

A Guide to Transportation Funding Options Available to Virginia Jurisdictions

http://www.virginiadot.org/vtrc/main/online_reports/pdf/19-r1.pdf

AUDREY K. MORUZA
Senior Research Scientist

Final Report VTRC 19-R1

Standard Title Page - Report on Federally Funded Project

| | | | |
|--|---|---|------------|
| 1. Report No.: FHWA/VTRC 19-R1 | 2. Government Accession No.: | 3. Recipient's Catalog No.: | |
| 4. Title and Subtitle: A Guide to Transportation Funding Options Available to Virginia Jurisdictions | | 5. Report Date: February 2019 | |
| | | 6. Performing Organization Code: | |
| 7. Author(s): Audrey K. Moruza | | 8. Performing Organization Report No.: VTRC 19-R1 | |
| 9. Performing Organization and Address: Virginia Transportation Research Council 530 Edgemont Road Charlottesville, VA 22903 | | 10. Work Unit No. (TRAIS): | |
| | | 11. Contract or Grant No.: 103638 | |
| 12. Sponsoring Agencies' Name and Address: Virginia Department of Transportation Federal Highway Administration 1401 E. Broad Street 400 North 8th Street, Room 750 Richmond, VA 23219 Richmond, VA 23219-4825 | | 13. Type of Report and Period Covered: Final | |
| | | 14. Sponsoring Agency Code: | |
| 15. Supplementary Notes: This is an SPR-B report. | | | |
| 16. Abstract: <p>This report provides a comprehensive summary of practices in Virginia jurisdictions for the purpose of raising local revenue for transportation purposes. To the extent possible, every current practice was located in the Code of Virginia to enable tracking of developments in the statutes and permissions referenced in the report.</p> <p>Transportation districts featuring special in-district taxation for the funding or financing of district transportation projects have a 55-year history in Virginia, with a number of variations approved and rescinded by the Virginia General Assembly over the years. Major transportation districts exist currently on a scale from the multijurisdictional/regional to specific highway corridors, and they scale down to the residential neighborhood at the most local level. Urban settings are conducive to successful regional transportation districts in Northern Virginia and Hampton Roads. The strategy of tax increment finance areas is practiced widely in urban jurisdictions as well. Not least, Virginia has a long history of tolled highway facilities in urban areas. For jurisdictional control, however, specific legislative permission is required.</p> <p>In more rural areas of Virginia, local transportation funding has been derived from coal and gas extraction, the Virginia Tobacco Commission, and three federal agencies that target communities in relative need. A concentration of such communities has long been identified in southern and southwest Virginia. These funding sources can usually be pooled effectively for local transportation projects.</p> <p>By Dillon's Rule, Virginia jurisdictions currently have de jure permission under the Code of Virginia to enact several means of local revenue generation for transportation, but they must meet eligibility rules to implement others. Yet the Code of Virginia is a living document with the potential to be changed annually by the Virginia General Assembly, and transportation funding is a perennial subject of intense legislator interest and involvement.</p> | | | |
| 17 Key Words: Transportation improvement district, service district, cash proffers, impact fees, tolls, local transportation funding | | 18. Distribution Statement: No restrictions. This document is available to the public through NTIS, Springfield, VA 22161. | |
| 19. Security Classif. (of this report): Unclassified | 20. Security Classif. (of this page): Unclassified | 21. No. of Pages: 144 | 22. Price: |

FINAL REPORT
A GUIDE TO TRANSPORTATION FUNDING OPTIONS
AVAILABLE TO VIRGINIA JURISDICTIONS

Audrey K. Moruza
Senior Research Scientist

In Cooperation with the U.S. Department of Transportation
Federal Highway Administration

Virginia Transportation Research Council
(A partnership of the Virginia Department of Transportation
and the University of Virginia since 1948)

Charlottesville, Virginia

February 2019
VTRC 19-R1

DISCLAIMER

The contents of this report reflect the views of the author, who is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Virginia Department of Transportation, the Commonwealth Transportation Board, or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation. Any inclusion of manufacturer names, trade names, or trademarks is for identification purposes only and is not to be considered an endorsement.

Copyright 2019 by the Commonwealth of Virginia.
All rights reserved.

TABLE OF CONTENTS

| | |
|---|-----|
| ABBREVIATIONS AND ACRONYMS | v |
| EXECUTIVE SUMMARY | vii |
| INTRODUCTION | 1 |
| PURPOSE AND SCOPE..... | 2 |
| METHODS | 2 |
| Task 1. Assessment of VDOT Literature..... | 2 |
| Task 2. Assessment of External (Non-VDOT) Literature | 3 |
| Task 3. Interviews of State and Federal Agency Employees, Local Officials, and Staffs | 5 |
| RESULTS AND DISCUSSION | 5 |
| Programs Administered by VDOT | 5 |
| Other Virginia Programs..... | 20 |
| Federal Programs | 31 |
| Institutional Instruments for Local Transportation Revenue | 37 |
| Revenue Instruments Permitted by Recent Acts of the Virginia General Assembly | 50 |
| Tax Increment Finance Areas | 55 |
| Cash Proffers..... | 56 |
| Impact Fees | 58 |
| Tolled Infrastructure | 60 |
| Local Resource Allocation Options..... | 67 |
| CONCLUSIONS..... | 70 |
| State and Federal Sources | 70 |
| Local Funding Sources | 71 |
| RECOMMENDATIONS | 71 |
| IMPLEMENTATION AND BENEFITS | 72 |
| Implementation | 72 |
| Benefits | 72 |
| REFERENCES | 74 |
| APPENDIX A: ECONOMIC DEVELOPMENT ACCESS PROGRAM ACTIVITY: FY2012-15..... | 103 |
| APPENDIX B: RECREATIONAL ACCESS PROGRAM ACTIVITY: FY2011-15 | 105 |
| APPENDIX C: APPALACHIAN HIGHWAY DEVELOPMENT HIGHWAY SYSTEM: VIRGINIA | 107 |

| | |
|--|-----|
| APPENDIX D: COUNTY ECONOMIC STATUS AND DISTRESSED AREAS IN APPALACHIAN VIRGINIA, FY16 | 109 |
| APPENDIX E: ARC AWARDS FOR LOCAL ACCESS ROADS IN VIRGINIA SINCE 2006 | 111 |
| APPENDIX F: TRANSPORTATION PARTNERSHIP OPPORTUNITY FUND (TPOF) AWARDS | 113 |
| APPENDIX G: LOCATIONS OF NATURAL GAS FIELDS AND MARCELLUS SHALE FORMATION IN VIRGINIA | 115 |
| APPENDIX H: COUNTIES AND CITIES ELIGIBLE FOR VIRGINIA TOBACCO COMMISSION FUNDING, FY16..... | 117 |
| APPENDIX I: HUD COMMUNITY DEVELOPMENT BLOCK GRANT AWARDS TO VIRGINIA LOCALITIES FOR ROAD/STREET PROJECTS, 2000-2006..... | 119 |
| APPENDIX J: ROUTE 17 SPECIAL TAX DISTRICT IN THE CITY OF SUFFOLK, VIRGINIA | 121 |
| APPENDIX K: MAJOR TRANSPORTATION DISTRICTS AND AUTHORITIES IN VIRGINIA IN 2016 | 123 |
| APPENDIX L: LOCALITIES AUTHORIZED TO ACCEPT CASH PROFFERS IN VIRGINIA | 125 |
| APPENDIX M: LOCATION OF THE RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY | 127 |
| APPENDIX N: THE CHESAPEAKE TRANSPORTATION SYSTEM: CITY OF CHESAPEAKE, VIRGINIA | 129 |

ABBREVIATIONS AND ACRONYMS

| | |
|----------|--|
| AASHTO | American Association of State Highway and Transportation Officials |
| ADHS | Appalachian Development Highway System |
| AFID | Agriculture and Forestry Industries Development |
| AID | Accelerated Innovation Deployment |
| ARC | Appalachian Regional Commission |
| | |
| BPOL | Business Professional and Occupational License |
| | |
| CDBG | Community Development Block Grant |
| CIP | Capital Improvement Plan/Program |
| CLG | Commission on Local Government |
| COF | Commonwealth's Opportunity Development Fund |
| CTB | Commonwealth Transportation Board |
| | |
| EDA | Economic Development Authority |
| EDIP | Economic Development Investment Program |
| | |
| FAST Act | Fixing America's Surface Transportation Act |
| FHWA | Federal Highway Administration |
| FLAP | Federal Lands Access Program |
| FY | Fiscal Year |
| | |
| GOF | Governor's Opportunity Fund |
| | |
| HRTA | Hampton Roads Transportation Authority |
| HRTAC | Hampton Roads Transportation Accountability Commission |
| HRTF | Hampton Roads Transportation Fund |
| HTF | Highway Trust Fund |
| HUD | U.S. Department of Housing and Urban Development |
| | |
| LAD | [VDOT's] Local Assistance Division |
| | |
| MAMaC | Mid-Atlantic Advanced Manufacturing Center |
| MAP-21 | Moving Ahead for Progress in the 21st Century |
| MEI | Major Employment and Investment |
| MSA | Tobacco Master Settlement Agreement |
| | |
| NHFN | National Highway Freight Network |
| NVTA | Northern Virginia Transportation Authority |
| NVTC | Northern Virginia Transportation Commission |
| NVTD | Northern Virginia Transportation District |
| | |
| PDC | Program Decisions Committee |
| PPTA | Public-Private Transportation Act |

| | |
|---------|--|
| PRTC | Potomac and Rappahannock Transportation Commission |
| RMTA | Richmond Metropolitan Transportation Authority |
| ROW | Right of way |
| SCC | State Corporation Commission |
| SSED | Southside Economic Development Program |
| SWED | Southwest Economic Development Grant Program |
| SYIP | Six-Year Improvement Program |
| TID | Transportation Improvement District |
| TIF | Tax Increment Finance |
| TPOF | Transportation Partnership Opportunity Fund |
| TRIP II | [Dulles] Toll Road Investors Partnership II |
| TROF | Tobacco Region Opportunity Fund |
| USDA | U.S. Department of Agriculture |
| UTSD | Urban Transportation Service District |
| VAPA | Virginia Auditor of Public Accounts |
| VCEDA | Virginia Coalfield Economic Development Authority |
| VDHCD | Virginia Department of Housing and Community Development |
| VDOT | Virginia Department of Transportation |
| VEDP | Virginia Economic Development Partnership |
| VTC | Virginia Tobacco Commission |
| VTIB | Virginia Transportation Infrastructure Bank |
| VTRRC | Virginia Tobacco Region Revitalization Commission |

EXECUTIVE SUMMARY

This report contains in one document the current ways that Virginia jurisdictions can raise funds to support transportation projects of local or regional interest. Funding generated by local jurisdictions can support debt, provide local matches for grants, and supply pay-as-you-go revenue. Debt instruments are not examined in this report. Although primary and secondary roads in Virginia have been maintained by the state department of transportation since 1932, it will be shown that local initiative to raise supplementary transportation funding has been facilitated by the Virginia General Assembly for decades.

The benefits of raising local funding for transportation purposes have grown rapidly in the last 15 years, for reasons of state and federal revenue decline in inflation-adjusted and absolute terms and because of new opportunities offered by the Virginia Department of Transportation (VDOT) for leveraging such funds. Federal funding of state transportation improvements has recently become dependent on transfers from the General Fund of the U.S. Government, and this development is an unresolved issue of national debate and controversy. On the other hand, although some statutes that support local generation of transportation funding have existed for decades, new opportunities in Virginia have increased markedly in the last decade. For example, VDOT's Revenue Sharing Program of grants requiring a local match has been highly successful, and VDOT access road programs continue to target local jurisdictions actively seeking jobs and income growth or tourist-attracting transportation system enhancements.

Overall, Virginia legislation has enabled an array of local transportation revenue generation methods for many decades, from a signature act creating the first Virginia transportation improvement district in 1964 to the southwest county road improvement funds that collect business license revenue for coal and natural gas extraction; from statutes permitting the collection of developer proffers to those enabling the implementation of toll roads, i.e., self-funding infrastructure. Indeed, in Virginia there is a long tradition of allowing transportation improvements to pay for themselves by means of highway and bridge tolling.

The strategies and tools cited in this report are those that could be documented either by statute in the Code of Virginia or by observation in local jurisdictions. The necessary shortcoming of the report is that it has captured only those strategies that are in practice and reported in public documents or, if not observed in practice, are known to be permitted by the Code of Virginia. Primary sources for this research were the unpublished annual VDOT surveys known as the Road, Street and Highway Finance Survey of local jurisdictions, which satisfy reporting requirements of the Federal Highway Administration; the annual survey of local jurisdictions conducted by the Weldon Cooper Center for Public Service published as Virginia Local Tax Rates; jurisdiction budgets and capital improvement plans for recipients of VDOT revenue sharing grants; and public award announcements of state, federal, or other grant funds. The latter sources were identified from Review of State Economic Development Incentive Grants by the Joint Legislative and Audit Review Commission (2012) and subsequent interviews of state and federal program managers.

Table ES1 summarizes the sources compiled in this study and discussed in this report.

Table ES1. Summary of Active Discretionary Transportation Funding Sources in Virginia Localities, 2016

| Funding Source | Funds Recipient(s) | Special Authorization or Code Reference | Awarding Entity | Oversight Entity | Eligible, Participating or Awarded Jurisdictions |
|--|--|--|---|--|---|
| Revenue Sharing Program | Local jurisdiction government | Revenue Sharing Program: Code of Virginia § 33.2-357 | VDOT | VDOT, Local Assistance Division | Awards: See VDOT (2015b) |
| Access Road Program | Local jurisdiction government | Access Road Programs: Code of Virginia § 33.2-1509 et seq. | Commonwealth Transportation Board (CTB) | VDOT, Local Assistance Division | Awards: See Appendices A and B |
| Appalachian Regional Commission (ARC) | Local jurisdiction government | 40 U.S.C. § 14501: Appalachian Region Development Act of 1965 | ARC | Virginia Department of Housing and Community Development (VDHCD) | Restricted Eligibility: See Appendices C and D Awards: See Appendix E |
| Transportation Partnership Opportunity Fund | Agencies and political subdivisions of Virginia | Code of Virginia (COV) § 33.2-1529.1 | CTB | VDOT; Secretary of Commerce and Trade; Virginia Economic Development Partnership (VEDP) | Awards: See Appendix F |
| Coal and gas severance license tax | Local jurisdiction general funds and coal and gas road improvement funds | COV §§ 58.1-3700 et seq., 58.1-3740 et seq. | N/A | Local jurisdiction government | Counties of Buchanan, Russell, Tazewell, Dickenson, Wise; City of Norton |
| Commonwealth's Development Opportunity Fund | Locality or authority | COV § 2.2-115 | Office of the Governor | Department of Commerce and Trade; VEDP | Awards announced by Office of the Governor |
| Governor's Agriculture and Forestry Industries Development Fund | Political subdivisions of Virginia | COV § 3.2-303 et seq.; Governor's Agriculture and Forestry Industries Development Fund | Office of the Governor | Secretary of Agriculture and Forestry; VEDP; Virginia Department of Agriculture and Consumer Services; Virginia Department of Forestry | Awards announced by Office of the Governor |
| Virginia Community Development Block Grant Program | Local jurisdiction governments | 12 U.S.C. 1706e; Housing and Community Development Act of 1974 | VDHCD | VDHCD | Restricted Eligibility: See Appendix A in VDHCD (2016a) Awards announced by Office of the Governor |
| Virginia Tobacco Region Revitalization Commission (VTRRC) | Megasite grants; Southside and Southwest economic development grant programs; special projects | COV § 3.2-3100 et seq. | VTRRC | VTRRC | Restricted Eligibility: See Appendix H |
| U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant Program | Local jurisdiction government | 12 U.S.C. 1706e; Housing and Community Development Act of 1974 | HUD | HUD | Restricted Eligibility: See HUD (2016a) |

| | | | | | |
|---|--|---|---------------------------------------|--|--|
| U.S. Department of Agriculture Rural Development (USDARD) Program | Local jurisdiction governments | U.S. Agricultural Act of 2014 (80 F.R. 15665) | USDARD | USDARD, Virginia Office | Restricted Eligibility: Varies by program but only rural areas are eligible |
| U.S. Department of Transportation FAST Act Programs | Local jurisdiction governments | Pub. Law No. 114-94: Fixing America's Surface Transportation (FAST) Act | Federal Highway Administration (FHWA) | VDOT; FHWA | Award: Accelerated Innovation Deployment Demonstration in Town of Vienna |
| Regional fuel tax | Northern Virginia Transportation District | COV § 58.1-2295 | N/A ^a | Northern Virginia Transportation Commission | Restricted Eligibility: Counties of Arlington, Fairfax, Loudoun; Cities of Alexandria, Falls Church, Fairfax |
| Regional fuel tax | Potomac and Rappahannock Transportation District | COV § 58.1-2295 | N/A ^a | Potomac and Rappahannock Transportation Commission | Restricted Eligibility: Counties of Prince William, Spotsylvania, Stafford; Cities of Manassas, Manassas Park, Fredericksburg |
| Additional tax on property zoned for commercial or industrial use or used for such purposes | Route 28 Transportation Improvement District (TID) | Multicounty Transportation Improvement District Act of 1987; not set out in Code but set out in Senate Document 5 (Virginia Code Commission, 1997) | N/A ^a | Fairfax and Loudoun counties | Participating: Fairfax and Loudoun counties |
| Additional tax on property zoned for commercial or industrial use or used for such purposes | Prince William Parkway TID, Route 234 Bypass TID | Transportation Improvement District in Individual Localities Act of 1987; not set out in Code but set out in Senate Document 5 (Virginia Code Commission, 1997) | N/A ^a | Prince William County | Participating: Prince William County |
| Additional tax on property zoned for commercial or industrial use or used for such purposes | Route 17 Special Tax District | COV § 33.2-2005; Local Transportation Districts (1993) | N/A ^a | City of Suffolk | Participating: City of Suffolk; see Appendix J |
| Additional tax on property zoned for commercial or industrial use or used for such purposes | Phase I Dulles Rail TID, Phase II Dulles Rail TID | COV § 33.2-2105; Transportation Districts within Certain Counties (2001) | N/A ^a | Fairfax County | Participating: Fairfax County |
| Additional tax on real property within special taxing district | Special service districts | COV § 15.2-2400 et seq. | N/A ^a | Local jurisdiction governments | Participating ^b : Wythe County, Town of Culpeper, Chesterfield County, Prince William County, Fairfax County, Loudoun County, City of Alexandria, Spotsylvania County, City of Manassas |
| Additional tax on real property zoned for or used for commercial and industrial | Local jurisdiction government | COV § 58.1-3221.3 (Virginia Acts of Assembly, 2007a) | N/A ^a | Northern Virginia Transportation Authority (NVTA) | Restricted Eligibility: Counties of Arlington, Fairfax, Loudoun, Prince William; Cities of |

| | | | | | |
|--|--|---|--|--|---|
| purposes | | | | | Alexandria, Falls Church, Fairfax, Manassas, Manassas Park |
| Additional sales and use taxes | NVTA Fund; Hampton Roads Transportation Fund | COV §§ 58.1-603.1, 58.1-604.01 (Virginia Acts of Assembly, 2013) | N/A ^a : NVTA conditionally refunds 30% to donor jurisdictions | NVTA; Hampton Roads Transportation Accountability Commission (HRTAC) | Restricted Eligibility: Planning Districts 8 (Northern Virginia) and 23 (Hampton Roads); see Appendix K |
| Congestion relief fee | NVTA Fund | COV § 58.1-802.2 (Virginia Acts of Assembly, 2013) | N/A ^a : NVTA conditionally refunds 30% to donor jurisdictions | NVTA | Restricted Eligibility: NVTA jurisdictions; see Appendix K |
| Transient occupancy tax | NVTA Fund | COV § 58.1-1742 (Virginia Acts of Assembly, 2013) | N/A ^a : NVTA conditionally refunds 30% to donor jurisdictions | NVTA | Restricted Eligibility: NVTA jurisdictions; see Appendix K |
| Regional fuel tax | Hampton Roads Transportation Fund | COV § 58.1-2295 (Virginia Acts of Assembly, 2013) | N/A ^a | HRTAC | Restricted Eligibility: Planning District 23 (Hampton Roads); see Appendix K |
| Tax increment finance areas | Local jurisdiction government | COV § 58.1-3245 et seq. | N/A ^a | Local jurisdiction governments | Participating ^b : Arlington County, City of Virginia Beach, City of Chesapeake |
| Road impact fees | Local jurisdiction government | COV § 15.2-2317 et seq. (Article 8) | N/A ^a | Local jurisdiction governments | Participating ^b : Stafford County |
| Cash proffers | Local jurisdiction government | COV §§ 15.2-2298, 15.2-2303, 15.2-2303.1 | N/A ^a | Local jurisdiction governments | Restricted Eligibility: Commission on Local Government (2015) |
| Dulles Greenway tolls | Toll Road Investors Partnership II | COV § 56-535 et seq.; Virginia Highway Corporation Act of 1988 | N/A ^a | State Corporation Commission | Restricted Eligibility: Loudoun County |
| Richmond Metropolitan Transportation Authority (RMTA) tolls | RMTA | COV Title 33.2-2900 et seq.; Richmond Metropolitan Transportation Authority | N/A ^a | RMTA | Restricted Eligibility: City of Richmond, Counties of Henrico and Chesterfield; see Appendix M |
| Chesapeake Transportation System (CTS) tolls | CTS | Locally administered project under VDOT (VDOT, 2016a) | N/A ^a | CTS | Restricted Eligibility: City of Chesapeake; see Appendix N |
| Property tax set-aside | Local jurisdiction government | None required | N/A ^a | Local jurisdiction government | Participating ^b : City of Alexandria, City of Virginia Beach |
| Business professional and occupational license tax set-aside | Local jurisdiction government | None required | N/A ^a | Local jurisdiction government | Participating ^b : County of Chesterfield |
| 1% sales tax set-aside | Local jurisdiction government | COV § 58.1-605 | N/A ^a | Local jurisdiction government | Participating ^b : City of Williamsburg |
| Cigarette tax fractional set-aside | Economic | None required | N/A ^a | Local jurisdiction | Participating ^b : City of Virginia |

| | | | | | |
|------------------------------|--------------------------------|----------------|------------------|-------------------------------|--|
| | Development Investment Program | | | government | Beach |
| Public right-of-way use fees | Local jurisdiction governments | COV § 56-468.1 | N/A ^a | Local jurisdiction government | Restricted Eligibility: See VDOT (2016b) |

^a Funding is generated rather than awarded.

^b Other Virginia jurisdictions may also currently participate.

Summary of Findings and Conclusions

- *VDOT's Revenue Sharing Program became a significant source of grant funding for roads in local jurisdictions between 2006 and 2018, and the program incentivized increasing local revenue generation in participating jurisdictions.* Many Virginia jurisdictions responded to the Revenue Sharing Program by using the discretionary options described in this report to raise the local match required for participation in the program. Revenue Sharing Program funding has been reduced in recent years at the same time that the SMART SCALE program for transportation project funding has been phased in.
- *State discretionary grant programs that provide funding for roads are, as a rule, designed to promote economic development of a region or jurisdiction.* Programs typically require a firm commitment from a business enterprise and satisfaction of job creation and/or capital investment requirements. Most programs contain clawback provisions to recapture funds if the terms of the grant are not met. VDOT's program for access roads to economic development sites is similar to other state programs.
- *Some south and southwest Virginia jurisdictions qualify for several sources of restricted-eligibility funding that may be put toward roads.* These sources consist of the Virginia Tobacco Commission, coal and natural gas severance tax revenues, and the federal Appalachian Development Highway Local Access Road Program. These sources and other state sources including VDOT grants have often been pooled to successfully accumulate sufficient project funding.
- *Several federal programs provide road funding directly to qualifying local jurisdictions on the basis of poverty rates or the potential for improvement in economic opportunity resulting from a road project.* Funds from the U.S. Department of Housing and Urban Development's Community Development Block Grant Program are allocated annually to qualifying areas of Virginia for their discretionary use, including for roads. Virginia community development block grant funds are allocated competitively to projects serving low- and moderate-income populations and community development needs. Rural development grants from the U.S. Department of Agriculture are targeted to nonurban areas with community facility or business development needs. The Appalachian Development Highway System Program funds access roads for qualifying communities in the Appalachian region.
- *Road funding by the U.S. Department of Transportation for which localities may apply at their discretion is targeted under the Fixing America's Surface Transportation Act to grants for improvements to freight corridors.* Innovative transportation projects may be competitively funded by the Accelerated Innovation Deployment Demonstration Program.
- *Transportation or service districts in various forms are the longest-implemented local option for the generation of road and other transportation revenues in Virginia.* Transportation or service district revenues support debt, support the match for other funding sources such as VDOT's Revenue Sharing Program, or provide pay-as-you-go funds for local road improvements. From populous urban transportation districts supporting roads and transit to neighborhood districts formed for the maintenance of roads according to local standards,

Virginia jurisdictions have exercised the transportation district option under several generations of legislation.

- *Virginia jurisdictions should expect to pool funds from several sources for larger projects.* Regardless of funding sources, it is common for Virginia jurisdictions to pool funding from several sources to fund or finance higher cost transportation projects.
- *Some Virginia jurisdictions currently have self-funded (i.e., tolled) roads under private or public ownership and administered at the local or the multijurisdictional level.* The City of Chesapeake has opted for tolled facilities to avoid private financing of any kind for the Dominion Boulevard and Steel Bridge improvements.

FINAL REPORT

A GUIDE TO TRANSPORTATION FUNDING OPTIONS AVAILABLE TO VIRGINIA JURISDICTIONS

Audrey K. Moruza
Senior Research Scientist

INTRODUCTION

This report collects in one document the methods of funding available to local governments and to other political subdivisions in Virginia for the support of transportation projects of local or regional interest. The subject was examined at this point in time because of long-term decline in the real value of fuel tax revenues and the absence of anointed replacements for either the state or the federal fuel tax (Lawson, 2013; Puro, 2016). In Virginia, however, federal and state fuel tax revenues have been supplemented for decades by strategies for local fundraising that are codified in Virginia legislation. This study discusses codified permissions as well as other strategies by which local jurisdictions have raised local transportation revenue.

The agency that is today the Virginia Department of Transportation (VDOT) became statutorily responsible for constructing and maintaining the secondary roads and the highways of Virginia in 1932 with the enactment of the Byrd Road Act by the Virginia General Assembly. In the decades after the Byrd Road Act, the fiscal burden of this duty on VDOT led to the implementation of landmark legislation that has been revisited time and again by the Virginia General Assembly. The first transportation improvement districts (TIDs), critical to the introduction of mass transit services in Northern Virginia, were established under legislation dating from more than 50 years ago. In the last 3 years, the Tidewater region has been vested with substantially similar transportation district prerogatives and both regions have been awarded new, locally generated revenue streams for all modes of transportation.

The variety of transportation revenue-generating options available today in Virginia makes a simple taxonomy impossible. Some legislation specifies a contingency scenario that restricts eligibility, such as the presence of certain natural resources or a history of tobacco farming, yet other legislation names a specific project in a specific jurisdiction. Over the last 15 years the Virginia General Assembly passed four major transportation bills manifestly enabling and equipping jurisdictions to generate transportation revenues internally to supplement state and federal allocations from VDOT.

The U.S. Congress stated in the Highway and Transportation Funding Act of 2014 (Public Law 113-159) that it had determined that the “existing Highway Trust Fund [HTF] system is unsustainable and unable to meet our Nation’s 21st century transportation needs” and that reforms it has recently initiated should “increase the authority and responsibility of the States to safely and efficiently build, operate, and fund transportation systems that best serve the needs of their citizens, including the ability of each State to implement innovative solutions, while also maintaining the appropriate Federal role in transportation.” The need for states to be

innovative may shortly become acute. The current federal authorization, Fixing America's Surface Transportation (FAST) Act (Public Law 119-94) authorized the transfer of \$70 billion from the General Fund of the U.S. Government to the HTF, a stopgap measure that is unsustainable in any but the short term and that will still fail to meet all projected obligations beginning in 2021 (American Association of State Highway and Transportation Officials [AASHTO], 2016; Puro, 2016).

It is self-evident that local jurisdictions that are knowledgeable about options they can pursue are better prepared in this new era of downward trending federal transportation revenues in both inflation-adjusted and absolute terms. The success of numerous Virginia jurisdictions in raising local transportation funding as documented in this report shows that the Commonwealth's endorsement of local initiative through enabling legislation over the last 50 years has long been regarded as an opportunity in many Virginia jurisdictions. This study attempted to pull together in one source as many of those opportunities as could be found at work or available for implementation in Virginia.

PURPOSE AND SCOPE

The purpose of this study was to identify as many of the strategies as possible by which Virginia localities have raised or may raise funds for support of local or regional road projects. The "transportation funds" of principal interest to this study consisted of those that support local transportation projects by providing cash outright, by supplying the debt service for a financed project, or by providing a local match to a grant or loan.

The study approach was to identify transportation spending in local jurisdictions and to trace the spending to sources of funds. The sources varied widely, from grants, property assessments, and local taxes to direct charges for use of transportation facilities. Some grant sources were programs administered by VDOT; others were programs administered by other state agencies, by other state entities, or by federal agencies. Finally, some funding sources were simply a prioritized resource allocation by a local government. It was the purpose of this study to identify the origins of these funds.

The scope of the study was restricted to transportation funding available for Virginia localities; it excluded debt tools. Ohlms (2014) provided specific case studies of local transportation funding and financing strategies that were implemented in recent years in Virginia.

METHODS

Task 1. Assessment of VDOT Literature

With responsibility today for more than 57,000 lane-miles of roads, including more than 49,000 lane-miles of secondary roads, VDOT has developed strong links to local jurisdictions since the enactment of the Byrd Road Act. It is VDOT's responsibility to collect annual

information from local jurisdictions for state and federal highway funding reporting requirements; to make statutory maintenance and construction payments to local jurisdictions; to administer a transportation grant program directly to local governments out of VDOT funds; and to administer or facilitate other programs with funding from sources outside VDOT.

VDOT makes direct funding grants on a match basis to qualifying jurisdictions through the VDOT Revenue Sharing Program. An eligible jurisdiction must have a source of revenue with which to pay, in general, one-half of the project cost, although VDOT does not officially note the source of the match. The jurisdictions programmed for revenue sharing funds in the FY13-18 Six-Year Improvement Program (SYIP) (VDOT, n.d.) were the first set of jurisdictions to be examined for this report since a local match source could also be a local funding source.

In addition to administering VDOT's Revenue Sharing Program, VDOT's Local Assistance Division (LAD) manages funding opportunities available from several programs of competitive grants for access roads. All pertinent records of these programs are available through VDOT.

A key source of information about localities and transportation funding is an annual survey that VDOT commissions for compliance with requirements of the Federal Highway Administration (FHWA). The Road, Street and Highway Finance Survey compiles jurisdiction survey responses on the size, sources, and expenditures of local road funding reported by local governments. The survey contractor does not verify or audit responses for accuracy, so for the purpose of this study the survey provided only a list of jurisdictions that reported local assessments for "street/highway-related functions" and the reported revenues from two other specific funding tools provided in legislation: cash proffers and impact fees. The survey jurisdictions are requested to declare their means of raising local transportation revenues, whereas those funding sources are not revealed by records for VDOT's Revenue Sharing Program because, as noted, VDOT does not require a source to be identified before a grant is awarded.

VDOT strives to keep local jurisdictions fully informed of VDOT programs through workshops, manuals, and district staff, and therefore only major aspects of VDOT-administered programs are summarized in this report.

Task 2. Assessment of External (Non-VDOT) Literature

Four documents led to sources of non-VDOT transportation funding currently available to Virginia localities:

1. *Review of State Economic Development Incentive Grants*. In November 2012, the Joint Legislative Audit and Review Commission (2012) issued this review of the performance of all economic development incentive grants awarded in Virginia. Three incentive grant programs exist specifically to deliver transportation projects: the Transportation Partnership Opportunity Fund (TPOF), the Economic Development Access Program, and the Rail Industrial Access Program. The first

program is facilitated by VDOT: VDOT physically accepts applications, assists with preliminary review for satisfaction of minimum eligibility requirements, deliberates with other agency representatives on the TPOF Advisory Panel, and conveys panel findings and recommendations to the state Secretary of Transportation, the Secretary of Commerce and Trade, and the relevant “modal oversight board and agencies” (VDOT, 2005). The second of these programs is administered fully by VDOT. The third program was outside the scope of this study.

2. *Virginia Local Tax Rates, 2014*. The Weldon Cooper Center for Public Service (hereinafter Weldon Cooper Center) publishes a comprehensive annual compendium of local Virginia tax rates assembled from responses to an annual survey distributed to local governments. *Virginia Local Tax Rates, 2014* (Knapp and Kulp, 2015) contains 27 sections of local tax and other local revenue categories (e.g., special transportation district assessments, developer proffers, and impact fees) and the jurisdictions that currently impose them. Some local assessments documented in *Virginia Local Tax Rates, 2014* are reportedly imposed specifically for the funding of local transportation projects.
3. *Comparative Report of Local Government Revenues and Expenditures*. This annual report by the Virginia Auditor of Public Accounts (VAPA, n.d.) contains data required annually from certain local governments under Code of Virginia § 15.2-2510. The report contains data reported by localities on “Capital Projects for General Government,” which includes the category of Streets, Roads, and Bridges. The public documents of localities that reported capital expenditures in this category were examined in this study.
4. *Report on Proffered Cash Payments and Expenditures by Virginia’s Counties, Cities and Towns*. Virginia’s Commission on Local Government (CLG) compiles this annual report to document total proffers received and expended by jurisdictions and categories of expenditures by local jurisdictions, including “Roads and other transportation improvements” (CLG, 2015).

These documents led to jurisdictions of interest for this topic. A large number of local jurisdiction documents—annual budgets, financial reports, and capital improvement program (CIP) reports—were examined as a direct consequence of reviewing the reports listed.

On the other hand, one funding source that has historically produced significant revenue levels for local jurisdictions—the tax on extracted coal and gas resources that is dedicated to local public road improvements—is difficult to track consistently and comparably across time in participating jurisdictions. The local road improvement fund is owned by the taxing jurisdiction, and no other source of detailed information is readily available on annual statewide coal and gas severance tax revenues for road improvement projects than is provided by the jurisdiction itself. Although VDOT is required under the Code of Virginia to be represented on the local committees that decide how severance tax revenues for road improvements are to be spent, VDOT holds only an advisory role. To summarize, jurisdictions are free to keep public records

in varying degrees of detail and availability. This freedom required other public sources of related data also to be employed for this study.

In summary, the review of VDOT and non-VDOT literature identified (1) current state and federal programs that provide grant funding to localities for road projects and (2) tools or strategies available and at work in local jurisdictions. The self-evident flaw in the described method, as noted previously, is that it may not have captured every possible tool or strategy for raising transportation funds locally.

Task 3. Interviews of State and Federal Agency Employees, Local Officials, and Staffs

Task 3 occurred interactively with Tasks 1 and 2 throughout the study. Staff in several VDOT divisions clarified the limits of VDOT's knowledge about local generation of transportation project funding. Staff of VDOT's Infrastructure Investment Division provided critical background information about federal and state funding sources in the SYIP. Staff of VDOT's LAD provided specific resources leading to jurisdictions for initial contact. Staff of VDOT's Financial Planning Division provided key information on competitive programs managed or facilitated by VDOT. Jurisdiction officials and staff offered information about local practices and identified supporting records. Contacts in state and federal agencies provided information on their programs and indicated where relevant documentation is located. Individuals to whom particular thanks are due are listed by name in the "Acknowledgments" section.

Individual interviews led to a wide range of benefits stretching from introductory information, initial leads, and further contacts to insightful observations that often clarified and resolved seemingly inconsistent data. A number of individuals are cited as the direct source of information in this report. In addition, local jurisdiction documents, program manuals, and statutes in the Code of Virginia were all considered authoritative as public records.

RESULTS AND DISCUSSION

Programs Administered by VDOT

Revenue Sharing Program

Introduced in 2006 state legislation, the Revenue Sharing Program is an elective, competitive program of project funding and delivery that originally supplemented traditional state funding allocated by highway administrative classification. (Allocations by administrative highway classification were replaced in 2014 by a competitive program of project-specific funding allocation as defined in § 33.2-214.1 of the Code of Virginia. Subsequently named SMART SCALE, the program was officially placed under the purview of the Office of Intermodal Planning and Investment in 2017 (§ 33.2-214.2 of the Code of Virginia).) Since its inception, the Revenue Sharing Program has usually been an even cost-matching partnership

between VDOT and counties and cities, but it can include towns in the urban system (Code of Virginia § 33.2-357). Program allocations grew from \$15 million in FY05 (D. Webb-Howells, personal communication) to more than \$189 million in FY16 (VDOT, 2015b).

Over the decade 2006-2016, the limit on VDOT's match to a local jurisdiction rose from \$1 million to \$10 million; governing statutes were revised to allow matching funds from sources other than a locality's general fund if also from non-VDOT and non-VDOT-managed sources (e.g., funds from the Congestion Management Air Quality Program or locally generated funds are acceptable sources). As of FY17, up to \$5 million may be used for highway maintenance purposes in a given locality. Until FY18, the Commonwealth Transportation Board (CTB) was required by law to provide from \$15 million to \$200 million for VDOT's Revenue Sharing Program, but legislation was passed in Chapter 828 of the 2018 Virginia Acts of Assembly (HB 765) (Virginia Acts of Assembly, 2018) that effectively halved the maximum VDOT funding available to the VDOT Revenue Sharing Program. Otherwise, program features are unchanged, including that VDOT must allocate revenue sharing funds to local projects on the basis of competitive project merit (Code of Virginia § 33.2-357). Moreover, the 2015 guidelines stipulate that VDOT anticipates that "at the time the application is submitted the locality has the funding to match its request if approved."

According to VDOT's *2015 Revenue Sharing Program Guidelines* (VDOT, 2015d), a grant under VDOT's Revenue Sharing Program is initiated by a resolution of support by the local governing body or by several governing bodies cooperating in regional projects; towns that do not maintain their own streets may not submit their requests independently of the county of which they are part.

Code of Virginia § 33.2-357 stipulates that a jurisdiction's governing body will accompany a funding request with a prioritized list of other eligible projects in the jurisdiction if any exist. VDOT's LAD develops the final project list submission for the fiscal year for consideration by the CTB, which in turn approves the final statewide program and allocations to specific projects.

Code of Virginia § 33.2-357 also requires that the CTB's first program allocation priority be projects that have received prior revenue sharing grants. Second priority is given to projects addressing a need described in the statewide transportation plan or projects in a jurisdiction's capital plan. Third priority is given to pavement and bridge projects that would assist VDOT in meeting maintenance performance targets. Within each priority category, funding requests of \$1 million or less are to be evaluated and funded first, according to the *Revenue Sharing Program Guidelines* (VDOT, 2015d). When the last full funding requests in a given priority category are awarded, remaining funds for the next level of priority are either evenly prorated to all requests or allocated discretely by the CTB. The 2015 guidelines state that new projects requiring higher levels of funding "may also be considered, provided the locality identifies any additional funding needed."

Revenue sharing projects may be managed by the locality (VDOT, 2016a) or by VDOT, in which case the locality must pay the local matching funds before initiation of the work. In projects costing more than \$500,000, reimbursement of VDOT's costs may be phased. Prior to

the construction phase, a locality may withdraw approval for a project upon resolution by the governing body, but VDOT may require restitution of program funds expended to that date. If a locality chooses to administer the project, an agreement with VDOT is required that will govern the performance of work by the locality. Projects that are paid for in full by means of revenue sharing funds (i.e., those that are exclusively state and locally funded) and are locally administered may take advantage of a “streamlined state-aid” process, which is explained in VDOT’s *Locally Administered Projects Manual* (VDOT, 2014e).

VDOT’s *Revenue Sharing Program Guidelines* (VDOT, 2015d) state that in 2015 the CTB resolved that at the request of the locality and upon CTB approval, funds can be transferred from one revenue sharing project to another existing revenue sharing project and from a revenue sharing project to a project in the SYIP, VDOT’s Secondary Six-Year Plan, or the CIPs of jurisdictions participating in VDOT’s Urban Construction Initiative if needed to meet the federal obligation schedule or to keep or accelerate the project advertisement date. Also, larger new projects (i.e., exceeding the locality’s request for program funds) may be submitted for award if the locality identifies both the amount necessary to complete the project and other funding sources it can tap for the project.

CTB policy states that projects shall be initiated and some level of funds disbursed within 1 year of the award; after 2 years of local inaction on a project, the CTB may reallocate the funds (VDOT, 2015d). “Timely Implementation of Projects” is explained further in VDOT’s *Revenue Sharing Program Guidelines* (VDOT, 2015d). Awarded funds are intended typically to be expended in the fiscal year of allocation.

VDOT’s Revenue Sharing Program grew to be a large and popular program coexisting with but finally also competing with SMART SCALE for state funds. Still, insofar as SMART SCALE funding is allocated to projects that localities put forward in a competitive process, it resembles the Revenue Sharing Program. Revenue sharing funds are exempted from allocation by SMART SCALE (Virginia Office of Intermodal Planning and Investment, 2017) but as noted previously the maximum CTB allocation to the Revenue Sharing Program was halved in Chapter 828 of the 2018 Virginia Acts of Assembly (HB 765). In a subsequent action by the CTB in December 2018, however, inconsistencies between the CTB’s Revenue Sharing Guideline revisions of 2017 and amendments to the program made by the 2018 General Assembly were resolved to include a statement that the CTB “supports funding the Revenue Sharing Program at a minimum of \$100 million annually and supports funding in greater amounts to the extent permissible under subsection D of § 33.2-357...” (CTB, 2018).

Access Road Programs

Under Code of Virginia § 33.2-1509, VDOT’s grants for access roads are intended to assist localities in preparing business-attracting economic development sites and licensed public-use airports. Under the companion statute § 33.2-1510, access road grants are authorized to provide public access to Virginia’s recreational and historic sites. VDOT’s three access road grant programs are administered by VDOT’s LAD, which manages each program with detailed guidance: Economic Development Access Program Guide (VDOT, 2014d), Airport Access Program Guide (VDOT, 2014b), and Recreational Access Program Guide (VDOT, 2014f).

Economic Development Access Program

The goal of VDOT's Economic Development Access Program is to direct state grants to construction or improvement of secondary or local roads to attract new or growing business enterprises that will create jobs and add new, sustainable economic activity to the local jurisdiction tax base. The program explicitly anticipates a partnership between an independent eligible local government and a specific enterprise, but it may also fund access roads under bonding provisions before a firm business prospect is identified. All counties and cities are independent eligible localities, as are towns that maintain their own streets (i.e., that receive maintenance payments under Code of Virginia § 33.2-319). Towns whose streets are maintained as part of the state road system are considered to be part of the county in which they lie and therefore are ineligible to submit grant applications independently, as is also the case in the Revenue Sharing Program.

Funding for access roads to stimulate local economic development is allocated by the CTB in Code of Virginia § 33.2-1509. According to VDOT's program guide, economic development access road funds must be used for the tangible outcome of an access road and/or a pedestrian or bicycle facility that is considered necessary for the project, but ancillary costs are ineligible (VDOT, 2014d). If the CTB ultimately approves a project, it can be administered by either VDOT or the local government pursuant to the provisions in the *Economic Development Access Program Guide* (VDOT, 2014d). Upon completion, all program-funded access roads are open for public use and are not to be gated or otherwise restricted to the public.

VDOT's *Economic Development Access Program Guide* (VDOT, 2014d) provides the details necessary to implement CTB policy with respect to economic development access roads. Salient points of the program are summarized here.

The locality is the applicant for a program allocation and is responsible for project initiation and coordination with VDOT. An industrial authority is represented by an eligible local government in the application process. In such case, the locality will remain fully eligible for its own program allocation in accordance with the program guidelines. Following VDOT approval of a proposed road location offered by either the qualifying establishment or the locality, creation of a local jurisdiction resolution is required to advance the project.

CTB policy distinguishes enterprises that are eligible from those that are ineligible for economic development access road funding assistance. Enterprises must meet "basic employer criteria" (defined by the Virginia Economic Development Partnership [VEDP] and the Virginia Department of Small Business and Supplier Diversity) and must represent new or expanding facilities. Specifically acceptable facilities are manufacturing, processing, research and development, distribution centers, regional service centers, corporate headquarters, and other establishments that meet VEDP employer criteria. Specifically ineligible enterprises include schools, hospitals, libraries, private airports, armories, speculative office buildings, shopping centers, apartment buildings, professional offices, residential developments, churches, hotels, and motels.

Regular project awards are those with a firm commitment from an eligible enterprise and will be the lesser of (1) “reasonable” road project cost; (2) 20% of qualifying investment by the eligible business enterprise; or (3) \$500,000 per fiscal year to counties and cities and to towns maintaining their own roads. Also, awards are not confined to a single project. If no eligible enterprise has committed to locate at an eligible site, an award may be held for up to 5 years if the locality offers sufficient bond or another acceptable means for VDOT to recover program funds if necessary. Bonded projects are subject to the same funding limitations as regular projects but they provide access roads that could potentially attract eligible enterprises, subject to the locality assuming the risk that no enterprise partner materializes. Regular and bonded projects that cost more than \$500,000 may receive a limited additional program award, but the locality must make an exact match of the additional award from any source other than funds originating with the CTB.

According to VDOT’s *Economic Development Access Program Guide* (VDOT, 2014d), awards are de-allocated by CTB resolution when a capital commitment has not materialized within the bonded period and the locality concurs that the “approved project intended for a prospective business establishment is no longer viable.” For regular projects, the locality may re-apply for funds when an enterprise commitment is identified. The de-allocation process consists of the reimbursement of VDOT by the locality for outlays made from awarded program funds. In recent years of low economic growth, the CTB has granted a series of moratoria on bonded projects under the Economic Development Access Program to provide additional time for the projects to achieve viability (CTB, 2014; DeBruhl, 2014).

In addition to typical access road grants, a higher level of program funding is available in the subprogram called Major Employment and Investment (MEI) Project Site Planning Grants. An MEI project is defined as “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 and indirect economic impact on surrounding communities” (Code of Virginia § 2.2-2260). The Mid-Atlantic Advanced Manufacturing Center (MAMaC) in Greensville County in Southwest Virginia qualified as an MEI enterprise in Virginia in recent years and received a grant under the Economic Development Access Program (MAMaC, 2013). The VEDP is directly involved in the development of MEI sites.

VDOT’s *Economic Development Access Program Guide* (VDOT, 2014d) lays out the maximum limits of MEI grants, the conditions for bonded MEI projects, the conditions for high cost projects with matching funds from a locality for a supplemental program allocation, and environmental impact report requirements.

No funds from the Economic Development Access Program may be awarded to projects located on sites that are owned privately, and access road projects assisted with these funds become part of Virginia’s secondary road system in jurisdictions where VDOT maintains the road system. In jurisdictions that maintain their own roads, they become part of the local system, and they are required to be maintained and improved as other roads in the system to which they belong.

Funds under this program are allocated throughout the fiscal year as authorized under the Code of Virginia; CTB resolutions announce awards as applications are approved by the CTB. In recent years slow economic growth has left some localities overextended on bonded projects because of unrealized occupancies by eligible enterprises (DeBruhl, 2014). The CTB has responded with more lenient payback policy revisions, most recently in December of 2016 (CTB, 2016). Appendix A is a table of awards under the Economic Development Access Program and de-allocations from FY12-15. De-allocations have occurred for a variety of reasons including voluntary release of awarded funds by jurisdictions.

Airport Access Road Program

An airport access road grant provides state funds to counties and cities to facilitate “adequate” public access between the property line of an existing or new public use airport licensed by the Virginia Department of Aviation and the nearest adequate public road, according to the *Airport Access Program Guide* (VDOT, 2014b). The guide interprets “adequate access” to mean a new or improved publicly maintained road from the (current or future) airport’s primary entrance to the nearest existing and adequate public road.

As in the Economic Development Access Program, the local government initiates the application with a resolution of its governing body and provides a certified copy of the resolution to the VDOT manager, typically the residency administrator, and airport facility and road project information as specified in the program guide. Airports impose significant demands on communities, and the process for airport approval can be lengthy and complex. VDOT recommends that the project manager (locality or VDOT) of an airport access road project be identified as soon as possible because of the complexity of project development in this program. Also, airport access roads are exempt from the Secondary Street Acceptance Requirements (i.e., the features of newly constructed streets that qualify them for maintenance by VDOT).

The bonded option available for economic development access roads does not exist for airport access roads. The grant and matched assistance limits for construction projects, however, are identical to those for non-MEI economic development access road projects. As with the other access road programs, grants may be de-allocated if a project is not active within 2 years of CTB approval unless unusual circumstances warrant an exception by the VDOT LAD Director of Program Allocation Awards.

Airport access funds are allocated throughout the fiscal year as authorized in the Code of Virginia; CTB resolutions announce awards as applications are approved by the CTB. Two recent CTB actions to fund airport access roads were for the Williamsburg-Jamestown Airport in James City County in 2011 (CTB, 2011) and Grundy Municipal Airport in Buchanan County in 2012 (CTB, 2012).

Recreational Access Program

The Recreational Access Program is a collaboration among the Virginia Department of Conservation and Recreation, the Department of Historic Resources, and the CTB. State-funded access roads to public recreation areas and historical sites were first authorized by the Virginia

General Assembly in 1966. The program was administered under the Virginia Administrative Code until repeal in 2013 (CTB, 2013). VDOT was then authorized to maintain its Recreational Access Program Guide (VDOT, 2014f) as the primary policy instrument for recreational access roads, bringing the program into line with other access road funding programs. Recreational or historic sites operated by state agencies, local governments, or authorities are eligible for the program whereas federal sites and those located on private property are ineligible, although a state-funded recreational access road may cross private property.

A site's historic value is not contingent upon designation in the National Register of Historic Places or the Virginia Landmarks Register, meaning that qualifying recreational or historic value may be local, according to the program guide (VDOT, 2014f). VDOT recommends that applications from local governing bodies list all recreational and historic values of a property when requesting funding under this program. Further, an eligible site need not be in normal operation at the time of the request for recreational access funding if it is judged likely to be operational by the time the access project is completed. On the other hand, a funding request must provide satisfactory proof of sufficient demand for the access facility to warrant state funding.

VDOT's program guide (VDOT, 2014f) outlines eligible costs for recreation access road projects and provides maximum allocations and a locality's match requirements. Use of the program to provide or improve bicycle access is also described.

The Recreational Access Program can occasionally be more complex than expected: e.g., if an access road must traverse private property to a recreational or historic site, the VDOT guide (VDOT, 2014f) advises additional precautions by means of zoning or deed restrictions to deter or prevent unintended commercial development. Moreover, alignments to avoid railroad or bridge crossings are also advised. As for all access roads, recreational access facilities are to be unrestricted for public use (i.e., no fees may apply), but recreational access roads may be closed during hours set aside specifically for security purposes.

Recreational access road funds are spent down each year from a possible maximum balance of \$3 million, which is replenished at the end of the year by the CTB "to the extent it deems necessary to carry out the purpose intended" of providing recreational access roads and bikeways, according to authorizing state code (Code of Virginia § 33.2-1510). Appendix B contains a table of recreational access awards made from FY11 to mid-FY15.

Programs Facilitated by VDOT

Some programs that provide road funding to localities are administered directly to local jurisdictions by federal or state agencies, entities other than VDOT, or VDOT in consultation with other state agencies. The role that VDOT plays in these programs varies, but when new facilities will be taken into the VDOT-maintained network, VDOT plays a central role in approving the project design. In this sense, VDOT "facilitates" the programs reviewed in this section.

Appalachian Development Highway System Program

The federal Appalachian Region Development Act of 1965 contained many socioeconomic elements meant to reduce poverty in the Appalachian region, including a vision of modern highways and local access roads to connect the region with the larger regional and national economies. Under the act, the explicit purpose of the federally funded Appalachian Development Highway System (ADHS) Program (U.S. Code, Title 40, § 14501), administered by the Appalachian Regional Commission (ARC) (an independent federal agency), is to complete a designated 1,400-mile system of highways in the 13 states, including southwest jurisdictions of Virginia, that comprise the Appalachian region.

According to the September 2015 report on the status of ADHS corridors in Virginia, 163.5 miles of the 192.2 miles on three Virginia corridors that are eligible for ADHS program funding were complete (ARC, 2015c). But although ADHS corridor construction is the exclusive business of VDOT, ARC funding for local access roads is granted directly to localities by ARC according to a determination of local jurisdiction need, and VDOT's role consists of (1) distributing funds for approved projects and (2) technical approval of road design. In FY18 VDOT had a balance of \$4.7 million remaining in its ADHS account for ARC access roads (F. deLamorton, personal communication).

Dedicated new ADHS program funding was terminated under the Moving Ahead for Progress in the 21st Century Act (MAP-21), yet both MAP-21 and the more recent FAST Act continued support of the ADHS project in three ways. First, they preserved (until they are expended) existing state access to ADHS program funds allocated before MAP-21 was implemented (ARC, 2012). Second, they required ARC states to submit ADHS corridor completion plans by federal FY13, with a stated state system completion date (ARC, 2012). Third, they permitted states to select a federal share up to 100% on both ADHS corridors and related access roads through 2050 (FHWA, 2016e). (States need not do so, however.)

ARC funding for local access roads has historically been committed in order “to allow targeted localities in need of economic assistance to receive federal participation of local access road projects” (VDOT, 2014a). Based on various descriptive statistics of Appalachian Virginia jurisdictions (ARC, n.d.), five levels of economic health of a locality, determined annually, have recently guided ARC grants for local access roads. For FY16 and ranging from most needy to least needy, 1 Virginia county was designated at the lowest level of economic health (“Distressed”), 10 counties were designated in danger of economic stagnation (“At Risk”), 13 counties were designated improving (“Transitional”), and 1 was designated “Competitive” (ARC, 2015b). No Appalachian Virginia counties were recognized to occupy the highest level of economic health on the ARC scale (“Attainment”) in FY16. The ARC also considers pockets of economic malaise within jurisdictions: 9 counties contained designated “distressed areas” whereas the counties themselves were rated above that level (ARC, 2015b). In all, 33 Virginia counties and cities were broadly eligible for ARC-funded local access roads.

An eligible jurisdiction develops an access road proposal with its respective planning district commission and applies for ARC grant monies through the Virginia Department of Housing and Community Development (VDHCD), which serves as the Governor's “appointed

alternate” contact for ARC funding for a local access road project. State (i.e., VDOT) standards still determine road design and construction for ARC-funded roads off the National Highway System (ARC, 2015a). An access road project is selected on individual merit by the ARC after submission by the VDHCD, and VDOT must request the FHWA’s concurrence in authorizing ADHS program monies (in VDOT’s keeping) for the project. For a selected project to proceed, VDOT certifies that (1) the project meets state design standards; (2) funds and obligation authority will be made available from the state’s ADHS account; and (3) the project is or will be included in the statewide transportation improvement program (a federal requirement to identify Virginia transit and highway projects that receive federal funding).

The *2017 ARC Annual Strategy Statement* (Commonwealth of Virginia ARC, 2016) states that processes for funds allocation and project development are under revision while VDOT develops a new state highway plan but that the purpose of VDHCD access road allocations will continue to be increased local economic opportunities. According to current guidance from the VDHCD, ARC-funded access roads should help “create infrastructure to promote large scale economic opportunities” (Commonwealth of Virginia ARC, 2016).

VDOT typically includes \$1 million in state ADHS funds in the SYIP every year for ARC local access roads (VDOT, 2014a) and requires that ARC roads conform to Virginia standards under U.S. Code, Title 23, § 109. Under ARC access road guidelines, Virginia is authorized to fund up to \$3 million per year for local access roads from the balance of ADHS funds allocated to the state before MAP-21 provided the funds were not already designated by Congress specifically for the Appalachian corridor system (VDHCD, 2015; VDOT, 2014a). The same amount of funding was estimated to be available in FY17 (VDHCD, 2016b). In addition, under Section 214 of the Appalachian Region Development Act, a state may use a portion of its area development allocation (a primary funding component of Virginia’s overall ARC program for targeted economic development) to fund an access road project authorized under another federal agency (e.g., the U.S. Economic Development Administration, U.S. Department of Agriculture [USDA], and U.S. Department of Housing and Urban Development [HUD]) (ARC, 2015a).

According to the *2017 ARC Annual Strategy Statement* for the Commonwealth of Virginia, the ARC holds construction funding to \$500,000 per project (Commonwealth of Virginia ARC, 2016). Yet exceptions are permitted and “DHCD reserves the right to exceed this per project cap in instances of significant job creation potential or in the development of a critical, regional, asset” (Commonwealth of Virginia ARC, 2016), although it will consult with representatives of the ARC and VDOT in such cases. Once ADHS program funds are obligated and authorized, the locality may administer the project under an agreement with VDOT.

Since ARC funds are federal to begin with, ARC access road funds have historically required a match from a nonfederal source (VDHCD, 2016b). The *ARC 2017 Annual Strategy Statement* states that all Virginia ARC assistance sets an equal match (50%) of non-federal funding as a baseline. In Virginia the jurisdiction economic health determination reduces the match requirement from the baseline: “distressed” localities pay 20% of project costs, “at-risk” localities pay 30%, and “competitive” localities pay 70% of project costs; ARC pays the project balance (Commonwealth of Virginia ARC, 2016).

Acceptable nonfederal match sources include funds from both VDOT access road programs and the Virginia Tobacco Community Revitalization Commission, yet these programs can be competitive rather than cooperative. For example, in 2014 Scott County received an ARC grant for \$497,000 for the Riverside Development (M. Weaver, personal communication), a project that had earlier applied for funding from the Virginia Tobacco Community Revitalization Commission. Such funding had been granted for the project in FY13 but was not recommended in FY14 since the project was judged to be a good prospect for either ARC or VDOT local access road funding (Virginia Tobacco Commission [VTC], 2013a). As noted, ARC funding was awarded in FY14.

Appendix C is a map of the ADHS and the ARC region in Virginia. Appendix D shows the county economic status in Appalachian Virginia in FY16. Appendix E shows ARC road project allocations to Virginia localities since 2006.

Transportation Partnership Opportunity Fund

The TPOF originated in Chapter 847 of the 2005 Virginia Acts of Assembly (HB 2793) (Virginia Acts of Assembly, 2005). The program was amended in Chapter 684 of the 2015 Virginia Acts of Assembly (HB1887) and is now in Code of Virginia § 33.2-1529.1. The original guidelines describe, for the Governor’s discretionary use, a fund of sufficient size to address “the needs identified in the appropriate state, regional or local transportation plan” while satisfying either the criteria of design-build transportation projects, the Public-Private Transportation Act (PPTA) (§ 33.2-1800 et seq.), or the economic development criteria of the then-named Governor’s Opportunity Fund (GOF). (In 2015, the GOF was renamed the Commonwealth’s Development Opportunity Fund [COF].)

State agencies, political subdivisions of Virginia, and private entities (as defined in the PPTA) that had submitted a proposal or signed a comprehensive agreement to provide a transportation facility were eligible TPOF applicants through 2014; thus these eligible classes comprised the TPOF award recipients shown in Appendix F. TPOF awards were suspended between the 2015 legislative session and the issuance of new program guidelines in 2016 containing changes to the program.

As revised in 2015, TPOF awards are given only to agencies or political subdivisions of Virginia yet continues “to promote private investment for economic development projects that may result in the availability of the facilities in a timelier and/or less costly fashion” (VDOT, 2016e). The revision of eligible applicants in the new guidelines noted previously accounted for the 2016 disqualification of a Route 28 Highway Transportation Improvement District project that had been submitted for a TPOF grant in December 2015, on the grounds that it was a PPTA project (Layne, 2016b). The revised fund favors (1) experience of the grantee or borrower in implementing similar projects and (2) clear causation provided in the application between a TPOF award and development of a transportation facility. Awards are now targeted to projects that have “the sole purpose of addressing transportation aspects of economic development opportunities” (Layne, 2016a), and such projects must address the needs identified in the appropriate state, regional, or local transportation plan (VDOT, 2016e).

TPOF awards, which can apply to road, rail, or mass transit, can be grants up to \$5 million and/or interest-free loans up to \$30 million. Each can be used for a broad array of purposes. Grants are disbursed on a reimbursable basis and are limited to one per month for project expenditures including, but not limited to, “right-of-way acquisition, professional and inspection services, construction contractor payments and a contingency” (VDOT, 2016e).

Although not required, authorizing legislation states that the commitment of matching funds from any source—local, federal, or private—shall be advantageous in procuring a TPOF award, and the revised TPOF guidelines state: “Projects with a high \$ to \$ of matching funds will be considered highly desirable” (VDOT, 2016e). TPOF awards may be given to projects already receiving funds from VDOT’s Revenue Sharing Program and/or Economic Development Access Program if a TPOF award is demonstrably useful for project completion. A project may also receive both TPOF and COF awards, although no single match counts for both awards concurrently. Both funds may accept matches from the Virginia Tobacco Indemnification and Community Revitalization Commission (discussed later). In any case, according to the revised guidelines, TPOF awards may not be used in place of other available public funding on any project.

The TPOF is administered by the CTB, acting through VDOT “in consultation with the Secretary of Commerce and Trade” (VDOT, 2016e). Specifically, VDOT actively advises the application process, with guidance on economic development features from the Secretary of Commerce and Trade and the VEDP. The TPOF Advisory Panel is composed of representation from VDOT, the applicable modal oversight agency, the Secretary of Transportation, the Secretary of Commerce and Trade, and the Department of Planning and Budget. The advisory panel evaluates applications and forwards its recommendations to the Secretary of Transportation, the Secretary of Commerce and Trade, and the relevant modal agency. The latter officials submit a recommendation of funding to Virginia’s Governor, who approves final awards (VDOT, 2016e).

After approval of an award, a financing commitment is executed that binds the TPOF to pay the award subject to appropriation and binds the recipient (i.e., political subdivision or agency) to “perform” as agreed. A subsequent award agreement between the Commissioner of VDOT and the award recipient stipulates the project’s reporting requirements to VDOT and the Secretary of Commerce and Trade, the jobs and capital investment targets and an end-date by which the targets must be met, and the period during which the targets must be maintained. If performance criteria are not met but it can be demonstrated that the award produced other economic benefits to a locality beyond those “directly attributable to the private entity which was the basis for an application for monies from the Fund,” clawback provisions in the award agreement may be partly or wholly waived by the Commissioner of the Virginia Department of Transportation with concurrence of the Secretary of Transportation and the Secretary of Commerce and Trade (VDOT, 2016e).

As noted, under both the original and revised rules for an economic development project, the project application for a TPOF award must satisfy minimum economic criteria of the COF Program. Because the COF Program allows direct COF funding of “transportation access” to eligible projects, this program is summarized later and minimum criteria are discussed there.

Alternatively, if job retention rather than creation will result from the qualifying investment, TPOF awards may be used for projects that meet the minimum economic criteria of the Virginia Investment Partnership Grant Program, a “premier” award program of direct support to business enterprises in Virginia that have been operating stably with respect to employment for at least 3 years (VDOT, 2016e; VEDP, 2015a) According to program guidelines, awards require that the applicant make a minimum \$25 million capital investment; that the investment cannot have the result of a net reduction in employment from the date of the completion of the capital investment through 1 year from the date of completion; and that the investment will support only “basic sector” enterprises bringing new or additional income to the state by “providing goods or services at least one-half of which will be sold outside of the Commonwealth or will be paid for with funds from outside the Commonwealth,” as expressed in language identical to that in the COF guidelines (VEDP, 2015b).

The TPOF was originally capitalized in FY06 with a \$50 million transfer from the state general fund (Homer, 2006) via the Toll Facility Revolving Account and the Highway Construction Fund (Layne, 2016a). In the 2007 legislative session, the Virginia General Assembly appropriated a further \$305 million to be dedicated to six projects (of which five ultimately received awards) eventually known as the 2007 Transportation Initiative (Homer, 2010). Finally, in the 2011 budget bill (Chapter 890 of Virginia Acts of Assembly, 2011), an additional \$50 million was added to the TPOF from the Commonwealth Transportation Fund (Connaughton, 2011). Thus the non-dedicated capitalization of the TPOF from inception through FY15 was \$100 million (augmented by \$11 million in accrued interest [Layne, 2015]).

Apart from projects in the 2007 Transportation Initiative, which received dedicated TPOF funding, by June 2016 the TPOF had made final grants totaling \$91.8 million, leaving a current TPOF balance (including accumulated interest) of about \$19.7 million (Layne, 2016b). One \$5 million award was pending in FY16, and another was in line to be considered by the TPOF Advisory Panel as of FY16 (Upson, 2016). Among TPOF grant recipients to date are 11 local governments, a Northern Virginia TID, a Hampton Roads region economic development authority (EDA), the Virginia Commercial Space Flight Authority, the Virginia Department of Aviation, and VDOT. By the end of FY16, a decade since its creation, a total of 36 applications had been made for TPOF assistance and 24 grants had been awarded (Layne, 2016b).

In addition to revising award eligibility in 2015, the Virginia General Assembly created a new source of funding for the TPOF. The fund is now held within the Transportation Trust Fund (which is within the Commonwealth Transportation Fund), and one-third of the interest, dividends, and appreciation accruing to the Transportation Trust Fund and the Highway Maintenance and Operating Fund is now directed to the TPOF, in addition to any future funds contributed by a general appropriations act, interest accruing on TPOF balances, and revenue coming from any other public or private source (VDOT, 2016e). Although annual interest, dividend, and appreciation earnings in the Transportation Trust Fund and Highway Maintenance and Operating Fund are variable, in FY16 this new combined source of funds provided about \$970,000 to the TPOF (Upson, 2016).

While reviewing the TPOF award recipients shown in Appendix F, the reader should recall that (1) the original guidelines required the TPOF Program to evaluate transportation

projects explicitly for their potential to tap private sector resources in addressing transportation needs on record in the adopted state, regional, or local transportation plan (VDOT, 2005), and (2) funds were appropriated by major acts of the Virginia General Assembly prior to 2014.

Coal and Gas Business License Taxes

For decades, all Virginia jurisdictions have been permitted to impose taxes for coal, oil, or gas severance from the earth. Historically, such taxes have been imposed in the southwest region of the state where coal deposits are relatively abundant. Current statutes are summarized as follows:

- Code of Virginia § 58.1-3712 allows a “license tax on every person engaging in the business of severing gases from the earth” of at most 1% on gross sales receipts of natural gas.
- Section 58.1-3713 allows an identical additional license tax on gross sales receipts of gas, the proceeds of which (less, since 1988, 25% for support of the Virginia Coalfield Economic Development Authority [VCEDA] by VCEDA member jurisdictions) are specifically dedicated to a “Coal and Gas Road Improvement Fund” for public roads of the jurisdiction although with a large portion available for water and sewer system construction or repairs and for gas line construction.
- Section 58.1-3713.4 allows a second additional tax on gross sales receipts of gas of up to 1% to be paid to the jurisdiction general fund, with VCEDA member jurisdictions paying 50% of these revenues for support of the VCEDA.
- Section 58.1-3741 allows a severance tax of three-fourths of 1% on gross receipts of coal sales or use of coal from small mine producers and 1% on coal sales or use of coal from large mine producers, the revenues from which flow in practice to jurisdiction general funds; the same statute allows an additional severance license tax at the same rates on sales or use of coal, the revenues dedicated to a local coal road improvement fund as established in §58.1-3713, although a portion may lawfully be used for water, sewer, and natural gas lines in the jurisdiction in accordance with §§ 58.1-3713 and 58.1-3713.01.

To summarize, some severance tax revenues flow specifically to local public road improvement funds (which also fund water, gas, and economic development projects as permitted by the Code of Virginia) whereas other revenues flow to jurisdiction general funds and potentially from there directly to jurisdiction road projects or to higher cost revenue sharing projects with VDOT. According to Knapp and Kulp (2015) in *Virginia Local Tax Rates, 2014*, seven counties and one incorporated city reported imposing severance taxes for their general funds and for local coal and gas road improvement funds: the City of Norton and the counties of Buchanan, Dickenson, Lee, Russell, Scott, Tazewell, and Wise. All of these jurisdictions are members of the VCEDA and thus pay a portion of their road improvement funds to support VCEDA.

To gauge the potential importance of severance tax revenues to these localities, annual revenue estimates were derived from several sources as follows. Recent annual levels of coal and gas severance taxes flowing to local general funds and to local coal/gas road funds, aggregated for the period FY2011-2015, are drawn from jurisdiction comprehensive annual financial reports and financial statements as shown in Table 1. Local documents readily identify shares of local coal/gas road funds spent on road improvement projects versus other permitted uses of the funds. A 5-year period is aggregated since annual revenues can be highly variable.

Table 2 shows magnitudes of recent revenue sharing matches to VDOT grants in the counties of the two VDOT residencies in which coal and gas severance and license taxes are imposed (Bennett, 2016; Watson, 2016).

In Figure 1 back-calculated estimates by the VCEDA of total coal and gas severance revenues in its member jurisdictions for recent years are shown (Jordan, 2015, 2016). An estimated total of \$289.4 million was collected for coal and gas severance revenues in VCEDA member jurisdictions over the period FY10-16, but this total is based only on the coal and gas severance revenues of which the Code of Virginia provides the VCEDA a share. Data for FY16 were accurate as of August 15, 2016.

Table 1. Coal/Gas Severance Tax Revenues and Expenditures for Buchanan, Russell, Tazewell, Dickenson, and Wise Counties FY11-15

| Revenue or Expenditure Instrument | Buchanan County | Russell County^a | Tazewell County | Dickenson County | Wise County |
|--|------------------------|-----------------------------------|------------------------|-------------------------|--------------------|
| Coal Severance Tax Revenues to Local General Fund | \$62,348,000 | \$4,970,000 | \$6,282,000 | \$14,667,000 | \$21,439,000 |
| Gas Severance Tax Revenues to Local General Fund | \$4,795,000 | 0 | \$1,307,000 | \$5,839,000 | 0 |
| Coal/Gas Severance Tax Revenues to Local Road Fund | \$53,313,000 | \$4,970,000 | \$7,589,000 | \$20,759,000 | \$20,250,000 |
| Coal/Gas Road Funds Spent on Road Improvements | 57% | N/A ^b | 62% | 5% | 18% |

Sources: Buchanan County Virginia (2011, 2012, 2013, 2015, 2016); Tazewell County Virginia (2011, 2013a, 2013b, 2014, 2016); Dickenson County Virginia (2012a, 2012b, 2014a, 2014b, 2016); Wise County Virginia (2012, 2013, 2014, 2015, 2016). All figures are rounded.

^a Data provided by Thompson (2016), Russell County Treasurer.

^b Data not provided.

Table 2. Recent Local Jurisdiction Commitments of Funds to VDOT Revenue Sharing Projects

| Time Period Covered | Lebanon Residency | | | Wise Residency | |
|----------------------------|--------------------------|-----------------------|--------------------------|-------------------------|--------------------|
| | Buchanan County | Russell County | Tazewell County | Dickenson County | Wise County |
| FY11-15 | \$10,260,000 | \$4,800,000 | \$1,250,000 ^a | \$7,100,000 | \$5,500,000 |
| Annual average | \$2,052,000 | \$960,000 | \$625,000 ^a | \$1,420,000 | \$1,100,000 |
| FY15 | \$2,000,000 | \$600,000 | \$650,000 | \$1,500,000 | \$250,000 |
| FY16 | \$1,500,000 | \$500,000 | \$700,000 | \$1,000,000 | \$218,750 |

^a FY14 and FY15 only; for FY11-2013, contributions are either not available or 0.

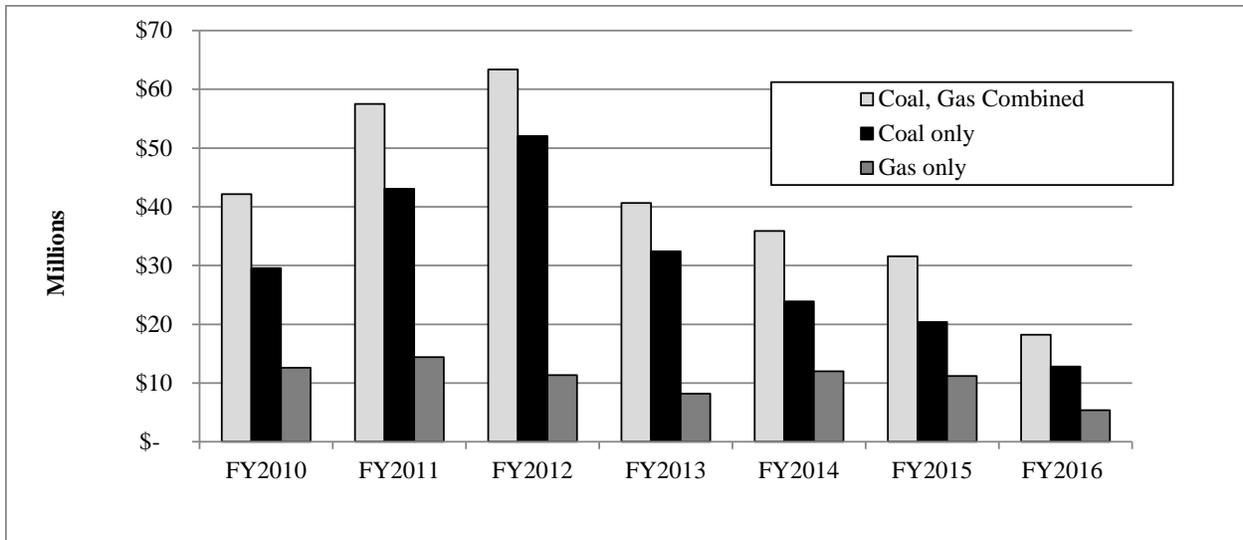


Figure 1. Total Coal and Gas Severance Revenues in VCEDA Member Jurisdictions Estimated From VCEDA Support Funding

Another source of statewide annual severance revenue data is the category “Other Local Taxes” in the *Comparative Report of Local Government Revenues and Expenditures* compiled by VAPA (VAPA, n.d.). Data for this report combine coal, gas, and oil severance tax revenues in a single figure for a jurisdiction, according to the *Uniform Financial Reporting Manual* (VAPA, 2015). Figures 2 and 3 show severance jurisdictions grouped by severance revenue magnitudes. All jurisdictions shown are required to report these revenues annually to VAPA.

In another category of the *Comparative Report of Local Government Revenues and Expenditures*, “Capital Projects for General Government,” VAPA tracks annual local jurisdiction expenditures on capital projects, defined in the *Uniform Financial Reporting Manual* (VAPA, 2015) as expenditures of funds for the construction or acquisition of major new facilities “having a relatively long life.” New streets, roads, and bridges are in this category. (In contrast, maintenance of existing streets, roads, and bridges is reported as capital outlay.)

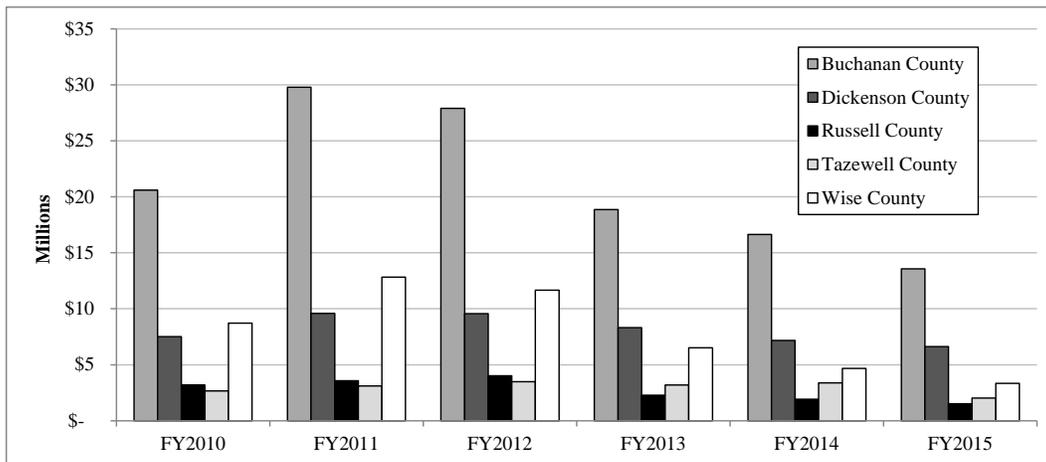


Figure 2. Coal, Oil, and Gas Business License Tax Revenues (\$), Commission on Local Government

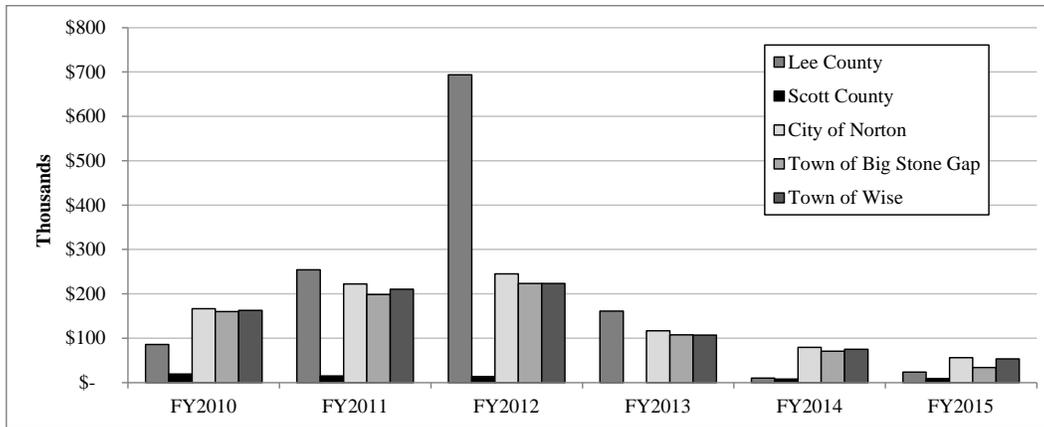


Figure 3. Coal, Oil, and Gas Business License Tax Revenues (\$), Commission on Local Government

Buchanan and Wise counties reported expenditures to VAPA over FY11-15 in the Capital Projects for General Government subcategory of “Streets, Roads and Bridges.” In this subcategory, Buchanan County spent more than \$7 million in 3 of the 5 years for an average annual expenditure of \$6.2 million and a total of nearly \$31.2 million. Overall, Buchanan County expenditures for new streets, roads, and bridges accounted for about 84% of its funds reported as “Transfers from General Government” (i.e., from county general funds) over the period. Wise County spent an average of \$3 million annually on new streets, roads, and bridges over the same period for a total of nearly \$15.3 million or about 24% of its total funds reported as “Transfers from General Government.” Taken together, revenue data presented here would seem to conclusively show that coal and gas severance taxes have played major roles in supplying local general fund revenues supporting streets, roads, and bridges in these jurisdictions.

Since natural gas severance tax statutes and the local gas road improvement statute apply statewide, the locations of coalbed methane deposits and Marcellus Shale deposits indicate where potential gas road improvement funds and infusions to general funds might become available in the future for transportation purposes under existing tax statutes (Code of Virginia § 58.1-3712 et seq.). Appendix G shows natural gas deposits and the Marcellus Shale distribution in Virginia.

Other Virginia Programs

Commonwealth’s Development Opportunity Fund

The COF, formerly the GOF, as mentioned previously, was established by Chapter 859 of the 1996 Acts of the Virginia General Assembly (now Code of Virginia § 2.2-115). The program was amended solely for the addition of ethics regulations and renamed in Chapter 763 of the 2015 Acts of Assembly. It remains in all other regards the same discretionary fund of the Governor for matched performance grants in areas of the state with relatively high unemployment or poverty levels. The fund offers monetary incentives to help political subdivisions of the state attract job-creating and investment-generating enterprises to Virginia and to incentivize enterprises to stay if already located in the state (§ 2.2-115).

The COF is the fourth fund in a continuous succession of discretionary funds of this specific type, i.e., with a central active role for the political subdivision, economic performance criteria the main determinant of the award, and transportation access a recognized component of an eligible project. As with the two funds preceding the first GOF, program guidelines were developed by the VEDP in cooperation with the Office of the Governor, in compliance with parameters established in the respective legislation (VEDP, 2014). Specific eligible uses of COF funding include “road, rail, or other transportation access costs beyond the funding capability of existing programs” (Code of Virginia § 2.2-115), and for this reason the COF is within the scope of this study.

The COF program is administered by the VEDP, an agency of the Virginia Department of Commerce and Trade, and it requires preference for projects in jurisdictions of relatively high unemployment. Grants are made directly to state political subdivisions and require an exact local match in cash or kind. A jurisdiction may make an in-kind match that directly benefits the enterprise, but private contributions from parties that may benefit from the enterprise decision to locate or expand in Virginia are not allowed. As with the TPOF, no government source of funds may be used for the local match, but the Tobacco Region Opportunity Fund (TROF) may provide up to one-half of the local cash match for an award. “Local Enterprise Zone incentives” (VEDP, 2014; VEDP, 2015a) also count toward the match when made after the award is announced. In general, the local match must be completed by the “performance date” for job creation and capital investment, typically 3 years from the award. The political subdivision (i.e., applicant) is responsible for repayment of grant funds should clawback provisions be exercised.

COF assistance is calibrated to the expected level of economic impact caused by the proposed business investment, and a jurisdiction’s unemployment and poverty rates play major roles in setting eligibility parameters for a project. For minimum eligibility, a project must commit \$5 million and create 50 new jobs at the prevailing average wage rate excluding fringe benefits. For general eligibility, a project that commits \$50 million in capital investment with 50 new jobs is on an eligibility par with a project that commits \$100 million in capital investment with 25 new jobs. The new jobs must on average carry the prevailing annual wage rate excluding fringe benefits, but if the wage of the new jobs exceeds the prevailing wage rate, the jobs number requirement may be reduced. Eligibility parameters are adjusted in a lenient manner in jurisdictions that have higher than average unemployment or poverty rates and in jurisdictions that have higher rates of both.

The new jobs to be created with a COF award are defined in detail in the *Guidelines for the Governor’s Development Opportunity Fund Program* (VEDP, 2014):

“New job” means new permanent full-time employment of an indefinite duration at the company’s facility in the locality, for which the standard fringe benefits are provided by the company for the employee, and for which the company pays an average annual wage of at least \$[insert the company’s projected average annual wage].

Each new job must require a minimum of either (i) 35 hours of an employee’s time per week for the entire normal year of the company’s operations, which “normal year” must consist of at least 48 weeks, or (ii) 1,680 hours per year.

Seasonal or temporary positions, positions created when a job function is shifted from an existing location in the Commonwealth, and positions with construction contractors, vendors, suppliers and similar multiplier or spin-off jobs shall not qualify as new jobs.

As a condition of award, the jurisdiction (i.e., neither the VEDP nor the Commonwealth) must enter into a performance agreement with the business that binds and documents the performance measurements and expectations from the COF grant. The performance agreement will reflect specific statutory economic criteria including, for example, the general requirement that new jobs must be shown to be additional to existing jobs (as well as “jobs saved”) and must be maintained at least through the performance date specified in the performance agreement, with the exact meaning of “maintain” defined in detail in the COF guidelines. An applicant should be prepared for a return on investment analysis by the VEDP, which may obligate the business to maintain performance targets beyond the performance date. Moreover, it is considered highly desirable that at least 30% of the new jobs be offered to “residents” as the term “resident” is defined under Code of Virginia § 58.1-302. The COF guidelines also discuss cross-border projects, intrastate enterprise relocations, and the definition of “capital investment” in detail.

In determining the level of award assistance to recommend for a project, the COF guidelines (VEDP, 2014) state that the VEDP should consult the Fiscal Stress Index maintained by the CLG. The maximum COF grant was set at \$1.5 million through FY15, with exceptions only for “very unique” projects of value to the region or state and to the locality. Yet as with the TPOF, applicants are not restricted to one COF grant per fiscal year.

The VEDP administered 118 COF awards to 59 local jurisdictions hosting 110 business enterprises over the period FY12-15 (jurisdictions and/or enterprises may receive more than one award in a fiscal period). Two projects reported the specific award purpose of road building. In FY13, Fairfax County added to its attractions for Amazon Web Services to establish a new presence there by arranging a \$500,000 COF incentive grant for road and building improvements, and in FY14, Mecklenburg County added to its attractions for a local Microsoft expansion by arranging a \$1.6 million COF incentive grant for road construction and water and sewer utility improvements (Earl, 2016). Fifteen other projects over the 4-year span reported “infrastructure improvements,” which may have included road construction or improvements since according to the VEDP: “For the most part, these are aggregated with other infrastructure improvements including rail, utility access and grading the site” (Garka, 2016).

According to VEDP guidelines for the COF Program (VEDP, 2014), the application for a COF award is composed of a letter to the VEDP from the community with project and performance goal descriptions and a letter from the enterprise partner indicating that only one site in Virginia is under consideration for the project and that without COF assistance, the project might locate outside Virginia. Exact discussion points for the application letters are provided in the guidelines.

COF award announcements are exclusively reserved for the Office of the Governor.

Governor's Agriculture and Forestry Industries Development Fund

Chapter 466 of the 2012 Acts of the Virginia General Assembly created a new economic development fund in the Virginia Department of Agriculture and Consumer Services for the advancement of agricultural and forestal industries. The Governor's Agriculture and Forestry Industries Development (AFID) Fund (Code of Virginia § 3.2-303 et seq.) offers, at the discretion of the Governor, performance grants and occasional loans to political subdivisions of Virginia seeking to host enterprises consisting of value-added or processing facilities using Virginia-grown products, according to the program guidelines (Virginia Department of Agriculture and Consumer Services, 2012a).

The AFID Fund, dubbed the "country cousin" of the COF, is a statewide economic development opportunity fund like the COF and the revised TPOF, and like the other programs, awards are made at the Governor's discretion (Virginia Department of Agriculture and Consumer Services, n.d.). Like the COF, eligible projects include "road, rail, or other transportation access costs beyond the funding capability of existing programs" (Code of Virginia § 3.2-304). The business beneficiary must create new jobs or create new private investments "for the purposes of adding value or further processing Virginia grown agricultural or forestry products" (Virginia Department of Agriculture and Consumer Services, 2012b). AFID fund grants are limited to a maximum of 25% of qualified capital investment and cannot exceed \$250,000, according to the AFID fund program summary (Virginia Department of Agriculture and Consumer Services, 2012b). The requirement for the project to use Virginia products whose availability and affordability may be dependent on forces of nature is eased by the provision that "a minimum of 30% of the agricultural or forestry products to which the facility is adding value will be grown or produced within the Commonwealth of Virginia in normal years" (emphasis added). Nevertheless, according to the AFID fund program summary, higher percentages are preferred over lower percentages.

As with the COF, a performance agreement between the applying political subdivision and the business enterprise accompanies each grant. According to the AFID fund guidelines (Virginia Department of Agriculture and Consumer Services, 2012a), it will include a 100% clawback provision executable by the grantee (i.e., political subdivision) if at any time the Secretary of Agriculture and Forestry or the grantee concludes that the business beneficiary will be unable to meet at least one-half of the Virginia-grown products or new jobs or capital investment requirements by the performance date.

The Secretary of Agriculture and Forestry, VEDP, Virginia Department of Agriculture and Consumer Services, and Virginia Department of Forestry jointly advise the Governor as to guidelines and criteria for awards. In addition to familiar economic development grant performance criteria on new jobs created, new committed capital investment, and new state tax revenue growth, an AFID fund grant includes the performance criteria of the extent of use of Virginia-grown products in the project, the anticipated impact on other agricultural and forestal producers, a return-on-investment evaluation to guide the level of assistance, and an evaluation of potential impacts on existing similar (i.e., competing) businesses in the vicinity of the new development.

The AFID fund program disqualifies projects in which enterprise relocation or consolidation will, or even could, cause substantial job losses within the enterprise, although exceptions may be made with the consent of the Secretary of Agriculture and Forestry with written notice of justification to the Senate Finance Committee and House Appropriations Committee.

An AFID fund grant requires an equal or greater cash or in-kind match from the political subdivision(s) or another qualified agency (as with the TPOF and CDOF, TROF grants are the only acceptable government-related source match, but match funds may also come from an EDA). The match generally should be made within 3 years of grant receipt but may be spread over 5 years (at most).

To date, grants have been for building or site improvements rather than for roads, although roads are eligible projects for AFID fund assistance (as they are for COF economic development assistance) if their costs exceed available funding from other sources. Moreover, the value of a road (or other physical site improvements) built by a locality to benefit a specific project qualifies as an in-kind match from the political subdivision sponsoring the enterprise beneficiary of an AFID fund grant (S. Versen, personal communication). Some local matches have included a parcel of land donated by Nottoway County (Office of the Governor, 2014a); the rebate of the City of Hopewell's local machinery and tool tax (Office of the Governor, 2014b); and cash from the EDA for the City of Lynchburg (Office of the Governor, 2014c).

COF and AFID fund awards are made simultaneously on occasions when both programs can offer incentives for an enterprise to locate in a Virginia locality, as in the recent awards announced by the office of the Virginia Secretary of Commerce and Trade for Ballast Brewing in Botetourt County (Virginia Secretary of Commerce and Trade, 2016). As with COF awards, AFID fund award announcements are exclusively reserved for the Office of the Governor.

Virginia Community Development Block Grant Program

HUD allocates annual community development block grant (CDBG) funds to the VDHCD for the support of a variety of community improvement activities in Virginia. Awards are made only to units of local government by the Virginia CDBG Program on a competitive grant basis. Communities eligible for these competitive grants are those that are not "entitlement" communities, meaning that they do not receive direct HUD CDBG funds based on population income statistics. (Communities that are eligible for direct HUD grants are discussed under federal programs.) One of numerous VDHCD programs, the Virginia CDBG Program has guided these competitive grants to Virginia localities since 1982.

The goals of the Virginia CDBG Program originated in the federal Housing and Community Development Act of 1974 (VDHCD, 2016a):

1. Give maximum feasible priority to activities that will benefit low- and moderate-income families.
2. Aid in the prevention or elimination of slums and blight.

3. Fund activities that are designed to meet other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the community.

The 2016 program guide (VDHCD, 2016a) expands the interpretation of the low- and moderate-income population and permissible activities, but eligible recipients of Virginia CDBG funding remain exclusively units of local government that are ineligible to receive direct HUD grants as discussed later. The 12 cities, 90 counties, and 181 towns that qualified in 2016 to compete for Virginia CDBG Program grants are listed in the back of the 2016 program guide (VDHCD, 2016a).

The 2016 program guide states that most annual awards are made through the “community improvement” grant category. In this category, some balances were reserved from its 2016 HUD allocation for multi-year projects and for “Open Submission” projects that apply for funding on a first-come first-served basis from January through September. Unreserved balances are awarded through the Competitive Grant Program, which therefore is subject to funding variation if actual HUD allocation differs from the expected allocation.

The first goal and objective of the Virginia CDBG program is to “provide financial and technical support for the comprehensive improvement of residential areas” including road conditions (VDHCD, 2016a). Road expenditures are an explicitly eligible use of community improvement grant funds through the “Open Submission” Community Economic Development Fund Program. This program is the designated avenue for projects assisting a basic industry, and it requires the local government to have a private sector, for-profit business partner that will pledge to meet jobs and investment requirements that are similar in concept to those of the COF Program. A local contribution to the project is also required. Required levels of full-time job creation, financial commitment by the enterprise and the local government, and degree of financial assistance offered in the CDBG award all vary with the degree of local fiscal stress, as determined by the VDHCD, with higher economic stress corresponding to a lower required level of local commitment. Projects that meet at least one of the national objectives of the Virginia CDBG Program and meet the specified requirements will be offered an award as long as funds last.

In the Competitive Grant Program funded from unreserved balances, community streets are eligible activities for community improvement grant funds under three project types (VDHCD, 2016a). First, a comprehensive community development project addresses needs identified from an assessment of local residents, focusing on housing conditions rather than “deferred maintenance of infrastructure,” but reflecting a “full range of need areas including housing, water, sewer, streets, drainage, [and] sidewalks” that affect a community’s functionality (VDHCD, 2016a). The program guide also notes specifically that CDBG funds will be awarded when

specific street sections are targeted for improvement; the targeted sections are not built to VDOT or community standards and are not part of a current public maintenance system; all higher priority community needs will be addressed using CDBG or other funding; and the applicant locality can provide documentation that no other funding is available to address these improvements.

Second, an economic development project addresses one or more of the following project activities at the enterprise or sheltered-workshop level: job creation and retention, business district revitalization, site redevelopment, and development readiness. Both on-site and off-site improvements—implying road improvements—appear to be eligible for funding in connection with these activities, subject to adequate documentation of “clear need.”

Third, a community facilities project directly addresses community assets including “water services, wastewater services, drainage improvements, and street improvements” (VDHCD, 2016a).

The 2016 program guide (VDHCD, 2016a) provides ample detail for each program type and each required or permissible activity type within each program. A local jurisdiction can submit a Competitive Grant application for preview by the VDHCD over the November-December period before the application year. Ultimately, the application will be qualitatively evaluated and scored against other jurisdiction applications on the basis of the relative fiscal stress of the local government, the regional priority of the proposed project, the needs addressed by the project, the likelihood of timely completion and a positive long-term outcome, a comparison of project cost with committed (non-CDBG) resources, whether the project is a high priority for the applicant (i.e., adequate committed resources and political support), and whether the proposed project meets one (preferably more) of the national objectives of the CDBG Program (VDHCD, 2016a).

An example of a comprehensive community development project involving road construction occurred in the Town of Bassett in Henry County. In October 2012 it was announced that the infrastructure portion of the project (i.e., moving utility poles and cables, replacing water and sewer lines, installing storm drains, and constructing roads) was ready to get underway following the completion of the housing phase. Road conditions and drainage problems were cited as long-standing problems in the steep hilly area, increasing the complexity and total cost of the project to more than \$2 million. The Virginia CDBG Program contributed \$1.4 million to the project with the balance provided partly by the Virginia Department of Emergency Management and partly by a balance remaining in the county’s Rural Addition Program, an initiative to upgrade private subdivision streets for acceptance into VDOT’s system (Hall, 2012).

Another example occurred in Brunswick County in 2009 in which the Southside Planning District Commission played a key role by preparing the grant application for CDBG assistance. In addition to housing inspections and site visits, a door-to-door survey assessed the needs of the 51 residents, of whom 46 were low- and moderate-income persons. The project ultimately funded the rehabilitation or reconstruction of 11 homes and the demolition of two vacant structures; installation of water line and gravity sewer lines, and the construction of about 3,000 feet of residential street. The Virginia CDBG Program contributed about \$1.1 million and the County of Brunswick and Town of Lawrenceville contributed a total of about \$25,000. The county participated in extensive planning for the project with the VDHCD (Thompson, 2012).

CDBG funding of streets and roads is always subordinate to higher priority needs of communities, as defined by the national objectives of the CDBG Program, but in the VDHCD’s

Consolidated Plan Annual Performance Evaluation Report for FY13, Virginia CDBG staff imply the importance of street improvements to local governments: “CDBG-eligible communities have given a high priority to the areas of street, sewer and water and commercial and industrial infrastructure. Grantees completed 29 sewer and water projects, 6 street improvements, and 4 sidewalk improvement projects [in FY12]” (VDHCD, 2013).

To underscore this fact, on May 11, 2016, the Office of the Governor announced that Wise County will receive \$165,000 for the Guest River Sewer and Eisenhower Road Extension Project through the CDBG Construction Ready Water and Sewer Fund Program (Office of the Governor, 2016).

Virginia Tobacco Region Revitalization Commission

In November 1998, Virginia became 1 of 46 states (joined by the District of Columbia, Puerto Rico, and the Virgin Islands) that entered into the Tobacco Master Settlement Agreement (MSA) with the four largest tobacco companies in the United States. The MSA was devised to compensate states, via annual payments made “in perpetuity” by the companies, for part of their tobacco-related health care costs; to bring to an end specific tobacco marketing strategies; and to dissolve three identified tobacco-promoting associations. In return, tobacco companies won exemption from further tort liability for tobacco-caused illnesses or mortality.

The Virginia Tobacco Indemnification and Community Revitalization Commission was created as a political subdivision of Virginia in 1999 (Virginia Acts of Assembly, 1999) to administer 50% of the funds that Virginia received under the MSA. The legislation stipulated that the Commission use the moneys in the Fund to make payments to tobacco farmers and for projects in tobacco dependent communities. Code of Virginia § 3.2-3101 further states that the commission was to identify the “appropriate recipients of moneys in the Tobacco Indemnification and Community Revitalization Fund” and to distribute the funds for purposes of offsetting expected economic losses stemming from “investment in specialized tobacco equipment and barns and lost tobacco production opportunities associated with a decline in quota” and revitalizing tobacco-centered communities as they shifted away from tobacco farming.

The charge of indemnification of tobacco farmers was ended by 2013, and the charge of regional “revitalization” has now become the principal purpose of allocations of MSA funds. In 2015, legislation was adopted to rename the Virginia Tobacco Indemnification and Community Revitalization Commission the Virginia Tobacco Region Revitalization Commission (VTRRC) although it has continued to be known commonly as the Virginia Tobacco Commission (VTC) (Code of Virginia § 3.2-3100 et seq.). Other salient requirements for the new phase of VTC operations include adoption of an explicit program policy for the TROF, equal matching of VTC grant funds from non-VTC funds, adoption of a biennial strategic plan, limits on in-kind matches, and more closely quantified evaluation of proposals and tracking of awarded projects (Virginia Acts of Assembly, 2015a). The new strategic plan adopted in 2016 moves the commission toward “sustainable fiscal management of the Commission’s assets . . . and will allow it to serve the Tobacco region into perpetuity” according to the FY15 Annual Report (VTRRC, 2016c; VTRRC, 2016d). According to the FY16 annual budget, the VTC planned to

make program outlays of \$47.75 million from a starting fund balance of \$266.5 million (VTRRC, 2015a). The approved 2017 budget shows about \$30.3 million in program outlays (VTRRC, 2016c).

A definitive meaning for the term “revitalization” of Virginia’s formerly tobacco-dependent southside and southwestern economies was explored by the VTC in preparation for the approaching exclusive focus on the narrowed mission. According to a 2009 study commissioned by the VTC, “[e]conomic revitalization can be defined for the tobacco-dependent communities in Virginia as [development of] a more stable, diversified, and growing economy that leads to higher living standards” (Chmura Economics and Analytics, 2009). In practice this definition has led the VTC to fund new or improved roads to support regional economic diversification for the formerly tobacco-dependent jurisdictions.

Although the VTC restricts its resources largely to industrial access roads (S. Williams, personal communication), a scan of awards since 2011 (i.e., awards that occurred under the 2012 Strategic Plan) shows that the VTC has funded road projects that are consistent with the VTC mission and strategic plan. Five of the eight program areas made awards in recent years that included road construction or improvements as described here, and a unique feature of VTC funding was that several of its programs could be simultaneously tapped to provide funding under different criteria named in the 2012 strategic plan (VTRRC, 2012).

Local governments and IRS-certified nonprofit organizations located in the former tobacco region are eligible for the VTC’s grant programs. Virginia jurisdictions that are eligible for grant support from the VTC Fund are shown in Appendix H.

Megasite Grant Program

Launched in FY11, the Megasite Program was created to support a small number of “large, fully-assembled and publicly-owned industrial sites across the tobacco region” that would attract significant “real and tangible” private capital investment (i.e., above \$250 million) and create at least 400 new full-time jobs at each site (VTRRC, n.d.a.). Eligible megasites in the MSA region had been identified prior to the start of the program, and the eligible pool of applicants for subsequent awards from the program was pre-defined as those eight megasite applicants that were successful in the first grant round in FY11.

The MAMaC megasite located off I-95 in Greensville County (a cooperative undertaking of three local jurisdictions) is a good example of the significant funding potential from the VTC that is also uniquely acceptable as a match for other transportation grant funding sources available in the state, including VDOT. In the original group selected in FY11 for a VTC megasite award, Greensville County won VTC funding for the MAMaC through FY15 (VTRRC, 2015b). In pursuit of this development prospect, Greensville County had also been awarded funds under VDOT’s Economic Development Access Program in December 2012 (VTRRC, 2012) and a grant from VDOT’s Revenue Sharing Program in FY14 (MAMaC, 2013). With the fourth VTC grant made in FY14 to serve as a match to the VDOT grant of that year, it was announced that MAMaC funding was complete (MAMaC, 2014), although, as noted, another \$1.48 million was awarded by the VTC in FY15.

This project was a good example of the principle of the 2012 VTC strategic plan that priority in VTC awards should be given to projects that demonstrate that all financing necessary to complete the project was available. In this project the jurisdictions sponsoring the MAMaC megasite development matched VDOT funding for the road project through local funds and the VTC award (MAMaC, 2013).

Economic Development Programs: Southside Economic Development Grant Program and Southwest Economic Development Grant Program

The Southside Economic Development Grant Program (SSED) and the Southwest Economic Development Grant Program (SWED) each follows location-sensitive grant strategies for “building regional economic development capacity to diversify the economic base through creation or improvement of sites” (VTRRC, 2016a). In both programs, the VTC favors supporting private capital investment and job creation by means of awards to projects with imminent potential for tangible development.

SSED funds are distributed annually by formula to its 22 jurisdictions, which can accumulate balances in preparation for higher-cost undertakings but may not overspend them as a rule, according to the SSED guidelines (VTRRC, 2016a; VTRRC, 2016b). SWED funds are distributed competitively in accordance with criteria in the VTC strategic plan and can provide grants to all southwest counties, cities, and towns and to nonprofits within the region (VTRRC, 2016b), including planning district commissions, economic development authorities, industrial development authorities, utility authorities, service authorities, historic foundations, arts and culture sponsors, tourism sponsors, and educational institutions, if past awards are a guide.

In recent guidelines, the geographical intermingling of former tobacco and current coal communities is implied insofar as the SWED particularly favored proposals that offered a local match toward a federal grant from the multi-agency Partnerships for Opportunity and Workforce and Economic Revitalization (POWER) Program (U.S. Economic Development Administration, n.d.) for coal communities harmed by recent coal-restricting energy regulations (VTRRC, 2016b). Appendix H distinguishes SSED from SWED jurisdictions.

Staff recommendations for awards show that the VTC programs—although specialized—play flexible roles that respond to other available funding sources with cross-matching potential. For example, the FY16 SSED Committee recommended an award to Dinwiddie County for the Patton Property, to be transferred to and managed through the separate TROF Program specifically for property acquisition and matched by (1) funds from VDOT’s Access Road Program, (2) local funds put toward access road and offsite infrastructure, and (3) private funding for infrastructure development. The distinguishing attraction of this application was the “active economic development prospect”—the company Project Minecraft, which offered 200 jobs at an average annual wage of \$49,018 (VTC, 2015c).

An example of the VTC’s cross-program grant making was the allocation of about \$328,000 from the FY16 Special Projects Program for an access road into undeveloped areas of the Prince Edward Industrial Park. Prince Edward County is entitled to a small annual allocation of SSED funds and had accumulated a balance of these funds at the time of the special projects

allocation. VTC grant funds would match VDOT access road funds and a cash match by the county for construction of the new road (VTC, 2015a).

VTC awards are also readily repurposed as shown in two SSED awards made in the fall of 2012 and spring of 2013 to Cumberland County to fund an access road into the Industrial Development Authority's property. Cumberland County subsequently requested repurposing of both VTC grants to waterline extensions largely because of the emergence of a "manufacturing prospect" that could serve to qualify the desired access road into the industrial park for VDOT access road funds (VTC, 2013b).

An example of the VTC's focus on leveraging of road funding was in Mecklenburg County's request for its entire FY15 SSED allocation of \$1.15 million to fund a road widening and paving project serving the most recent Microsoft facilities expansion at the Boydton Plank Road Industrial Park. A matched grant of \$2.6 million from VDOT's Revenue Sharing Program was anticipated to help fund the county's commitment to upgrade the 2-mile road. A key factor in Microsoft's decision to expand operations at that location was reportedly the county's commitment to make the road improvements. For its part, Microsoft had already announced a \$1.3 billion investment at that location (VTC, 2014).

SWED recommendations also show awareness of other funding sources for which eligible SWED grantees qualify. For example, of the 10 recommended awards in FY13, 2 (Floyd Community Center for the Arts and the Riverside Development in Scott County) featured access road projects as major activities to be funded by VTC assistance. The SWED grant to the Floyd Community Center for the Arts was to serve as an exact match for a committed ARC grant, and SWED staff suggested that Scott County pursue both ARC local access road funding and TROF funding for the Riverside Development (VTC, 2012). In a FY16 recommendation for a Scott County EDA request, SWED staff recommended a grant to pay one-half of the requested access road expenses on the expectation that the applicant and the Tennessee Valley Authority would each offer road funding to raise a match. SWED cited the possibility of 300 jobs at an average hourly wage of more than \$31 to support the grant (VTC, 2015b).

Special Projects

Awards under the VTC Special Projects Program technically favor projects with at least three localities playing significant roles in financing and project management; projects for which the potential impacts would be so broadly regional that a special program category is required; and projects that are "so innovative in nature that they provide replicable models that could potentially reshape the economies of communities across the tobacco region" (VTRRC, n.d.b.).

As noted previously, the Prince Edward Industrial Park was such a project. In FY16, the special projects staff recommended an award to Prince Edward County for an industrial access road that had been in the works since 2008 with funds from the county, the Prince Edward County Industrial Development Authority, and the locality's SSED funding (VTC, 2015a). The awards would provide a match for VDOT access road funds and a cash contribution from Prince Edward County. The access road would serve two lots, each with an active prospect offering \$2 million in investment and more than 20 new jobs. Special projects staff counted it in the

project's favor that additional cash might be raised by the sale of a surplus lot and timber harvesting, potentially leading to further VDOT access road funding.

Tobacco Region Opportunity Fund

TROF awards are meant to assist economic development through direct interventions favoring enterprise launch funding in tobacco revitalization regions. However, in eligible jurisdictions TROF grants may comprise up to one-half of the cash match required for COF and AFID fund grants, both of which can include road construction as elements of economic development projects, or TROF awards may make the entire match for a TPOF grant that can also fund road construction. As previously noted, TROF funding can provide a full match for ARC and VDOT grants.

Federal Programs

Community Development Block Grant Program

The federal Community Development Block Grant (CDBG) Program was established by the Housing and Community Development Act of 1974 and is administered by HUD's Office of Community Planning and Development. The annual CDBG appropriation by the U.S. Congress to HUD is allocated by HUD to "entitlement" jurisdictions (only) within each state as identified by the U.S. Census Bureau and metropolitan area boundaries published by the Office of Management and Budget. As noted previously, "non-entitlement" jurisdictions in Virginia compete internally for Virginia CDBG awards.

By definition, entitled jurisdictions are (1) principal cities of Metropolitan Statistical Areas, (2) other metropolitan cities with populations of 50,000 or more, or (3) urban counties with populations of 200,000 or more (HUD, 2014a) where at least 51% of the area's residents are low and moderate income according to annually revised income limits. Low and moderate income individuals are identified by the U.S. Bureau of the Census by means of American Community Survey data as members of families whose incomes are 50% or 80%, respectively, of area median income (HUD, 2018b). Entitlement communities expend such grants independently of HUD although they "must give maximum feasible priority to activities which benefit low- and moderate-income persons" (HUD, 2014a). The size of a grant made to a specific jurisdiction is a function of a formula that takes into account local "community need, including poverty, population, housing overcrowding, age of housing and growth lag" (HUD, 2016b).

Virginia had 30 entitlement jurisdictions in FY16 that received direct CDBG funds totaling more than \$34 million (HUD, 2016a). Federal CDBG allocations ranged from more than \$4.9 million for Fairfax County to about \$84,000 for the City of Colonial Heights. HUD's direct grants to entitlement jurisdictions assist them in carrying out the programs they submit in a consolidated plan to address community needs. The provision of streets is an explicitly eligible expenditure of CDBG entitlement funds (HUD, 2001).

Historically, HUD entitlement grants have routinely funded street projects, as indicated in the *Guide to National Objectives and Eligible Activities for CDBG Entitlement Communities* (HUD, 2001). The guide identifies streets in numerous specific examples of types of projects that are eligible for CDBG funds as well as categorically in the introduction to the chapter on “Public Facilities and Improvements”:

Neither the statute nor the regulations define the terms “public facilities” or “public improvements.” However, in the CDBG program, these terms are broadly interpreted to include all improvements and facilities that are either publicly owned or that are traditionally provided by the government, or owned by a nonprofit, and operated so as to be open to the general public. This would include neighborhood facilities, firehouses, public schools, and libraries. Public improvements include streets, sidewalks, curbs and gutters.

Virginia entitlement communities made collective expenditures on street improvements and sidewalks in FY14 of nearly \$1.9 million, with a maximum outlay of more than \$600,000 for street improvements in the City of Norfolk (HUD, 2015). To protect foot traffic, the City of Christiansburg paid more than \$74,000 (91.6% of its total CDBG disbursement) for sidewalks in FY14. The City of Portsmouth made street improvement expenditures from CDBG revenues of \$1.2 million in FY13, which was nearly 44% of the Portsmouth CDBG disbursements for all eligible activities (HUD, 2014b).

In FY14, Virginia entitlement jurisdiction expenditures for street improvements made up 8.5% of total HUD CDBG disbursements in Virginia, the third largest expenditure category behind rehabilitation of single unit residential housing and water and sewer improvements (HUD, 2015). The corresponding share in FY03 was 6.4% (HUD, 2004). The CDBG National Expenditure Report shows that in FY14 entitlement jurisdictions nationwide spent 5.75% of CDBG disbursements on street improvements (HUD, 2018a).

Appendix I is a table of HUD CDBG–funded road and street activities in Virginia over program years 2000-2006 (HUD, 2007); no similar records for later years were located. However, electronic records showing expenditure categories in all Virginia entitlement communities are posted by HUD (HUD, 2018a).

USDA Rural Development

USDA Rural Development offers two programs in Virginia rural communities under which access streets/roads and street improvements are specifically eligible for assistance. Both programs are administered by the Virginia office of USDA Rural Development. A third set of programs can address street repairs after waste and water line improvements are made.

The first program, the Rural Business Development Grant Program, resulted from merging the largely intact former Rural Business Enterprise Grant Program and Rural Business Opportunity Grant Program in the Agricultural Act of 2014 (*Federal Register*, 2015). The Rural Business Development Grant Program offers competitive unmatched awards for “targeted technical assistance” to support growth of small and emerging businesses in rural jurisdictions, i.e., areas “outside the urbanized periphery of any city with a population of 50,000 or more.” Eligible applicants include towns, communities, state agencies, authorities, nonprofit

corporations, higher education institutions, federally recognized tribes, and rural cooperatives. A program award in the form of an “enterprise type grant” to a qualified business, defined as a business employing fewer than 50 people and generating less than \$1 million in annual revenue, allows a wide spectrum of eligible activities including “[a]cquisition or development of land, easements, or rights of way; construction, conversion, renovation, of buildings, plants, machinery, equipment, access streets and roads, parking areas, [and] utilities” (USDA, 2015b). A project funded by such a business opportunity grant must have a “reasonable prospect that the Project will result in the Economic Development of a Rural Area” (*Federal Register*, 2015).

The financial strength and expertise of the applicant are evaluated in the application process, and the applicant cannot have any delinquent debt to the federal government (*Federal Register*, 2015). Grants generally range from \$10,000 to \$500,000, with no statutory maximum on enterprise type grants although smaller grant sizes are given higher priority. Staff of Virginia Rural Development reported that this type of award might typically be \$100,000 or less (Ware, 2015); one such award to an eligible grantee (i.e., nonprofit or public body) located in an Amelia County industrial park was made some 12 years ago, but most industrial parks have difficulty qualifying as small or emerging businesses today (Ware, 2015).

The second program, the Community Facilities Direct Loan and Grant Program, provides grants or loan financing (or packages of both) for development of an essential community facility, defined as “a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area, and does not include private, commercial or business undertakings” (USDA, 2015a). Funds can be used for purchase, construction, or improvement of such facilities, and street improvements are explicitly listed as an eligible activity. The target community has a population of 5,500 or fewer and a median income of less than 80% of the state’s nonmetropolitan median household income. The lower the median community income and the more sparsely populated the community, the greater the proportion of grant element in the total award, with a maximum grant share of 75% of eligible project cost.

The Community Facilities Direct Loan and Grant Program is aimed at supporting the provision of essential public facilities in rural areas where it is possible that no incorporated civic authority exists and where other resources cannot be accessed “through commercial credit at reasonable rates and terms.” Applicants are therefore required to have “legal authority to borrow money, obtain security, repay loans, [and] construct, operate, and maintain the proposed facilities.” Moreover, the community must support the project and environmental review must be satisfactorily completed (USDA, 2015a). Stroud-Bickes (2015) cited easement restrictions as the reason no such loans had been made in Virginia as of 2015. A recent example of funding under the program includes a rural development loan for a performing arts center at Emory and Henry College. The project included a new entrance and access road for an estimated construction cost of \$800,000 (Maras, 2016).

The third set of programs, those associated with water and/or wastewater improvements, normally involves street repairs and improvements. Virginia Rural Development funds about 12 of these projects per year normally. Recent examples include a Wythe County water project to

install lines, hydrants, meters, and a groundwater storage tank and to conduct related street repairs and sewer projects in the Town of Clarksville and the Town of Kenbridge (Maras, 2016).

Applications for USDA Rural Development grants are accepted year-round, and applicants are to contact the Virginia office of USDA Rural Development (USDA, 2015c).

U.S. Department of Transportation: FAST Act Programs

When MAP-21 became effective in October 2012, numerous existing FHWA programs were either terminated or consolidated, yet existing sources of transportation funding were still insufficient to support MAP-21 throughout its eventual tenure. As a result, between expiration of MAP-21 in July 2015 and approval of the new federal transportation funding authorization in December 2015, extensions of MAP-21 consumed remaining HTF revenues and required additional general fund transfers to the HTF. In December 2015, a legislative successor, the FAST Act, was enacted. Funding under the FAST Act is dependent upon the transfer of another \$70 billion from the General Fund of the U.S. Government to the HTF over the lifetime of the legislation (2016-2020) in order to reach the \$225 billion in contract authority that was announced for the FAST Act (AASHTO, 2015).

FASTLANE Grants

The FAST Act is distinguished from its predecessors in that “for the first time in the U.S. Department of Transportation’s 50-year history, [the Act] establishes broad, multiyear eligibilities for freight infrastructure” (FHWA, 2016i). About \$1.2 billion annually was established for the new National Highway Freight Program. In addition, a portion of FAST Act funds is to be dispersed annually by competitive grants and loans to assist local governments, states, other political subdivisions and consortia thereof to improve freight corridors and intermodal transportation connections. These funds are to be administered under the Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies (FASTLANE) Program. The first application deadline was in April 2016. The FASTLANE Program was to award \$800 million in FY16, with reservations for rural and for smaller projects. Awards are to increase to \$850 million in FY17, \$900 million in FY18, \$950 million in FY19, and \$1 billion in FY20 (FHWA, 2016h).

The FAST Act replaced two freight networks established under MAP-21 with the National Highway Freight Network (NHFN) “to strategically direct Federal resources and policies toward improved performance of highway portions of the U.S. freight transportation system” (FHWA, 2016g). The national core of the NHFN is “the most critical highway portions of the U.S. freight transportation system determined by measurable and objective national data,” to which will be added, over time, all remaining interstate road miles and critical rural and urban freight corridors that “provide access and connection to the PHFS and the Interstate with other ports, public transportation facilities, or other intermodal transportation facilities” (FHWA, 2016g). Figure 4 shows the current NHFN in Virginia.

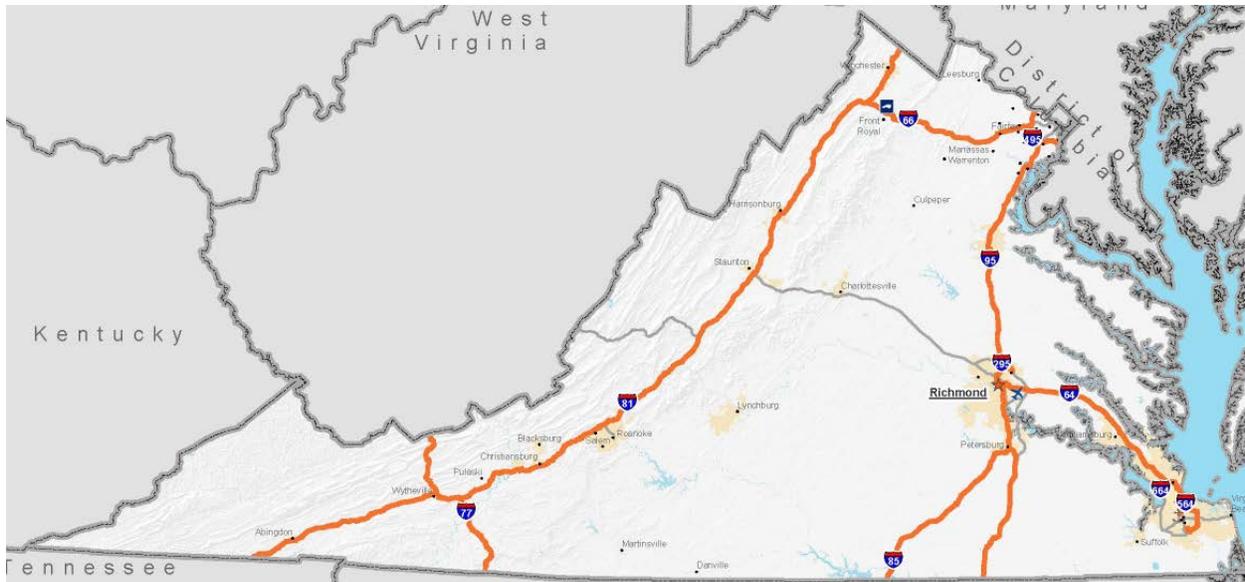


Figure 4. Current (2016) Virginia Portion of National Highway Freight Network

The FHWA identified eligible FASTLANE projects as highway freight projects on the NHFN; a highway or bridge project on the National Highway System, including the addition of capacity to the interstate system; a public or private freight rail, port, or intermodal facility project providing that “the project will make a significant improvement to freight movements on the National Highway Freight Network and that the Federal share of the project funds only elements of the project that provide public benefits” (FHWA, 2016h). A FASTLANE grant cannot exceed 60% of eligible project costs but can be supplemented with other federal funds to a total of 80% of eligible project costs. A wide set of activities is eligible both to develop the project and to execute it. A successful grant or loan project will create national or regional benefits cost-effectively, demonstrate evident need of (federal) assistance, “be based on the results of preliminary engineering,” have sufficient predictable sources of funding or financing to maintain operations, and “contribute to the accomplishment” of the national transportation goals set out in U.S. Code, Title 23, § 150 (FHWA, 2016f).

Local governments or a group of local governments, a metropolitan planning organization serving an urbanized area with a population above 200,000, a transportation district or public authority with a transportation function, and a political subdivision of a state or local government are explicitly eligible for FASTLANE grants and loans (FHWA, 2016f). A local jurisdiction should contact its local VDOT district staff to initiate an application.

Federal Lands Access Program

The Federal Lands Access Program (FLAP) introduced in MAP-21 was not substantially altered in the FAST Act. FLAP grants are made to states with federal lands managed by the National Park Service, the U.S. Forest Service, the U.S. Fish and Wildlife Service, the Bureau of Land Management, and the U.S. Army Corps of Engineers (FHWA, 2013a). Political subdivisions of the state (counties, towns, townships and tribal, municipal, or local governments) where title or responsibility for federal lands lies must be appointed to a program decisions committee (PDC), with VDOT and the FHWA, when convened for allocation of grants under the

FLAP. Current VDOT representation is provided by VDOT's LAD, and current program policy dictates that VDOT and the FHWA jointly determine the third member of the Virginia PDC (FHWA, 2013a). As under MAP-21, the program continues to exclude access facilities owned outright by a federal agency (FHWA, 2014), which since implementation of MAP-21 have been subsumed in the Federal Lands Transportation Program (FHWA, 2013b).

State allocations are determined by sorting states according to how much of the national total of federal lands managed by particular federal agencies lie within their boundaries. Those containing at least 1.5% are allocated 80% of available program funds, and those with less than 1.5% (Virginia is among these states) are allocated the remaining 20% (FHWA, 2014). Subsequent individual state allocations are formulaic according to the state's share, relative to all states, of total federally owned road miles (55% of funds); total recreational visitation (30%); total number of federally owned public bridges (10%); and total federally owned land area (5%). A match is required for FLAP funds.

The PDC can program FLAP funds to transportation planning, research, engineering, preventive maintenance, and construction or restoration of roads and bridges "located on or adjacent to, or that provide access to" federal lands (FHWA, 2013a). A program-eligible federal access facility is defined as "[a] public highway, road, bridge, trail, or transit system that is located on, is adjacent to, or provides access to Federal lands for which title or maintenance responsibility is vested in a State, county, town, township, tribal, municipal, or local government" (FHWA, 2013a).

Alternatively, the PDC can program funds to a wide range of other eligible expenditures: adjacent parking facilities, acquisition of scenic easements and scenic/historic sites, pedestrian and bicycle facilities, environmental interventions to protect the public and wildlife, roadside rest areas, and operation and maintenance of transit facilities. Yet the PDC is required to "give preference" to projects serving high-use recreational sites or economic generators identified by the federal land management agencies.

Of an annual national FLAP authorization of \$250 million in both FY13 and FY14 (FHWA, 2015b), the Virginia allocation of FLAP funds was around \$3 million in each year (Mooney, 2015). A single call for Virginia projects occurred in early FY14, answered by 13 applications and \$12.5 million requested. In the published approved projects for FY13 and FY14, VDOT is the "owner agency" of one-half of the facilities. Other owner agencies represented in the FLAP include the counties of Arlington and Prince William and the cities of Petersburg, Chesapeake, and Virginia Beach (FHWA, 2015b). For FY15-18, successful applications have been announced from the Prince William County Department of Transportation, Arlington County, and the City of Newport News (FHWA, 2016c). Virginia's FLAP allocation remained at about \$3.1 million for FY16 (FHWA, 2016d).

Accelerated Innovation Deployment (AID) Demonstration Program

Upon implementation of MAP-21 in FY13, the existing Technology and Innovation Deployment Program was amended to accelerate the spread of new strategic highway research findings and results, particularly those in pavement technologies. One of three initiatives under

the Technology and Innovation Deployment Program was the Accelerated Innovation Deployment (AID) Demonstration Program, replacing the former Highways for LIFE Program. Local governments and metropolitan planning organizations in Virginia are eligible to apply for AID demonstration funds as subrecipients applying through VDOT.

The AID Demonstration Program was budgeted \$15 million each in FY13 and FY14 for demonstration by deployment of (1) any proven highway innovation (in construction, planning, financing, environment, structures, materials, operations, etc.) that was not yet part of state agency practice (*Federal Register*, 2014), and (2) proven innovations championed by the Every Day Counts Program, a federal initiative begun in 2009 that solicits and promotes proven advances in materials, technology, and business processes to solve transportation sector challenges at the state and local levels (FHWA, 2015a).

The Town of Vienna was a recipient of about \$211,000 in AID demonstration funds for a project installing what was noted as the state's first "mini-roundabout" to improve safety for pedestrians and bicyclists while increasing capacity within existing right of way (ROW) (FHWA, 2016b).

Under current funding rules, a grant under the AID Demonstration Program can cover the full cost of the identified innovation up to \$1 million; each grant application may cover (no more than) two projects, one by the state department of transportation and one by a subrecipient (local government or metropolitan planning organization); and grantees must participate in monitoring and accept FHWA oversight of the project (FHWA, 2016a).

Institutional Instruments for Local Transportation Revenue

This section reports (1) local transportation funding tools and strategies that Virginia localities have implemented electively as authorized under the Code of Virginia, and (2) relevant statutes currently in the Code of Virginia that have not been implemented but remain set out in the Code of Virginia.

Implemented tools and strategies presented here were already known to exist or were discovered during a scan of public reporting documents of local jurisdictions during the search for revenue sources for local transportation projects. These "leads" were followed to obtain detailed information, including the legal foundation of the tool or strategy.

The Commonwealth of Virginia follows Dillon's Rule, which is basically the axiom that a municipal government has limited authority to act on its own absent explicit authority from the state legislature. Statutes that have not been implemented but remain set out in the Code of Virginia are presented here for the purpose of disclosing lawmakers' interest in specific funding strategies. These strategies have been of sufficient importance and relevance to local jurisdictions to warrant their pursuit and creation by the Virginia General Assembly, and they have been of sufficient interest to the legislature to grant authority to implement to the localities, even though sunset provisions in the law, budgetary limitations, or other constraints may have limited the effectiveness of a program.

Transportation Districts

More than 50 years ago, the Transportation District Act of 1964 was enacted by the Virginia General Assembly to address the transportation needs of the National Capitol Region that were perceived to be growing more rapidly than the region could fund. Chapter 32 of the act authorized the formation of “transportation districts” to fund the establishment of transportation systems with self-evident benefits:

The development of transportation systems, composed of transit facilities, public highways, and other modes of transport, is necessary for the orderly growth and development of the urban areas of the Commonwealth; for the safety, comfort, and convenience of its citizens; and for the economical utilization of public funds.

The 1964 act was originally set out in Title 15.1 (Counties, Cities and Towns) of the Code of Virginia. When it was seen in 1997 as encumbered by an “abundance of outdated and conflicting provisions,” the act was revised and partially set out in Chapter 45 of Title 15.2 of the Code of Virginia (Virginia Code Commission, 1997). The revisions are provided in full in Senate Document 5 (Virginia Code Commission, 1997). In 2014, the revised 1964 act was again recodified in Chapter 19 of Title 33.2 (Highways and Other Surface Transportation Systems).

The 1964 act described a transportation district as a cooperative endeavor among the district, its constituent governments, and the CTB, where the CTB acting for the state would administer Virginia’s cost share of the planned regional light rail system to be built concurrent with interstate highway access into Washington, D.C., using funding generated by the transportation district.

The Northern Virginia Transportation District (NVTD) was established immediately under the 1964 act, and a second similar entity, the Potomac and Rappahannock Transportation Commission (PRTC), was established under the act in 1987.

Between 1987 and 1993, three more acts encouraging establishment of transportation districts were added to state law: the Multicounty Transportation Improvement Districts Act, the Transportation Improvement Districts in Individual Localities Act, and the Virginia Transportation Service District Act. The acts shared an innovative feature: each contained authority to tax properties used or zoned for commercial or industrial purposes if the owners of taxable properties assented in sufficient numbers.

In all three acts, jurisdiction eligibility to form a transportation district was implied somewhat narrowly by explicit population requirement or by physical location contiguous to a jurisdiction that met the population requirement. If eligible, however, districts were formed uniformly according to two criteria: (1) a vote in favor of formation of the district by 51% of owners of qualifying real property or of the assessed value of qualifying real property, where the favorable vote is conveyed to each board of supervisors in which the proposed district is located, and (2) where the property to be taxed for this purpose has been zoned for or is used for commercial or industrial purposes (Virginia Code Commission, 1997). The commercial and industrial property tax imposed on property within any districts formed under these acts was in

addition to other county taxes on the property. The last of these acts passed during the period, the Virginia Transportation Service District Act, explicitly allowed unimproved property to qualify for transportation service district status, regardless of zoning.

The first two of the three acts became inoperative at the end of FY93 when they were replaced by one uniform method for the creation of transportation districts (Virginia Acts of Assembly, 1993). The uniform method was recodified in 2014 from Title 33.1 to Title 33.2-2000 et seq. (Virginia Code Commission, 2014). The third act is found in Chapter 48 of Title 15.2 of the Code of Virginia but is no longer set out. All three original acts are provided in Senate Document 5 (Virginia Code Commission, 1997).

Under the older statutes dating from before 1993, Prince William County implemented two internal TIDs: the Prince William Parkway TID in 1990, and the Route 234 Bypass TID in 1991. A City of Suffolk Special Transportation District was formed in 1997 under the uniform legislation enacted in 1993.

In 2013, after decades of regional transit collaboration between the Northern Virginia Transportation Commission (NVTC) and the PRTC, the Northern Virginia Transportation Authority (NVTA), created in 2002 (Virginia Acts of Assembly, 2002), was funded by statute (Virginia Acts of Assembly, 2013). The purpose of the NVTA is to expedite unprecedented transportation coordination among most of the jurisdictions in the two older districts. In 2013 and 2014, legislation also established and funded a transportation entity in the Hampton Roads region. Both new entities are discussed later in greater detail.

Transportation District Act of 1964

Northern Virginia Transportation District

The Transportation District Act of 1964 was not narrowly restrictive as to eligible jurisdictions, but rather implied a naturally advantageous and cooperative alliance among jurisdictions in Northern Virginia and potentially elsewhere in Virginia. Moreover, a transportation district could be created relatively simply by ordinance adopted by the governing body of each participating county and city. The NVTD was formed thereafter among the counties of Arlington and Fairfax and the cities of Alexandria, Fairfax, and Falls Church (Virginia Code Commission, 1997).

The 1964 act authorized transportation districts formed under its stipulations to issue bonds or other interest-bearing obligations for “any of its purposes,” to include the financing of “an improved transportation system, composed of transit facilities, public highways, and other modes of transport . . .” (Code of Virginia § 33.2-1903). By late 1966 when the signing of an interstate compact among Maryland, Virginia, and the District of Columbia created the Washington Metropolitan Area Transit Authority (WMATA, 2012), one focus of the district-governing NVTC was the planning and funding of regional public transit provided by WMATA.

Construction of the Metrorail system was begun in 1969 when the National Capital Transportation Act of 1969 (Public Law 91-143) authorized a \$1.1 billion federal grant, matched

by one-half of participating local government funds. Virginia's local government funds were generated in NVTC member jurisdictions. Metrorail construction cost at completion reached approximately \$10 billion, with a federal share of about 62% and the balance made up of nonfederal funds including contributions from the NVTC (U.S. Government Accountability Office, 2005). WMATA began Metrorail operations in 1976.

In 1980 the Virginia General Assembly authorized a revenue generation mechanism specifically for the NVTC in the imposition of a 2% retail motor vehicle fuel sales tax in NVTC member jurisdictions (Virginia Acts of Assembly, 1980) to be imposed in addition to the state per gallon fuel tax. The revenue was directed specifically to debt service for the bond financing of the Metrorail system and the operating deficit and capital costs of Metrorail (Virginia Department of Taxation, 2010). In 2010, the regional motor fuel sales tax in the NVTC (and in the PRTC, discussed later) was raised to 2.1%, and the burden of payment was shifted to wholesale suppliers of fuel retailers in NVTC member jurisdictions. (Subsequent changes to the regional fuel tax are discussed later and are reflected in Code of Virginia § 58.1-2295.)

The regional fuel sales tax in NVTC member jurisdictions having Metrorail service has always been reserved entirely for WMATA capital and operating subsidies (NVTC, 2016). Metrorail, Metrobus, and MetroAccess together accounted for 47% of the WMATA operating budget in FY16 (passenger revenue produced another 45%) (WMATA, 2015). Individual jurisdiction shares of the total NVTC obligation to WMATA are determined in proportion to jurisdiction ridership, population, number of stations, revenue hours, revenue miles, and home of jurisdiction ridership (NVTC, 2016). In FY16, these shares ranged from 55.1% to 0.9% for Operating Costs and from 52.1% to 1.0% for Capital Costs for Fairfax County and the City of Fairfax, respectively (NVTC, 2016). Variable state reimbursement assistance over the years has ameliorated WMATA operating costs for NVTC member jurisdictions (NVTC, 2016).

Today, NVTC member jurisdictions pay their WMATA obligations with mixtures of (1) NVTC trust funds containing regional fuel tax revenue and state assistance, and (2) purely "local" funds such as General Funds and NVTA "30%" funds (discussed later under more recent legislation) (NVTC, 2016).

In 1990, Loudoun County became the most recent jurisdiction to join the NVTD, and in 2004, the Code of Virginia was amended to reflect the outcome of the Transportation District Act of 1964: "There is hereby created the Northern Virginia Transportation District (the District), comprising the counties of Arlington, Fairfax, and Loudoun; the Cities of Alexandria, Falls Church, and Fairfax; and such other county or city contiguous to the District that agrees to join the District" (§ 33.2-1904).

In Fairfax County, which carries a large formula share responsibility for Metrorail funding, payment of its FY14 Metro capital and operating subsidy was expected to be met by means of local gas tax revenue, state aid, interest earnings on state aid and gas tax revenues, a general fund transfer, county bond sales, and developer proffer revenues (Fairfax County Virginia, 2013a). In addition, Fairfax County established two new transportation districts specifically to support Metro service expansion, which although beyond the scope of this study demonstrate the perceived value and familiarity of the TID as a transportation funding strategy.

NVTC (regional) fuel tax revenue generated in Loudoun County was historically available for any Loudoun County transportation purpose because the county was not in the Metrorail service area until 2014. Accordingly, in FY14 \$12 million of NVTC gas tax revenues generated in Loudoun County was committed mainly to road and intersection improvement projects participating in VDOT's Revenue Sharing Program (Loudoun County Virginia, 2013). Since then, however, Loudoun County acquired Metrorail service and regional fuel tax revenue is now deposited in the Transportation District Fund for Metro Support (Loudoun County Virginia, 2013).

Potomac and Rappahannock Transportation District

When it came into existence in 1987, the Potomac and Rappahannock Transportation District consisted of the counties of Prince William and Stafford and the cities of Manassas, Manassas Park, and Fredericksburg. The district was augmented by Spotsylvania County in 2010 (Virginia Department of Taxation, 2010). The PRTC as its governing body was created to extend the regional (i.e., the NVTC) retail motor fuel tax of 2% into PRTC member jurisdictions and to direct the proceeds to shared ventures within those jurisdictions and between the NVTC and the PRTC (which are today substantially united in the NVTA as shown in Appendix K). Such ventures would include "transit facilities, public highways, and other modes of transportation required in order to promote orderly transportation into, within, and from the various contiguous counties and cities composing the Commission, and to secure the comfort, convenience, and safety of its citizens through joint action by those contiguous counties and cities" (PBMares, 2015).

Soon after the creation of the PRTC, the NVTC introduced a major regional transit project, the Virginia Railway Express, with service beginning in June 1992. As of 2016, the Virginia Railway Express is a commuter rail service featuring lines originating in both Manassas and Fredericksburg that terminate at Union Station in Washington, D.C. NVTC and PRTC are joint owners and operators of Virginia Railway Express and share financial responsibility. Prince William County and the cities of Manassas and Manassas Park also use PRTC (i.e., regional) fuel tax revenues to support a common local bus service and express service to the metropolitan Washington, D.C., area.

PRTC (i.e., regional) fuel taxes have generated revenues beyond those required for support of the district's transit. Such surplus revenues are released to requesting member jurisdictions "for transportation projects serving a particular jurisdiction" (PBMares, 2015). The FY14 adopted budget of the City of Manassas Park explains that the balance in its PRTC Motor Fuels Tax Fund is "available for transportation facility projects in the city that are part of a district transportation plan. Funds are released for specific projects upon approval of our request by the PRTC Governing Board" (City of Manassas Park Virginia, 2013). For FY14 the city proposed the use of more than \$850,000 of these surplus funds for five road projects, three of which were participating in VDOT's Revenue Sharing Program.

In its FY14-23 CIP, Stafford County scheduled more than \$4 million of surplus regional fuel tax balances to road improvements and construction (Stafford County Virginia, 2013). The City of Manassas anticipated surplus regional fuel tax balances of more than \$1 million over the

period of its FY14-18 CIP, which could leverage \$17.5 million in new spending on 10 road projects (City of Manassas Virginia, 2013). The City of Fredericksburg has provided an operating subsidy for (local) FREDericksburg Regional Transit buses from regional fuel tax revenue, as well as debt service for a parking garage and funding for smaller scale projects (City of Fredericksburg Virginia, 2013). Fredericksburg has also used surplus regional fuel tax revenues for the local match in VDOT's Revenue Sharing Program (City of Fredericksburg Virginia, 2013).

At the end of FY15, the PRTC held available a total of nearly \$30 million in member jurisdictions' surplus funds, the difference between motor PRTC fuel tax revenues and disbursements for PRTC administration, transit operations, and capital expenses (PBMares, 2015).

The NVTC and PRTC are the only transportation districts in Virginia created pursuant to the Transportation District Act of 1964, which is still in effect today in Chapter 19 of Title 33.2 of the Code of Virginia. Their success and durability offer valuable lessons to current and potential districts formed for transportation funding purposes among "those urban areas of the Commonwealth that together form a single metropolitan area" (§ 33.2-1900 of the Code of Virginia).

Multicounty Transportation Improvement District Act of 1987

When it was enacted, this act applied effectively to the counties of Fairfax, Loudoun, Prince William, and Arlington. The Route 28 TID was immediately formed between Fairfax and Loudoun counties as a result of this legislation.

A TID under this statute was created "upon the joint petition to each board of supervisors in which the proposed district is located of the owners of at least fifty-one percent of either the land area or the assessed value of land in each county which is within the boundaries of the proposed district and which has been zoned for commercial or industrial use or is used for such purposes" (Virginia Code Commission, 1997). The district revenue generation mechanism was also specified: "[E]ach board of supervisors may levy and collect an annual special improvements tax on taxable real estate zoned for commercial or industrial use or used for such purposes . . . [at a rate not] more than \$0.20 per \$100 of the assessed fair market value of any taxable real estate" (Virginia Code Commission, 1997).

This act, though not repealed, is no longer set out in the Code of Virginia because no new districts may be formed under its provisions. It is described here because the act introduced the notion of voluntary taxation of properties used or zoned for commercial and industrial purposes, presumably for the acquisition of transportation improvements of self-evident benefit to district taxpayers. This model was resurrected in more recent legislation, as discussed later.

Route 28 TID

The Route 28 TID created in Loudoun and Fairfax counties in 1987 was created, according to the authorizing legislation, to raise revenue to pay the debt service of a proposed

bond issue aimed at expediting Route 28 transportation projects (Fairfax County Virginia, 2015b; Loudoun County Virginia, 2015b). The special assessment on commercial and industrial property in the TID (imposed in addition to countywide rates applied to such properties) would supplement VDOT funds to reimburse the Commonwealth for its debt service on a CTB revenue bond issue, which was authorized by the Virginia General Assembly in 1988 and began to be issued in FY89.

Financing for the construction of the final four Route 28 interchanges was settled in 2007 among the CTB, Fairfax and Loudoun counties, and the Fairfax County EDA, according to the Fairfax County FY14 CIP (Fairfax County Virginia, 2015b). To meet the financial demands of the last projects, the CIP notes that a TPOF grant, VDOT formula funds, and surplus TID tax revenues were expected to supplement Fairfax County EDA revenue bonds. EDA revenue bond debt service is to be supported fully by the TID tax assessments (although indemnified by state appropriations to the NVTC and “a joint moral obligation” of the member counties). According to the Fairfax County Third Four-Year Transportation Program, Route 28 TID revenues of about \$10 million were expected to support additional “Route 28 Spot Improvements” in the county (Fairfax County [Virginia] Department of Transportation, 2014).

To summarize, projects within the Route 28 TID can accept funding contributions from other sources and the existence of the TID does not interfere with funding eligibilities for projects located on Route 28. An example of this is a project on Route 28 that qualified for full project costs of nearly \$1.4 million in funds from the federal Highway Safety Improvement Program (Fairfax County [Virginia] Department of Transportation, 2014).

In 2009, the Route 28 TID special assessment was reduced from \$0.20 (the maximum allowable) to \$0.18 per \$100 of assessed property value because of the “strong financial status of the fund” at the time (Fairfax County Virginia, 2015b). The lower rate has been sustained through FY16 (Long, 2015).

Transportation Improvement District in Individual Localities Act of 1987

The Transportation Improvement District in Individual Localities Act (Code of Virginia § 15.2-4700 et seq.) was applicable in “(i) any county that has the county executive form of government and is located adjacent to a county with a population of more than 500,000 according to the 1980 or any subsequent census, (ii) any county that has been granted a county charter and has a population of more than 100,000 according to the 1980 or any subsequent census, and (iii) any city that is located adjacent to a county that has been granted a county charter and has a population of more than 100,000 according to the 1980 or any subsequent census” (Virginia Code Commission, 1997).

At the time, the eligibility criteria effectively admitted only the counties of Prince William and Chesterfield and the City of Richmond (Virginia Code Commission, 1997), but the special tax rate on property zoned or used for commercial or industrial purposes was again set at not more than “\$0.20 per \$100 of the assessed fair market value of any taxable real estate.” Prince William County used the statute to create two TIDs as described here, but the other eligible jurisdictions did not exercise the act.

Prince William Parkway TID

The Prince William Parkway TID was created in 1990 after approval in 1988 of a \$66 million general obligation road bond referendum on, among other county plans, the debt-financed construction of a section of the parkway within the TID. The designated construction was finished in 1993. Of the resulting debt service on the total bond issue, about \$37.8 million is attributable to construction of the section of the parkway in the TID, and per the authorizing agreement 85% of the debt service was attributed to the TID (Blaser, 2013). The debt service obligation was satisfied at the end of FY15, and no tax rate was assessed for FY16. Yet the district is not dissolved and will remain in existence until 2035 or until it is “abolished in accordance with §15.2-4714” (i.e., of the annotated Code of Virginia) (Martin, 2015a).

Route 234 Bypass TID

The 234 Bypass TID was created by Prince William County in 1991 in response to the same successful 1988 county general obligation road bond referendum that provided financing for the Prince William Parkway. Debt-financed construction of the Route 234 Bypass was completed in 1997 at a total project cost of about \$8 million and a total debt service requirement of about \$14.4 million. Two-thirds of the total debt service was attributed to the Bypass District, and per agreement the district will have paid 100% of that amount by the end of its obligation. In FY93, the 234 Bypass TID began collection of a special assessment of \$0.02 per \$100 of assessed value (1/10 of the maximum tax rate allowed under statute) of property zoned or used for commercial or industrial purposes. The rate is to be continued through FY17 although at that rate the remaining debt will require 19 years to retire (Blaser, 2016). The Prince William County FY16 budget anticipated \$260,400 in Route 234 Bypass TID revenues in FY16 and \$270,000 in FY17 (Blaser, 2016).

Virginia Transportation Service District Act

The original Virginia Transportation Service District Act applied to “any county organized under the urban county executive form of government, (ii) any county adjoining a county organized under the urban county executive form of government, and (iii) any county with a population of at least 32,000 but not more than 36,000 according to the most recent United States census” and applied to both properties used or zoned for commercial or industrial purposes and unimproved properties regardless of zoning (Virginia Code Commission, 1997). The addition of unimproved properties to the district tax base was a further innovation with this legislation.

In effect, the original act applied to Fairfax County, contiguous counties, and certain counties described by population. As noted, the act became inoperative at the end of FY93 when it was replaced by the uniform method for the creation of transportation districts described in § 33.2-2000 et seq. It could not be determined within the scope of this study if service districts used for transportation funding as described later were implemented under this specific legislation.

Uniform Act for the Creation of Local Transportation Districts (1993)

In 1993, a single uniform method for creating transportation districts replaced the multiple acts that existed until that year. Today in Title 33.2, Chapter 20, of the Code of Virginia, the act is substantially identical to its predecessors:

§ 33.2-2001. Creation of district.

A. A district may be created in a single locality or in two or more contiguous localities. If created in a single locality, a district shall be created by a resolution of the local governing body. If created in two or more contiguous localities, a district shall be created by the resolutions of each of the local governing bodies. Any such resolution shall be considered only upon the petition, to each local governing body of the locality in which the proposed district is to be located, of the owners of at least 51 percent of either the land area or the assessed value of land in each locality that (i) is within the boundaries of the proposed district and (ii) has been zoned for commercial or industrial use or is used for such purposes. Any proposed district within a county or counties may include any land within a town or towns within the boundaries of such county or counties.

Amendments through 2014 specifically allow levy of the additional tax on taxable leasehold interests in a proposed district and on owners of eligible properties. The required petition must be specific with respect to the proposed improvements to be made to the transportation system, and among other required provisions, a provision must be included that allows the district either to be abolished according to due process (i.e., in accordance with Code of Virginia § 33.2-2014) or to expire no more than 35 years from the date of its creation (§ 33.2-2001). The governing bodies of the district may impose the additional tax at a maximum rate of \$0.20 per \$100 of assessed value. By statute, however, the rate can be set above the statutory maximum by a unanimous decision in writing by the owners of the property in the district (§ 33.2-2005).

Chapter 20 defines “transportation improvements” that may be provided by the district, to include (in order of mention) transit, road (including bridges and tunnels), and parking facility projects. It allows for district creation within a single locality or among two or more contiguous localities provided favorable resolutions are passed by the local governing bodies of all properties in the proposed district(s).

The CTB and the locality must both approve the proposed work that supports the creation of the district under this statute because “[u]pon completion of such construction or improvement, the Commonwealth Transportation Board shall take any affected public highway into the appropriate state highway system for purposes of maintenance and subsequent improvements as necessary” (Code of Virginia § 33.2-2012).

Route 17 Special Tax District

The City of Suffolk Route 17 Special Tax District, shown in Appendix J, was created under the uniform legislation in 1997 for the purpose of paying the debt service for “enhanced road improvements” in the district. Its purpose is to foster “economic development in a specific geographic region of northern Suffolk.” A special assessment rate of \$0.25 per \$100 of assessed value was in effect in FY16 (City of Suffolk Virginia, 2015a).

The city's FY16-25 CIP shows that the Route 17 fund will receive \$1.9 million in revenue from a general obligation bond issue to finance a project connecting the Harbour Town Parkway across wetlands (City of Suffolk Virginia, 2015b). The district planned to transfer \$260,000 to the city's general fund in FY16, likely for debt service on the bonds issued as is a typical use of special district tax revenues.

Transportation Improvement Districts Within Certain Counties (2001)

The establishment of local transportation districts to support transit and highway improvements, in that general order in the statute, in counties having populations greater than 500,000 (e.g., Fairfax County) and towns therein was addressed in Chapter 21 of the 2001 Virginia Acts of Assembly. A district could be created under the traditional conditions discussed previously and if district property would be subject to a "special improvement tax" tax authorized in § 33.2-2105 if the district were created. Properties eligible for the tax are those used or zoned for commercial or industrial purposes, where the definition of "commercial" properties is expanded to include property zoned for or rented or leased as multiunit residences by "an owner who is engaged in such a business." The rate of the tax in § 33.2-2105 is capped statutorily at \$0.40 per \$100 of the assessed fair market value but need not bind if all owners concur in writing. Creation of a TID allows "special improvements" taxpayers to play a more significant role in shaping transit improvements in the district.

The Fairfax County Phase I and II Dulles Rail TIDs were approved in 2004 and 2009, respectively, under this legislation, as discussed in the Fairfax County FY14-FY18 adopted CIP (Fairfax County Virginia, 2013b). Each TID was authorized to be "modeled on the existing Route 28 District, to provide a means of financing an extension of commuter rail service from the East Falls Church Metro Station to the vicinity of Dulles Airport" as stated in the summary of the act as passed (Virginia Acts of Assembly, 2001).

Special Service Districts

Special service districts as defined in Code of Virginia § 15.2-2400 et seq. are flexible transportation funding tools that appear to be highly adaptable to a variety of jurisdictions in Virginia. Code of Virginia § 15.2-2403 states that "upon petition of over 50 percent of the property owners who own not less than 50 percent of the property to be served, construction, maintenance, and general upkeep of streets and roads" is a permissible function of special service districts formed under this statute. They appear typically to pay debt service on loans for transportation improvements.

The Weldon Cooper Center attempts to track special taxing districts in local jurisdictions by means of its annual survey of Virginia local tax rates, and survey responses led to investigations of specific jurisdiction documents where service districts were reported. When local jurisdiction documents diverged from the Weldon Cooper Center survey results, local jurisdiction documents were taken to be authoritative, including official titles for districts.

Wythe County

In 2009, two service districts were established in Wythe County for specific transportation improvements described in their authorizing ordinances. The Hidden Valley Service District was created for upgrades and surface treatments to Hidden Valley Road (Wythe County Virginia, 2009a). Since these are “additional government services not being offered uniformly throughout the county” a district tax was imposed of \$400 per landowner to combine eventually with an award from VDOT’s Revenue Sharing Program for the \$85,000 project. The district had an expected duration of 7 years before its mission would be accomplished, according to the minutes of the public hearing.

The Whetstone Drive and Vineland Lane Area Service District was also established for special road work not offered throughout the county (Wythe County Virginia, 2009b). An additional district levy of \$0.63 per \$100 of assessed value in Area A and \$0.32 per \$100 of assessed value in Area B will be accumulated and matched when sufficient by VDOT revenue sharing funds to upgrade and resurface Whetstone Drive and Vineland Lane. This service district also was expected to endure for 7 years, according to meeting minutes (Wythe County Virginia Board of Supervisors, 2015).

Both districts have been in operation throughout FY16, consistent with the stated tenure for the districts (Wythe County Virginia Board of Supervisors, 2015). In FY11, six other special tax districts were also listed for Wythe County in *Virginia Local Tax Rates, 2011* (Knapp and Kulp, 2012) for a total of nine special districts for road improvement purposes in recent years in that jurisdiction.

Town of Culpeper

Virginia Local Tax Rates, 2014 and the Town of Culpeper FY14 budget (Town of Culpeper Virginia, 2013) confirmed that the jurisdiction had three active special taxing districts for road improvements in FY14: Lafayette Ridge Tax District (\$0.10 per \$100 of assessed property value), Southridge Tax District (\$0.15), and Willow Shade Special Tax District (\$0.06). The Town of Culpeper tax rates in *Virginia Local Tax Rates, 2011* were given as \$0.09, \$0.12, and \$0.08 per \$100 of assessed value, respectively. It can be inferred from recent rate variability that the special taxing district in the Town of Culpeper is managed flexibly as a transportation funding tool.

Chesterfield County

The current Comprehensive Plan for the County of Chesterfield identifies the Powhite Parkway–Charter Colony Parkway Interchange Service District as a transportation district that was established to improve transportation services mainly for the CentrePointe, Waterford, and Acropolis development areas. According to the comprehensive plan, the specific purpose of the district is to “provide funds to construct a single point urban interchange at the intersection of Powhite and Charter Colony Parkways and widen a part of Powhite Parkway” (Chesterfield County Virginia, 2015b). The county’s biennial financial plan for FY13 and FY14 (Chesterfield

County Virginia, 2013) states that owners of properties within the district boundaries have paid an additional \$0.15 per \$100 of assessed value over the baseline property tax since 2006.

Prince William County

The Prince William County Board of Supervisors established the Bull Run Mountain and Lake Jackson service districts in 1991 and 1993, respectively, for the purpose of maintaining private local roads in the northwest corner of the county, according to the reports on the funds in the Prince William County FY16 budget (Prince William County Virginia, 2015). District levies of \$0.1377 and \$0.1650 per \$100 of assessed value in the Bull Run Mountain and Lake Jackson service districts, respectively, were collected by the county finance department, and funds are managed by the county department of public works. In both districts the levies support maintenance of private roads in the districts “which do not meet State standards for acceptance into the State Maintenance system.” Special tax rates in both service districts were reduced between FY13 and FY14 from \$0.201 to \$0.1830 per \$100 of assessed value in the Bull Run Mountain Service District (Prince William County Virginia, 2013a) and from \$0.1750 to \$0.1650 in the Lake Jackson Service District (Prince William County Virginia, 2013b). The civic associations representing each district coordinate maintenance work requests with the county’s department of public works.

Fairfax County

The Tysons Service District was established in January 2013 for the purpose of funding transportation infrastructure desired for the “walkable, transit -oriented downtown County” (Fairfax County Virginia, 2015a). Service district revenues will contribute some \$253 million to “Tyson’s-wide Road Improvements” within the boundaries of the district, with an equal amount for the purpose coming from developers and landowners on a “per square foot/per unit road” basis. The FY14 budget states that a “Modified Bell Curve” model was favored to guide the setting of district tax rates, starting at \$0.04 per \$100 of assessed value in FY14 and rising to \$0.07 no sooner than FY32 (Fairfax County Virginia, 2013c), although the FY16 adopted budget plan (Fairfax County Virginia, 2015a) states that the planned district tax rate increase for FY15 was delayed until FY16.

Loudoun County

Three special service districts were created by Loudoun County for the Dulles Corridor Metrorail Project (i.e., Metrorail service to Dulles International Airport). According to the Loudoun County FY16 adopted budget (Loudoun County Virginia, 2015a), the Metrorail Service Tax District began collecting \$0.20 per \$100 of assessed value on eligible district property in 2013 whereas the Route 606–Airport Stations Service Tax District and the Route 772 Station Service Tax District, although established, have not yet imposed special assessments because their purpose is to provide funding beyond the tenure of the Metrorail Service Tax District.

The Loudoun County budget states that the county’s share of the total cost of the Dulles Corridor Metrorail Project will be met partly through a loan under the Transportation Infrastructure Finance and Innovation Act and partly through loans to cover the balance, the debt

service of the latter paid from revenues from the Metrorail Service Tax District (Loudoun County Virginia, 2015a).

In 2008 in Loudoun County, an entity was created in the Code of Virginia that was distinct from the ordinary service district. Chapter 24 of Title 15.2 (§ 15.2-2404) effectively created the Greenlea Tax District for the financing of the replacement of the bridge located on Crooked Bridge Lane (Loudoun County Virginia, n.d.). The statute required a petition in favor of district creation from not less than 50% of the landowners of not less than 50% of the property adjacent to Crooked Bridge Lane. Loudoun County Virginia (n.d.) states simply that the county “Board of Supervisors and the county are only responsible for imposing the special assessment, collecting the semi-annual installments, and forwarding collected monies to the lender(s) solely from the special assessment revenues.” The lenders, Greenlea Homeowners Association II and a private lender, will receive from the county an estimated total repayment (project cost plus debt service) of about \$660,500, or the estimated project cost financed at 6% annual interest over 15 years.

The special assessment rate in Greenlea Tax District in FY15 was a flat annual per parcel fee of about \$2,300 (K. McMahill, personal communication).

City of Alexandria

The City of Alexandria established a service district for transportation improvements in support of Metro expansion, including road construction. In 2010, Tier I of the Potomac Yard Special Tax District was created to generate the debt service for general obligation bonds issued to finance improvements including a Metro rail station in the redeveloping Potomac Yard area, according to the city’s approved CIP for FY16-25 (City of Alexandria Virginia, 2015a). An additional special property tax of \$0.20 per \$100 of assessed property value was applied in 2011 as “Tier I,” and a special assessment of \$0.10 has been proposed for “Tier II” after the station opens.

A major role for this district will be to supply the debt service on construction loans planned for the district. The city’s FY16-25 CIP (City of Alexandria Virginia, 2015a) states that the capital infrastructure goal will be achieved by means of substantial bond debt and a Virginia Transportation Infrastructure Bank (VTIB) loan, both supported by revenues from the Potomac Yard Special Tax District.

According to the FY16-25 CIP, district special assessments will provide funds in FY16 and FY17 for transit bus replacements, the reconstruction of Duke Street, “Street Reconstruction and Resurfacing of Major Roads,” and WMATA capital contributions.

Spotsylvania County

Four districts in Spotsylvania County provide transportation infrastructure related to specific commercial developments, although they were not reported as transportation-related special tax districts in *Virginia Local Tax Rates*, 2014. Massaponax, Harrison Crossing, Lee Hill East, and Lee Hill West special service districts were established to pay the debt service on

bonds issued to finance transportation improvements in their respective area (Spotsylvania County Virginia, 2015). In FY18, rates were \$0.15/\$100, \$0.39/\$100, \$0.25/\$100, and \$0.45/\$100, respectively (Spotsylvania County Virginia, 2017).

City of Manassas

The Owens Brooke Tax District fund exists to “provide quality street maintenance for the private roadways within the Owens Brooke community,” according to the City of Manassas FY16 adopted budget (City of Manassas Virginia, 2015). Debt service is the largest component of the fund’s annual outlays, but the fund planned about \$40,200 in annual expenditures on road maintenance for FY15 and FY16. District tax rates fell from \$0.166 per \$100 of assessed property value in FY12 to \$0.136 in FY15 and to \$0.132 in FY16, according to the FY16 adopted budget. The special district rate added about one-tenth of the city’s general real estate tax rate of \$1.21 in FY16 for the needs of the district.

Revenue Instruments Permitted by Recent Acts of the Virginia General Assembly

Legislation Overview

The Virginia General Assembly enacted major transportation bills in each of the years 2007, 2008, 2009, 2013, and 2014 to reach a consensus with regard to new transportation funding sources for local jurisdictions and regional transportation districts and for the state at large through VDOT.

The first significant bill to provide funding, Chapter 896 of the 2007 Virginia Acts of Assembly (H 3202) (Virginia Acts of Assembly, 2007a), contained some elements that were opposed politically and as a consequence were reversed by the Supreme Court of Virginia 1 year later (Court Listener, 2008) or subsequently were modified as in Chapter 822 of the 2009 Virginia Acts of Assembly (H 2479) (Virginia Acts of Assembly, 2009c) or repealed as in Chapter 864 of the 2009 Virginia Acts of Assembly (H 1580) (Virginia Acts of Assembly, 2009d). Other elements of Chapter 896 (2007) were successfully reformulated and passed by the Virginia General Assembly in the second major bill to provide transportation funding in 2013, Chapter 766 of the 2013 Virginia Acts of Assembly (H 2313) (Virginia Acts of Assembly, 2013), and further settled in Chapter 678 of the 2014 Virginia Acts of Assembly (H 1253) (Virginia Acts of Assembly, 2014b).

Collectively, this series of legislation ultimately delivered (1) new funding sources for the NVTAs, which had been created in 2002 (Virginia Acts of Assembly, 2002); (2) the creation and funding of the Hampton Roads Transportation Fund (HRTF) and the creation of the Hampton Roads Transportation Accountability Commission (HRTAC) to manage the fund; and (3) new transportation revenues for local governments in Northern Virginia. Chapter 766 (2013) also provided new revenue sources for VDOT that were unchallenged.

Chapter 896 (2007): Northern Virginia Transportation Authority and Hampton Roads Transportation Authority

Two significant provisions of Chapter 896 (Virginia Acts of Assembly, 2007a) were (1) the funding of the NVTa (Code of Virginia § 33.2-2500 et seq.), which had been created in 2002 to consist of all member jurisdictions in the NVTC plus three from the PRTC (Prince William County and the cities of Manassas and Manassas Park), and (2) the creation and funding of the Hampton Roads Transportation Authority (HRTA) consisting of the counties of Isle of Wight, James City, and York and the cities of Chesapeake, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg.

The funding proposals of Chapter 896 were introduced as changes throughout the Code of Virginia, specifically in statutes addressing local jurisdictions (Title 15.2), transportation (Title 33.2), motor vehicles (Title 46.2), and taxation (Title 58.1). The new fees and taxes were proposed for the NVTa and for the newly created HRTA to impose under their own authority on member localities. Included were an array of additional annual motor vehicle-related fees and taxes and a “Regional Congestion Relief Fee” on deeds of conveyance of real property. Under Chapter 896, the newly created HRTA was also given authority to impose a regional fuel sales tax of 2% in member jurisdictions, identical to the long-standing regional fuel sales tax rate in NVTC and PRTC member jurisdictions at the time.

Chapter 896 immediately encountered political resistance to the portions of the legislation that effectively conferred taxing and fee-making authority on the NVTa and the HRTA, which are appointed rather than elected bodies. The case resulted in a judgment by the Supreme Court of Virginia in 2008 that struck certain elements of the chapter (Court Listener, 2008). In 2009, Chapter 864 (Virginia Acts of Assembly, 2009d) repealed the fees and taxes provided in 2007 by Chapter 896 for both transportation authorities, the regional fuel tax for the HRTA, and statutes creating the HRTA itself. Yet two local jurisdiction options offered in Chapter 896 endured.

Urban Transportation Service Districts

The first remaining option for elected local governments was that urban counties (i.e., with populations of at least 90,000 as of the 2000 U.S. Census) that did not maintain their own roads as of January 1, 2007, could create “urban transportation service districts” (UTSDs) if they would also assume maintenance of their roads within the UTSD and receive payments from VDOT at the per-lane-mile maintenance allocation rate paid to cities (Code of Virginia § 15.2-2403.1). In addition, outside the UTSD (within which road maintenance responsibility would “devolve” to the county), the county could impose a specific new “impact fee for roads” on property currently zoned for agricultural uses that was to undergo residential development.

This unique statute incentivizing the devolution of road maintenance responsibility to local governments expired in December 2008 (Code of Virginia § 15.2-2328), and no county of the six that qualified under statutory population thresholds implemented the statute. According to the Weldon Cooper Center intercensal population estimates for 2000-2010 (Weldon Cooper Center, 2011), the counties of Chesterfield, Fairfax, Loudoun, Prince William, Spotsylvania, and

Stafford were eligible to form UTSDs. This option remains set out in full in the Code of Virginia.

Commercial and Industrial Property Surtax

The second enduring local option offered in Chapter 896 (2007), one that followed historical precedent and survived political scrutiny, was a surtax in member jurisdictions of the NVRTA and the HRTA (as the HRTA was constituted in Chapter 896) on properties zoned or used for commercial or industrial purposes, with revenues from the surtax earmarked for transportation purposes (Code of Virginia § 58.1-3221.3). Although Chapter 864 repealed the HRTA in 2009, it still allowed local jurisdictions to impose the tax as member jurisdictions of the Hampton Roads metropolitan planning area. Chapter 864 provided that local governments could levy the commercial or industrial property surtax with or without forming a transportation district as a political subdivision of the jurisdiction.

There were key restrictions on the district formation option, however. First, no such district could be too small to generate at least 85% of the revenue that could be generated by jurisdiction-wide imposition of the tax. Second, the benefits of the revenue collections would necessarily flow to the district(s) created to pay the tax.

In Chapter 896, the maximum allowable commercial and industrial property tax rate was set at \$0.25 per \$100 of assessed value in NVRTA member jurisdictions and \$0.10 per \$100 of assessed value in HRTA member jurisdictions. Two years later, the maximum rate for NVRTA member jurisdictions was statutorily halved to \$0.125 per \$100 of assessed value in Chapter 822 of the 2009 Virginia Acts of Assembly, but the change affected only jurisdictions that had been early adopters of the property surtax option of Chapter 896 in 2007. Early adopters consisted of Fairfax County in 2008 (Fairfax County Virginia, 2013d); Arlington County in 2008 (Arlington County Virginia, 2012); and the City of Fairfax in 2010 (City of Fairfax Virginia, 2013). The maximum rates of \$0.125 and \$0.10 have continued in effect in the NVRTA and Hampton Roads regions through FY17 (Code of Virginia § 58.1-3221.3).

The voluntary option offered in Chapter 896 (2007) of a surtax on eligible commercial and industrial properties in the two regions was fully consistent with historical precedent in Virginia.

Chapter 766 (2013): Capitalizing the NVRTA and Hampton Roads Transportation Funds

Arguably the primary achievement of Chapter 766 of the 2013 Virginia Acts of Assembly (Virginia Acts of Assembly, 2013) was the provision of a politically acceptable path for capitalizing the NVRTA Fund and the HRTF, the two regional funds envisioned to be dedicated to the implementation of urgently needed transportation improvements in Northern Virginia and in the Tidewater region. First, the bill proposed an additional surcharge of 0.7 percentage points above existing state and regional retail sales and use taxes (excluding food) in planning districts meeting particular thresholds for population, motor vehicle registrations, and transit ridership (Code of Virginia §§ 58.1-603.1 and 604.01). The stipulated thresholds caused this increment in sales and use tax rates to apply only in Planning District 8 (Northern Virginia)

and Planning District 23 (Hampton Roads), and the revenue would accrue wholly to the NVTA Fund and the HRTF (§§ 33.2-2509 and 33.2-2600). Currently, the voting members of the HRTAC, which was created in 2014 to manage the HRTF, are the cities of Chesapeake, Franklin, Hampton, Newport News, Norfolk, Poquoson, Portsmouth, Suffolk, Virginia Beach, and Williamsburg and the counties of Isle of Wight, James City, Southampton, and York.

Two other revenue streams were proposed only for the NVTA Fund: (1) a new “regional congestion relief” fee in the form of a grantor’s tax on deeds of conveyance (Code of Virginia § 58.1-802.2), and (2) a regional transient occupancy tax (§ 58.1-1742) (Nohe, 2013).

Finally, the regional fuel sales tax was effectively reinstated in the Tidewater jurisdictions in Planning District 23 at the current NVTC and PRTC rate of 2.1%. This was achieved by adding a section to existing Code of Virginia § 58.1-2295 that broadened eligibility to include Planning District 23.

All of the new revenue streams provided in Chapter 766 were equipped with a “kill switch” in the 14th Enactment of the bill that will cause expiration of the provisions at the end of any calendar year in which there is any redirection of funds generated by the legislation to uses other than transportation.

To ensure that NVTA member jurisdictions would also receive direct local funding benefits from Chapter 766, the statute provided a detailed revenue sharing regime between localities and NVTA. Of the new revenues to be generated in NVTA member jurisdictions (i.e., all but the existing regional fuel tax) and flowing by means of Chapter 766 to the NVTA Fund, the NVTA was authorized to retain 70% for projects with regional congestion relief benefits. The remaining 30% would be returned to local jurisdictions on a pro rata basis to funds that member jurisdictions were required to set up individually for the purpose of receiving their 30% shares. In addition, NVTA member jurisdictions are required to certify annually that the local funds lawfully serve the intended purpose of Chapter 766 (i.e., transportation). Those lawful purposes include urban or secondary road construction, capital improvements that reduce congestion, and public transportation (Code of Virginia § 33.2-2510).

Chapter 766 also contained a “maintenance of effort” requirement for NVTA member jurisdictions that today is codified in Code of Virginia § 33.2-2510. It provides that if in a given year an NVTA member jurisdiction is not imposing the commercial and industrial property surtax (as authorized for all NVTA member jurisdictions in Chapter 896 [2007] as a local option) at the maximum rate of \$0.125 per \$100 assessed value or if it is not depositing an equivalent amount to the NVTA Fund from sources other than the NVTA, its (30%) refunded local share of Chapter 766 revenues (referred to as “30%” funds) will be reduced by the potential value of the commercial and industrial property surtax revenue assessed at the maximum rate. This requirement was intended to prevent shifting of existing local funding to the new NVTA Fund, i.e., to discourage subvention of the desired net gains in local and regional transportation revenue generation from Chapter 766 in 2013.

As for early levels of “30%” funds, the NVTA projected that in FY16 Fairfax County would receive back more than \$10 million in “30%” funds. Loudoun County was next highest

with a projection of \$4.5 million, then Prince William County with \$3.4 million, Arlington County with \$3.1 million, the City of Alexandria with \$1.6 million, the City of Fairfax with more than \$600,000, the City of Manassas with nearly \$450,000, the City of Falls Church with more than \$200,000, and the City of Manassas Park with \$121,000 (Longhi, 2015).

Chapter 678 (2014): Creation of Hampton Roads Transportation Accountability Commission

The next year, Chapter 678 of the 2014 Virginia Acts of Assembly (Virginia Acts of Assembly, 2014b) created the HRTAC, composed of locally elected officials to receive and manage the funds generated for Planning District 23 (i.e., the Tidewater region) under Chapter 766 (2013). VDOT estimated that Planning District 23 revenues flowing through the HRTF from new sources provided in Chapter 766 would total about \$1.25 billion over the period FY14-19 (Farmer, 2014). The HRTF Annual Report for FY14 states that in FY14 the regional increment in sales and use tax generated about \$107.4 million and the regional fuel tax generated about \$37.2 million, making a total of about \$144.6 million for tidewater region transportation improvements (HRTAC and Hampton Roads Transportation Planning Organization, 2015). In FY15, the regional increment in sales and use tax generated about \$129.9 million and the regional fuel tax generated about \$40.9 million for total revenues from these sources of about \$171 million (HRTAC and Hampton Roads Transportation Planning Organization, 2016).

As of 2016, 16 tidewater jurisdictions and 9 Northern Virginia jurisdictions in Planning Districts 23 and 8, respectively, are linked in two regional entities newly funded in 2013 legislation by strategies that are strikingly similar to legislation enacted decades earlier. Within the historic NVTD established in 1965, the smaller service-type districts formed by one or more jurisdictions and discussed previously continue to exist under their own statutory authorities. Appendix K shows a schematic of the major transportation districts and authorities in Northern Virginia and Hampton Roads as of 2016 with their authorizing statutes and specific funding sources. The schematic clarifies that the NVT A (the entity capitalized in H 2313) is composed of all NVTC member jurisdictions and most, but not all, PRTC member jurisdictions.

Afterword: SB 856 (2018)

Major legislation passed in 2014 and 2015 reallocated VDOT surface transportation revenue and called for new prioritization metrics for project selection as noted previously while leaving undisturbed the new funding mechanisms and revenue flows to local jurisdictions and regional transportation districts as approved in 2013. In 2018, S 856 contributed significant legislation for the funding of mass transit, particularly through a new WMATA Capital Fund. This legislation as enacted states: “Beginning in fiscal year 2019, \$20 million each year shall be transferred from the [Northern Virginia Transportation District] Fund to the [proposed] Washington Metropolitan Area Transit Authority Capital Fund established pursuant to § 33.2-3401.” The funding generated under SB 856 employs funding tools like those implemented in HB 2313, e.g., a fee on documents of conveyance in the NVTD dubbed the “regional WMATA capital fee.” The scope and mission of the NVTD established in the 1964 act are far from forgotten.

Tax Increment Finance Areas

Under Code of Virginia § 58.1-3245 et seq., a tax increment finance (TIF) area can be established to provide roads and other public amenities to attract private investment to development projects in Virginia. A TIF area does not impose a new levy on a special district but rather segregates the increment of general real estate tax revenues resulting from increases in property values above the base year value. Revenues may be “equalized” across years by the policy decision to vary base property taxes inversely with assessed property values. Experience, the description of which has been omitted for space considerations, has shown, however, that lagged responses to TIF area rate variability may defeat the purpose of revenue stabilization.

Three jurisdictions with TIF areas that support transportation improvements are provided as examples of TIF funding strategies.

Arlington County

Arlington County established the Crystal City-Potomac Yard-Pentagon City TIF Area in 2010 with the baseline property value established on January 1, 2011, according to the county’s FY14 adopted budget (Arlington County Virginia, 2013). The county’s FY15-24 CIP (Arlington County Virginia, 2014a) shows a segregated fund that holds these TIF revenues in reserve for the three designated sectors. According to the CIP, the sector plan includes “significant public infrastructure improvements in streets, transit, and public open spaces to support construction and reconstruction of office, retail, and residential spaces in Crystal City and Potomac Yard. The near-term infrastructure improvements include realignment of streets and intersections.” The county’s FY13-22 CIP (Arlington County Virginia, 2012) indicates that Crystal City TIF revenues were pledged to support the debt service on bond issuance of more than \$58 million over FY15-17.

Arlington County sets the base property tax rate for each calendar year for revenue equalization, but recent budget documents show that revenue variability can result nonetheless (Arlington County Virginia, 2013; Arlington County Virginia, 2014b). To forfend against negative impacts of TIF revenue variability, it was county policy at least through FY15 for each fiscal year budget to allocate only one-third of projected TIF revenue, according to the county’s FY15 adopted budget (Arlington County Virginia, 2014b).

City of Virginia Beach

The City of Virginia Beach established the Central Business District South TIF in 1999 to accelerate delivery of public facilities and infrastructure in the central business district through a public-private partnership and to promote economic development in the Pembroke area of the city (City of Virginia Beach Virginia, 2012). According to the city’s resource management plan for FY16 (City of Virginia Beach Virginia, 2015b) Central Business District South TIF revenues cover the debt service on bond financing of the construction of public parking.

The Lynnhaven Mall TIF was established in 1998 to support improvements in “capacity and flow of traffic within the mall area” with an emphasis on transit and parking improvements

(City of Virginia Beach Virginia, 2012). The fund was terminated in FY12 upon early completion of the city's financial obligations through the TIF fund associated with Lynnhaven Mall development. The city notes the fact that the "developer funded over \$100 million dollars of improvements while the City contributed \$11.5 million" (City of Virginia Beach Virginia, 2012).

City of Chesapeake

The City of Chesapeake established the Greenbrier and South Norfolk TIF areas in FY06, according to the Annual [Real Estate] Reassessment Report for 2016 (City of Chesapeake Virginia, 2016a). In the city's FY14-18 CIP (City of Chesapeake Virginia, 2013) both area TIF revenues were scheduled to fund street light installations in their districts. In addition, the CIP indicates that Greenbrier TIF revenues were scheduled to provide vehicle and pedestrian safety improvements, easement acquisition for construction of turn lanes, sidewalks, a parking garage, pedestrian signals, and "acquisition of shuttle or trolley buses" in the Center District; a turn lane in the Commerce District; and a 10-foot bike lane and another turn lane in the North Corporate District. Greenbrier TIF revenues are also expected to fund the construction project extending Woodlake Drive to Battlefield Boulevard.

South Norfolk TIF revenue was recently programmed to advance the total replacement of the 22nd Street Bridge, with completion expected in 2016. The bridge is said to play a significant role in the economic development of the city, according to the detailed project description in the city's FY14-18 CIP.

Cash Proffers

In three sections of Title 15.2 in the Code of Virginia, proffers are "offered" by property owners to offset or ameliorate the impacts on local infrastructure and public services that newly zoned residential or commercial development will cause. Proffers are useful to local jurisdictions in balancing profit-based growth and development against the costs of additional resources that new residential and commercial development typically require. The proffer is a means for each side to "win" a benefit from growth by negotiating "prices" (i.e., proffers) to pay the costs of expanded services that would not otherwise be included in the development costs resulting from the proposed rezoning. In Virginia statutes, proffers are instructed to be "reasonable" and proportionate to needs caused by new development. For decades, proffers under Virginia law have predominantly been cash payments or dedication of real property.

Under Code of Virginia § 15.2-2303.2, the CLG is required on an annual basis to track the pledged, collected, and expended cash proffer flows in eligible localities with populations over 3,500 (CLG, 2015). Although the CLG tracks only cash proffers, proffers may be made in cash or in kind to three categories of eligible jurisdictions. The CLG tracks jurisdictions that qualify under at least one of the three proffer statutes.

To generalize the first category from the detailed language in Code of Virginia § 15.2-2298, an eligible jurisdiction has had a rapidly increasing population either directly or by

proximity to fast-growing nearby jurisdictions over the decade before the latest decennial U.S. census year. The second category provided in Code of Virginia § 15.2-2303 effectively limits eligible jurisdictions to those that are east of the Chesapeake Bay in the vicinity of Fairfax County.

An eligible locality under either of these statutes may elect “conditional zoning” in which “reasonable conditions” governing the use of such property may be imposed in addition to or that modify the overall zoning ordinance. Proffered conditions may also include cash payments or construction of major improvements, including transportation projects. “Condition” proffers, once they are approved by the local government, become part of the rezoning ordinance and effectively limit how a property subject to the “conditions” can be developed or used by both current and future owners.

In the third category, the specific jurisdiction of New Kent County (presumably excluded by the other two statutory criteria) can enter into “development agreements” pursuant to Code of Virginia § 15.2-2303.1 that entail cash payments for improvements in exchange for an agreement entered into “for the purpose of stimulating and facilitating economic growth in the county.”

The overwhelming majority of local jurisdictions in Virginia became proffer-eligible under the first eligibility statute (§ 15.2-2298) at the time of the 2000 or the 2010 decennial U.S. population census (CLG, 2015). Only 6 Virginia counties, 2 cities, and 18 towns were not made eligible by either decennial census and therefore were not eligible in FY15. Only eligible localities with populations over 3,500 must report to the CLG, and of the 162 eligible jurisdictions that must report proffers, only 39 accepted them in FY15: 27 counties, 8 cities, and 4 towns. Appendix L shows eligible Virginia jurisdictions in FY15.

The proffer system by its nature can be fraught with tension between developers seeking profit opportunities and local jurisdictions seeking fiscally sound growth. For example, in recent years Chesterfield County was the scene of debate between the board of supervisors and developers who sought lower local costs (i.e., proffers) for development (Beirne, 2013; Toalson, 2012; Winfree, 2013). As a long-time proffer jurisdiction, the Chesterfield County board resolutely defended the policy of “Growth to Pay for Growth” in 2014 (Llovio, 2014).

In 2016, the Virginia General Assembly enacted Senate Bill 549 (Virginia Acts of Assembly, 2016) effective in FY17 to constrain localities to “reasonable” proffer standards in response to residential rezoning requests. The new standard of reasonableness defined in the bill applies to both cash and condition proffers but provides three significant exemptions, two related to new residential development with additional density occurring proximate to Metrorail or other mass transit stations and one specifically for “an approved service district created pursuant to § 15.2-2400 that encompasses an existing or planned Metrorail station.”

In contrast with earlier (and sometimes detailed) jurisdiction-specific proffer terms, the new bill introduces a simplified, binding standard for a “reasonable proffer”: (1) “it addresses an impact *specifically and uniquely attributable* to a proposed new residential development or other new residential use applied for” and (2) “*each such new residential development or new*

residential use applied for receives a direct and material benefit from a proffer made with respect to any such public facility improvements (emphasis added).”

Acceptance of cash proffers carries the requirement that they be shown explicitly in jurisdiction CIPs or capital budgets (Code of Virginia § 15.2-2303.2). In addition, an existing Virginia statute requires that cash proffers be used to expand facility capacity rather than to cover operating or maintenance costs, and this requirement continues in the 2016 legislation.

According to the CLG report (CLG, 2015), proffers must be spent within 12 years of receipt by the jurisdiction, a period that allows for the accumulation of funds for costly projects. In FY15, total expenditures amounted to about 54% of collected proffers whereas for the cumulative period since FY03, total expenditures amounted to about 70% of collections, according to the CLG report. Categorizing schools, transportation, fire and rescue, water and sewer, and stormwater management as “Essential Community” infrastructure and libraries, parks and open space, community centers, special needs housing, affordable housing, and miscellaneous expenditures as “Quality of Life” infrastructure, Figure 5 shows that transportation projects have been a major portion of “Essential Community” uses of cash proffers over the period FY03-15.

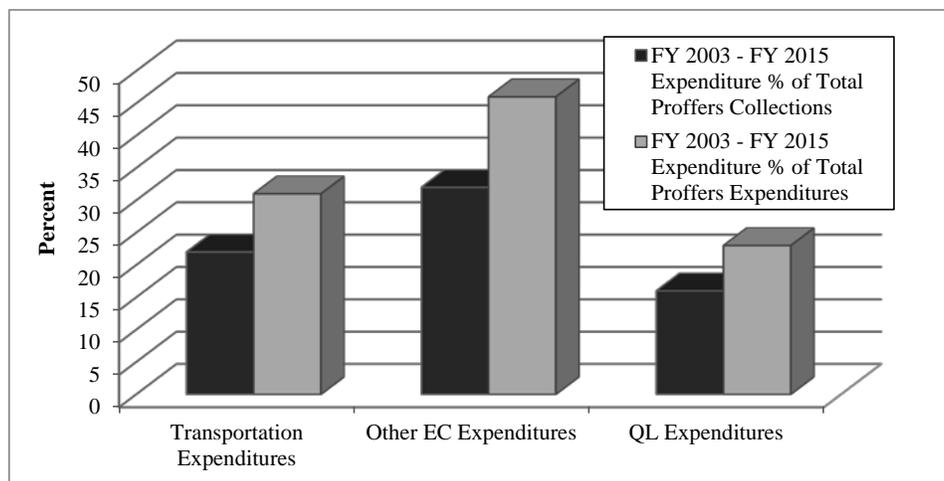


Figure 5. Relative Share of Transportation Expenditures of Total Proffer Collections and Expenditures. EC = Essential Community; QL = Quality of Life. Source: CLG, 2015.

Impact Fees

An impact fee for roads is a local transportation funding option in the Code of Virginia that enacts the ideal that additional users of local public amenities (e.g., roads) should pay some of the costs of increasing the supplies of those amenities in order to maintain the desired level of service in a community that is undergoing growth and development.

Title 15.2, Chapter 22, of the Code of Virginia on Planning, Subdivision of Land and Zoning contains two articles addressing impact fees, the older of which in Article 8 (§ 15.2-2317 et seq.) has authorized them since 1989 specifically for the expansion of public roads to accommodate local population growth. Article 8 statutes detail the process by which an eligible

Virginia jurisdiction may create a lawful ordinance for the imposition of road-related impact fees on developers.

A new option was offered for a period of months in Article 9 of Chapter 22, having been created with other revenue mechanisms in Chapter 896 of the 2007 Virginia Acts of Assembly (Virginia Acts of Assembly, 2007) as discussed at length previously. This option remains set out in §§ 15.2-2328 and 2329 of the Code of Virginia, although no Virginia jurisdiction implemented its provisions within the deadline. It is noted here because Article 9 conditions may be interpreted as representative of unappealing terms to local jurisdictions.

Given an eligible locality, development of an Article 8 impact fee policy requires first an assessment of road improvement needs that is performed before impact fees are adopted and second the adoption of a transparent and articulated expenditure program for impact fees based on the aforementioned needs assessment. The plan for accomplishing these goals must also be formalized by inclusion in either the jurisdiction CIP or in the case of counties the six-year plan for secondary highway construction, which is authorized in Code of Virginia § 15.2-2321. Article 8 impact fees may cover a wide array of road-related expenditures associated with growth including direct costs of roadway construction; pre-construction costs (acquisition of land, ROW, and easements; utility relocation; necessary demolitions); legal and administrative costs; and principal and interest debt service if impact fees will support debt issued by the jurisdiction for related road construction (Code of Virginia § 15.2-2318).

Impact fees as an option for funding infrastructure were analyzed intensively around the period when Article 9 fees were proposed in Virginia in 2007 (Duncan et al., 2009; Herlands et al., 2006), perhaps in an effort to distinguish them from proffers. Pure impact fees have clearly been of interest to the national industry that assists jurisdictions in setting municipal zoning and development goals (Mullen, 2015), suggesting that they may be plentiful outside Virginia.

No Virginia agency currently performs data collection on impact fee revenues that is analogous to the data collection on proffers performed annually by the CLG. In Virginia Local Tax Rates, 2014 (Knapp and Kulp, 2015), one city and four counties report the existence of a local fee paid by developers per Article 8, but these data were suspected of conflating impact fees with other payments made to a jurisdiction. In fact, it was eventually determined with certainty for this report (through interviews with local government contacts in Chesterfield County [Lowry, 2014] and Prince William County [Gapasin, 2014]) that those jurisdictions had collected revenues that were definitely not Article 8 impact fees during the period in question (possibly service district or community development authority fees).

It was beyond the scope of this study to search every Virginia jurisdiction for the implementation of Article 8 road impact fees, but it is known that Stafford County implemented a transportation impact fee policy and fees during the period of this study (Stafford County Virginia, 2014). The fees are documented as Article 8 impact fees in the municipal code of Stafford County, with reference to Code of Virginia § 15.2-2317 et seq. Stafford County's policy provides an example of the process of adoption of road impact fees brought to successful completion.

Tolled Infrastructure

For nearly three decades the Virginia General Assembly has supported exploration of road tolling with responsibility for oversight exercised by local jurisdictions. Several authorities consisting of one or more jurisdictions have been created in the Code of Virginia, such as the single-county Chesterfield Toll Road Authority (1980) and the Spotsylvania Toll Road Authority (1994), indicating a historical anticipation of a fiscal role for toll roads. The multi-jurisdiction George Washington Toll Road Authority (2009) was created for road improvements in the Fredericksburg region, effectively absorbing the original function of the Spotsylvania Toll Road Authority. This report, however, is restricted to discussing active tolled facilities.

Each example of active road tolling described in this section is a response to local jurisdiction initiative. As of this writing, no universal legal template exists in the Commonwealth for the creation of tolled infrastructure by local jurisdictions. Rather, each facility described here is the response to a unique local political process and the end product of a correspondingly unique implementation process.

Dulles Greenway

The Dulles Greenway is the only project to result from the Virginia Highway Corporation Act of 1988 (Code of Virginia § 56-535 et seq.), and any amendment to the Virginia Highway Corporation Act applies only to the Dulles Greenway (Schrad, 2015) at this time. The 12.5-mile Dulles Greenway (Figure 6) is a toll facility running entirely within Loudoun County from the Town of Leesburg southeast to Dulles International Airport. At the airport, the Dulles Greenway meets end-to-end with the Dulles Toll Road operated by the Metropolitan Washington Airports Authority, which continues east across I-495. The two facilities form a continuously tolled primary state highway (SR 267) operated and maintained by two separate agencies. Figure 6 shows the configuration of the Dulles Greenway and the Dulles Toll Road.

The Virginia Highway Corporation Act was passed for the purpose of legally grounding the private funding or financing of for-profit toll (or “single-use charge”) roads in local jurisdictions that accepted them, according to *A History of Roads in Virginia* (VDOT, 2006). Under the act, an application by “any person” (which excludes “the state or any local government or agency thereof, or any municipal corporation or other corporate body”) to construct or operate a (toll) roadway would be subject to approval by the State Corporation Commission (SCC). An application that was judged to be complete and that received a favorable hearing in which the SCC determined that the project would deliver a public benefit would win SCC approval and a certificate of authority to proceed.

Eminent domain actions were expressly prohibited in the act, and a jurisdiction could unilaterally halt SCC approval by duly adopting a resolution that requested a denial of approval of the application by the SCC. A facility built under the Virginia Highway Corporation Act would remain privately owned until a date 10 years after the end of the term of the original financing, although other dates could be negotiated to accommodate various circumstances if the SCC determined such to be in the public interest (Code of Virginia § 56-551).

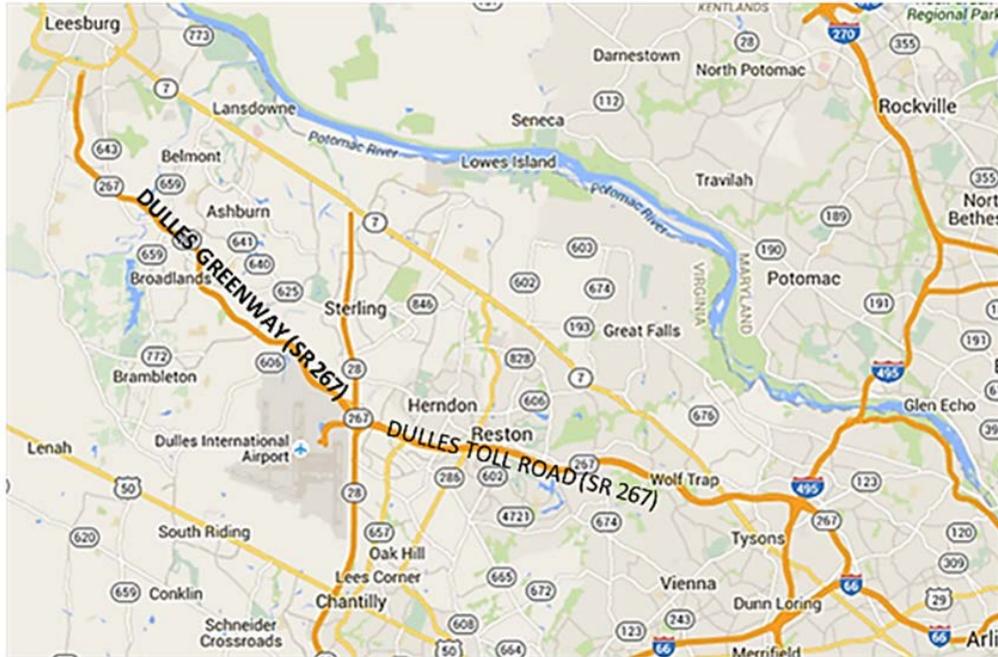


Figure 6. Dulles Greenway in Loudoun County

Upon completion of the term, however, the certificate of authority would expire, the duties of the operator would cease, and the facility would revert wholly to the state. Under the original agreement, the Dulles Greenway would have reverted to Virginia in 2036, according to FHWA’s Office of Innovative Program Delivery project profile (Federal Highway Administration Office of Innovative Program Delivery, n.d.).

Also according to the FHWA project profile, the limited partnership Toll Road Investors Partnership II (TRIP II) brought together \$40 million in private equity and \$310 million in private taxable debt (i.e., bonds) under a “design, build, finance, operate, maintain” project delivery method, and the facility opened for traffic in the summer of 1997 (Federal Highway Administration Office of Innovative Program Delivery, n.d.). Traffic projections were not realized at speed limits of 55 mph, and tolls were soon reduced, with no revenue improvement. In 1997 the Virginia General Assembly raised the speed limit to 65 mph and tolls were increased, but the debt was still restructured in 1999 and TRIP II agreed with the SCC to lengthen the concession on the toll road to 2056. In 2004, variable tolls were adopted to manage peak period congestion more efficiently. In 2005, Macquarie Infrastructure Group purchased TRIP II (Federal Highway Administration Office of Innovative Program Delivery, n.d.). Under Macquarie ownership the original facility has expanded from four to six lanes.

Insofar as TRIP II is designated a public service corporation under the Virginia Highway Corporation Act, the SCC has always had the power to regulate its operations, including toll rates charged on the Dulles Greenway. In 2008, the act was amended to require the SCC to link annual toll rate increases from January 2013 through January 2020 to the greatest of the changes in the Consumer Price Index plus 1%; the Gross Domestic Product; or 2.8%. This formulaic toll increase may be adjusted at the request of TRIP II to allow tolls to incorporate year-on-year increases in property tax rates on the real estate occupied by the facility. Additional toll

increases may be requested under the act but they carry the requirements of documented proof of need and SCC concurrence (Code of Virginia § 56-542). In February 2015, the SCC approved a toll increase on the Dulles Greenway of 2.8% for calendar year 2015 (SCC, 2015).

A special requirement in the Virginia Highway Corporation Act may have had some bearing on the limited use of the act in Virginia: “No crossing of a railway, highway, street, road or alley shall be at grade, but shall pass above or below the railway, highway, street, road, or alley, and such crossings are hereby permitted, subject to the provisions of this chapter” (Code of Virginia § 56-548).

Powhite Parkway, Downtown Expressway, and Boulevard Bridge

In 1966, the Virginia General Assembly created a multijurisdictional authority to finance and construct a toll expressway system in the state capital region (Virginia Acts of Assembly, 1966). Joining the City of Richmond and the counties of Henrico and Chesterfield in what was at that time named the Richmond Metropolitan Authority, the authority was renamed the Richmond Metropolitan Transportation Authority (RMTA) in Chapter 469 of the 2014 Virginia Acts of Assembly (Virginia Acts of Assembly, 2014a). Statutes governing the RMTA are in Code of Virginia § 33.2-2900 et seq. The RMTA owns and maintains three regional toll facilities: the Boulevard Bridge, the Powhite Parkway, and the Downtown Expressway.

According to RMTA history (RMTA, n.d.), the Boulevard Bridge was built with private funds in 1925 by the Boulevard Bridge Corporation to provide tolled general access over the James River to points south of Richmond but free access to residents of new neighborhoods there. The RMTA bought the bridge in 1969 and operated it as built until 1992, when it was wholly renovated and modernized by RMTA for toll collections and bike and pedestrian traffic, although its two lanes are restricted to two- and three-axle vehicles. The Powhite Parkway (State Route 76), consisting of 3.4 miles of expressway and a 0.4-mile bridge alternative to Boulevard Bridge, came into service in January 1973; today it carries I-195 traffic either to points south over the river or east to the downtown district. Because of demand, the parkway was widened in 1975 and again in 1988. (In 1988 VDOT added and still owns and operates the tolled Powhite Extension into western Chesterfield County.) The east-west Downtown Expressway (State Route 195) came into service in 1976 between the nexus of I-195 and the Powhite Parkway west of Richmond and an eastern terminus in the city’s downtown district.

The Richmond Metropolitan Authority, hereinafter the RMTA, was created in 1966 as a “political subdivision and public body corporate and politic of the Commonwealth of Virginia” (Virginia Acts of Assembly, 1966). In 2009 the RMTA statutes were moved to Title 15.2 (Counties, Cities and Towns) from their original location in Title 33.1 (Highways and Other Surface Transportation Systems) (Virginia Acts of Assembly, 2009a); in 2014 they were restored to Title 33.2 (Highways and Other Surface Transportation Systems) (Virginia Acts of Assembly, 2014c). Unlike the Dulles Greenway, no agency or political subdivision of Virginia is authorized to regulate or supervise RMTA fees or charges, but if the RMTA were to build or acquire facilities by the standard practice of revenue bond financing, it is required to charge users (i.e., set tolls or fees) at sufficient levels to pay the principal and interest on its debt and to cover operations, maintenance, and capital improvement costs of that facility (Code of Virginia § 33.2-

2904). The statutory requirement that each RMTA toll facility be self-supporting means that the RMTA receives no state or federal revenues and that facility toll or fee revenues cannot be “commingled” (RMTA, 2016).

The RMTA is authorized in the Code of Virginia “[t]o fix, charge, and collect fees, tolls, rents, rates, and other charges for the use of Authority facilities and the parts or sections thereof” in pursuit of its mission:

to alleviate highway congestion; promote highway safety; expand highway construction; increase the utility and benefits and extend the services of public highways, including bridges, tunnels and other highway facilities, both free and toll; and otherwise contribute to the economy, industrial and agricultural development, and welfare of the Commonwealth and the City of Richmond and Counties of Henrico and Chesterfield” (Code of Virginia § 33.2-2902).

In 2017 the scope of the RMTA encompasses the building and operation of “a variety of public facilities and . . . public services, especially transportation related, within the Richmond metropolitan area, each of which is operated and financed primarily by user fees” but without inter-facility “commingling” of revenues, as noted previously (RMTA, 2015).

Since its creation in 1966, RMTA property and income have been exempt from taxation by the state and any political subdivision of it (Code of Virginia § 33.2-2911). Further, the RMTA and each of the three member jurisdictions have always had the power of eminent domain actions (§ 33.2-2902), subject to § 25.1-102, and without any liability entanglement of the state (§ 33.2-2915). In the same statute, the state consents “subject to the approval of the Governor, public agencies and commissions of the Commonwealth” to the use of any of its property by the RMTA if the property is “deemed . . . necessary for the construction or operation of any project being constructed by the Authority.” These provisions were preserved in the 2009 reauthorization.

If and only if RMTA charges are insufficient to make its debt payments, the CTB may authorize assistance from the maintenance allocations made by VDOT to the member jurisdictions when “deemed in the public interest” (Code of Virginia § 33.2-2905). As well, each of the three member jurisdictions may enter into agreements with the RMTA to assist with RMTA debt when toll revenues are not sufficient (§ 33.2-2913). The CTB is also authorized to support the facilities of the RMTA with a wide variety of technical services and to permit the connection of RMTA highways with state highways (§ 33.2-2914).

Although its member jurisdictions and the state (through the CTB) may contribute to its support, RMTA revenue bonds do not constitute a debt or an obligation of the state, the City of Richmond, or the county of Henrico or Chesterfield (Code of Virginia § 33.2-2904). RMTA legislation has always allowed reversion of bond-financed limited access facilities to the jurisdiction in which the facility (or portion thereof) lies after all facility debt is paid or can be paid because sufficient resources exist (§ 33.2-2916) providing the jurisdiction will accept the facility. In fact, the transfer provision in § 33.2-2916 would have caused the expressway system to revert to the City of Richmond in the year 2022 had RMTA debt not been restructured by agreement with the city in 2011 (RMTA, 2015). Final repayment of current debt is scheduled for 2041, according to the operating budget for FY17 (RMTA, 2017).

Although § 33.2-2919 of the Code of Virginia frees the RMTA of supervision and regulation by its three member jurisdictions as well as by any “commission, board, bureau, official, or agency” of Virginia or its member jurisdictions except as may be permitted under the chapter, under § 33.2-2902 the RMTA requires approval from its member jurisdictions to (1) borrow money and issue bonds or other debt for any corporate purpose; (2) acquire land; (3) run transit services or engage in other ancillary services as requested by the member jurisdictions; and (4) “purchase, construct, or otherwise acquire ownership of or rights to manage limited access highways” within any of the three member jurisdictions. The RMTA requires the CTB’s approval to determine the location and design standards of any limited access highways, to “designate . . . points of ingress to and egress from any limited access highway” (§ 33.2-2902), and to construct a limited access toll highway (§ 33.2-2918).

Originally the RMTA had an 11-member board of directors with more representation of the City of Richmond than of the county because the city had made a \$20 million capital contribution to initial expressway planning, design, and acquisition of ROW. In 2014 the board of directors was increased to 16 members with equal representation from member jurisdictions: 5 appointed by each member jurisdiction governing body (1 of whom may be an elected official who is a member of the governing body) and 1 ex officio member from the CTB to be appointed by the Commissioner of Highways (§ 33.2-2901 of the Code of Virginia).

Expressway toll rates, which increase with the number of vehicles axles, have been stable since 2008. Toll adjustments have been removed from the current long-term financial plan for the present attributable partly to a slowdown since 2016 in the growth of long-term Richmond metropolitan employment, one of the leading indicators followed by RMTA’s traffic and revenue consultant because commuter traffic is predominant on the expressway system (RMTA, 2017). Expressway system toll revenue provides 96% of the RMTA’s total revenue (RMTA, 2017).

In 2016, the RMTA reached its 50th birthday with a mixture of original and current technology. To accommodate nonlocal customers in the state capital, toll booths and exact change baskets continue to exist in the system alongside open road tolling at highway speeds in order to balance the forces of fiscal competitiveness for bondholders against maintenance of travel value for drivers.

Last but not important, law enforcement plays a key role in the financial success of the RMTA system. The RMTA recently implemented a third party collections service that has reduced losses because of cash toll violations by more than 25%, and better collaboration with VDOT—which manages the day-to-day operation of the E-ZPass Program used by RMTA—has also reduced electronic tolling losses. Further, the RMTA’s Special Conservators of the Peace were able in 2016 to investigate 33 traffic accidents on RMTA’s Expressway and to make progress in recovering nearly \$12,000 in damage to RMTA assets after 2015 legislation that strengthened hiring standards for these RMTA positions (RMTA, 2016).

Appendix M shows the three jurisdictions of the RMTA.

Chesapeake Expressway and Dominion Boulevard

The Chesapeake Expressway, opened in 2001 after 2 years in construction, is a 16.5-mile toll road that runs from I-64 in the City of Chesapeake through the city's "agricultural south" to Virginia's border with North Carolina. The expressway was conceived to relieve parallel routes, specifically Battlefield Boulevard and other local roads, of heavy summer through traffic predominantly heading south. The expressway project was developed and managed by the city and financed with city contributions, VDOT loans from the Tolloed Facilities Revolving Account and Urban Allocations, and expressway revenue bond debt (City of Chesapeake Virginia, 2010; City of Chesapeake Virginia, 2012). No tax revenues or private partners were involved in the project and the revenue bond debt will be retired by 2032, according to the city's Expressway FAQs (City of Chesapeake Virginia, n.d.b.). The expressway is owned and operated by the City of Chesapeake with VDOT performing an annual review of its maintenance and operations budget.

Immediately upon opening in 2001, the tolled expressway had peak travel demand at levels projected for 2017 (City of Chesapeake Virginia, 2010). After about 16 months of operation, the main toll plaza was expanded to accommodate the traffic, and demand for expressway toll revenue bonds picked up concurrently (Samuel, 2003). The expressway was considered to be successful, and the expertise gained by city staff in such a major project was acknowledged within and outside the jurisdiction (Kozel, 2003).

By 2007 the Virginia General Assembly had passed legislation allowing for toll-financed improvements to Dominion Boulevard (Route 17) and the "Steel" (Veterans) Bridge in the City of Chesapeake (Virginia Acts of Assembly, 2007b). The project would be 3.3 miles of controlled access modifications of an existing (and highly congested) U.S. route, causing mandatory state and federal involvement. In 2009 an ordinance was adopted into city code that created the Transportation Toll Facility Advisory Committee composed of city council appointees serving in an advisory capacity to the city council (City Code § 2-620.30 through 2-620.3). The purpose of the committee is to monitor the financial health of the Chesapeake Transportation System for the city, meeting quarterly for updates from the city's department of public works, and from industry financial advisers as needed. In 2010, an "enterprise fund" (one that pays its expenses with self-generated revenues) called the Chesapeake Transportation System was created—akin to the Stormwater and Public Utilities Funds in the city's department of public works—for consolidated management of the expressway and the Dominion Boulevard / Veterans Bridge toll projects (City of Chesapeake Virginia, 2012).

By 2012, a financing strategy for improvements to Dominion Boulevard / U.S. Route 17 and Veterans (Steel) Bridge was in place (Martin, 2015b) wherein the city was the first state entity to be awarded a VTIB loan (City of Chesapeake Virginia, 2012; Tyerar, 2012). (It is worth noting that the Dominion Boulevard projects were estimated to cost more than triple the cost of the expressway for which, also in 2012, the city implemented a consolidated finance plan for refinancing the debt and raising necessary funds for maintenance and operations.) The Dominion Boulevard project was included as a toll facility in the 2030 long-range plan by this time (City of Chesapeake, 2013). Meanwhile, an agreement was reached for the project to be locally administered by the city under contract to VDOT, although the city remains owner of the

Dominion Boulevard improvements (VDOT, 2014c; VDOT, 2014d). The project was “substantially complete” in November 2016, ahead of schedule and under budget under the city’s management (City of Chesapeake Virginia, n.d.b.).

The Chesapeake Expressway operated without any toll adjustments for the first decade of its existence, holding the auto toll to \$2 regardless of season or day of travel. In 2011 a toll adjustment was adopted on the recommendation of the Transportation Toll Facility Advisory Committee that elevated peak season (May-September) weekend tolls by 300% to \$6.00 and off-season and weekday tolls to \$3.00 with the goal of raising \$7 million estimated to be needed for repairs in the next 5 years (Rostami, 2011). The result, as assessed toward the end of 2011, was a decline in the expressway peak season traffic of about 18% in 2011 over 2010 but an increase in the expressway’s total peak season revenue of 72.9%, 92% of the increase having been generated by weekend travel to the North Carolina coast (City of Chesapeake Virginia, 2011). By 2015, traffic and revenue had both recovered upward trends but at lower rates than projected in 2012 (City of Chesapeake Virginia, 2015). Peak season toll rates rose again in May 2016 to \$8 for autos (two axles) and \$9 for trucks (three axles and up) while off-peak rates stayed at \$3 and \$4, respectively.

The city competed unsuccessfully over the period 2009-2011 for federal assistance for the Dominion Boulevard project through a Transportation Investment Generating Economic Recovery (TIGER) grant and through a Transportation Infrastructure Finance and Innovation Act (TIFIA) loan, receiving neither (City of Chesapeake Virginia, 2010). However, as noted previously the project was soon awarded the first loan ever made by the VTIB, which provided more than 30% of the financing that was required, according to the state’s analysis of the city’s application (Tyrerar, 2012). Loan terms were “standard” for the VTIB at 3.3% for up to 35 years, with repayment starting 5 years after substantial completion (Tyerar, 2012).

The city’s public works department maintained a “Milestones and Presentations” website to track the Route 17 project (City of Chesapeake Virginia, n.d.a.) and formulated a schedule of tolls from the facility’s expected opening in 2017 through 2035, all in order to keep city residents—and interested others—knowledgeable about the new transportation assets that they effectively own (City of Chesapeake Virginia, 2015; City of Chesapeake Virginia, 2016b). The city determined that Dominion Boulevard users are predominantly local and regional commuters, in contrast with expressway users. Accordingly, a single toll collection point was established at the north end of the new bridge. Toll collection is by “open road tolling” using instrumented overhead gantries and E-ZPass transponders with provisions for video or license plate recognition. Vehicles tolled retroactively by mailed invoice (i.e., lacking E-ZPass transponders) will be charged a toll rate that is \$2 higher than the E-ZPass rate in every year of the current approved toll schedule through FY35 (City of Chesapeake Virginia, 2016b).

The goal of determining optimum tolls for the expressway and the new limited access Dominion Boulevard has been of the utmost importance to the City of Chesapeake (City of Chesapeake Virginia, 2011; City of Chesapeake Virginia, 2012; City of Chesapeake Virginia, 2015; Martin, 2015b). Toll levels must strike a satisfactory balance between potentially competing goals: attract ridership versus generate sufficient revenues to retire project debt, fund system operations, maintain assets in good repair, and build capital reserves for facility

rehabilitation or modernization in the future. To these juggled goals must be added the original goals of mitigating congestion on Battlefield Boulevard, Dominion Boulevard, and other local roads while disincentivizing traffic diversion from tolled routes.

Appendix N shows the complete Chesapeake Transportation System.

Local Resource Allocation Options

All Virginia local governments may exercise taxing authority to the extent allowed under statutory law. General taxing authority is conferred on cities and towns that have the Uniform Charter Powers Act (Code of Virginia §§ 15.2-1100 through 15.2-1126) incorporated into their charters. Other jurisdictions have explicit taxing authority granted in their charters or in statutory law, often in addition to uniform charter powers.

Regarding the strategies described here, real property taxes and business professional and occupational license (BPOL) taxes are available to cities, counties, and towns under statutory law. But the local option sales and use tax is not available to towns and the cigarette excise tax, although available unrestricted to cities and towns under “general taxing powers,” is available only to Fairfax and Arlington counties under statutory law (Knapp and Kulp, 2015).

Property Tax Set-Aside

In FY12 the Alexandria City Council approved a 4-cent increase in the base real property tax rate and then set aside 2.2 cents per \$100 of assessed value to establish a reliable source of revenue for capital projects through the new Transportation Improvement Program, according to the city’s approved operating budget for FY14 (City of Alexandria Virginia, 2013). The same 2.2-cent reservation from a real property tax rate of \$1.043 per \$100 was intended to go to the general fund in FY16 for transportation improvements, according to the FY16 approved budget (City of Alexandria Virginia, 2015b). (Similar but smaller set-asides for affordable housing and stormwater improvements were also approved for FY16.)

In FY13, the City of Virginia Beach raised its property tax rate by 4 cents per \$100 of assessed value and then dedicated 2 cents per \$100 of assessed value to road construction and to implementation of the requirements of the “Line of Duty Act” (Code of Virginia § 9.1-400). This strategy was expected to generate nearly \$8.6 million for transportation projects in the CIP, according to the city’s CIP for FY14 (City of Virginia Beach Virginia, 2013). In FY16 the city approved a 6-cent increase per \$100 of assessed value in the real property tax, of which 1.8 cents was newly allocated to the (new) Multi-Modal Transportation Fund (City of Virginia Beach Virginia, 2015b). The 2-cent increment for road construction is also rolled into the Multi-Modal Transportation Fund.

Business Professional and Occupational License Tax Set-Aside

In Chesterfield County, the BPOL tax applies only to businesses with gross annual receipts of at least \$200,000 (Chesterfield County Virginia, 2015a). Beginning in FY07, the policy of the Chesterfield County Board of Supervisors has been to dedicate all BPOL revenues

in excess of \$15.7 million (the BPOL tax revenue level in 1999) to fund transportation projects (including debt service) and “economic development incentives” (e.g., industrial access roads and general road improvement projects) (Chesterfield County Virginia, 2015a). The BPOL revenue estimate for FY14 was more than \$17.7 million, which under the county rule would provide about \$2 million for transportation projects and economic development incentives, according to the amended biennial financial plan for FY13 and FY14 (Chesterfield County Virginia, 2013). In FY16, BPOL revenue of nearly \$20.1 million was budgeted, providing about \$4.4 million under the rule for road improvement projects from this source, according to the FY16 annual financial plan and CIP (Chesterfield County Virginia, 2015a).

Local Option Sales Tax Set-Aside

The City of Williamsburg has maintained a policy for more than 25 years of funding general capital improvement projects, including roads, with the 1 percentage point of the state sales tax that is returned to local jurisdictions by the state (Code of Virginia § 58.1-605). As a type of general fund, the Sales Tax Fund also holds interest earnings of the general fund. Sales tax revenues were projected at \$4.2 million in FY14 (City of Williamsburg Virginia, 2013). The “Capital Improvements” section of the adopted FY14 budget (City of Williamsburg Virginia, 2013) shows about \$925,000 programmed to road-related projects: the Repaving Program, Prince George Street Reconstruction, and York Street Corridor Improvement (the latter two being revenue sharing projects with VDOT). In FY16, \$4.3 million was programmed as sales tax fund revenues in the CIP, according to the adopted budget (City of Williamsburg Virginia, 2015). About \$1.3 million was budgeted from the Sales Tax Fund for street construction in FY16, and about \$7.17 million is projected to be spent over the period FY16-20. Pedestrian and bicycle improvements were also budgeted \$1.25 million in FY16, and about \$1.75 million from the Sales Tax Fund is programmed over FY16-20 (City of Williamsburg Virginia, 2015).

Motor Vehicle License Tax Set-Aside

Chesterfield County’s biennial financial plan for FY13 and FY14 (Chesterfield County Virginia, 2013) states that its \$20 local option motor vehicle license tax, imposed by the county in accordance with Code of Virginia § 46.2-752, would generate more than \$7 million in FY13 and slightly more in FY14. In FY15, the Chesterfield County Board of Supervisors “elected to increase the vehicle registration fee from \$20 to \$40, utilizing the proceeds from the additional \$20 per vehicle to create a dedicated source of funds for the Revenue Sharing Program” with VDOT, according to the county’s annual financial plan for FY16 (Chesterfield County Virginia, 2015a). Thus about \$7 million could be dedicated to transportation projects in FY16, based on licensure of 350,000 vehicles (J. Smith, personal communication).

Local option vehicle license taxes may not exceed state rates (Code of Virginia § 46.2-752), and there is an extensive list of exemptible vehicles at the jurisdiction’s option. The Virginia license fee in November of 2017 for a private passenger vehicle up to 4,000 pounds gross weight was \$40.75 and for a vehicle over 4,000 pounds gross weight was \$45.75 (Virginia Department of Motor Vehicles, 2017). According to Knapp and Kulp (2015), in 2014 a total of 240 cities, counties, and towns imposed local license taxes on private passenger vehicles at an overall mean rate of \$24.09 and a median rate of \$25.00. Mean and median private passenger car license tax rates imposed by those jurisdictions were nearly unchanged in 2016 at \$24.20 and

\$25.00, respectively (Kulp, 2016), suggesting that a considerable number of jurisdictions have used this source of potential transportation funding only lightly compared to Chesterfield County.

Sales Tax Set-Aside

Since the FY1993-94 CIP, the City of Virginia Beach has dedicated a portion of cigarette tax revenue to the city's Economic Development Investment Program (EDIP) specifically to fund citywide "New Facility Construction/Expansion" in the CIP category of Economic and Tourism Development (City of Virginia Beach Virginia, 2013). As the cigarette tax increased over time, so did the revenue portion dedicated to the EDIP, reaching a share of \$0.16 of a total tax of \$0.70 per pack and generating nearly \$2.7 million for dedicated EDIP revenues in FY16 (City of Virginia Beach Virginia, 2015a). EDIP funds "are provided to pay the costs of offsite utility improvements/upgrades, road improvements, traffic signal improvements, regional storm water facilities, site preparation, and other uses for projects that expand the tax base."

Public Right-of-Way Use Fee

Under Code of Virginia § 56-468.1, a fee may be imposed on end-consumers of telecommunication services provided by private cables lying in the public ROW (VDOT, 2016c). The revenues generated by this statute are payable to localities that maintain their own roads and have passed an ordinance to collect the fee. In localities that maintain their own roads but have not approved an ordinance to collect the fee, the fee cannot be imposed. In localities that do not maintain their own roads and have authorized the fee by local ordinance, VDOT receives the fee revenue. VDOT maintains lists of jurisdictions that maintain their own roads and have approved an ordinance (fees are paid directly to them) as well as jurisdictions that maintain their own roads that have not approved an ordinance authorizing fee collection (thus no fees are collected) (VDOT, 2016b).

The statute provides that the ROW "rental" rate, when applicable, be calculated annually by VDOT according to a formula provided in the statute but subject to a floor of \$0.50 per access line. Where in effect, the fee is collected from customers via routine billing by the telecommunications service provider. The monthly fees for FY15 and FY16 were set at \$1.02 and \$1.05 per private (and nonexempt) access line, respectively (VDOT, 2015a). The fee in FY17 was set at \$1.11 per eligible access line (VDOT, 2016d). In both years, the rate increase effectively achieved equalization of revenue between years, given reductions in eligible access lines in both FY15 and FY16 (VDOT, 2015a; VDOT, 2016d). In FY18, however, fees will be reduced to \$1.09 per eligible access line, portending a possible decrease in total public ROW use fee revenues of more than 5% because of a decrease in new access lines and feet of installation as well as the fee (VDOT, 2017).

Under Code of Virginia § 56-468.1, Henrico and Arlington counties are required to apply at least 10% of the public ROW use fee revenues they collect (if collected) to transportation system construction or maintenance [§ 56-468.1 (H)(1)]. This is required because they withdrew from the secondary system of state highways under the provisions of the Byrd Road Act. In addition, the statute requires that counties that consolidated into cities (e.g., City of Virginia

Beach and City of Chesapeake) under the provisions of § 15.2-3530 commit 90% of their ROW fee collections to transportation maintenance or construction purposes.

According to VDOT information, Arlington County and 33 cities and towns have passed ordinances to collect the fee as of mid-2016 (VDOT, 2016b). In its FY14 adopted budget, Arlington County projected \$900,000 to be generated by “Right-of-Way Fees” (Arlington County Virginia, 2013). The county’s FY16 adopted budget (Arlington County Virginia, 2015) shows that actual FY14 revenues exceeded \$1 million, but the FY16 adopted budget conservatively programmed \$900,000 again. The FY16 revenue forecast is based on a rate of \$0.83 per access line per month.

VDOT is required by § 56-468.1 of the Code of Virginia to apply the public ROW use fees it receives to the construction improvement program of the secondary system of state highways, apportioning among counties according to population. Fee revenues collected by VDOT pursuant to this program are excluded from the new transportation project funding prioritization process, i.e., SMART SCALE, implemented in 2014 (VDOT, 2015c).

CONCLUSIONS

- *Virginia jurisdictions raise local transportation project funding from numerous state, federal, and local sources.* Table ES1 compiles the sources determined in this study by Code of Virginia reference.

State and Federal Sources

- *VDOT’s Revenue Sharing Program became a significant source of grant funding for roads in local jurisdictions between 2006 and 2018, and the program incentivized increasing local revenue generation in participating jurisdictions.* Many Virginia jurisdictions responded to the revenue sharing grant program by using the funding strategies described in this report to raise the local match required for participation in the program.
- *State discretionary grant programs that provide funding for roads are, as a rule, designed to promote economic development of a region or jurisdiction.* Programs typically require a firm commitment from a business enterprise and satisfaction of job creation and/or capital investment requirements. Most contain clawback provisions to recapture funds if the terms of the grant are not met. VDOT’s grant program for access roads to economic development sites is similar to other state programs.
- *Some south and southwest Virginia jurisdictions qualify for several sources of restricted-eligibility funding for which road projects are eligible.* These sources consist of the VTC, coal and natural gas severance tax revenues, and the federal Appalachian Development Highway Local Access Road Program. These sources and other state sources including VDOT grants have often been pooled to successfully accumulate sufficient project funding.

- *Several federal programs provide road funding directly to qualifying local jurisdictions on the basis of poverty rates or the potential for improvement in economic opportunity resulting from a road project. One federal program scales access road match requirements to the measured level of economic distress in the locality. HUD CDBG funds are allocated annually to qualifying jurisdictions of Virginia for their discretionary use, including for street and road projects. Virginia CDBG funds are allocated competitively to projects serving low- and moderate-income populations and community development needs. USDA rural development grants are targeted to nonurban areas with community facility or business development needs. The Appalachian Development Highway System Program funds access roads for qualifying communities in the Appalachian region.*
- *Road funding by the U.S. Department of Transportation for which localities may apply at their discretion is targeted under the FAST Act to grants for improvements to freight corridors. Innovative transportation projects may be competitively funded by the AID Demonstration Program.*

Local Funding Sources

- *Transportation districts in various forms are the longest-implemented local strategy for the generation of road and other transportation revenues in Virginia. Transportation district revenues provide pay-as-you-go funds for transportation projects, support the match for other funding sources such as VDOT's Revenue Sharing Program, or provide debt support. From populous urban transportation districts to suburban neighborhood districts formed for the maintenance of roads according to local standards, Virginia jurisdictions have exercised the transportation district option under several generations of legislation.*
- *Virginia jurisdictions should expect to pool several sources of funding for larger projects. Regardless of funding sources, it is common for Virginia jurisdictions to pool several funding sources in order to fund or finance higher-cost transportation projects.*
- *Some Virginia jurisdictions currently have self-funded (i.e., tolled) facilities under private or public ownership and administered at the local or the multijurisdictional level. The City of Chesapeake has opted for tolled facilities to avoid private financing of any kind for the Dominion Boulevard and Steel Bridge improvements.*

RECOMMENDATIONS

1. *VDOT's LAD should include a session at a local programs workshop that features localities that have implemented successful approaches to local transportation project funding, including the pooling of multiple fund sources, to deliver transportation projects under the new state funding programs and application processes. By including both urban and rural localities that have used innovative approaches for the funding of local transportation improvements, the session would provide valuable information to jurisdictions about the advantages and disadvantages of specific strategies.*

2. *VDOT's Transportation and Mobility Planning Division should share the findings of this study in mixed forums for local, state, and national entities with multiple specialties because viable transportation funding strategies are fundamental to all transportation system improvements. The Transportation and Mobility Planning Division is in a unique position to transmit successful local Virginia practices to similar communities within and outside Virginia.*

IMPLEMENTATION AND BENEFITS

Implementation

With regard to Recommendation 1, VDOT's LAD included a session at the Fall 2016 Local Programs Workshop on "Partnering and Innovative Financing." The session featured localities that had successfully innovated on funding and financing strategies for transportation projects, including the pooling of several funding sources. The leveraging of all available resources toward the funding of desired projects highlighted the adaptation of these jurisdictions to VDOT's new prioritization process, SMART SCALE. Speakers from Augusta County, the City of Roanoke, and Chesterfield County presented their experiences in the workshop.

With regard to Recommendation 2, the Division Administrator of VDOT's Transportation and Mobility Planning Division presented funding sources from this report to attendees of a "P3 Workshop for Planners" sponsored by the Build America Transportation Investment Center Institute, which hosted the workshop in association with the AASHTO Joint Policy Conference for Committees on Freight, Funding and Finance, Planning, Data Management and Analytics, Environment and Sustainability, and the Active Transportation Council, July 17-19, 2018, Spokane, Washington.

Benefits

Current practices in Virginia jurisdictions that are documented in this report are potentially relevant to all political subdivisions interested in raising local revenue to spend directly, to match other sources such as VDOT Revenue Share Program grants, to contribute toward project cost offset in order to raise project competitiveness in SMART SCALE, or to finance debt for transportation improvements. Although local jurisdictions in Virginia are adequately or even well informed and experienced in some forms of state and federal funding through VDOT's formal outreach to local jurisdictions, the variety of examples of practices in local jurisdictions stemming from permissions in the Code of Virginia were not compiled in a single source prior to this study.

Implementation of the two recommendations of this study to broadly disseminate these findings has informed Virginia jurisdictions of low-complexity options available at present and makes possible the thoughtful examination and consideration of more complex options such as require regional cooperation for broader transportation system goals. Finally, other states can now benefit from Virginia's extensive experience in local transportation funding.

ACKNOWLEDGMENTS

The author acknowledges the indispensable help of VDOT employees in the Central Office and in VDOT districts: Craig Ahlin, Brandon Bennett, Michael Branscome, Richard Burke, Bernard Campbell, Harold Caples, Matthew Cox, Robert Crandol, William Dandridge, Fulton deLamorton, Tracy Elliott, Laura Farmer, Anthony Ford, Penny Forrest, Anna Fortune, Scott Gagnon, Todd Halacy, Jane-Ellen Hess, Conrad Hill, Kurt Kuppert, Michaela McCain, Diane Mitchell, D. A. Necessary, Steven Owens, Daniel Painter, Tamara Pritchard, Margit Ray, Stephen Rowan, Allan Sumpter, Jeffrey Tipton, Misty Upson, Michael Walsh, John Watson, Debbie Webb-Howells, Sharon White, and Rick Youngblood.

The author thanks all the local government staff members who provided critical local information and data, with particular thanks to Jason Friess and Carolyn Gershfeld (Arlington County); Teresa Tolbert (Bland County); Vonda Slone and Sandy Stiltner (Buchanan County); Teresa Morgan (Chesapeake Transportation System, City of Chesapeake); Dawana Lowry (Chesterfield County); Malik Williams (City of Alexandria); Earl Sorey (City of Chesapeake); Renee LaFollette (City of Leesburg); Pat Weiler (City of Manassas); Amy Morris (City of Salem); David Bradley, Kimberly Dotson, and Aaron McCoy (City of Virginia Beach); Milagros Woolson (Fairfax County); Nan Paek (Loudoun County); Michael Hurlocker, Brittany Martin, Terrilynne Pete, and Jeffrey Raines (Prince William County); Patrick Thompson (Russell County); James Benkahla, Tammy Petrie, and Nicole Ratliff (Spotsylvania County); Shelley Carmichael and Donna Olsen (Stafford County); and David Cox (Wise County).

The author thanks federal, state, and metropolitan agency and organization staff members who provided expert assistance to the author in understanding the effects of extensions and turnovers of federal transportation authorizations and the far-reaching contents of landmark Virginia legislation that occurred during the preparation of this report: Peter Kleskovic (Appalachian Development Highway System, FHWA Federal-Aid Programs Team); Tamarah Holmes, Thomas Smith, Jason Wang, and Keith Witt (Appalachian Regional Commission); Rajashree Mooney (FHWA Eastern Federal Lands Highway Division); Mike Kimbrel and Stephanie Shealey (Hampton Roads Transportation Planning Organization); Jerald Miller (Metropolitan Washington Council of Governments); Rhonda Gilchrest (Northern Virginia Transportation Commission); Joyce Embrey (OmniRide [Potomac and Rappahannock Transportation Commission]); Alfred Harf (Potomac and Rappahannock Transportation Commission); James Maras, Janice Stroud-Bickes, and Kent Ware (U.S. Department of Agriculture—Rural Development); Kimberly Via (Virginia Auditor of Public Accounts); Jean Jordan (Virginia Coalfields Economic Development Authority); Stephen Versen (Virginia Department of Agriculture and Consumer Services); Denise Ambrose, Tamarah Holmes, Chris Thompson, and Matthew Weaver (Virginia Department of Housing and Community Development); Mike Abbott and David Spears (Virginia Department of Mines, Minerals, and Energy); David Conmy (Virginia Commission on Local Government); Nicole Brenner and Lisa Wallmeyer (Virginia Division of Legislative Services); Blair Garka, Mike Lehmkuhler, Sandra Jones McNinch, and Earl Sam (Virginia Economic Development Partnership); Robert Lenkowicz and Laura Wilborn (Virginia General Assembly, Division of Legislative Automated Systems); Manuel Timbreza (Virginia Municipal League); Andy Farmer and Kenneth Schrad (Virginia State Corporation Commission); Sarah Capps (Virginia Tobacco Region Revitalization

Commission); Gregory Potts (Washington Metropolitan Area Transit Authority); and Stephen Kulp (Weldon Cooper Center for Public Service).

The author extends thanks for assistance and insight from Jim Gillespie, John Miller, Peter Ohlms, and Amy O’Leary and for editing expertise from Linda Evans (all of the Virginia Transportation Research Council). Finally, the author thanks Juliet Brown (VDOT’s LAD) and Marsha Fiol (VDOT’s Transportation and Mobility Planning Division) for critical review that guided the study to completion and implementation.

REFERENCES

- American Association of State Highway and Transportation Officials. AASHTO Summary of the New Surface Transportation Bill. Fixing America’s Surface Transportation (Fast) Act. December 16, 2015.
<http://fast.transportation.org/Documents/AASHTO%20Summary%20of%20FAST%20Act%202015-12-16%20FINAL.pdf>. Accessed May 2, 2016.
- American Association of State Highway and Transportation Officials. CBO Sees Threat to Highway Trust Fund Solvency in 2021, \$108B Deficit by 2026. February 5, 2016.
<http://www.aashtojournal.org/Pages/020516cbo.aspx>. Accessed May 20, 2016.
- Appalachian Regional Commission. County Economic Status, Fiscal Year 2017: Appalachian Virginia. n.d.
https://www.arc.gov/reports/region_report.asp?FIPS=51999&REPORT_ID=62. Accessed March 23, 2017.
- Appalachian Regional Commission. Legislative Update. July 2012.
http://www.arc.gov/news/article.asp?ARTICLE_ID=359. Accessed May 12, 2015.
- Appalachian Regional Commission. ARC Project Guidelines. 2015a.
<http://www.arc.gov/publications/ARCProjectGuidelines.asp#>. Accessed May 12, 2015.
- Appalachian Regional Commission. *County Economic Status and Number of Distressed Areas in Appalachian Virginia, Fiscal Year 2016*. May 2015b.
http://www.arc.gov/images/appregion/economic_statusFY2016/CountyEconomicStatusandDistressAreasFY2016Virginia.pdf. Accessed April 6, 2016.
- Appalachian Regional Commission. *FY15 Performance Budget Justification*. February 11, 2015c.
<http://www.arc.gov/images/newsroom/publications/fy2015budget/FY2015PerformanceBudgetMar2014.pdf>. Accessed May 13, 2015.
- Arlington County Virginia. *Adopted Biennial Capital Improvement Plan, Fiscal Years 2013-2022*. Arlington, July 2012. <http://arlingtonva.s3.amazonaws.com/wp->

- content/uploads/sites/18/2013/10/2013-2022-CIP-ALL-IN-ONE.pdf. Accessed May 25, 2015.
- Arlington County Virginia. *FY14 Adopted Budget*. Arlington, April 20, 2013. <http://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/18/2013/10/FY-2014-ADOPTED-ALL-IN-ONE-Budget.pdf>. Accessed May 26, 2015.
- Arlington County Virginia. *Adopted FY15-FY2024 Capital Improvement Plan*. Arlington, July 29, 2014a. <http://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/18/2014/09/3.-Overview.pdf>. Accessed May 26, 2015.
- Arlington County Virginia. *FY15 Adopted Budget*. Arlington, April 22, 2014b. <http://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/18/2014/09/Final-FY-2015-Adopted-with-Page-numbers.pdf>. Accessed May 26, 2015.
- Arlington County Virginia. *FY 2016 Adopted Budget*. Arlington, April 18, 2015. http://arlingtonva.s3.amazonaws.com/wp-content/uploads/sites/18/2015/06/FY16A_Revenues.pdf. Accessed May 19, 2016.
- Beirne, T.C. County Must Seek Alternatives to the Current Proffers System. *Chesterfield Monthly*, June 1, 2013. http://www.chesterfieldmonthly.com/in_their_words/county-must-look-for-alternatives-to-the-current-proffers-system. Accessed May 27, 2015.
- Bennett, B. Email to A. Moruza, April 13, 2016.
- Blaser, T. Recommendation on FY 2014 Tax Rate Within the Prince William Parkway Transportation Improvement District. Memorandum. County of Prince William, VA, April 8, 2013.
- Blaser, T. Recommendation on FY 2017 Tax Rate Within the Route 234 Bypass Transportation Improvement District. Memorandum. County of Prince William, VA, March 17, 2016.
- Buchanan County Virginia. *Financial Statements Fiscal Year Ended June 30, 2011*. November 14, 2011.
- Buchanan County Virginia. *Financial Statements Fiscal Year Ended June 30, 2012*. December 14, 2012.
- Buchanan County Virginia. *Financial Statements, Fiscal Year Ended June 30, 2013*. December 16, 2013. <http://www.buchanancountyonline.com/2013financial.pdf>. Accessed September 6, 2016.
- Buchanan County Virginia. *Annual Financial Report, Fiscal Year Ended June 30, 2014*. February 17, 2015. <http://www.buchanancountyonline.com/2014financial.pdf>. Accessed September 6, 2016.

- Buchanan County Virginia. *Annual Financial Report, Fiscal Year Ended June 30, 2015*. February 5, 2016. <http://www.buchanancountyonline.com/2015.pdf>. Accessed September 6, 2016.
- Chesterfield County Virginia. *Biennial Financial Plan, FY2013 and FY2014, FY2014 Amendments, Capital Improvement Program, FY2014-FY2018*. April 10, 2013. <http://www.chesterfield.gov/WorkArea/DownloadAsset.aspx?id=8589948495>. Accessed May 26, 2015.
- Chesterfield County Virginia. *Annual Financial Plan, FY2016-Capital Improvement Program, FY2016-FY2020*. June 18, 2015a. <http://www.chesterfield.gov/WorkArea/DownloadAsset.aspx?id=8590046940>. Accessed March 30, 2017.
- Chesterfield County Virginia. *Moving Forward—The Comprehensive Plan for Chesterfield County*. 2015b. <http://www.chesterfield.gov/movingforward/>. Accessed May 7, 2016.
- Chmura Economics and Analytics. *Economic Impact of Virginia Tobacco Commission*. July 2009. [http://www.tic.virginia.gov/pdfs/grantfunding/Revitalization_final%20\(4\).pdf](http://www.tic.virginia.gov/pdfs/grantfunding/Revitalization_final%20(4).pdf). Accessed April 27, 2016.
- City of Alexandria Virginia. *Approved Operating Budget Fiscal Year 2014*. Alexandria, June 28, 2013. <https://www.alexandriava.gov/uploadedFiles/budget/info/budget2014/FY%202014%20Aapproved%20Operating%20Budget.pdf>. Accessed May 27, 2015.
- City of Alexandria Virginia. *Approved FY 2016-2025 Capital Improvement Program*. Alexandria, May 7, 2015a. <https://www.alexandriava.gov/uploadedFiles/budget/info/budget2016/Full%20Approved%20FY%202016-2025%20CIP%20Document.pdf>. Accessed May 7, 2016.
- City of Alexandria Virginia. *FY 2016 Approved Budget*. Alexandria, May 7, 2015b. <https://www.alexandriava.gov/uploadedFiles/budget/info/budget2016/Section%209%20-%20Revenues%20Summary.pdf>. Accessed May 19, 2016.
- City of Chesapeake Virginia. *Dominion Boulevard Veterans Bridge. Milestones and Presentations*. n.d.a. <http://www.cityofchesapeake.net/government/City-Departments/Departments/Public-Works-Department/chesapeake-transportation-system/bridges-dominion-blvd-improvements/milestones-presentations.htm>. Accessed March 30, 2017.
- City of Chesapeake Virginia. *Dominion Boulevard Veterans Bridge. Frequently Asked Questions*. n.d.b. <http://www.cityofchesapeake.net/government/City-Departments/Departments/Public-Works-Department/chesapeake-transportation-system/bridges-dominion-blvd-improvements/frequently-asked-questions.htm>. Accessed March 30, 2017.

- City of Chesapeake Virginia. City Council Work Session. PowerPoint Presentation, July 13, 2010.
http://chesapeake.granicus.com/DocumentViewer.php?file=chesapeake_121ef84690f8e835e22d68b2952d6ce7.pdf. Accessed May 28, 2015.
- City of Chesapeake Virginia. Chesapeake Expressway Toll Revenue and Traffic Analysis. PowerPoint Presentation, November 15, 2011.
http://www.cityofchesapeake.net/Assets/documents/departments/public_works/chesapeake_expressway/Chesapeake+Expressway+2011+Peak+Season+Analysis.pdf. Accessed May 16, 2016.
- City of Chesapeake Virginia. Urban Construction Initiative Annual Meeting. PowerPoint Presentation, July 2012.
http://www.virginiadot.org/business/resources/local_assistance/UCI/July2012/Innovative_Project_Financing_Cheseapeake_Presentation_Sorey_7-12-12.pdf. Accessed May 28, 2015.
- City of Chesapeake Virginia. *Capital Improvement Plan for the Five Year Period Ending June 30, 2018*. Chesapeake, May 14, 2013.
<http://www.cityofchesapeake.net/Assets/documents/departments/budget/2013-2014/cib-econ-dev.pdf>. Accessed May 27, 2015.
- City of Chesapeake Virginia. City Council Update. PowerPoint Presentation, October 27, 2015.
http://www.cityofchesapeake.net/Assets/documents/departments/public_works/2015+Oct+CTS+Update.pdf. Accessed May 18, 2016.
- City of Chesapeake Virginia. Annual Reassessment Report. January 1, 2016a.
<http://www.cityofchesapeake.net/AssetFactory.aspx?did=28992>. Accessed May 11, 2016.
- City of Chesapeake Virginia. Toll Schedule. July 26, 2016b.
<http://www.cityofchesapeake.net/government/City-Departments/Departments/Public-Works-Department/chesapeake-transportation-system/bridges-dominion-blvd-improvements/multi-year-toll-schedule.htm>. Accessed August 10, 2016.
- City of Fairfax Virginia. *Adopted Budget FY 2013-2014*. February 26, 2013.
<http://www.fairfaxva.gov/home/showdocument?id=1184>. Accessed June 30, 2014.
- City of Fredericksburg Virginia. *Adopted Operating and Capital Budget FY 2014*. August 1, 2013. <http://www.fredericksburgva.gov/DocumentCenter/View/1491>. Accessed May 28, 2015.
- City of Manassas Virginia. *Fiscal Year 2014 Five-Year Capital Improvement Program*. May 13, 2013. <http://www.manassascity.org/DocumentCenter/View/21881>. Accessed May 28, 2015.

- City of Manassas Virginia. *FY 2016 Adopted Budget*. May 11, 2015.
<http://www.manassascity.org/mwg-internal/de5fs23hu73ds/progress?id=mIrRrCnYW6eAwqDvLVX99o9-gpMzD9E4jFzIsE0UpyA,&dl>. Accessed May 7, 2016.
- City of Manassas Park Virginia. *Adopted Budgets for the Fiscal Year Ending June 30, 2014*. June 28, 2013.
<http://www.cityofmanassaspark.us/images/pdf/FY14%20Adopted%20Budget.pdf>. Accessed May 25, 2015.
- City of Suffolk Virginia. *Adopted Budget FY2015-2016*. May, 2015a.
https://issuu.com/cityofsuffolk/docs/adopted_operating__capital_budget_f?e=23094463/32768671. Accessed May 7, 2017.
- City of Suffolk Virginia. *Capital Improvements Plan FY 2016-2025*. May, 2015b.
<http://www.suffolkva.us/bsp/cip/>. Accessed May 8, 2016.
- City of Virginia Beach Virginia. *Resource Management Plan Operating Budget (Adopted) FY 2012-13*. May 8, 2012. <https://www.vbgov.com/government/departments/budget-office-management-services/budget-archives/Documents/fy13-adopted-budget/20120615-adopted-operating.pdf>. Accessed May 26, 2015.
- City of Virginia Beach Virginia. *Resource Management Plan Capital Improvement Program (Adopted), FY 2013-14*. May 14, 2013.
<http://www.vbgov.com/government/departments/budget-office-management-services/budget-archives/Documents/fy14-adopted-budget/adopted-cip-fy201314.pdf>. Accessed May 27, 2015.
- City of Virginia Beach Virginia. *Resource Management Plan Capital Improvement Program (Adopted) FY 2015-16*. May 5, 2015a.
<https://www.vbgov.com/government/departments/budget-office-management-services/budget-archives/Documents/fy16-adopted-budget/FY%202015-16%20Adopted-CIP.pdf>. Accessed May 10, 2016.
- City of Virginia Beach Virginia. *Resource Management Plan Operating Budget (Adopted) FY 2015-16*. May 5, 2015b. <https://www.vbgov.com/government/departments/budget-office-management-services/budget-archives/Documents/fy16-adopted-budget/FY%202015-16%20Adopted-Operating.pdf>. Accessed May 10, 2016.
- City of Williamsburg Virginia. *Adopted Budget Fiscal Year 2014*. May 9, 2013.
<http://www.williamsburgva.gov/Modules/ShowDocument.aspx?documentid=8281>. Accessed May 27, 2015.
- City of Williamsburg Virginia. *Adopted Budget Fiscal Year 2016*. May 14, 2015.
<https://www.williamsburgva.gov/Index.aspx?page=1401>. Accessed May 19, 2016.

- Commission on Local Government. *Report on Proffered Cash Payments and Expenditures by Virginia's Counties, Cities and Towns 2014-2015*. Richmond, November 2015.
<http://www.dhcd.virginia.gov/images/clg/proffrpt1415.pdf>. Accessed May 11, 2016.
- Commonwealth of Virginia Appalachian Regional Commission. *2017 ARC Annual Strategy Statement*. August 2016.
<http://www.dhcd.virginia.gov/images/ARC/2016%20ARC%20Annual%20Strategy%20Statement.pdf>. Access March 23, 2017.
- Commonwealth Transportation Board. Resolution of the Commonwealth Transportation Board: Airport Access to Williamsburg-Jamestown Airport, Project 0810-047-637, M501, James City County. Richmond, September 21, 2011.
http://www.ctb.virginia.gov/resources/2011/sept/resol/Agenda_Item_4_JamesCityCo_Williamsburg-JamestownAirport.CTBres.pdf. Accessed June 1, 2015.
- Commonwealth Transportation Board. Agendas and Meeting Minutes: Resolutions. 2011-2015.
<http://www.ctb.virginia.gov/meetings.asp>. Accessed January 16, 2019.
- Commonwealth Transportation Board. Resolution of the Commonwealth Transportation Board: Airport Access to Grundy Municipal Airport, Project 0718-013-816, N501 (Revised), Buchanan County. Richmond, September 19, 2012.
http://www.ctb.virginia.gov/resources/2012/sept/reso/Resolution_Agenda_Item_1_BuchananCo_GrundyAirport.pdf. Accessed May 30, 2015.
- Commonwealth Transportation Board. Agendas and Meeting Minutes: Resolutions. 2012-2015.
<http://www.ctb.virginia.gov/meetings.asp>. Accessed January 16, 2019.
- Commonwealth Transportation Board. Repeal of Virginia Administrative Code (VAC) Entry for Recreational Access Fund Policy (24VAC30-301). October 17, 2013.
http://www.ctb.virginia.gov/resources/2013/oct/reso/Resolution_Agenda_Item_11.pdf
Accessed May 12, 2015.
- Commonwealth Transportation Board. Resolution of the Commonwealth Transportation Board: Economic Development Access Fund Policy (Revision). December 7, 2016.
http://www.virginiadot.org/business/resources/local_assistance/access_programs/Resolution_11_EDAPolicy.pdf. Accessed May 7, 2018.
- Commonwealth Transportation Board. Resolution of the Commonwealth Transportation Board: Policy and Guidelines for the Revenue Sharing Program (Revision). December 5, 2018.
<http://www.ctb.virginia.gov/resources/2018/dec/res/5policy-and-guidelines-for-the-revenue-sharing-program-revision.pdf>. Accessed February 11, 2019.
- Connaughton, S. *Report on the Transportation Partnership Opportunity Fund*. July 28, 2011.
[http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD1502011/\\$file/RD150.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD1502011/$file/RD150.pdf). Accessed May 18, 2015.

- Connaughton, S. *Report on the Transportation Partnership Opportunity Fund*. July 31, 2013. [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD1682013/\\$file/RD168.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD1682013/$file/RD168.pdf). Accessed September 16, 2016.
- Court Listener. *Marshall v. Northern Virginia Transp. Auth.*, 657 S.E.2d 71 (Va. 2008). February 29, 2008. <https://www.courtlistener.com/opinion/1058522/marshall-v-northern-virginia-transp-auth/>. Accessed May 10, 2016.
- DeBruhl, J. *Economic Development Access Program Bonded Project Moratorium Update*. PowerPoint Presentation, January 15, 2014. http://www.ctb.virginia.gov/resources/2014/jan/pres/Presentation_Agenda_Item_3.pdf. Accessed May 12, 2015.
- Dickenson County Virginia. *Annual Financial Report, Fiscal Year Ended June 30, 2011*. January 18, 2012a. <http://www.dickensonva.org/DocumentCenter/View/204>. Accessed September 6, 2016.
- Dickenson County Virginia. *Annual Financial Report, Fiscal Year Ended June 30, 2012*. December 19, 2012b. <http://www.dickensonva.org/DocumentCenter/View/203>. Accessed September 6, 2016.
- Dickenson County Virginia. *Annual Financial Report, Fiscal Year Ended June 30, 2013*. April 23, 2014a. <http://www.dickensonva.org/DocumentCenter/View/202>. Accessed September 6, 2016.
- Dickenson County Virginia. *Annual Financial Report, Fiscal Year Ended June 30, 2014*. December 18, 2014b. <http://www.dickensonva.org/DocumentCenter/View/335>. Accessed September 6, 2016.
- Dickenson County Virginia. *Annual Financial Report for the Year Ended June 30, 2015*. February 4, 2016. <http://www.dickensonva.org/DocumentCenter/View/342>. Accessed September 6, 2016.
- Duncan, J.B., Nelson, A.C., and Bise, C. *Impact Fee Primer*. PowerPoint Presentation, December 4, 2009. <http://dls.virginia.gov/groups/DLUT/MEETINGS/120409/primer.pdf>. Accessed May 15, 2015.
- Earl, S. Email to A. Moruza, April 15, 2016.
- Fairfax County Virginia. *FY 2014 Adopted Budget Plan (Vol. 2): Fund 30000 Metro Operations and Construction*. Fairfax, June 2013a. <http://www.fairfaxcounty.gov/dmb/fy2014/adopted/volume2/30000.pdf>. Accessed May 28, 2015.

- Fairfax County Virginia. FY 2014-FY 2018 Adopted Capital Improvement Program: Transportation and Pedestrian Initiatives. February 26, 2013b. <http://www.fairfaxcounty.gov/dmb/fy2014/adopted/cip/transportation.pdf>. Accessed March 24, 2017.
- Fairfax County Virginia. *FY 2014 Adopted Budget Plan (Vol. 2): Fund 40180: Tyson's Service District*. Fairfax, April 30, 2013c. <http://www.fairfaxcounty.gov/dmb/fy2014/adopted/volume2/40180.pdf>. Accessed June 6, 2015.
- Fairfax County Virginia. *FY 2014-2018 Adopted Capital Improvement Program*. Fairfax, April 30, 2013d. <http://www.fairfaxcounty.gov/dmb/fy2014/adopted/cip.pdf>. Accessed May 28, 2015.
- Fairfax County Virginia. *FY 2016 Adopted Budget Plan (Vol.2): Fund 40180: Tysons Service District*. Fairfax, April 28, 2015a. <http://www.fairfaxcounty.gov/dmb/fy2016/adopted/volume2/40180.pdf>. Accessed June 1, 2016.
- Fairfax County Virginia. *FY 2016 Adopted Budget Plan (Vol. 2): Fund 70000: Route 28 Tax District*. Fairfax, April 28, 2015b. <http://www.fairfaxcounty.gov/dmb/fy2016/adopted/volume2/70000.pdf>. Accessed June 8, 2016.
- Fairfax County [Virginia] Department of Transportation. *Status Report on the Fairfax County Board of Supervisors' Third Four-Year Transportation Program, FY 2013 Through FY 2016*. February 2014. <http://www.fairfaxcounty.gov/fcdot/pdf/4yearplanreport.pdf>. Accessed April 15, 2014.
- Farmer, L. Hampton Roads Transportation Planning Organization Transportation Technical Advisory Committee. PowerPoint Presentation, May 7, 2014. http://www.hrtpo.org/uploads/docs/P12-2040_LRTP_Revenue_Estimates.pdf. Accessed May 25, 2015.
- Federal Highway Administration Office of Innovative Program Delivery. Project Profiles: Dulles Greenway. n.d. http://www.fhwa.dot.gov/ipd/project_profiles/va_dulles_greenway.aspx. Accessed May 15, 2016.
- Federal Highway Administration. Federal Lands Access Program. September 12, 2013a. <http://www.fhwa.dot.gov/map21/factsheets/flap.cfm>. Accessed May 23, 2015.
- Federal Highway Administration. Federal Lands Transportation Program Questions & Answers. June 26, 2013b. <http://www.fhwa.dot.gov/map21/qandas/qaflltp.cfm>. Accessed May 22, 2015.

- Federal Highway Administration. Federal Lands Access Program Questions & Answers. December 1, 2014. <http://www.fhwa.dot.gov/map21/qandas/qaflap.cfm>. Accessed May 22, 2015.
- Federal Highway Administration. Every Day Counts. May 14, 2015a. <http://www.fhwa.dot.gov/everydaycounts/>. Accessed May 23, 2015.
- Federal Highway Administration. Federal Lands Access Program Virginia. January 16, 2015b. <http://flh.fhwa.dot.gov/programs/flap/reports/documents/va.pdf>. Accessed May 23, 2015.
- Federal Highway Administration. Accelerated Innovation Deployment (AID) Demonstration. April 14, 2016a. <https://www.fhwa.dot.gov/innovation/grants/>. Accessed May 2, 2016.
- Federal Highway Administration. Accelerated Innovation Deployment (AID) Demonstration. May 2, 2016b. <http://www.fhwa.dot.gov/innovation/grants/projects/>. Accessed May 2, 2016.
- Federal Highway Administration. Eastern Federal Lands Access Program. March 2, 2016c. <http://flh.fhwa.dot.gov/programs/flap/va/documents/va-program-projects-fy15-18.pdf>. Accessed May 2, 2016.
- Federal Highway Administration. Federal Lands Access Program Funding Table FY 2016. February 2, 2016d. http://flh.fhwa.dot.gov/programs/flap/documents/FAST_Public_FundingTABLE_FY2016.pdf. Accessed May 2, 2016.
- Federal Highway Administration. Fixing America's Surface Transportation Act (FAST Act) Appalachian Development Highway System Questions & Answers. March 3, 2016e. <https://www.fhwa.dot.gov/specialfunding/adhs/qa.cfm>. Accessed March 25, 2016.
- Federal Highway Administration. Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National efficiencies (FASTLANE) Grants. April 22, 2016f. <http://www.fhwa.dot.gov/fastact/factsheets/fastlanegrantsfs.cfm>. Accessed May 3, 2016.
- Federal Highway Administration. National Highway Freight Network. April 22, 2016g. <http://ops.fhwa.dot.gov/freight/infrastructure/nfn/index.htm>. Accessed May 2, 2016.
- Federal Highway Administration. Nationally Significant Freight and Highway Projects. February 2, 2016h. https://www.transportation.gov/sites/dot.gov/files/docs/NSFHP%20Fact%20Sheets%20with%20Letterhead_v2.pdf. Accessed May 2, 2016.
- Federal Highway Administration. Notice of Funding Opportunity for the Department of Transportation's Nationally Significant Freight and Highway Projects (FASTLANE Grants) for Fiscal Year 2016. March 15, 2016i.

<https://www.transportation.gov/sites/dot.gov/files/docs/FY16%20FASTLANE%20Amended%20NOFO.pdf>. Accessed May 2, 2016.

Federal Register. Notice of Funding Availability for Accelerated Innovation Deployment Demonstration. February 19, 2014.
<https://www.federalregister.gov/articles/2014/02/19/2014-03452/notice-of-funding-availability-for-accelerated-innovation-deployment-demonstration#h-10>. Accessed May 23, 2015.

Federal Register. Rural Business Development Grant. March 6, 2015.
<https://www.federalregister.gov/articles/2015/03/25/2015-06489/rural-business-development-grant>. Accessed May 2, 2016.

Fredericksburg Area Metropolitan Planning Organization. George Washington Toll Road Authority. n.d.a. <https://www.fampo.gwregion.org/george-washington-toll-road-authority/>. Accessed March 28, 2017.

Fredericksburg Area Metropolitan Planning Organization. I-95 Access Study. n.d.b.
<https://www.fampo.gwregion.org/i-95-access-study/>. Accessed March 28, 2017.

Fredericksburg Area Metropolitan Planning Organization. Rappahannock River Crossing. n.d.c.
<https://www.fampo.gwregion.org/transportation-studies/i-95-rappahannock-river-crossing/>. Accessed March 25, 2017.

Free Lance Star. Editorial: Unified region wins big on road funding. May 16, 2016.
https://www.fampo.gwregion.org/wp-content/uploads/2016/05/051616-Editorial_-_Unified-region-wins-big-on-road-funding-Fredericksburg.pdf. Accessed March 28, 2017.

Gapasin, R. Email to A. Moruza, April 10, 2014.

Garka, B. Email to A. Moruza, April 14, 2016.

Hall, D. Road Improvement Set for South Street, Others. *Martinsville Bulletin*, October 5, 2012.
<http://www.martinsvillebulletin.com/article.cfm?ID=34952>. Accessed May 20, 2015.

Hampton Roads Transportation Accountability Commission and Hampton Roads Transportation Planning Organization. *Fiscal Year 2014 Annual Report to the Joint Commission on Transportation Accountability Relating to the Hampton Roads Transportation Fund*. January 15, 2015. <http://www.hrtpo.org/uploads/docs/011515TPO-A19E-FY2014%20Annual%20Report%20on%20the%20Hampton%20Road%20Roads%20Transportation%20Fund%20to%20the%20Joint%20Commission%20on%20Transportation%20Accountability.pdf>. Accessed May 21, 2016.

Hampton Roads Transportation Accountability Commission and Hampton Roads Transportation Planning Organization. *Fiscal Year 2015 Annual Report to the Joint Commission on*

- Transportation Accountability Relating to the Hampton Roads Transportation Fund*. January 5, 2016.
[http://leg2.state.va.us/dls/h&sdocs.nsf/fc86c2b17a1cf388852570f9006f1299/ae7782f1338fbc3c85257cf9005e4f4e/\\$FILE/RD7.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/fc86c2b17a1cf388852570f9006f1299/ae7782f1338fbc3c85257cf9005e4f4e/$FILE/RD7.pdf). Accessed May 21, 2016.
- Herlands, J., Nelson, A.C., Dawson, Y., and Minor, S. Proffers vs. Impact Fees: The Virginia Experience. PowerPoint Presentation, October 6, 2006.
http://www.growthandinfrastructure.org/proceedings/2006_proceedings/nelson&dawson&minor&herlands_proffers.pdf. Accessed May 20, 2015.
- Homer, P. *Report on Transportation Partnership Opportunity Fund*. August 1, 2006.
[http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD1162006/\\$file/RD116.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD1162006/$file/RD116.pdf). Accessed May 18, 2015.
- Homer, P. *Report on Transportation Partnership Opportunity Fund*. January 13, 2010.
[http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD242010/\\$file/RD24.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD242010/$file/RD24.pdf). Accessed April 7, 2016.
- Joint Legislative and Audit Review Commission. *Review of State Economic Development Incentive Grants*. November 2012. <http://jlarc.virginia.gov/pdfs/reports/Rpt431.pdf>. Accessed June 3, 2015.
- Jordan, J. Email to A. Moruza, March 18, 2015.
- Jordan, J. Email to A. Moruza, April 13, 2016.
- Knapp, J.L., and Kulp, S.C. Real Property Tax, 2011. In *Virginia Local Tax Rates, 2011*. Weldon Cooper Center for Public Service, Charlottesville, VA, 2012.
<http://www.coopercenter.org/sites/default/files/econ/TaxRates/taxrates2011/tr0211.pdf>. Accessed May 19, 2015.
- Knapp, J.L., and Kulp, S.C. Real Property Tax, 2014. In *Virginia Local Tax Rates, 2014*. Weldon Cooper Center for Public Service, Charlottesville, VA, 2015.
http://www.coopercenter.org/sites/default/files/publications/TR2013_sect1.pdf. Accessed May 19, 2015.
- Kozel, Scott. Chesapeake Expressway (VA-168). November 1, 2003.
http://www.roadstothefuture.com/VA168_Chesa_Expwy.html. Accessed May 15, 2015.
- Kulp, S.C. Email to A. Moruza, September 14, 2016.
- Lawson, J. Commonwealth Transportation Fund, Fiscal Years 2014-2019 Preliminary Six-Year Financial Plan. PowerPoint Presentation, February 20, 2013.
http://www.ctb.virginia.gov/resources/2013/feb/pres/Presentation_Agenda_Item_6_Financial_Outlook.pdf. Accessed May 8, 2015.

- Layne, A. *Report on the Transportation Partnership Opportunity Fund*. July 30, 2015. [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD1942015/\\$file/RD194.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD1942015/$file/RD194.pdf). Accessed April 7, 2016.
- Layne, A. *Report on the Transportation Partnership Opportunity Fund*. March 9, 2016a. [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD1192016/\\$file/RD119.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD1192016/$file/RD119.pdf). Accessed April 7, 2016.
- Layne, A. *Report on the Transportation Partnership Opportunity Fund*. July 31, 2016b. [http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2282016/\\$file/RD228.pdf](http://leg2.state.va.us/dls/h&sdocs.nsf/By+Year/RD2282016/$file/RD228.pdf). Accessed September 16, 2016.
- Llovio, L. Official: Chesterfield Must Be Fair on Proffers. *Richmond Times-Dispatch*, March 2, 2014. Richmond, Virginia. http://www.richmond.com/news/local/chesterfield/official-chesterfield-must-be-fair-on-proffers/article_2be1bfa3-0a80-590a-b3ee-b9f08cf85a0b.html. Accessed May 27, 2015.
- Long, E.A., Jr. Adoption of the FY 2016 Budget Plan. Memorandum. County of Fairfax, Virginia, April 27, 2015. <http://www.fairfaxcounty.gov/dmb/fy2016/adopted/fy2016-adopted-budget-package.pdf>.
- Longhi, M. Northern Virginia Transportation Authority Monthly Revenue Report. Memorandum. December 7, 2015. <http://www.thenovaauthority.org/wp-content/uploads/XIV-Monthly-Revenue-Report1.pdf>. Accessed May 10, 2016.
- Loudoun County Virginia. Greenlea Tax District—District 9. n.d. <http://www.loudoun.gov/index.aspx?NID=1901>. Accessed May 7, 2016.
- Loudoun County Virginia. *FY 2014 Adopted Fiscal Plan*. April 3, 2013. <https://www.loudoun.gov/DocumentCenter/View/90164>. Accessed June 9, 2016.
- Loudoun County Virginia. *FY 2016 Adopted Budget*. April 1, 2015a. <https://www.loudoun.gov/DocumentCenter/View/114810>. Accessed May 7, 2016.
- Loudoun County Virginia. Route 28 Transportation Improvement—District 2. 2015b. <http://www.loudoun.gov/index.aspx?NID=1897>. Accessed May 25, 2015.
- Lowry, D. Email to A. Moruza, April 3, 2014.
- Maras, J. Email to A. Moruza, May 23, 2016.
- Martin, B.D. Email to A. Moruza, December 4, 2015a.
- Martin, E.J. Chesapeake Transportation System CTS Follow Up. Memorandum. City of Chesapeake, Virginia. October 30, 2015b.

- http://www.cityofchesapeake.net/Assets/documents/departments/public_works/chesapeake_expressway/2015+Oct+CTS+FollowUp.pdf. Accessed May 18, 2016.
- Michael Baker Jr., Inc. I-95 Interchange Modification Report. March 26, 2015.
http://www.virginiadot.org/projects/resources/Fredericksburg/UPDATED_Rapp._River_Crossing_Volume_I.html. Accessed March 28, 2017.
- Mid-Atlantic Advanced Manufacturing Center. MAMaC receives 3.3 million from VDOT. July 24, 2013. <http://www.mamacva.com/news/item/mamac-receives-three-point-three-million-from-vdot>. Accessed June 3, 2016.
- Mid-Atlantic Advanced Manufacturing Center. Mid-Atlantic Advanced Manufacturing Center Receives Two Grants to Expand Otterdam Road. February 4, 2014.
<http://www.mamacva.com/news/item/mamac-receives-grants-to-expand-otterdam-road>. Accessed June 4, 2016.
- Mooney, R. Email to A. Moruza, November 25, 2015.
- Mullen, C. State Impact Fee Enabling Acts. January 3, 2015.
www.impactfees.com/publications%20pdf/state_enabling_acts.pdf. Accessed May 15, 2016.
- Nohe, M. Kick Starting Transportation Improvements and Implementing HB2313 in Northern Virginia. Jurisdictional Open House Presentation, Northern Virginia Transportation Authority. June 20, 2013. http://www.thenovaauthority.org/wp-content/uploads/2015/09/NVTAJune2013_AllDocs.pdf. Accessed June 3, 2016.
- Northern Virginia Transportation Commission. *Funding the NVTC Jurisdictions' Obligations to WMATA*. May 5, 2016. <http://www.drpt.virginia.gov/media/1862/nvtc-va-funding-of-wmata-issue-brief-may-2016.pdf>. Accessed May 8, 2018.
- Office of the Governor. Governor McAuliffe Announces 40 New Jobs in Nottoway County. Press Release, March 19, 2014a.
<https://governor.virginia.gov/newsroom/newsarticle?articleId=3624>. Accessed May 20, 2015.
- Office of the Governor. Governor McAuliffe Announces 70 New Jobs in City of Hopewell. Press Release, April 9, 2014b.
<https://governor.virginia.gov/newsroom/newsarticle?articleId=3831>. Accessed May 29, 2015.
- Office of the Governor. Governor McAuliffe Announces New Jobs, Meat Processing Facility for Lynchburg. Press Release, December 18, 2014c.
<https://governor.virginia.gov/newsroom/newsarticle?articleId=7496>. Accessed May 20, 2015.

- Office of the Governor. Governor McAuliffe Announces \$699,500 in Community Development Block Grants for Town of Coeburn and Wise County. May 11, 2016. <http://governor.virginia.gov/newsroom/newsarticle?articleId=15206>. Accessed June 10, 2016.
- Ohlms, P.B. *Local Government Funding and Financing of Roads: Virginia Case Studies and Examples From Other States*. VTRC 15-R2. Virginia Transportation Research Council, Charlottesville, 2014.
- PBMares, LLP. Financial Statements June 30, 2015. <http://www.prtctransit.org/docs/FY15-Financial-Statements.pdf>. Accessed May 4, 2016.
- Prince William County Board of Supervisors. FY 2014 Budget. Bull Run Service District. 2013a. <http://www.pwcgov.org/government/dept/budget/Documents/11--Community%20Development--10--Bull%20Run%20Service%20District.pdf>. Accessed May 26, 2015.
- Prince William County Board of Supervisors. FY 2014 Budget. Lake Jackson Service District. 2013b. <http://www.pwcgov.org/government/dept/budget/Documents/11--Community%20Development--11--Lake%20Jackson%20Service%20District.pdf>. Accessed May 26, 2015.
- Prince William County Virginia. *FY 2016 Budget*. April 21, 2015. <http://www.pwcgov.org/government/dept/budget/Documents/08--Community%20Development%20--%20FY16%20--.pdf>. Accessed May 4, 2016.
- Puro, S. The FAST Act and the Status of the Highway Trust Fund. PowerPoint Presentation, January 10, 2016. <https://www.cbo.gov/publication/51122>. Accessed January 28, 2016.
- Richmond Metropolitan Transportation Authority. History of the RMTA. n.d. <http://www.rmaonline.org/history.html>. Accessed May 16, 2016.
- Richmond Metropolitan Transportation Authority. Adopted Fiscal Plan and Capital Budget Fiscal Year 2016. Richmond, VA, July 15, 2015. http://www.rmtaonline.org/wp-content/uploads/2016/09/FY16_Budget1.pdf. Accessed March 27, 2017.
- Richmond Metropolitan Transportation Authority. Annual Fiscal Plan FY 2017 and Capital Budget FY 2017-2022. Richmond, VA, May 27, 2016. http://www.rmtaonline.org/wp-content/uploads/2016/09/FY2017__Budget.pdf. Accessed March 27, 2017.
- Richmond Metropolitan Transportation Authority. Annual Fiscal Plan, FY 2018 and Capital Budget, FY 2018-2023. Richmond, VA, April 11, 2017. <http://www.rmtaonline.org/wp-content/uploads/2017/05/Budget-Document-FY18.pdf>. Accessed May 9, 2018.

- Rostami, M. Chesapeake Approves Expressway Toll Increase. *Virginia Pilot*, March 23, 2011. http://pilotonline.com/news/government/local/chesapeake-approves-expressway-toll-increase/article_4fa5ea25-c5f1-5a5d-910a-3c37d63d3701.html. Accessed May 17, 2016.
- Samuel, P. Chesapeake Expressway Busy at 2.7xforecast. *Toll Roads News*. January 18, 2003. <http://tollroadsnews.com/news/chesapeake-expressway-busy-at-27xforecast>. Accessed May 28, 2015.
- Schrad, K. Email to A. Moruza, May 8, 2015.
- Spotsylvania County Virginia. *Fiscal Year 2016 Adopted Budget*. Spotsylvania, April 14, 2015. http://www.spotsylvania.va.us/filestorage/21027/21029/23134/27346/28846/30908/FY_2016_Adopted_Budget.pdf. Accessed May 7, 2016.
- Spotsylvania County Virginia. *Fiscal Year 2018 Adopted Budget*. Spotsylvania, April 4, 2017. http://www.spotsylvania.va.us/filestorage/21027/21029/23134/27346/34633/37005/Entire_document.pdf. Accessed May 9, 2018.
- Stafford County Virginia. *FY 2014–FY 2023 Adopted Capital Improvement Program*. February 2, 2013. <http://staffordcountyva.gov/DocumentCenter/View/4032>. Accessed June 6, 2016.
- Stafford County Virginia. Transportation Impact Fee Policy. May 21, 2014. <http://staffordcountyva.gov/DocumentCenter/View/5295>. Accessed May 14, 2016.
- State Corporation Commission. SCC Approves Dulles Greenway Toll Increase. February 27, 2015. https://www.scc.virginia.gov/newsrel/m_dulles_15.aspx. Accessed May 28, 2015.
- Stroud-Bickes, J. Email to A. Moruza, May 26, 2015.
- Tazewell County Virginia. *Annual Financial Report, Fiscal Year Ended June 30, 2011*. December 30, 2011. <http://tazewellcountyva.org/wp-content/uploads/2015/10/County-of-Tazewell-2011.pdf>. Accessed September 6, 2016.
- Tazewell County Virginia. *Annual Financial Report, Fiscal Year Ended June 30, 2012*. January 11, 2013a. <http://tazewellcountyva.org/wp-content/uploads/2015/10/County-of-Tazewell-2012.pdf>. Accessed September 6, 2016.
- Tazewell County Virginia. *Annual Financial Report for the Year Ended June 30, 2013*. December 2, 2013b. <http://tazewellcountyva.org/wp-content/uploads/2015/10/Tazewell-County-Annual-Financial-Report-2013.pdf>. Accessed September 6, 2016.
- Tazewell County Virginia. *Annual Financial Report, Fiscal Year Ended June 30, 2014*. December 18, 2014. <http://tazewellcountyva.org/wp-content/uploads/2015/10/County-of-Tazewell-2014.pdf>. Accessed September 6, 2016.

- Tazewell County Virginia. *Annual Financial Report for the Year Ended June 30, 2015*. February 4, 2016. <http://tazewellcountyva.org/wp-content/uploads/2015/10/Tazewell-County-Virginia-Annual-Financial-Report-2015.pdf>. Accessed September 6, 2016.
- Thompson, C. Email to A. Moruza, September 10, 2012.
- Thompson, P. Email to A. Moruza, September 1, 2016.
- Toalson, C. Cash Proffers Stunt the County's Economic Development. *Chesterfield Monthly*, May 1, 2012. Midlothian, VA. http://www.chesterfieldmonthly.com/in_their_words/cash-proffers-stunt-the-countys-economic-development. Accessed May 27, 2015.
- Tobacco Region Revitalization Commission. Special Projects—Megasite Program. n.d.a. <http://www.tic.virginia.gov/Special%20Projects%20-%20MEGASITE.shtml>. Accessed June 5, 2017.
- Tobacco Region Revitalization Commission. Special Projects Grant Program. n.d.b. <http://www.tic.virginia.gov/specialprojects.shtml>. Accessed June 5, 2017.
- Tobacco Region Revitalization Commission. Special Projects—Megasite Program: Recent Awards: FY13 Special Projects—Megasite—December 2012. http://www.tic.virginia.gov/pdfs/grantfunding/Special%20Projects%20-%20MEGASITE/FY13/FY13%20Special%20Projects%20-%20Megasite%20Staff%20Summary%20and%20Recommendations%2010-31-12%20_2_.pdf. Accessed May 20, 2015.
- Tobacco Region Revitalization Commission. FY2016 Budget. May 2015a. http://www.tic.virginia.gov/pdfs/Budget/FY2016Budget_APPROVED.pdf. Accessed April 28, 2016.
- Tobacco Region Revitalization Commission. Special Projects—Megasite Program: Recent Awards: FY15 Special Projects—Megasite—May 21, 2015b. <http://www.tic.virginia.gov/pdfs/grantfunding/Special%20Projects%20-%20MEGASITE/FY15/FY15%20Megasite%20Awards%205-21-15.pdf>. Accessed April 27, 2016.
- Tobacco Region Revitalization Commission. Overview of Grant Programs. 2016a. <http://www.tic.virginia.gov/overview.shtml>. Accessed April 28, 2016a.
- Tobacco Region Revitalization Commission. Southside Economic Development Grant Program: Allocation Summary as of January 19, 2016b. <http://www.tic.virginia.gov/pdfs/grantfunding/SSED/FY16/SS%20Allocation%20Status%20as%20of%201-19-2016.pdf>. Accessed June 5, 2017.

- Tobacco Region Revitalization Commission. FY2017 Approved Budget. May 2016c. http://www.tic.virginia.gov/pdfs/Budget/FY2017ProposedBudget_APPROVED_Public.pdf. Accessed March 23, 2017.
- Town of Culpeper Virginia. *FY14 Budget*. June 11, 2013. https://www.culpeperva.gov/Documents/FY14_TOC_Adopted_Budget.pdf. Accessed May 30, 2016.
- Tyerar, D. Virginia Transportation Infrastructure Bank Advisory Panel Recommendation Route 17/Dominion Boulevard Project. PowerPoint Presentation, January 18, 2012. http://www.ctb.virginia.gov/resources/2012/jan/Pre/Agenda_Item_10_VTIB_-_Advisory_Panel_-_Dominion_Boulevard_1-17-2012_-_CTB_Presentation.pdf. Accessed May 28, 2015.
- Upton, M. Email to A. Moruza, September 15, 2016.
- U.S. Department of Agriculture. Community Facilities Direct Loan & Grant Program. 2015a. <http://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program>. Accessed May 22, 2015.
- U.S. Department of Agriculture. Rural Business Development Grants in Virginia. 2015b. <http://www.rd.usda.gov/programs-services/rural-business-development-grants/va>. Accessed May 22, 2015.
- U.S. Department of Agriculture. Virginia Contacts. 2015c. <http://www.rd.usda.gov/contact-us/state-offices/va>. Accessed May 22, 2015.
- U.S. Department of Housing and Urban Development. *Guide to National Objectives and Eligible Activities for CDBG Entitlement Communities*. February 2001. <https://www.hudexchange.info/onecpd/assets/File/CDBG-National-Objectives-Eligible-Activities-Chapter-2.pdf>. Accessed April 29, 2016.
- U.S. Department of Housing and Urban Development. Use of CDBG Funds by the State of Virginia from 07/01/2002 to 06/30/2003. 2004. https://www.hudexchange.info/resource/reportmanagement/published/CDBG_Expend_Grantee_AAAA-VA_VA_2002.pdf. Accessed May 22, 2015.
- U.S. Department of Housing and Urban Development. CDBG Activity Summary Report for Program Year 2006. September 25, 2007. http://www.dhcd.virginia.gov/ConPlan/CDBG_SummaryActivities_Report.pdf. Accessed March 31, 2017.
- U.S. Department of Housing and Urban Development. CDBG Entitlement Program Eligibility Requirements. 2014a. <https://www.hudexchange.info/programs/cdbg-entitlement/cdbg-entitlement-program-eligibility-requirements/>. Accessed April 29, 2016.

- U.S. Department of Housing and Urban Development. *Use of CDBG Funds by Portsmouth, VA From 07-01-2012 to 06-30-2013*. January 9, 2014b.
https://www.hudexchange.info/resource/reportmanagement/published/CDBG_Expend_Grantee_PORT-VA_VA_2012.pdf. Accessed May 22, 2015.
- U.S. Department of Housing and Urban Development. Expenditure Report Use of CDBG Funds by VIRGINIA from 07-01-2013 to 06-30-2014. January 12, 2015.
https://www.hudexchange.info/resource/reportmanagement/published/CDBG_Expend_Grantee_AAAA-VA_VA_2013.pdf. Accessed April 29, 2016.
- U.S. Department of Housing and Urban Development. Community Planning and Development Program Formula Allocations for FY 2016. April 29, 2016a.
http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/about/budget/budget16. Accessed April 29, 2016.
- U.S. Department of Housing and Urban Development. Community Development Block Grants (CDBG) (Entitlement). 2016b.
<http://portal.hud.gov/hudportal/HUD?src=/hudprograms/entitlement>. Accessed April 29, 2016.
- U.S. Department of Housing and Urban Development. CDBG Expenditure Reports. 2018a.
<https://www.hudexchange.info/programs/cdbg/cdbg-expenditure-reports/>. Accessed May 8, 2018.
- U.S. Department of Housing and Urban Development. Frequently Asked Questions. 2018b.
<https://www.hudexchange.info/programs/acs-low-mod-summary-data/acs-low-mod-summary-data-faqs/>. Accessed May 9, 2018.
- U.S. Economic Development Administration. POWER Initiative. n.d.
<https://www.eda.gov/power/>. Accessed March 22, 2017.
- U.S. Government Accountability Office. *Mass Transit: Information on the Federal Role in Funding the Washington Metropolitan Area Transit Authority*. February 18, 2005.
<http://www.gao.gov/products/GAO-05-358T>. Accessed May 25, 2015.
- Virginia Acts of Assembly. Chapter 178: An Act to amend the Code of Virginia by Adding in Chapter 3 of Title 33 a new article numbered 11.2, containing sections numbered 33-255.44:11 through 33-255.44:32 creating a political subdivision and public body corporate of the Commonwealth of Virginia to be known as the “Richmond Metropolitan Authority” and defining its powers and duties [S 298], March 30, 1966. Accessed March 27, 2017.
- Virginia Acts of Assembly. Chapter 225: An Act to levy a sales tax on fuel within certain transportation districts [H 631], March 20, 1980. Accessed March 27, 2017.

Virginia Acts of Assembly. Chapter 395: An Act to amend and reenact §§ 15.1-791.3, 15.1-1372.3, and 15.1-1372.23 of the Code of Virginia; and to amend the Code of Virginia by adding in Title 33.1 a chapter numbered 13, consisting of sections numbered 33.1-409 through 33.1-425, relating to local transportation districts [S 779], March 22, 1993. Accessed May 2, 2018.

Virginia Acts of Assembly. Chapter 859: An Act to amend the Code of Virginia by adding in Chapter 5 of Title 2.1 a section numbered 2.1-51.6:5 and to repeal §§ 2.1-51.6:1 and §§ 2.1-51.6:2 of the Code of Virginia, relating to the Governor's Development Opportunity Fund [H306], April 9, 1996. <http://leg1.state.va.us/cgi-bin/legp504.exe?961+ful+CHAP0859>. Accessed May 18, 2015.

Virginia Acts of Assembly. Chapter 880: An Act to amend and reenact the Code of Virginia relating to the distribution and use of funds pursuant to the Master Settlement Agreement with tobacco product manufacturers; establishment of the Tobacco Indemnification and Community Revitalization Commission and Fund; and establishment of the Virginia Tobacco Settlement Foundation and Fund [H2635], March 29, 1999. <http://leg1.state.va.us/cgi-bin/legp504.exe?991+ful+CHAP0880>. Accessed May 20, 2015.

Virginia Acts of Assembly. Chapter 611: An Act to amend the Code of Virginia by adding in Title 33.1 a chapter numbered 15, consisting of sections numbered 33.1-430 through 33.1-446, relating to local transportation districts in counties having populations greater than 500,000 [H2671], March 24, 2001. <http://lis.virginia.gov/cgi-bin/legp604.exe?011+ful+CHAP0611>. Accessed May 25, 2015.

Virginia Acts of Assembly. Chapter 846: An Act to amend the Code of Virginia by adding in Title 15.2 a chapter numbered 48.2, consisting of sections numbered 15.2-4829 through 15.2-4840, and to repeal Chapter 610 of the Acts of Assembly of 2001, relating to the Northern Virginia Transportation Authority [S 576], April 17, 2002. <http://lis.virginia.gov/cgi-bin/legp604.exe?021+ful+CHAP0846>. Accessed May 10, 2016.

Virginia Acts of Assembly. Chapter 847: An Act to amend the Code of Virginia by adding a section numbered 33.1-221.1:8, relating to the Transportation Partnership Opportunity Fund [H2793], March 26, 2005. <http://lis.virginia.gov/cgi-bin/legp604.exe?051+ful+CHAP0847>. Accessed May 14, 2015.

Virginia Acts of Assembly. Chapter 896: An Act to amend and reenact §§ 2.2-1514, 10.1-1188, 15.2-2317 through 15.2-2327, 15.2-2403, 15.2-4839, 15.2-4840, 33.1-3, 33.1-13, 33.1-19.1, 33.1-23.03, 33.1-23.03:8, 33.1-223.2:12, 33.1-268, 33.1-269, 33.1-277, 46.2-694, 46.2-694.1, 46.2-697, 46.2-1135, 58.1-605, 58.1-606, 58.1-811, 58.1-2217, 58.1-2249, 58.1-2289, 58.1-2403, 58.1-2425, 58.1-2701, and 58.1-2706 of the Code of Virginia; to amend the Code of Virginia by adding a section numbered 15.2-2223.1, by adding in Chapter 22 of Title 15.2 an article numbered 9, consisting of sections numbered 15.2-2328 and 15.2-2329, by adding in Article 1 of Chapter 24 of Title 15.2 a section

numbered 15.2-2403.1, by adding a section numbered 15.2-4838.1, by adding in Title 30 a chapter numbered 42, consisting of sections numbered 30-278 through 30-282, by adding a section numbered 33.1-23.4:01, by adding in Title 33.1 a chapter numbered 10.2, consisting of sections numbered 33.1-391.6 through 33.1-391.15, by adding sections numbered 46.2-206.1, 46.2-702.1, 46.2-755.1, 46.2-755.2, 46.2-1167.1, 58.1-625.1, 58.1-802.1, and 58.1-815.4, by adding in Chapter 17 of Title 58.1 an article numbered 4.1, consisting of sections numbered 58.1-1724.2 through 58.1-1724.7, by adding a section numbered 58.1-2402.1, by adding in Article 2 of Chapter 25 of Title 58.1 a section numbered 58.1-2531, and by adding sections numbered 58.1-3221.2 and 58.1-3825.1; and to repeal the tenth enactment clauses of Chapter 1019 and Chapter 1044 of the Acts of Assembly of 2000, and to authorize the Commonwealth Transportation Board to issue certain bonds, relating to transportation [H 3202], April 4, 2007a. <http://leg1.state.va.us/cgi-bin/legp504.exe?071+ful+CHAP0896>. Accessed May 10, 2016.

Virginia Acts of Assembly. Chapter 940: An Act to authorize toll collections to finance improvements on Dominion Boulevard in the City of Chesapeake [H 2951], April 10, 2007b. <http://leg1.state.va.us/cgi-bin/legp504.exe?071+ful+CHAP0940>. Accessed May 29, 2015.

Virginia Acts of Assembly. Chapter 841: An Act to amend and reenact § 56-542 of the Code of Virginia, relating to the powers of the State Corporation Commission under the Virginia Highway Corporation Act [H 1140], April 11, 2008. <http://lis.virginia.gov/cgi-bin/legp604.exe?081+ful+CHAP0841>. Accessed May 28, 2015.

Virginia Acts of Assembly. Chapter 471: An Act to amend and reenact §§ 33.1-23.03:1, 33.1-287, and 33.1-288, to amend the Code of Virginia by adding in Subtitle IV of Title 15.2 a chapter numbered 70, consisting of sections numbered 15.2-7000 through 15.2-7021, and to repeal Article 11.2 (§§ 33-255.44:11 through 33-255.44:32) of Chapter 3 of Title 33 of the Code of Virginia, continued in effect and carried by reference in § 33.1-320 of the Code of Virginia, and § 33.1-320 of the Code of Virginia, relating to the Richmond Metropolitan Authority [H 2349], March 27, 2009a. <http://lis.virginia.gov/cgi-bin/legp604.exe?091+ful+CHAP0471>. Accessed May 28, 2015.

Virginia Acts of Assembly. Chapter 801: An Act to create the George Washington Toll Road Authority and to prescribe its powers and duties [H 2099], April 8, 2009b. <http://lis.virginia.gov/cgi-bin/legp604.exe?091+ful+CHAP0801>. Accessed May 24, 2016.

Virginia Acts of Assembly. Chapter 822: An Act to amend and reenact § 58.1-3221.3 of the Code of Virginia, relating to real property tax rate; commercial property in Northern Virginia [H 2479], April 8, 2009c. <http://lis.virginia.gov/cgi-bin/legp604.exe?091+ful+CHAP0822>. Accessed May 10, 2016.

Virginia Acts of Assembly. Chapter 864: An Act to amend and reenact §§ 33.1-23.03, 58.1-811, 58.1-2403, 58.1-2425, and 58.1-3221.3 of the Code of Virginia, to amend and reenact the

fifth and sixteenth enactments of Chapter 896 of the Acts of Assembly of 2007, and to repeal Chapter 10.2 (§§ 33.1-391.6 through 33.1-391.15) of Title 33.1 and §§ 46.2-755.1, 46.2-755.2, 46.2-1167.1, 58.1-625.1, 58.1-802.1, 58.1-1724.3, 58.1-1724.5, 58.1-1724.6, 58.1-1724.7, and 58.1-2402.1 of the Code of Virginia and the sixth, fourteenth, fifteenth, and nineteenth enactments of Chapter 896 of the Acts of Assembly of 2007, relating to the Hampton Roads Transportation Authority and taxes, fees, and charges dedicated to financing its operation and programs [H 1580], May 6, 2009d. <http://leg1.state.va.us/cgi-bin/legp504.exe?091+ful+CHAP0864>. Accessed May 25, 2015.

Virginia Acts of Assembly. Chapter 466: An Act to amend the Code of Virginia by adding in Title 3.2 a chapter numbered 3.1, consisting of sections numbered 3.2-303 through 3.2-309, relating to creation of the Governor's Agriculture and Forestry Industries Development Fund [S128], March 30, 2012. <http://lis.virginia.gov/cgi-bin/legp604.exe?121+ful+CHAP0466>. Accessed May 20, 2015.

Virginia Acts of Assembly. Chapter 766: An Act to amend and reenact §§ 15.2-4838.1, 33.1-23.03:8, 33.1-23.5:1, 33.1-221.1:1.3, 58.1-300, 58.1-520, as it is currently effective and as it may become effective, 58.1-601, 58.1-602, 58.1-603, 58.1-604, 58.1-604.1, 58.1-605, 58.1-606, 58.1-608.3, 58.1-612, as it is currently effective and as it may become effective, 58.1-614, 58.1-615, 58.1-625, as it is currently effective and as it shall become effective, 58.1-635, 58.1-638, 58.1-639, 58.1-811, 58.1-2201, 58.1-2217, 58.1-2249, 58.1-2251, 58.1-2259, 58.1-2289, as it is currently effective, 58.1-2295, 58.1-2299.20, 58.1-2401, 58.1-2402, 58.1-2425, 58.1-2701, as it is currently effective, and 58.1-2706 of the Code of Virginia; to amend Chapter 896 of the Acts of Assembly of 2007; to amend the Code of Virginia by adding sections numbered 15.2-4838.01, 33.1-23.5:3, 58.1-603.1, 58.1-604.01, 58.1-638.2, 58.1-638.3, 58.1-802.2, and 58.1-2290.1; to amend the Code of Virginia by adding in Chapter 17 of Title 58.1 an article numbered 10, consisting of a section numbered 58.1-1742; and to repeal Article 22 (§§ 58.1-540 through 58.1-549) of Chapter 3 of Title 58.1 of the Code of Virginia, §§ 58.1-609.13, 58.1-2289 as it may become effective, 58.1-2290, and 58.1-2701, as it may become effective, of the Code of Virginia, and the second enactment of Chapter 822 of the Acts of Assembly of 2009, as amended by Chapter 535 of the Acts of Assembly of 2012, relating to revenues and appropriations primarily for transportation [H 2313], April 3, 2013. <http://lis.virginia.gov/cgi-bin/legp604.exe?131+ful+CHAP0766>. Accessed May 25, 2015.

Virginia Acts of Assembly. Chapter 469. An Act to amend and reenact §§ 15.2-1535, 15.2-7000, 15.2-7001, 15.2-7002, 33.1-23.03:1, 33.1-252, 33.1-287, and 33.1-288 of the Code of Virginia, relating to Richmond Metropolitan Authority; composition of Board of Directors; powers. [H 597] Approved April 1, 2014a. <http://lis.virginia.gov/cgi-bin/legp604.exe?141+ful+CHAP0469>. Accessed March 27, 2017.

Virginia Acts of Assembly. Chapter 678: An Act to amend and reenact § 33.1-23.5:4 of the Code of Virginia and to amend the Code of Virginia by adding in Title 33.1 a chapter numbered 19, consisting of sections numbered 33.1-466 through 33.1-476, relating to establishment of the Hampton Roads Transportation Accountability Commission;

funding [H 1253], April 6, 2014b. <http://lis.virginia.gov/cgi-bin/legp604.exe?141+ful+CHAP0678>. Accessed May 10, 2016.

Virginia Acts of Assembly. Chapter 805: An Act to amend the Code of Virginia by adding a title numbered 33.2, containing a subtitle numbered I, consisting of chapters numbered 1 and 2, containing sections numbered 33.2-100 through 33.2-285, a subtitle numbered II, consisting of chapters numbered 3 through 14, containing sections numbered 33.2-300 through 33.2-1400, a subtitle numbered III, consisting of chapters numbered 15 through 18, containing sections numbered 33.2-1500 through 33.2-1824, and a subtitle numbered IV, consisting of chapters numbered 19 through 32, containing sections numbered 33.2-1900 through 33.2-3202 and to repeal Chapters 45 (§§ 15.2-4500 through 15.2-4534), 48.2 (§§ 15.2-4829 through 15.2-4840), 70 (§§ 15.2-7000 through 15.2-7021), and 71 (§§ 15.2-7022 through 15.2-7035) of Title 15.2, Title 33.1 (§§ 33.1-1 through 33.1-465), Chapters 18 (§§ 56-529 and 56-530) and 22 (§§ 56-556 through 56-575) of Title 56, and §§ 58.1-815 and 58.1-815.1 of the Code of Virginia and Chapter 693 of the Acts of Assembly of 1954, Chapters 462 and 714 of the Acts of Assembly of 1956, Chapter 24 of the Acts of Assembly of 1959, Extra Session, Chapters 228 and 605 of the Acts of Assembly of 1962, Chapter 348 of the Acts of Assembly of 1964, Chapter 203 of the Acts of Assembly of 1990, Chapter 548 of the Acts of Assembly of 1998, Chapters 238 and 705 of the Acts of Assembly of 2000, and Chapters 270 and 297 of the Acts of Assembly of 2005, relating to revising and recodifying laws pertaining to highways, bridges, ferries, rail and public transportation, transportation funding, and local and regional transportation [H311], April 23, 2014c. <http://lis.virginia.gov/cgi-bin/legp604.exe?141+ful+CHAP0805>. Accessed May 16, 2016.

Virginia Acts of Assembly. House Bill No. 2: Amendment in the Nature of a Substitute. A Bill to amend the Code of Virginia by adding in Article 1.1 of Chapter 1 of Title 33.1 a section numbered 33.1-23.5:5, relating to prioritization of projects funded by the Commonwealth Transportation Board, February 4, 2014d. <http://lis.virginia.gov/cgi-bin/legp604.exe?141+ful+HB2H1+hil>. Accessed May 18, 2015.

Virginia Acts of Assembly. Chapter 399: An Act to amend and reenact §§ 3.2-3100 through 3.2-3104, 3.2-3108, 3.2-3111, and 62.1-203 of the Code of Virginia and to amend the Code of Virginia by adding in Title 3.2 a chapter numbered 31.1, consisting of sections numbered 3.2-3112 through 3.2-3121, relating to the Tobacco Region Revitalization Commission; financial viability and feasibility study prior to disbursement; Virginia Tobacco Region Revolving Fund [H 2330], March 23, 2015a. <http://lis.virginia.gov/cgi-bin/legp604.exe?151+ful+CHAP0399>. Accessed June 10, 2016.

Virginia Acts of Assembly. Chapter 684: An Act to amend, reenact, repeal , and add sections of Chapter 33.2 relating to the Commonwealth Transportation Board and transportation funding [H1887], March 27, 2015b. <http://lis.virginia.gov/cgi-bin/legp604.exe?151+ful+CHAP0684>. Accessed May 18, 2015b.

Virginia Acts of Assembly. Chapter 322: An Act to amend the Code of Virginia by adding a section numbered 15.2-2303.4, relating to conditional zoning [S 549], March 8, 2016.

- <http://leg1.state.va.us/cgi-bin/legp504.exe?161+ful+CHAP0322>. Accessed May 13, 2016.
- Virginia Acts of Assembly. Chapter 828. An Act to amend and reenact §§ 2.2-229, 15.2-2223, 33.2-201, 33.2-214, 33.2-223, 33.2-232, and 33.2-357 of the Code of Virginia, relating to transportation processes in the Commonwealth; responsibilities of transportation entities; funding [H 765], April 18, 2018. <http://leg1.state.va.us/cgi-bin/legp504.exe?181+ful+CHAP0828>. Accessed May 10, 2018.
- Virginia Auditor of Public Accounts. Comparative Report of Local Government. n.d. http://www.apa.virginia.gov/APA_Reports/LG_ComparativeReports.aspx. Accessed April 13, 2016.
- Virginia Auditor of Public Accounts. *Uniform Financial Reporting Manual*, 2015. http://www.apa.virginia.gov/data/download/local_government/manuals/Uniform%20Financial%20Reporting%20Manual.docx. Accessed August 19, 2016.
- Virginia Code Commission. *Senate Document 5: Recodification of Title 15.1 of the Code of Virginia*. 1997. <http://leg2.state.va.us/DLS/h&sdocs.nsf/5c7ff392dd0ce64d85256ec400674ecb/2b497e60ae99b7218525641a0063dca4?OpenDocument&Highlight=0,15.1>. Accessed May 25, 2015.
- Virginia Code Commission. *Senate Document 11: Revision of Title 33.1 of the Code of Virginia*. 2013. <https://rga.lis.virginia.gov/Published/2013/SD11/PDF>. Accessed May 2, 2018.
- Virginia Department of Agriculture and Consumer Services. Governor's Agriculture and Forestry Industries Development Fund (AFID). n.d. <http://www.vdacs.virginia.gov/agriculture-afid-facility-grants.shtml>. Accessed April 3, 2017.
- Virginia Department of Agriculture and Consumer Services. Governor's Agriculture and Forestry Industries Development Fund Guidelines. 2012a. <http://www.vdacs.virginia.gov/pdf/afid-guidelines.pdf>. Accessed April 13, 2016.
- Virginia Department of Agriculture and Consumer Services. Governor's Agriculture and Forestry Industries Development Fund Program Summary. 2012b. <http://www.vdacs.virginia.gov/pdf/afid-summary.pdf>. Accessed April 3, 2017.
- Virginia Department of Housing and Community Development. *Consolidated Plan Annual Performance Evaluation Report (CAPER) 2012-2013*. September 2013. http://www.dhcd.virginia.gov/images/ConPlan/CAPER_2012_13_final.pdf. Accessed May 20, 2015.
- Virginia Department of Housing and Community Development. Appalachian Regional Commission (ARC) How to Apply Workshop. PowerPoint Presentation, July 21, 2015.

- <http://www.dhcd.virginia.gov/images/ARC/2016%20How%20To%20Apply%20Workshop%20Presentation.pdf>. Accessed April 6, 2016.
- Virginia Department of Housing and Community Development. *2016 Virginia CDBG Program Design*. January 2016a.
<http://www.dhcd.virginia.gov/images/CDBG/2016/2016%20CDBG%20Program%20Design.pdf>. Accessed April 20, 2016.
- Virginia Department of Housing and Community Development. *2017 Virginia Appalachian Regional Commission How to Apply Workshop*. August 2016b.
<http://www.dhcd.virginia.gov/images/ARC/2016/ARC-HTA-Session-2017.pdf>. Accessed March 23, 2017.
- Virginia Department of Motor Vehicles. *DMV Fees*. November 11, 2017.
<https://www.dmv.virginia.gov/webdoc/pdf/dmv201.pdf>. Accessed May 9, 2018.
- Virginia Department of Taxation. *Rulings of the Tax Commissioner*. June 22, 2010.
<http://www.tax.virginia.gov/laws-rules-decisions/rulings-tax-commissioner/10-101>. Accessed May 26, 2015.
- Virginia Department of Transportation. *Six Year Improvement Program. FY 13-18 Final SYIP. Projects by Fund*. n.d. <http://syip.virginiadot.org/Pages/fundsProjects.aspx>. Accessed March 3, 2017.
- Virginia Department of Transportation. *The Transportation Partnership Opportunity Fund: Guidelines and Criteria*. September 2005.
<http://www.virginiadot.org/projects/resources/tpofImplementationGuidelines10-2005.pdf>. Accessed May 14, 2015.
- Virginia Department of Transportation. *A History of Roads in Virginia*. Richmond, 2006.
<http://www.virginiadot.org/about/resources/historyofrds.pdf>. Accessed May 28, 2015.
- Virginia Department of Transportation. *A Guide for the Appalachian Regional Commission Local Access Road Program*. 2014a.
http://www.virginiadot.org/business/resources/ARC_Guide_3_28_14.pdf. Accessed May 13, 2015.
- Virginia Department of Transportation. *Airport Access Program Guide*. 2014b.
http://www.virginiadot.org/business/resources/local_assistance/access_programs/AirportAccessProgramGuide.pdf. Accessed May 15, 2015.
- Virginia Department of Transportation. *Dominion Boulevard Improvements*. December 3, 2014c.
http://www.virginiadot.org/projects/hamptonroads/dominion_boulevard_improvements.asp. Accessed May 30, 2016.

- Virginia Department of Transportation. *Economic Development Access Program Guide*. 2014d. http://www.virginiadot.org/business/resources/local_assistance/access_programs/EconomicDevelopmentAccessProgramGuide.pdf Accessed May 12, 2015.
- Virginia Department of Transportation. *Locally Administered Projects Manual*. February 2014e. http://www.virginiadot.org/business/resources/local_assistance/CH5_State_Funded_Projects_Special_Programs.pdf. Accessed March 22, 2016.
- Virginia Department of Transportation. *Recreational Access Program Guide*. 2014f. http://www.virginiadot.org/business/resources/local_assistance/access_programs/RecrAccessGuide.pdf. Accessed May 15, 2015.
- Virginia Department of Transportation. Right of Way Use Fee Information. January 15, 2015a. http://www.virginiadot.org/business/resources/ROW/RW_use_fee_as_of_July_1_2015.pdf. Accessed May 27, 2015.
- Virginia Department of Transportation. FY2016 Revenue Sharing Allocations. June 17, 2015b. http://www.virginiadot.org/business/resources/local_assistance/FY2016_Revenue_Sharing_Allocations.pdf. Accessed March 22, 2016.
- Virginia Department of Transportation. Smart Scale—Funding the Right Transportation Projects—FAQS. July 31, 2015c. <http://vasmartscale.org/faqs/default.asp>. Accessed August 2, 2016.
- Virginia Department of Transportation. *Revenue Sharing Program Guidelines*. 2015d. http://www.virginiadot.org/VDOT/Business/asset_upload_file105_74839.pdf. Accessed November 9, 2015.
- Virginia Department of Transportation. Locally Administered Projects. May 31, 2016a. <http://www.virginiadot.org/business/local-assistance-locally%20administered.asp>. Accessed June 11, 2016.
- Virginia Department of Transportation. Right of Way and Utilities Division: Right of Way Use Fee Information: Frequently Asked Questions. September 29, 2016b. <http://www.virginiadot.org/business/row-usefee-faq.asp>. Accessed March 31, 2017.
- Virginia Department of Transportation. Right of Way Use Fee Information. October 4, 2016c. <http://www.virginiadot.org/business/row-usefee.asp>. Accessed March 31, 2017.
- Virginia Department of Transportation. Right of Way Use Fees. January 11, 2016d. http://www.virginiadot.org/business/resources/Right_of_way/rw_use_fee_as_of_July_1_2016.pdf. Accessed March 31, 2017.
- Virginia Department of Transportation. The Transportation Partnership Opportunity Fund: Guidelines and Criteria. January 2016e.

- http://www.virginiadot.org/projects/resources/TPOF_Guidelines_FINAL_2016.pdf. Accessed September 15, 2016.
- Virginia Department of Transportation. Right of Way Use Fees. January 4, 2018.
http://www.virginiadot.org/business/resources/Right_of_way/rw_use_fee_as_of_July_1_2018.pdf. Accessed May 9, 2018.
- Virginia Economic Development Partnership. Guidelines for the Governor's Development Opportunity Fund Program FY15. 2014.
<http://www.virginiaallies.org/assets/files/incentives/GOFGuidelines.pdf>. Accessed May 18, 2015.
- Virginia Economic Development Partnership. Guide to Incentives 2014-2015. June 5, 2015a.
<http://www.yesvirginia.org/Content/pdf/Library/2014-2015%20Guide%20to%20Incentives.pdf>. Accessed April 8, 2016.
- Virginia Economic Development Partnership. *Guidelines for the Virginia Investment Partnership Grant Program*. June 11, 2015b.
<http://www.virginiaallies.org/assets/files/incentives/VIPGuidelines.pdf>. Accessed April 8, 2016.
- Virginia Office of Intermodal Planning and Investment. *SMART SCALE Technical Guide*. November 13, 2017.
http://vasmartscale.org/documents/20171115/ss_technical_guide_nov13_2017.pdf. Accessed February 11, 2019.
- Virginia Secretary of Commerce and Trade. Governor McAuliffe Announces Ballast Point Brewing and Spirits Chooses Botetourt County for East Coast Brewing Operation. May 24, 2016. <https://commerce.virginia.gov/news/newsarticle?articleId=15374>. Accessed May 28, 2016.
- Virginia Tobacco Commission. FY13 Southwest Economic Development Staff Summaries & Recommendations. September 2012.
http://www.tic.virginia.gov/pdfs/grantfunding/SWED/FY13/FY13%20SWED%20Staff%20Recs%20sept%202012%20_2_.pdf. Accessed May 20, 2015.
- Virginia Tobacco Commission. FY14 Southwest Economic Development Summaries and Staff Recommendations, September 2013a.
<http://www.tic.virginia.gov/pdfs/grantfunding/SWED/FY14/FY14%20SWED%20Staff%20Recs%20Sept2013.pdf>. Accessed May 14, 2015.
- Virginia Tobacco Commission. FY14 Southside Economic Development Summaries and Staff Recommendations, December 2013b.
<http://www.tic.virginia.gov/pdfs/grantfunding/SSED/FY14/FY14%20Staff%20Summaries%20%20Recommendations%2011-24-13.pdf>. Accessed May 20, 2015.

- Virginia Tobacco Commission. FY15 Southside Economic Development Summaries & Staff Recommendations. December 2014.
<http://www.tic.virginia.gov/pdfs/grantfunding/SSED/FY15/FY15%20SSED%20Staff%20Report%2012-11-2014.pdf>. Accessed May 20, 2015.
- Virginia Tobacco Commission. FY16 Special Projects: Staff Summaries & Recommendations. August 2015a.
<http://www.tic.virginia.gov/pdfs/grantfunding/Special%20Projects/FY16/FY16%20Special%20Projects%20Staff%20Summaries%20&%20Recommendations%208-28-15.pdf>. Accessed June 2, 2016.
- Virginia Tobacco Commission. *Southwest Economic Development: Summaries and Staff Recommendations*. September 2015b.
http://www.tic.virginia.gov/pdfs/grantfunding/SWED/FY16/SWED%20Staff_Report%20Sept%202016.pdf. Accessed June 5, 2017.
- Virginia Tobacco Commission. FY16 Southside Economic Development Committee Recommendations, December 2015c.
<http://www.tic.virginia.gov/pdfs/grantfunding/SSED/FY16/SSED%20Committee%20Recs%2012-7-15.pdf>. Accessed April 28, 2016.
- Virginia Tobacco Region Revitalization Commission. Strategic Plan, May 24, 2012.
<http://www.tic.virginia.gov/pdfs/aboutus/aboutus/Strategic%20Plan%20-%20Adopted%205%2024%2012.pdf>. Accessed May 20, 2015.
- Virginia Tobacco Region Revitalization Commission. *FY16 Southside Economic Development Grant Program Guidelines*. 2016a.
<http://www.tic.virginia.gov/pdfs/grantfunding/SSED/FY16/FY16%20SSED%20Grant%20Program%20Guidelines%202-1-16.pdf>. Accessed June 5, 2016.
- Virginia Tobacco Region Revitalization Commission. *FY17 Southwest Economic Development Grant Program Guidelines*. 2016b.
<http://www.tic.virginia.gov/pdfs/grantfunding/SWED/FY17/FY17%20SWED%20Grant%20Program%20Guidelines.pdf>. Accessed June 5, 2016.
- Virginia Tobacco Region Revitalization Commission. Sixteenth Annual Report FY2015. February 2016c.
<http://www.tic.virginia.gov/pdfs/Annual%20Reports/2015%20VA%20Tobacco%20Annual%20Report.PDF>. Accessed April 27, 2016.
- Virginia Tobacco Region Revitalization Commission. Strategic Plan. May 2016d.
<http://www.tic.virginia.gov/pdfs/aboutus/Strategic%20Plan/Strategic%20Plan%20-%20Adopted%205%2024%2012.pdf>. Accessed March 22, 2017.
- Ware, K. Email to A. Moruza, May 31, 2015.

- Washington Metropolitan Area Transit Authority. *Annotated Compact*. 2012.
https://www.wmata.com/about/board/upload/Compact_Annotated_2009_final.pdf.
Accessed May 8, 2018.
- Washington Metropolitan Area Transit Authority. *FY2016 Approved Budget*. May 14, 2015.
https://www.wmata.com/about_metro/docs/FY2016_Budget_Book_Consolidated.pdf.
Accessed May 4, 2016.
- Watson, J. Email to A. Moruza, May 12, 2016.
- Weldon Cooper Center for Public Service. Virginia Intercensal Estimates, 2000-2010. February 14, 2011. <http://www.coopercenter.org/demographics/virginia-population-estimates>.
Accessed June 21, 2014.
- Winfree, T. It's Time to Eliminate Proffers. *Chesterfield Monthly*. February 1, 2013.
Midlothian, Virginia. http://www.chesterfieldmonthly.com/index.php/in_their_words/its-time-to-eliminate-proffers. Accessed May 12, 2016.
- Wise County Virginia. *Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2011*. January 23, 2012.
http://www.wisecounty.org/finance/audit/wise_co_va_audit_rpt_fy1011.pdf. Access
September 6, 2016.
- Wise County Virginia. *Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2012*. February 15, 2013.
http://www.wisecounty.org/finance/audit/wise_co_va_audit_rpt_fy1112.pdf. Accessed
September 6, 2016.
- Wise County Virginia. *Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2013*. May 15, 2014.
http://www.wisecounty.org/finance/audit/wise_co_va_audit_rpt_fy1213.pdf. Accessed
September 6, 2016.
- Wise County Virginia. *Financial Report for the Year Ended June 30, 2014*. July 9, 2015.
http://www.wisecounty.org/finance/audit/wise_co_va_audit_rpt_fy1314.pdf. Accessed
September 6, 2016.
- Wise County Virginia. *Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2015*. February 12, 2016.
http://www.wisecounty.org/finance/audit/wise_co_va_audit_rpt_fy1415.pdf. Accessed
September 6, 2016.
- Wythe County Virginia. Ordinance No. 2009-3: Service District for Hidden Valley Area of
Wythe County Virginia. Wytheville, VA, June 9, 2009a.
<http://www.wytheco.org/documents/ord2009-3.pdf>. Accessed May 8, 2016.

Wythe County Virginia. Ordinance No. 2009-2: Service District for Whetstone Drive and Vineland Lane Area of Wythe County Virginia. Wytheville, VA, August 11, 2009b. <http://www.wytheco.org/documents/ord2009-2.pdf>. Accessed May 7, 2016.

Wythe County Virginia Board of Supervisors. Minutes, Wytheville, VA. August 25, 2015. <http://www.wytheco.org/documents/150825Minutes.pdf>. Accessed May 7, 2016.

**APPENDIX A: ECONOMIC DEVELOPMENT ACCESS PROGRAM ACTIVITY:
FY2012-15**

| ALLOCATIONS^a | | | | | |
|--------------------------------|--|-------------------------------|---|--|---------------------|
| Locality | Enterprise | Estimated Project Cost | Award Amount (unmatched+matched) | Qualifying Investment Requirement | CTB Approval |
| Wythe County | Progress Park | \$1.56 million | \$500,000+\$150,000 | \$3.25 million by Jan 2017 | Jan 2012 |
| Galax (City) | Albany Industries-Galax LLC | \$401,000 | \$401,000 | \$2.005 million by March 2017 | March 2012 |
| Virginia Beach (City) | IMS Gear Virginia, Inc. | \$482,000 | \$482,000 | \$2.41 million by April 2017 | April 2012 |
| Carroll County | Wildwood Commerce Park | \$1.86 m | \$500,000+\$150,000 | \$3.25 million by May 2017 | May 2012 |
| Greensville County | Mid-Atlantic Advanced Manufacturing Center | \$516,000 | \$500,000+\$8,000 | MEI administered by VEDP | Dec 2012 |
| Augusta County | Mill Place Commerce Park, Phase 2 | \$800,000 | \$500,000+\$150,000 | \$3.25 million by April 2018 | April 2013 |
| Chesapeake (City) | 2100 Steppingstone Square | \$846,000 | \$500,000+\$150,000 | \$3.25 million by July 2018 | July 2013 |
| Virginia Beach (City) | Green Flash Brewing Co. | \$453,000 | \$453,000 | \$2.265 million by Sept 2018 | Sept 2013 |
| Bland County | Bland County Industrial Park | \$800,000 | \$500,000+\$150,000 | \$3.25 million by Oct 2018 | Oct 2013 |
| Newport News (City) | Liebherr Mining & Construction Equip., Inc | \$1.6 million | \$500,000+\$150,000 | \$3.25 million | Dec 2013 |
| Henry County | Kilgour Industries Ltd. | \$1.22 million | \$500,000+\$150,000 | \$3.25 million | April 2014 |
| Leesburg | K2M Company | \$1.5 million | \$500,000+\$150,000 | \$3.25 million | Feb 2015 |
| Henry County | Patriot Centre at Beaver Creek | \$800,000 | \$500,000+\$150,000 | \$3.25 million by June 2020 | June 2015 |

| DE-ALLOCATIONS^a | | | | |
|-----------------------------------|--|---------------------|---------------------|---------------------------------|
| Locality | Enterprise | Award Amount | CTB Approval | CTB De-Allocation Action |
| Albemarle County | Avon Court | \$450,000 | June 2007 | June 2012 |
| Henrico County | Bank of America | \$650,000 | Sept 2011 | July 2012 |
| Frederick County | Carroll Industrial Park | \$450,000 | June 2009 | Dec 2013 |
| Accomack County | Wallops Research Park | \$450,000 | Mar 2008 | March 2014 |
| Halifax County | Day Park | \$500,000 | Nov 2009 | May 2014 |
| Page County | Page County Industrial and Technology Park | \$300,000 | June 2008 | Nov 2014 |

^a Source: Commonwealth Transportation Board (2012-2015).

CTB = Commonwealth Transportation Board; MEI = Major Employment and Investment; VEDP = Virginia Economic Development Partnership.

APPENDIX B: RECREATIONAL ACCESS PROGRAM ACTIVITY: FY2011-15

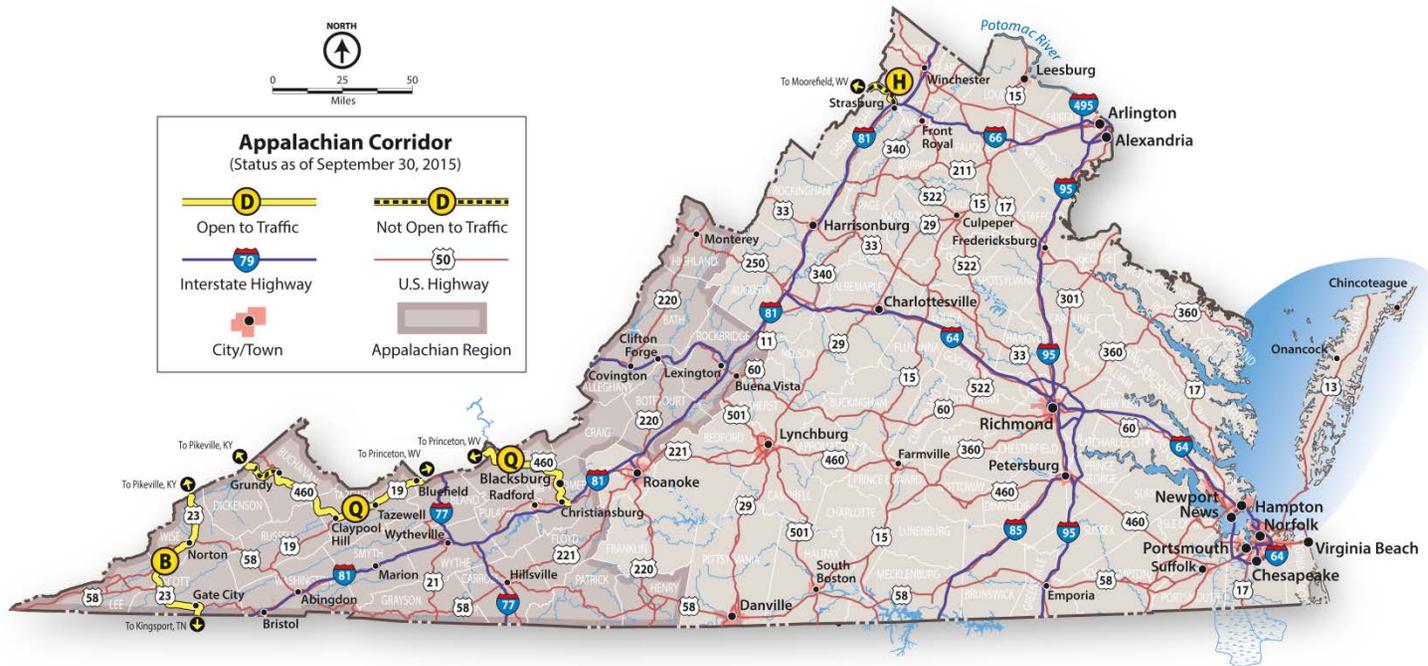
| ALLOCATIONS^a | | | | |
|--------------------------------|---------------------------------------|-------------------------------|---|--------------------------------------|
| Locality | Eligible Site | Estimated Project Cost | Award Amount (unmatched+matched) | CTB Approval |
| Richmond County | Richmond County Community Park | \$462,000 | \$250,000+\$61,000 (access road) \$60,000+\$15,000 (access bikeway) | Feb 2011 |
| Goochland County | Leakes Mill Park | \$312,000 | \$250,000+\$31,000 (access road) | Feb 2011 |
| Christiansburg (Town) | Christiansburg Recreational Center | \$62,000 | \$60,000+\$1,000 (access bikeway/trail) | Jan 2012 |
| Warren County | Rockland Park | \$540,300 | \$250,000+\$100,000 (access road) \$60,000+\$15,000 (access bikeway) | March 2012 |
| Grayson County | Mathews State Forest | \$499,180 | \$400,000+0 (access road) | July 2012 |
| Highland County | Highland County Park | \$245,000 | \$245,000+0 (access road) | Sept 2012 |
| King George County | Park at Purkins Corner | \$195,000 | \$195,000+0 (access road) | May 2013 |
| Warren County | Farms Riverview Public Boating Access | \$274,000 | \$250,000+\$12,000 (access road) | Oct 2014 |
| Chesterfield County | Horner Park | N/A | \$250,000+\$100,000 (n/a) | 2003 decision reaffirmed Feb 2015 |
| Fauquier County | Central Sports Complex | \$982,000 | \$250,000+\$100,000 (access road) \$60,000+\$15,000 (access bikeway) | Feb 2015 |

^a Source: Commonwealth Transportation Board (2011-2015).

CTB = Commonwealth Transportation Board; N/A = not available.

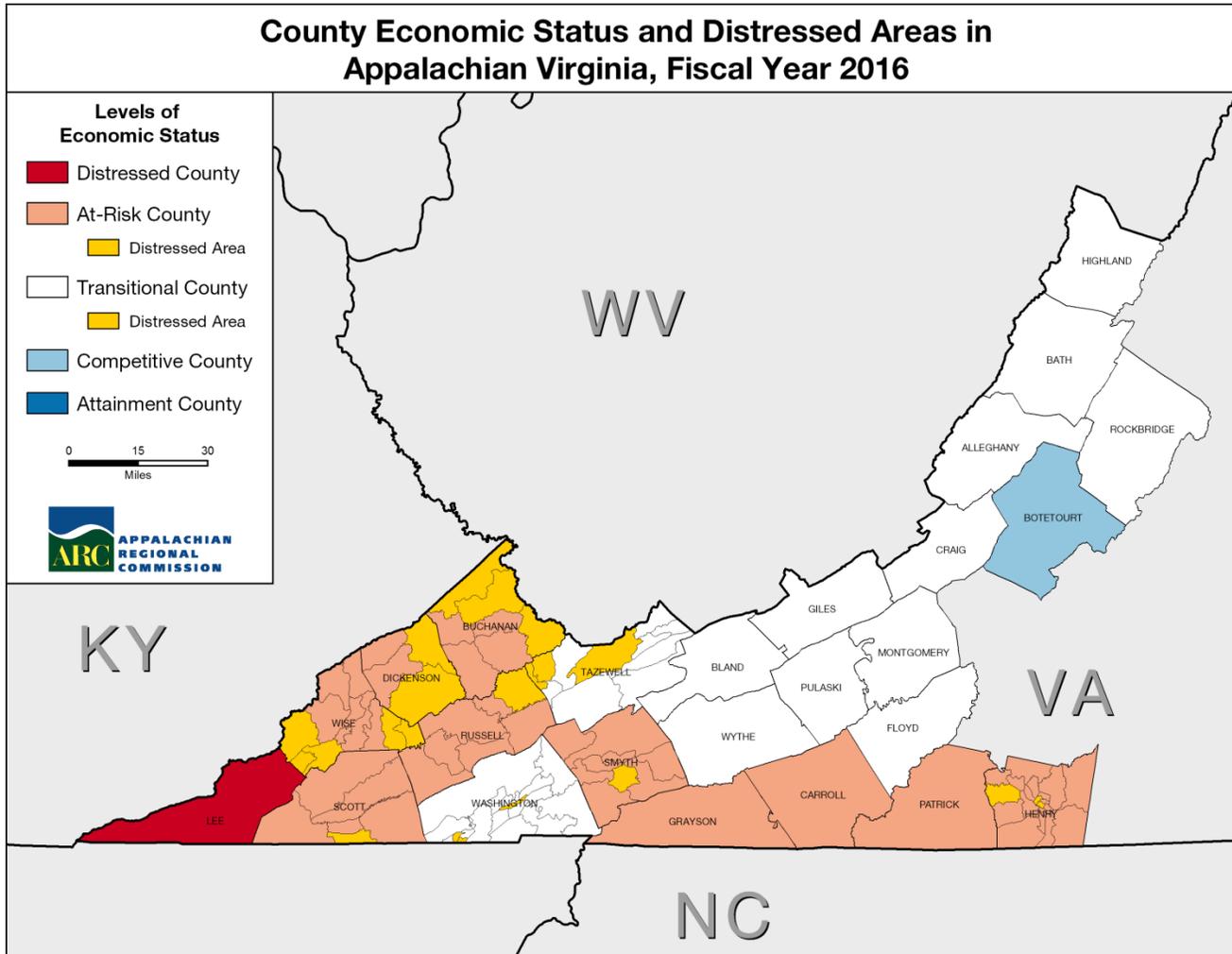
APPENDIX C: APPALACHIAN HIGHWAY DEVELOPMENT HIGHWAY SYSTEM: VIRGINIA

**Appalachian Development Highway System
VIRGINIA**



Reprinted by permission of the Appalachian Regional Commission.

APPENDIX D: COUNTY ECONOMIC STATUS AND DISTRESSED AREAS IN APPALACHIAN VIRGINIA, FY16



Reprinted by permission of the Appalachian Regional Commission.

**APPENDIX E: ARC AWARDS FOR LOCAL ACCESS ROADS IN VIRGINIA SINCE
2006**

| FY | Locality | Amount | Purpose |
|-----------|------------------|---------------|--|
| 2006 | Russell County | \$500,000 | GardenSide Village Access Road Project ^a |
| 2006 | Buchanan County | \$500,000 | Lover's Gap Industrial Site Access Road Project ^a |
| 2007 | Alleghany County | \$500,000 | East Alleghany County Route 727 Bridge ^a |
| 2008 | Scott County | \$247,747 | Duffield Regional Technology Center Access Road ^a |
| 2011 | Wythe County | \$500,000 | Progress Park Access Road Extension ^a |
| 2013 | Pulaski County | \$548,528 | ShaeDawn Industrial Park ^a |
| 2013 | Alleghany County | \$500,000 | Clifton Forge Access Road ^a |
| 2014 | Scott County | \$497,000 | Riverside Development ^b |

^a Source: D.H. Ambrose, unpublished data, May 8, 2014.

^b Source: M. Weaver, unpublished data, May 14, 2015.

**APPENDIX F: TRANSPORTATION PARTNERSHIP OPPORTUNITY FUND (TPOF)
AWARDS**

**Table F1. Transportation Partnership Opportunity Fund Cumulative Awards With Financial Close,
FY06-FY16^a**

| Recipient | Type of Project (Estimated No. of Jobs)^b | Location | Type of Assistance | Total Award (approx.) |
|---|--|---|---------------------------|----------------------------------|
| County of Giles | Celanese Acetate, EDP (200) | County of Giles | 1 grant | \$724,900 |
| County of Loudoun | Pacific Boulevard, DBP | County of Loudoun | 1 grant | \$3 million |
| City of Winchester | Rubbermaid Products, EDP (71) | City of Winchester | 1 grant | \$3 million |
| County of Prince William | USMC Heritage Center, DBP | County of Prince William | 2 grants | \$4.98 million |
| Town of Leesburg | Battlefield Parkway, DBP | Town of Leesburg | 1 grant | \$5 million |
| County of Rockingham | Harrisonburg Southeast Connector, DBP | County of Rockingham | 1 grant | \$5 million |
| City of Newport News | Canon Virginia, Inc., EDP (1,035) | City of Newport News and County of Gloucester | 1 grant | \$5 million |
| County of Prince George | Rolls-Royce, EDP (170) | County of Prince George | 2 grants | \$10 million |
| County of Accomack | Wallops Research Park, DBP | County of Accomack | 1 grant | \$4 million |
| County of Accomack | Orbital Sciences Corp.–Mid-Atlantic Regional Spaceport (MARS), EDP (500) | County of Accomack | 1 grant | \$3.25 million |
| Virginia Commercial Space Flight Authority | Orbital Sciences Corp.–Mid-Atlantic Regional Spaceport (MARS) EDP (500) | County of Accomack | 5 grants | \$25 million |
| State Route 28 Highway Transportation District Commission | Route 28 Corridor Improvements / Bridge Improvements Over Dulles Toll Road, PPTA | Loudoun and Fairfax counties | 2 grants | \$10 million |
| EDA of City of Newport News | Liebherr Expansion, EDP | City of Newport News | 1 grant | \$1 million |
| Department of Aviation | Emporia, EDP | City of Emporia | 1 grant | \$151,000 |
| VDOT | Coalfields Expressway, PPTA | Buchanan, Wise, and Dickenson counties | 2 grants | \$9.8 million |

EDP = economic development project; DBP = design-build project; PPTA = Public-Private Transportation Act agreement; EDA = Economic Development Authority; VDOT = Virginia Department of Transportation.

^a Layne (2016b).

^b Connaughton (2013).

Table F2. Transportation Partnership Opportunity Fund Initiative Projects^a

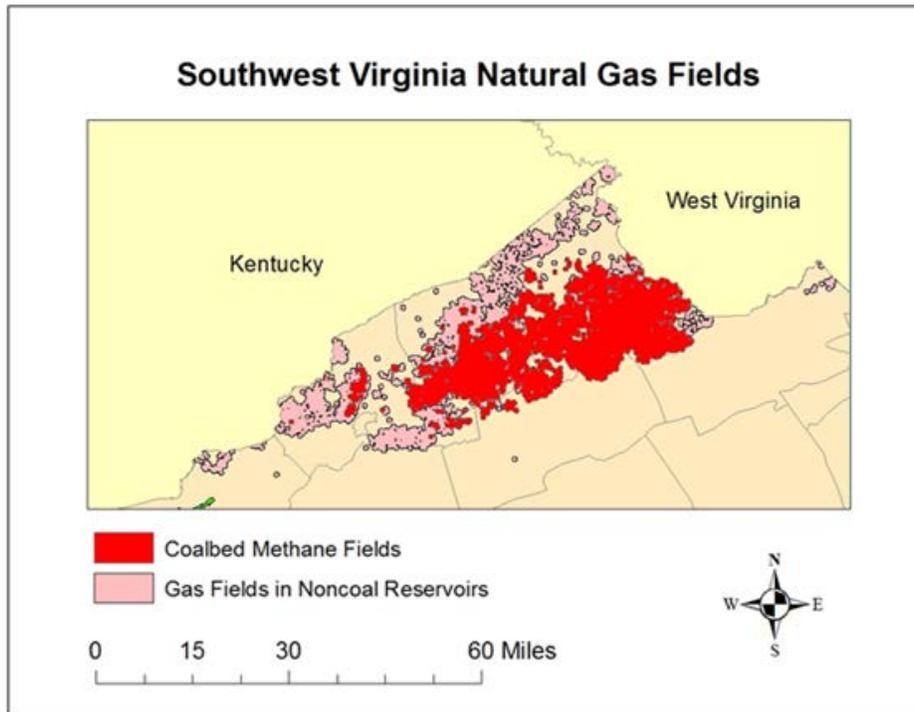
| Project | Location | Grant Amount | Eligibility Criteria^b |
|---------------------------------|------------------------|---------------------|---|
| I-495 Capital Beltway HOT Lanes | Northern Virginia | \$157.2 million | PPTA project |
| U.S. Route 58–Hillsville Bypass | Town of Hillsville | \$77 million | PPTA project |
| U.S. Route 50 Widening | County of Fairfax | \$14.7 million | Design-build project |
| NSC ROW Acquisition | City of Virginia Beach | \$20 million | Per FTA requirements |
| I-295 / Meadowville Interchange | County of Chesterfield | \$5 million | Design-build project |

HOT = high occupancy toll; PPTA = Public-Private Transportation Act agreement; NSC = Norfolk Southern Corporation; ROW = right-of-way; FTA = Federal Transit Authority.

^a Layne (2016b).

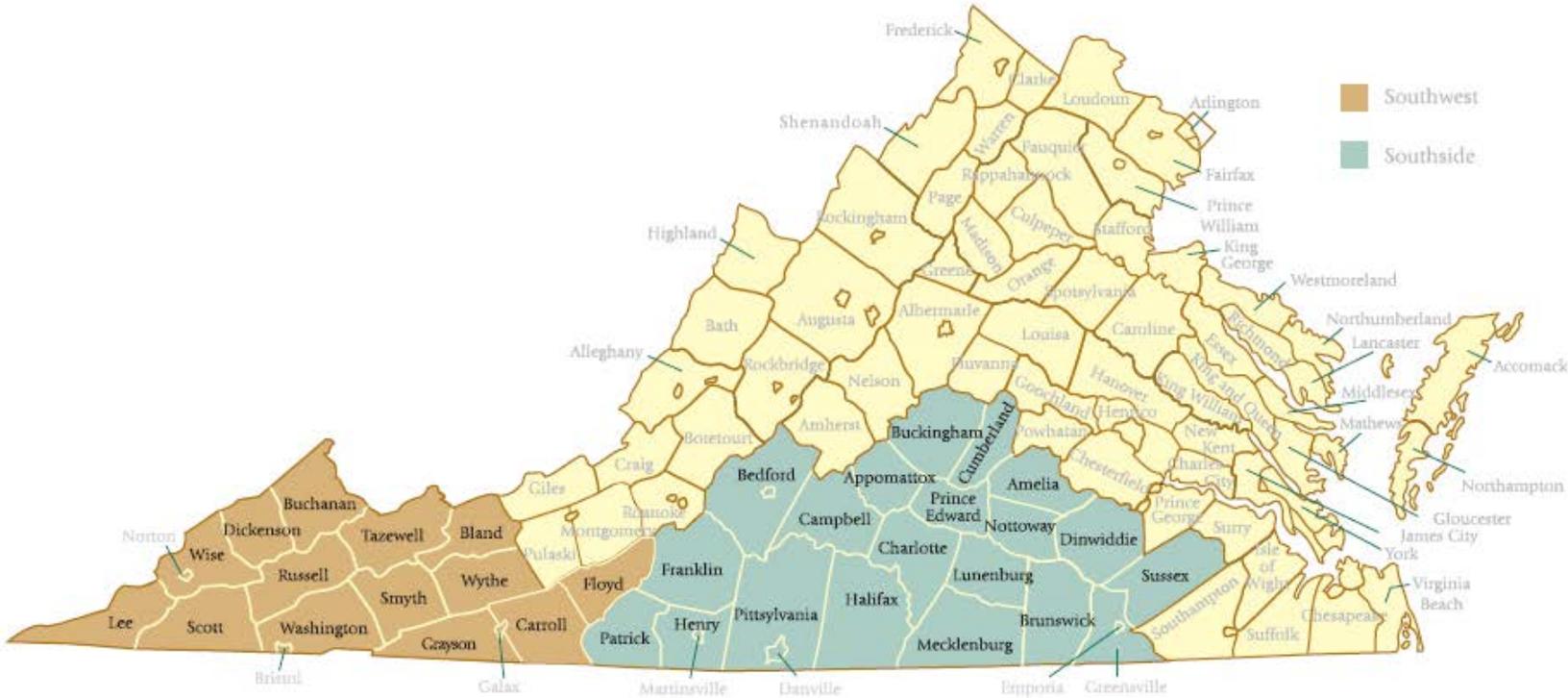
^b Connaughton (2013).

APPENDIX G: LOCATIONS OF NATURAL GAS FIELDS AND MARCELLUS SHALE FORMATION IN VIRGINIA



Reprinted by permission of Virginia Department of Mines, Minerals, and Energy, Division of Gas and Oil.

APPENDIX H: COUNTIES AND CITIES ELIGIBLE FOR VIRGINIA TOBACCO COMMISSION FUNDING, FY16



Reprinted by permission of the Virginia Tobacco Region Revitalization Commission.

APPENDIX I: HUD COMMUNITY DEVELOPMENT BLOCK GRANT AWARDS TO VIRGINIA LOCALITIES FOR ROAD/STREET PROJECTS, 2000-2006

| Program Year | Location | Activity or Project Description | Funded Amount |
|---------------------|----------------------|--|----------------------|
| 2000 | Lawrenceville | Street reconstruction | \$19,357 |
| 2000 | Northampton County | Road construction to VDOT standards | \$115,168 |
| 2000 | Richlands | Streets and alleys - downtown revitalization | \$65,110 |
| 2001 | Martinsville | Storm drainage; street turn-arounds | \$316,299 |
| 2002 | Lawrenceville | Street improvements: curb and gutter, drainage | \$114,980 |
| 2002 | Pennington Gap | Street improvements: sidewalk, parking spaces | \$221,096 |
| 2002 | Madison County | Street improvements: sidewalk, drainage | \$271,270 |
| 2002 | Kenbridge | Street improvements: drainage, curb/gutter, sidewalk | \$366,765 |
| 2002 | City of Winchester | Sidewalks, landscaping, streetlights | \$401,643 |
| 2002 | Glade Spring | Street improvements | \$315,850 |
| 2003 | Halifax County | Storm drainage, sidewalks, curb/gutter | \$532,600 |
| 2003 | City of Norton | Streets/Earthwork: paved roadway, storm piping | \$348,590 |
| 2003 | Nottoway County | Streets and sidewalks | \$9,330 |
| 2003 | Mecklenburg County | Street improvements | \$31,038 |
| 2003 | King William County | Street improvements | \$3,882 |
| 2004 | Franklin City | Street Improvements | \$38,748 |
| 2004 | Halifax County | Street paving, curbs/gutters, sidewalks, driveways | \$115,444 |
| 2004 | Brunswick County | Street widening and paving; drainage improvements | \$61,180 |
| 2004 | City of Williamsburg | Street paving | \$87,420 |
| 2004 | Amelia County | Street improvements for acceptance into VDOT system | \$43,254 |
| 2004 | Town of Brookneal | Roadway repair, resurfacing, drainage improvements | \$173,119 |
| 2004 | King George County | Public access road constructed to VDOT standards | \$429,523 |
| 2004 | Town of Pulaski | Streetscape improvements, storm sewer pipe installed | \$7,045 |
| 2004 | King William County | Street and ditch improvements | \$132,263 |
| 2004 | Accomack County | Street improvements to VDOT standards | \$337,500 |
| 2005 | Mecklenburg County | Street improvements to VDOT standards | \$353,464 |
| 2005 | Isle of Wight County | Streetlights, trees, street and ditch widening | \$41,600 |
| 2005 | Wythe County | Construction of industrial access road | \$119,000 |
| 2005 | Nottoway County | Street overlay and paving | \$104,425 |
| 2005 | Rocky Mount | Streetscape: signage, crosswalks, sidewalks | \$130,800 |
| 2006 | Amelia County | Road improvements for acceptance into VDOT system | \$123,850 |
| 2006 | Wythe County | Construction of access road extension | \$630,385 |
| 2006 | Brunswick County | Street improvements: widening, paving, drainage | \$182,542 |
| 2006 | Town of Brookneal | Street improvements – neighborhood revitalization | \$194,501 |
| 2006 | Town of Pulaski | Street and streetscape improvements | \$166,955 |

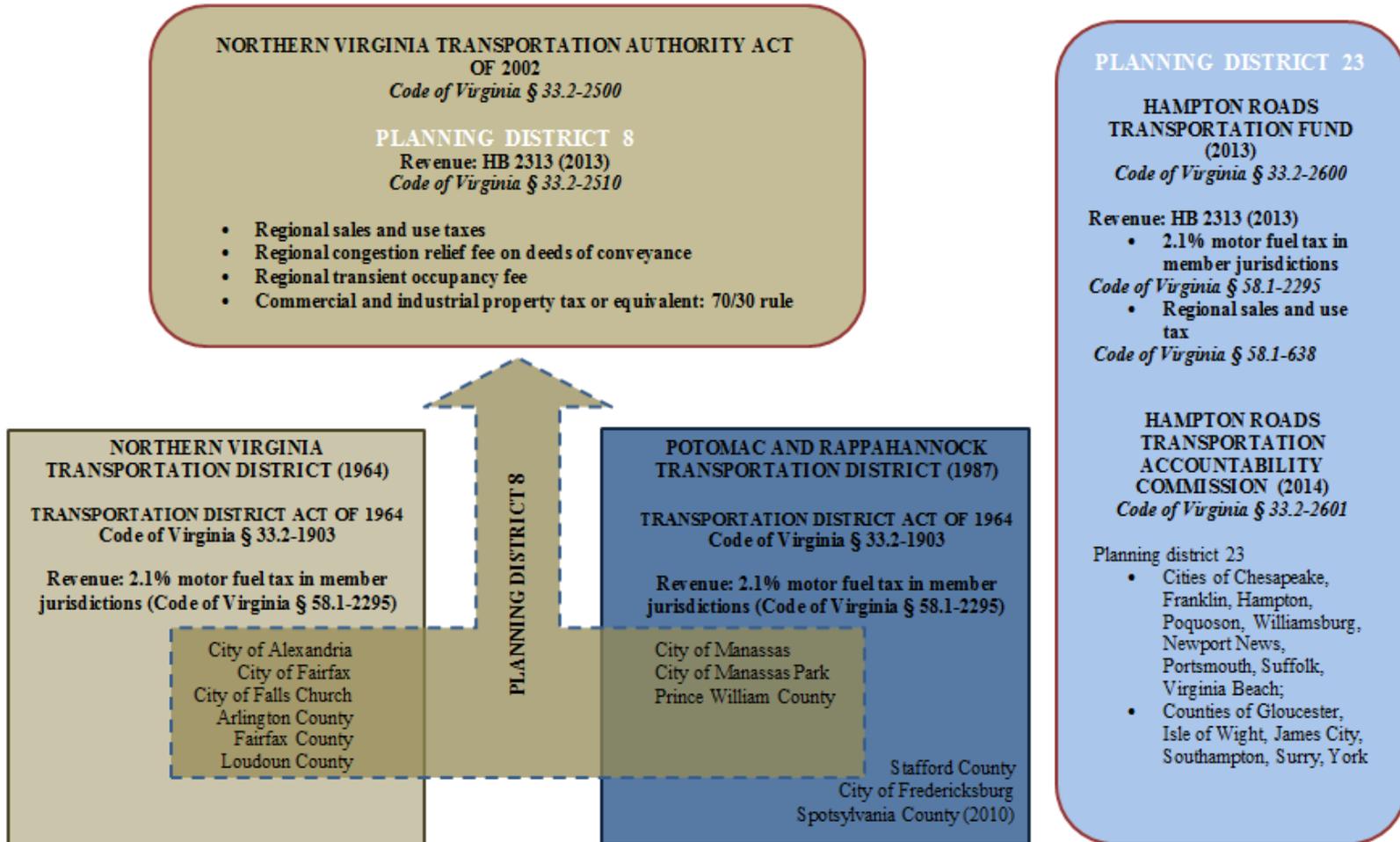
Source: HUD (2007).

APPENDIX J: ROUTE 17 SPECIAL TAX DISTRICT IN THE CITY OF SUFFOLK, VIRGINIA

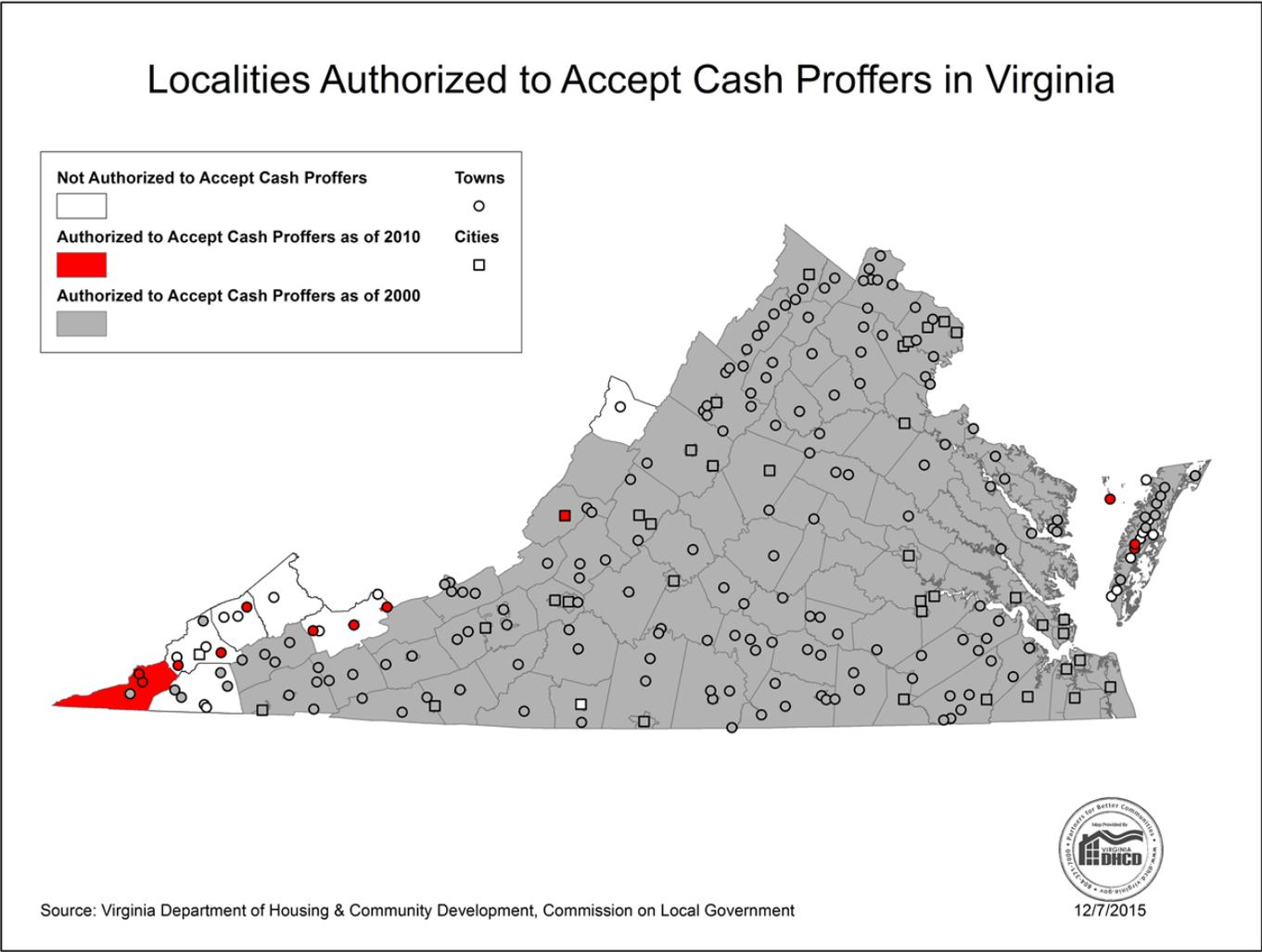


Reprinted by permission of the *Suffolk News-Herald*.

APPENDIX K: MAJOR TRANSPORTATION DISTRICTS AND AUTHORITIES IN VIRGINIA IN 2016

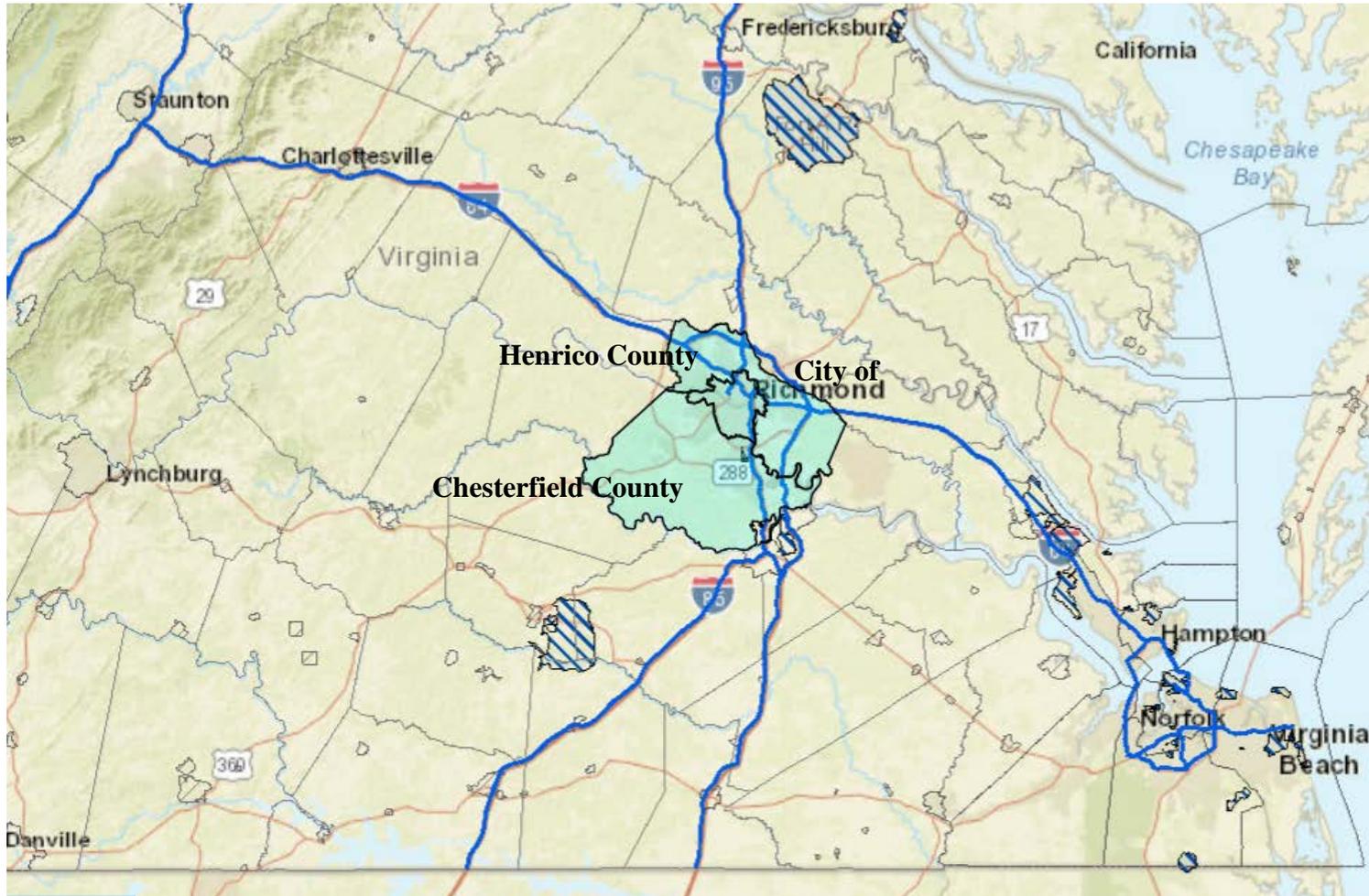


APPENDIX L: LOCALITIES AUTHORIZED TO ACCEPT CASH PROFFERS IN VIRGINIA

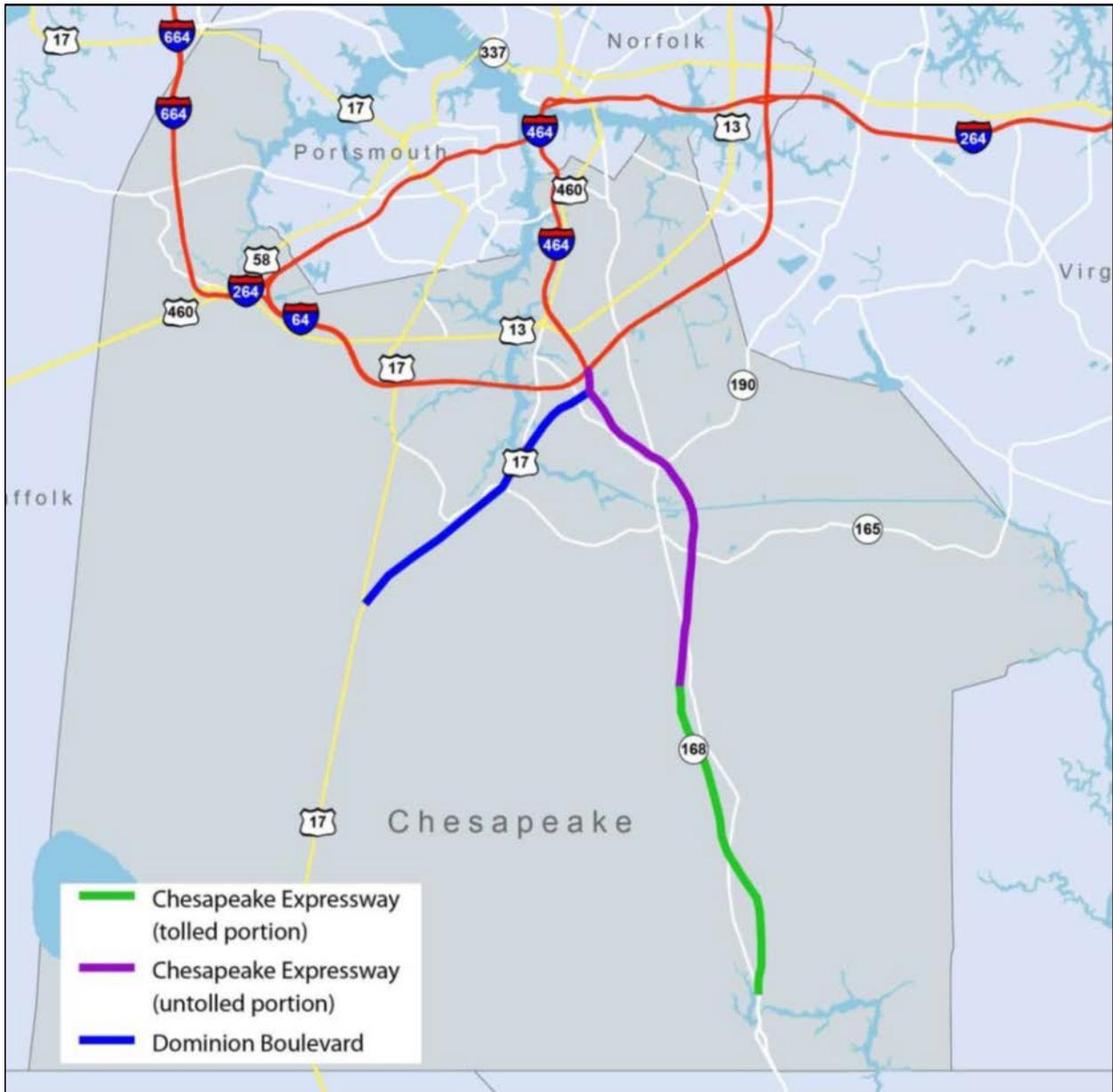


Reprinted by permission of the Virginia Department of Housing and Community Development.

APPENDIX M: LOCATION OF THE RICHMOND METROPOLITAN TRANSPORTATION AUTHORITY



APPENDIX N: THE CHESAPEAKE TRANSPORTATION SYSTEM: CITY OF CHESAPEAKE, VIRGINIA



Reprinted by permission of the City of Chesapeake Department of Public Works.