



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF TRANSPORTATION

Stephen C. Brich, P.E.  
Commissioner

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December 20, 2021

The Honorable Governor Ralph S. Northam  
Members of the Virginia General Assembly

Dear Governor Northam and Members of the General Assembly:

Section 33.2-1531 of the *Code of Virginia* directs the Commissioner of Highways to report annually on the use of moneys in the Innovation and Technology Transportation Fund (ITTF). This letter provides the information as required by the statute.

ITTF monies are to be used solely for the purpose of funding pilot programs and fully developed initiatives pertaining to high-tech infrastructure improvements. “High-tech infrastructure improvements” pertain to projects or programs that reduce congestion, improve mobility, improve safety, provide up-to-date travel data, or improve emergency response.

The Virginia Department of Transportation (VDOT) developed a Transportation Technology Plan that aligned its goals and technology strategies with the purpose of the monies allocated to the ITTF. Projects utilizing ITTF monies originate from the Transportation Technology Plan.

The Transportation Technology Plan was developed to improve the efficiency, safety, and convenience of all modes of transportation throughout the Commonwealth. This plan incorporated recommendations from the VTrans 2040 needs assessment for the 12 corridors of statewide significance and other VDOT planning documents. The eight technology strategies of the Transportation Technology Plan are:

1. **Enhance operations traffic management** – to improve corridor efficiency through active traffic management across multiple parallel freeways, arterial highways, and transit systems.
2. **Strengthen incident and emergency response** – to detect, respond to, and clear incidents on the roadway, which include collisions, disabled vehicles, weather events, emergencies, and man-made disasters.

3. **Support multimodal travel promotion** – to increase multimodal travel by increasing access and improving efficiency.
4. **Manage arterials** – to optimize the performance of arterial roadways through signal operations improvements and performance monitoring.
5. **Furnish traveler information** – to provide real-time, multi-corridor, and multi-modal travel information to enable pre-trip and in-route trip planning.
6. **Support commercial vehicle/freight** – to manage and support freight mobility.
7. **Conduct emerging technology research** – to promote the development of new technologies to improve safety, convenience and efficiency of travel through connected and autonomous vehicle technologies and bicycle/pedestrian programs.
8. **Enhance enabling technology infrastructure** – to promote future expansion and resiliency of technologies by deploying and upgrading supporting communication and utility services.

The current estimated total value of allocations for projects eligible for ITTF funding (“ITTF Projects”) is approximately \$146.7 million for Fiscal Years (FY) 2021-2026. In FY 2021, approximately \$41.7 million was allocated to the ITTF program. The attached tables provide information concerning ITTF Projects that were allocated funding, incurred expenditures, and /or are ongoing in FY 2021.

If you have any questions, please do not hesitate to contact Cathy McGhee, Director of Research and Innovation, at 804-916-9508 or me.

Sincerely,

*Stephen C. Brich*  
Stephen C. Brich, P.E.  
Commissioner of Highways

cc: The Honorable Shannon Valentine  
Cathy McGhee, P.E.

**“ITTF Projects” Allocated Funding in FY21**

<b>UPC / Location</b>	<b>Project Purpose</b>	<b>Funding Allocation FY21 Final SYIP*</b>	<b>Expenditures to Date</b>	<b>Expenditures FY21</b>	<b>Status</b>
108666 Hampton Roads	Monitor-Merrimac Memorial Bridge-Tunnel Traffic & Safety Improvements	\$6,999,999	\$539,067	\$80,000	Underway
109506 Statewide	Traffic Engineering Division Community Wide Adaptive Signal Systems	\$2,530,000	\$2,698,936	\$1,951,084	Underway
115832 Northern Virginia	Performance Parking Deployment in Commercial Corridors	\$1,400,000	\$1,353	\$21	Underway
115851 Statewide	Hanover County Specialized Transit Program	\$150,000	\$0	\$0	Underway
115853 Statewide	Data Analytics for Safety	\$500,000	\$262,464	\$0	Underway

<b>UPC/ Location</b>	<b>Project Purpose</b>	<b>Funding Allocation FY21 Final SYIP*</b>	<b>Expenditures to Date</b>	<b>Expenditures FY21</b>	<b>Status</b>
115854 Statewide	Arterial Operations Dashboard	\$450,000	\$185,367	\$75,613	Underway
115855 Statewide	High Speed Communication for Arterials - Statewide	\$1,700,000	\$239,062	\$107,965	Underway
115856 Fredericksburg	Parking Demand Management System	\$400,000	\$0	\$0	Preparing for advertisement in January 2022
115866 Northern Virginia / Fredericksburg	Northern Virginia Regional Multi- modal Mobility Program (RM3P project)	\$6,500,000	\$0	\$0	This line item is a funding source for breakout projects
115867 Culpeper / Staunton	I-64 Afton Mountain Safety Improvements	\$2,000,000	\$0	\$0	This line item is a funding source for breakout projects; Shown on FY20 ITTF Report as fully funded to \$5M; Schedule delay resulted in funding re-distribution change
115868 Statewide	Pilot Program with CIT Partnership Statewide	\$500,000	\$0	\$0	Pre-scoping underway

<b>UPC/ Location</b>	<b>Project Purpose</b>	<b>Funding Allocation FY21 Final SYIP*</b>	<b>Expenditures to Date</b>	<b>Expenditures FY21</b>	<b>Status</b>
115869 Statewide	Statewide Technology for Operations	\$500,000	\$0	\$0	This line item is a funding source for breakout projects
115894 Statewide	Locality innovative technology implementation coordination - Statewide	\$500,000	\$0	\$0	This line item is a funding source for breakout projects
116036 Northern Virginia / Fredericksburg	RM3P Management & Solution Development	\$1,750,000	\$2,069,919	\$994,448	Underway
116981 Statewide	Statewide Fiber Network Enhancements	\$5,000,000	\$0	\$0	This line item is a funding source for breakout projects
117222 Statewide	Transportation Data Analytics	\$3,000,000	\$684,018	\$43,088	Underway
117223 Northern Virginia	Driving Alexandria Safely Home (DASH) Enhanced Real-Time Predictions	\$48,000	\$48,000	\$48,000	Complete
117224 Statewide	Rural Microtransit Pilot	\$68,970	\$7,675	\$1,088	Underway

<b>UPC/ Location</b>	<b>Project Purpose</b>	<b>Funding Allocation FY21 Final SYIP*</b>	<b>Expenditures to Date</b>	<b>Expenditures FY21</b>	<b>Status</b>
117225 Statewide	Transportation Navigator – One Click Directory	\$79,016	\$58,282	\$4,033	Underway
117226 Statewide	Commute! VA Commuter Ridematching and Incentive Program	\$350,000	\$0	\$0	Underway
117231 Salem	Neighborhood Services Blacksburg	\$400,000	\$0	\$0	Underway
117232 Hampton Roads	Regional Microtransit Demonstration Project	\$1,597,600	\$0	\$0	Underway
T21588	ITTF Balance Entry	\$5,254,032	\$0	\$0	This line item is a funding source for breakout projects
Grand Total FY-21 Funding Allocation		\$41,677,617			

\* Note – Total project budgets may be higher based on previous or out year allocations.

**Breakout Projects / Ongoing / Completed Projects**

<b>UPC / Location</b>	<b>Project Purpose</b>	<b>Total Allocations</b>	<b>Expenditures to Date</b>	<b>Expenditures FY21</b>	<b>Status</b>
100608 Hampton Roads	City Wide ITS	\$1,863,649	\$1,863,649	\$1,863,649	Complete
105369 Richmond	Prepare design plans for signal improvements for Route 1 from Caroline County to Colonial Heights to improve traffic flow	\$525,000	\$503,988	\$65,281	Underway
105380 Bristol	Improve traffic management at the Big Walker Mountain Tunnel	\$368,233	\$245,970	\$319	Underway
105381 Bristol	Improve traffic management at the East River Mountain Tunnel	\$588,233	\$240,441	\$0	Underway
105443 Fredericksburg	I-95 Corridor Technology on Rt. 1, 17; Signal Communications Camera – Prince William to Hanover to improve situation awareness and the management of traffic	\$740,000	\$655,844	\$161,993	Underway
105444 Richmond	Signal improvements for US 60 between New Kent and Richmond to improve traffic flow	\$180,000	\$123,695	\$49,313	Underway
107663 Fredericksburg	Intelligent Transportation System Deployment – District wide Fredericksburg District – Deployment of various signal related technology	\$3,800,000	\$895,528	\$52,346	Underway
107818 Richmond	Intelligent Transportation System Deployment – Districtwide Richmond District – Deployment of various signal related technology	\$3,366,250	\$2,896,414	\$1,348,429	Underway

<b>UPC / Location</b>	<b>Project Purpose</b>	<b>Total Allocations</b>	<b>Expenditures to Date</b>	<b>Expenditures FY21</b>	<b>Status</b>
109545 Statewide	Statewide Emerging Technology	\$700,000	\$0	\$0	This line item is a funding source for breakout projects
111613 Statewide	Statewide Truck Parking Management System – Phase 2 to improve safety for commercial vehicle operations	\$1,807,000	\$292,543	\$0	Advertisement delayed due to project re-evaluation
111892 Statewide	Advanced Traffic Management System – Phases 1,2,3,4 to support implementation / upgrades to advanced traffic management system. This is VDOT’s Master Traffic Control System.	\$10,900,000	\$8,139,264	\$0	Underway
112895 Statewide	Statewide Advanced Traffic Signal Controllers	\$3,000,000	\$1,959,252	\$739,488	Underway
115850 Statewide	I-95 Variable Speed Limit (VSL) Compliance Monitoring	\$3,588,835	\$0	\$0	Scheduled to begin in 2022
115881 Statewide	Cybersecurity Upgrades / Enhancements	\$650,000	\$0	\$0	This line item is a funding source for breakout projects
116719 Statewide	High Speed Communications Arterials - Eastern	\$258,000	\$220,890	\$220,890	Underway
116803 Statewide	High Speed Communications Arterials - Northwest	\$490,000	\$205,350	\$104,297	Underway
116804 Statewide	High Speed Communications Arterials - Central	\$500,000	\$451,383	\$264,962	Underway



<b>UPC / Location</b>	<b>Project Purpose</b>	<b>Total Allocations</b>	<b>Expenditures to Date</b>	<b>Expenditures FY21</b>	<b>Status</b>
116811 Statewide	High Speed Communications Arterials - Southwest	\$300,000	\$0	\$0	Originally \$800K allocation; Funded FY22 breakout UPCs 118230 & 118254
117079 Hampton Roads	Hampton Roads HAR ATMS Integrations / Repairs	\$250,000	\$230,109	\$190,109	Underway
117220 Statewide	I-81 Operational Improvements	\$2,318,000	\$0	\$0	This line item is a funding source for breakout projects
117246 Hampton Roads	I64 Corridor Tech Adv-60, 143, 199 Signal Communication Cameras	\$750,000	\$481,337	\$239,952	Underway
117424 Northern VA	High Speed Communications Arterials - Northern	\$600,000	\$382,816	\$109,709	Underway
117733 Statewide	High Speed Communications Arterials – North West #2	\$260,000	\$36,691	\$0	Underway
117790 Statewide	Study of Advanced Technologies – I-81	\$332,000	\$329,080	\$246,695	Underway

<b>UPC / Location</b>	<b>Project Purpose</b>	<b>Total Allocations</b>	<b>Expenditures to Date</b>	<b>Expenditures FY21</b>	<b>Status</b>
118254 Lynchburg	Signal Communications - Lynchburg	\$250,000	\$0	\$0	Scheduled to begin in 2022
119735 Fredericksburg	Route 1 Smart Roads Project	\$464,000	\$171	\$0	Underway
119993 Statewide	Identify & Access Management Solution	\$1,350,000	\$466,382	\$0	Underway