area is funded as noted in the following table:

Biennial Budget

	<b>2017 General Fund</b>	<b>2017 Nongeneral Fund</b>	<b>2018 General Fund</b>	<b>2018 Nongeneral Fund</b>
Initial Appropriation for the Biennium	0	15,464,534	0	15,651,059
Changes to Initial Appropriation	0	2,965,935	0	2,662,860

**Supporting Documents**

**Title** **File Type**