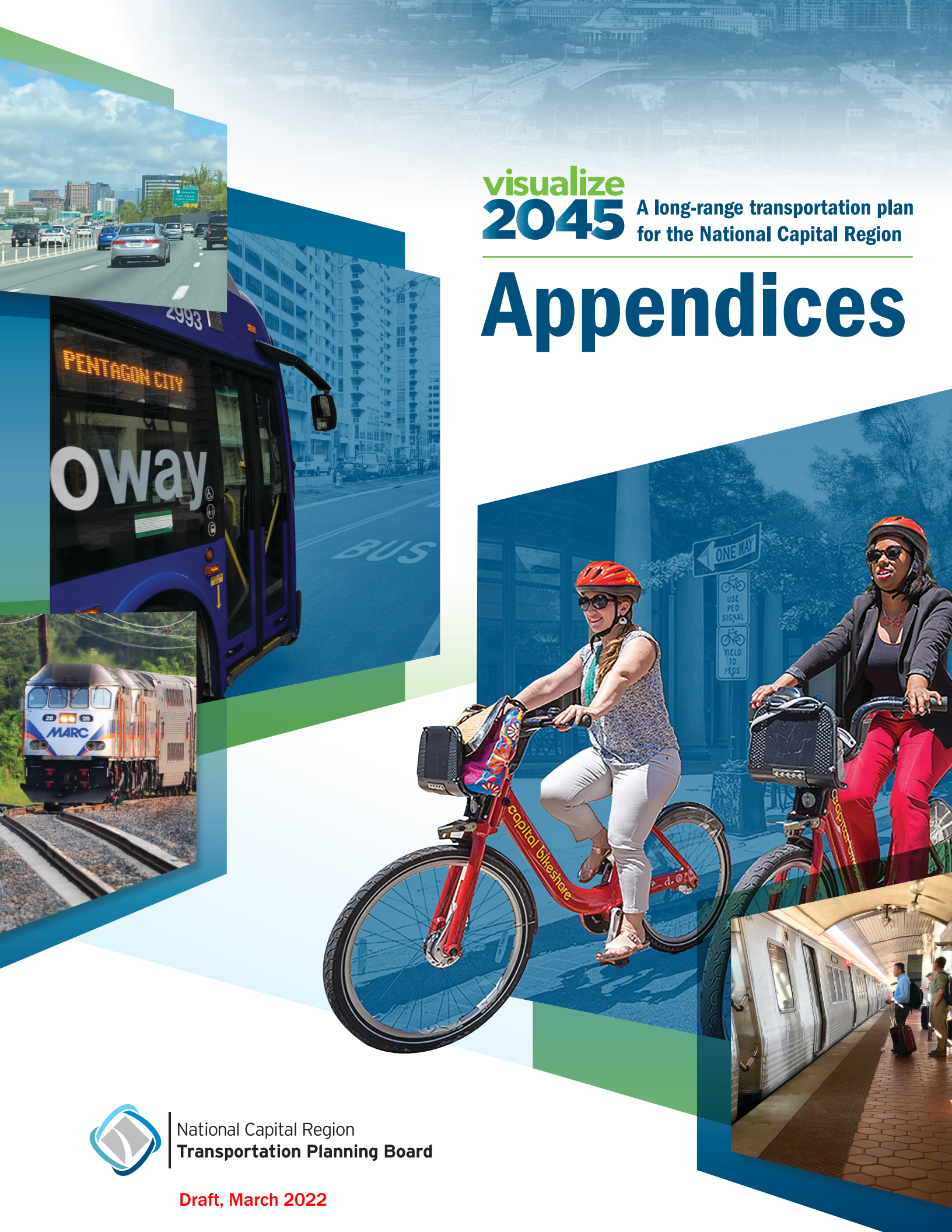


visualize
2045

A long-range transportation plan
for the National Capital Region

Appendices



National Capital Region
Transportation Planning Board

Draft, March 2022

APPENDICES TO THE VISUALIZE 2045 UPDATE (2022)
LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION
March 2022

ABOUT VISUALIZE 2045 & THE TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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visualize 2045

A long-range
transportation plan
for the National
Capital Region

APPENDIX A

Financial Plan

Draft, March 2022



National Capital Region
Transportation Planning Board

**FINANCIAL PLAN FOR THE VISUALIZE 2045 (2022 UPDATE)
LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION**

DRAFT, March 2022

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FINANCIAL ANALYSIS FOR THE VISUALIZE 2045 LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION

1. Introduction and Summary

INTRODUCTION

The National Capital Region Transportation Planning Board (TPB) is the federally designated Metropolitan Planning Organization (MPO) for the National Capital Region as per 23 USC Part 450 and 49 USC Part 613 and plays an important role as the regional forum for transportation planning. The TPB prepares plans and programs that the federal government must approve in order for federal-aid transportation funds to flow to the metropolitan Washington region.

Members of the TPB include representatives of local governments; state transportation agencies; the Maryland and Virginia General Assemblies; the Washington Metropolitan Area Transit Authority (WMATA); and non-voting members from the Metropolitan Washington Airports Authority (MWAA) and federal agencies. The TPB has an extensive public involvement process, and provides a 30-day public comment period before taking action on plans and programs. The TPB's planning area covers the District of Columbia (D.C.) and surrounding jurisdictions. In Maryland these jurisdictions include Charles County, Frederick County, Montgomery County, and Prince George's County, plus the cities of Bowie, College Park, Frederick, Gaithersburg, Greenbelt, Laurel, Rockville, and Takoma Park. In Virginia, the planning area includes Alexandria, Arlington County, the City of Fairfax, Fairfax County, Falls Church, Loudoun County, the Cities of Manassas and Manassas Park, Prince William County and a portion of Fauquier County.

The TPB is responsible for conducting the continuing, comprehensive and cooperative (3C) planning process as outlined in 23 USC 450 and 49 USC 613. The primary products of the 3C planning process the TPB is required to develop are the quadrennial long-range metropolitan transportation plan (LRTP) and the biennial transportation improvement program (TIP). The LRTP documents the MPO's transportation planning policy together with the planned transportation projects intended to be implemented over a no less than 20-year planning horizon. Per federal regulation 23 USC 450.324, the LRTP shall include a financial plan that demonstrates how the adopted transportation plan can be implemented, by estimating costs and revenue sources that are reasonably expected to be available to adequately operate and maintain the highway and public transportation system. In this manner the scope and contents of the LRTP are financially constrained.

The previous quadrennial update to the TPB's LRTP, Visualize 2045 (2018), and its financial plan element were adopted by the TPB on October 17, 2018. The TPB's new LRTP, the 2022 update to Visualize 2045, covers a period of 23 years, between 2023 and 2045, and represents a quadrennial update to the 2018 plan. Work on the update of the LRTP began in early 2020 in a cooperative effort with the representatives of the TPB's member jurisdictions and agencies. Throughout the process the TPB has engaged and received comments and input from the region's residents and interest groups

via its Community Advisory Committee process, two 30-day open public comment periods preceding updates to the projects and the TIP, and online publications and outreach activities.

The update to the projects in Visualize 2045 was undertaken as part of the TPB's Technical Inputs Solicitation for the Air Quality Conformity Analysis of the Constrained Element of Visualize 2045 and the FY 2023-2027 TIP that started in December of 2020 and ended with the TPB's approval, after a 30-day public comment period of the project updates for use in regional Air Quality Conformity analysis on June 16, 2021 (with revisions adopted on July 21, 2021). The updates to the projects were provided by the TPB member jurisdictions and agencies working with the TPB staff. The TPB Policy element: the TPB Vision, the Regional Transportation Priorities Plan (RTPP) goals and the Aspirational Initiatives informed the development of the inputs. The federal Performance-Based Planning And Programming process (PBPP) and Congestion Management Process (CMP) as well as the federal planning factors also informed the development of the inputs.

The Visualize 2045 (2022) financial plan includes estimates of the project costs and the revenue amounts reasonably expected to be available to implement the projects as well as operate and maintain the existing transportation system. It was prepared by the TPB member jurisdiction and agency staffs, working with the TPB staff. The forecasts and the assumptions were reviewed by a working committee and subsequently reported to and reviewed by the TPB Technical Committee. The financial plan includes revenue and expenditure estimates for the regional rail and bus transit system operated by WMATA and funded by member jurisdictions. The expenditure and revenue estimates for the WMATA transit system were developed with inputs from both WMATA and its members. Similarly, the financial plan includes expenditure and revenue estimates that were developed and reviewed for the commuter rail services and the local transit services, including planned light rail and streetcar projects.

EXECUTIVE SUMMARY

This analysis demonstrates that the Visualize 2045 LRTP, covering the period 2023 through 2045, is financially constrained. The plan is financially realistic, balancing all proposed new project investments and system maintenance and operating costs with reasonable revenue expectations, as agreed upon by the MPO and its implementation agency partners in the metropolitan transportation planning process. The plan demonstrates that the forecast revenues reasonably expected to be available cover the estimated costs of expanding and adequately maintaining and operating the highway and public transportation system in the region.

Because federal planning regulations require that the financial analysis show reasonably anticipated revenues and expenditures in year of expenditure (YOE) dollars, this report provides estimates in year of expenditure dollars. Year of expenditure dollars include inflation rates in the future years.

A total of \$223.3 billion in transportation expenditures is projected for the metropolitan Washington region for the 23-year period of 2023 to 2045. The majority, \$180.8 billion (81 percent), of future transportation revenues will be devoted to the operations and maintenance of the public transportation and highway systems. Funding for expansion of the transportation system makes up the remainder: \$42.5 billion (19 percent).

Evaluating expenditures by mode, WMATA expenditures constitute 45 percent and other public transportation 22 percent of the total through 2045. Expenditures on highways constitute 32.5

percent of the total. Expenditures for pedestrian and bicycle systems included in the LRTP are 0.4 percent; however most such projects in the region take place at the local level and are not included in the LRTP.

Funding is identified for significant capital projects, including the K Street Transitway in the District of Columbia (CE3081), the I-270 and I-495 Traffic Relief Plan (Ops Plan) in Maryland (CE6432), and implementation of the Transforming Rail initiative in Virginia including construction of a new span of the Long Bridge across the Potomac River (T6727). The financial plan also demonstrates full funding for WMATA's forecast needs for both operations and state of good repair through 2045.

Contents of the analysis report include:

- Section 2 summarizes the results of the regional forecasts for revenues and expenditures. Observations are made about the forecasts for both.
- Section 3 provides information on the methodologies used in developing the forecast of revenues and expenditures for each state, including local jurisdictions and WMATA.
- Section 4 provides a comparison of the Visualize 2045 update financial analysis results to those of previous long-range transportation plans.
- Section 5 provides an overview of recent trends and future options for additional transportation revenues for the region. Recent projects and proposals that make use of innovative financing are also discussed. In regard to additional potential finance resources and innovative financing techniques, an extensive review was conducted for the 2010 LRTP financial analysis, which includes information still applicable.

2. Summary of the Results of the Regional Forecasts

This analysis demonstrates that the projects and programs contained in the long-range transportation plan for the years 2023-2045 can be funded with the reasonably expected revenues and that the financial plan for the Visualize 2045 long-range transportation plan conforms to federal guidelines requiring metropolitan planning organizations to develop a financially constrained long-range transportation plan. The revenue and expenditure estimates were developed cooperatively by the states, local jurisdictions, and transit agencies of the metropolitan Washington region with TPB staff assistance. Revenue projections do not include projections of new sources that are not yet legislatively enabled but do assume a continuation of current sources including some that were recently established.

As per federal regulations, the revenue and expenditure estimates are shown in year of expenditure (YOE) dollars. Year of expenditure dollars were arrived at by applying an inflation factor to estimates in 2023 dollars; future year dollars are therefore worth less than current year dollars in terms of their buying power. For the near-term years, agencies already have estimated inflation rates and have converted their estimates of revenues and expenditures to year of expenditure dollars, as part of their work to update their respective capital improvements programs. For the longer term, year of expenditure dollars are typically calculated using a long-term inflation rate of 2.4 percent, which is the current long-term inflation rate predicted in the forecast of the Congressional Budget Office.¹

FORECAST REVENUES

The anticipated revenues for the Visualize 2045 long-range transportation plan are shown in Table 1. Revenues are broken down into five source categories (federal, state, local, private/other, and fares/tolls) and grouped under the three “state” level jurisdictions (District of Columbia, Suburban Maryland, and Northern Virginia) and a fourth “non-jurisdictional regional” level. The overall category of private/other is comprised of a variety of sources, including local jurisdiction general funds, anticipated private sector contributions, and general bonds issued by WMATA.

The regional “non-jurisdictional” revenues listed in the table for WMATA include transit fares, federal grants, and other non-jurisdictional sources such as advertising and special event service revenues. Transit fare revenues for WMATA and the local transit systems include revenues from planned services. For additional information on WMATA, a sub-table summarizing the total revenues in Table 1 for WMATA by combining the non-jurisdictional funds with the jurisdictional funding is provided, categorized by the five funding source columns.

¹ Congressional Budget Office, 2019 Long Term Budget Outlook, June 2019 (Table A-2, page 54). <https://www.cbo.gov/system/files/2019-06/55331-LTBO-2.pdf>

Table 2 Revenues: Visualize 2045 Long-Range Transportation Plan (2023 to 2045)

Year of Expenditure Dollars (Millions)						
REVENUES	Federal	State/DC	Local	Private / Other	Fares / Tolls	TOTAL
District of Columbia						
Highway	\$5,402	\$3,389				\$8,791
Local Transit	\$887	\$2,438			\$98	\$3,423
Bike & Ped		\$77			\$228	\$305
Commuter Rail						\$0
WMATA Support		\$23,900				\$23,900
Sub-Total	\$6,289	\$29,804	\$0	\$0	\$327	\$36,419
Suburban Maryland						
Highway	\$6,124	\$23,541	\$976	\$6,000	\$324	\$36,964
Local Transit	\$1,704	\$2,863	\$6,692	\$0	\$2,344	\$13,602
Bike & Ped	\$0	\$0	\$9	\$0	\$0	\$9
Commuter Rail	\$1,361	\$5,283		\$0	\$1,015	\$7,659
WMATA Support		\$24,180				\$24,180
Sub-Total	\$9,188	\$55,867	\$7,677	\$6,000	\$3,683	\$82,415
Northern Virginia						
Highway	\$2,890	\$14,505	\$7,710	\$1,244	\$524	\$26,873
Local Transit	\$1,351	\$3,884	\$7,061	\$290	\$2,711	\$15,298
Bike & Ped	\$0	\$7	\$500	\$0	\$0	\$507
Commuter Rail	\$0	\$7,176	\$147	\$0	\$1,621	\$8,944
WMATA Support		\$12,302	\$6,712			\$19,014
Sub-Total	\$4,241	\$37,875	\$22,130	\$1,535	\$4,856	\$70,637
WMATA¹						
Sub-Total	\$12,212				\$21,604	\$33,816
GRAND TOTAL	\$31,930	\$123,545	\$29,807	\$7,535	\$30,470	\$223,288

Revenues Subtable - WMATA Summary

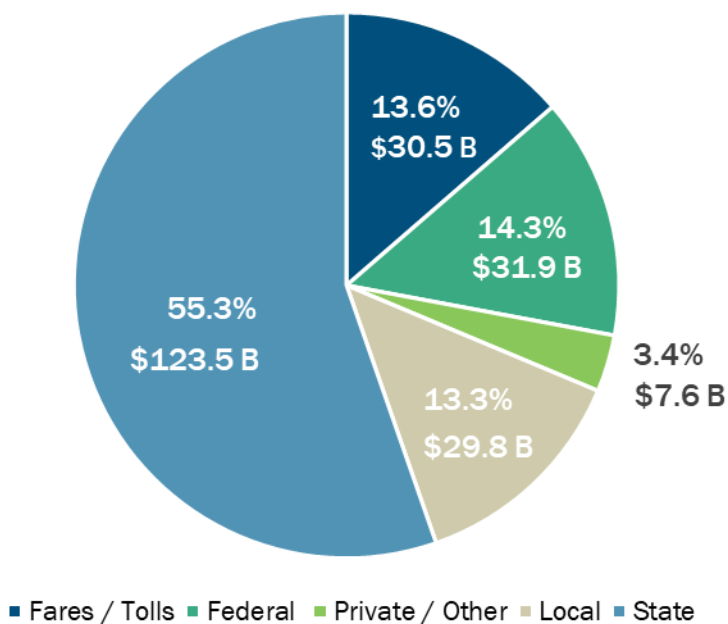
	Federal	State/DC	Local	Private / Other	Fares / Tolls	TOTAL
Capital	\$12,212	\$21,297	\$2,888			\$36,397
Operating		\$31,487	\$11,422		\$21,604	\$64,513
Subtotal WMATA	\$12,212	\$52,784	\$14,310	\$0	\$21,604	\$100,910

1. Fares, Grants and Other Nonjurisdictional (Regional) Funds.

Observations about Forecasted Revenues

The revenues shown in Table 1 are portrayed graphically in Figure 1 below by funding source. Overall, federal revenue as a proportion of total revenue is 14 percent, while state (including the District of Columbia) sources are the largest single source at 55 percent. Local funds, which include funds collected across Northern Virginia, represent 13 percent of revenue. User fees of fares and tolls are 14 percent of the total revenues, while bonds and private or other sources account for three percent of total revenues. Section 3 of the report provides more detail on the revenue types and forecasting methodology used to develop the long-term projections for each funding source.

Figure 1 – Revenues by Funding Source (YOE dollars (Billions))



Regarding revenue projections for each major jurisdiction, Figure 2 provides a summary of funding sources for each state.

For the District of Columbia:

- federal revenues constitute 17 percent of its revenues;
- the District contributes 82 percent; and
- transit fares make up 1 percent.

For Suburban Maryland, the revenue source proportions are:

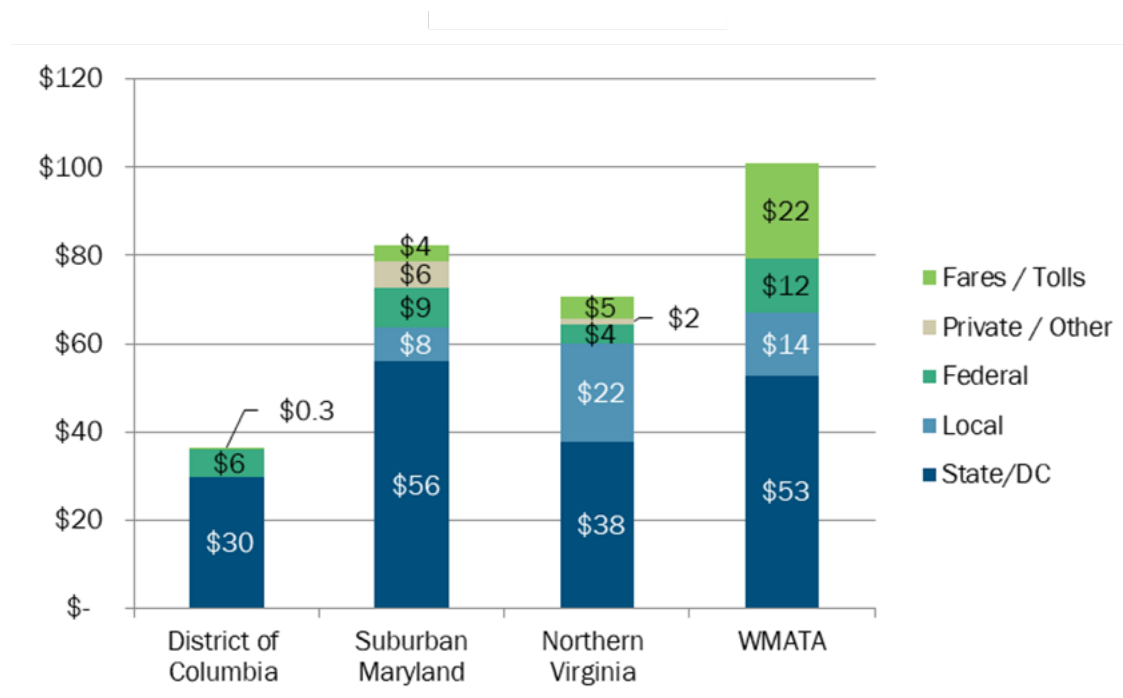
- federal – 11 percent;
- state – 68 percent;
- local – 9 percent;
- private/other – 7 percent; and
- tolls/fares – 4 percent.

In northern Virginia, the revenue source proportions are:

- federal – 6 percent;
- state – 54 percent;
- local – 31 percent (which includes regional taxes),
- private/other – 2 percent; and
- tolls/fares – 7 percent.

In addition, WMATA revenue sources are also shown in Figure 2. Much of this revenue (53 percent) is already included in the state columns, with state and local revenue used to fund WMATA.

Figure 2 – Revenues: Funding Sources by State (YOE dollars (Billions))



New Revenue Sources Since 2018

A significant funding development for the region was the 2018 approval for new, long-term dedicated funding for WMATA's state of good repair needs by the District of Columbia, Maryland, and Virginia. In addition to continued support for the current capital subsidy, the three jurisdictions provide an additional \$500 million annually in funding. The funding allocation was arrived at through WMATA's capital costs formula: the District provides \$178 million, Maryland \$167 million, and Virginia \$154 million per year. This dedicated funding was included in the 2018 LRTP financial plan.

In 2020, the Virginia legislature passed additional transportation funding in the Omnibus Transportation Bill, with an increase in the gas tax of five cents a year for two consecutive years (in July 2020 and July 2021) and then indexed to inflation. The legislation also increased funding for transit and established the Virginia Passenger Rail Authority to oversee the state's expansion of passenger rail service.

In regard to federal revenues, the passage of the Bipartisan Infrastructure Law (Infrastructure Investment and Jobs Act) in November 2021 reauthorized federal surface transportation for five

years with a significant increase in funding. For the metropolitan Washington region, an additional \$400 to \$600 million per year are possible, depending upon the implementation of the funded federal programs and the competitive nature of grant funding. The increased funding is not included in this financial plan, but projected over the lifetime of the LRTP could provide some \$12 to \$19 billion in additional funding for the region.

The federal transportation legislation also reauthorized the Passenger Rail Investment and Improvement Act of (PRIIA) funding for WMATA rehabilitation through 2030, for which \$150 million of federal funds is matched by \$150 million in state funds (\$50 million each from DC, MD, and VA) annually. These revenues are included in Table 1 to meet WMATA's State of Good Repair needs, with the assumption the funds will be authorized through 2045.

FORECAST EXPENDITURES

The forecast expenditures for the Visualize 2045 LRTP are shown in Table 2. The total estimated expenditures are summarized in year of expenditure dollars for the 23-year period from 2023 through 2045. The totals can be compared with those in Table 1 to show that expenditures and revenues match for each major jurisdiction, mode, and the region overall, and thus the Visualize 2045 long-range transportation plan is financially constrained as required. The total expenditures shown in Table 2 are \$223.3 billion and match the revenues shown in Table 1.

Public transportation is expected to comprise 67.1 percent of the expenditures, highways comprise 32.5 percent, and bicycle and pedestrian projects comprise 0.4 percent. Of the total expenditures, operations and capital costs for WMATA represent 45.2 percent of the region's total projected expenditures.

Expenditures are separated into three major categories: operations, state of good repair, and system expansion. Expenditures are further categorized among five modes: highway, local transit, bicycle and pedestrian, commuter rail, and WMATA support. The rows in the table show expenditures by the three state-level jurisdictions (the District of Columbia, Suburban Maryland, Northern Virginia), the regional non-jurisdictional expenditures, and the aggregate total. The regional non-jurisdictional expenditures are those covered by WMATA fares, grants, and other non-jurisdictional funds for regional services. Within each jurisdictional category, Table 2 shows the expenditure breakdown for the principal modes (highway, local transit, commuter rail, and WMATA). Table 2 also includes a sub-table for WMATA with total expenditures categorized by the three types of expenditure and a sub-table of expenditures by mode categorized by the three types of expenditure.

Section 3 of the report provides more detail on the revenue types and forecasting methodology used to develop the long-term projections for each funding source.

OBSERVATIONS ABOUT FORECASTED EXPENDITURES

As in previous financial analyses, the majority of future transportation revenues will be devoted to the operations and state of good repair of the current transit and highway systems. Beginning with the 2014 LRTP financial analysis, agencies have worked to discretely identify state of good repair expenditures for highway and transit systems, previously included with operational system preservation costs or included in the total capital expenditures for system expansion (i.e., investment). The proportion of revenues identified for Visualize 2045 and devoted to operations and

Table 3 Expenditures: Visualize 2045 Long-Range Transportation Plan (2023 to 2045)

Year of Expenditure Dollars (Millions)				
	State of Good			TOTAL
	Operations	Repair	Expansion	
District of Columbia				
Highway	\$2,252	\$6,285	\$254	\$8,791
Local Transit	\$1,395	\$905	\$1,123	\$3,423
Bike & Ped	\$279		\$26	\$305
Commuter Rail				\$0
WMATA Support	\$15,407	\$7,389	\$1,104	\$23,900
Sub-Total	\$19,333	\$14,579	\$2,507	\$36,419
Suburban Maryland				
Highway	\$13,906	\$10,082	\$12,977	\$36,964
Local Transit	\$8,420	\$907	\$4,276	\$13,603
Bike & Ped	\$0	\$4	\$5	\$9
Commuter Rail	\$3,001	\$1,937	\$2,721	\$7,659
WMATA Support	\$16,080	\$7,043	\$1,057	\$24,180
Sub-Total	\$41,407	\$19,973	\$21,035	\$82,415
Northern Virginia				
Highway	\$9,405	\$2,503	\$14,966	\$26,873
Local Transit	\$9,599	\$3,766	\$1,933	\$15,298
Bike & Ped	\$0	\$0	\$507	\$507
Commuter Rail	\$6,397	\$1,992	\$555	\$8,944
WMATA Support	\$11,422	\$6,602	\$990	\$19,014
Sub-Total	\$36,822	\$14,863	\$18,952	\$70,637
WMATA¹				
Sub-Total	\$21,604	\$12,212		\$33,816
GRAND TOTAL	\$119,166	\$61,627	\$42,495	\$223,288

Expenditures Subtable - WMATA Summary

	State of Good			TOTAL
	Operations	Repair	Expansion	
DC	\$15,407	\$7,389	\$1,104	\$23,900
Maryland	\$16,080	\$7,043	\$1,057	\$24,180
Virginia	\$11,422	\$6,602	\$990	\$19,014
WMATA ¹	\$21,604	\$12,212	\$0	\$33,816
Subtotal WMATA	\$64,513	\$33,246	\$3,151	\$100,910

Expenditures Subtable - Modal Summary

Highways	\$25,563	\$18,869	\$28,197	\$72,629
Bike & Ped	\$279	\$4	\$539	\$822
Transit	\$93,324	\$42,753	\$13,760	\$149,837

1. Fares, Grants and Other Nonjurisdictional (Regional) Funds.

annual maintenance is forecast to be about 53 percent; the expenditures for capital projects to maintain the highway and transit systems in a state of good repair are forecasted at about 28 percent while the expenditures devoted to system expansion are around 19 percent. For highways, 61 percent of expenditures are anticipated on operations and state of good repair projects.

Under local transit, commuter rail, and WMATA, operations expenditures are 62 percent of the forecast expenditures, with another 29 percent devoted to state of good repair. Together for all modes, the capital state of good repair and expansion investments are about 46 percent of total expenditures for the region. Regionally significant bike and pedestrian projects are funded at \$822 million, or 0.4 percent of overall expenditures.

Figure 3 shows total expenditures, separated by mode and type. Transit expenditures include those for WMATA, local transit, and commuter rail. Over the 23-year period of Visualize 2045, public transportation is projected to absorb 67.1 percent of the total expenditures of \$223.3 billion. WMATA expenditures are forecast at \$100.9 billion (45 percent of the overall total) and match the available revenues. Highway expenditures and revenues total \$72.6 billion (32.5 percent) and regionally significant bike and pedestrian expenditures and revenues total \$822 million (0.4 percent).

Figure 3 – Expenditures by Type and Mode (YOE dollars (Billions))

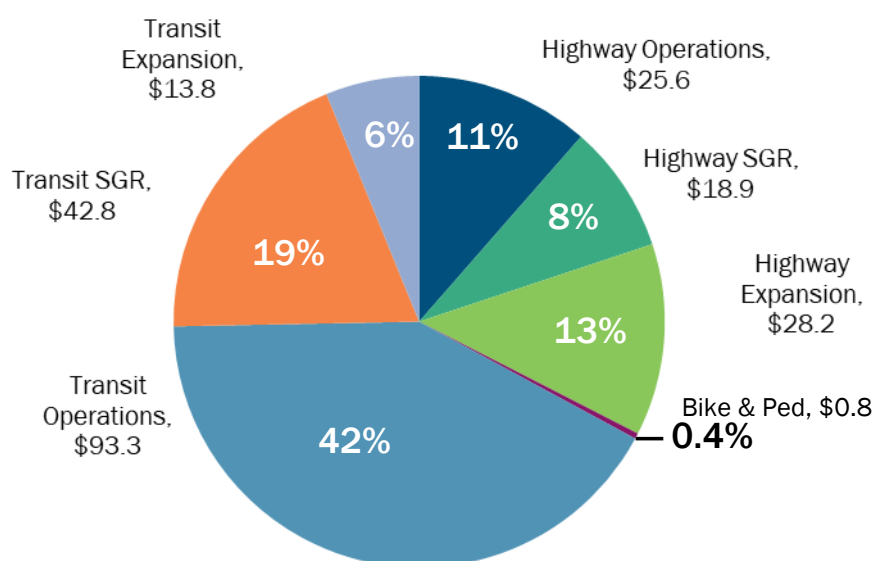
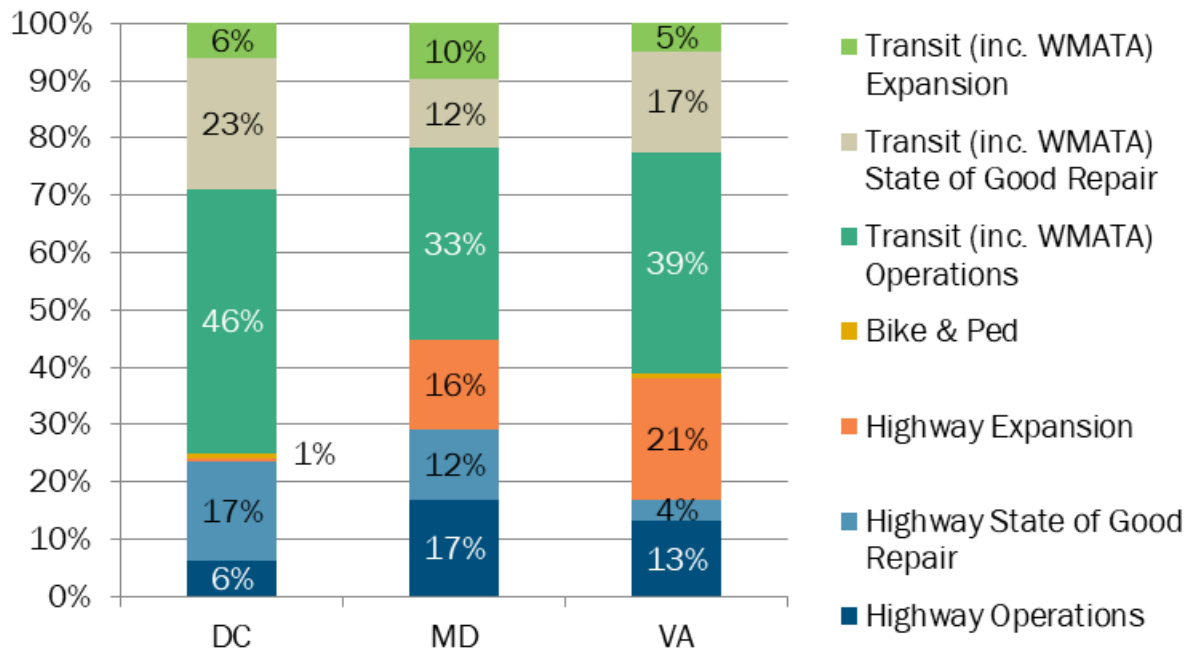


Figure 4 (on the next page) shows expenditures by mode and type for each state as a percentile out of 100 percent (WMATA's expenditures using revenues received directly from federal sources and collected from passenger fares are excluded). In the District of Columbia, transit state of good repair and operations expenditures constitute three-quarters of total transportation expenditures. This is due to the significant transportation role of Metrorail and Metrobus as well as DC Circulator and DC Streetcar in the District.

Suburban Maryland's proportions of expenditures are about 45 percent for highway and 55 percent for transit, with 0.01 percent for bicycle and pedestrian expenditures that are included in the L RTP and TIP. For Northern Virginia the figures are about 38 percent and 61 percent for highway and

transit respectively, with bicycle and pedestrian expenditures 0.7 percent. Both Suburban Maryland and Northern Virginia have about 26 percent of funding devoted to expansion projects, through Suburban Maryland is higher in dollar terms (\$21.0 billion for Maryland vs. \$19.0 billion for Virginia).

Figure 4 – Expenditures by Mode and Type by State



WMATA'S EXPENDITURES

WMATA's forecast needs for both operations and state of good repair through 2045 were fully met by the funding agencies for the Visualize 2045 update financial analysis. About a third of the expansion funding will provide for 100 percent 8-car trains, core station capacity improvements, and other capital project improvements to meet growth, as identified in WMATA's Capital Needs Inventory.

3. How Revenues and Expenditures are Forecast

PERIOD OF ANALYSIS AND SUMMARY OF APPROACH

The Visualize 2045 update financial analysis covers both expenditures and revenues for a 23-year period for 2023 to 2045. Agencies used the current long-range transportation plan, the current TIP, and their latest capital investment programs and six-year improvement proposals as a starting point for expenditures and made appropriate adjustments to extend their forecasts for the 23-year period. Revenues were forecast based on historic funding trends and anticipated changes in federal, state, and local revenues. TPB staff distributed template spreadsheets to each agency and jurisdiction for their use in preparing the estimates of revenues and expenditures. Agencies that wished to utilize their own existing spreadsheets or models could do so and reported the information back to staff using the common spreadsheet format.

METHODOLOGIES

Revenue and expenditure data were developed and synthesized by the departments of transportation (DOTs) of the District of Columbia, Maryland and Virginia, by WMATA and other transit agencies, and by the local jurisdictions. The District of Columbia DOT (DDOT) provided all District of Columbia estimates. Maryland Department of Transportation (MDOT) coordinated all of the local jurisdiction and state inputs in Maryland and the Virginia Department of Transportation (VDOT) coordinated all the local jurisdiction and transit agency inputs in Virginia. WMATA provided forecasts of capital and operating expenditures for its regional Metrobus, Metrorail, and MetroAccess services, which were coordinated with the jurisdictions and agencies that fund those services.

Highway expenditures in Maryland are made by both MDOT and by the local jurisdictions. Transit in Maryland is funded and operated either directly by MDOT (which includes the Maryland Transit Administration), which provides WMATA's funding, and which operates the commuter rail and commuter bus service, or by the local jurisdictions themselves. Charles, Frederick, Montgomery and Prince George's Counties each fund and operate their own local transit services, with some state assistance.

Most of the funding to construct, operate and maintain highways in Virginia is provided by the state, with significant funding for highway and transit also provided through regional revenues allocated by the Northern Virginia Transportation Authority (NVTA) and by the Northern Virginia Transportation Commission (NVTTC), as well as local jurisdiction and private funding. Cities and towns as well as Arlington County have the responsibility to maintain and operate the roadway system with funding allocated to them by the state as well as local funding. Transit in Virginia is provided by WMATA, by the local jurisdictions, and by the Potomac and Rappahannock Transportation Commission (PRTC) and Virginia Railway Express (VRE), with the Virginia Department of Rail and Public Transportation (DRPT) providing state funding support.

The TPB staff employed a methodology consistent with that used to forecast revenues and expenditures in previous financial analyses. Each agency and jurisdiction was requested to provide year-by-year forecasts of their transportation revenues and expenditures through 2045. When necessary, the TPB staff converted expenditure dollar estimates between current and future years, for forecasts submitted by agencies that were not converted by the agencies themselves.

DISTRICT OF COLUMBIA FORECAST

Over the near term, the District of Columbia's revenues forecasts rely on budget projections. For this financial analysis, DDOT used the approved 2021 budget and 2021-2026 Capital Improvement Plan. For the revenue forecast beyond 2026, DDOT assumed future escalations at the rate of general inflation.

The revenue numbers for highways (\$8.8 billion in year of expenditure dollars) in the summary tables (Table 1) has been derived from yearly revenue projections provided by DDOT in spreadsheet format. DDOT forecasts that \$5.4 billion of this would be covered by federal aid and \$3.4 billion from various local D.C. sources used to fund highways.

DDOT developed projected revenues for highway, local transit, bicycle and pedestrian, and WMATA needs, both capital and operating. The District's Highway Trust Fund revenue projections are anticipated to remain available to match available federal funds; these projected revenues to match federal funds represent 17 percent of highway funds.

District of Columbia revenues for WMATA and local transit – DC Streetcar, DC Circulator, and paratransit programs – include funds programmed for WMATA State of Good Repair capital investments. Revenues are projected into the future with a 2.4 percent annual growth rate due to the costs of upgrading aging systems and District policy statements that commit to funding transit capital projects and transit State of Good Repair.

For user fee revenues from fares and tolls, revenues from transit fares are assumed in keeping with planned transit expansions. These are anticipated to increase at a 3.0 percent rate through 2045 due to the anticipated growth in ridership. For private and other revenues, there are assumptions of private spending for several projects in the long-range transportation plan that will result in improved regional transportation infrastructure.

For expenditures, DDOT projects highway spending on significant capital projects from planned spending in the 2021-2026 Capital Improvement Plan with ongoing expenditures projected for significant projects based on past trends.

Tables 1 and 2 include \$3.4 billion in revenue and expenditures for local transit that mainly consists of the DC Streetcar and the DC Circulator Bus, paratransit programs, and construction of the K Street NW Transitway and other transit capital projects. Operating and capital costs for local transit (DC Circulator and DC Streetcar) are taken from existing financial plans for both systems, with a long-term operating cost increase assumed of 3 percent past 2023. DDOT's forecasts for WMATA transit expenditures are based on estimates provided by WMATA through the financial plan process and by assumptions made for WMATA operating subsidies and capital needs by the region. This includes dedicated capital funding of \$178 million a year and also \$50 million a year in match from District for the extension of PRIIA through 2045.

SUBURBAN MARYLAND FORECAST

The revenue numbers in Table 1 for Suburban Maryland reflects estimates for MDOT funding, including by the State Highway Administration, the Maryland Transportation Authority and the

Maryland Transit Administration, and from the four counties in the TPB's planning area: Charles County, Frederick County, Montgomery County, and Prince George's County.

MDOT bases its overall revenue projections on the state's Consolidated Transportation Program (CTP) budget for the next few years, extrapolation of past trends, and assumptions about future increases for out years (approximately 2027-2045). For years 2023-2045, the numbers from MDOT imply an annual increase of approximately 5.3 percent in real terms for state funds, while federal fund projections are based on an average growth rate of 3.0 percent for both highway and transit program funds. Long-term federal contributions continue to decrease from past financial assumptions. MDOT projections for WMATA include dedicated funding of \$167 million a year as well as matching funds \$50 million a year for continuation of funding for PRIIA through 2045.

Maryland jurisdictions also base their overall revenue projections on budget estimates over the next few years, extrapolation of past trends, and assumptions about future increases for more distant years (approximately 2027-2045). The Table 1 revenue breakdown in year of expenditure dollars by source for Maryland forecasts \$9.2 billion from federal sources, \$55.9 billion from state, \$7.7 billion from local, \$6.0 billion from private and other, and \$3.7 billion from tolls and non-WMATA transit fares.

On the expenditure side (Table 2), the figures again include MDOT data and data from the four Suburban Maryland jurisdictions. MDOT and jurisdictions typically match their expenditures to the forecasted revenues available for each year. Table 2 includes \$41.4 billion for operations and annual system preservation, \$20.0 billion for capital state of good repair projects and \$21.0 billion for expansion projects, including the I-270 and I-495 Traffic Relief Plan (Ops Plan), implementation of the MARC Cornerstone Plan for commuter rail, and the construction of several bus rapid transit (BRT) lines in Montgomery County.

NORTHERN VIRGINIA FORECAST

Northern Virginia estimates of revenues and expenditures were developed cooperatively by VDOT, DRPT, NVTA, NVTC, local jurisdictions, and transit agencies. VDOT and DRPT developed estimates of federal and state revenues that would be available both statewide and to the Northern Virginia region. VDOT worked with local jurisdictions to identify their additional highway and transit funding needs, taking into account the state revenues available for highways and transit. VDOT and the jurisdictions also reviewed the WMATA financial projections.

VDOT coordinated the effort and provided revenue and expenditure information for the state, federal, and local jurisdiction data. Five different categories of projects and programs were evaluated: Highways, Local Transit, Bicycle and Pedestrian, Commuter Rail (VRE), and WMATA Virginia Allocations, both operating and capital. For each, the revenues by source (federal, state, regional/local, tolls/fares, private/other) and expenditures by category (operations, state of good repair, and expansion) were identified. These data were used to complete the summary table.

Northern Virginia revenues are derived from multiple federal, state, local, toll, private and transit sources, and future forecasts are based on a complex set of assumptions regarding expected escalations of each source. The six-year estimate of state revenues is based on the FY 2021-2026 Six-Year Financial Plan (SYFP) as well as the Six-Year Improvement Program (SYIP) adopted by the Commonwealth Transportation Board (CTB) in June 2019. The official forecast of state revenues is

prepared by the Department of Taxation. The state revenues include Motor Vehicle Sales and Use Tax, Motor Vehicle Fuels Tax, Licenses Fees, and State Sales and Use Tax. The average total state revenue growth for FY 2021-2026 is forecast at 3.8 percent. In the long-term, state revenues are expected to grow by 2.2 percent annually, with a 1.7 percent annual growth in federal revenues.

The total federal, state, and local funding figures that are shown in Table 1 include both highway and transit funding – \$4.2 billion, \$37.9 billion, and \$22.1 billion, respectively. User charge revenues of approximately \$500 million from toll facilities and \$4. billion from local transit and commuter rail fares are shown combined.

Regional and local revenues include the dedicated NVTAF funds. The NVTAF funds are made up of a portion of the sales tax in Northern Virginia, a transit occupancy tax, and a grantors tax. A portion of the NVTAF funds will go directly to WMATA under recent legislation, while the major portion of the NVTAF funds is allocated by the NVTAF through a competitive process; both are treated as local revenues in the financial analysis.

Expenditures (Table 2) include data from VDOT and the Northern Virginia agencies and jurisdictions. The expenditure data for the near term are derived from the latest annual budget and the six-year program data along with estimates in the TIP. Table 2 shows \$36.8 billion for operations, \$14.9 billion for state of good repair projects, and \$19.0 billion for expansion, including both highways and transit.

State funding for WMATA includes \$154 million in dedicated capital funding as well as \$50 million annually for matching of the PRIMA state of good repair funds, both annually through 2045. Much of WMATA's operating funding from Virginia as well as some capital funding comes from the local jurisdictions.

VRE costs are based on the approved state improvement program through 2020, with assumed growth of 2.5 percent growth in later years, while fares are expected to grow by three percent annually. Other local transit providers in Northern Virginia have their revenues and costs projected as well.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY FORECAST

WMATA's financial estimates were prepared based on WMATA's *FY2021 – FY2026 Capital Improvement Program (CIP)* and FY 2021 Budget, as well as a *10-Year Capital Plan*. The capital plan and CIP rely upon the dedicated funding committed by jurisdictions which are part of WMATA's Compact to maintain a continued state of good repair (SGR) as well as some funding to meet capacity expansion and new needs.

WMATA Operations Revenues and Expenditures

Forecasts for future operations and maintenance expenditures are limited by the three percent subsidy cap imposed by the enabling legislation for jurisdictional dedicated funding. Consistent with discussions with and assumptions by TPB and local, state, and regional partners, WMATA ridership and revenue forecasts assumed a “back-to-normal” status matching pre-COVID levels by FY 2023.

Systemwide Metrorail ridership is forecast to grow by 1.4 percent per year for 2020-2025, then by an average of 0.7 percent 2025-2045. The higher growth rate during the first few years recognizes ridership increases from the opening of the Silver Line Phase Two to Dulles Airport and Loudoun County and the Potomac Yard station in Alexandria, both scheduled to open for service in 2022.

Metrobus service growth is expected to grow at a modest rate, just a few tenths of a percent per year. Metrobus subsidies are allocated to the local jurisdictions based on policies adopted by the WMATA Board of Directors.

MetroAccess, WMATA's paratransit operation, is anticipated to continue growing at four to six percent per year for operating costs and revenues due to increasing demand for this type of service, driving by an expanding eligible population. Costs for MetroAccess are assigned based on the rider's jurisdiction of residence.

WMATA Capital Revenues and Expenditures

The WMATA capital revenues forecast projected anticipated funding sources from the federal, state and local governments including an extension of PRIIA and federal formula funds with matches at current funding levels, along with a contribution of dedicated funding of \$500 million annually from the District, Maryland, and Virginia.

Capital expenditures were based on 'steady-state' state of good repair needs of \$1.36 billion (\$YOE), annually from WMATA's Capital Needs Inventory (CNI) through 2030. For FY 2031-2045, the analysis assumed a two percent inflation rate for state of good repair. Additional modest capital funds are targets for system modernization and some capacity expansion and new needs to meet anticipated growth in ridership through 2045.

Beyond the completion of the Silver Line extension to Dulles Airport and into Loudoun County and opening of the new in-fill station at Potomac Yard in Alexandria in 2022, there are no funded plans for expansion of Metrorail. No further expansion of the rail system network is included in the Visualize 2045 long-range transportation plan.

WMATA regional operating and capital numbers (covered by operating revenues, grants, and other non-jurisdictional funds) are shown in a separate section below the rows summarizing the three jurisdictions in summary Tables 1 and 2. WMATA's support from each jurisdiction is shown under each jurisdiction summary section as well as separately at the end of expenditure Table 2.

4. Comparison to Previous Financial Analyses

This section assesses the changes in total revenues and the purpose of revenues over the past long-range transportation plan financial analyses. The revenues and expenditures for the financial plans were developed using the same general methods, though over different periods of time (i.e., number of years). However, comparisons should take into account that figures are in year of expenditure dollars, so amounts will grow over time in line with general regional growth and with inflation.

An important development in the region in the past few years has been the advocacy and legislation that led to a successful regional effort to agree on new dedicated funding to meet WMATA's state of good repair needs. This has led to a significant increase in the revenues and expenditures for public transportation in the financial analysis, even as highway revenues and expenditures are stable. The required use of year of expenditure dollars in the analysis also increases financial figures over time.

Key observations on changes in revenues and expenditures for the Visualize 2045 Financial Analysis include:

Table 4 Total Expenditures in Billions of YOE Dollars over time

	D.C.	Suburban Maryland	Northern Virginia	WMATA (Non-jurisdictional)	Total
2010 LRTP	\$ 28.0	\$ 74.5	\$ 58.0	\$ 62.0	\$ 222.5
2014 LRTP	\$ 33.1	\$ 87.3	\$ 68.5	\$ 55.2	\$ 244.1
Visualize 2045 (2018)	\$ 45.6	\$ 116.2	\$ 80.6	\$ 48.7	\$ 291.1
Visualize 2045 (2022)	\$ 36.4	\$ 82.4	\$ 70.6	\$ 33.8	\$ 223.3

Forecast total revenues and expenditures decreased by 24 percent between the 2018 and 2022 Visualize 2045 plans. This was largely the result of a reduction of the analysis period by four years, from twenty-seven to twenty-three years, a 15 percent decrease. The other factor was the completion of or substantial work on multiple large-scale projects from 2019 through 2022, including the I-66 Outside the Beltway Express lanes, Silver Line Phase Two and the Potomac Yard station, the South Capitol Street Bridge, and the Nice-Middleton Bridge. Future investments anticipated for the region are more modest.

Table 5 Percentage of Total Expenditures in Billions of YOE Dollars by Mode

	Highway	WMATA	Other Transit	Total
2010 LRTP	\$ 81 (36%)	\$ 114 (51%)	\$ 28 (13%)	\$ 223
2014 LRTP	\$ 99 (41%)	\$ 101 (41%)	\$ 43 (18%)	\$ 243
2018 LRTP (Visualize 2045)	\$ 99 (34%)	\$ 139 (48%)	\$ 52 (18%)	\$ 290
2022 LRTP (Visualize 2045)	\$ 71 (32%)	\$ 101 (45%)	\$ 49 (22%)	\$ 221

The proportion of revenues and expenditures devoted to public transportation has increased over time. This is largely due to the increased need for investment in WMATA's state of good repair needs, but also due to planned investments in transit projects such as commuter rail investments in both Maryland and Virginia and the Montgomery County BRT projects. Expenditures for WMATA constitute 45 percent of the total expenditures, in line with previous forecasts.

Federal revenues as a proportion of the total is at 14 percent, a slight reduction from past analyses though up one percent from the 2018 analysis. However, the additional revenues of the federal Bipartisan Infrastructure Law are not included in this financial analysis, with the exception of the extension of PRIIA funding for WMATA. State and local revenues are up proportionately in this analysis. Other sources of revenue, including private and other sources and user fees from tolls and fares, are down to 16 percent from 19 percent in 2018 and 24 percent in 2014. In part, this is due to the proportional increase in state and local revenues, making up a larger piece of the total. In addition, some major toll projects in Northern Virginia have been completed; future toll revenues being collected on these roads are no longer included in the financial analysis as they are paying off issued bonds and private investments. In addition, predicted transit fare revenues have shrunk based on observed trends in ridership and more conservative forecasts of future transit ridership as well as fare reduction programs.

With respect to the forecast for individual modes, for highways, the federal government and the states provide 78 percent of the revenues, an increasing share. Local transit and commuter rail are largely funded from state and local revenue sources, 68 percent (compared to 73 percent in 2018), with fares contributing 19 (compared to 17 percent in 2018) and federal aid 12 percent.

5. Transportation Revenues: Recent Trends and Future Options

There have been positive actions taken by agencies in recent years in terms of seeking adequate revenues to maintain the existing highway and transit systems in a state of good repair. However, major challenges remain as the region looks to enhance the transportation system to accommodate the travel demands of the forecast population and economic growth. The forecast congestion on the existing and future transportation system points to unacceptable outcomes such as costly delay and a negatively impacted quality of life. The region should examine new sources of possible future funding and must identify the critical steps needed to achieve more adequate funding for the unfunded expansion needs of the transportation system. In addition, the region is still recovering from the economic recession. It is important that long-term forecasts be understood in terms of long-term trends, so information is presented here about trends prior to the coronavirus pandemic.

While increases in transportation funding in Maryland, Virginia, and the District of Columbia over the past decade have been significant, the long-term forecast for transportation revenues is of gradual decline. While the national Bipartisan Infrastructure Law passed in November 2021 will bring additional revenues, federal revenues make up only a small percentage of overall transportation funding: just 13 percent through 2045 in this analysis, though it can be anticipated that proportion will increase in the next financial plan. In the long-term though, states and local jurisdictions will have to find more or new sources of transportation funding as traditional sources, in particular the motor fuel or gas tax, decrease.

The shift to user fees for highway expansion, particularly for specific project-based funding agreements such as for high-occupancy toll (HOT) lanes and toll lanes, has been an important step in the direction of increased revenues as well as project implementation. The 2010 opening of the tolled Inter-County Connector (ICC) in Maryland, built by the MDOT State Highway Administration and operated by the MDOT Maryland Transportation Authority was the first example in the region. Demonstrating innovation, nationally recognized public-private partnerships in Virginia have funded the construction of additional capacity in the shape of tolled lanes added to congested highways. The Capital Beltway I-495 Express Lanes opened in 2012 and the I-95 Express Lanes opened in 2015. In 2019, Virginia imposed a toll on I-66 inside the Beltway, which is paying for improvements and transit alternatives projects in the corridor. Meanwhile the I-66 outside the Beltway project is adding Express Lanes constructed by a private partner is due to open in 2022. Maryland has similar projects in the works with the Traffic Relief Plan (Ops Plan), which will add dynamically managed HOT lanes along the portions of the I-495 Capital Beltway and I-270.

There may be opportunities for future capacity expansion through tolling, including a role for public-private partnerships. In addition, the State of Maryland is using a public-private partnership (P3, or PPP) arrangement to construct and operate the light rail Purple Line system in which the private partner is financing a considerable portion of the costs of construction. However, these limited opportunities are not substitutes for enhanced broad-based funding sources such as fuel taxes, vehicle fees, sales taxes, or other major dedicated sources that can support the operation, preservation, maintenance, and long-term state of good repair replacement and rehabilitation needs for major components of the surface the transportation system. Also, although increases to traditional motor fuel taxes and other current user fees are feasible short- and mid-term sources of revenue, they may not necessarily be the best long-term solution given improved vehicle fuel efficiency and alternative fueled vehicles.

Other options for new transportation revenue include special tax districts, economic development corridors, and innovative infrastructure development. One regional example is the Union Station Redevelopment Corporation, established to leverage the redevelopment potential of the historic downtown train station and air-rights on the railroad lines to raise revenues for upkeep and investment in the station. Another strategy, action to promote transit-oriented community (TOC) projects around Metrorail and other high-capacity transit (HCT) stations, not only provides direct revenues for transportation but also leads to more transit ridership and revenues.

In support of the 2010 long-range transportation plan financial analysis, an exhaustive review of potential revenue sources, innovative financing techniques, and relevant factors was conducted and is still very relevant. This report is available at:

http://www1.mwcog.org/store/item.asp?PUBLICATION_ID=391

ACTIONS NEEDED TO ACHIEVE NEW OR ENHANCED REVENUE SOURCES

The National Capital Region still needs additional revenues and new revenue sources in order to support critical needs for expansion of the surface transportation network. As in previous financial analyses, the vast majority of available future transportation revenues are already dedicated to the maintenance and operations of the current transit and highway systems. Many unfunded but desirable projects are proposed that cannot be included in the long-range transportation plan under the funding constraints.

One of the more significant challenges to the region is the existence of multiple jurisdictions at several levels, each with its own tax base, tax structure, and tax policy. This leads to varying priorities and funding for regional or inter-jurisdictional coordination, connections, and interoperability, particularly for public transportation services and bicycle/pedestrian facilities. There are opportunities in each jurisdiction to develop new or enhanced revenue sources that can be part of an overall regional solution. There also is the potential for developing metropolitan-level funding sources for planning and implementing regional transportation projects.

Recent analyses have indicated that fuel taxes will remain a viable base for funding in the near term, both for the region and the nation. The recent indexing of state motor fuels taxes to inflation, and the automatic adjustment of dedicated sales taxes, is the most promising development in ensuring that at least a basic level of funding continues to flow to the region's highway and transit systems in the future. The next step would be for federal motor fuel taxes to also be indexed to inflation, along with a rise to incorporate inflation since last adjusted in 1993. In addition to the indexing of revenue sources, recent developments in the region with regard to tolling and pricing mechanisms suggest that their application could be expanded in the shorter term.

PUBLIC SUPPORT FOR ADDITIONAL TRANSPORTATION REVENUES

In the region and across the nation, there is considerable political and popular resistance to increased tolling and to the introduction of additional pricing mechanisms. In 2013, the TPB completed *A Study of the Public Acceptability of Congestion Pricing Through a Deliberative Dialogue with Residents of Metropolitan Washington*². The study found that participants agreed that congestion resonates as a critical problem facing the region, with significant personal impacts.

² http://www1.mwcog.org/store/item.asp?PUBLICATION_ID=470

However, participants who said they wanted more transportation alternatives rarely connected the lack of those options to the lack of funding. Some expressed doubts about the reality or extent of funding problems while many lacked confidence in the government's ability to solve transportation problems even if enough funding were available. An additional finding was that participants were generally unaware of the details of how transportation is currently funded, including the fact that the federal gas tax had not been raised in nearly two decades and was not indexed to inflation. Participants seemed to doubt inherently that congestion pricing would be effective in improving the region's transportation system. Therefore, framing pricing as an effective tool for addressing congestion problems and funding shortfalls did not seem to resonate with the public, despite the opportunity for facility tolling and congestion pricing in cordon or area-specific settings, including the use of variable and dynamic schemes.

During the study discussion, participants showed more interest in congestion pricing if the pricing mechanism could effectively create specific and useful transportation alternatives. Participants suggested that congestion pricing could play a role in the future, but proposals would need to clearly indicate how revenues raised through congestion pricing would be used and how transparency and accountability would be ensured in the allocation of these funds.

PRIVATE SECTOR FUNDING OPTIONS

The Express Lanes projects in Virginia have received national recognition for their innovative use of private-public partnerships. There has been both strongly negative and strongly positive reactions to the role of private firms in building and managing tolled highway networks, even if only new capacity is provided. Even when tolling is done by the public sector, as in the case of the ICC, the Dulles Toll Road, and I-66 inside the Beltway, there is opposition to tolling. There is also opposition to perceived diversion of the funds when highway toll revenues are used to invest in transit capacity expansion, as is the case for the Silver Line. The conversion of free lanes to toll lanes would likely face much greater public opposition and be much more difficult than the leasing of current toll facilities or the implementation of new toll facilities on high-occupancy vehicle (HOV) lanes.

Implications from these current experiences suggest that pricing and PPPs (those that involve tolling) will not be enough to fund significant surface transportation capacity, and that other sources of revenue will be needed. However, managed lanes with tolling may create an opportunity for private sector involvement in providing some financing of any potential project.

In the long-term, new financing mechanisms are important in view of the anticipated shift away from petroleum-based fuels toward new, broad-based user fees that are not dependent on fuel consumption but on the use of the system, e.g., mileage-based or vehicle-miles traveled (VMT)-based fees. For both political and technological reasons, their actual implementation is likely to lie in the medium-term future though significant efforts are underway to develop technological solutions.

Phasing in of new transportation revenue exaction will be dependent on a variety of factors, including the needs for revenues, and the availability and attributes of the various revenue options, including the roles and required actions of various levels of government. However, if new revenues are ever to be developed, progress will need to be made in developing public and political support for such strategies.

visualize 2045

A long-range
transportation plan
for the National
Capital Region

APPENDIX B

Summary of Projects in the Financially Constrained Element

Draft, March 2022



National Capital Region
Transportation Planning Board

SUMMARY OF PROJECTS IN THE FINANCIALLY CONSTRAINED ELEMENT VISUALIZE 2045 UPDATE (2022) LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION

March 2022

ABOUT VISUALIZE 2045 & THE TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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INTRODUCTION

This appendix to the 2022 update to Visualize 2045 provides information about the projects in the financially constrained element of the plan. This appendix is intended to provide high-level information to familiarize the reader with the projects in the financially constrained element, based on information provided by the project sponsors. This appendix also highlights and provides online links to information about how the projects in the 2022 update to Visualize 2045 advance the TPB's policy priorities and federal planning factors, as indicated by the project sponsors. For the detailed listing of conformity projects, please see Appendix C.

OVERVIEW

The financially constrained element of the 2022 update to Visualize 2045 contains hundreds of projects represented by numerous records in the TPB's Project InfoTrak database. These projects cover all modes, ranging from multi-billion-dollar highway and transit projects to local bridge and transit vehicle replacements and bicycle and pedestrian facilities. Many of these projects have gone through decades of planning prior to being included in the plan. Some of these projects are already under construction and will be completed soon. Of these projects, those listed and mapped in Chapter 7 of the plan are significant enough in scope or cost to be considered a "major" project on the regional scale – these are typically projects on higher class of facilities, such as interstates or state highways.

Most projects in the plan have been included in the constrained element of previous TPB long-range transportation plans. At the outset of the development of Visualize 2045, the region's transportation agencies submitted two new projects and made updates to many of the projects already included in the long-range transportation plan. Updates include changes to information such as completion dates, scopes, or the costs of projects. The information in this document's Attachment A is presented as updated for as of April 1, 2022.

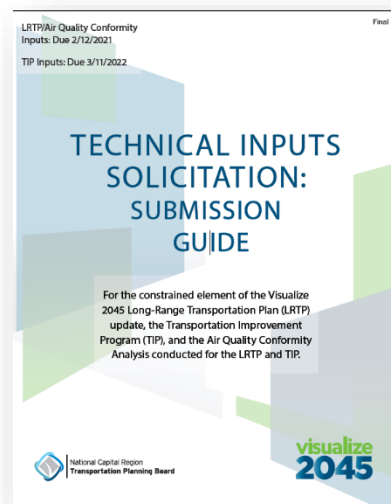
This appendix includes a summary of the topics below and two related attachments:

1. The Technical Inputs Solicitation Guide (Attachment B, as approved, December 2020)
2. A complete listing of projects included in the financially constrained element of the 2022 update to Visualize 2045 (Attachment A)
3. An over of project alignment with TPB policy priorities and the federal planning factors (Regional Policy Documentation Tables). This documentation is based on information provided in May 2021 from project sponsors.

THE TECHNICAL INPUTS SOLICITATION: SUBMISSION GUIDE

Project Inputs for Conformity Analysis

The Technical Inputs Solicitation: Submission Guide served as a call for projects for the federally required, four-year update to Visualize 2045 in 2022 and for a new TIP spanning fiscal years 2023 through 2026. This call for projects defined the schedule for developing and approving the updated plan and new TIP. It specified which agencies are eligible to submit projects and asked agencies to consider not only federal requirements, but also a regional policy framework, that included the TPB's Aspirational Initiatives, matters of equity, and the reduction of airborne pollutants and greenhouse gases when selecting and prioritizing projects. The Technical Inputs Solicitation also provided instructions on how to submit project data for the 2022 Update to Visualize 2045, the FY 2023-2026 TIP, and the Air Quality Conformity analysis of those documents. The Submission Guide can be found in its entirety in Attachment B to this Appendix.



The Technical Inputs Solicitation document was approved by the TPB on December 20, 2020. The document provides an overview of the process used by TPB to solicit technical inputs (projects, programs and policies) to be included in Visualize 2045, the TIP and the conformity analysis. The solicitation documents place a particular emphasis on projects that would have to be included in the regional Air Quality Conformity analysis.

REGIONALLY SIGNIFICANT PROJECTS

Federal regulations (40.CFR.Part 93), based in the Clean Air Act Amendments (section 176(c); 42 U.S.C. 7506(c)), prescribes the process and method for conformity. These regulations dictate that “regionally significant projects” shall be included in the conformity analysis. While all projects across our region are important because of the local and regional benefits they provide, the term ‘regional significance’ has a specific meaning as used by the TPB and the federal agencies in reference to Air Quality Conformity.

The definition from federal regulation document (40 CFR § 93.101) is:

"Regionally significant project means a transportation project (other than an exempt project) that is on a facility which serves regional transportation needs (such as access to and from the area outside of the region, major activity centers in the region, major planned developments such as new retail malls, sports complexes, etc., or transportation terminals as well as most terminals themselves) and would normally be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel."

At the TPB, the staff interpret this definition for the purposes of the technical inputs solicitation as below, irrespective of the funding used for the project.

- 1) Any project on a facility that is included in the TPB model's coded regional network that adds or removes at least one continuous vehicular lane from one major road to the next, or adds a new access/egress location or capacity; or
- 2) Any transit project that adds or modifies fixed-guideway transit facilities (heavy rail, light rail, streetcar, bus rapid transit).

These technical inputs are what the TPB staff include in the Air Quality Conformity project input tables which the TPB staff makes available for comment. After this review the TPB staff asked the TPB to approve the projects along with the scope of work to conduct the conformity analysis so that the required analysis may begin. While the TPB periodically conducts studies to explore alternative or aspirational scenarios regarding future land use, travel demand, transportation projects, programs, policies and fuel types to identify strategies for future implementation, the Air Quality Conformity analysis must be based on official latest planning assumptions with a demonstration of the funding availability to implement all projects, programs and policies assumed in the conformity analysis.

At its June 2021 and July 2022 meetings, the TPB approved the inputs to the Air Quality Conformity analysis of the long-range transportation plan (2022 update to Visualize 2045) and the FY 2023-2026 Transportation Improvement Program (TIP) as well as the scope of work for the conformity analysis.

The projects proposed included in the Air Quality Conformity analysis are a subset of projects in the 2022 update to Visualize 2045 and TIP. Not all projects in the plan and TIP can, nor should be, included in the conformity analysis. Federal conformity analysis regulations inform the projects and programs to be included in the analysis and publishes a list of projects that are exempt from such analysis. Also, the inputs, assumptions, and methodology used to conduct the conformity analysis are guided by the federal requirements to ensure that estimated levels of criteria pollutants comply with the federally established emissions levels.

In May of 2021, staff to the TPB worked with regional transportation agency technical staff to provide to the TPB the a memorandum and an associated set of [appendices](#) with the responses to policy questions (32-45 of the Technical Inputs Solicitation) for all capital projects. This information was made public, and was provided to assist board members as they continued their review of the projects proposed to be included in the regional conformity analysis.

2022 UPDATE TO VISUALIZE 2045: LISTING OF ALL PROJECTS CONSTRAINED ELEMENT

The complete listing of projects in the constrained element of Visualize 2045 is organized by the submitting agencies and then by project or facility type. Each of those groups are also sorted as to whether the project expands the capacity of our region's transportation system, provides maintenance and a state of good repair, or is an ongoing operational program. The constrained element identification number begins with either (CE) (for LRTP projects) or T (for projects that are now programmed in the draft FY 2023-2026 TIP).

The following tables provide information about the projects in the financially constrained element of the Visualize 2045 update. Please note, project sponsors continue to develop projects after the technical inputs submission and approval, therefore, information such as project costs and other

information may differ from information presented prior. Additionally, due to regular database record maintenance identification numbers may have changed for those projects that have been funded in the TIP.

PROJECT ALIGNMENT WITH TPB POLICY PRIORITIES AND THE FEDERAL PLANNING FACTORS

PROJECTS IN THE FINANCIALLY CONSTRAINED ELEMENT OF THE PLAN: ALIGNMENT WITH THE RTPP, ASPIRATIONAL INITIATIVES AND FEDERAL PLANNING FACTORS

TPB Policy Framework and Federal Planning Factors

The TPB's Visualize 2045 includes a policy element that informs its planning and programming activities. There are a set of documents that comprise this policy framework communicating the region's transportation goals, priorities, and needs that member agencies ought to consider making transportation investment and implementation decisions on projects that have to be part of the regional plan and TIP. The TPB takes strides to achieve its goals and address its priorities through the projects, programs, and policies in Visualize 2045.

Additionally, federal law identifies a list of planning factors meant to guide metropolitan planning. Collectively, the projects, programs, and policies in Visualize 2045 must address these factors. Please visit [Visualize2045.org](https://visualize2045.org) to learn more about these planning factors. A summary of these policy elements is included in each of the appendices. To see the responses by the agencies for all projects included in the technical inputs submission for the constrained element, please visit the plan's website: visualize2045.org or view the policy response page [online](#).

REGIONAL AND FEDERAL POLICY QUESTIONS AND RESPONSES

The TPB's project description form has several questions needed to help staff develop the Plan, TIP and prepare for the conformity analysis. Among these, questions 32 thru 45 relate to the TPB's policy priorities and federal planning factors. When projects are submitted to the TPB through the technical inputs solicitation process, the sponsoring agency technical staff are asked to provide responses to these policy questions. The responses help the project sponsor communicate how the project supports the TPB goals, Aspirational Initiatives, and the federal planning factors. A listing of the policy questions is included in each appendix. While most questions are binary (yes/no), four questions seek narrative responses to explain if and how the project addresses issues of equity, greenhouse gas reduction, and how it supports the Aspirational Initiatives and TPB goals.

All of the information received for the policy questions, for existing and new projects, have been compiled for the board and public's use. Given the large number of projects, the information has been arranged and included in appendices and tables. The following section is a guide on how to use the appendices and tables.

VISUALIZE 2045 UPDATE: PROJECT LEVEL POLICY QUESTIONS AND RESPONSES

For each existing or proposed project, staff from the sponsoring agencies have responded to policy questions including narrative responses. These responses are listed in Tables 1-4 as described below.

The projects listed in each of these tables are the same. These tables are mapped against the policy questions of the Technical Inputs Solicitation document, showing how projects support:

- Table 1: the goals of the TPB's Regional Transportation Priorities Plan (regional policy questions 32-42 that require a binary response)
- Table 2: Aspirational Initiatives, (regional policy question 43, binary response)
- Table 3: Federal Planning Factors (federal policy question 45, binary response).
- Table 4: narrative responses
 - If a person that reviews the binary responses in the matrices would like more information, the following questions include a narrative response:
 - equity (question 34b),
 - GHG reduction (question 40b),
 - support for the Aspirational Initiatives (44a) or
 - the regional goals (44b).

Each project has a project identification number listed, to quickly find this project across the various tables, this number is a useful reference. Please note, some of the project records/numbers have been updated since April 2021 as part of regular database maintenance.

Organization of the Appendices:

All of the appendices can be found by online by [clicking here](https://www.mwcog.org/documents/2021/05/12/information-to-support-board-action-on-the-update-to-visualize-2045-regional-and-federal-policy-alignment-for-all-capital-projects-tpb-visualize-2045/) or using the following webpage:
<https://www.mwcog.org/documents/2021/05/12/information-to-support-board-action-on-the-update-to-visualize-2045-regional-and-federal-policy-alignment-for-all-capital-projects-tpb-visualize-2045/>

APPENDIX	CONTENT	JURISDICTION
A	Responses to policy questions in Tables 1 thru 4	District of Columbia
B	As above	Frederick County
C	As above	Montgomery County
D	As above	Prince George's County
E	As above	Multi-jurisdictional projects in Maryland/MARC ¹
F	As above	City of Alexandria
G	As above	Arlington County
H	As above	Fairfax County
I	As above	Loudoun County
J	As above	Prince William County and the City of Manassas
K	As above	VDOT / VDRPT / VRE/ multiple jurisdiction/owner projects

HOW TO USE THE APPENDICES

Overview:

- If there is a particular area of the region you are interested in, find the appendix by state/county.

¹ Note, while the local government is advancing transportation projects in Charles County and the Maryland Department of Transportation (MDOT) has projects that traverse the county, there is not a county-specific appendix. Please see the Appendix E for the projects that traverse Charles County.

- If there is a particular type of project you are interested in, note each table lists projects in categories of roadway or transit as the primary project types, many of these projects also include bicycle and pedestrian improvements as indicated in Table 1.
- If there is a particular type of question you are interested in, see the guidance above as to what questions are addressed in Tables 1-4.

ATTACHMENT A: ALL PROJECTS IN THE 2022 UPDATE TO THE CONSTRAINED ELEMENT OF VISUALIZE 2045

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District Department of Transportation

Local Street

Project ID	Title	Cost (\$M)	Complete
CE3651	17th Street NW Protected Bike Lane		2020

Primary Project Type

Bike/Ped

Location Type:

Street Segment

Route

Facility

17th Street

From:

New Hampshire Avenue

To

K Street

County

Municipality

Description

Install two-way protected bike lane on 17th Street NW. This would replace the existing southbound-only conventional bike lane currently in place between New Hampshire Avenue NW and Massachusetts Avenue NW, and continue south to K Street NW. This project is intended to increase bicycle accessibility on a busy corridor for bicycling, and to provide an alternative facility to the congested 15th Street NW protected bike lane.

Project ID	Title	Cost (\$M)	Complete
CE3077	C Street NE Implementation		2020

Primary Project Type

Study/Planning/Research

Location Type:

Street Segment

Route

Facility

C St NE/North Carolina Ave NE

From:

Oklahoma Avenue

To

14th Street NE

County

Municipality

District of Columbia

Description

The C Street NE Traffic Calming project will create a facility that slows traffic on the corridor by reducing at least one vehicle lane of traffic. Currently, the inbound lanes of the East Capitol Street bridge terminate in the Rosedale neighborhood at the intersection of C Street NE and Oklahoma Avenue. Traffic enters the neighborhood at a high rate of speed and begins to disperse toward the Capitol and Downtown.

Project ID	Title	Cost (\$M)	Complete
CE3652	K Street NW Bikeway		2018

Primary Project Type

Bike/Ped

Location Type:

Street Segment

Route

Facility

K Street

From:

7th Street

To

1st Street

County

Municipality

District of Columbia

Description

Install bike lanes (protected in places) along K Street NW/NE. This bikeway would connect Downtown, NoMa, and the Mt Vernon Triangle. This project is intended to increase bicycle accessibility on a busy corridor for bicycling.

Project ID	Title	Cost (\$M)	Complete
CE3655	New York Avenue Streetscape & Trail Project	\$27.2	2023

Primary Project Type

Bike/Ped

Location Type:

Street Segment

Route

Facility

50 New York Avenue NE

From:

Florida Avenue NE

To

Bladensburg Avenue NE

County

Municipality

District of Columbia

Description

The New York Avenue Streetscape and Trail Project is a 30% design plan to install streetscape improvements including lighting, new sidewalk connections, landscaping, traffic signals and signage and a raised cycletrack along New York Avenue NE from Florida Avenue NE to Bladensburg Road NE

Project ID	Title	Cost (\$M)	Complete
CE3447	Pennsylvania Avenue NW Protected Bicycle Lanes		2040

Primary Project Type

Road - Other Improvement

Location Type:

Street Segment

Route

Facility

Pennsylvania Avenue NW

From:

17th Street

To

29th Street

County

Municipality

District of Columbia

Description

Pennsylvania Avenue NW Protected Bicycle Lanes

Project ID	Title	Cost (\$M)	Complete
CE3654	Pennsylvania Avenue SE		2018

Primary Project Type

Bike/Ped

Location Type:

Street Segment

Route

Facility

Pennsylvania Avenue SE

From:

2nd Street, Independence Avenue

To

Barney Circle

County

Municipality

District of Columbia

Description

This project will connect the Anacostia River Trail with bicycle lanes through Capitol Hill to the downtown core. In addition, it will provide cyclist access to bike lanes on Pennsylvania Ave west of the Capitol, and to the Metropolitan Branch Trail. It will reduce off-peak lane capacity from 6 to 4 lanes between 2nd and 14th Streets. During peak hours the existing 6 lanes will be utilized. Between 14th Street and Barney Circle, rush hour lane capacity will be reduced from 8 lanes to 6 lanes; the 6 lane off-peak capacity would be unchanged.

Roadways

Project ID	Title	Cost (\$M)	Complete
CE2860	St. Elizabeth Access		2022

Primary Project Type

Road - Other Improvement

Location Type:

Various Locations

Route

Facility

Several locations

From:

To

County

Municipality

Washington

District of Columbia

Description

I-295 / Malcolm X interchange I-295 / South Capitol interchange Malcolm X Avenue Access Road to West Campus MLK Ave (between St. Elizabeth's Campus) 13th Street Pecan Street Sycamore Street

Transit

Project ID	Title	Cost (\$M)	Complete
CE3081	Union Station to Georgetown Streetcar Line		2030

Primary Project Typ

Transit - Metrorail/Heavy Rail

Location Tyhpe:

On Road

Route Facility

From:

H Street NE at 3rd St. NE

To

Wisconsin Avenue under
Whitehurst Fwy

County

Municipality

District of Columbia

Description

Implement streetcar from Union Station to Georgetown in the K Street corridor. The streetcar program will operate with a 10 minute headway. The project is projected to encompass the following changes to the roadway network: • H Street NE/NW from 3rd St NE to NJ Ave – reduce lanes from 6 to 4, add 1 lane in each direction exclusive for transit • NJ Ave NW from H to K streets – remove the one-way segment and provide 1 vehicle lane in each direction (this may be included already), add 1 lane in each direction exclusive for transit • K St NW from NJ Ave to 7th St - add 1 lane in each direction exclusive for transit • K St NW from 9th St to 12th St – reduce vehicle lanes from 4 to 2, add 1 lane in each direction exclusive for transit • K St NW from 12th to 21st - add 1 lane in each direction exclusive for transit (this may be in the network already) • K St NW from 21st to 25th – reduce vehicle lanes from 4 to 2, add 1 lane in each direction exclusive for transit • K St NW from 25th to 29th - add 1 lane in each direction exclusive for transit • K St NW from 29th to Wisconsin – reduce vehicle lanes from 4 to 2, add 1 lane in each direction exclusive for transit Station Locations H Street @ Hopscotch Bridge; side platform; Union Station K Street between 3rd and 4th Streets; side platform; NoMa Mount Vernon Square; side platform; Mount Vernon K Street @ McPherson Square; side platform; 14th and 15th Streets K Street @ Farragut Square; side platform; 17th and 18th Streets K Street @ 19th and 20th Streets; side platform; 19th and 20th Streets K Street @ 25th and 26th Streets; split center; Foggy Bottom / GU K Street @ Wisconsin Avenue; center platform; Georgetown

Local Street

Project ID	Title	Cost (\$M)	Complete
T6418	16th St Bridge over Piney Branch Pkwy NW Rehabilitation	\$16.3	2022

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Bridge

Route Facility
16th St NW

From:

To

County

Municipality

Washington

District of Columbia

Description

Rehabilitation of 16th Street Bridge over Piney Branch Parkway, NW, Bridge No. 0022, to include deck repair, utility replacement to preserve the integrity and extend the life of the masonry and reinforced concrete arch superstructure.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000**

Project ID	Title	Cost (\$M)	Complete
T6097	Anacostia Freeway Bridges over South Capitol St	\$24.2	

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Point Location

Route

Facility

Anacostia Freeway over South Capitol Street

From:

Freeway Bridge

To

Freeway Bridge

County

Washington

Municipality

District of Columbia

Description

Rehabilitation or replacement of subject bridges to eliminate all structural deficiencies and to make the facilities safe for the traveling public.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3508	Anacostia Riverwalk Trail	\$15.9	2026

Primary Project Typ

Bike/Ped

Location Tyhpe:

Trail/Path Segment

Route

Facility

Anacostia Riverwalk Trail

From:

South

To

North

County

Washington

Municipality

District of Columbia

Description

The Riverwalk is a multi-use trail along the east and west sides of the Anacostia River. It will serve as a recreational amenity and transportation alternative for a wide range of users including bicyclist, inline skaters, pedestrians, persons with disabilities, and others. a. Anacostia River Trail (Neighborhood Access) b. Buzzard Point and Virginia Ave. Connections c. Kenilworth Garden Trails d. Kenilworth Parkside to Maryland Ave. e. ART - Kenilworth Park South Section

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$14,496,000**

Project ID	Title	Cost (\$M)	Complete
T6497	Arboretum Bridge and Trail	\$18.7	2026

Primary Project Typ

Bike/Ped

Location Tyhpe:

Trail/Path Segment

Route

Facility

Anacostia River Bridge

From:

MD Ave

To

Arboretum

County

Washington

Municipality

District of Columbia

Description

Bridge and trail for people walking and bicycling from the Anacostia River Trail across the river to the National Arboretum and Maryland Ave NE. a. Arboretum Bridge - Maryland Ave NE Connection b. Arboretum Bridge and Trail

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$4,014,000**

Project ID	Title	Cost (\$M)	Complete
T6801	Aspen St NW Improvements	\$13.9	2026

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Point Location

Route

Facility

Aspen St. NW

From:

To

at Walter Reed Army Medical Center

County

Washington

Municipality

District of Columbia

Description

The design for Rehabilitation of Aspen Street, NW is being facilitated for the redevelopment of Walter Reed Army Medical Center. The goal of this project is to provide an improved and sustainable transportation network, pedestrian /vehicular safety and accessibility, efficient travel options and street and sidewalk enhancement, etc. This design will support The Parks by improving traffic operations and providing traffic calming measures towards future Walter Reed development ensuring ADA compliance throughout the corridor.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000**

Project ID	Title	Cost (\$M)	Complete
T3232	Bicycle and Pedestrian Management Program		2040

Primary Project Typ

Bike/Ped

Location Tyhpe:

Various Locations

Route

Facility

Citywide

From:

To

County

Municipality

District of Columbia

Description

The goal of this project is to increase the safety and convenience of bicycle and pedestrian travel. It includes the widening of existing routes, curve realignment, grade reduction, and signage and lighting upgrades. Included in the Bicycle and Pedestrian Management Program is: a. Bicycle Parking Racks b. Bicycle Lanes and Signs (mark dedicated bicycle lanes, including signage) c. BIKE_Capital Bikeshare (CaBi)

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6802	Bike Lane Design	\$0.3	2045

Primary Project Typ

Bike/Ped

Location Tyhpe:

Not Location Specific

Route

Facility

From:

To

County

Washington

Municipality

District of Columbia

Description

Citywide on-call pedestrian and bicycle facility design.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$330,000**

Project ID	Title		Cost (\$M)	Complete
T6491	Connecticut Ave NW Multimodal Study		\$35.7	2027
Primary Project Typ		Location Tyhpe:		
Road - Recons/Rehab/Maintenanc		Street Segment		
Route	Facility	From:	To	
	Connecticut Ave NW	California St	Dupont Circle	
County		Municipality		
Washington		District of Columbia		
Description				
This project is composed of multiple improvements to the Connecticut Ave NW corridor. It includes streetscape improvements and deckover of the Dupont Circle underpass. It also includes a study to evaluate the effectiveness and safety of the reversible lanes and the feasibility of improved multimodal access through the corridor. a. Connecticut Ave from Dupont Circle to California St NW Streetscape b. Connecticut Ave NW Multimodal Study				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				
Project ID	Title		Cost (\$M)	Complete
T5804	East Capitol St Bridge over Anacostia River		\$17.7	2024
Primary Project Typ		Location Tyhpe:		
Bridge - Rehab		Bridge		
Route	Facility	From:	To	
	East Capitol Street	Bridge	Bridge	
County		Municipality		
Washington		District of Columbia, Region-wide		
Description				
Rehabilitation of subject bridge to eliminate all deficiencies and ensure the safety of the traveling public. Deficiencies include deteriorating overlay, efforescence and map cracking in soffit, expanded bearings, deteriorated superstructure steel under finder dams, peeling paint, rotation of substructure units. Br. # 233.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,000				
Project ID	Title		Cost (\$M)	Complete
T6315	East Capitol Street Corridor Mobility & Safety Plan		\$27.9	2027
Primary Project Typ		Location Tyhpe:		
Bike/Ped		Street Segment		
Route	Facility	From:	To	
	East Capitol Street	40th Street NE	Southern Ave NE	
County		Municipality		
Washington		District of Columbia		
Description				
Design and construct pedestrian safety and traffic operations improvements				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title	Cost (\$M)	Complete
T2922	Great Streets - Minnesota Ave, NE	\$0.2	2026

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Street Segment

Route Facility

Minnesota Ave

From:

A Street, NE

To

Sheriff Road, NE

County

Washington

Municipality

District of Columbia

Description

Reconstruction of Minnesota Avenue from A St., SE to Sheriff Rd., NE including LIDs, streetscape. Schedule is impacted by Benning Streetcar study. Project will be split into two projects to mitigate impacts. A. Minnesota Ave from A St SE to Dix St NE
B. Minnesota Ave from Dix St to Sheriff Rd NE

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000**

Project ID	Title	Cost (\$M)	Complete
T6039	H Street Bridge over Railroad	\$264.8	2028

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route Facility

H Street NE

From:

North Capitol St

To

3rd Street NE

County

Washington

Municipality

District of Columbia

Description

Conduct environmental assessments. Prepare concept designs, design plans and specifications and construct documents for bridge replacement/rehabilitation. Includes work on the H Street NE Bridge from North Capitol St. to 3rd St. NE. The bridge will be reconstructed to accommodate the H/Benning Streetcar Line, allow for Amtrak to increase its capacities in its Union Station rail yard, and allow for development of the air rights above the rail yard. The H Street Bridge NE Replacement is a highway improvement project carried out under title 23, United States Code and will include a construction contract with Amtrak that will have a duration of 10 years.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$189,868,000**

Project ID	Title	Cost (\$M)	Complete
T5337	Kenilworth Ave NE Pedestrian Bridges Replacement	\$32.7	2024

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route Facility

Kenilworth Ave NE

From:

To

County

Washington

Municipality

District of Columbia, Region-wide

Description

This project will fund the complete removal and replacement of the Douglas St, NE Pedestrian Bridge. The replacement bridge comprises a prefabricated steel superstructure with FRP bridge deck supported on cast-in-place deep foundations.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000**

Project ID	Title		Cost (\$M)	Complete
T6427	Kenilworth Terrace Bridge over Watts Branch		\$7.4	2025
Primary Project Type		Location Tyhpe:		
Bridge - Replace		Bridge		
Route	Facility	From:	To	
	Kenilworth Terrace NE			
County		Municipality		
BLANK, Washington		District of Columbia, Region-wide		
Description				
Project scope includes applying waterproof seal to the entire timber structure, repair the reinforced concrete roadway curb, rehabilitation of deck structure of both approach abutments.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$7,387,000				

Project ID	Title		Cost (\$M)	Complete
T6807	Long Bridge Pedestrian and Bicycle Connection		\$51.5	2045
Primary Project Type		Location Tyhpe:		
Bike/Ped		Bridge		
Route	Facility	From:	To	
	Long Bridge Pedestrian and Bicycle Bridge			
County		Municipality		
Washington		District of Columbia		
Description				
The Long Bridge Pedestrian and Bicycle Bridge a 4(f) mitigation as part of the Long Bridge NEPA process (EIS). The design and construction is expected to be completed by Virginia, while the Ped/Bike bridge would be owned and maintained by the District.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$26,000,000				

Project ID	Title		Cost (\$M)	Complete
T3228	Metropolitan Branch Trail		\$33.4	2028
Primary Project Type		Location Tyhpe:		
Bike/Ped		Trail/Path Segment		
Route	Facility	From:	To	
	Metropolitan Branch Trail	Union Station	District Boundary	
County		Municipality		
Washington		District of Columbia		
Description				
The Metropolitan Branch Trail project will provide a 6.25-mile bicycle/pedestrian trail from Union Station north to the District Line along the railroad right-of-way. This trail will connect at the District line with a route continuing into Silver Spring MD. This project is intended to serve both recreational users and commuters to meet Transportation Control Measures (TCMs) and air quality objectives. a. Blair Rd to Piney Branch Rd. b. L & M St. c. Ft. Totten to Takoma d. Manor Park Re-Alignment e. Brookland to Fort Totten				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$5,534,000				

Project ID	Title	Cost (\$M)	Complete
T2796	National Recreational Trails	\$1.6	

Primary Project Typ

Bike/Ped

Location Tyhpe:

Various Locations

Route

Facility

From:

To

Citywide

County

Washington

Municipality

District of Columbia

Description

Programs associated with the Recreational Trails Program a program established to develop and maintain recreational trails and trail-related facilities. Mostly small projects; often grants to local groups. Through the D.C. Recreational Trails Program Advisory Committee, the District Department of Transportation will provide or grant funding to non-profits to provide the following services for District trails: maintain and restore existing trails; develop and rehabilitate trailside and trailhead facilities and trail linkages; purchase and lease trail construction and maintenance equipment; construct new trails; acquire easements or property for trails; assess trail conditions for accessibility and maintenance; develop and disseminate publications and operate educational programs to promote safety and environmental protection related to trails (including supporting non-law enforcement trail safety and trail use monitoring patrol programs, and providing trail-related training). a. Friends of Kenilworth Aquatic Gardens b. Student Conservation Association

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,600,000**

Project ID	Title	Cost (\$M)	Complete
T5308	Neighborhood Streetscape Improvements	\$3.1	2026

Primary Project Typ

Landscaping/Beautification

Location Tyhpe:

Various Locations

Route

Facility

From:

To

County

Washington

Municipality

District of Columbia

Description

Improve sidewalks, curbs, gutters, trees, streetlights, traffic signals and trash receptacles. Projects include: a. 14th St from Thomas Cir to Florida Ave NW Streetscape b. U St from Florida Ave to 14th St NW c. U St from 14th St to 18th St NW d. Sheriff Rd from 43rd St to 51st St NE Safety Improvements e. Missouri Ave, Kansas Ave, Kennedy St NW Intersection Improvements f. 15th Street NW Intersection Safety Improvements

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000**

Project ID	Title	Cost (\$M)	Complete
T6230	New York Ave NE Improvements	\$19.2	2027

Primary Project Typ

Bike/Ped

Location Tyhpe:

Street Segment

Route

Facility

New York Ave NE

From:

Florida Ave NE

To

Bladensburg Rd NE

County

Washington

Municipality

District of Columbia

Description

Improvements to New York Ave NE including: a. New York Ave at Bladensburg Rd NE Sign Structure Replacement b. New York Ave NE Streetscape and Trail

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$17,142,000**

Project ID	Title	Cost (\$M)	Complete
T11562	North Capitol Street Streetscape/Deckover	\$1.0	2027

Primary Project Typ

Study/Planning/Research

Location Tyhpe:

Street Segment

Route

Facility

North Capitol Street

From:

Bryant Street

To

T Street

County

Washington

Municipality

District of Columbia

Description

This project is established to conduct a feasibility study and engineering alternatives for a potential deckover project on North Capitol Street that would extend from T Street to Bryant Street. .

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000**

Project ID	Title	Cost (\$M)	Complete
T2780	Oxon Run Trail Restoration	\$1.7	2027

Primary Project Typ

Bike/Ped

Location Tyhpe:

Trail/Path Segment

Route

Facility

Oxen run trail

From:

Southern Ave/Mississippi Ave SE

To

South Capitol St SE

County

Washington

Municipality

District of Columbia

Description

This project is to complete the next phase of the Oxon Run Trail from 13th St SE to Southern Ave SE; and from South Capitol St SE to the Maryland Line.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,195,000**

Project ID	Title	Cost (\$M)	Complete
T6614	Pennsylvania Ave SE Streetlight Upgrade	\$26.7	2024
Primary Project Typ Road - Other Improvement		Location Tyhpe: Street Segment	
Route	Facility Pennsylvania Ave SE	From: 2nd St SE	To 14th St SE
County		Municipality District of Columbia	
Description The work includes but is not limited to installation of new light poles, light fixtures, wheel chair ramps and underground infrastructures including conduits, cables, manholes, excavation and backfill, pavement restoration.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,000			
Project ID	Title	Cost (\$M)	Complete
T11594	Rehabilitation of Minnesota Ave Bridge over East Capitol St.	\$18.6	2028
Primary Project Typ Bridge - Rehab		Location Tyhpe: Bridge	
Route	Facility Minnesota Avenue	From:	To
County		Municipality District of Columbia	
Description Rehabilitation of Minnesota Ave Bridge over East Capitol St.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$18,586,050			
Project ID	Title	Cost (\$M)	Complete
T5309	Rights of Way Program	\$2.0	2045
Primary Project Typ Preliminary Engineering/Environm		Location Tyhpe: Various Locations	
Route	Facility Citywide	From:	To
County		Municipality District of Columbia	
Description Assemble and document data on DDOT-controlled lands in the District of Columbia and develop a geo-based land data map. Provide annual funding for surveys, title searches, appraisals and other land acquisition and disposal activities prior to the development of specific capital projects. Coordinate draft air rights agreements and land transfer agreements with private developers and federal government agencies.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$2,000,000			

Project ID	Title	Cost (\$M)	Complete
T3230	Rock Creek Park Trail	\$27.0	2023

Primary Project Typ

Bike/Ped

Location Tyhpe:

Trail/Path Segment

Route

Facility

M Street to Beach Drive

From:

Piney Branch Pkwy

To

16th Street

County

Washington

Municipality

District of Columbia

Description

Rehabilitate the paved trail in Rock Creek Park including selected widening, resurfacing, new connections, and a new bridge south of the Zoo tunnel. Retaining wall repair on Piney Branch.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000**

Project ID	Title	Cost (\$M)	Complete
T6658	S St from 4th St to 7th St NW Revitalization	\$18.2	2028

Primary Project Typ

Road - Resurface

Location Tyhpe:

Street Segment

Route

Facility

S St NW

From:

4th St NW

To

7th St NW

County

Washington

Municipality

District of Columbia

Description

This project will assess the feasibility of roadway surface, safety, and streetscape improvements.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000**

Project ID	Title	Cost (\$M)	Complete
T2888	Safe Routes to School	\$11.6	2045

Primary Project Typ

Enhancement

Location Tyhpe:

Not Location Specific

Route

Facility

Safe Routes to School

From:

To

County

Washington

Municipality

District of Columbia

Description

To enable and encourage children, including those with disabilities, to walk and bicycle to school, to make walking and bicycling to school safe and more appealing, and to facilitate the planning, development and implementation of projects that will improve safety, and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. Increase walking and bicycling to school and associated safety through planning, engineering, education, and enforcement. Subprojects: a. Bicycle and Pedestrian Education b. Sidewalk Construction c. School Area Planning Assistance

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$11,600,000**

Project ID	Title	Cost (\$M)	Complete
T3212	Safety Improvements Citywide	\$61.1	2045

Primary Project Typ
Bike/Ped

Location Tyhpe:
Various Locations

Route Facility
Citywide

From: To

County
Washington

Municipality
District of Columbia

Description

Safety improvements provide a safe traveling environment for vehicular traffic, pedestrians and bicycle circulation within the District on Federal-aid and local roads. Work includes elimination or relocation of roadside visual obstructions; elimination or relocation of roadside obstacles; skid resistance resurfacing; modifications to traffic channeling; median replacement; traffic signals, signs, and lighting upgrades; installation of pavement markings to eliminate or reduce accidents; and installation of safety fences at overhead structures. Safety improvements are systematically identified through analyses of accident records, inspections, surveys, and citizen requests. The District maintains an inventory of locations with the highest number of reported accidents. a. Construction Estimate b. Pavement Skid Testing c. Road Safety Audit Program d. TARAS Crash Analysis Support e. Traffic Data Collection and Analysis Services f. Traffic Engineering Design g. Multi-modal Traffic & Safety Construction i. Traffic Safety Design j. Traffic Safety Engineering Support Services k. Traffic Sign Inventory Upgrade

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$61,091,800**

Project ID	Title	Cost (\$M)	Complete
T6500	Shepherd Branch Trail	\$18.0	2023

Primary Project Typ
Bike/Ped

Location Tyhpe:
Not Location Specific

Route Facility
Anacostia Metro Station

From: To
Northward along CSXT RR ROW North end of CSXT RR ROW

County
Washington

Municipality
District of Columbia

Description

Feasibility study for proposed Shephards Branch Trail to determine alignment probability of needing an Environmental Assessment (EA), likely permits needed, and potential construction costs for a trail on the soon to be acquired CSXT RR ROW.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T6114	South Capitol Street Trail		\$17.0	2025
Primary Project Typ Bike/Ped		Location Tyhpe: Street Segment		
Route	Facility South Capitol Street	From: Firth Sterling Ave.	To Southern Ave. Maryland	
County		Municipality District of Columbia		
Description Design and construct a paved bicycle and pedestrian trail along South Capitol Street.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,000				
Project ID	Title		Cost (\$M)	Complete
T5353	Southern Ave SE Improvements		\$31.2	
Primary Project Typ Bridge - Rehab		Location Tyhpe: Street Segment		
Route	Facility Southern Ave SE	From: South Capitol St SE	To 23rd St SE	
County Washington		Municipality District of Columbia		
Description The purpose of the project is to implement transportation improvements that improve vehicular, pedestrian, and bicycle safety, maintain mobility, and correct roadway facility deficiencies through the project area. a. Southern Ave from Barnaby Rd SE to UMC Campus b. Southern Ave from South Capitol St to Barnaby St SE c. Southern Ave from UMC Campus to 23rd St SE				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				
Project ID	Title		Cost (\$M)	Complete
T5723	St. Elizabeths Campuses Access Improvements		\$214.6	2025
Primary Project Typ Road - Interchange improvement		Location Tyhpe: Various Locations		
Route	Facility	From:	To	
County Washington		Municipality District of Columbia		
Description Multimodal transportation improvements to accommodate the DHS consolidation at ST. Elizabeths East and West Campuses, and other nearby development. West Campus project will improve access and transportation flow in and around the area. Improvements include I-295 interchange reconfigurations, roadway, safety, ITS and operational improvements to nearby streets. Project details include: a. I-295 interchange reconfigurations I-295/Malcolm X Ave., I-295/South Capitol St.; Malcolm X Ave. east and west of I-295- (PE) b. Roadway infrastructure in and around the two campuses 13th St., Sycamore St., Dogwood St., Pecan St. Cypress St., and West Campus Access Rd. - (PE) c. MLK Ave, Malcolm X Ave., Firth Sterling, Alabama Ave. - (PE)				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,000				

Project ID	Title	Cost (\$M)	Complete
T6598	Tenleytown Multi-Modal Access	\$6.1	2023

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Various Locations

Route

Facility

Wisconsin Ave NW

From:

Albemarle Street NW

To

Brandywine Street NW

County

Washington

Municipality

District of Columbia

Description

Develop preliminary and final design for improvements based on recently completed Tenleytown-AU Metrorail Station Access Improvements Study.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5347	Traffic Signal Maintenance	\$139.3	2045

Primary Project Typ

Road - Signal/Signs

Location Tyhpe:

Various Locations

Route

Facility

Citywide

From:

To

County

Washington

Municipality

District of Columbia

Description

Provide effective and efficient maintenance services for the traffic signal systems throughout the District of Columbia. Projects include: a. Traffic Signal and Streetlight Utility Locating and Marking b. Traffic Signal Construction Contract c. Traffic Signal Maintenance d. Traffic Signal Management and Design e. Traffic Signal Optimization f. Traffic Signal System Management g. Traffic Signal Transit Priority

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$139,251,764**

Non-Infrastructure

Project ID	Title	Cost (\$M)	Complete
T6803	Anacostia Waterfront Initiative AWI- Buzzard Point, Fort McNair, Southwest Waterfront Climate Initiative Project	\$1.3	2045

Primary Project Typ
Environmental Only Project

Location Tyhpe:
Other

Route Facility

From: To

County
Washington

Municipality
District of Columbia

Description

To advance the recommendations of the buzzard point feasibility study, an environmental document should be prepared to evaluate the potential impacts of both concepts and provide a recommendation for selecting an alternative for approval and construction. Because the two concepts are very different in scope and require NPS property and approval, an Environmental Assessment is recommended as the document to include both concepts.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6610	Citywide Large Guide Sign Maintenance	\$11.5	2045

Primary Project Typ
Transportation Operations

Location Tyhpe:
Other

Route Facility
Citywide

From: To

County
Washington

Municipality
District of Columbia

Description

Repair and replacement of damaged overhead/oversized signage, primarily located along Interstate system. This project will facilitate replacement of damaged signs that are too large to fabricate and install in-house. a. Citywide Large Guide Sign Maintenance b. Sign Structure Upgrade and Replacement

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$7,360,000**

Project ID	Title	Cost (\$M)	Complete
T11591	Clean Air Partners	\$0.3	2045

Primary Project Typ
Environmental Only Project

Location Tyhpe:
Other

Route Facility

From: To

County
Washington

Municipality
District of Columbia

Description

Clean Air Partners strives to improve public health and the environment by working with governmental agencies, businesses, organizations, and individuals throughout the region to raise awareness and reduce air pollution through education and voluntary actions. Clean Air Partners also communicate daily forecasts and real-time air quality to enable residents to change behaviors to protect their health and improve the air in the region.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$300,000**

Project ID	Title	Cost (\$M)	Complete
T3219	Commuter Connections Program	\$3.0	2045

Primary Project Typ
TERMs

Location Tyhpe:
Other

Route Facility

From: To

County
Washington

Municipality
District of Columbia

Description

The purpose of the Commuter Connections Program is to reduce mobile source emissions through the reduction in the number of VMT, and support of other Transportation Control Measures. This project provides funding for Commuter Operations Center, Guaranteed Ride, Home, Marketing, Monitoring and Evaluation, Employer Outreach, and DC Kiosk.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$3,000,000**

Project ID	Title	Cost (\$M)	Complete
T2945	District TDM (goDCgo)	\$12.1	2045

Primary Project Typ
Transportation Operations

Location Tyhpe:
Other

Route Facility
citywide

From: To

County
Washington

Municipality
District of Columbia

Description

goDCgo is responsible for promoting the use of all sustainable transportation modes in the city through marketing and outreach. The contractor will provide marketing expertise to support the growth of the goDCgo and Capital Bikeshare and advertise the service to residents, visitors, and employers. a. District TDM (goDCgo) b. Capital Bikeshare Marketing and Outreach

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$12,054,128**

Project ID	Title	Cost (\$M)	Complete
T5298	Emergency Transportation Project	\$0.1	2045

Primary Project Typ
Transportation Operations

Location Tyhpe:
Other

Route Facility
Citywide

From: To

County
Washington

Municipality
District of Columbia, Region-wide

Description

The purpose of this project is to provide a vehicle that allows the Department to respond to emergencies or other unforeseen events that are not budgeted or planned such as major pavement failures, sinkholes, falling steel or concrete from bridges and other urgent needs.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$100,000**

Project ID	Title	Cost (\$M)	Complete
T5322	Environmental Management System	\$2.6	2045

Primary Project Typ
Environmental Only Project

Location Tyhpe:
Other

Route Facility

From: To

County
Washington

Municipality
District of Columbia

Description

EMS Program involves the oversight and implementation of programmatic agreements with FHWA and other Federal agencies for compliance with NEPA and Section 106 of the NHPA; implementation of MOU between DDOT and DC SHPO for a state funded historic preservation staff; air quality planning and environmental coordination under the Clean Air Act; ensuring compliance with the Transportation Performance Management requirements for the CMAQ program; and updating DDOT's environmental processes, policies, guidance, and training.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$2,600,000**

Project ID	Title		Cost (\$M)	Complete
T5922	Freight Planning Program		\$2.6	2045
Primary Project Typ		Location Tyhpe:		
Study/Planning/Research		Other		
Route	Facility	From:	To	
County		Municipality		
Washington		District of Columbia		
Description				
Development and updates of a District freight plan to enhance the safety and efficiency of goods movement for freight planning improvement and freight project implementation. a. Commercial Loading Zone Enforcement Support b. Delivery Demand Management Program c. Positive Truck Route Signage d. State Freight Plan Update e. Innovative Freight Delivery Practices, Research & Analysis				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,602,000				

Project ID	Title		Cost (\$M)	Complete
T6805	Inventory and Inspection of Sign Structures		\$1.1	2045
Primary Project Typ		Location Tyhpe:		
Road - Signal/Signs		Other		
Route	Facility	From:	To	
County		Municipality		
Washington		District of Columbia		
Description				
Inventory and inspection of the District's overhead, cantilever and bridge and wall mounted sign structures, updating the sign structure inventory, production of inspection reports and identification of structures to be repaired or replaced.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,000				

Project ID	Title		Cost (\$M)	Complete
T3215	Pavement Restoration - STBG Streets		\$32.0	2045
Primary Project Typ		Location Tyhpe:		
Road - Resurface		Other		
Route	Facility	From:	To	
	Citywide			
County		Municipality		
Washington		District of Columbia		
Description				
Citywide pavement and resurfacing/restoration, upgrading of sidewalk, curb and gutter, and wheelchair ramps.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$32,000,000				

Project ID	Title	Cost (\$M)	Complete
T6516	Pedestrian Bridge over Arizona Ave NW and Connecting Trail Rehabilitation	\$10.6	2027

Primary Project Typ

Bike/Ped

Location Tyhpe:

Other

Route

Facility

Pedestrian Bridge and Trail at Arizona Ave NW

From:

Nebraska Ave NW

To

Galena PI NW

County

Washington

Municipality

District of Columbia

Description

The project area includes a rehabilitation and pavement of the 0.65-mile section of the trails at Arizona Ave from Nebraska Avenue, NW to Galena Place, NW including missing sections of the trail and rehabilitation/ reconstruction Substructure and Superstructure of approximately 110-foot long Pedestrian Bridge over Arizona Ave connecting both sides of Arizona Ave trails including pedestrian access ramp.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3213	Planning and Management Systems	\$79.6	2045

Primary Project Typ

Transportation Operations

Location Tyhpe:

Other

Route

Facility

Citywide

From:

To

County

Washington

Municipality

District of Columbia

Description

a. AASHTOWARE License Fee b. ADA Asset Inventory and Compliance Evaluation c. ADA Compliance Improvements d. ADA Support Consultant e. Audit and Compliance f. Civil Rights / EEO compliance Monitoring Program g. Constructability and Work Zone Safety Review h. DBE On-Line Certification Application Program i. DBE Supportive Services/OJT Supportive Services j. Equity and Inclusion Programming Support k. Infrastructure Information Technology Support Services l. ITS General Support n. Metropolitan Planning o. moveDC p. Oversize/Overweight Routing Tool Maintenance and Enhancement q. Research Development and Technology Transfer r. Research Development and Technology Transfer Projects 1. Building Up Agency-Wide Automated Image Processing Capability to Inform Safety and Mobility 2. Identifying and Intervening with High-Risk Drivers 3. Tax Revenue and Telecommuting" 4. Low-Income Transit Fare Pilot Program Evaluation s. Small Business Compliance t. SPR u. STIC Innovation Grant w. Title VI / Language Access x. Title VII (Internal & External EEO / AAP) y. Transportation Asset Management Plan

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$79,623,799**

Project ID	Title	Cost (\$M)	Complete
T3355	Professional Capacity-Building Strategy	\$6.0	2045

Primary Project Typ

Training

Location Tyhpe:

Other

Route

Facility

From:

To

Citywide

County

Washington

Municipality

District of Columbia

Description

This project provides training and educational experiences to build the technical capability and functional knowledge of DDOT employees to be a high-performing DDOT organization that will enhance community involvement and improve management's capacity.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$6,000,000**

Project ID	Title	Cost (\$M)	Complete
T2633	Size and Weight Enforcement Program	\$1.1	2045

Primary Project Typ

Freight Movement

Location Tyhpe:

Other

Route

Facility

From:

To

Citywide

County

Washington

Municipality

District of Columbia

Description

This project provides trained personnel to enforce size and weight regulations, as well as increase the number of portable scales at Weigh in Motion sites on and off the Federal-aid System. This project will facilitate reducing weight violations and preventing premature deterioration of pavements and structures in the District, and in turn provide a safe driving environment. a. Weigh in Motion Operations Support b. Weigh in Motion Upgrade and Repair c. Upgrade Existing I-295 SB Weigh Station in the Freight Plan

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$764,750**

Project ID	Title	Cost (\$M)	Complete
T6502	Subsurface Investigation & AM Program Support	\$5.5	2045

Primary Project Typ

Transportation Operations

Location Tyhpe:

Other

Route

Facility

From:

To

Citywide

County

Washington

Municipality

District of Columbia

Description

Subsurface Pavement Engineering to determine characteristics of roadway and to perform adequate analysis for pavement design, engineering and support for asset management program

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$3,800,000**

Project ID	Title	Cost (\$M)	Complete
T3216	Traffic Operations Improvements Citywide	\$44.1	2024

Primary Project Typ
Road - ITS/Technology

Location Tyhpe:
Other

Route Facility

From: To

County
Washington

Municipality
District of Columbia

Description

This project modifies and improves vehicular and pedestrian traffic control systems, such as traffic signals, channelization, signs, pavement markings, and other traffic control measures on and off the Federal-aid highway system. Includes installation of a variety of traffic engineering devices and construction of nominal geometric alterations. The project will preserve and promote the efficient use of existing city streets through changes in the organization of vehicular and pedestrian traffic flows. Projects include: a. Advanced Transportation Management System b. Fiber Communication Networks on Major Arterial Corridors c. ITS Maintenance d. MATOC e. Mobile Pavement Marking Retroreflectivity Measurement and Data Collection f. Moveable Barrier System g. Thermoplastic Pavements Markings h. TMC Hardware and Data Services i. Traffic Management Center Operations

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$44,070,908**

Project ID	Title	Cost (\$M)	Complete
T3210	Transportation Alternatives Program	\$4.6	2045

Primary Project Typ
Transportation Operations

Location Tyhpe:
Other

Route Facility
Citywide

From: To

County
Washington

Municipality
District of Columbia

Description

The TAP or TA Set-Aside is a reimbursable federal aid funding program for transportation-related community projects designed to strengthen the intermodal transportation system. The program aims to expand travel choice, strengthen the local economy, improve the quality of life, and protect the environment by supporting non-traditional projects linked to the transportation system. Projects will be reviewed through a competitive process and selected based upon a number of criteria including the projects expected benefits to the community, feasibility and project readiness, consistency with agency plans and missions, and the sponsors demonstrated ability to manage a federal-aid project. a. Constitution Ave and 18th St NW Crosswalk and Paths Improvement b. Jay St NE Smart Bio-retention d. Prather's Alley Safety Improvements e. Protected Mobility Lanes on M Street SE f. Rock Creek Park Military Road Feasibility Study h. Union Station Masonry Restoration Project i. Union Station Roman Legionnaires and Interior Restoration j. Union Station Roman Legionnaires and Vestibules Restoration k. Water Street Staircase and Trailhead Improvements l. 2021 C&O Canal Trailhead Project Enhancements m. 2021 Union Station Headhouse Floor Restoration n. 2021 Union Station West Hall Restoration o. 2021 Historic Bridge Sculpture Restoration: Tigers on 16th Street Bridge & Bison on Dumbarton Bridge p. 2021 2021 Curb Extensions with Mural q. 2021 Tactical Urbanism Library r. 2021 Blair Road NW Sidewalk Improvement Project

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$4,600,000**

Project ID	Title		Cost (\$M)	Complete
T5313	Urban Forestry Program		\$2.2	2045
Primary Project Typ		Location Tyhpe:		
Landscaping/Beautification		Other		
Route	Facility	From:	To	
	Citywide			
County		Municipality		
Washington		District of Columbia		
Description				
Plant new trees, remove dead and diseased trees, treat diseased trees, replace trees, and landscape along local and Federal roads.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:		\$2,170,000		

Roadways

Project ID	Title		Cost (\$M)	Complete
T11596	10th Street Bridge over I-395		\$32.0	2029
Primary Project Typ		Location Tyhpe:		
Bridge - Rehab		Bridge		
Route	Facility	From:	To	
County		Municipality		
Washington		District of Columbia		
Description				
The bridge is in poor condition, there is some corrosion and section loss in beams, girders, and stiffeners, bearings are in bad condition, superstructure needs to be rehabilitated/replaced. Cracks, Efflorescence and Spalls with Exposed Corroded, Reinforcing Steel in Concrete Deck Soffit, Section Loss in Steel Girders, Cracks with Efflorescence, Spalls and Delaminated Areas in Backwall and Bridge Seat, Stormwater Drainage inlets, transverse expansion joints, missing bricks, granite gutters need restore/repair				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$3,113,950				

Project ID	Title	Cost (\$M)	Complete
T11361	11th Street Bridge Park	\$68.8	2026

Primary Project Typ

Bike/Ped

Location Tyhpe:

Bridge

Route

Facility

From:

To

11th Street Bridge Park

County

Washington

Municipality

District of Columbia

Description

In partnership with a non-profit organization, DDOT is looking into using the old 11th street Bridge piers foundation to support a new bridge superstructure, deck, land scape and other amenities. The 11th Street Bridge Park Project seeks to reuse the existing pier foundations from the old 11th Street Bridge crossing at the Anacostia River to create an urban destination and park including a pedestrian and bicycle path connecting to trails on both sides of the river. A national competition, led by Building Bridges Across the River and the District Office of Planning (OP), in coordination with DDOT, selected a conceptual design for the bridge park from the winning team. The project goals include: Economic - Serve as an anchor for inclusive economic opportunity Environment - Re-engage residents with the Anacostia River Health - Improve public health; and Social - Reconnect Communities

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$30,343,000**

Project ID	Title	Cost (\$M)	Complete
T5342	Approach Bridges to 14th Street Bridge	\$38.2	2028

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Bridge

Route

Facility

From:

To

14th Street Bridge northbound over the Potomac River, and DC approach bridges

County

Washington

Municipality

District of Columbia, Region-wide

Description

The approach bridges to be rehabilitated are over Maine Ave. (bridge 171-1), over the Outlet Channel (bridge 171-2) and over Haines Point Park (bridge 171-3).

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$31,465,000**

Project ID	Title	Cost (\$M)	Complete
T2699	Asset Preservation of Tunnels in the District of Columbia	\$119.1	2045
Primary Project Type Road - Recons/Rehab/Maintenanc		Location Tyhpe: Various Locations	
Route	Facility	From:	To
County Washington	Municipality District of Columbia		
Description Long term performance-based asset preservation and maintenance program through which a private contractor provides maintenance services for the Districts sixteen (16) tunnels. In conjunction with this maintenance contract, FHWA requires the District to engage services of a consultant to provide the DDOT Tunnel Management staff with required technical assistance, asset evaluation support services, IT services, and required tunnel asset inspection services.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$57,050,002			

Project ID	Title	Cost (\$M)	Complete
T5802	AWI Program Manager	\$9.0	2045
Primary Project Type Preliminary Engineering/Environm		Location Tyhpe: Not Location Specific	
Route	Facility	From:	To
	Citywide		
County Washington	Municipality District of Columbia		
Description Consultant services to supplement the NEPA process and implement design and construction of the AWI corridors. Work includes surveys; geotechnical and environmental investigation and testing preliminary ;roadway and bridge design and CE services during construction. Funding will be used for construction oversight and consultant services.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$6,000,000			

Project ID	Title	Cost (\$M)	Complete
T6675	Bladensburg Road Multimodal Safety and Access	\$1.1	2024
Primary Project Type Study/Planning/Research		Location Tyhpe: Road Segment	
Route	Facility	From:	To
US 1	Bladensburg Rd NE	Benning Rd NE	Eastern Ave NE
County Washington	Municipality District of Columbia		
Description Improved multimodal safety and access on Bladensburg Road between Benning Road and Eastern Avenue.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,000			

Project ID	Title	Cost (\$M)	Complete
T3202	Bridge Design	\$6.9	2045

Primary Project Typ

Bridge - Preventive Maintenance

Location Tyhpe:

Bridge

Route

Facility

CITYWIDE

From:

To

County

Washington

Municipality

District of Columbia, Region-wide

Description

This project provides design solutions for bridges and performs analysis, cost estimates for construction. a. Bridge Design b. Structures and Bridges Engineering

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$6,890,026**

Project ID	Title	Cost (\$M)	Complete
T3243	Bridge Inspection	\$9.5	2045

Primary Project Typ

Bridge - Preventive Maintenance

Location Tyhpe:

Bridge

Route

Facility

From:

To

County

Washington

Municipality

District of Columbia, Region-wide

Description

Work under this contract consists of performing detailed condition inspections and evaluations of all highway and pedestrian bridges, and tunnels and underpasses under the ownership of the District of Columbia in accordance with the DDOT Bridge Inspection Manual of Procedures and the National Bridge Inspection Standards (NBIS). Safety inspections of railroad owned bridges crossing District streets shall also be performed. Selected inspections of culverts, walls and overhead sign structures shall be performed as needed via contract modifications.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$9,500,000**

Project ID	Title	Cost (\$M)	Complete
T5433	Bridge Management	\$1.5	2045

Primary Project Typ

Bridge - Preventive Maintenance

Location Tyhpe:

Bridge

Route

Facility

From:

To

County

Washington

Municipality

District of Columbia, Region-wide

Description

Daily assessment of the condition of the District's bridges. Developing strategies for their preventive maintenance, rehabilitation and reconstruction. Maintenance of the Department's bridge records, recording the condition of all bridges into the Bridge Management System and annually reporting the data to FHWA.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,502,725**

Project ID	Title	Cost (\$M)	Complete
T6625	Citywide Streetlights P3	\$104.9	2034

Primary Project Typ

Enhancement

Location Tyhpe:

Various Locations

Route

Facility

From:

To

Citywide

County

Washington

Municipality

District of Columbia

Description

This project will be to develop a Private, Public, Partnership (P3) for the Streetlights in the District of Columbia. The P3 will include the conversion of all District Streetlights to LED in addition to a long-term, performance-based asset management contract. Work to develop the P3 will include technical, legal, and financial aspects of the project which will be developed into an RFP. Section 106 and NEPA work will also be included during the development of the RFP. This project will be split 42% Local, 23% NHPP and 35% STP. The development of the P3 is anticipated to take between 12 and 18 months. The P3 contract will be for between 10 and 15 years.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$90,903,142**

Project ID	Title	Cost (\$M)	Complete
T6193	Cleveland Park Improvements	\$36.9	2027

Primary Project Typ

Landscaping/Beautification

Location Tyhpe:

Various Locations

Route

Facility

From:

To

County

Washington

Municipality

District of Columbia

Description

The objective of the this project is to address the local reoccurring flooding problem near the Cleveland Park Metro Station and to improve pedestrian safety, access and visibility at all intersections; and introduce public realm improvements along the corridor of Connecticut Avenue from Macomb Street to Quebec Street, NW. a. Cleveland Park Drainage and Watershed Improvements b. Cleveland Park Streetscape Improvements

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$16,546,000**

Project ID	Title	Cost (\$M)	Complete
T6195	Florida Ave NE Streetscape	\$41.1	2027

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Road Segment

Route

Facility

Florida Ave NE

From:

2nd Street

To

West Virginia Ave

County

Washington

Municipality

District of Columbia

Description

Implementation of Florida Avenue Transportation Study recommendations, which includes reconstruction, safety improvements, and streetscape upgrades. a. Florida Ave from 2nd St to H St NE b. Florida Ave and New York Ave NE Intersection

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5554	Garvee Bond Debt Service - 11th Street Bridge SE Replacement	\$82.4	2029

Primary Project Typ

Debt Service

Location Tyhpe:

Bridge

Route

Facility

From:

To

County

Washington

Municipality

District of Columbia

Description

This project is to fund the debt service on the 11th Street Bridge SE Replacement.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$47,073,107

Project ID	Title	Cost (\$M)	Complete
T6038	Garvee Bond Debt Service - South Capitol St	\$120.6	2034

Primary Project Typ

Debt Service

Location Tyhpe:

Interchange

Route

Facility

Suitland Parkway

From:

at Martin Luther King Jr. Ave

To

County

Washington

Municipality

District of Columbia

Description

This project is to fund the debt service on the Frederick Douglas Memorial Bridge replacement.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$64,487,875

Project ID	Title	Cost (\$M)	Complete
T2743	Great Streets - Pennsylvania Ave, SE	\$15.0	2025

Primary Project Typ

Road - Intersection improvement

Location Tyhpe:

Intersection

Route

Facility

Pennsylvania Ave. SE

From:

Pennsylvania Ave

To

Minnesota

County

Washington

Municipality

District of Columbia

Description

Construct facilities to improve reliability and safety of transit services, including transit lanes; provide bicycle lanes; and improve pedestrian circulation. Phase II will include work on Pennsylvania Ave. SE from the Sousa Bridge to west of 27th St. SE. a. Pennsylvania Ave and Minnesota Ave SE Intersection Improvements

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000**

Project ID	Title	Cost (\$M)	Complete
T5316	Guardrails and Attenuators	\$11.9	2045

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Various Locations

Route

Facility

Citywide

From:

To

County

Washington

Municipality

District of Columbia

Description

This project repairs, replaces and upgrades safety appurtenances on and off the Federal-aid Highway System that have been damaged by errant vehicles, and replaces units that do not meet the requirements of NCHRP (National Cooperative Highway Research Program) Report 350. Work also includes construction of guiderails and attenuators at new locations and removal of units in locations where they are no longer needed. a. Guardrails and Attenuators Inventory and Design b. Guardrails and Attenuators Repair and Replacement

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$11,857,768**

Project ID	Title	Cost (\$M)	Complete
T2927	Highway Structures Preventive Maintenance and Repairs	\$29.1	2045

Primary Project Typ

Bridge - Preventive Maintenance

Location Tyhpe:

Various Locations

Route Facility

From:

To

County

Washington

Municipality

District of Columbia

Description

This project provides a two-year base contract with two option years for the performance of preventive maintenance activities and initiating emergency repairs on highway structures on an as needed basis. The work includes concrete deck repair, replacement of expansion joints, repair or replacement of beams, girders and other structural steel, maintenance painting, application of low slump concrete overlays on bridge decks, concrete repair, underpinning and shoring of deficient bridge elements, jacking beams and restoring bearings, repair or replacement of bridge railings, guiderails and fencing, cleaning bridge scuppers and drain pipes, graffiti removal and other miscellaneous repair work on various highway structures.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$20,114,504**

Project ID	Title	Cost (\$M)	Complete
T6187	I-395 HOV Bridge over Potomac River	\$26.0	2028

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

BridgeRoute Facility
I-395 HOVFrom:
Over Potomac River

To

Over Potomac River

County

Washington

Municipality

District of Columbia

Description

Repair extensive pier cracking, superstructure and substructure rehabilitation.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$26,000,000**

Project ID	Title	Cost (\$M)	Complete
T11592	I-395 Southbound Exit Ramp to Southwest Freeway	\$1.9	2030

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Bridge

Route Facility

From:

To

I 395

County

Washington

Municipality

District of Columbia

Description

Replace bridge deck; repair/repaint structural steel; replace bearings; repair spalls/seal cracks in substructure; upgrade approach guiderail and transition; address maintenance and rehabilitation recommendations in the inspection report.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,898,750**

Project ID	Title	Cost (\$M)	Complete
T6804	I-66 Ramp to Whitehurst Frwy and K Street NW Bridge over Whitehurst Freeway Ramp	\$4.5	2045

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Bridge

Route

I 66

Facility

Ramp to Whitehurst Freeway and K Street NW Bridge over Whitehurst Freeway Ramp

From:

To

County

Washington

Municipality

District of Columbia

Description

In conjunction with the Asset Management Division recommendation, it is apparent that to maintain the structural integrity and reduce further damage from the continued deterioration and aging of the I-66 Ramp to the Whitehurst Freeway and the K Street NW Bridge over Ramp to the Whitehurst Freeway, repair and restoration of the bridge substructures and superstructure is required.(Bridge #1303 and Bridge # 1304)The primary goal of the project is to perform repairs and rehabilitation of all deficient bridge components to extend the service life of the structure.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6613	I-695 Bridges From I-395 to I-295/DC-295	\$0.8	2026

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route

I 695

Facility

I 695

From:

I 395

To

I 295

County

Washington

Municipality

District of Columbia

Description

Post-construction close-out and completion of outstanding items from the 11th Street Bridge project.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$797,475**

Project ID	Title		Cost (\$M)	Complete
T3290	Kenilworth Ave NE Reconstruction		\$28.1	2024
Primary Project Typ		Location Tyhpe:		
Road - Recons/Rehab/Maintenanc		Road Segment		
Route	Facility	From:	To	
	Kenilworth Ave, NE	East Capitol St Ramp	Rail Over Pass north of Benning Rd	
County		Municipality		
Washington		District of Columbia		
Description				
Design of Kenilworth Ave/I295 from East Capitol Street, NE to Penn Rail Road Bridge over pass is a total reconstruction project. The length of the project is about 2,600 both directions. The design project will include upgrade of the existing curb and gutter, replace existing fences, remove the existing temporary Jersey Barriers and replace with permanent Jersey Barriers and address the current hydraulic problem. a: NB Kenilworth Ave NE Reconstruction b: SB Kenilworth Ave NE Reconstruction				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,000				

Project ID	Title		Cost (\$M)	Complete
T6501	Kennedy St from 16th St to Georgia Ave NW Reconstruction		\$26.3	2024
Primary Project Typ		Location Tyhpe:		
Road - Recons/Rehab/Maintenanc		Road Segment		
Route	Facility	From:	To	
	Kennedy St NW	16th St NW	Georgia Ave	
County		Municipality		
Washington		District of Columbia		
Description				
This project is to reconstruct Kennedy Street, NW corridor from Georgia Avenue to 16th Street, NW. The scope of work for this Task Order includes but not limited to roadway and streetscape design, subsurface utility engineering (SUE), traffic signal modification, context sensitive design/solution, utility relocation coordination, maintenance of traffic, intersection safety and operational efficiency improvement, signage and pavement markings, storm water management-LID/Bio retention, Improvement of curbs & gutter, driveways, sidewalks and ADA ramps.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$15,949,500				

Project ID	Title		Cost (\$M)	Complete
T6644	LED Signage Procurement and Installation		\$1.4	2045
Primary Project Typ		Location Tyhpe:		
Road - Signal/Signs		Not Location Specific		
Route	Facility	From:	To	
County		Municipality		
Washington		District of Columbia		
Description				
Procurement and installation of LED signage and intelligent warning systems (flashing pedestrian signs, driver feedback machines, etc.). Signs will be procured, installed, and maintained by Field Operations Branch.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,440,000				

Project ID	Title	Cost (\$M)	Complete
T6808	Managed Lanes Feasibility Study FY 2021	\$0.2	2045

Primary Project Typ
Study/Planning/Research

Location Tyhpe:
Various Locations

Route Facility

From: To

County
Washington

Municipality
District of Columbia

Description

The FY 2021 Managed Lane feasibility study will provide analysis and guidance to initiate implementation of managed lanes throughout the District of Columbia. This study will focus on prioritizing the most congested corridors in the District within the context of equity, stakeholder engagement (internal District and external regional stakeholders), and project development requirements (engineering and technical requirements). The managed lane study will look at feasibility in terms of what makes sense in a post COVID-19 world. Many traffic and policy experts are forecasting that traffic may be worse than in the post-COVID 19 roadway network. The study will rank order the priority corridors that should be considered first and will set forth discrete implementation steps. The Commonwealth of Virginia now has a number of managed lanes proximate to the District and this study will seek to analyze the relationship of those managed lanes to potential managed lanes' locations in the District. The study will also consider the impacts and relationship of any District managed lane facilities to adjacent Maryland roadways.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6014	Maryland Avenue NE Road Diet	\$28.6	2023

Primary Project Typ
Bike/Ped

Location Tyhpe:
Road Segment

Route Facility
Maryland Ave. NE

From: To
2nd Street NE 15th Street NE

County
Washington

Municipality
District of Columbia

Description

To improve pedestrian safety on Maryland Avenue from 2nd Street to 15th Street NE.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,000

Project ID	Title	Cost (\$M)	Complete
T6657	New York Ave NE Bridge over Anacostia River	\$37.9	2027

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Bridge

Route Facility

US 50 New York Avenue NE

From:

Over Anacostia River

To

County

Washington

Municipality

District of Columbia

Description

This project will include inspections and preliminary design work to assess the need for future rehabilitation and preventive maintenance on the bridge.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$37,888,200**

Project ID	Title	Cost (\$M)	Complete
T5339	Pavement Restoration - NHPP Streets	\$40.0	2045

Primary Project Typ

Road - Resurface

Location Tyhpe:

Various Locations

Route Facility

From:

To

County

Washington

Municipality

District of Columbia

Description

Resurfacing of selected roadway segments on the National Highway System (NHPP), repair-replacement of curbs, gutters and sidewalks, driveways, base pavements, perimeter fencing, furnishing sewer-water manhole frames, catch basin tops, and removal of roadway and roadside debris.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$40,000,000**

Project ID	Title	Cost (\$M)	Complete
T5957	Pennsylvania Ave and Potomac Ave SE Intersection Improvements	\$22.9	2025

Primary Project Typ

Road - Intersection improvement

Location Tyhpe:

Intersection

Route Facility

Pennsylvania Ave SE

From:

Potomac Ave SE

To

Penn Ave

County

Washington

Municipality

District of Columbia

Description

Pedestrian and Bicycle Safety improvements including reconfiguration of the Pennsylvania Ave/Potomac Avenue intersection, new signals and crosswalks and improvement access to the Potomac Metro station.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$22,763,300**

Project ID	Title	Cost (\$M)	Complete
T6595	Pennsylvania Ave from 17th St to Washington Cir NW Streetscape	\$38.0	2025

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Road Segment

Route

Facility

Pennsylvania Ave NW

From:

17th St NW

To

22nd St NW

County

Washington

Municipality

District of Columbia

Description

Design for streetscape of Pennsylvania Avenue NW, includes multi-modal friendly transportation. Facilitate New Connections, Balancing the Modes, Pedestrian Scale Streetscape, Create a vibrant, cohesive public space that provides a sense of visual continuity and a framework for new active uses.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T11598	Rehabilitation of Whitehurst Freeway Bridge	\$39.5	2028

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Bridge

Route

Facility

Whitehurst Freeway

From:

To

County

Municipality

Description

"This structure was constructed in 1949 and was last rehabilitated in 1998. The sufficiency rating is 59.4% (3/12). The 2014 inspection report notes a NBI rating of 5 for the superstructure steel cross girders and the substructure intermediate steel columns and anchor bolts with a condition description of section loss due to corrosion on stringers, cross girders, columns, and anchor bolts. The project will perform detailed bridge inspection to assess the bridge condition with deficiencies, followed by engineering design for bridge rehabilitation."

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$4,557,000**

Project ID	Title	Cost (\$M)	Complete
T6811	Retroreflective Backplates	\$2.0	2045
Primary Project Typ		Location Tyhpe:	
Road - Other Improvement		Not Location Specific	
Route	Facility	From:	To
County	Municipality		
Washington	District of Columbia		
Description			
The TOSD plans to implement retroreflective backplates as a safety improvement to reduce fatalities and serious injury crashes on the Districts roadways. Retroreflective backplates are FHWA Proven Safety Countermeasure known to reduce total crashes at an intersection by 15%, by providing greater visibility and conspicuity of traffic signal heads, particularly at night and for drivers with vision limitations. The project will include systemic installation of this measure on corridors identified through network screening in each of the eight wards, as well as similar installation for single intersections that demonstrate characteristics and a safety record of crashes susceptible to correction with this treatment.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,980,000			
Project ID	Title	Cost (\$M)	Complete
T11595	Return to L'Enfant	\$9.1	2028
Primary Project Typ		Location Tyhpe:	
Bridge - Rehab		Bridge	
Route	Facility	From:	To
County	Municipality		
Washington	District of Columbia		
Description			
L'Enfant Plaza project is a bridge that needs to be rehabilitated, the assessment report shows some deficiencies that require work			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$9,092,300			
Project ID	Title	Cost (\$M)	Complete
T5323	Roadway Pavement Condition Assessment	\$5.1	2045
Primary Project Typ		Location Tyhpe:	
Study/Planning/Research		Various Locations	
Route	Facility	From:	To
	Citywide		
County	Municipality		
Washington	District of Columbia		
Description			
This project will be used to retain a vendor to perform data collection and analysis of DDOT's pavement conditions.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$5,103,340			

Project ID	Title	Cost (\$M)	Complete
T2965	Roadway Reconstruction Citywide	\$21.9	2030

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Various Locations

Route

Facility

CITYWIDE

From:

To

County

Washington

Municipality

District of Columbia

Description

This project reconstructs streets and highways on the Federal-aid highway system and other streets with poor pavement condition, drainage, or other reconstruction needs. Total roadway reconstruction is required when the highway pavement has reached the end of its useful life and can no longer be resurfaced. Streets must be reconstructed once the base deteriorates or the crown becomes too high, creating an undesirable slope from the center line to each curb. The scope of work includes the removal of deteriorated base and pavement, repairing the sub-base, replacing or reconstructing pavement and base within the roadway area and resetting or reconstructing curbs and sidewalks. Additional work includes the installation of wheelchair ramps, bicycle facilities, safety features and landscaping improvements. Projects Include: a. Alabama Ave from MLK to Bowen Rd SE b. Broad Branch Rd from Linnean Ave to Beach Dr NW Rehabilitation d. Canal Rd NW Rock Slope Stabilization e. Florida Ave and 9th St from T St to Barry PI NW f. New Jersey Ave from Massachusetts Ave to N St NW g. Oregon Ave Military Rd to Western Ave NW

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$14,947,000**

Project ID	Title	Cost (\$M)	Complete
T6240	Safety and Geometric Improvements of I-295	\$2.8	2028

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Road Segment

Route

Facility

I 295

I-295/DC-295

From:

Eastern Avenue

To

Chesapeake St. SE

County

Washington

Municipality

District of Columbia

Description

Safety and geometry improvement of I295/DC 295. Work includes upgrade substandard ramps, extend merge area & acceleration lane, review slip ramps, complete missing interchange movements, reduce congestion, provide access for vehicular traffic, pedestrian and cyclists that include, road configuration, sidewalk improvement, pavement markings, median, island, traffic signal, signs, street lighting, and guardrails at interchanges along I-295/DC 295 between Eastern Avenue and Chesapeake St. a. Safety and Geometric Improvements of I-295 (Long Term) b. Safety and Geometric Improvements of I-295 (Mid Term) c. Safety and Geometric Improvements of I-295 (Short Term)

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000,000**

Project ID	Title	Cost (\$M)	Complete
T3423	South Capitol Street Corridor	\$777.0	2028

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

Facility

South Capitol Street

From:

N St, MLK Ave, Suitland Pkwy,
Memorial Bridge

To

Independence Ave.

County

Washington

Municipality

District of Columbia

Description

Redevelopment of the South Capitol Street corridor is a part of the Anacostia Waterfront Initiative. a. New Frederick Douglass Memorial Bridge b. Suitland Parkway and I-295 Interchange Reconfiguration c. Martin Luther King Jr. Ave. and Suitland Parkway Interchange Reconfiguration d. South Capitol St from N St to SE/SW Freeway Boulevard Streetscape e. New Jersey Ave SE Streetscape improvements f. South Capitol Street Corridor Phase 2

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6499	Southeast Blvd and Barney Circle Environmental Assessment	\$6.0	2024

Primary Project Typ

Environmental Only Project

Location Tyhpe:

Intersection

Route

Facility

Southeast Boulevard

From:

Barney Circle

To

11th St SE

County

Washington

Municipality

District of Columbia

Description

Perform an Environmental Assessment to study converting the Southeast Boulevard from its existing condition to an at-grade multi-modal urban boulevard.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$6,000,000

Project ID	Title	Cost (\$M)	Complete
T6490	Southwest Freeway Bridge over South Capitol Street	\$57.4	2028

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route

Facility

I 695 Southwest Freeway

From:

over South Capitol Street

To

County

Washington

Municipality

District of Columbia

Description

Bridge 1103 is part of Southwest Freeway over South Capitol Street and Bridge 1109 Ramp G, it is a prestressed concrete superstructure and substructure of the Southwest Freeway over South Capitol Street that is in poor condition based on latest inspection and requires extensive rehabilitation/replacement

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$3,754,100

Project ID	Title	Cost (\$M)	Complete
T3242	Stormwater-Hydraulic Structures and Flood Management Works	\$25.0	2045

Primary Project Typ
Infrastructure Resiliency

Route	Facility
1	1
2	2
3	3
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100	100

Location Tyhpe:
Various Locations

From: To

County
Washington

Municipality
District of Columbia

Description

The purpose of this project is to replace/rehab existing hydraulic structures as culverts, inlets, etc.. On a bi-annual basis and based on stormwater drainage problem occurrences the structures will be inspected. On an annual basis, structures will be rehabilitated or replaced depending on their condition. The project also assesses and manages flooding conditions on transportation infrastructures. a. Culvert Inspection b. Drainage and Stormwater Improvements c. Stormwater Retrofits d. University Terrace NW Drainage Improvements

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$25,000,004**

Project ID	Title	Cost (\$M)	Complete
T5385	Streetlight Asset Management	\$11.0	

Primary Project Typ
Transportation Operations

Route	Facility
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Location Tyhpe:
Various Locations

From: To

County
BLANK, Washington

Municipality
District of Columbia

Description

This project will provide maintenance for the Districts lighting system to provide safe operations. Work includes upgrade of lights in tunnels and underpasses, bridges, highways, overhead guide sign lighting, obsolete incandescent and mercury vapor lights as well as navigation lights on bridges and waterways.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$11,000,000**

Transit

Project ID	Title		Cost (\$M)	Complete
T5439	Streetlight Construction		\$2.5	
Primary Project Type		Location Tyhpe:		
Transportation Operations		Various Locations		
Route	Facility	From:	To	
	citywide	citywide		
County		Municipality		
Washington		District of Columbia		
Description				
This project will provide installation/construction of the District's aging streetlight systems to provide safe operations. Work includes upgrading of lighting in tunnels, freeway air rights, overhead signs structures, and obsolete navigational lights on bridges.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$2,500,000				

Project ID	Title		Cost (\$M)	Complete
T5346	Theodore Roosevelt Bridge Rehabilitation		\$128.5	2025
Primary Project Type		Location Tyhpe:		
Bridge - Rehab		Bridge		
Route	Facility	From:	To	
I 66	Theodore Roosevelt Bridge			
County		Municipality		
Washington		District of Columbia, Region-wide		
Description				
Maintain the structure's service life for 30 years and improve safety by making necessary repairs to the existing structure. Improve safety by bringing the combined pedestrian/bicycle sidewalk into compliance with safety standards.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$120,600,001				

Project ID	Title		Cost (\$M)	Complete
T6812	William Howard Taft Memorial Bridge Rehabilitation		\$16.5	2045
Primary Project Type		Location Tyhpe:		
Bridge - Rehab		Bridge		
Route	Facility	From:	To	
	William Howard Taft Memorial Bridge			
County		Municipality		
Washington		District of Columbia		
Description				
Rehabilitation / Repairs of the aged historical bridge crossing between Ward 2 and 3. General scope of work includes repairs on numerous cracks and deterioration on bridge elements including deck, jersey barriers, railings, lighting, etc.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$2,495,500				

Project ID	Title	Cost (\$M)	Complete
T6638	16th St NW Transit Priority	\$2.0	2024

Primary Project Typ

Transit - BRT

Location Tyhpe:

On Road

Route

Facility

16th St NW

From:

H St NW

To

Arkansas Ave NW

County

Washington

Municipality

District of Columbia

Description

The purpose of the Proposed Action is to improve transit performance and reliability along with pedestrian crossings, bus stops, and sidewalks along 16th Street NW between H Street NW and Arkansas Avenue NW. 16th Street is a multimodal corridor and the purpose of the project is to move more people through the corridor quickly to meet the existing and long-term regional mobility and local accessibility needs for residents and the traveling public within the project area. a. 16th St NW Transit Priority b. 16th St NW Transit Priority Cameras

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000**

Project ID	Title	Cost (\$M)	Complete
T6102	5303/5304 FTA Program	\$3.3	2045

Primary Project Typ

Transit - Administration

Location Tyhpe:

Not Location Specific

Route

Facility

Citywide

From:

To

County

Washington

Municipality

District of Columbia

Description

DDOT receives an annual FTA grant appropriation to support metropolitan planning activities (5303) and Statewide/DC based Planning Activities (5304).

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$3,282,990**

Project ID	Title	Cost (\$M)	Complete
T5754	Benning Rd Bridges and Transportation Improvements		2026

Primary Project Typ

Transit - Streetcar/Light Rail

Location Tyhpe:

On Road

Route

Facility

Benning Rd NE

From:

Oklahoma Ave NE

To

East Capitol St NE

County

Washington

Municipality

District of Columbia

Description

Benning Rd Bridges and Transportation Improvements from OK Ave to East Capitol St Br# 503(EB), 503(WB), 104, 104-1

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6105	DC Circulator	\$25.3	2026

Primary Project Type

Transit - Bus

Location Type:

Not Location Specific

Route Facility

From:

To

County

Washington

Municipality

District of Columbia

Description

DC Circulator capital projects. a. DC Circulator On-Board Photo Enforcement b. DC Circulator Planning (TDP Implementation Activities) c. DC Circulator South Capitol Street Facility Improvements d. DC Circulator Sustainability and Zero Emissions Fleet Transition Plan

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,000**

Project ID	Title	Cost (\$M)	Complete
T6103	DC Circulator Expansion - Phase I	\$3.8	2026

Primary Project Type

Transit - Bus

Location Type:

On Road

Route Facility

From:

To

County

Municipality

District of Columbia

Description

Implement the Phase I DC Circulator routes as identified in the DC Circulator 10-Year Transit Development Plan

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Frederick County

Roadways

Project ID	Title	Cost (\$M)	Complete
CE3594	Christopher's Crossing	\$6.3	2019

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

Facility

Christopher's Crossing

From:

Walter Martz Road

To

Thomas Johnson Drive

County

Municipality

City of Frederick

Description

Christophers Crossing through the Sanner Farm, which ultimately extends from US 15 in the north around the City to US 40 in the west. This connection is vital to providing multiple safe & efficient connections from residential areas in the northwest to downtown Frederick and US 15. Christophers Crossing will be a four lane road with auxiliary lanes and associated curb & gutter, street lights, sidewalks/bike paths, etc.; 4 new lanes on relocation west of Opossumtown Road and widening from 2 to 4 lanes east of Opossumtown Road.

Local Street

Project ID	Title	Cost (\$M)	Complete
T3173	Bridge Inspection, Rehabilitation and Replacements	\$13.4	

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Various Locations

Route

Facility

Various Bridges

From:

To

County

Municipality

Frederick

Description

Rehabilitate, re-deck, construct (replace) & inspect bridges or culverts at the following locations: Gas House Pike; Bretheren Church Rd; Hessong Bridge Rd; Hoovers Mill Rd; Hornets Nest Rd; Old Mill Road Br; Stevens Rd; Biggs Ford Rd; Opossumtown Pike; Sixes Bridge Rd; and Dollyhide Road

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$3,302,000**

Project ID	Title		Cost (\$M)	Complete
T5495	Planning, Design & Construction		\$8.1	2024
Primary Project Typ		Location Tyhpe:		
Bike/Ped		Various Locations		
Route	Facility	From:	To	
Various Trails				
County		Municipality		
Frederick				
Description				
Various County Trails including the Ballenger Creek Trail, Frederick and Pennsylvania Trails in Rails, New Design Road Side Path, and H&F Trail				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$3,437,000				

Project ID	Title		Cost (\$M)	Complete
T6669	Various Trails - City of Frederick		\$14.7	
Primary Project Typ		Location Tyhpe:		
Bike/Ped		Various Locations		
Route	Facility	From:	To	
County		Municipality		
		City of Frederick		
Description				
Design and constructions or priority trails including: East Street Rails with Trails, Golden Mile Trail, and Rock Creek Trail				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$8,055,000				

Roadways

Project ID	Title		Cost (\$M)	Complete
T6615	Christopher's Crossing		\$17.0	2026
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
	Christopher's Crossing	Shookstown Road	Rocky Springs Road	
County		Municipality		
Frederick		City of Frederick		
Description				
Christophers Crossing through Fort Detricks Area B, which ultimately extends from US 15 in the north around the City to US 40 in the west.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$15,000,000				

Project ID	Title		Cost (\$M)	Complete
T5494	Study, Design, ROW, & Construction		\$32.6	2027
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Various Locations		
Route	Facility	From:	To	
	Various Roads	Various Roads		
County	Municipality			
Frederick				
Description	Upgrade and improvements to Boyers Mill Road; Christopher's Crossing; Gas House Pike; Reichs Ford Road; White Rock subdivision; Yeagertown Rd. and Braddock Heights Improvements			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

MDOT

Roadways

Project ID	Title	Cost (\$M)	Complete
T5527	Governor Harry W. Nice/Senator Thomas "Mac" Middleton Bridge Replacement Project	\$635.8	2025

Primary Project Type

Bridge - Replace + Add Capacity

Location Type:

Bridge

Route

Facility

US Bridge over Potomac

From:

Charles County, MD

To

King George County, VA

County

Charles

Municipality

Description

Construct a new four-lane bridge north of the existing bridge, with a barrier-separated, two-way bicycle/pedestrian path on the south side of the bridge. Included in the project is preventative maintenance of the existing bridge until the construction phase is programmed.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$144,629,000**

MDOT - MTA

Non-Infrastructure

Project ID	Title	Cost (\$M)	Complete
CE3776	Germantown Transit Oriented Development		2045

Primary Project Type

Transit - Other

Location Type:

Other

Route

Facility

From:

To

County

Municipality

Description

MDOT promotes Transit Oriented Development (TOD) as a tool to support economic development, promote transit ridership, and maximize the efficient use of transportation infrastructure. Germantown station is served by all nine inbound and outbound MARC trains to Washington D.C. on weekdays. As a growing multimodal hub, Germantown station is well-situated to become a thriving transit-oriented center. MDOT MTA has begun evaluating the site to determine how development on the surface lots can be accommodated while also supporting convenient station access for MARC passengers and meet the demands of passengers accessing the station by car.

Project ID	Title	Cost (\$M)	Complete
CE3774	Laurel Transit Oriented Development		2045

Primary Project Type

Transit - Other

Location Type:

Other

Route

Facility

From:

To

County

Municipality

Description

MDOT MTA supports the planning and implementation of TOD. The agency will work with stakeholders to coordinate the planning and development of mixed use development near MARC Train stations systemwide. Laurel Station is the busiest non-terminal station on the Camden Line with average daily weekday boardings of 621 passengers. The MDOT parking lot and adjacent land have been proposed for redevelopment in the past and MDOT MTA will coordinate with stakeholders to support redevelopment of this property to enhance access between the station and the community.

Project ID	Title	Cost (\$M)	Complete
CE3775	Monocacy Transit Oriented Development		2045

Primary Project Type

Transit - Other

Location Type:

Other

Route Facility

From:

To

County

Municipality

Description

Monocacy Station is one of two stations located exclusively on the Frederick Branch of the MARC Brunswick Line. An average of 221 weekday boardings occur at Monocacy with three inbound and outbound trains serving the station each weekday. MDOT MTA will work with stakeholders to support development that preserves and supports MARC operations.

Transit

Project ID	Title	Cost (\$M)	Complete
CE3783	Brunswick Line Additional Mainline Track and Storage Capacity	\$720.0	2035

Primary Project Type

Transit - Metrorail/Heavy Rail

Location Type:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

To increase service and reliability on the Brunswick MARC rail line, there will need to be storage expansions at maintenance and storage facilities as well as additional mainline track. MDOT MTA can begin to operate midday service on the Brunswick line if an additional mainline track were to be added between the Washington and Silver Spring stations; the Garrett Park and Gaithersburg stations; and between the Gaithersburg and Boyds stations.

Project ID	Title	Cost (\$M)	Complete
CE3787	Brunswick Line Expansion	\$496.0	2045

Primary Project Type

Transit - Metrorail/Heavy Rail

Location Type:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

Increased service on the Brunswick Line would help to support the growing I-270 corridor. Future service patterns could gradually evolve to include additional, basic service improvements to existing stations. Several capital investments must be made to enable these service improvements on the Brunswick Line, including additional mainline track, positive train control enhancements, and additional storage and maintenance facilities.

Project ID	Title	Cost (\$M)	Complete
CE3773	Brunswick Line Station Renovations	\$22.0	2045

Primary Project Type

Transit - Passenger Facilities

Location Type:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

The Brunswick Line consist of 18 stations in addition to Washington Union Station. MDOT MTA will continue to make improvements consistent with the lifecycle of each station. As various amenities and elements are replaced, MDOT MTA will also include enhancements with improved technology and features available at the time. This also includes elements such as upgraded security, and communication systems, wayfinding, and other improvements as appropriate.

Project ID	Title	Cost (\$M)	Complete
CE3780	Brunswick Yard Maintenance Facility Improvements	\$40.0	2045

Primary Project Typ

Transit - Metrorail/Heavy Rail

Location Tyhpe:

Not Location Specific

Route

Facility

From:

To

Brunswick Yard

County

Municipality

Description

MARC contracts with CSX to store its trains at Brunswick Yard in Brunswick, MD. The current agreement limits the type of maintenance that can be conducted as MDOT MTA does not own the property. This limitation requires MDOT MTA to cycle MARC train equipment in a way that they can be positioned for heavier maintenance activities as required. The acquisition of Brunswick Yard would enable MDOT MTA to make the necessary improvements to perform heavy maintenance on rail vehicles.

Project ID	Title	Cost (\$M)	Complete
CE3784	Camden Line Additional Mainline Track	\$360.0	2035

Primary Project Typ

Transit - Metrorail/Heavy Rail

Location Tyhpe:

Not Location Specific

Route

Facility

From:

To

County

Municipality

Description

To increase service on the Camden MARC rail line, additional mainline track will need to be built along select segments on the line. In order to provide limited midday service, MDOT MTA would need to build an additional mainline track between the Jessup and Savage stations as well as the Greenbelt and Riverdale stations.

Project ID	Title	Cost (\$M)	Complete
CE3788	Camden Line Expansion	\$150.0	2045

Primary Project Typ

Transit - Metrorail/Heavy Rail

Location Tyhpe:

Not Location Specific

Route

Facility

From:

To

County

Municipality

Description

Several capital investments must be made to enable full midday and weekend service on the Camden line. In addition to the mainline track built to accommodate for limited midday service - between Jessup and Savage stations as well as the Greenbelt and Riverdale stations - this project would add additional mainline track between the Riverdale Station and Washington Union Station as well as between the Jessup Station and Baltimore Penn Station.

Project ID	Title	Cost (\$M)	Complete
CE3770	Camden Line Station Renovations	\$40.0	2045

Primary Project Typ

Transit - Passenger Facilities

Location Tyhpe:

Not Location Specific

Route Facility

From:

To

County

Municipality

[Description](#)

Camden Line consist of 11 stations in addition to Washington Union Station. MDOT MTA will continue to make improvements consistent with the lifecycle of each station. As various amenities and elements are replaced, MDOT MTA will also include enhancements with improved technology and features available at the time. This also includes elements such as upgraded security, and communication systems, wayfinding, and other improvements as appropriate.

Project ID	Title	Cost (\$M)	Complete
CE3781	Closed Circuit Television (CCTV) Expansion	\$10.0	2045

Primary Project Typ

Transit - Passenger Facilities

Location Tyhpe:

Not Location Specific

Route Facility

From:

To

County

Municipality

[Description](#)

To improve security at MARC stations, MDOT MTA is working to install closed circuit television at all stations throughout the system. While some stations already incorporate the use of CCTV in all areas, many of the stations are limited. MARC personnel will coordinate with MDOT MTA Police to install these systems in all stations to improve safety, and security.

Project ID	Title	Cost (\$M)	Complete
CE1649	Corridor Cities Transitway (CCT)	\$545.0	2045

Primary Project Type

Transit - BRT

Location Type:

On Road

Route Facility

From:

Shady Grove

To

Metropolitan Grove

County

Montgomery

Municipality

Description

The Locally Preferred Alternative for the Corridor Cities Transitway has been announced. The mode will be Bus Rapid Transit. The alignment will follow the current Master Plans for the area as approved by Montgomery County. The project will extend from the Shady Grove Metro station to the COMSAT facility, just south of Clarksburg, a distance of 15 miles. However, it will be built in phases with the first phase extending from Shady Grove to Metropolitan Grove, a distance of nine miles. Phase I is what is identified and described in this CLRP analysis.

Project ID	Title	Cost (\$M)	Complete
CE3778	CSX Joint Benefits - Brunswick and Camden Lines	\$90.0	2045

Primary Project Type

Transit - Metrorail/Heavy Rail

Location Type:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

As part of the operating agreement with CSX, MDOT MTA provides funding to CSX to support the necessary improvements to maintain CSX-owned railway for the Brunswick and Camden Lines. This includes the upgrading of signal systems, switches, grade crossings and other infrastructure shared by both railroads. The current MDOT MTA agreement with CSX is for \$5M annually for capital improvements.

Project ID	Title	Cost (\$M)	Complete
CE3772	Eliminate At-Grade Pedestrian Crossing (Brunswick and Camden Lines)	\$296.0	2045

Primary Project Typ
Transit - Passenger Facilities

Location Tyhpe:
Not Location Specific

Route Facility

From: To

County

Municipality

Description

Nineteen of the 42 stations that MARC serves currently have at-grade pedestrian crossings. At these stations, passengers must cross active railroad tracks to access the far-side platform. CSX currently requires at-grade pedestrian crossings to be eliminated as part of any significant station improvements on the Brunswick and Camden Lines.

Project ID	Title	Cost (\$M)	Complete
CE3779	Frederick Branch Improvements	\$10.0	2045

Primary Project Typ
Transit - Metrorail/Heavy Rail

Location Tyhpe:
Not Location Specific

Route Facility

From: To

County

Municipality

Description

The Frederick Branch of the Brunswick Line is the only mainline track that MDOT MTA owns. Unlike the agreements with Amtrak and CSX, MDOT MTA is solely responsible for the maintenance along the Frederick Branch from Monocacy Junction to Downtown Frederick (3.4 miles). Over the next 30 years, MDOT MTA will be making improvements to grade crossings to improve safety, replacing switch machines, and replacing rail ties.

Project ID	Title	Cost (\$M)	Complete
CE3427	Marc Improvements		2029

Primary Project Typ
Rail - Other

Location Tyhpe:
Not Location Specific

Route Facility

From: To

County

Municipality

Description

Investments in passenger rail corridor infrastructure improvements are necessary to maintain/improve safety and quality of MARC

Project ID	Title	Cost (\$M)	Complete
CE3785	MARC Rolling Stock Overhauls and Replacements	\$780.0	2045

Primary Project Typ
Transit - Maintenance

Location Tyhpe:
Not Location Specific

Route Facility

From: To

County

Municipality

Description

MDOT MTA inherited a wide variety of legacy equipment from previous railroads when it began assuming control of commuter rail operations in 1973. Over the last four decades MARC has gradually been able to retire older cars and replace them with newer, safer, and more reliable equipment. Today the MARC Train fleet comprises 223 revenue vehicles including 177 railcars and 46 locomotives. MARC vehicles make up the biggest share of all MARC assets, representing nearly \$1 billion in assets. MDOT MTA operates and maintains four different locomotive types including both diesel, and electric locomotives manufactured by four different builders. Only a small part of MARCs fleet is made up of electric locomotives; these are used on the Penn Line only. MDOT MTA recently acquired eight new SC-44 Charger diesel locomotives in 2018. These locomotives meet the latest TIER IV environmental emissions standards. The age of MARCs locomotive fleet ranges from less than a year old to 30+ years old. The frequency with which overhauls are required increase with age, and the older vehicles have gone through several overhauls and rebuilds.

Project ID	Title	Cost (\$M)	Complete
CE3782	MARC Run-through service to L'Enfant Plaza	\$95.0	2035

Primary Project Typ
Transit - Operating

Location Tyhpe:
Not Location Specific

Route Facility

From: To

County

Municipality

Description

MDOT MTA and Virginia Railway Express (VRE) are exploring the potential for MARC Train to extend service south to L'Enfant Plaza. The potential benefits to run-through service include the following: -Alleviate congestion on the Red Line at Union Station -Provide direct access to the L'Enfant Plaza rail hub -Potential increase in mid-day storage capacity While the rail infrastructure for this service exists today, the current facilities do not have spare capacity for additional service. Additionally, CSX owns the right-of-way south of the 1st Street Tunnel. Implementation of run-through service would require a cost-sharing partnership with other rail constituents including VRE, Amtrak, CSX, and others.

Project ID	Title	Cost (\$M)	Complete
CE3786	MARC Run-through service to Virginia	\$2,000.0	2045

Primary Project Type

Transit - Metrorail/Heavy Rail

Location Type:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

MDOT MTA and Virginia Railway Express (VRE) are exploring the potential for MARC Train to extend service south to Northern Virginia. The potential benefits to run-through service include direct, one-seat ride to employment centers in Northern Virginia from Maryland; alleviate congestion on the Red Line at Union Station; provide direct access to the L'Enfant Plaza rail hub; and potential increase in mid-day storage capacity. While the rail infrastructure for this service exists today, the current facilities do not have spare capacity for additional service. Additionally, CSX owns the right of-way south of the 1st Street Tunnel and Long ridge. Implementation of run-through service would require a cost-sharing partnership with other rail constituents including VRE, Amtrak, CSX, and others.

Project ID	Title	Cost (\$M)	Complete
CE3777	Passenger Rail Investment and Improvement Act (PRIIA) - Penn Line	\$180.0	2045

Primary Project Type

Transit - Metrorail/Heavy Rail

Location Type:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

As part of the Passenger Rail Investment and Improvement Act of 2008 Section 212 (PRIIA 212) a collaborative planning and decision making effort for passenger rail carriers along the Northeast Corridor (NEC) was created. MARC Penn Line service uses the southern portion of the NEC to provide service between Perryville and Washington, D.C. Through PRIIA 212, a cost-sharing arrangement for NEC infrastructure along the MARC Penn Line for commuter and intercity rail services was established. The new cost-sharing arrangement and policy recommendations seek to advance the development of improvements along the MARC Penn Line. PRIIA 212 replaces the previous Joint Benefits program MDOT had with Amtrak.

Project ID	Title	Cost (\$M)	Complete
CE3771	Penn Line Station Renovations	\$30.0	2035

Primary Project Typ

Transit - Passenger Facilities

Location Tyhpe:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

The Penn Line consists of 12 stations in addition to Washington Union Station. MDOT MTA will continue to make improvements consistent with the lifecycle of each station. MDOT MTA will also include enhancements with improved technology and features available at the time. Such enhancements include upgraded security, and communication systems, wayfinding, and other improvements as appropriate.

Non-Infrastructure

Project ID	Title	Cost (\$M)	Complete
T3760	Ridesharing - Statewide Program	\$5.2	

Primary Project Typ

Ridesharing

Location Tyhpe:

Other

Route Facility

From:

To

County

Municipality

Calvert, Charles, Frederick, Montgomery, Prince Geo City of Frederick**Description**

To promote and encourage the establishment of carpools and vanpools. The ridesharing project covers the activities of the ridesharing unit of the Statewide Transportation Program with coordinators in Frederick, Prince George's, Montgomery Counties, and the Tri-County Council of Southern Maryland.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$3,492,000**

Transit

Project ID	Title	Cost (\$M)	Complete
T3468	Corridor Cities Transitway (CCT) - Planning & Design		2020

Primary Project Typ

Transit - BRT

Location Tyhpe:

On Road

Route Facility

From:

To

County

Montgomery

Municipality

Description

This is a joint project with SHA. The transit portion of the multi-modal project extends from the Shady Grove Metro station to the COMSAT facility just south of Clarksburg. The multi-modal project overall studies transit and highway improvements in the I-270/US 15 corridor in Montgomery and Frederick Counties from Shady Grove Metro Station to Biggs Ford Road north of Frederick. The Corridor Cities Transitway would be a bus rapid transit line along a 14-mile corridor from Rockville through Quince Orchard, Gaithersburg and Germantown to Clarksburg. Another option under study is "premium bus" service along a proposed I-270 High Occupancy Vehicle (HOV) or Express Toll Lane managed facility. NOTE: The state funds shown for Planning and Preliminary Engineering, Right of Way, and Construction wear all re-obligated in FY2015, for this project please refer to the CTP.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T2713	Large Urban Systems - Capital	\$15.0	

Primary Project Typ

Transit - Maintenance

Location Tyhpe:

Not Location Specific

Route Facility

From:

To

County

Montgomery, Prince Georges

Municipality

Description

Capital assistance for large urban transit service in Prince George's and Montgomery Counties.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$10,000,000**

Project ID	Title	Cost (\$M)	Complete
T6146	Large Urban Systems - Operating	\$108.9	

Primary Project Typ

Transit - Operating

Location Tyhpe:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

Operating Assistance for Prince Georges County.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$54,460,000**

Project ID	Title		Cost (\$M)	Complete
T6147	Large Urban Systems - Preventive Maintenance		\$66.7	
Primary Project Type		Location Tyhpe:		
Transit - Other		Not Location Specific		
Route	Facility	From:	To	
County	Municipality			
Description				
Large Urban Operating Preventative Maintenance for Montgomery County.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$22,220,000				

Project ID	Title		Cost (\$M)	Complete
T11584	MARC Facilities		\$2.3	
Primary Project Type		Location Tyhpe:		
Transit - Safety		Not Location Specific		
Route	Facility	From:	To	
County	Municipality			
Description				
Through annual inspection, platform structures throughout the MARC system, have been projected to reach the end of their useful life, requiring replacement to maintain State of Good Repair (SGR). Anticipated projects include removal and replacement of existing low-level platform structures and associated appurtenances (lighting, PA/LED, shelters and benches, etc.). Stations have two platforms (one eastbound and one westbound).				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$2,284,718				

Project ID	Title		Cost (\$M)	Complete
T2795	Purple Line		\$2,739.3	2023
Primary Project Type		Location Tyhpe:		
Transit - Streetcar/Light Rail		Own ROW		
Route	Facility	From:	To	
	Purple Line	Bethesda	New Carrollton	
County	Municipality			
Montgomery, Prince Georges				
Description				
Construction of a 16 mile transitway that would operate between Bethesda and Silver Spring in Montgomery County and extend into Prince Georges County to connect with the Metrorail system at College Park and New Carrollton. The Bethesda to Silver Spring portion would include a parallel hiker/biker trail. The project would provide direct connections to both branches of the Metrorail Red Line, Green Line and Orange Line. The Purple Line would also link to all three MARC lines, AMTRAK and regional/local bus services. The project would include 21 stations. Ridership for 2040 is estimated at approximately 74,000 daily boardings. A TIFIA loan of \$890 million was obligated in 2016 and utilized by the P3 concessionaire from 2016-2022.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$8,289,138				

Project ID	Title	Cost (\$M)	Complete
T2602	Rural Transit - Capital Assistance	\$0.9	

Primary Project Type

Transit - Capital

Location Type:

Not Location Specific

Route Facility

From:

To

County

Charles

Municipality

Description

Capital assistance for rural transit service in Frederick CountyThis project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$280,000**

Project ID	Title	Cost (\$M)	Complete
T2853	Rural Transit - Operating Assistance	\$5.5	

Primary Project Type

Transit - Operating

Location Type:

Not Location Specific

Route Facility

From:

To

County

Charles, Frederick

Municipality

Description

Operating assistance for rural service in Charles, Frederick, Montgomery, and Prince George's countiesThis project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$5,496,000**

Project ID	Title	Cost (\$M)	Complete
T6440	Seniors and Individuals with Disabilities	\$1.3	

Primary Project Type

Transit - Other

Location Type:

Not Location Specific

Route Facility

From:

To

County

Charles, Frederick, Montgomery, Prince Georges

Municipality

Description

Will enhance mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-dependent populations beyond traditional public transportation services and ADA complementary paratransit services.This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,298,000**

Project ID	Title		Cost (\$M)	Complete
T3012	Small Urban Systems - Capital		\$48.4	
Primary Project Type		Location Type:		
Transit - Capital		Not Location Specific		
Route	Facility	From:	To	
County		Municipality		
		City of Frederick		
Description				
		Capital Assistance for Small Urban Transit services in Charles and Frederick counties.		
		This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$13,437,250		
Project ID	Title		Cost (\$M)	Complete
T2594	Small Urban Transit Systems - Operating Assistance		\$35.9	

Primary Project Type

Transit - Operating

Route Facility

County

Municipality

City of Frederick

Description

Operating assistance to small urban transit systems in Charles and Frederick Counties

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$35,852,500**

MDOT - SHA

Roadways

Project ID	Title	Cost (\$M)	Complete
CE2250	I-70/US 40 at MD 144FA, Meadow Road, and Old National Pike Interchange	\$33.0	2022

Primary Project Type

Road - Interchange improvement

Location Type:

Point Location

Route Facility

I 70 I 70 /US 40

From:

MD 144FA /Meadow Road /Old

National Pike

To

Municipality

County

Frederick

Description

Provide missing I-70/US 40 interchange ramp movements at MD 144FA, Meadow Road, and Old National Pike. Design, right-of-way acquisition, and construction are to be funded by Frederick County and developer.

Project ID	Title	Cost (\$M)	Complete
CE1187	I-70/US 40 Corridor	\$143.0	2040

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

I 70 I 70

From:

Mount Phillip Road

To

West of I-270

County

Frederick

Municipality

Description

This project includes one remaining phase of I-70 upgrades: Phase 4 (design on hold 2007) - -Widening of I-70 from Mount Phillip Road to west of I-270. Previously, the following phases were completed: Phase 1 (complete) - Provide missing movements at US 15/US 340 interchange. Phase 1A (complete) - Construction of missing movements at the I-70/I-270 interchange; I-70 WB to I-270 SB and I-270 NB to I-70 EB; construction of a third lane on WB I-70; dualization of two existing ramps: US 15/US 40 SB to I-70 EB and I-70 WB to US 15/US 40 NB; construction of 5 new bridges and widening and/or redecking four bridges . Reconstruction of the New Design Road structure over I-70. Construction of MD 914 Relocated and New Design Road Relocated. Improve the MD 914/New Design Road intersection. Phase 2A (complete) Construction of ramps from eastbound I-70 to MD 355 Construction of Relocated MD 85 at MD 355 intersection Widening of MD 355 from south of I-70 for approximately 2000 feet. Phase 2B (complete) - -Construction of Monocacy Blvd. Storm Water Management Ponds and Pumping Station -Preliminary grading of Monocacy Blvd. Embankment -Force Main along Proposed East Street Extended -The Reichs Ford Road Pumping Station Phase 2C (complete) - -The MD 85 Urban Diamond Interchange and Ramps -Completion of Monocacy Blvd. -MD 355 from just south of Monocacy Blvd. to the northern project limit. -Necessary widening of I-70 associated with the above improvements. -Park and Ride Lot in the northeast quadrant of I-70/MD 355 -Construct the extension of MD 475, from South Street to the proposed Monocacy Boulevard. Phase 2D (complete) - -Replacement of the ramps at Reich's Ford Road and Monocacy -The I-70 Bridges over Reichs Ford Road -Eastbound and westbound widening on I-70 from MD 355 to MD 144 Phase 3 (complete) - -Construction of new MD 355 structure over I-70 -Widening of MD 355 from north of Monocacy Blvd. to north of the new structure -Construction of Phase 3 is required before construction of Phase 2D

Project ID	Title	Cost (\$M)	Complete
CE3281	I-95/I-495 Corridor (North and West)	\$2,092.0	2030

Primary Project Typ

Road - HOV/Managed Lanes

Location Tyhpe:

Road Segment

Route Facility

I 95 I 95 /I 495

From:

George Washington Parkway
(Virginia)

To

Baltimore Washington Parkway

County

Montgomery, Prince Georges

Municipality

Description

I-95/I-495 component of Traffic Relief Plan, to include two managed lanes in each direction, between the Virginia State line/Potomac River (American Legion Bridge) and Baltimore Washington Parkway.

Project ID	Title		Cost (\$M)	Complete
CE1182	I-95/I-495 Corridor (South and East)		\$2,161.0	2030
Primary Project Typ		Location Tyhpe:		
Road - HOV/Managed Lanes		Road Segment		
Route	Facility	From:	To	
I 95	I 95 /I 495	Baltimore Washington Parkway	Virginia State line/Potomac River (Woodrow Wilson Bridge)	
County		Municipality		
Prince Georges				
Description				
I-95/I-495 component of Traffic Relief Plan, to include two managed lanes in each direction, between Baltimore Washington Parkway and Virginia State line/Potomac River (Woodrow Wilson Bridge).				

Project ID	Title		Cost (\$M)	Complete
CE1203	MD 117 Corridor		\$69.0	2030
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
MD 117	MD 117	I 270	West of Game Preserve Road	
County		Municipality		
Montgomery				
Description				
Upgrade MD 117 from West of Game Preserve Road to I-270, including reconstruction of intersections at Bureau Drive, MD 124, First field Road, Metropolitan Grove Road/Twelve Oaks Drive, Watkins Mill Road/Pleasant Run Drive, and Long draft Road to improve traffic operations.				

Project ID	Title		Cost (\$M)	Complete
CE1206	MD 124 Corridor		\$129.0	2035
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
MD 124	MD 124	Midcounty Highway	Warfield Road	
County		Municipality		
Montgomery				
Description				
Reconstruct MD 124 (Woodfield Road), from Midcounty Highway to Warfield Road. Sidewalks to be included where appropriate. Wide curb lanes will accommodate bicycles.				

Project ID	Title	Cost (\$M)	Complete
CE2261	MD 180/Ballenger Creek Pike Corridor	\$170.0	2035

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**MD 180** **MD 180 /Ballenger Creek Pike**[From:](#)**Greenfield Drive**[To](#)**Corporate Drive**[County](#)**Frederick**[Municipality](#)**City of Frederick**[Description](#)

Study to upgrade existing capacity and traffic operations along MD 180 and Ballenger Creek Pike (formerly MD 351) from Greenfield Drive to Corporate Drive, while supporting existing and planned development. Design and construction of the central portion of the corridor, including the MD 180 bridge over US 15/US 340, is proceeding independently. This project will result in the dualization of MD 180 with a second bridge built over US 15/US 340. Construction is anticipated to begin in 2018 and be complete in 2021.

Project ID	Title	Cost (\$M)	Complete
CE2253	MD 197 Corridor		2030

[Primary Project Typ](#)**Road - Add Capacity/Widening**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**MD 197** **MD 197**[From:](#)**Kenhill Drive**[To](#)**MD 450**[County](#)**Prince Georges**[Municipality](#)[Description](#)

Reconstruct the roadway to upgrade and widen existing MD 197 to a multi-lane divided highway from Kenhill Drive to MD 450 Relocated. Sidewalks will be included where appropriate and wide curb lanes will accommodate bicycles.

Project ID	Title	Cost (\$M)	Complete
CE1200	MD 2/MD 4 Corridor (Calvert County)	\$456.0	2045

[Primary Project Type](#)

Road - Add Capacity/Widening

[Location Type:](#)

Road Segment

[Route](#) [Facility](#)

MD 2 MD 2 / MD 4

[From:](#)

North of Stoakley Road /Hospital Drive

[To](#)

South of MD 765A

[County](#)

Calvert

[Municipality](#)[Description](#)

Five-phase project to upgrade MD 2/MD 4, from south of MD 765A to north of Stoakley Road/Hospital Drive, to a six-lane divided highway with auxiliary lanes. Phases include: Phase 1 (complete 2010) - South of Commerce Lane to South of Old Field Lane Phase 2 (in construction, anticipated complete 2021) - Fox Run Boulevard to MD 231 Phase 3A (planning complete, design/construction not funded) - North of Stoakley Road/Hospital Drive to North of Harrow Lane Phase 3B (planning complete, design/construction not funded) - North of Harrow Lane to South of Steeple Chase Drive Phase 4 (planning complete, design/construction not funded) - South of Old Field Lane to South of MD 765A (south junction) Phase 5 - (planning complete, design/construction not funded) - Interchanges at Stoakley Road/Hospital Drive and at MD 765A (south junction)

Project ID	Title	Cost (\$M)	Complete
CE1199	MD 210 Corridor	\$754.0	2045

[Primary Project Type](#)

Road - Interchange improvement

[Location Type:](#)

Road Segment

[Route](#) [Facility](#)

MD 210 MD 210

[From:](#)

I 95 / I 495

[To](#)

MD 228

[County](#)

Prince Georges

[Municipality](#)[Description](#)

Multi-modal transportation study to relieve traffic congestion along MD 210 and improve intersections from I-95/I-495 to MD 228 (Excluding MD 210/Kerby Hill Road/Livingston Road Interchange - TIP#4879)

Project ID	Title	Cost (\$M)	Complete
CE2248	MD 223 Corridor	\$360.0	2045

Primary Project Type

Road - Intersection improvement

Location Type:

Road Segment

Route Facility

MD 223 MD 223

From:

MD 4

To

Steed Road

County

Prince Georges

Municipality

Description

Study to evaluate short-term, mid-term, and long-term improvements along the MD 223 corridor from Steed Road to MD 4. Various improvements include intersection improvements, widening, signalization, access management, ADA compliance, and the installation of bicycle and pedestrian facilities where they are appropriate.

Project ID	Title	Cost (\$M)	Complete
CE1195	MD 3 Corridor	\$1,797.0	2040

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route Facility

MD 3 MD 3

From:

I 595 /US 50 /US 301

To

Anne Arundel County Line

County

Prince Georges

Municipality

Description

Study to upgrade MD 3 from US 50 to MD 32 to address safety and capacity concerns (8.9 miles). Bicycle and pedestrian access will be provided where appropriate.

Project ID	Title	Cost (\$M)	Complete
CE2246	MD 4 Corridor (Calvert County/Saint Mary's County)	\$861.0	2031

Primary Project Type

Bridge - Replace + Add Capacity

Location Type:

Road Segment

Route Facility

MD 4 MD 4

From:

MD 2

To

MD 235

County

Calvert

Municipality

Description

Upgrade MD 4 between MD 2 and MD 235, including the Thomas Johnson Bridge and MD 235 intersection.

Project ID	Title		Cost (\$M)	Complete
CE1194	MD 4 Corridor (Prince George's County)		\$533.0	2040
Primary Project Type		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
MD 4	MD 4	I 95 /I 495	MD 223	
County		Municipality		
Prince Georges				
Description		Upgrade existing MD 4 to a multilane freeway from MD 223 to I-95/I-495 (Capital Beltway). Includes interchanges at Dowerhouse Road and Westphalia Road and a flyover ramp at Suitland Parkway.		
Project ID	Title		Cost (\$M)	Complete
CE1207	MD 450 Corridor		\$67.0	2030

[Primary Project Type](#)**Road - Add Capacity/Widening**[Location Type:](#)**Road Segment**[Route](#) [Facility](#)**MD 450** **MD 450**[From:](#)**Stonybrook Drive**[To](#)**MD 3**[County](#)**Prince Georges**[Municipality](#)[Description](#)

Widen MD 450 from Whitfield Chapel Road to west of MD 3. Described below is typical section for each segment of this project: MD 450, from east of Whitfield Chapel Road to Greenwood Lane - five lanes undivided closed section. (complete) MD 450, from Greenwood Lane to Seabrook Road - four lane divided with 12 foot outside shoulders. (complete) MD 450, from Seabrook Road to MD 704 - four lanes divided with 12 foot outside shoulders. (complete) MD 450, from MD 704 to MD 193 - six lanes divided (complete) MD 450, from MD 193 to Bell Station Road - six lanes divided (complete) MD 450, from Bell Station Road to MD 197 - four lanes divided roadway with 8' outside shoulders (complete) MD 450, from MD 197 to Stonybrook Drive - four-lane divided roadway, no shoulders (complete) MD 450, from Stonybrook Drive to west of MD 3 - four lane divided roadway

Project ID	Title		Cost (\$M)	Complete
CE1196	MD 5 Corridor			2035
Primary Project Type		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
MD 5	MD 5	I 95 /I 495	US 301 (North Junction)	
County		Municipality		
Prince Georges				
Description				
This project would upgrade MD 5 to a multi-lane freeway from US 301 interchange at T.B. to north of I-95/I-495 Capital Beltway. Includes proposed interchanges at MD 373/Brandywine Road, Surratts Road, and Burch Hill Road/Earnshaw Drive.				

Project ID	Title		Cost (\$M)	Complete
CE1210	MD 85 Corridor		\$138.0	2035
Primary Project Type		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
MD 85	MD 85	English Muffin Way	North of Grove Road	
County		Municipality		
Frederick				
Description				
Widen MD 85 to a four-lane divided highway from south of English Muffin Way to south of Crestwood Boulevard/Shockley Drive, then six lanes north to Grove Road and including I-270 interchange reconstruction. Auxiliary lanes will be included where necessary. Phases include: Phase 1 (in construction, anticipated complete 2021) - South of Crestwood Boulevard/Shockley Drive to North of Spectrum Drive, including I-270 interchange (see TIP ID 6483 - project cost of \$82,000 has been subtracted from previously provided cost of \$220,000,000) Phase 2 (planning complete 2004, design/construction not funded) - North of Spectrum Drive to North of Grove Road Phase 3 (planning complete 2004, design/construction not funded) - South of English Muffin Way to South of Crestwood Boulevard/Shockley Drive				

Project ID	Title		Cost (\$M)	Complete
CE1211	MD 97 at MD 28 Interchange		\$310.0	2035
Primary Project Typ		Location Tyhpe:		
Road - Interchange improvement		Point Location		
Route	Facility	From:	To	
MD 97	MD 97	MD 28		
County		Municipality		
Montgomery				
Description				
Construct interchange improvements along MD 97 at MD 28. The alternative that was chosen is: Alt 7 VE Modified - Relocated MD 28 under MD 97				

Project ID	Title	Cost (\$M)	Complete
CE2618	MD 97 Corridor	\$104.0	2030

Primary Project Type

Bike/Ped

Location Type:

Road Segment

Route Facility

MD 97 MD 97

From:

MD 390

To

MD 192

County

Montgomery

Municipality

Description

The MD 97 Montgomery Hills project will evaluate safety and accessibility issues on MD 97. Sidewalks and wide curb lanes to accommodate bicycles will be included where appropriate.

Project ID	Title	Cost (\$M)	Complete
CE2620	Naval Support Activity Bethesda BRAC Improvements	\$77.0	2022

Primary Project Type

Road - Intersection improvement

Location Type:

Various Locations

Route Facility

Intersections near Naval Support Activity
Bethesda

From:

To

County

Montgomery

Municipality

Description

Design and construct intersection improvements at key locations along access routes to Bethesda Naval Center. Bicycles and pedestrian facilities will be provided where appropriate.

Project ID	Title	Cost (\$M)	Complete
CE1202	US 1 Corridor	\$116.0	2030

Primary Project Type

Road - Recons/Rehab/Maintenanc

Location Type:

Road Segment

Route Facility

US 1 US 1

From:

College Avenue

To

I 95 /I 495

County

Prince Georges

Municipality

Description

Reconstruct US 1 from College Avenue to I-95/I-495. Project consists of a four-lane divided roadway with a median, bike lane, and sidewalks.

Project ID	Title		Cost (\$M)	Complete
CE1204	US 1/MD 201 Corridor		\$1,034.0	2045
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
US 1	US 1	I 95 /I 495	North of Muirkirk Road	
County		Municipality		
Prince Georges				
Description		Study of capacity improvements on MD 201 and US 1 from I-95/I-495 (Capital Beltway) to north of Muirkirk Road (7.1 miles). Bicycle and pedestrian access will be considered as part of this project.		
Project ID	Title		Cost (\$M)	Complete
CE3567	US 15 Corridor (North of Frederick City)		\$426.0	2045
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
US 15	US 15	MD 26	North of Biggs Ford Road	
County		Municipality		
Frederick		City of Frederick		
Description		US 15 upgrades to include replacement of at-grade US 15 intersection at Biggs Ford Road with grade-separated interchange.		
Project ID	Title		Cost (\$M)	Complete
CE3566	US 15/US 40 Corridor - Frederick City		\$414.0	2030
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
US 15	US 15 /US 40	I 70	MD 26	
County		Municipality		
		City of Frederick		
Description		US 15/US 40 upgrades through the City of Frederick to include widening to three lanes in each direction.		

Project ID	Title	Cost (\$M)	Complete
CE1197	US 29 Corridor	\$6,460.0	2045

Primary Project Typ

Road - Interchange improvement

Location Tyhpe:

Interchange

Route Facility

US 29 US 29

From:

Sligo Creek Parkway

To

Howard County line/Patuxent River

County

Montgomery

Municipality

Description

Design and construction of interchanges at Stewart Lane, Tech Road/Industrial Parkway, Musgrove Road/Fairland Road, Greencastle Road, and Blackburn Road. Upgrades based on 1995 US 29 corridor study, which studied US 29 from north of MD 650 to Howard County Line. This study resulted in previously completed upgrades including grade-separation at Randolph Road/Cherry Hill Road, Briggs Cheney Road, MD 198, and Dustin Road and US 29 realignment at Burtonsville.

Project ID	Title	Cost (\$M)	Complete
CE1619	US 301 Corridor (Bowie)	\$449.0	2035

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

US 301 US 301

From:

I 595 /US 50

To

North of Mount Oak Road

County

Prince Georges

Municipality

Description

Upgrade and widen US 301 from north of Mount Oak Road to I-595 (US 50). Construct an interchange with a service road at MD 197. Upgrade MD 197 from US 301 to Mitchellville Road.

Project ID	Title	Cost (\$M)	Complete
CE2239	US 301 Corridor (Waldorf)	\$199.0	2040

Primary Project Typ

Road - Interchange improvement

Location Tyhpe:

Road Segment

Route Facility

US 301 US 301

From:

MD 5 (north junction)

To

Smallwood Road

County

Charles, Prince Georges

Municipality

Description

Study to analyze US 301 upgrades through Waldorf between MD 5 (north junction) and Smallwood Road; including grade separated interchanges at MD 5 (south junction) and at MD 228/MD 5 Business.

Project ID	Title		Cost (\$M)	Complete			
CE3425	US 50 Corridor		\$29.0	2035			
Primary Project Typ		Location Tyhpe:					
Road - Other Improvement		Road Segment					
Route	Facility	From:	To				
US 50	US 50	District of Columbia line	I 95 /I 495				
County		Municipality					
Prince Georges							
Description							
Study examining US 50 capacity and operational improvements between the Maryland/District of Columbia line and I-95/I-495.							
Local Street							
Project ID	Title		Cost (\$M)	Complete			
T6076	Bikeshare Program-INFORMATIONAL		\$1.5				
Primary Project Typ		Location Tyhpe:					
Bike/Ped		Various Locations					
Route	Facility	From:	To				
County		Municipality					
Description							
Bike sharing is a form of transit that makes self-service bicycles publicly available for short-term use. MDOT provided a competitive grant program to Maryland localities wishing to study and/or implement Bike sharing. The following funding was awarded: Frederick City Feasibility Study \$12,000 Prince Georges County Feasibility Study - \$40,000 The City of Greenbelt Feasibility Study - \$20,000 Montgomery County Bikeshare - \$1,008,000 University of Maryland - \$187,500 City of College Park - \$187,500							
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:							
Project ID	Title		Cost (\$M)	Complete			
T6647	Riverdale Road Anacostia River Branch Bridge Replacement		\$9.5	2025			
Primary Project Typ		Location Tyhpe:					
Bridge - Replace		Bridge					
Route	Facility	From:	To				
	Riverdale Road at Anacostia River Branch						
County		Municipality					
Charles, Frederick, Montgomery, Prince Georges		City of Frederick, City of Rockville					
Description							
Replacement of Riverdale Road bridge 16069 over the Northeast Branch of the Anacostia River.							
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$8,466,000							

Non-Infrastructure

Project ID	Title	Cost (\$M)	Complete
T3566	Commuter Connections Program	\$7.4	

Primary Project Typ

TERMs

Location Tyhpe:

Other

Route

Facility

From:

To

Areawide

County

Municipality

Charles, Frederick, Montgomery, Prince Georges[Description](#)

The Commuter Connections Program works to reduce the number of vehicle miles traveled, vehicle trips, and emissions. This program provides funding to TPB's Commuter Connections program for the following projects: Commuter Operations Center, Guaranteed Ride Home, marketing, monitoring and evaluation, employer outreach, and the telecommute project.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$7,389,000**

Roadways

Project ID	Title	Cost (\$M)	Complete
T2944	301 South Corridor Transportation Study	\$3,805.3	2045

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

Facility

From:

To

US 301 US 301**Potomac River****I 595**

County

Municipality

Charles, Prince Georges[Description](#)

A multimodal corridor study considering US 301 corridor highway and transit improvements from the Potomac River to I-595/US 50/MD 3.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3081	Areawide Bridge Replacement and Rehabilitation	\$192.5	

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Bridge

Route

Facility

From:

To

Areawide

County

Municipality

Charles, Frederick, Montgomery, Prince Georges**City of Frederick, City of Rockville**[Description](#)

Ongoing program to provide major upgrades to and maintenance of structures on MDOT SHA highways. These are non-capacity improvements that may include but are not limited to structural replacements, deck rehabilitation, superstructure replacements, parapet reconstruction, cleaning and painting, and general maintenance.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$192,527,000**

Project ID	Title	Cost (\$M)	Complete
T3085	Areawide Congestion Management	\$80.4	

Primary Project Type

Road - CMAQ

Location Type:

Not Location Specific

Route

Facility

Areawide

From:

To

County

Charles, Frederick, Montgomery, Prince Georges

Municipality

City of Frederick, City of Rockville

Description

Ongoing program to provide traffic control, management, and monitoring on MDOT SHA highways. These are non-capacity improvements that may include but are not limited to variable message signs, video for traffic management (CCTV), traffic management detectors, signal systemization and remote timing, permanent congestion monitoring systems employed by the CHART program, deployment of local jurisdiction intelligent transportation system (ITS) projects, and the development of park-and-ride facilities.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$80,423,730**

Project ID	Title	Cost (\$M)	Complete
T3038	Areawide Environmental Projects	\$188.4	

Primary Project Type

Environmental Only Project

Location Type:

Not Location Specific

Route

Facility

Areawide

From:

To

County

Charles, Frederick, Montgomery, Prince Georges

Municipality

City of Frederick, City of Rockville

Description

Ongoing program to provide environmental and aesthetic improvements on MDOT SHA highways. These are non-capacity improvements that may include but are not limited to noise abatement, wetlands, reforestation, landscaping, scenic beautification, and pedestrian or bicycle facilities.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$188,414,000**

Project ID	Title	Cost (\$M)	Complete
T3082	Areawide Resurfacing and Rehabilitation	\$546.9	

Primary Project Type

Road - Resurface

Location Type:

Not Location Specific

Route

Facility

From:

To

Areawide

County

Charles, Frederick, Montgomery, Prince Georges

Municipality

City of Frederick, City of Rockville[Description](#)

Ongoing program to provide periodic resurfacing and upgrading or auxiliary features on MDOT SHA highways. These are non-capacity improvements that may include but are not limited to milling, patching, sealing, and resurfacing of existing deteriorated MDOT SHA roadways. Other improvements, including ADA improvements and guardrails, may be included where incidental to other resurfacing improvements.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$546,942,000**

Project ID	Title	Cost (\$M)	Complete
T3084	Areawide Safety and Spot Improvements	\$212.6	

Primary Project Type

Road - Other Improvement

Location Type:

Not Location Specific

Route

Facility

From:

To

Areawide

County

Charles, Frederick, Montgomery, Prince Georges

Municipality

City of Frederick, City of Rockville[Description](#)

Ongoing program to provide localized improvements to address safety and/or operational issues on MDOT SHA highways. These are highway improvements that may include but are not limited to bypass lanes, acceleration and deceleration lanes, turn lanes, rail crossings, intersection realignment, geometric improvements, safety improvements including bridge, bicycle, and pedestrian safety improvements, pavement markers, ADA improvements, guardrails, and roundabouts. Other improvements, including slope repairs, drainage improvements, and joint sealing, may be included where incidental to other safety improvements.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$212,621,000**

Project ID	Title	Cost (\$M)	Complete
T2710	Areawide Transportation Alternatives	\$27.9	

Primary Project Type

Enhancement

Location Type:

Not Location Specific

Route

Facility

Areawide

From:

To

County

Charles, Frederick, Montgomery, Prince Georges

Municipality

City of Frederick, City of Rockville

Description

Ongoing program to expand travel choices and enhance the transportation experience by improving the cultural, historic, and environmental aspects of Maryland's transportation infrastructure. These projects may include but are not limited to pedestrian and/or bicycle facilities; rehabilitation of historic transportation facilities, including railroad facilities and canals; conversion and use of abandoned railway corridors; archaeological activities related to transportation impacts; and mitigation of water pollution due to highway runoff. This program includes also Safe Routes to School and National Recreational Trails projects.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$27,918,000**

Project ID	Title	Cost (\$M)	Complete
T3083	Areawide Urban Reconstruction	\$31.5	2026

Primary Project Type

Road - Recons/Rehab/Maintenanc

Location Type:

Not Location Specific

Route

Facility

Areawide

From:

To

County

Charles, Frederick, Montgomery, Prince Georges

Municipality

City of Frederick, City of Rockville

Description

Ongoing program to provide roadway rehabilitation on MDOT SHA highways in municipalities and urban areas. These are non-capacity improvements that may include but are not limited to drainage improvements, curbs and gutters, pavement milling and resurfacing, sidewalks, streetscaping, signage, and marking and lighting improvements.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$31,500,000**

Project ID	Title	Cost (\$M)	Complete
T6444	I-270 Innovative Congestion Management	\$131.4	2023

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route

Facility

I 270 I 270

From:

I 495

To

I 70

County

Frederick, Montgomery

Municipality

City of Rockville

Description

Pilot implementation of active traffic management (ATM) and innovative congestion mitigation (ICM) tools to reduce congestion on I-270, including the east and west spurs (31.5 miles). Includes requisite noise abatement.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$8,625,000**

Project ID	Title		Cost (\$M)	Complete
T11579	I-70 South Mountain Welcome Center Truck Parking		\$7.8	2025
Primary Project Typ		Location Tyhpe:		
Freight Movement		Point Location		
Route	Facility	From:	To	
I 70	South Mountain Welcome Center			
County	Municipality			
Frederick				
Description				
Adding 25 new truck parking spaces to augment existing 49 truck parking spaces at the eastbound and westbound I-70 South Mountain Welcome Centers.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$6,500,000				

Project ID	Title		Cost (\$M)	Complete
T6411	I-70/US 40 at MD 144FA, Meadow Road, and Old National Pike Interchange Construction		\$21.5	2023
Primary Project Typ		Location Tyhpe:		
Road - Interchange improvement		Interchange		
Route	Facility	From:	To	
I 70	I 70		MD 144FA, Meadow Road, and Old National Pike	
County	Municipality			
Frederick				
Description				
Construction of two missing I-70/US 40 ramp movements at MD 144FA, Meadow Road, and Old National Pike, including entry ramp to westbound I-70/US 40 and exit ramp from eastbound I-70/US 40.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$4,250,000				

Project ID	Title		Cost (\$M)	Complete
T2894	I-95/I-495 at Greenbelt Metro Station Interchange Construction		\$124.0	2030
Primary Project Typ		Location Tyhpe:		
Road - Interchange improvement		Interchange		
Route	Facility	From:	To	
I 95	I 95 at Greenbelt Metro Station			
County	Municipality			
Prince Georges				
Description				
Construction of a full I-95/I-495 interchange at Greenbelt Metro Station.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$2,000,000				

Project ID	Title	Cost (\$M)	Complete
T6656	I-95/I-495 Good Luck Road Bridges Replacement	\$2.4	2025

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route Facility

I 95 I 95 / I 495 at Good Luck Road

From:

To

County

Prince Georges

Municipality

Description

Replacement of I-95/I-495 bridges 1614305 and 1614306 over Good Luck Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$677,000**

Project ID	Title	Cost (\$M)	Complete
T11578	I-95/I-495 Interchange at Medical Center Drive	\$10.0	2025

Primary Project Typ

Study/Planning/Research

Location Tyhpe:

Interchange

Route Facility

I 495 Capitol Beltway

From:

To

@ Medical Center Drive

County

Prince Georges

Municipality

Description

The project is an upgrade to the existing I-95/I-495 interchange at Medical Center Drive (formerly Arena Drive). The project will address existing congestion and will accommodate increasing traffic volumes associated with future growth in the Largo Town Center and the University of Maryland Capital Region Medical Center.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$9,405,000**

Project ID	Title	Cost (\$M)	Complete
T6522	I-95/I-495 MD 214 Bridges Replacement	\$33.6	2022

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route Facility

I 95 I 95 / I 495 at MD 214

From:

To

County

Charles, Frederick, Montgomery, Prince Georges

Municipality

City of Frederick, City of Rockville

Description

Replacement of I-95/I-495 bridges 1615305 and 1615306 over MD 214.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$276,000**

Project ID	Title		Cost (\$M)	Complete
T6651	I-95/I-495 MD 4 Bridges Replacement		\$36.2	2025
Primary Project Typ		Location Tyhpe:		
Bridge - Replace		Bridge		
Route	Facility	From:	To	
I 95	I 95 /I 495 at MD 4			
County		Municipality		
Prince Georges				
Description				
Replacement of I-95/I-495 bridges 1615905 and 1615906 over MD 4.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				
Project ID	Title		Cost (\$M)	Complete
T6438	I-95/I-495 Suitland Parkway Bridges Replacement		\$41.9	2022
Primary Project Typ		Location Tyhpe:		
Bridge - Replace		Bridge		
Route	Facility	From:	To	
I 95	I 95 /I 495 at Suitland Parkway			
County		Municipality		
Charles, Frederick, Montgomery, Prince Georges		City of Frederick, City of Rockville		
Description				
Replacement of I-95/I-495 bridges 1616005 and 1616006 over Suitland Parkway.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,089,000				
Project ID	Title		Cost (\$M)	Complete
T6437	I-95/I-495 Suitland Road Bridges Replacement		\$36.4	2022
Primary Project Typ		Location Tyhpe:		
Bridge - Replace		Bridge		
Route	Facility	From:	To	
I 95	I 95 /I 495 at Suitland Road			
County		Municipality		
Charles, Frederick, Montgomery, Prince Georges		City of Frederick, City of Rockville		
Description				
Replacement of I-95/I-495 bridges 1616205 and 1616206 and Suitland Road.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title	Cost (\$M)	Complete
T6533	MD 117 Phases 2-3 Highway Reconstruction - PE ONLY	\$77.5	2030

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Intersection

Route Facility

MD 117 MD 117 Clopper Road/Diamond Avenue

From:

I 270

To

Metropolitan Grove Road

County

Montgomery

Municipality

Description

Construct intersection capacity improvements from I-270 to Metropolitan Grove Road and Metropolitan Grove Road to the west of Game Preserve Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3057	MD 124 Phases 2-3 Highway Reconstruction	\$120.0	2035

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

MD 124 MD 124

From:

Midcounty Highway

To

Warfield Road

County

Montgomery

Municipality

Description

Reconstruction of MD 124 from Midcounty Highway to south of Airpark Road and north of Fieldcrest Road to Warfield Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$4,898,000

Project ID	Title	Cost (\$M)	Complete
T11600	MD 17 Burkittsville Road Bridge Replacement over Middle Creek	\$5.9	2025

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route Facility

MD 17, Burkittsville Road

From:

To

County

Municipality

Description

Replacement of MD 17 bridge# 1001900 over Middle Creek

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$5,155,000

Project ID	Title		Cost (\$M)	Complete
T6489	MD 180 Highway Reconstruction		\$19.3	2022
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
MD 180	MD 180	I-70 (Western Crossing)	I-70 (Eastern Crossing)	
County		Municipality		
Frederick		City of Frederick		
Description				
		Reconstruct MD 180 from 600 feet north of the western crossing of I-70 to the eastern crossing of I-70, including constructing second MD 180 bridge over US 15/US 340.		
		This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:		
Project ID	Title		Cost (\$M)	Complete
T6071	MD 185 at Jones Bridge Road and Kensington Parkway Phase 3 BRAC Intersection Improvements		\$18.0	2024
Primary Project Typ		Location Tyhpe:		
Road - Intersection improvement		Intersection		
Route	Facility	From:	To	
MD 185	MD 185 at Jones Bridge Road and Kensington Parkway			
County		Municipality		
Montgomery				
Description				
		Construction of MD 185 Phase 3 intersection improvements at Jones Bridge Road and Kensington Parkway to improve access to Naval Support Activity Bethesda.		
		This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$7,247,000		
Project ID	Title		Cost (\$M)	Complete
T4887	MD 197 Highway Reconstruction - PE ONLY		\$6.7	2025
Primary Project Typ		Location Tyhpe:		
Preliminary Engineering/Environm		Road Segment		
Route	Facility	From:	To	
MD 197	MD 197	Kenhill Drive	MD 450	
County		Municipality		
Prince Georges				
Description				
		Widening of and upgrades to MD 197 to become a multilane freeway between Kenhill Drive and MD 450.		
		This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,848,000		

Project ID	Title	Cost (\$M)	Complete
T6526	MD 201 Highway Construction - PE ONLY	\$682.7	2045

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route Facility

MD 201 MD 201 and US 1

From:

I 95

To

Muirkirk Road

County

Prince Georges

Municipality

Description

Study of capacity improvements on MD 201 and US 1 from I-95/I-495 to north of Muirkirk Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6527	MD 202 at Brightseat Road Intersection Improvements	\$15.5	2045

Primary Project Type

Road - Intersection improvement

Location Type:

Intersection

Route Facility

MD 202 MD 202 at Brightseat Road

From:

MD 202

To

Brightseat Road

County

Prince Georges

Municipality

Description

Intersection improvements at MD 202 and Brightseat Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T4879	MD 210 at Kerby Hill Road/Livingston Road Interchange Construction	\$130.9	2022

Primary Project Type

Road - Interchange improvement

Location Type:

Interchange

Route Facility

MD 210 MD 210 at Kerby Hill Road/Livingston Road

From:

To

County

Prince Georges

Municipality

Description

Construction of a new MD 210 interchange at Kerby Hill Road/Livingston Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$16,173,000

Project ID	Title		Cost (\$M)	Complete
T6524	MD 210 Corridor Study		\$453.8	2040
Primary Project Type		Location Type:		
Study/Planning/Research		Road Segment		
Route	Facility	From:	To	
MD 210	MD 210	I 95	MD 228	
County		Municipality		
Prince Georges				
Description				
Multimodal transportation study to relieve traffic congestion along MD 210 and improve intersections from I-95/I-495 to MD 228.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:		\$9,990,000		
Project ID	Title		Cost (\$M)	Complete
T6652	MD 210 Henson Creek Bridge Replacement		\$1.8	2025
Primary Project Type		Location Type:		
Bridge - Replace		Bridge		
Route	Facility	From:	To	
MD 210	MD 210 at Henson Creek			
County		Municipality		
Charles, Frederick, Montgomery, Prince Georges		City of Frederick, City of Rockville		
Description				
Replacement of MD 210 bridge 16036 over Henson Creek.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:		\$220,000		
Project ID	Title		Cost (\$M)	Complete
T6529	MD 212A Urban Reconstruction		\$29.3	2024
Primary Project Type		Location Type:		
Road - Recons/Rehab/Maintenanc		Road Segment		
Route	Facility	From:	To	
MD 212	MD 212 A	Pine Street	US 1	
County		Municipality		
Prince Georges				
Description				
MD 212A reconstruction from Pine Street to US 1.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:		\$3,358,000		

Project ID	Title	Cost (\$M)	Complete
T6660	MD 223 at Dower House Road Intersection Improvements	\$5.3	2022

Primary Project Typ

Road - Intersection improvement

Location Tyhpe:

Intersection

Route Facility

MD 223 MD 223 at Dower House Road

From:

To

County

Prince Georges

Municipality

Description

MD 223 geometric improvements at Dower House Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,338,000**

Project ID	Title	Cost (\$M)	Complete
T4885	MD 223 Corridor Study	\$227.0	2045

Primary Project Typ

Study/Planning/Research

Location Tyhpe:

Road Segment

Route Facility

MD 223 MD 223

From:

Steed Road

To

MD 4

County

Prince Georges

Municipality

Description

A study to establish a long-term MD 223 corridor vision between Steed Road and MD 4.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6689	MD 225, Hawthorne Road, Bridge Replacement	\$3.9	2025

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route Facility

MD 225 MD 5 over Mattawoman Creek

From:

To

County

Charles, Frederick, Montgomery, Prince Georges

Municipality

City of Frederick, City of Rockville

Description

Replacement of MD 5 Bridge 08021 over Mattawoman Creek

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$2,598,000**

Project ID	Title	Cost (\$M)	Complete
T6649	MD 26 Westbound Monocacy River Bridge Replacement	\$1.8	2025

Primary Project Type

Bridge - Replace

Location Type:

Bridge

Route

Facility

MD 26

MD 26 at the Monocacy River

From:

To

County

Charles, Frederick, Montgomery, Prince Georges

Municipality

City of Frederick, City of Rockville

Description

Replacement of westbound MD 26 bridge 10025 over the Monocacy River.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3476	MD 28/MD 198 Corridor Study	\$287.4	2045

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route

Facility

MD 28

MD 28 Norbeck Road and MD 198

From:

MD 97

To

I 95

County

Montgomery, Prince Georges

Municipality

Description

A study examining capacity improvements in the MD 28/MD 198 corridor between MD 97 and I-95.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6394	MD 3 Corridor Study	\$905.6	2035

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route

Facility

MD 3

MD 3

From:

I 595

To

Prince George's/Anne Arundel
County line

County

Prince Georges

Municipality

Description

A study to examine MD 3 safety and capacity upgrades between I-595/US 50/US 301 and I-97/MD 32. Portion of this study in Prince George's County is within the TPB planning area; portion in Anne Arundel County is within the BRTB planning area.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6392	MD 337 at MD 218 and I-95/I-495 Northbound Exit BRAC Intersection Improvements	\$19.3	2022

Primary Project Typ

Road - Intersection improvement

Location Tyhpe:

Road Segment

Route Facility

MD 337 MD 337

From:

MD 218

To

I 95 Northbound Exit

County

Prince Georges

Municipality

Description

Construction of MD 337 intersection improvements at MD 218 and at I-95/I-495 northbound exit ramp to improve access to Joint Base Andrews.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6518	MD 355 Bennett Creek Bridge Replacement	\$20.1	2023

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route Facility

MD 355 MD 355 at Bennett Creek

From:

To

County

Frederick

Municipality

Description

Replacement of MD 355 bridge 10086 over Bennett Creek.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$385,000

Project ID	Title	Cost (\$M)	Complete
T6486	MD 355 CSX Old Main Line Subdivision Bridge Replacement	\$14.3	2023

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route Facility

MD 355 MD 355 at CSX Old Main Line Subdivision

From:

To

County

Charles, Frederick, Montgomery, Prince Georges

Municipality

City of Frederick, City of Rockville

Description

Replacement of MD 355 bridge 10084 over the CSX Old Main Line Subdivision.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,653,000

Project ID	Title	Cost (\$M)	Complete
T6532	MD 355 Little Bennett Creek Bridge Replacement	\$10.5	2022
Primary Project Typ Bridge - Replace		Location Tyhpe: Bridge	
Route	Facility	From:	To
MD 355	MD 355 at Little Bennett Creek		
County	Municipality		
Montgomery			
Description Replacement of MD 355 Bridge 15053 over Little Bennett Creek.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:			
Project ID	Title	Cost (\$M)	Complete
T6620	MD 355 Monocacy River Bridge Replacement	\$2.4	2024
Primary Project Typ Bridge - Replace		Location Tyhpe: Bridge	
Route	Facility	From:	To
MD 355	MD 355 at the Monocacy River		
County	Municipality		
Frederick			
Description Replacement of MD 355 bridge 10085 over the Monocacy River.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:			
Project ID	Title	Cost (\$M)	Complete
T6646	MD 382 Charles Branch Bridge Replacement	\$5.8	2024
Primary Project Typ Bridge - Replace		Location Tyhpe: Bridge	
Route	Facility	From:	To
MD 382	MD 382 at Charles Branch		
County	Municipality		
Prince Georges	Upper Marlboro		
Description Replacement of MD 382 bridge 16061 over Charles Branch.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$4,241,000			

Project ID	Title	Cost (\$M)	Complete
T3547	MD 4 at Suitland Parkway Interchange Construction	\$222.5	2022

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Interchange

Route Facility
MD 4 MD 4 at Suitland Parkway

From: To

County
Prince Georges

Municipality

Description
Construction of a new MD 4 interchange at Suitland Parkway.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$107,635,649**

Project ID	Title	Cost (\$M)	Complete
T6653	MD 4 Bridges over MD 717 and Race Track Road Replacement	\$22.8	2025

Primary Project Typ
Bridge - Replace

Location Tyhpe:
Bridge

Route Facility
MD 4 MD 4 at MD 717 and Race Track Road

From: To
MD 717 Race Track Road

County
Charles, Frederick, Montgomery, Prince Georges

Municipality
City of Frederick, City of Rockville

Description
Replacement of MD 4 bridges 1609903 and 1609904 over MD 717 and bridges 1610803 and 1610804 over Marlboro Race Track Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$21,749,000**

Project ID	Title	Cost (\$M)	Complete
T6523	MD 4 Corridor Study	\$370.3	2040

Primary Project Typ
Road - Add Capacity/Widening

Location Tyhpe:
Road Segment

Route Facility
MD 4 MD 4

From: To
MD 223 I 95

County
Prince Georges

Municipality

Description
A study to upgrade MD 4 to a multilane freeway from MD 223 to I-95/I-495.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T3150	MD 450 Highway Reconstruction - PE Only		\$37.6	2030
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
MD 450	MD 450	Stonybrook Drive	West of MD 3	
County		Municipality		
Prince Georges				
Description				
Widening of MD 450 to a multilane divided highway from Stonybrook Drive to west of MD 3.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title		Cost (\$M)	Complete		
T6619	MD 464 Little Catoctin Creek Bridge Replacement		\$5.3	2021		
Primary Project Typ		Location Tyhpe:				
Bridge - Replace		Bridge				
Route	Facility	From:	To			
MD 464	MD 464 at Little Catoctin Creek					
County		Municipality				
Charles, Frederick, Montgomery, Prince Georges		City of Frederick, City of Rockville				
Description						
Replace bridge 10090 over Little Catoctin Creek.						
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:						

Project ID	Title		Cost (\$M)	Complete		
T6591	MD 478 Potomac River Branch Bridge Replacement		\$6.9	2022		
Primary Project Typ		Location Tyhpe:				
Bridge - Replace		Bridge				
Route	Facility	From:	To			
MD 478	MD 478 at Potomac River Branch					
County		Municipality				
Charles, Frederick, Montgomery, Prince Georges		City of Frederick, City of Rockville				
Description						
Replacement of MD 478 bridge 10089 over a branch of the Potomac River.						
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:						

Project ID	Title	Cost (\$M)	Complete
T6683	MD 5 and MD 637 Urban Reconstruction	\$23.6	2022

Primary Project Type

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Road Segment

Route Facility

MD 5 MD 5

From:

Southern Avenue

To

Curtis Drive

County

Prince Georges

Municipality

Description

MD 5 reconstruction from Southern Avenue to Curtis Drive, and MD 637 reconstruction from Suitland Parkway to MD 5.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,832,000**

Project ID	Title	Cost (\$M)	Complete
T6395	MD 5 at Linda Lane Intersection Improvements	\$43.7	2030

Primary Project Type

Road - Intersection improvement

Location Tyhpe:

Point Location

Route Facility

MD 5 MD 5 at Linda Lane

From:

To

County

Prince Georges

Municipality

Description

Construction of MD 5 intersection improvements at Linda Lane.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3469	MD 5 Corridor Study	\$545.1	2030

Primary Project Type

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

MD 5 MD 5

From:

US 301

To

I 95

County

Prince Georges

Municipality

Description

A study to upgrade MD 5 to a multilane freeway from US 301 at T.B. to north of I-95/I-495.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T6590	MD 500 at Mount Rainier/Chillum Urban Reconstruction		\$23.4	2021
Primary Project Typ		Location Tyhpe:		
Road - Recons/Rehab/Maintenanc		Road Segment		
Route	Facility	From:	To	
MD 500	MD 500	MD 208	Eastern Avenue	
County		Municipality		
Prince Georges		Hyattsville		
Description				
Construction of landscaped median with sidewalk and crosswalk improvements from MD 208 to Eastern Avenue.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$2,695,000				

Project ID	Title		Cost (\$M)	Complete
T6654	MD 717 Western Branch Bridge Replacement		\$5.8	2030
Primary Project Typ		Location Tyhpe:		
Bridge - Replace		Bridge		
Route	Facility	From:	To	
MD 717	MD 717 at Western Branch			
County		Municipality		
Prince Georges		Upper Marlboro		
Description				
Replacement of MD 717 bridge 16109 over Western Branch.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$437,000				

Project ID	Title		Cost (\$M)	Complete
T6690	MD 75 over I-70 Bridge Rehabilitation		\$6.8	2025
Primary Project Typ		Location Tyhpe:		
Bridge - Rehab		Bridge		
Route	Facility	From:	To	
MD 75	MD 75 at I-70			
County		Municipality		
Charles, Frederick, Montgomery, Prince Georges		City of Frederick, City of Rockville		
Description				
Rehabilitation of MD 75 bridge 105600 over I-70				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$5,930,000				

Project ID	Title	Cost (\$M)	Complete
T6648	MD 77 Beaver Branch Bridge Replacement	\$6.8	

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route Facility

MD 77 MD 77 at Beaver Branch

From:

To

County

Frederick

Municipality

Description

Replacement of MD 77 bridge 10054 over Beaver Branch.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6483	MD 85 Phase 1 Highway Reconstruction	\$91.1	2023

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

MD 85 MD 85

From:

Crestwood Boulevard/Shockley Drive

To

Spectrum Drive

County

Frederick

Municipality

Description

Widen to a multilane divided highway from Crestwood Boulevard /Shockley Drive to Spectrum Drive, including MD 85 interchange reconstruction at I-270 and I-270 dual bridges replacement.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$289,000**

Project ID	Title	Cost (\$M)	Complete
T3106	MD 97 at Brookeville Highway Construction	\$44.0	2023

Primary Project Typ

Road - New Construction

Location Tyhpe:

Road Segment

Route Facility

MD 97 MD 97

From:

Gold Mine Road

To

North of Brookeville

County

Montgomery

Municipality

Description

Construction of new two-lane MD 97 from south of Brookeville, near Gold Mine Road, to north of Brookeville.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$5,095,000**

Project ID	Title		Cost (\$M)	Complete			
T6535	MD 97 at MD 28 Interchange Construction - PE ONLY		\$122.5	2035			
Primary Project Typ		Location Tyhpe:					
Road - Interchange improvement		Interchange					
Route	Facility	From:	To				
MD 97	MD 97 at MD 28						
County		Municipality					
Montgomery							
Description							
Construction of new MD 97 interchange at MD 28. Bicycle and pedestrian accommodations will be included where appropriate.							
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:							
Project ID	Title		Cost (\$M)	Complete			
T5420	MD 97 at Montgomery Hills Highway Reconstruction		\$45.0	2024			
Primary Project Typ		Location Tyhpe:					
Road - Add Capacity/Widening		Road Segment					
Route	Facility	From:	To				
MD 97	MD 97	MD 390	MD 192				
County		Municipality					
Montgomery							
Description							
A study to evaluate and design to address MD 97 safety and accessibility improvements between MD 390 and MD 192.							
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$5,184,085							
Project ID	Title		Cost (\$M)	Complete			
T11583	Op Lanes Maryland Phase 1 North, I-270 from I-370 to I-70		\$3,100.0	2030			
Primary Project Typ		Location Tyhpe:					
Road - HOV/Managed Lanes		Road Segment					
Route	Facility	From:	To				
	I 270	I 370	I 70				
County		Municipality					
Description							
Component of Op Lanes Maryland Program including planning and preliminary design funding for Phase 1 North.							
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$85,000,000							

Project ID	Title	Cost (\$M)	Complete
T11582	Op Lanes Maryland Phase 1 South, New American Legion Bridge and I-270 to I-370	\$3,725.0	2030

Primary Project Typ

Road - HOV/Managed Lanes

Location Tyhpe:

Road Segment

Route Facility

I 270 I-495/I-270/I-270 Y

From:

I-495 - S. GW Mem. Pkwy to w. of MD 187

To

I-270 - I-495 to north of I-370

County

Montgomery

Municipality

Description

Component of Op Lanes Maryland program, to include two high-occupancy toll (HOT) lanes in each direction along I-495 from south of George Washington Memorial Parkway to west of MD 187 and along I-270 from I-495 to north of I-370. This includes the remaining planning, design, and construction funding for Phase 1 South.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$2,574,000,000**

Project ID	Title	Cost (\$M)	Complete
T6432	Op Lanes Maryland Program Development	\$142.3	2030

Primary Project Typ

Road - HOV/Managed Lanes

Location Tyhpe:

Road Segment

Route Facility

I 270 I 270 /I 270Y /I 495

From:

I 70 to I 495 and

To

American Legion to Woodrow Wilson bridges

County

Frederick, Montgomery, Prince Georges

Municipality

Description

Planning, preliminary design, and full delivery stream restoration activities in support of the Op Lanes Maryland program, which will implement high-occupancy toll (HOT) lanes along I-270, between I-495 and I-70, and I-495, between the American Legion and Woodrow Wilson bridges.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,900,000**

Project ID	Title	Cost (\$M)	Complete
T3108	US 1 Highway Reconstruction	\$52.9	2024

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Road Segment

Route Facility

US 1 US 1

From:

College Avenue

To

MD 193

County

Prince Georges

Municipality

Description

Reconstruction of US 1 between College Avenue and MD 193.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$20,030,000**

Project ID	Title	Cost (\$M)	Complete
T6528	US 1 Phases 2-3 Highway Reconstruction	\$58.1	2030

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Road Segment

Route Facility

US 1 US 1

From:

MD 193

To

I 95 / I 495

County

Prince Georges

Municipality

Description

Reconstruction of US 1 between MD 193 and I-95/I-495

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6431	US 15/US 40 Frederick Freeway Highway Reconstruction	\$149.7	2030

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

US 15 US 15 / US 40

From:

I 270

To

N. of Briggs Road

County

Frederick

Municipality

City of Frederick

Description

Planning and preliminary engineering project to improve safety and mainline operations along US 15 and US 40 from I-270 to north of Biggs Ford Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$9,638,000

Project ID	Title	Cost (\$M)	Complete
T3641	US 29 at Musgrove and Fairland Roads Interchange Construction	\$92.5	2045

Primary Project Typ

Road - Interchange improvement

Location Tyhpe:

Interchange

Route Facility

US 29 US 29 at Musgrove and Fairland roads

From:

To

County

Montgomery

Municipality

Description

Construction of a new US 29 interchange at Musgrove and Fairland roads.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6389	US 29 at Stewart Lane, Tech Road, Greencastle Road, and Blackburn Road Interchange Construction	\$428.3	2045

Primary Project Typ

Road - Interchange improvement

Location Tyhpe:

Interchange

Route

US 29

Facility

US 29 at Stewart Lane, Tech Road, Greencastle Road, and Blackburn Road

From:

To

County

Montgomery

Municipality

Description

Construction of new US 29 interchanges at Stewart Lane, Tech Road, Greencastle Road, and Blackburn Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T4881	US 301 at MD 228/MD 5BU Interchange Construction	\$250.9	2030

Primary Project Typ

Road - Interchange improvement

Location Tyhpe:

Interchange

Route

US 301

Facility

US 301 at MD 228/MD 5BU

From:

To

County

Charles, Prince Georges

Municipality

Description

A study examining alternatives for a grade separated interchange at US 301 at MD 228/MD 5 Business.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6635	US 301 at MD 5 Interchange Construction	\$41.3	2030

Primary Project Typ

Road - Interchange improvement

Location Tyhpe:

Interchange

Route

US 301

Facility

US 301 at MD 5 (Mattawoman-Beantown Road)

From:

To

County

Charles, Prince Georges

Municipality

Description

Construction of a new flyover interchange on US 301 at MD 5 (Mattawoman-Beantown Road).

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T6525	US 301 Highway Reconstruction		\$417.5	2030
Primary Project Type		Location Type:		
Road - Recons/Rehab/Maintenanc		Road Segment		
Route	Facility	From:	To	
US 301	US 301 at MD 197	US 301 Mount Oak Road to US 50	MD 197 US 301 to Mitchellville Road	
County		Municipality		
Prince Georges				
Description				
Upgrade and widening of US 301, from Mount Oak Road to US 50, and MD 197 from US 301 to Mitchellville Road. Bicycles and pedestrians will be accommodated where appropriate.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				
Project ID	Title		Cost (\$M)	Complete
T6398	US 50 Feasibility Study		\$22.7	2035

Primary Project Type
Study/Planning/Research

Location Type:
Road Segment

Route Facility
US 50 US 50

From:
District of Columbia line

To
MD 704

County
Prince Georges

Municipality

Description
A study to examine I-595/US 50 capacity and operational improvements between the Maryland/District of Columbia line and MD 704.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Montgomery County

Roadways

Project ID	Title	Cost (\$M)	Complete
CE1577	Dorsey Mill Road Bridge over I-270		2030

Primary Project Type

Bridge - New Construction

Location Type:

Road Segment

Route Facility

I 270 I 270

From:

Century Boulevard

To

Milestone Center Drive

County

Montgomery

Municipality

Description

This provides for the planning, design, and construction of a new bridge over I-270 that is designated as I-4. This bridge would connect Century Boulevard on the west side of I-270 with Milestone Center Drive and Observation Drive on the east side.

Project ID	Title	Cost (\$M)	Complete
CE1229	Middlebrook Road Extended Widening	\$16.2	2045

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route Facility

Middlebrook Road Ext.

From:

MD 355

To

M Midcounty Highway

County

Montgomery

Municipality

Description

This project provides for the widening of Middlebrook Road Extended from just east of MD 355 to M-83 to 4 lanes.

Project ID	Title	Cost (\$M)	Complete
CE2912	Platt Ridge Drive Extended	\$4.3	2025

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route

Facility

Platt Ridge Drive

From:

terminus at Jones Bridge Road

To

Montrose Driveway

County

Montgomery

Municipality

Description

This project consists of the northerly extension of existing Platt Ridge Drive from its terminus at Jones Bridge Road, approximately 600 feet through Chevy Chase Local Park, to connect with Montrose Driveway, a street in Chevy Chase Valley (also known as Spring Valley or Chevy Chase Section 9 subdivision.) To minimize impact to the park environment, the road will be of minimal complexity and width. (Pedestrian access will continue to be provided by the existing five-foot sidewalks on both sides of Spring Valley Road.) Vehicular ingress and egress from the Chevy Chase Valley community is currently difficult and will become even more difficult with the predicted increase in traffic from BRAC, especially with construction of a new southbound lane on Connecticut Avenue between I-495 and Jones Bridge Road now proposed by the State Highway Administration. This project will help address the congestion problem.

Project ID	Title	Cost (\$M)	Complete
CE1236	Snouffer School Road North		2021

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route

Facility

Snouffer School Road

From:

MD 124 Centerway Road

To

Alliston Hollow Way

County

Montgomery

Municipality

Description

This project provides for the design, land acquisition and construction of 1,300 linear feet of roadway widening and resurfacing along Snouffer School Road between Centerway Road and Fessenden Lane and a new traffic signal at Alliston Hollow Way, as well as providing for grading for two northern lanes and resurfacing two southern lanes from Fessenden Lane to Alliston Hollow Way. The closed-section roadway typical section consists of two through lanes southbound and one through lane northbound separated by a raised median, an 8-foot shared use path on the northern side, and a 5-foot sidewalk on the southern side within a 100 foot right-of-way. The sidewalk and shared use path will extend 2,500 linear feet from Centerway Road to Alliston Hollow Way. The project will include a bridge for the northbound traffic lanes and replacement of the existing bridge for the southbound traffic lane over Cabin Branch, street lights, storm drainage, stormwater management, and landscaping and utility relocations. This project is needed to meet the existing and future traffic and pedestrian demands in the area. It will improve traffic flow by providing additional traffic lanes and encourage alternative means of mobility through proposed bicycle and pedestrian facilities. A pedestrian impact analysis has been completed for this project.

Transit

Project ID	Title	Cost (\$M)	Complete
CE3765	Bus Rapid Transit: US 29 - Phase 2	\$-00	2030

Primary Project Typ

Transit - BRT

Location Tyhpe:

On Road

Route Facility

From:

To

County

Montgomery

Municipality

Description

This project will add additional transit priority treatments to the corridor to benefit the existing US 29 Flash Service. Treatments would include additional transit signal priority (TSP), dedicated travelways, and other operational enhancements.

Project ID	Title	Cost (\$M)	Complete
CE3764	Great Seneca Transit Network		2026

Primary Project Typ

Location Tyhpe:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

The project will advance the planning, design, and implementation of new premium-transit services to support the Great Seneca Science Corridor and surrounding areas. The project includes new, upgraded transit stations, dedicated bus and bus + bike lanes, transit signal priority, new roadway connections, upgrades to transit centers, purchase of new transit vehicles, as well as pedestrian and bicycle improvements. These transit services will provide frequent and reliable connections between Kentlands, Crown Farm, King Farm, the Universities at Shady Grove, Adventist Shady Grove Hospital, Shady Grove Metro, Rockville, and other key destinations in support of the Great Seneca Science Corridor Master Plan.

Project ID	Title	Cost (\$M)	Complete
CE3424	MD 355 Bus Rapid Transit Study	\$1,080.0	2030

Primary Project Typ

Transit - BRT

Location Tyhpe:

On RoadRoute Facility
MD 355

From:

MD 410

To

Redgrave Place

County

Montgomery

Municipality

City of Rockville

Description

Study will assess the need, desirability, possible alignments, and options for a rapid transit system along the MD 355 (Wisconsin Avenue/Rockville Pike/Hungerford Drive/Frederick Avenue/Frederick Road) corridor between Bethesda Metro Station and Clarksburg.

Project ID	Title	Cost (\$M)	Complete
CE1249	Olney Transit Center	\$1.0	2045

Primary Project Typ
Transit - Park and Ride

Location Tyhpe:
On Road

Route Facility

From: To
MD 108 adjacent to or north of MD 108

County
Montgomery

Municipality

Description

This project includes site selection and acquisition, and subsequent construction of a 150 space park-and-ride facility in the Olney Town Center which will be the terminus of the proposed Georgia Avenue Transitway. Project will include a waiting facility, bus access, and bus transfer capabilities.

Project ID	Title	Cost (\$M)	Complete
CE3662	Randolph Road Corridor Bus Rapid Transit (BRT) Project	\$102.0	2040

Primary Project Typ
Transit - BRT

Location Tyhpe:
On Road

Route Facility
Randolph Road BRT

From: To
US 29 MD 355

County
Montgomery

Municipality

Description

This project provides for the detailed studies and construction related to a Bus Rapid Transit (BRT) line on Randolph Road from the White Flint Metro Station on MD 355 to at Tech Road at US 29. Randolph Road is a commuter corridor with traffic and congestion in the westbound direction in the morning and the eastbound direction in the evening. Major activity centers include White Flint, Glenmont, and the emerging mixed-use center at White Oak. Randolph Road provides important linkages to other BRT corridors and is important for the integrity of the BRT network. A mixed traffic transitway is recommended for this corridor. The County Council approved the Countywide Transit Corridors Functional Master Plan, an amendment to the Master Plan of Highways and Transportation, on November 26, 2013. The amendment authorizes the Department of Transportation to study enhanced transit options and Bus Rapid Transit for 10 transit corridors, including: Georgia Avenue North, Georgia Avenue South, MD 355 North, MD 355 South, New Hampshire Avenue, North Bethesda Transitway, Randolph Road, University Boulevard, US 29, Veirs Mill Road and Corridor Cities Transitway.

Local Street

Project ID	Title	Cost (\$M)	Complete
T3066	Annual Bikeway Program		

Primary Project Type

Bike/Ped

Location Type:

Various Locations

Route

Facility

From:

To

Annual Bikeway Program

County

Municipality

Montgomery[Description](#)

This program provides funds to plan, design and construct bikeways, trails, and directional route signs throughout Montgomery County. The purpose of the program is to develop the bikeway network specified by master plans, and those requested by the community to provide access to commuter rail, mass transit, major employment centers, recreational and educational facilities, and other major attractions. Bikeway types include shared-use paths, designated lanes, and signed shared routes along existing roads. There is a continuing and increasing need to develop a viable and effective bikeway and trail network throughout the County to increase bicyclist safety and mobility, provide an alternative to the use of automobiles, reduce traffic congestion, reduce air pollution, conserve energy, enhance quality of life, provide recreational opportunities, and encourage healthy life styles.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3680	Bethesda Bikeway and Pedestrian Facilities	\$-00	2027

Primary Project Type

Bike/Ped

Location Type:

Various Locations

Route

Facility

From:

To

Bethesda Bikeway and Pedestrian Facilities

County

Municipality

Montgomery[Description](#)

This project provides bikeway network improvements and pedestrian intersection improvements as specified in the Bethesda CBD Sector Plan to complete the requirements of Stage I development.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$4,218**

Project ID	Title	Cost (\$M)	Complete
T6365	Bicycle and Pedestrian Priority Area Improvements		

Primary Project Typ

Bike/Ped

Location Tyhpe:

Various Locations

Route Facility

From:

To

County

Montgomery

Municipality

Description

The project provides for the design and construction of bicycle and pedestrian capital improvements in the 28 Bicycle-Pedestrian Priority Areas (BPPAs) identified in County master plans. Examples of such improvements include, but are not limited to: sidewalk, curb, and curb ramp reconstruction to meet ADA best practices, bulb-outs, cycle tracks, streetlighting, and relocation of utility poles. A study in FY15 will identify sub-projects in the following BPPAs: Glenmont, Grosvenor, Silver Spring Central Business District, Veirs Mill/Randolph Road, and Wheaton Central Business District. Design and construction of sub-projects will begin in FY16.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5971	Bridge Preservation Program		

Primary Project Typ

Bridge - Preventive Maintenance

Location Tyhpe:

Various Locations

Route Facility

Bridge Preservation Program

From:

County-wide

To

County-wide

County

Montgomery

Municipality

Description

This project includes actions or strategies that prevent, delay or reduce deterioration of bridges or bridge elements, restore the function of existing bridges, keep bridges in good condition and extend their useful lives. Preservation actions may be preventive or condition driven.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5972	Bridge Renovation		

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Various Locations

Route Facility

County-wide

From:

To

County

Montgomery

Municipality

Description

This project provides for the renovation of County roadway and pedestrian bridges that have been identified as needing repair work beyond routine maintenance levels to assure continued safe functioning.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6015	Capital Crescent Trail		2024

Primary Project Typ

Bike/Ped

Location Tyhpe:

Trail/Path Segment

Route

Facility

Capital Crescent Trail

From:

Elm Street Park in Bethesda

To

Silver Spring

County

Montgomery

Municipality

Description

This project provides for the funding of the Capital Crescent trail, including the main trail from Elm Street Park in Bethesda to Silver Spring, as a largely 12-foot wide hard-surface hiker-biker path, connector paths at several locations, a new bridge over Connecticut Avenue, a new underpass beneath Jones Mill Road, supplemental landscaping and amenities, and lighting at trail junctions, underpasses and other critical locations. This trail will connect to the existing Capital Crescent Trail from Bethesda to Georgetown, the Metropolitan Branch Trail from Silver Spring to Union Station, and the Rock Creek Bike Trail from northern Montgomery County to Georgetown. This trail will serve pedestrians, bicyclists, joggers, and skaters, and will be compliant with the Americans with Disabilities Act of 1990 (ADA), the Bethesda CBD Sector Plan, and the Purple Line Functional Master Plan. Schedule: 1) The interim trail along the Georgetown Branch right-of-way between Bethesda and Lyttonsvile will be upgraded to a permanent rail between FY 16 and FY 18, concurrent with the Purple Line construction schedule in that segment; 2) the new extension of the trail on the northeast side of the Metropolitan Branch Trail, between Lyttonsvile and the Silver Spring Transit Center will be built in FY 19 and FY 20; 3) the Metropolitan Branch segment will be opened concurrently with the planned opening of the Purple Line in 2020. Final funding flows and costs subject to final design cost and completion of MOU between MTA and County.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6608	Dennis Avenue Bridge Replacement M-0194		2024

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Bridge

Route

Facility

Dennis Avenue Bridge

From:

Tributary to Sligo creek

To

County

Municipality

Description

This project provides for the replacement of Dennis Ave. Bridge (M-0194) over a tributary to Sligo Creek. The existing bridge, built in 1961, is a single 30-foot span structure. The proposed replacement bridge will be a single 75-foot span structure. The wider opening will mitigate the frequent flooding of five residential properties and local streets upstream of the bridge; mitigate occasional roadway flooding on Dennis Avenue that causes significant traffic delays; and eliminate annual maintenance repairs required for this deteriorating structure.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3429	Falls Road East Side Hiker/Biker Path		

Primary Project Typ

Bike/Ped

Location Tyhpe:

Trail/Path Segment

Route

Facility

Falls Road Bikeway

From:

River Road

To

Dunster Road

County

Montgomery

Municipality

Description

This project provides funds to develop final design plans and to acquire right-of-way, and construct approximately 4 miles of an 8-foot bituminous hiker/biker path along the east side of Falls Road from River Road to Dunster Road. The path will provide pedestrian and cyclist access to communities along the project corridor and will provide connection to existing pedestrian facilities to the north (Rockville), and to the south (Potomac). The path is a missing link between existing bicycle facilities within the City of Rockville and the existing path along Falls Road south of River Road. The path provides much needed access to public transportation along Falls Road. The path will provide pedestrian access to the following destinations: bus stops along Falls Road, Bullis School, Ritchie Park Elementary School, Potomac Community Center, Potomac Library, Potomac Village Shopping Center, Potomac Promenade Shopping Center, Heritage Farm Park, Falls Road Golf Club, Falls Road Park, and a number of religious facilities along Falls Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5949	Forest Glen Passageway		

Primary Project Typ

Bike/Ped

Location Tyhpe:

Trail/Path Segment

Route

Facility

Forest Glen Passageway

From:

Georgia Ave/Forest Glen Rd @
Forest Glen Metrorail Station

To

Georgia Ave/Forest Glen Rd @
Forest Glen Metrorail Station

County

Montgomery

Municipality

Description

This project provides for a feasibility study and engineering design for a new passageway underneath or bridge over Georgia Avenue (MD 97) at Forest Glen Road to improve pedestrian safety for the Georgia Avenue/Forest Glen Road intersection crossing and to enhance access to the Forest Glen Metrorail station. The passageway will cross Georgia Avenue and tie-in to the existing Forest Glen Metro Station. The scope includes developing and evaluating preliminary alignments, developing conceptual design (15% design), soliciting public input, and developing a final feasibility study report and recommendation. The scope includes completion of the NEPA Process. (This study is part of the State Transportation Participation PDF # 500722.) The intersection of Georgia Avenue and Forest Glen Road is one of the most congested intersections located adjacent to a WMATA subway station in the Washington Metropolitan Area. Construction of a grade-separated crossing that separates pedestrians and bicyclists accessing the station from on-street traffic will make it safer and more inviting for pedestrians and bicyclists to access the Forest Glen Metrorail Station. In addition to a tunnel or bridge, the project will include the construction of one elevator to connect the street level directly to the mezzanine of the Forest Glen Metrorail Station to improve access for persons with disabilities, as well as the establishment of bikeshare stations at the Forest Glen Metrorail Station and the surrounding area.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5916	Garrett Park Road Bridge M-PK-04001		
Primary Project Type		Location Tyhpe:	
Bridge - Rehab		Bridge	
Route	Facility	From:	To
	Garrett Park Road	Over Rock Creek	
County	Municipality		
Montgomery			
Description			
This project provides for the rehabilitation of Garrett Park Road Bridge M-PK-04001 over Rock Creek, and the reconstruction of roadway approaches			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:			
Project ID	Title	Cost (\$M)	Complete
T5729	MacArthur Boulevard Bikeway Improvements		2025

Primary Project Typ	Location Tyhpe:
Bike/Ped	Trail/Path Segment
Route	From:
Facility	To
MacArthur Boulevard	I-495 Capital Beltway
County	Municipality
Montgomery	DC Line
Description	
<p>Phase I of project provides bikeway improvements along 13,800' of MacArthur Boulevard from I-495 to Oberlin Avenue. Phase II extends the bikeway from Oberlin Ave to the DC Line. Phase to be completed in FY 15. Design for Phase 2 will start in FY19 with construction to start in FY21 and FY 22. To encourage alternative modes of travel and enhance pedestrian safety, the pavement will be widened to provide 2-3 foot shoulders to accommodate the needs of on-road commuters and experienced bicyclists. The existing shared-use path will be upgraded to current standards to promote usage and enhance safety for all users. This project will also provide for spot improvements to MacArthur Boulevard to enhance safety for pedestrians, cyclists and motorists. This project will improve safety and accessibility for pedestrians and bicyclists of all experience levels and enhances connectivity with other bikeways in the vicinity. A pedestrian impact analysis had been completed for this project.</p>	
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:	

Project ID	Title	Cost (\$M)	Complete
T5942	Metropolitan Branch Trail		2024

Primary Project Typ

Bike/Ped

Location Tyhpe:

Trail/Path Segment

Route

Facility

From:

To

Metropolitan Branch Trail

End of existing trail in Takoma Park Silver Spring Transit Center

County

Municipality

Montgomery

Description

This project provides for completion of the preliminary engineering and final engineering necessary to obtain CSX and WMATA approvals for the 0.62-mile segment of this trail in Montgomery County between the end of the existing trail in Takoma Park, and the Silver Spring Transit Center. The trail will be designed to be 8 feet to 10 feet in width. This project also includes the land acquisition, site improvements, utility relocations and construction of the project from the Silver Spring Transit Center to the east side of Georgia Avenue, including a new or expanded pedestrian bridge over Georgia Avenue, as well as the segment along Fenton Street, from King Street to the north end of the existing trail. The design will also include a grade-separated crossing of Burlington Avenue, the narrowing of Selim Road, the trail segment on King Street, and the construction of new retaining walls and reconstruction of existing retaining walls. A pedestrian impact analysis has been completed for this project. This trail is to be part of a larger system of trails to enable non-motorized travel around the Washington Region. The trail is to be an off-road facility serving pedestrians, bicyclists, joggers and skaters and will be Americans with Disabilities Act (ADA) accessible.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6710	Montgomery County Bridge Preliminary Engineering Projects		

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Various Locations

Route

Facility

From:

To

County

Municipality

Montgomery

Description

Funding for preliminary engineering on these bridge projects, countywide: -Replacement of Glen Road Bridge No. M-0015 over Piney Branch -Replacement of Schaeffer Road Bridge No. M-0137 over Little Seneca Creek -Replacement of Parklawn Entrance Bridge No. MPK-17 over Rock Creek -Replacement of Baltimore Road Bridge No. M-0201 over Rock Creek -Replacement of Brighton Dam Road Bridge No. M-0108 over Hawlings River -Rehabilitation of Brookville Road Bridge No. M-0083 over CSXT Railroad -Replacement of Greentree Road Bridge No. M-0180 over Bulls Run -Replacement of Whites Ferry Road Bridge No. M-0186 over Broad Run -Replacement of Glen Road Bridge No. M-0013 over Kilgour Branch -Replacement of Barnes Road Bridge No. M-0008 over Bennett Creek -Replacement of Barnesville Road Bridge No. M-0045 over Little Monocacy River -Rehabilitation of Randolph Road (EB) Bridge No. M-0080-3 over Rock Creek -Rehabilitation of Shady Grove Road (EB) Bridge No. M-0191-3 over CSXT Railroad -Replacement of Hurley Avenue No. MR03 over Watts Branch Tributary -Replacement of Martinsburg Road Bridge M0042 over Potomac River Tributary Replacement of Southlawn Lane Bridge No. M0050 over Rock Creek

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6584	Mouth of Monocacy Road Bridge Replacement		2027

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Bridge

Route

Facility

Mouth of Monocacy Road Bridge

From:

Monocacy River

To

County

Montgomery

Municipality

Description

The Mouth of Monocacy Road Bridge, built in 1971, is a single span (47-6 span length) steel beam structure carrying a 14-9 roadway (one lane bridge). The bridge has very low traffic volume, ADT of 135 in 2011. The road is classified as an exceptional rustic road in the Rustic Roads Functional Master Plan. The steel beams and bearings are in poor condition. The structure is structurally deficient. It has a bridge sufficiency rating of 29.4 out of 100 and is eligible for replacement using federal funding. The bridge and road will be closed to traffic during construction.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5981	Neighborhood Traffic Calming		

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Various Locations

Route

Facility

Neighborhood Traffic Calming

From:

Residential Neighborhoods County-wide

To

County

Montgomery

Municipality

Description

This project provides for the planning, design, and construction of physical traffic control features in residential neighborhoods. Traffic calming features such as traffic circles and islands, curb extensions, speed humps, physical and painted lane narrowing devices, etc., are used to maintain and improve the safety and livability of residential neighborhoods by addressing issues of aggressive driving and excessive speeds and volumes.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T3642	Pedestrian Safety Program			
Primary Project Type		Location Tyhpe:		
Bike/Ped		Not Location Specific		
Route	Facility	From:	To	
	Pedestrian Safety Program	Countywide		
County	Municipality			
Montgomery				
Description				
<p>This project provides for the review and analysis of existing physical structures and traffic controls in order to make modifications aimed at improving safety and the walking environment for pedestrians. This project provides for the construction of physical structures and/or installation of traffic control devices which include, but are not limited to: new crosswalks; pedestrian refuge islands; sidewalks; bus pull-off areas; fencing to channel pedestrians to safer crossing locations; relocating, adding, or eliminating bus stops; accessible pedestrian signals (countdown) or warning beacons; improving signage,etc. The improvements will be made in compliance with the requirements of the Americans with Disabilities Act (ADA). This project supports the construction of improvements at and around schools identified in the Safe Routes to School program. The project also includes performing pedestrian safety audits at High Incidence Areas, and implementing identified physical improvements, education, and outreach.</p>				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				
Project ID	Title		Cost (\$M)	Complete
T6017	Seven Locks Bikeway & Safety Improvements			

Project ID	Title		Cost (\$M)	Complete
T6017	Seven Locks Bikeway & Safety Improvements			
Primary Project Typ		Location Tyhpe:		
Bike/Ped		Trail/Path Segment		
Route	Facility	From:	To	
	Seven Locks Bikeway & Safety Improvements	Montrose Road	Bradley Boulevard	
County	Municipality			
Montgomery				
Description				
<p>This project provides for pedestrian and bicycle improvements for dual bicycle facilities (on-road and off-road), and enhanced, continuous pedestrian facilities along Seven Locks Road from Montrose Road to Bradley Boulevard (3.3 miles), plus a bike path on Montrose Road between Seven Locks Road and the I-270 ramp, plus northbound and eastbound auxiliary through lanes with on-road bike lanes at the intersection of Seven Locks Road and Tuckerman Lane. This project is needed to address bicycle facility disconnects along Seven Locks Road. The roadway lacks adequate north-south, on road/off-road bicycle facilities necessary to provide continuity and connection between existing and future bike facilities. Continuous bicycle and pedestrian facilities are needed to allow safe access to residential, retail and commercial destinations, as well as existing religious and educational facilities. The project is broken down into three phases: Phase I provides dual bikeway and pedestrian facilities for the segment of Seven Locks Road from Montrose Road to Tuckerman Lane including the bike path on Montrose and the improvements to the Tuckerman Lane intersection. This project currently provides funding for Phase 1 improvements only. Phase 2 provides a dual bikeway and pedestrian facilities for the segment of Seven Locks Road from Tuckerman Lane to Democracy Boulevard. Phase III provides a dual bikeway and pedestrian facilities for the segment of Seven Locks Road from Democracy Boulevard to Bradley Boulevard.</p>				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title	Cost (\$M)	Complete
T5975	Sidewalk & Curb Replacement		

Primary Project Typ

Bike/Ped

Location Tyhpe:

Various Locations

Route

Facility

From:

To

Countywide

County

Municipality

Montgomery[Description](#)

This project provides for the removal and replacement of damaged or deteriorated sidewalks, curbs, and gutters in business districts and residential communities. MCDOT currently maintains about 1,034 miles of sidewalks and about 2,098 miles of curbs and gutters. This project includes: overlay of existing sidewalks with asphalt; base failure repair and new construction of curbs; and new sidewalks with handicapped ramps to fill in missing sections. A significant aspect of this project has been and will be to provide safe pedestrian access and ensure compliance with the Americans with Disabilities Act (ADA).

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3067	Sidewalk Program - Minor Projects		

Primary Project Typ

Bike/Ped

Location Tyhpe:

Various Locations

Route

Facility

From:

To

Sidewalk Program - Minor Projects

County

Municipality

Montgomery[Description](#)

This pedestrian access improvement program provides sidewalks on County-owned roads and some State-maintained roadways. Some funds from this project will go to support the Renew Montgomery program. The Montgomery County Department of Transportation maintains an official list of all outstanding sidewalk requests. Future projects are evaluated and selected from this list, which is continually updated with new requests. In addition, projects identified by the Citizens' Advisory Boards are placed on this list. One aspect of this project will focus on improving pedestrian walkability by creating a safer walking environment, utilizing selected engineering technologies and ensuring Americans with Disabilities Act (ADA) compliance. In addition to connecting existing sidewalks, these projects increase pedestrian safety and facilitate walking to: Metrorail stations, bus stops, shopping and medical centers, employment, recreational, and school sites. The average rate of requests for sidewalks has been 80 to 100 per year over the last two years. This program also complements and augments the bikeways that are included in road projects.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3125	Silver Spring Green Trail		2027

Primary Project Typ

Bike/Ped

Location Tyhpe:

Trail/Path Segment

Route

Facility

Silver Spring Green Trail

From:

Fenton Street

To

Sligo Creek Hiker-Biker Trail

County

Montgomery

Municipality

Description

This project provides for an urban trail along the selected Purple Line alignment along Wayne Avenue in Silver Spring. A Memorandum of Understanding will be established between the County and the Maryland Transit Administration (MTA) to incorporate the design and construction of the trail as a part of the design and construction of the Purple Line. The pedestrian and bicycle use along this trail supplements the County transportation program. The funding provided for the trail includes the design, property acquisition, and construction of the trail through the Silver Spring CBD, along the northern side of Wayne Avenue from Fenton Street to the Sligo Creek Hiker-Biker Trail. This trail is part of a transportation corridor and is not a recreation area of State or local significance. The trail will include an 8-10 foot wide bituminous shared use path, lighting, and landscaping. The trail will provide access to the Silver Spring Transit Station, via the Metropolitan Branch Trail, and the future Capital Crescent Trail. A pedestrian impact analysis has been completed for this project. Will be design and built at part of Purple Line project. Final cost and cash flows will be determined based on final design and MOU agreement between MTA and County.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6364	Transportation Improvements for Schools		

Primary Project Typ

Bike/Ped

Location Tyhpe:

Various Locations

Route

Facility

Various

From:

To

County

Montgomery

Municipality

Description

This project provides for transportation improvements such as intersection modifications, sidewalks, traffic signals, streetlights etc. for safe pedestrian and vehicular circulation identified in the Montgomery County Public Schools Capital Program. Schools include but are not limited too: Page Elementary, Sligo Middle School, Cloverly Elementary School and Glenhaven Elementary School. Specific Safe Routes to School studies and assessments are included separately in the MCDOT operating budget.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5987	White Flint Traffic Analysis and Mitigation		2030

Primary Project Typ

Study/Planning/Research

Location Tyhpe:

Various Locations

Route

Facility

White Flint Traffic Analysis and Mitigation

From:

White Flint Sector Plan and Surrounding Area

To

County

Montgomery

Municipality

Description

This project is programmed in direct response to requirements of the Approved White Flint Sector Plan. It is composed of three components with the overall goal of mitigating the traffic impacts on communities and major intersections outside of, and surrounding, the White Flint Sector Plan area that will occur as a result of the redevelopment densities approved under the Approved White Flint Sector Plan. These components include: A. Cut-through traffic monitoring and mitigation B. Capacity improvements to address congested intersections C. A study of strategies and implementation techniques to achieve the Sector Plan's modal split goals. The modal split study will identify specific infrastructure projects to create an improved transit, pedestrian, and biking infrastructure; and programs needed to accomplish the mode share goals; determine funding sources for these strategies; and determine the scope and cost of project components. Transit, pedestrian, bicycle access, safety studies, and TDM planning and implementation efforts are required to facilitate White Flint's transition from a highly automobile oriented environment to a more transit, pedestrian, and bicycle friendly environment. Once specific improvements are identified and concepts developed, detailed design and construction will be programmed in a stand alone PDF.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Non-Infrastructure

Project ID	Title	Cost (\$M)	Complete
T3068	ADA Compliance Transportation Access		

Primary Project Typ

Bike/Ped

Location Tyhpe:

Other

Route

Facility

ADA Compliance Transportation Access

From:

To

County

Montgomery

Municipality

Description

This project provides both curb ramps for sidewalks and new transportation accessibility construction in compliance with the Americans with Disabilities Act (ADA). This improvement program provides for planning, design and reconstruction of existing infrastructure Countywide to enable obstruction-free access to public facilities, public transportation, Central Business Districts (CBDs), health facilities, shopping centers, and recreation. Curb ramp installation at intersections along residential roads will be constructed based on population density. Funds are provide for the removal of barriers to wheelchair users such as signs, poles, and fences, and for intersection improvements, such as the reconstruction of median breaks and new curb ramps, crosswalks and, sidewalk connectors to bus stops. Curb ramps are needed to enable mobility for physically-impaired citizens; for the on-call transit program, Accessible Ride On and for County-owned and leased facilities. A portion of this project will support the Renew Montgomery Program. One aspect of this project will focus on improving pedestrian walkability by creating a safer walking environment, utilizing selected engineering technologies, and ensuring ADA compliance.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T3065	Advanced Transportation Management System			
Primary Project Typ		Location Tyhpe:		
Active Transportation- ITS/Technol		Other		
Route	Facility	From:	To	
	Advanced Transportation Management System			
County	Municipality			
Montgomery				
Description				
This project provides for Advanced Transportation Management Systems (ATMS) in the County. The ATMS deploys the infrastructure to conduct real-time management and operations of the County's transportation system. Twenty-two National Intelligent Transportation Architecture market packages have been identified for deployment of the ATMS. Each of these market packages is considered a subsystem of the ATMS program and may include several elements. These subsystems are identified in the ATMS Strategic Deployment Plan, dated February 2001, and revised July 2011. One aspect of this project will focus on improving pedestrian walkability by creating a safer walking environment, utilizing selected technologies and ensuring ADA compliance.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				
Project ID	Title		Cost (\$M)	Complete
T6616	Electric Bus Grants			

Primary Project Typ

Transit - Capital

Location Tyhpe:

Other

Route

Facility

From:

To

Silver Spring Depot Charging Stations

County

Municipality

Montgomery

Description

For the procurement and installation of fourteen bus depot chargers, replacement of four 30' GILLIG diesel buses with four 35' Proterra E2 battery electric buses, and ten 40' GILLIG diesel buses with ten 40' battery electric buses. The buses are Montgomery County's first zero-emission buses and would be a component of green and sustainable initiatives underway in the county. Montgomery County, Maryland seeks to update its fleet with four Proterra 35 E2 battery electric buses to replace four GILLIG 30 diesel buses. Additionally, Montgomery County seeks to procure and install four depot chargers. The buses would be Montgomery County's first zero-emission buses and would be a component of green and sustainable initiatives underway in the county.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Roadways

Project ID	Title	Cost (\$M)	Complete
T5982	Streetlight Enhancements - CBD / Town Center		

Primary Project Typ
Landscaping/Beautification

Location Tyhpe:
Other

Route Facility
Streetlight Enhancements - CBD / Town Center

From: To
CBDs and Town Centers

County
Montgomery

Municipality

Description

This project provides for the evaluation and enhancement of street lighting within and around the Central Business Districts (CBDs) and town centers where current lighting does not meet minimum Illuminating Engineering Society of North America (IESNA) standards. This project will fill in street lighting; standardize streetlight types; and replace sodium vapor lighting. This project is needed to provide visibility and safety improvements in areas where there is a high concentration of pedestrians, bicyclists, and vehicles.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3648	Traffic Signal System Modernization		

Primary Project Typ
Road - Signal/Signs

Location Tyhpe:
Other

Route Facility
Traffic Signal System Modernization

From: To

County
Montgomery

Municipality

Description

This project provides for the modernization of the county's aged traffic control system. Phase I consists of planning, requirements development, systems engineering, and testing. Phase II consists of acquisition of central system hardware and software, acquisition and implementation of control equipment and communications for intersections, as well as reconfiguration of the communications cable plant. Phase 1 is complete.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6018	East Gude Drive Roadway Improvements		2022

[Primary Project Type](#)**Road - Add Capacity/Widening**[Location Type:](#)**Road Segment**[Route](#)[Facility](#)**East Gude Drive Roadway Improvements**[From:](#)**Crabbs Branch Way**[To](#)**Southlawn Lane**[County](#)**Montgomery**[Municipality](#)[Description](#)

This project provides for the design, land acquisition, and construction of roadway improvements along East Gude Drive from Crabbs Branch Way to Southlawn Lane to increase roadway capacity, and to improve vehicular and pedestrian safety. The improvements will: (1) add a westbound lane (800 linear feet) from Calhoun Drive to Crabbs Branch Way; (2) extend the length of the eastbound taper east of Calhoun Drive (500 linear feet) to west of Incinerator Lane; (3) provide an east-to-northbound left turn lane (300 Feet) at Dover Road; (4) construct the missing section of sidewalk on the north side of East Gude Drive from west of Incinerator Lane to east of Calhoun Drive (550 linear feet); and (5) install 6 foot sidewalk connectors from each bus stop on the north side of East Gude Drive to the nearest intersection. A pedestrian impact analysis has been completed for this project. This project is needed to reduce existing and future congestion and improve pedestrian and vehicular safety. Planning and Design begin in FY 17; construction is to be completed by FY 21, and is funded in the "Beyond 6 Years" period, which begins on July 1, 2018.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3049	Goshen Road South		2030

[Primary Project Type](#)**Study/Planning/Research**[Location Type:](#)**Road Segment**[Route](#)[Facility](#)**Goshen Road South**[From:](#)**South of Girard Street**[To](#)**1000 feet north of Warfield Road**[County](#)**Montgomery**[Municipality](#)[Description](#)

This project provides for the design of roadway improvements along Goshen Road from south of Girard Street to 1000 feet North of Warfield Road, a distance of approximately 3.5 miles. The improvements will widen Goshen Road from the existing 2-lane open section road to a 4-lane divided, closed section roadway using 12-foot inside lanes, 11-foot outside lanes, 18-foot median, and 5-foot on-road bike lanes. A 5-foot concrete sidewalk and an 8-foot bituminous hiker/biker path along the east and west side of the road, respectively, are also proposed along with storm drain improvements, street lighting and landscaping. The project also entails construction of approximately 6,000 linear feet of retaining wall. The project is needed to reduce existing and future congestion, improve vehicular and pedestrian safety. It will improve roadway network efficiency, provide for alternate modes of transportation, and will significantly improve pedestrian safety by constructing a sidewalk and a hiker/biker path. A pedestrian impact analysis has been completed for this project. Construction completion is scheduled for FY 22, and funded in the CIP in the "Beyond 6 Years" period.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5980	Intersection & Spot Improvements		

Primary Project Typ

Road - Intersection improvement

Location Tyhpe:

Various Locations

Route

Facility

Intersection & Spot Improvements

From:

County-wide

To

County-wide

County

Montgomery

Municipality

Description

This project provides for the planning and reconstruction of various existing intersections in Montgomery County, and for an annual congestion study to identify locations where there is a need for congestion mitigation. The project includes the identification and implementation of corridor modifications and traffic calming treatments to enhance pedestrian safety. At these identified locations either construction begins immediately or detailed design plans are prepared and developed into future projects. A pedestrian impact analysis will be performed during design or is in progress.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3542	MD 355 Phase 2 Highway Reconstruction	\$105.3	2045

Primary Project Typ

Road - New Construction

Location Tyhpe:

Road Segment

Route

Facility

Montrose Parkway

From:

Randolph Road

To

East of Parklawn Drive

County

Montgomery

Municipality

Description

Construction of Montrose Parkway, including a CSX Railroad grade-separated crossing and interchange at Parklawn Drive.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$56,477,000

Project ID	Title	Cost (\$M)	Complete
T3703	Montrose Parkway East	\$119.9	2045

Primary Project Typ
Road - New Construction

Location Tyhpe:
Road Segment

Route Facility
Montrose Parkway East

From:
MD 355/Montrose Interchange

To
Veirs Mill Road/Parkland Road Intersection

County
Montgomery

Municipality

Description

This project provides for a new four-lane divided parkway as recommended in the North Bethesda / Garrett Park and Aspen Hill Master Plans. The roadway will be a closed section with 11-foot wide lanes, a 10-foot wide bike path on the north side and a 5-foot wide sidewalk on the south side. The project includes a 350-foot bridge over Rock Creek. The roadway limits are between the eastern limit of the MD 355/Montrose interchange on the west, and the intersection of Veirs Mill Road and Parklawn Drive on the east. The project includes a bridge over CSX, a grade-separated interchange at Parklawn Drive, and a tie-in to Veirs Mill Road. This project will relieve traffic congestion on roadways in the area through increased network capacity. The project also provides improved safety for motorists, pedestrians, and bicyclists, as well as a greenway.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T7503	Observation Dr Ext		2045

Primary Project Typ
Road - New Construction

Location Tyhpe:
Road Segment

Route Facility
Observation Drive Extended

From:
Observation Drive near Waters
Discovery Lane

To
Observation Drive near Stringtown Road

County
Montgomery

Municipality

Description

The project provides for the design and construction of a 2.2 mile long roadway within a minimum 150-foot right-of-way. The work will be constructed in 2 Phases. Phase 1 includes a 4-lane divided roadway (two lanes in each direction) starting at existing Observation Drive near Waters Discovery Lane and continuing north beyond West Old Baltimore Road to the point where it meets the planned extension of Little Seneca Parkway, along with an eight-foot wide shared-use path on the west side and a bike path on the east side to provide Greenway connectivity. Phase 1 will also include the widening of Little Seneca Parkway to four lanes west of MD 355 and construction of its extension west to Observation Drive. A bridge approximately 550 feet in length will be constructed near Waters Discovery Lane, ending at West Old Baltimore Road near the future MTA Comsat Station. A traffic signal will be provided at the West Old Baltimore Road intersection. In Phase 2 between Little Seneca Parkway and existing Observation Drive near Stringtown Road the scope includes a two-lane roadway, along with an eight-foot wide shared-use path on the west side, with space for the two additional master-planned lanes and a five-foot wide sidewalk on the east side to be built in the future. Traffic signals will be provided at the Shawnee Lane and Little Seneca Parkway intersections.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5974	Resurfacing: Primary / Arterial		

Primary Project Typ

Road - Resurface

Location Tyhpe:

Various Locations

Route

Facility

From:

To

County-wide

County-wide

County

Municipality

Montgomery

Description

Montgomery County maintains approximately 966 lane miles of primary and arterial roadways. This project provides for the systematic milling, repair, and bituminous concrete resurfacing of selected primary and arterial roads and revitalization of others. This project provides for a systematic full-service, and coordinated revitalization of the primary and arterial road infrastructure to ensure viability of the primary transportation network, and enhance safety and ease of use for all users. One aspect of this project will focus on improving pedestrian mobility by creating a safer walking environment, utilizing selected engineering technologies, and ensuring compliance with the Americans with Disabilities Act (ADA).

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6019	Seminary Road Intersection Improvement		2026

Primary Project Typ

Road - Intersection improvement

Location Tyhpe:

Intersection

Route

Facility

From:

To

Seminary Road Intersection Improvement

Brookeville Road Seminary Place Intersection

Linden Lane/Second Avenue Intersection

County

Municipality

Montgomery

Description

This project provides for the design, land acquisition and construction of an approximate 40 foot segment of Seminary Road between the Brookeville Road/Seminary Place, and Linden Lane / Second Avenue intersections on a new alignment; reconstruction of 650 feet of Seminary Place from Seminary Road to 450 Feet east of Riley Place with a vertical alignment revision at Riley Place: increasing the Linden Lane curb lane widths along the 250 foot section between Brookeville Road and Second Avenue to provide two 15-foot shared use lanes to accommodate bicyclists; and reconstruction of the 350 foot segment Brookeville Road between Linen Lane and Seminary Road. Seminary Road will be a closed-section roadway with two 15-foot shared use lanes and a sidewalk along the northern side. Brookeville Road will be a closed-section roadway with one southbound 16-foot shared use lane, sidewalks, and a parking lane on the western side. The project includes street lights, landscaping and stormwater management. The project will simplify vehicle movements and improve traffic congestion by eliminating the Seminary Road sweep between Brookville Road and Second Avenue, and pedestrian and bicyclist safety will be improved. The proposed Seminary Place vertical alignment revision at Riley Place will increase intersection sight distance. A pedestrian impact analysis has been completed for this project.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6065	Traffic Signals		

Primary Project Typ
Road - Signal/Signs

Location Tyhpe:
Various Locations

Route Facility

From: To

County
Montgomery

Municipality

Description

This project provides for the design, construction and maintenance of vehicular and pedestrian traffic signals and signal systems including: new and existing signals; reconstruction / replacement of aged and obsolete signals and components; auxiliary signs; accessible pedestrian signals (APS); updates of the County's centrally-controlled computerized traffic signal system; communications and interconnect into the signal system. Increases in congestion levels and the number of accidents necessitate a continued investment in the traffic signal system to: increase intersection safety; accommodate changes in traffic patterns and roadway geometry; reduce intersection delays, energy consumption and air pollution; and provide coordinated movement on arterial routs through effective traffic management and control, utilizing modern traffic signal technologies.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5985	White Flint District East - Transportation		2030

Primary Project Typ
Road - New Construction

Location Tyhpe:
Various Locations

Route Facility
White Flint District East

From: To

County
Montgomery

Municipality

Description

This project provides for completion of preliminary engineering to 35% plans for three new roads and one bridge in the White Flint District East side area as follows: PROJECT 1 Executive Blvd. Extended East (B-7): MD 355 (Rockville Pike) to New Private Street (Construct 1100' of 4-lane roadway) PROJECT 2 Executive Blvd. Extended East (B-7): New Private Street to new Nebel Street Extended. (Construct 600' of 4-lane roadway) PROJECT 3 Nebel Street (B-5): Nicholson Lane South to combined property (Construct 1,200' of 4-lane roadway) PROJECT 4 Bridge across White Flint Metro Station on future MacGrath Boulevard between MD 355 and future Station Street. (Construct 80' long 3-lane bridge) The vision for the White Flint District is for a more urban core with a walkable street grid, sidewalks, bikeways, trails, paths, public use space, parks and recreational facilities, mixed-use development, and enhanced streetscape to improve the areas for pedestrian circulation and transit oriented development around the Metro station.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5986	White Flint District West: Transportation & West Workaround	\$133.8	2030

Primary Project Type

Road - New Construction

Location Type:

Road Segment

Route

Facility

White Flint District West: Transportation & West Workaround

From:

To

County

Montgomery

Municipality

Description

This project provides for engineering, utility design, and land acquisition for one new road, one relocated road, improvements to three existing roads, and one new bikeway in the White Flint District area for Stage 1. The project also includes both design and future construction expenditures for the reconstruction of Rockville Pike and Hoya Street. Various improvements to the roads will include new traffic lanes, shared-use paths, undergrounding of overhead utility lines where required, other utility relocations and streetscaping. The new White Flint West Workaround project (CIP #501506) continues funding for several western workaround road projects. The following projects are funded through FY14 for final design: 1. Main Street/Market Street (B-10) Old Georgetown Road (MD 187) to Woodglen Drive new two-lane 1,200 foot roadway. 2. Main Street/Market Street (LB-1) Old Georgetown Road (MD 187) to Woodglen Drive new 1,200 foot bikeway. 3. Executive Boulevard Extended (B-15) Marinelli Road to Old Georgetown Road (MD 187) 900 feet of relocated four-lane roadway. 4. Intersection of Hoya Street (formerly 'Old' Old Georgetown Road) (M-4A), Old Georgetown Road, and Executive Boulevard, including the approaches to Old Georgetown Road. The following projects are proposed for both design and construction in the FY19-20 and Beyond 6-Years periods: 5. Rockville Pike (MD 355) (M-6) Flanders Avenue to Hubbard Drive 6,300 feet of reconstructed 6-8 lane roadway. 6. Hoya Street (M-4A) Montrose Parkway to the intersection of Old Georgetown Road 1,100 feet of reconstructed four-lane roadway. This project also provides for analysis and studies necessary to implement the district. Design is underway on all road projects in the western workaround, with the exception of the Rockville Pike segment, and will conclude in FY15 (FY15 design is funded through White Flint West Workaround). Design of the Rockville Pike section will begin in FY19 and will conclude in FY21 in order to coordinate with the implementation of the Rapid Transit System (RTS) (CIP #501318). Some property acquisition may occur on this section in FY20. The current expenditure/funding schedule assumes that land needed for road construction will be dedicated by the developers.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Transit

Project ID	Title	Cost (\$M)	Complete
T5560	Bethesda Metro South Entrance		2026

Primary Project Typ

Transit - Passenger Facilities

Location Tyhpe:

Not Location Specific

Route

Facility

Bethesda Metro South Entrance

From:

Elm Street west of Wisconsin Avenue

To

County

Montgomery

Municipality

Description

This project provides access from Elm Street west of Wisconsin Avenue to the southern end of the Bethesda Metrorail Station. The Metrorail Red Line runs below Wisconsin Avenue through Bethesda more than 120 feet below the surface, considerably deeper than the Purple Line right-of-way. The Bethesda Metrorail Station has one entrance, near East West Highway. The station was built with accommodations for a future southern entrance. The Bethesda light rail transit (LRT) station would have platforms located just west of Wisconsin Avenue on the Georgetown Branch ROW. This platform allows a direct connection between LRT and Metrorail, making transfers as convenient as possible. Six station elevators would be located in the Elm Street ROW, which would require narrowing the street and extending the sidewalk. The station would include a new south entrance to the Metrorail Station, including a new mezzanine above the Metrorail platform, similar to the existing mezzanine at the present station's north end. The mezzanine would use the existing knock-out panel in the arch of the station and the passageway that was partially excavated when the station was built, in anticipation of the future construction of a south entrance. Specific dollar amounts and flows will be based on final design estimate and MOU between MTA and County.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T11412	Bus Rapid Transit: US 29 - Phase 2		2030

Primary Project Typ

Transit - BRT

Location Tyhpe:

On Road

Route

Facility

US 29 - Colesville Road

From:

MD 198

To

Wayne Avenue

County

Montgomery

Municipality

Description

This project will design and implement a managed lane along the US 29 corridor from Musgrove Road to Southwood Drive and from Dale Drive to Spring Street. The managed lane will be restricted to use by high occupancy vehicles (HOV) and transit to improve roadway performance and person throughput. The project will also include improvements at identified "hot spot" locations to improve overall traffic operations along the US 29 corridor.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T3063	Bus Stop Improvement Program		

Primary Project Type

Transit - Passenger Facilities

Location Type:

Not Location Specific

Route

Facility

Bus Stop Improvement Program

From:

To

County

Montgomery

Municipality

Description

This project provides for the installation and improvement of capital amenities at bus stops in Montgomery County to make them safer, more accessible, and attractive to users and to improve pedestrian safety for County transit passengers. These enhancements can include items such as sidewalk connections, improved pedestrian access, pedestrian refuge islands and other crossing safety measures, area lighting, and paved passenger standing areas. In prior years, this project included funding for the installation and replacement of bus shelters and benches along Ride-On and County Metrobus routes; benches and shelters are now in the operating budget.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6396	MD 355 Bus Rapid Transit		2030

Primary Project Type

Transit - BRT

Location Type:

On Road

Route

Facility

MD 355

From:

MD 410

To

Redgrave Place

County

Montgomery

Municipality

City of Rockville

Description

A study to evaluate roadway improvements necessary to implement Montgomery County's bus rapid transit system on MD 355 between Bethesda Metro Station and Clarksburg.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
CE3672	MD 650 New Hampshire Avenue BRT	\$285.0	2045

Primary Project Type

Transit - BRT

Location Type:

On Road

Route

Facility

New Hampshire Ave. BRT

From:

Collesville Park and Ride

To

Takoma Metro Station

County

Montgomery

Municipality

Description

MD 650 New Hampshire Avenue BRT

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$285,000,000

Project ID	Title	Cost (\$M)	Complete
T3072	Ride On Bus Fleet		

Primary Project Typ

Transit - Capital

Location Tyhpe:

Not Location Specific

Route

Facility

Ride On Bus Fleet

From:

Countywide

To

County

Montgomery

Municipality

[Description](#)

This project provides for the purchase of replacement buses in the Ride On fleet in accordance with the Division of Transit Services' bus replacement plan. The FY 15-20 plan calls for the following: FY 15: 26 full-size buses & 1 small diesel FY 16: 25 full-size buses FY 17: 15 full-size buses FY 18: 28 full-size buses FY 19: 9 full-size buses & 31 small diesel buses FY 20: 32 full-size buses

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
CE3103	Veirs Mill Bus Rapid Transit	\$81.7	2030

Primary Project Typ

Transit - BRT

Location Tyhpe:

On Road

Route

Facility

Veirs Mill Road

From:

Wheaton Metrorail Station

To

Rockville Metrorail Station

County

Montgomery

Municipality

[Description](#)

This project provides funds for the planning and design of a Bus Rapid Transit system along Veirs Mill Road from the Wheaton Metrorail Station to the Rockville Metrorail Station.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$57,822,000**

Prince Georges County

Roadways

Project ID	Title	Cost (\$M)	Complete
CE1270	Allentown Road Relocated		2028

Primary Project Typ

Road - New Construction

Location Tyhpe:

Road Segment

Route

Facility

Allentown Road Relocated

From:

MD 210 Indian Head Highway

To

Brinkley Road

County

Prince Georges

Municipality

Description

Construction on new alignment of four-lane facility to improve access to local development and traffic flow.

Project ID	Title	Cost (\$M)	Complete
CE1320	Ardwick-Ardmore Road		2030

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

Facility

Ardwick-Ardmore Road

From:

MD 704

To

St. Josephs Drive

County

Prince Georges

Municipality

Description

Construction and reconstruction of existing 2-lane roadway to improve geometry, provide on-street parking and access to new High School

Project ID	Title	Cost (\$M)	Complete
CE1272	Bowie Race Track Road		2025

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

Facility

Bowie Race Track Road

From:

MD 450 Annapolis Road

To

Old Chapel Road

County

Prince Georges

Municipality

Description

Bowie Race Track Road

Project ID	Title		Cost (\$M)	Complete
CE1279	Church Road			2024
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
	Church Road	Woodmore Road	MD 214 Central Avenue	
County	Municipality			
Prince Georges				
Description	<p>Reconstruction to provide a four-lane facility to support local development and improvement area traffic flow. This project provides geometric and safety improvements to Church Road between Woodmore Road and MD 214 (central Avenue). Improvements will include intersection improvements, local realignment of the roadway, and the addition of shoulders and roadside drainage where necessary. The horizontal and vertical alignment of the roadway will be improved. The City of Bowie is expected to commit to 50% share of the project. The improvement is needed to enhance safety along the roadway and eliminate the S-curve and narrow roadway south of Woodmore Road.</p>			
Project ID	Title		Cost (\$M)	Complete
CE1280	Columbia Park Road			2020
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
	Columbia Park Road	US 50	Columbia Terrace	
County	Municipality			
Prince Georges				
Description	<p>Construction to provide a four-lane facility to support local development including freight movement and improve traffic flow.</p>			
Project ID	Title		Cost (\$M)	Complete
CE1313	Columbia Park Road			2025
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Interchange		
Route	Facility	From:	To	
US 50	US 50 Columbia Park Road Ramps	WB ramp to Columbia Park Rd		
County	Municipality			
Prince Georges				
Description	<p>Construction and reconstruction of the existing interchange to provide direct access to US 50 for traffic serving the industrial/warehouse area and reduce truck traffic incursion on local streets.</p>			

Project ID	Title	Cost (\$M)	Complete
CE1291	Livingston Road and Bridge		2024

[Primary Project Typ](#)**Road - Add Capacity/Widening**[Location Tyhpe:](#)**Road Segment**[Route](#)[Facility](#)**Livingston Road**[From:](#)**MD 210 Indian Head Highway at Eastover**[To](#)**MD Indian Head Highway at Kerby Hill Road**[County](#)**Prince Georges**[Municipality](#)[Description](#)

This project contains two phases: One for reconstruction of Livingston Road as an urban reconstruction facility at various locations. The other is the Livingston Road Bridge over the Piscataway Creek, reconstruct and approach roadways and install sidewalks, street signs and landscaping. urban a four-lane facility to support local development and to improve safety and area traffic flow.

Project ID	Title	Cost (\$M)	Complete
CE1297	Oak Grove and Leeland Roads		2028

[Primary Project Typ](#)**Road - Add Capacity/Widening**[Location Tyhpe:](#)**Road Segment**[Route](#)[Facility](#)**Oak Grove and Leeland Roads**[From:](#)**MD 193 Watkins Park Road**[To](#)**US Robert Crain Highway**[County](#)**Prince Georges**[Municipality](#)[Description](#)

Construction, reconstruction and relocation of a four- lane facility to support local development, and to improve safety and area traffic flow.

Project ID	Title	Cost (\$M)	Complete
CE1299	Old Branch Avenue		2028

[Primary Project Typ](#)**Road - Add Capacity/Widening**[Location Tyhpe:](#)**Road Segment**[Route](#)[Facility](#)**Old Branch Avenue**[From:](#)**MD 223 Piscataway Road north of**[To](#)**Allentown Road**[County](#)**Prince Georges**[Municipality](#)[Description](#)

Construction and reconstruction to provide a four-lane facility to support local development and to improve area traffic flow.

Project ID	Title		Cost (\$M)	Complete
CE1324	Presidential Parkway			2025
Primary Project Type		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
	Presidential Parkway	Suitland Parkway	Melwood Road	
County	Municipality			
Prince Georges				
Description				
Construction of a six- lane facility				

Project ID	Title		Cost (\$M)	Complete
CE2623	Ritchie-Marlboro Road			2025
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
	Ritchie Marlboro Road	White House Road	Old Marlboro Pike	
County	Municipality			
Prince Georges				
Description				
Widening from 2-4 lanes to support local development and enhance safety				

Project ID	Title		Cost (\$M)	Complete
CE1304	Rosaryville Road			2020
Primary Project Type		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
	Rosaryville Road	US 301 Robert Crain Highway	MD Woodyard Road	
County	Municipality			
Prince Georges				
Description				
Construction and reconstruction to provide a four-lane facility to support local development and to improve safety and area traffic flow.				

Project ID	Title	Cost (\$M)	Complete
CE1309	Sunnyside Avenue		2022

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

Facility

Sunnyside Avenue

From:

US 1 Baltimore Avenue

To

MD Kenilworth Avenue

County

Prince Georges

Municipality

Description

Construction and reconstruction to provide a four-lane facility to support local development and to improve safety and area traffic flow.

Project ID	Title	Cost (\$M)	Complete
CE1316	Walker Mill Road		2028

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

Facility

Walker Mill Road Extended

From:

Silver Hill Road Extended

To

I

County

Prince Georges

Municipality

Description

Construction to provide for a four-lane arterial facility to support local development and to improve safety and area traffic flow.

Project ID	Title	Cost (\$M)	Complete
CE3439	Widen Mitchellville Road		

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route

Facility

Mitchellville Road

From:

Atlantis/Northview Drive

To

Mount Oak Road

County

Prince Georges

Municipality

Description

Widen Mitchellville Road from 4 to 6 lanes.

Project ID	Title		Cost (\$M)	Complete
CE2624	Widen Westphalia Road			
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
	Westphalia Road	MD 4 Pennsylvania Avenue	Ritchie Malboro Road	
County	Municipality			
Prince Georges				
Description	Widening of Westphalia Road from 2-4 lanes to support economic development and BRAC.			

Project ID	Title		Cost (\$M)	Complete
CE1294	Woodyard Road			2017
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
MD 223	MD 223 Woodyard Road	Rosaryville Road	Dower House Road	
County	Municipality			
Prince Georges				
Description				
Construction, reconstruction and realignment of a four- lane facility to support local development, and to improve safety and area traffic flow.				

Local Street

Project ID	Title	Cost (\$M)	Complete
T6685	Bowie Road Culvert	\$3.6	2023
Primary Project Typ		Location Tyhpe:	
Bridge - Rehab		Street Segment	
Route	Facility	From:	To
	Bowie Road under CSX bridge	North side of CSX	South side of CSX
County	Municipality		
Prince Georges			
Description			
Rehabilitate existing box culvert which carries Bowie Road below an existing CSX railroad bridge. Initial design analysis resulted in a simplified rehabilitation that will realize significant savings in construction. Design was initiated in FY 2017			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:			

Project ID	Title	Cost (\$M)	Complete
T5400	Brandywine Road Bridge Replacement	\$7.9	2024

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Bridge

Route

Facility

Brandywine Road Bridge over Piscataway Creek

From:

north side of Piscataway Creek

To

south side of Piscataway Creek

County

Prince Georges

Municipality

Description

This project replaces the existing structure over Piscataway Creek, constructs scour counter measures within the creek to protect the bridge substructure, and reconstructs the approach roadways. The existing bridge, constructed of concrete, is posted for 22,000 pounds and is in a deteriorated condition. Funding is anticipated to be 80% Federal Aid eligible for design and construction

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$2,800,000**

Project ID	Title	Cost (\$M)	Complete
T5402	Bridge Repair and Replacement 2	\$22.0	2026

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route

Facility

Bridge Repair and Replacement

From:

various locations

To

various locations

County

Prince Georges

Municipality

Description

This project provides for replacing and rehabilitating County bridges based on Maryland state Highway Administration sufficiency ratings. It also provides funding for small scale and emergency capital repairs to various bridges located throughout the county.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$8,050,000**

Project ID	Title	Cost (\$M)	Complete
T6013	Bridge Replacement - Temple Hill Road	\$8.2	2023

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Bridge

Route

Facility

Temple Hill Road Bridge

From:

To

Over Pea Hill branch

County

Prince Georges

Municipality

Description

This project replaces the existing structure, Bridge No. P1505 over Pea Hill Branch with a larger, wider and higher structure. The replacement bridge will be 36 feet wide to improve vehicular safety and to accommodate pedestrians and bicycle usage. The roadway approaches will be improved on both sides of the bridge, from Salima Street to 1500 feet north for night time visibility and eliminate the sag vertical curve in the vicinity. Roadway lighting will be included. The existing 16 foot long 22 foot wide street beam, concrete deck structure carries Temple Hill Road over Pea hill Branch. The narrow width of the structure has resulted in frequent vehicular collisions with the traffic barrier, causing significant damage to the superstructure. The existing structure is in poor condition and needs to be replaced.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$200,000**

Project ID	Title	Cost (\$M)	Complete
T5401	Bridge Replacement, Federal Aid	\$41.3	2029

Primary Project Typ

Bridge - Replace

Location Tyhpe:

Bridge

Route

Facility

Bridge Replacement Federal Aid

From:

various locations

To

various locations

County

Prince Georges

Municipality

Description

This project will rehabilitate deteriorated bridges exceeding 20 feet in length where the current deteriorated condition of the bridges does not warrant replacement. Federal Aid funding will be utilized for design and construction of the projects at an 80/20 federal/local ratio.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$23,550,000**

Project ID	Title	Cost (\$M)	Complete
T5609	Curb and Road rehabilitation II	\$-00	2024

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Various Locations

Route

Facility

various locations

From:

To

County

Prince Georges

Municipality

Description

This Project provides funding for rehabilitation County streets, curbs and sidewalks, various safety improvements, installing new sidewalks, construction of sidewalk ramps in accordance with the Americans with Disabilities Act, landscaping, traffic calming improvements, revitalization improvements and the installation of guardrails. The project also includes funding to urbanize and revitalize older subdivisions. An ongoing resurfacing and safety program provides increased vehicular and pedestrian safety remedies to address hazardous conditions and upgrade the appearance of neighborhoods.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6003	Green/Complete Street Improvements	\$7.2	

Primary Project Typ

Landscaping/Beautification

Location Tyhpe:

Various Locations

Route

Facility

Various locations County-wide

From:

To

County

Prince Georges

Municipality

Description

This project provides funding for a variety of street improvements along major roadways and at key intersections to improve their appearance, safety and functionality while addressing environmental issues. These improvements include but are not limited to roadway and intersection modifications, tree planting, bio retention facilities or stormwater management related water quality and quantity measures necessary to improve the environment, bicycle lane installation and the construction of sidewalks and paths.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$7,200,000**

Project ID	Title	Cost (\$M)	Complete
T6370	Pedestrian Safety Improvements	\$49.2	2028

Primary Project Typ

Bike/Ped

Location Tyhpe:

Various Locations

Route

Facility

From:

To

Various locations County-wide

County

Municipality

Prince Georges[Description](#)

This project will involve the creation of multiple projects to provide for roadway improvements that are oriented toward the enhancement of pedestrian safety, particularly along roadways or at intersections which have a history of crashes. Priority will be given to the correction of problems where there is a high incidence of pedestrian related crashes.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$12,485,000**

Project ID	Title	Cost (\$M)	Complete
T6026	School Access Project	\$7.6	2022

Primary Project Typ

Bike/Ped

Location Tyhpe:

Various Locations

Route

Facility

From:

To

Various locations County-wide

County

Municipality

Prince Georges[Description](#)

This project provides funding for vehicular and pedestrian access improvements, in conjunction with the construction of new schools or renovations and additions to existing school buildings. This project provides sidewalks, crosswalks and other enhancements for students walking within 1 to 1.5 miles of their respective schools in accordance with the current Prince George's County Board of Education policy. In addition, Federal funding through the State of Maryland is for the Safe Routes to School (SRTS) program, to engage and encourage children to safely walk or bike to school including children with disabilities within two miles of school (K-8)

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6372	Street Lights and Traffic Signals 2	\$42.4	2029

Primary Project Typ
Landscaping/Beautification

Location Tyhpe:
Various Locations

Route Facility
Various locations County-wide

From: To

County
Prince Georges

Municipality

Description

This project consists of installing traffic control signals and new street lights at various locations throughout the county. The program includes installing new signals, upgrading of existing signals, replacement of aging signals, the Energy Abatement program, installation of traffic surveillance cameras and communications equipment, and the upgrade of existing street lighting on County roadways. This project also provides some funding for the TRIP (traffic Response and Information Partnership) Center.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$8,000,000**

Project ID	Title	Cost (\$M)	Complete
T5808	Sunnyside Avenue Bridge Replacement	\$15.8	2023

Primary Project Typ
Bridge - Replace

Location Tyhpe:
Bridge

Route Facility
Bridge Replacement – Sunnyside Avenue

From: To
Over Indian Creek

County
Prince Georges

Municipality

Description

This Project replaces the Sunnyside Avenue Bridge over Indian Creek and widens the roadway west of the CSX crossing to Kenilworth Avenue (MD 201). The original bridge design was built in 1946, and rehabilitated in 1966 and 1974. Funding is anticipated to be 80% Federal Aid for bridge design and construction. Right-of-way, wetlands mitigation, and roadway reconstruction beyond the bridge and approach limits are anticipated to be 100% County-funded.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6381	Transit Oriented Development Infrastructure	\$43.0	2027

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Various Locations

Route Facility

From:

To

County

Prince Georges

Municipality

Description

This project provides funding for roadway improvements in proximity to the County's Metro Stations. Street, bridge and intersection improvements are included to increase the capacity of the roadway network and to facilitate and improve safety of all modes of transportation.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$38,000,000**

Non-Infrastructure

Project ID	Title	Cost (\$M)	Complete
T11593	Major Reconstruction Program (DPW&T)	\$93.1	2028

Primary Project Typ

Environmental Only Project

Location Tyhpe:

Other

Route Facility

From:

To

County

Municipality

Description

This ongoing program by the Department of Public Works and Transportation will redesign, reconstruct and rehabilitate major drainage and flood control projects throughout the County

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$62,980,000**

Project ID	Title	Cost (\$M)	Complete
T6012	Modification of ADA Rights of Way County-Wide	\$2.4	2025

Primary Project Typ

Landscaping/Beautification

Location Tyhpe:

Other

Route Facility

From:

To

ADA Rights of Way Modifications County-Wide

Various Locations

County

Prince Georges

Municipality

Description

This Project will modify existing curb, gutters and sidewalks throughout the County to bring the existing infrastructure into compliance with current Americans with Disabilities Act (ADA) design standards.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,200,000**

Project ID	Title	Cost (\$M)	Complete
T6371	Planning and site acquisition 2	\$5.7	2029

Primary Project Typ
Environmental Only Project

Location Tyhpe:
Other

Route Facility
Various locations County-wide

From: To

County
Prince Georges

Municipality

Description

This project provides funding for acquiring land for road rights-of-way, reforestation mitigation and wetland banking in developing areas of the County. The demolition of structures on acquired land is also included. It also provides funding for future project planning studies in order to verify need, determine scope and develop preliminary cost estimates.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$2,000,000**

Roadways

Project ID	Title	Cost (\$M)	Complete
T6367	Addison Road I	\$6.7	2026

Primary Project Typ
Road - Add Capacity/Widening

Location Tyhpe:
Road Segment

Route Facility
Addison road

From: To
Walker Mill Road MD 214 (Central Avenue)

County
Prince Georges

Municipality

Description

The project consists of reconstructing Addison Road from Walker Mill Road to MD 214. Initially four travel lanes with a median will be constructed. Improvements will include roadway widening, the construction of crosswalks, sidewalks, landscaping, street lighting and a roadway median to improve the safety, function, capacity and appearance of the roadway. .

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,800,000**

Project ID	Title		Cost (\$M)	Complete
T5806	Bridge Replacement - Livingston Road		\$13.7	2027
Primary Project Type		Location Tyhpe:		
Bridge - Replace + Add Capacity		Bridge		
Route	Facility	From:	To	
	Bridge Replacement - Livingston Road		Over Piscataway Creek	
County		Municipality		
Prince Georges				
Description				
This project will replace the existing Livingston Road Bridge over Piscataway Creek, reconstruct the approach roadways and install sidewalks, street lights, and landscaping. Funding for the bridge replacement is anticipated to be 80% Federal Aid for design and construction. Right of way, wetland, mitigation, and necessary roadway rehabilitation beyond the bridge and approach limits are anticipated to be County funded. the bridge is currently load restricted to 58,000 pounds and was originally constructed in 1932.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				
		\$10,250,000		

Project ID	Title		Cost (\$M)	Complete
T6369	Cherry Hill Road III			2029
Primary Project Type		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
	Cherry Hill Road	Selman Road	US 1	
County		Municipality		
Prince Georges				
Description				
Cherry Hill Road III				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title		Cost (\$M)	Complete
T6024	Developer Contribution Projects		\$1.5	2024
Primary Project Type		Location Tyhpe:		
Road - Recons/Rehab/Maintenanc		Various Locations		
Route	Facility	From:	To	
	Various locations County-wide			
County		Municipality		
Prince Georges				
Description				
This project provides funding for a variety of street improvements necessitated by new development. These improvements include, but are not limited to, traffic signals, intersection modifications, roadway widening, new construction, resurfacing, landscaping and contributions to a variety of State highway projects.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				
		\$1,500,000		

Project ID	Title	Cost (\$M)	Complete
T3132	Hill Road III	\$4.8	2028

Primary Project Typ
Road - Add Capacity/Widening

Location Tyhpe:
Road Segment

Route Facility
Hill Road

From: MD 704 ML King Jr Highway To
MD 204 Central Avenue

County
Prince Georges

Municipality

Description

This project involves improvements to the Hill Road/MD 704 intersection. It includes sidewalk construction, street lighting and landscaping. The construction of traffic circles at several locations along Hill Road will also be evaluated as traffic measures to improve safety. This project will be partially funded with developer contributions.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6684	Molly Berry Road Bridge	\$6.1	2024

Primary Project Typ
Bridge - Replace

Location Tyhpe:
Bridge

Route Facility
Molly Berry Road

From: To

County
Prince Georges

Municipality

Description

Using federal aid, this project will replace the existing concrete box beam bridge, which is structurally deficient. Prince George's County developed design standards for the NEXT beam (an innovative pre-fabricated concrete beam) under a previously awarded FHWA grant. This project will be designed using these standards and other innovations such as ultra-high performance concrete. Design is underway and at the 30% stage. DPW&T is applying for a \$1,000,000 FHWA grant to cover the construction costs of this project. DPW&T will be the first public agency in the state of Maryland to use the NEXT beam. A total of \$1,900,000 is programmed for construction in FY'21.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$2,000,000**

Project ID	Title	Cost (\$M)	Complete
T6373	Traffic Congestion Improvements	\$62.4	2029

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Various Locations

Route Facility

Various locations County-wide

From:

To

County

Prince Georges

Municipality

Description

This project provides funding for roadway enhancements including turning lanes, improved approaches, traffic signals, signage at various intersections, bus stop pads, traffic calming devices, landscaping, pedestrian facilities and thermoplastic markings. This project will also provide for roadway improvements that are oriented toward enhancement of pedestrian safety, particularly along roadways or at intersections which have a history of crashes. Included in the work to be performed is the acquisition of right-of-way along the Leeland Road approach to be the Leeland Road/Moores Plains Boulevard intersection. FY 2015 "other" funding includes \$75k from developer contributions.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$20,607,000**

Transit

Project ID	Title	Cost (\$M)	Complete
T6375	Bus Mass Transit/ Metro Access 2	\$6.6	2028

Primary Project Typ

Transit - Bus

Location Tyhpe:

Not Location Specific

Route Facility

Various locations County-wide

From:

To

County

Municipality

Region-wide

Description

Funds from this project may be used to purchase buses, construct related capital facilities for both bus and rail activities, roadway improvements and provide pedestrian and vehicular access improvement to metro stations and bus stops.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,750,000**

Town of Leesburg

Roadways

Project ID	Title	Cost (\$M)	Complete
CE3726	RTE 15 Leesburg Bypass / Battlefield Parkway Interchange		2023

Primary Project Type

Preliminary Engineering/Environm

Location Type:

Interchange

Route

Facility

US 15 Bypass / Battlefield Parkway

From:

To

County

Loudoun

Municipality

Town of Leesburg

Description

RTE 15 LEESBURG BYPASS IAR - VDOT OVERSIGHT of locally administered Interchange Access Report on Route 15 at Battlefield Parkway

TPB

Non-Infrastructure

Project ID	Title	Cost (\$M)	Complete
T6366	Enhanced Mobility of Seniors and Individuals with Disabilities		

Primary Project Type

Human Service Transportation Co

Location Type:

Other

Route

Facility

From:

To

County

Municipality

Region-wide

Description

This program is intended to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-dependent populations beyond traditional public transportation services and Americans with Disabilities Act (ADA) complementary paratransit services. This also includes funding for six sub-projects funded in FY 2021 by the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 and five sub projects funded in FY 2021 by the American Rescue Plan Act (ARPA). See the listing of subprojects for each on the following pages. These funds are for the urbanized area within the District of Columbia, Maryland and Virginia metropolitan region.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Virginia Department of Transportation

Local Street

Project ID	Title	Cost (\$M)	Complete
CE3649	Army Navy Country Club		2023

Primary Project Typ

Other Trails

Route Facility
Trail

County
Arlington

Description

New roadway for use by emergency vehicles, as well as bicycles and pedestrians. Project connects the Arlington Views neighborhood on the north side of I-395 to Army Navy Drive on the south side of Army Navy Drive, through the northeast corner of Army Navy Country Club. Project provides more direct emergency access to meet the needs of police and fire, as well as an improved bicycle and pedestrian connection. General motor traffic will be prohibited. 3-8-2021 Updates This project will be a trail now, rather than a street.

Location Tyhpe:

Trail/Path Segment

From: To
Memorial Drive at Army Navy Drive South Queen Street

Municipality

Project ID	Title	Cost (\$M)	Complete
CE2139	Battlefield Parkway, Construct		2016

Primary Project Typ

Road - Other Improvement

Route Facility
Battlefield Parkway

County

Description

Construct Battlefield Parkway; totaling approximately 2.4 miles of 4-lane divided on 6-lane right-of-way and 1 mile of 4-lane divided. Construct 3 interchanges planned at the Dulles Greenway, Route 7 East, and Route 15 Bypass North. A short portion of the northern end of Battlefield Parkway has been completed through the Potomac Crossing development. Some other portions will be built in accordance with proffered conditions as development occurs, however, the interchanges remain unfunded. Battlefield Parkway will be a semi-circumferential, arterial roadway serving two-thirds of the town's land area. It will be the primary distributor of traffic from Rte 7, the Bypass, and the Dulles Greenway to all parts of town outside of the Bypass. Intensive urban development is projected in this area. Battlefield Parkway is included in the Townes Transportation Plan and in the 2010 Statewide Highway Plan. Furthermore, the Rte 7 interchange is indicated in VDOT's Rte 7 Corridor Study. Proffers and RSTP. VU28b - US 15 south to Dulles Greenway - 2005 - 4 lanes on 6-lane ROW - by developer v- COMPLETE VU28c - Dulles Greenway to Sycolin Road - 2006 - 4 lanes on 6-lane ROW - by developer - COMPLETE VU28d - Sycolin Road to Kincaid Blvd. - 2009 - widen to 4 lanes on 6-lane ROW - by VDOT/Town - COMPLETE VU28e - Kincaid Blvd. to Route 7 - 2010 - construct 4 lanes on 6-lane ROW - by VDOT/Town - COMPLETE VU28f - Route 7 to Fort Evans Road - 2005 - 4 lanes on 6-lane ROW - by developer - COMPLETE VU28g - Fort Evans Road to Edwards Ferry - 2010 - 4 lanes on 6-lane ROW - by Leesburg VU28h - Cattail Branch to US 15 Bypass - completed - 4 lanes - by developer

Location Tyhpe:

Street Segment

From: To
US 15 South of Leesburg US Bypass north

Municipality

Town of Leesburg

Project ID	Title	Cost (\$M)	Complete
CE3528	Broadband Link for Eisenhower Avenue		2023

Primary Project Typ
Road - ITS/Technology

Location Tyhpe:
Street Segment

Route Facility
Eisenhower Avenue

From: To
VA 410 Van Dorn St Eisenhower Connector

County

Municipality
City of Alexandria

Description

This project will help mitigate the impacts of the proposed Transportation Safety Administration (TSA) development on Eisenhower Avenue and improve transit vehicle operation. The TSA site will be staffed by 3,800 TSA employees as well as other service providers and is expected to generate 648 AM peak hour trips and 624 PM peak hour trips. The new TSA site will require the installation of two new traffic signals. There is no communications infrastructure in place to connect these new signals with the traffic signal system or the signals on either side of the development site. The existing signals on Eisenhower Avenue operate independently and are not synchronized. The goal of this project is to facilitate this increased demand while improving transit vehicle performance at the Van Dorn Metro Station. This project will install the following: 1) Communications conduit and fiber optic cable between Van Dorn Street and Clermont Avenue; 2) Traffic cameras at key locations along Eisenhower Avenue to monitor TSA traffic; 3) Provide the communications network to connect the new and existing traffic signals to provide synchronization along Eisenhower Avenue to mitigate the impacts of TSA related traffic; and, 4) Provide a connection of the cameras and traffic signals to the City's Transportation Management Center (TMC).

Project ID	Title	Cost (\$M)	Complete
CE3677	Convert 27th Street South to 2-way		2019

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Street Segment

Route Facility
27th Street South

From: To
US 1 Crystal Drive

County

Municipality

Description

Convert from 1-way to 2-way.

Project ID	Title	Cost (\$M)	Complete
CE1783	Eisenhower Valley Access and Circulation Improvements		2023

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Street Segment

Route

Facility

Eisenhower Valley Access and Circulation Improvements

From:

Mill Road

To

Holland Lane

County

Municipality

City of Alexandria

Description

UPC 52175 was for the NEPA and we added UPC 77378 for the widening of Eisenhower between Mill & Holland. Also added new TIP for this widening. Widen Eisenhower Avenue, within the cited limits intended to relieve congestion and improve safety along Eisenhower Avenue, Mill Road and Holland Lane. The project includes improvements to the Eisenhower Ave./Mill Road Intersection, Eisenhower Ave./ John Carlyle Street intersection, sidewalk improvements along the north side of Eisenhower Avenue, and at the Eisenhower Avenue/ Holland Lane intersection. Improvements at the Mill Rd. intersection includes widening in the southwest quadrant along Mill Road, addition of a second left turn lane from Eisenhower Avenue to Mill Road, improvements to all crosswalks in the intersection, and milling/overlaying work. Improvements at the Eisenhower Ave. & John Carlyle St. intersection includes a left turn lane at John Carlyle Street. The improvements at the Eisenhower Avenue/Holland Lane intersection include replacing the roundabout with a signalized intersection. After the reconfiguration the intersection will have two thru lanes westbound, a variable width grassed median generally 9.5 feet in width, two thru lanes eastbound, and a right turn lane onto Holland Lane. The sidewalk along the north and south sides of Eisenhower Avenue will be improved. Other miscellaneous improvements will be made along the corridor which includes improving curb cut ramps and the addition of a mid-block crosswalk in front of the Patent and Trademark Office.

Project ID	Title	Cost (\$M)	Complete
CE3300	Evergreen Mill Road Widening		2022

Primary Project Type

Road - Other Improvement

Location Type:

Street Segment

Route

Facility

Evergreen Mill Road

From:

Rt 15 S. King Street

To

South City Limits

County

Municipality

Town of Leesburg

Description

Evergreen Mill Road Widening

Project ID	Title	Cost (\$M)	Complete
CE3601	Evergreen Mills Road Realignments - Reservoir Road & Watson Road		2022

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Intersection

Route

Facility

VA 621 Evergreen Mills Road

From:

VA 860 Watson Road

To

VA 861 Reservoir Road

County

Municipality

Description

This project provides for the design, right-of-way acquisition and construction of the realignment of Evergreen Mills road at the intersections of Reservoir Road and Watson Road.

Project ID	Title	Cost (\$M)	Complete
CE3286	Farrington Avenue		2034

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Street Segment

Route

Facility

New road

From:

Van Dorn Street at Eisenhower Avenue

To

Edsall Road

County

Municipality

Fairfax

City of Alexandria

Description

This project would construct a new road along the southwest edge of the City, and would extend from Van Dorn Street at Eisenhower Avenue, to the west and north, connecting to Edsall Road. A portion of the western edge of this road would be in Fairfax County.

Project ID	Title	Cost (\$M)	Complete
CE3616	Four Mile Run Trail expansion		2021

Primary Project Typ

Bike/Ped

Location Tyhpe:

Street Segment

Route

Facility

Four Mile Run Trail expansion

From:

Route 1

To

Mt Vernon Trail

County

Municipality

Arlington

City of Alexandria

Description

1 and under Potomac Avenue and the CSX tracks to access the Mt. Vernon Trail. Today, within Alexandria, there is not a good connection from the Mt. Vernon Trail to the Four Mile Run trail. The project will enhance pedestrian and bicycle connectivity, local and regional transit, and access to the future Potomac Yard Metrorail station.

Project ID	Title		Cost (\$M)	Complete
CE3375	Grant Avenue Road Diet			2020
Primary Project Type		Location Type:		
Road - Other Improvement		Street Segment		
Route	Facility	From:	To	
	VA 234 Grant Avenue	Lee Avenue	Wellington Road	
County		Municipality		
		City of Manassas		
Description				
Modify Grant Avenue (road diet)				
Project ID	Title		Cost (\$M)	Complete
CE3283	High Street Bridge to Landmark Mall			2025
Primary Project Type		Location Type:		
		Street Segment		
Route	Facility	From:	To	
	High Street	Landmark Mall	Stevenson Avenue	
County		Municipality		
		City of Alexandria		
Description				
This project will construct a new road and bridge across Duke Street to connect a redeveloped Landmark Mall with new developments to the south. This road and bridge is only intended for use by pedestrians, bicycles, and transit.				
Project ID	Title		Cost (\$M)	Complete
CE3617	Holmes Run Trail Connector			2040
Primary Project Type		Location Type:		
Bike/Ped		Trail/Path Segment		
Route	Facility	From:	To	
	Holmes Run Trail	N. Ripley St.	S. Pickett St.	
County		Municipality		
		City of Alexandria		
Description				
The proposed trail would be located in a Resource Protection Area (RPA), so it will be constructed with pervious material. The project will add wayfinding signage, accessible curb ramps, and a wide permeable multimodal use path that is called for in the Pedestrian and Bicycle chapter of the City of Alexandria's Transportation Master Plan, and Holmes Run Park Plan. This project is ranked as a "high priority" project in the Transportation Master Plan.				

Project ID	Title	Cost (\$M)	Complete
CE3174	King and Beauregard Intersection Improvements, Phases 1 and 2		2025

Primary Project Type

Road - Other Improvement

Location Type:

Intersection

Route

Facility

VA 7 King/Beauregard Intersection Improvements

From:

0.05 mi N of Beauregard St

To

0.19 mi S of Beauregard St.

County

Municipality

City of Alexandria

Description

Regional growth and development of the King Street corridor, particularly in Fairfax County, has resulted in increased traffic congestion at the intersection of King and Beauregard Streets. Improvements to this intersection have been discussed since the 1970s. In the 1990s, the State conducted a comprehensive transportation study of the Beauregard Street Corridor from Little River Turnpike (Fairfax County) to Arlington Mill Road (Arlington County). The findings and recommendations of the study were presented by the Virginia Department of Transportation (VDOT) staff to the City's Beauregard Street Corridor Task Force in November 1995. The Task Force, made up of representatives of Alexandria, Fairfax County, and Arlington County reviewed the findings and reached consensus that a six-lane, grade-separated alternative for the intersection should be the selected design option. In June 1997 (based on concerns expressed by Arlington residents and new Arlington County Board members), the Commonwealth Transportation Board directed the VDOT staff to postpone the detailed design of the project until an updated traffic analysis was conducted to verify the need for the selected alternative. VDOT engaged the consulting firm of Michael Baker and Associates in December 1998 to perform this traffic analysis update. In 1999, VDOT put this project on hold at the request of the City until discussions among VDOT, Arlington County, and the City could occur. The City and Arlington County staff then met with VDOT to examine at-grade potential solutions to the traffic problems associated with this intersection. VDOT commenced a study to examine redesign alternatives for this intersection during fall/winter 2000-2001. VDOT submitted preliminary concept information to the City. The design phase is expected to continue into FY 2013, and then construction is anticipated to begin in Fall of 2013.

Project ID	Title	Cost (\$M)	Complete
CE3623	Mt. Vernon Trail at East Abingdon Dr.		2026

Primary Project Type

Bike/Ped

Location Type:

Trail/Path Segment

Route

Facility

Mt. Vernon Trail at East Abingdon Dr.

From:

Between end of Mt. Vernon trail north of Slaters Ln.

To

Norfolk Southern Tracks south of Slaters Ln.

County

Municipality

City of Alexandria

Description

Bicycle and Pedestrian Master Plan calls for widening the bike trail as it transitions from off-street to on-street, add signage and improve crossing at Slaters Lane. Install southbound contraflow lane on E. Abingdon Drive to connect to Mt. Vernon Trail spur.

Project ID	Title	Cost (\$M)	Complete
CE3284	Multimodal Bridge to Van Dorn Metro Station		2030

Primary Project Typ

Location Tyhpe:

Various Locations

Route Facility

From:

Eisenhower Avenue

To

S. Pickett Street

County

Municipality

City of Alexandria

Description

This project would provide new access to the Van Dorn Metro station through a proposed new multimodal bridge. This project was recommended in the Landmark/Van Dorn Corridor Plan .It would connect from Eisenhower Avenue to S. Pickett Street, and would provide a connection to the Metro station and activities on Eisenhower Avenue with Cameron Station and development along South Pickett Street. It would be designed to provide access for transit, pedestrians, bicyclists, and potentially general traffic.

Project ID	Title	Cost (\$M)	Complete
CE3618	Old Cameron Run Trail Construction		2026

Primary Project Typ

Bike/Ped

Location Tyhpe:

Trail/Path Segment

Route Facility

Old Cameron Run Trail

From:

Mt. Vernon Trail

To

Eisenhower Ave Trail

County

Municipality

City of Alexandria

Description

Construct on street bicycle lanes that connect to Mt. Vernon Trail

Project ID	Title	Cost (\$M)	Complete
CE3480	Potomac Shores		2020

Primary Project Typ

Road - New Construction

Location Tyhpe:

Street Segment

Route Facility

VA 234 Potomac Shores Parkway

From:

US 1 Jefferson Davis Highway

To

Potomac Shores Parkway

County

Municipality

Prince William

Description

Construct offsite Potomac Shores/Harbor Station Parkway Connection from Route 1 to River Heritage, 4 lane road.

Project ID	Title	Cost (\$M)	Complete
CE3609	Rock Hill Road Overpass (CONNECTOR ROAD FROM SUNRISE VALLEY DR TO INNOVATION AVE)		2030

Primary Project Type

Bridge - Rehab + Add Capacity

Location Type:

Street Segment

Route

Facility

Rock Hill Road Overpass

From:

5320 Sunrise Valley Drive

To

209 Innovation Avenue

County

Fairfax, Loudoun

Municipality

Description

Construct a four-lane roadway over the Dulles Toll Road from Sunrise Valley Drive on the south side to Innovation Avenue in Loudoun County on the north side. The project would include pedestrian and bicycle facilities.

Project ID	Title	Cost (\$M)	Complete
CE3449	Rockhills 4-lane Overpass		2020

Primary Project Type

Study/Planning/Research

Location Type:

Street Segment

Route

Facility

Rockhill 4-Lane Overpass

From:

VA 605 Sunrise Valley Drive

To

VA 868 Davis Drive Extension

County

Fairfax

Municipality

Description

Construct a 4-lane roadway over the Dulles Toll Road from Sunrise Valley Drive on the south, to Davis Drive extension in Loudoun County on the north side. The project would include pedestrian and bicycle facilities. It is recommended in Dulles Suburban Center Land Unit A Amendment approved by the BOS.

Project ID	Title		Cost (\$M)	Complete
CE3175	Seminary Road & Beauregard Street Ellipse			2028
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Intersection		
Route	Facility	From:	To	
	Seminary Road/ Beauregard St. Intersection	Seminary	Beauregard	
County	Municipality			
	City of Alexandria			
Description				
<p>The intersection of Beauregard Street and Seminary Road is proposed to be reconfigured in the form of an unconventional at-grade intersection, referred to in this study as an A-“ellipse,” due to its geometric layout. The proposed ellipse would eliminate left turns from both directions along Seminary Road and redirect those movements as right turns, which would subsequently circulate around part of the ellipse to continue in the desired direction. Although the traffic circulation pattern of the ellipse would be very similar to that of a modern roundabout, through traffic movements along Seminary Road would be allowed to pass straight through the center island of the ellipse. Therefore, several traffic signals will be required around the ellipse to alternate the right-of-way among the various movements. The primary benefit of the elliptical configuration is the reduction of potential vehicle conflict points due to the elimination of the left turn movements along Seminary Road. This reduces the number of signal phases required at the Beauregard/Seminary intersection, and may also reduce the likelihood of certain types of crashes (such as those involving through vehicles colliding with left turning vehicles). The current design concept for the ellipse shows the proposed intersection of Beauregard Street at future Main Street (from Southern Towers) located at the northern end of the ellipse. The ellipse was recommended as a needed project in the Beauregard Small Area Plan, to support future development in the Beauregard area.</p>				

Project ID	Title		Cost (\$M)	Complete
CE1952	Spring Street Widen 4 to 6 lanes, intersection & ramp impv., sidewalks			2024

Primary Project Type
Road - Other Improvement

Location Type:
Street Segment

Route Facility
Spring Street

From: To
Herndon Parkway East Fairfax County Parkway

County Municipality
Town of Herndon

Description

Widen Spring Street from 4 to 6 lanes between Herndon Parkway East and the Fairfax County Parkway (including entrance and exit ramps). This project will also provide better access for the future Herndon Park & Ride and Metrorail station

Project ID	Title	Cost (\$M)	Complete
CE2073	Sycolin Road		2027

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Street Segment

Route Facility
Sycolin Road

From: To
VA/US 7/15 Leesburg Bypass SCL of Leesburg

County

Municipality
Town of Leesburg

Description

Widen Sycolin Road (Rte 643) from a 2-lane to a 4-lane facility between the VA 7/US 15 Bypass and the southern corporate limit, a distance of 1.6 miles. Design speed will be 45 mph in anticipation of a 35 mph posted speed. This improvement was recommended in the 1984 Leesburg Transportation Study prepared by VDOT and adopted by the Town Council. It is needed for several reasons: 1) This section of Sycolin Road provides the sole access to the municipal airport and to Loudoun County's primary government office complex. 2) The Sycolin Road/Plaza Street alignment, stretching from the southern corporate limits to Battlefield Parkway near the edge of town, is the only continuous north-south arterial route in Leesburg other than Rte 15. 3) Rte 643 will serve significant urban growth projected in the area between Leesburg and the Dulles/Rte 28 corridor. Revenue sharing portion of total length.

Project ID	Title	Cost (\$M)	Complete
CE3526	Traffic Adaptive Signal Control		2024

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Not Location Specific

Route Facility
CITY WIDE

From: To

County

Municipality
City of Alexandria

Description

Traffic adaptive signal control will reduce congestion on the City of Alexandria's transportation network by continuously optimizing traffic signal operation. Although Alexandria is adopting smart growth policies and multi modal approaches to traffic management, much of the traffic congestion in the City is created by outside factors. The current traffic signal control system utilizes 30 year old control technology and is not capable of adapting to changing conditions that occur on an almost daily basis. The City is investing considerable money in transit service by providing three dedicated transitways as well as expanding the DASH bus service in the near future. This project will enable all of this new transit service to operate more reliable by providing enhanced transit signal priority capabilities. This project will no increase the capacity of the roadway network but will allow better operation and management of the network that is in place. This project will do the following: 1) Upgrade the central control hardware and software; 2) Upgrade the traffic signal controllers in the field; 3) Install vehicle sensing technology; 4) Utilize mobile device tracking to track global conditions and collect historical trends; and 5) Use adaptive signal control to improve transit operations.

Non-Infrastructure

Project ID	Title	Cost (\$M)	Complete
CE3441	VA 17 Intersection Improvements in Warrenton		2021

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Intersection

Route Facility
VA 17

From:
Frost Avenue south of
Municipality

To
Winchester Street south of

County

Description
Reconstruct

Project ID	Title	Cost (\$M)	Complete
CE3527	Van Dorn-Beauregard Multi-Use Trail		2023

Primary Project Typ
Bike/Ped

Location Tyhpe:
Trail/Path Segment

Route Facility
Van Dorn-Beauregard Multi-use trail

From:
VA 7 King Street

To
Seminary Road

County

Municipality
City of Alexandria

Description

A missing link in the City's bicycle network is a separated on-street bicycle facility along Beauregard and Van Dorn Streets (between King Street and Eisenhower Avenue). This facility would address missing links not anticipated to be constructed as part of other projects/ developments (primarily along Beauregard Street between King Street and Seminary Road) for a north-south connection to the City's Holmes Run Trail, running east-west, and connect bicycle users to Mark Center, the future Beauregard Town Center, and the Van Dorn Metrorail station. This project will be coordinated with the implementation of Transit Corridor C (West End Transitway).

Project ID	Title	Cost (\$M)	Complete
CE2876	Widen Liberia Avenue		2025

Primary Project Typ
Road - Other Improvement

Location Tyhpe:

Route Facility
Liberia Avenue

From:
VA 28

To
Richmond Avenue

County

Municipality
City of Manassas

Description

Widen from 4 to 6 lanes between listed limits

Project ID	Title	Cost (\$M)	Complete
CE2695	TIP Grouping project for Construction: Safety/ITS/Operational Improvements		2045

Primary Project Typ

Location Tyhpe:

Other

Route

Facility

From:

To

Safety/ITS/Operational Facilities**District-wide**

County

Municipality

Region-wide

Description

TIP Grouping 3, Construction: Safety/ITS/Operational Improvements In an effort to streamline and effectively manage the Virginia STIP, in April, 2008 the Federal and State agencies involved in the management of the Commonwealth's STIP process agreed upon procedures in a Memorandum of Agreement to meet this goal. Specifically, they said rather than list every project as a separate item in the TIP requiring cumbersome amendment processes, certain projects which were eligible for a Categorical exclusion (CE) with respect to the environmental process and which were exempt from air quality conformity in non-attainment/maintenance areas, could be grouped by certain categories and listed in an appendix at the back of the TIP, resulting in eliminating the need for the amendment process and associated time. The Memorandum of Agreement listed ten (10) FHWA Groupings and seven (7) FTA related Groupings. This grouping, Safety/ITS/Operations is one of the 10 FHWA groups and has the largest number amount of projects and includes safety improvement projects such as those as: those qualifying for HES/HSIP funding, shoulder improvements, increasing sight distance, traffic control devices, guardrails, median barriers, pavement resurfacing/rehabilitation, pavement marking, fencing, lighting improvements, intersection channelization/signalization/reconfiguration projects, traffic calming, addition/extension of turn lanes, extension of acceleration/deceleration lanes, and drainage improvements. The group also includes reconstruction or minor widening on or adjacent to same alignment (no increase in capacity).â The current list of individual projects/programs included in this group are listed in Appendix A of the TIP document and are uploaded under item 17 of this document. The combined amount of funding for this group is listed in the TIP with the planned obligation amounts for the individual projects/programs listed in Appendix A. Pursuant to the agency's MOA with FHWA and FTA, the planned obligation amounts change during the course of the fiscal year as funds are reprogrammed among the various projects/programs. Occasionally projects and funding are added to the group. The MPO is notified in all instances of changes made to the group. However, these projects will not appear in the current TIP appendix until the next TIP revision.

Roadways

Project ID	Title	Cost (\$M)	Complete
CE3165	Airport Collector Access/Crosstrail Ramp		2015

Primary Project Typ

Location Tyhpe:

Road - Other Improvement**Road Segment**

Route

Facility

From:

To

Ramp from VA 267 (Dulles Greenway)**VA 267 Dulles Greenway****(Future) Hawling Farm Boulevard**

County

Municipality

Loudoun

Description

New egress ramp from westbound Dulles Greenway to future Hawling Farm Blvd.

Project ID	Title		Cost (\$M)	Complete
CE3753	Annapolis Way Extension			2028
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
	Annapolis Way	Route 123 Commuter Lot Entrance	Current termini west of Marina Way	
County		Municipality		
Prince William				
Description				
Construct approximately 0.28-mile segment of roadway between existing segments of Annapolis Way to create a connection between Route 1 and Route 123 (Gordon Blvd).				

Project ID	Title		Cost (\$M)	Complete
CE3308	Arcola Boulevard (Center Segment)			2022
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
VA 842	Arcola Boulevard	Dulles West Boulevard	Evergreen Mills Road	
County		Municipality		
Loudoun				
Description				
Design and construct a 4 lane controlled access median divided urban collector built within a 6 lane Right of Way				

Project ID	Title		Cost (\$M)	Complete
CE3307	Arcola Boulevard (Northern Segment)			2022
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 606	VA 606 Arcola Boulevard	Evergreen Mills Road	Loudoun County Parkway	
County		Municipality		
Description				
Design and construct a 4 lane controlled access median divided urban collector built within a 6 lane Right of Way				

Project ID	Title	Cost (\$M)	Complete
CE3306	Arcola Boulevard (Southern Segment)		2022

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route Facility

VA 606 VA 606 Arcola Boulevard

From:

Dulles West Boulevard

To

U.S. 50

County

Loudoun

Municipality

Description

Design and construct a 4 lane controlled access median divided urban collector built within a 6 lane Right of Way

Project ID	Title	Cost (\$M)	Complete
CE3742	Belmont Ridge Road	\$38.0	

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route Facility

VA 659 Belmont Ridge Road

From:

Arcola Mills Drive

To

Shreveport Drive

County

Municipality

Description

This project provides for the planning, design, right-of-way acquisition, and construction widening of Belmont Ridge Road (Route 659) from two lanes to four lanes as a suburban minor collector in a 120 ft. wide right-of-way between Arcola Mills Drive and Shreveport Drive. The project also includes intersection improvements with a traffic signal at Belmont Ridge Road and Arcola Mills Drive, and a bridge that carries Belmont Ridge Road over the North Fork of Broad Run River.

Project ID	Title	Cost (\$M)	Complete
CE3150	Boone Boulevard Extension (Rt 123 to Ashgrove)		2036

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route Facility

Boone Boulevard

From:

VA 123 Chain Bridge Road

To

Ashgrove Lane

County

Fairfax

Municipality

Description

Boone Boulevard extension west from Chain Bridge Road to Ashgrove Lane, Pedestrian facilities included. (1.3 Miles)

Project ID	Title		Cost (\$M)	Complete
CE3093	Boundary Chanel Drive Modifications			2022
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Intersection		
Route	Facility	From:	To	
	Boundary Channel Drive	I 395 Shirley Highway	Old Jefferson Davis Hwy & N. Jefferson Davis	
County		Municipality		
Arlington				
Description				
Project involves modifications to the intersection of Boundary Channel Drive and old Jefferson Davis Highway immediately off of the I-395/Boundary Channel Drive interchange. The project is part of the County's Long Bridge Park redevelopment initiative, to include the construction of a large Regional Aquatic Center. The project provides for multi-modal options in the vicinity of Long Bridge Park and improves safety security at the entrance to the Pentagon.				

Project ID	Title		Cost (\$M)	Complete
CE2158	Braddock Rd			2040
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 620	VA 620 Braddock Rd	VA 7100 Fairfax County Parkway	VA 0x Road	
County		Municipality		
Description				
Widen Braddock Road to six lanes between the Fairfax County Parkway and VA 123 (Ox Road)				

Project ID	Title		Cost (\$M)	Complete
CE1857	Braddock Road			2025
Primary Project Typ		Location Tyhpe:		
Study/Planning/Research		Road Segment		
Route	Facility	From:	To	
VA 620	VA 620 Braddock Road	I 495 I-495	VA Burke Lake Road	
County		Municipality		
Description				
This project examines provision of 2 HOV lanes on Braddock Road. Cost is estimated to be \$8,000,000.				

Project ID	Title	Cost (\$M)	Complete
CE3731	Braddock Road		2028

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

VA 620 Braddock Road

From:

Paul VI Eastern Entrance

To

Loudoun County Parkway

County

Loudoun

Municipality

Description

Widening Braddock Road between Paul VI Eastern Entrance & Loudoun County Parkway from 2 to 4 lanes

Project ID	Title	Cost (\$M)	Complete
CE3604	Braddock Road Route 659 to Fairfax County Line		2025

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

VA 620 VA 620 Braddock Road

From:

VA 659 Gum Spring Road

To

Fairfax County Line

County

Municipality

Description

This project provides for the planning, design, right-of-way acquisition and construction to widen Braddock Road to four lanes from Gum Spring Road (Route 659) to the Fairfax County line. The project entails the construction of a four lane median-divided roadway within a 120-foot right-of-way.

Project ID	Title	Cost (\$M)	Complete
CE3605	Braddock Road Route 659 to Royal Hunter Drive	\$6.1	2025

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

VA 620 VA 620 Braddock Road

From:

VA 659 Gun Spring Road

To

Royal Hunter Drive

County

Municipality

Description

This project provides for the planning, design, right-of-way acquisition and construction of a major collector roadway from Gum Spring Road (Route 659) to Royal Hunter Drive. The project entails the construction of a four-lane median divided roadway within a 120-foot right-of-way.

Project ID	Title	Cost (\$M)	Complete
CE3743	Braddock Road, Segment 2	\$34.0	2030

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route Facility

VA 620 Braddock Road

From:

Paul VI Eastern Entrance

To

Bull Run Post Office Road

County

Municipality

Description

This project provides for the planning, design, right-of-way acquisition, and construction to widen Braddock Road (Route 620) to four lanes between the Eastern Entrance of the Paul VI high school and Bull Run Post Office Road (Route 621). The project entails the construction of a four-lane, median-divided roadway within a 120-foot right-of-way, and includes the construction of a sidewalk on one side of the road and a shared use path on the other side.

Project ID	Title	Cost (\$M)	Complete
CE3732	Braddock Road, Segment 2		2030

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route Facility

VA 620 Braddock Road

From:

Paul VI Eastern Entrance

To

Bull Run Post Office Road

County

Municipality

Loudoun

Description

This project provides for the planning, design, right-of-way acquisition, and construction to widen Braddock Road (Route 620) to four lanes between the Eastern Entrance of the Paul VI high school and Bull Run Post Office Road (Route 621). The project entails the construction of a four-lane, median-divided roadway within a 120-foot right-of-way, and includes the construction of a sidewalk on one side of the road and a shared use path on the other side.

Project ID	Title	Cost (\$M)	Complete
CE3606	Braddock/ Summerall/ Supreme Intersection Improvements		2022

Primary Project Typ

Road - Intersection improvement

Location Tyhpe:

Intersection

Route Facility

VA 620 VA 620 Braddock Road

From:

Braddock

To

Summerall/Supreme

County

Municipality

Description

This project provides for the installation of a traffic signal and turn lanes at the intersection of Braddock Road (Route 620), Supreme Drive (Route 1257) and Summerall Drive (Route 1258). The missing half-section of Braddock Road near the subject intersection will be widened from two lanes to four lanes, the ultimate roadway condition of Braddock Road per the 2010 Countywide Transportation Plan, with bicycle/pedestrian facilities on both sides of the roadway.

Project ID	Title	Cost (\$M)	Complete
CE1754	Catharpin Road, Widen		2030

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

VA 676 VA 676 Catharpin Road

From:

VA 55 John Marshall Highway

To

Heathcote Boulevard

County

Municipality

Prince William

Description

Widen to 4 lanes. The widening of Catharpin Road north of Heathcote Blvd. to VA 704 (Artemus Road) has been dropped as this area is within Prince William Co's. rural crescent.

Project ID	Title	Cost (\$M)	Complete
CE3177	Construct VA 234 Bypass Interchange @ Balls Ford Road		2022

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Point Location

Route Facility

VA 234 VA 234 Bypass

From:

Va Balls Ford Road Relocated

To

County

Municipality

Prince William

Description

Route 234 Interchange Bypass/ Relocated Balls Ford Rd. Interchange: Diverging Diamond Interchange, relocation of Rte 621 southeast of existing location, bridge crossing over railroad, tie in to Devlin Road.

Project ID	Title	Cost (\$M)	Complete
CE3442	Construct VA 655 Shirley Gate Road from Fairfax County Parkway to Braddock Road		2030

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA 655** **VA 655 Shirley Gate Road**[From:](#)**VA 286 Fairfax County Parkway**[To](#)**VA 620 Braddock Road**[County](#)**Fairfax**[Municipality](#)[Description](#)

Construct VA 655 Shirley Gate Road as a four-lane facility from Fairfax County Parkway to Braddock Road.

Project ID	Title	Cost (\$M)	Complete
CE3309	Creighton Road (completion of eastern end)		2020

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA 774** **VA 774 Creighton Road**[From:](#)**Belmont ridge Road**[To](#)**Evergreen Ridge Drive**[County](#)**Loudoun**[Municipality](#)[Description](#)

Constructed the connection between Brambleton and Loudoun Valley II as a 4-lane divided roadway.

Project ID	Title	Cost (\$M)	Complete
CE3607	Croson Lane Claiborne Parkway to Old Ryan Road		2025

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA 645** **VA 645 Croson Lane**[From:](#)**VA 901 Claiborne Parkway**[To](#)**VA 772 Old Ryan Road**[County](#)[Municipality](#)[Description](#)

This project provides for the planning, design, right-of-way acquisition and construction to widen Croson Lane to four lanes from Claiborne Parkway to Old Ryan Road. The project entails the construction of a four-lane median-divided roadway within a 120-foot right-of-way.

Project ID	Title		Cost (\$M)	Complete
CE3734	Croson Lane Widening			2027
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
VA 645	Croson Lane	Claiborne Parkway	Old Ryan Road	
County		Municipality		
Loudoun				
Description				
This project provides for the planning, design, right-of-way acquisition, and construction to widen Croson Lane (Route 645) to four lanes between Claiborne Parkway (Route 901) and Old Ryan Road (Route 722). The project entails the construction of a four-lane, median-divided roadway within a 120-foot right-of-way, and includes the construction of a sidewalk on one side of the road and a shared use path on the other side.				

Project ID	Title		Cost (\$M)	Complete
CE3735	Crosstrail Boulevard, Segment C			2026
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
	Crosstrail Boulevard	Sycolin Road	Dulles Greenway	
County		Municipality		
Description				
This project provides for the planning, design, right-of-way acquisition, and the construction of a four-lane median divided road as a Major Collector between Sycolin Road and the Dulles Greenway on a 120 ft. wide right- of- way. The project also includes shared use paths on both sides of Crosstrail Boulevard and a bridge over Sycolin Creek.				

Project ID	Title		Cost (\$M)	Complete
CE3186	DAAH/I-495 Interchange Flyover Ramp Relocation (Phase IV DAAH)			2045
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Interchange		
Route	Facility	From:	To	
I 495	I 495	EB Dulles Airport Access Highway (DAAH) - Inner Lanes	I NB GP Lanes	
County		Municipality		
Fairfax				
Description				
Relocate EB Dulles Airport Access Highway flyover ramp to I-495 NB General Purpose lanes.				

Project ID	Title	Cost (\$M)	Complete
CE3755	Dale City Parkway Node New Through Boulevard		2030

Primary Project Typ
Road - New Construction

Location Tyhpe:
Road Segment

Route Facility
Thorough Boulevard

From: Minnieville Road (640) To
Elm Farm Road (892)

County
Prince William

Municipality

Description

Construct an approximately 0.5-mile new thorough boulevard between Minnieville Road and Elm Farm Road that will create a connection between Minnieville Road and the Prince William Parkway (Route 294).

Project ID	Title	Cost (\$M)	Complete
CE3767	Duke Street - West of Van Dorn		2025

Primary Project Typ
Road - New Construction

Location Tyhpe:
Road Segment

Route Facility
Duke Street

From: Van Dorn Street To
I-395

County

Municipality
City of Alexandria

Description

The flyover on Duke Street into Landmark will be taken down, and all retaining walls will be removed. A boulevard will be constructed on Duke Street west of Van Dorn The Walker and Duke Street intersection will become a full intersection allowing travel across Duke Street. The free right turn at the southwest corner of the intersection will be done by the developer of Landmark Overlook when the hotel is built. Pedestrian access will be improved. The road immediately east of Walker will have a fire station immediately adjacent to it. As a consequence a traffic signal activated by the fire station will allow fir trucks to travel from the station to eastbound Duke Street. The next intersection to the each (prior to Van Dorn) will be a full intersection that will allow traffic to go into Landmark and travel to Van Dorn.

Project ID	Title	Cost (\$M)	Complete
CE1965	Dulles Airport Access Road	\$400.0	2030

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route

Facility

Dulles Airport Access Road

From:

Dulles Airport

To

VA 123

County

Fairfax

Municipality

Description

Widen Dulles Airport Access Road from 4 lanes to 6 lanes. Implement safety and operational improvements, as necessary. Reconstruct/replace bridges, as necessary. Washington Dulles Airport has had a dramatic increase in usage since the construction of the original 4-lane access road in the 60's. Widening will occur within the present access right of way, eliminating the need for additional land for this project. The airport has undergone a major parking area renovation to enable it to keep pace with increased usage.

Project ID	Title	Cost (\$M)	Complete
CE3671	Dulles Greenway EB Transition		2019

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

Facility

VA 267 267 Dulles Toll Road

From:

Dulles Greenway/Dulles Toll Road
Merge

To

Centreville Road

County

Municipality

Description

The EB side of the Greenway will be widened from 2 general-purpose lanes to 3 from the Main Toll Plaza in Loudoun County eastward to the point where the Greenway merges into the Dulles Toll Road To create a transition, the new 3rd lane will be extended about 1,900 feet eastward within the Dulles Toll Road ROW to the Centreville Road off-ramp. This will add a 5th lane to a facility that now has 4 lanes. The model network currently shows a 4 lane cross section in this location. The 1,900 extension east from the Dulles Toll Road/Dulles Greenway merge provides a transition for safe operations. Other information: o Project owner: Trip II o Length of the project 2.5 miles entire widening; 1900 for the portion being added to the Plan o Project termini Dulles Greenway Main Line Toll Plaza to Rte 657 Centreville Road off-ramp. o Any new ramps No. o Any ramp modifications Yes. Modifications are proposed to the existing eastbound exit ramp of the Dulles Toll Road at Centreville Road. o Completion Date- April, 2019 o Funding source: private/tolls o Cost estimate, YOE : \$25 million

Project ID	Title	Cost (\$M)	Complete
CE3151	Dulles Toll Road Eastbound Collector/Distributor/Additional Lane		2036

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

VA 267 VA 267 Dulles Toll Road

From:

VA 684 Spring Hill Road

To

VA Wiehle Ave.

County

Municipality

Fairfax

Description

Construct collector-distributor road to allow additional closely spaced interchanges to be constructed in Tysons.

Project ID	Title	Cost (\$M)	Complete
CE3152	Dulles Toll Road Ramp to Boone Blvd Extension		2037

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

From:

VA 267 Dulles Toll Road

To

Boone Boulevard @ Ashgrove Lane

County

Municipality

Fairfax

Description

Ramp construction from the Dulles Toll Road to the new Boone Boulevard extension at Ashgrove Lane.

Project ID	Title	Cost (\$M)	Complete
CE3153	Dulles Toll Road Ramp to Greensboro Drive Extension		2036

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

From:

VA 267 Dulles Toll Road

To

Greensboro Drive to Tyco Road

County

Municipality

Fairfax

Description

Ramp construction from the Dulles Toll Road to the new Greensboro Drive extension at Tyco Road.

Project ID	Title		Cost (\$M)	Complete
CE3154	Dulles Toll Road Westbound Collector/Distributor/Additional Lane			2037
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 267	VA 267 Dulles Toll Road	VA 684 Spring Hill Road	VA Wiehle Ave.	
County		Municipality		
Fairfax				
Description				
Construct collector-distributor road to allow additional closely spaced interchanges to be constructed in Tysons.				

Project ID	Title		Cost (\$M)	Complete
CE2582	Dulles West Blvd Phase III			2025
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
	VA Dulles West Blvd. Phase	VA 606 Arcola Blvd	VA Northstar Blvd.	
County		Municipality		
Loudoun				
Description				
Four-lane median divided road to serve new development constructed by private sector proffer. Includes multi-use trails. Bicycle/pedestrian accommodations include 8 foot asphalt trail on north side; 100 foot asphalt trail on the south side. This project provides for the planning, design, right-of-way acquisition and construction of a major collector roadway of Dulles West Boulevard from Arcola Boulevard to Northstar Boulevard. The project entails the construction of a four-lane median-divided roadway within a 120-foot right-of-way.				

Project ID	Title		Cost (\$M)	Complete
CE3313	Dulles West Blvd. Phase I			2022
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
	Dulles West Blvd	Dulles Landing Drive	Hutchinson Farm Drive	
County		Municipality		
Loudoun				
Description				
(NOTE: this project was formerly known as Glasscock Road.). Construct new facility.				

Project ID	Title	Cost (\$M)	Complete
CE3314	Dulles West Blvd. Phase II		2022

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility
Dulles West Blvd.

From: To
Hutchinson Drive Arcola Blvd.

County
Loudoun

Municipality

Description

Design and construct as a four lane median divided facility. (NOTE: this project was formerly known as Glasscock Road.). The project entails the construction of a four-lane median-divided roadway within a 120-foot right-of-way, and intersection improvements at Arcola Boulevard.

Project ID	Title	Cost (\$M)	Complete
CE2671	Edwards Ferry Road at Route 15 Bypass Interchange		2025

Primary Project Typ

Road - Interchange improvement

Location Tyhpe:

Interchange

Route Facility
US 15 US 15 Rt 15 Bypass

From: To
US 15 VA Edwards Ferry Road

County

Municipality
Town of Leesburg

Description

Construct interchange. The area surrounding the intersection between Edwards Ferry Road and RT 15 Bypass has experienced significant commercial growth during the past 15 years. As a result, volumes are beyond the capacity of the existing at-grade intersection, and the area routinely experience significant congestion and traffic delays. This project will develop a new grade-separated interchange, improve traffic flow and provide pedestrian access across RT 15 Bypass. The project is included the Town of Leesburg Capital Improvement Program and 2005 Town Plan. Financing for this project will come from RSTP and/or local funding. Project will be delayed until 2020 due to loss of NVTAF funds. The project is part of the NHS.

Project ID	Title	Cost (\$M)	Complete
CE2668	EPG Access to I-95		2025

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**I 95** **I 95 I-95 Reversible Ramp**[From:](#)**EPG Southern Loop Road**[To](#)**I HOV/BUS/HOT Lanes**[County](#)**Fairfax**[Municipality](#)[Description](#)

The proposed construction would include a reversible single lane approach road and structure over Backlick Road, Southbound I-95 general purpose lanes, and HOV/BUS/HOT lanes; tying into an existing slip ramp from the HOV lanes to northbound general purpose lanes. This project is being proposed as part of the nationwide BRAC activities, which calls for provision of 8,500 new Defense Department employees within the EPG site. The proposed roadway will improve traffic flow along the Fairfax County Parkway and provide for efficient access/egress in and out of the EPG site. The project will be constructed in two phases: Phase 1 - provide egress from the EPG to NB I-95 NB general purpose lanes and SB HOV lanes in the PM. The project is currently in the Preliminary Engineering phase with construction anticipated to begin in October 2010 and complete by March 2012. Funding for the project is anticipated to be provided by the Department of Defenses Defense Access Roadway Program. Phase 2 â provide access to the EPG from NB I-95 HOV in the AM. The project is currently in the Study phase with construction anticipated to begin in 2014 and complete by 2015. There is reasonable expectation that funding for the project will be provided by the Department of Defenses Defense Access Roadway Program.

Project ID	Title	Cost (\$M)	Complete
CE3311	Evergreen Mills Road (Eastern Segment)		2022

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA 621** **VA 621 Evergreen Mills Road**[From:](#)**Loudoun County Parkway**[To](#)**Arcola Boulevard**[County](#)**Loudoun**[Municipality](#)[Description](#)**Evergreen Mills Road (Eastern Segment)**

Project ID	Title	Cost (\$M)	Complete
CE3312	Evergreen Mills Road (Western Segment)		2025

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

VA 621 Evergreen Mills Road

From:

Arcola Boulevard

To

Shreveport Drive

County

Loudoun

Municipality

Description

Design and construct a 4-lane local access undivided urban collector

Project ID	Title	Cost (\$M)	Complete
CE3006	Expanding Rolling Road/Franconia-Springfield Parkway/Fairfax County Parkway Ramp to two lanes		2016

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

VA 638 VA 638 Rolling Road

From:

7100 Fairfax County Parkway

To

VA Rolling Road

County

Fairfax

Municipality

Description

Widen the one-lane loop ramp to two lanes from north and southbound Rolling Road to Fairfax County Parkway northbound. This project will eliminate the existing free flow right exit onto the loop by bringing the northbound right-turn lanes to a signalized intersection. This would address a safety conflict between traffic entering the loop from the north bound direction and traffic entering the loop from the southbound direction. It will also improve the traffic flow and capacity for northbound to northbound movement.

Project ID	Title	Cost (\$M)	Complete
CE2106	Fairfax County Parkway Improvements		2035

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

VA 286 VA 286 Fairfax County Parkway

From:

VA 123 Ox Road

To

VA Dulles Toll Road)

County

Fairfax

Municipality

Description

Widen the Parkway to 6 lanes within the existing right of way. North of I-66, additional lanes will function as HOV lanes in the peak period. Construct interchange at Fair Lakes Parkway & Monument Drive, widen VA 7100 to 8 lanes between I-66 and Fair Lakes Parkway, widen VA 7100 to 6 lanes between Fair Lakes Parkway and Rugby Road, and upgrade VA 7100 to a freeway between I-66 and US 50. Additional lanes will function as HOV lanes in the peak period. Widen VA 7735 (Fair Lakes Pkwy) to 5 lanes (3 lanes EB) between Fair Lakes Parkway and Fair Lakes Circle. Implement safety and operational improvements, as needed. Reconstruct/replace bridges, culverts, retaining walls, structures, etc.; as necessary. RSTP (w/ state match): FY-01 \$3,500 K (\$1,375 K transferred to Route 236 spot Improvements (UPC 17671)). UPC 57167 will be dropped from SYP

Project ID	Title	Cost (\$M)	Complete
CE3702	Fairfax County Parkway Interchange with Popes Head Road		2024

Primary Project Typ

Bridge - Rehab + Add Capacity

Location Tyhpe:

Point Location

Route Facility

VA 286 VA 286 Fairfax County Parkway

From:

VA 654 Popes Head Road

To

County

Municipality

Description

Construct interchange at the intersection of Fairfax County Parkway & Popes Head Road

Project ID	Title	Cost (\$M)	Complete
CE1833	Franconia-Springfield Parkway (and SOV)		2035

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route Facility

VA 289 VA 289 Franconia-Springfield Parkway

From:

VA 7100 Fairfax County Parkway

To

VA 2677 Frontier Drive

County

Fairfax

Municipality

Description

Funding is being transferred off project - however, county has requested Newman St. Interchange as part of BRAC Upgrade to a freeway / Implement full control of access (elimination of at-grade connections (intersections and driveways)) from VA 638 (Rolling Road) to VA 617 (Backlick Road) by the construction of an interchange @ VA 1220 (Neuman Street) (replaces the existing signal-controlled intersection w/ Bonniemill Lane.) Construct lanes between VA 7100 (Fairfax County Parkway) and VA 2677 (Frontier Drive). (2020) Add single occupancy vehicle access to I-95 Implement safety and operational improvements, as necessary. Reconstruct / replace bridges, as necessary.

Project ID	Title	Cost (\$M)	Complete
CE3460	Frontier Drive Extension plus Braided Ramps		2030

Primary Project Type

Bridge - Rehab + Add Capacity

Location Type:

Road Segment

Route Facility

VA 2677 VA 2677 Frontier Drive

From:

Franconia -Springfield
Transportation Center

To

VA 789 Loisdale Road

County

Fairfax

Municipality

Description

Frontier Drive is an important north-south roadway in the Springfield area, serving the Franconia-Springfield Transportation Center, Springfield Town Center, and the surrounding area. Frontier Drive Extension is included in Fairfax County's Comprehensive Plan and is intended to support active, mixed-use employment, retail, residential center and a Transit Oriented Development (TOD) environment. The proposed project will extend the existing Frontier Drive from its current southern terminus at the Franconia-Springfield Transportation Center to Loisdale Road, through the Springfield Industrial Park, generally along the existing Springfield Center Drive alignment. This project will improve access to Franconia-Springfield Metrorail Station, construct braided ramps to and from the Franconia-Springfield Parkway, provide on-street parking along Frontier Drive where appropriate, and accommodate pedestrian and bicycle facilities along Frontier Drive. This project is anticipated to provide greater access between Loisdale Road and Franconia-Springfield Metrorail Station. The project is also anticipated to further reduce congestion on Loisdale Drive.

Project ID	Title	Cost (\$M)	Complete
CE3155	Greensboro Drive Extension (Spring Hill to Tyco)		2034

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route

Facility

VA Greensboro Drive

From:

VA Spring Hill Road

To

VA Tyco Road

County

Fairfax

Municipality

Description

Greensboro Drive Extension west from Spring Hill Road to Tyco Road.

Project ID	Title	Cost (\$M)	Complete
CE1818	Gum Spring Rd.		2035

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route

Facility

VA 659 VA 659 Gum Spring Rd.

From:

Prince William County Line

To

US

County

Municipality

Description

Widen to 4 lanes on 6-lane R/W. Segment VA 620 to US 50 (UPC 8829) to be complete 2015 under LDN0005

Project ID	Title	Cost (\$M)	Complete
CE3759	Herndon Metrorail Intermodal Access Improvements - PH II - (Worldgate Drive Extension at Herndon Parkway)		2030

Primary Project Typ

Location Tyhpe:

Road Segment

Route

Facility

Worldgate Drive Extension

From:

Van Buren Street

To

Herndon Parkway

County

Fairfax

Municipality

Town of Herndon

Description

Worldgate Drive Extension will link Van Buren Street to Herndon Parkway to alleviate congestion for the transit-oriented core of the Herndon Metrorail Station Area

Project ID	Title	Cost (\$M)	Complete
CE2939	I-395/ Seminary Road New Reversible Lane Ramp		

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route

Facility

I 395

I 395 Shirley Memorial Highway

From:

High Occupancy Lanes

To

Va Seminary Road

County

Municipality

City of Alexandria

Description

Project constructs new single lane, reversible HOV ramp on I-395 HOV lanes to the third level of the Seminary Road Interchange. The project adds ramp capacity to accommodate HOV and transit for the additional 6,400 employees of the Department of Defense - Washington Headquarters Services locating to Mark Center as part of the 2005 Base Realignment and Closure. An operational study is underway and a draft Interchange Modification Report will begin later this year. Environmental Reviews are expected to be underway in 2011. Project funding will be included in VDOT's FY12-17 Six Year Improvement Program scheduled to be adopted by the Commonwealth Transportation Board in June, 2011.

Project ID	Title	Cost (\$M)	Complete
CE3272	I-495 Capital Beltway Auxiliary Lanes		2030

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route

Facility

I 495

I 495 Capital Beltway NB and SB

From:

Hemming Avenue Underpass

To

VA Georgetown Pike

County

Municipality

Fairfax

Description

Connect the on ramps and off ramps along the Capital Beltway in both directions to provide an additional travel lane.

Project ID	Title	Cost (\$M)	Complete
CE3763	I-495 GAP Study		2030

Primary Project Type
Road - HOV/Managed Lanes

Location Type:
Road Segment

Route Facility
I 495 Capital Beltway

From:
East Side of the Springfield
Interchange

To
A point in Maryland East of the
Woodrow Wilson Bridge

County
Fairfax

Municipality

Description

The I-495 GAP Study would evaluate the expansion of Virginia's Express Lanes network involving an HOT-3 connection from the east side of the Springfield Interchange to a point in Maryland east of the Woodrow Wilson Bridge by 2030. Topics in the Study include, but are not limited to, location of termini, locations of ramps, continuity and interoperability with Maryland's proposed Traffic Reduction Plan project, and determination of the appropriate level of NEPA study. New ramp connections to HOT lanes would be studied at the Van Dorn Street Interchange and the vicinity of Route 1. The study would be coordinated with the State of Maryland.

Project ID	Title	Cost (\$M)	Complete
CE2069	I-495 HOT/HOV Lanes		2045

Primary Project Type
Road - Other Improvement

Location Type:
Road Segment

Route Facility
I 495 I 495 Capital Beltway HOT Lanes

From:
I 95/ 395/495 - Springfield
Interchange

To
American Legion Bridge

County
Fairfax

Municipality

Description

The northern extension of VDOT's I-495 High Occupancy/Toll (HOT) lanes has been in the long range transportation plan since 2005, as part of the larger project that resulted in creation of HOT lanes from the Springfield Interchange to Old Dominion Drive near Tysons. The plan is being amended to better coordinate with the I-495 HOT lanes project in Maryland. VDOT will extend the I-495 HOT Lanes from Old Dominion Drive north to the American Legion Bridge. The project will include two HOT lanes in each direction. VDOT anticipates this will be funded primarily by toll revenues, possibly through a public private partnership. The existing CLRP includes extension of two HOT lanes in each direction from Old Dominion Drive to George Washington Parkway by 2025, and extension of one HOT Lane in each direction from George Washington Parkway to the American Legion Bridge by 2030. The plan is being amended to extend two HOT lanes in each direction from George Washington Parkway to the American Legion Bridge by 2025. As a result of the collaboration between VDOT and MDOT, Maryland's HOT lanes project, which includes improving the capacity of the American Legion Bridge, will connect to an equivalent managed lane system at the Virginia state line. .

Project ID	Title	Cost (\$M)	Complete
CE3208	I-495 Interchange Ramp Phase II, Ramp 3 DAAH		2030

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Interchange

Route

Facility

I 495

I 495

From:

SB I-495

To

WB Dulles Airport Access Highway (DAAH)

County

Fairfax

Municipality

Description

Future project to construct new ramp from I-495 SB General Purpose lanes to WB Dulles inner lanes. Environmental process has not yet begun.

Project ID	Title	Cost (\$M)	Complete
CE3157	I-495 Overpass at Tysons Corner Center		2035

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Bridge

Route

Facility

New Bridge/Road

From:

Tysons Corner Center Ring Road

To

Old Meadow Road

County

Fairfax

Municipality

Description

Construct new bridge crossing Capital Beltway to facilitate travel within Tysons. The Fairfax County Comprehensive Plan indicates that this bridge crossing over I-495 is for transit, pedestrians, and bicyclists only, and not general automobile traffic.

Project ID	Title		Cost (\$M)	Complete
CE1956	I-66 and US 29 Interchange, Widen and Construct US 29 and VA 55			2030
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
I 66	I 66 Interchange	US 29 in Gainesville		
County		Municipality		
Prince William				
Description				
Overall project: Reconstruct the existing I-66/US 29 Interchange in Gainesville. Reconstruction may include the addition of exclusive HOV access ramps within the interchange or in close proximity to the interchange. Due to high traffic volumes, existing and projected traffic operational problems, and land use issues in the vicinity of the I-66/US 29 interchange; the design/evaluation/construction of this interchange will include, but not necessarily be limited to, the following components: * a grade separation of US 29 and the Norfolk-Southern Railroad tracks, * an interchange between US 29/Relocated VA 55/Relocated VA 619 (Linton Hall Road), * widening of US 29 to six lanes from the vicinity of Virginia Oaks Drive to the interchange, * relocation/widening of VA 55 to four lanes from the vicinity of the Gainesville United Methodist Church to US 29 and construct a grade separation between VA 55 and the N-S Railroad, * a four-lane East-West Connector link bridging over I-66 between Route 29 (opposite Conway Robinson Memorial State Forest) to Route 674 (Wellington Road), * construct an additional northbound lane on US 29 north of the I-66 interchange between the interchange and the Connector Link.				

Project ID	Title	Cost (\$M)	Complete
CE3448	I-66 Corridor Improvements Project		2040

Primary Project Typ

Road - HOV/Managed Lanes

Location Tyhpe:

Road Segment

Route Facility

I 66 I 66 Outside of the Beltway

From:

I 495 Fairfax

To

US 15 PWC

County

Fairfax

Municipality

Description

The Commonwealths I-66 Corridor Improvements Project (Project) outside the Beltway was first submitted for the 2015 CLRP Air Quality Analysis, & a subsequent FY16 submission provided minor modifications to the project, based on the Commonwealth Transportation Boards (CTBs) selection of a Preferred Alternative on October 27, 2015. The adopted 2016 CLRP amendment that includes these modifications was approved by the TPB on November 16, 2016. The project CTB's Preferred Alternative in the most recently adopted CLRP includes the following elements: 3 general purpose Lns in each direction between US 15 in Haymarket & I495 / Capital Beltway (with auxiliary Lns between interchanges where needed: between US 29 Gainesville & VA 234 Bypass / Prince William Parkway; & between US 29 Centreville & I495 / Capital Beltway); 2 barrier-separated managed Exprss Lns in each direction (the existing high-occupancy vehicle (HOV) lane will be converted to an Exprss lane & one new Exprss lane will be added); A phased approach to construction that includes Exprss Lns from Gainesville to I495 in the first phase (opening in 2022), with the remaining portion of the corridor Exprss Lns between Gainesville & Haymarket constructed by 2040. In addition, a typical section that provides space in the median for future transit will be phased as well, between US 15 Haymarket & US 29 Centreville; New or expanded commuter park & ride lots in the corridor; New high-frequency bus service with more predictable travel times; & Direct access ramps to & from the Exprss Lns. Under the P3 project development process, the VA DOT (the Department) has partnered with a P3 developer to design, construct, & operate the I-66 Exprss Lns. The following modifications for future direct access ramps to & from the Exprss Lns are being carried forward by the P3 developer & the Department: oHaymarket - west of US 15 to / from east & west* oGainesville - US 29 for Phase 1, the eastbound entrance from the General Purpose Lns to the I-66 Exprss Lns & the westbound exit from the I-66 Exprss Lns to the General Purpose Lns are located immediately east of the US 29 bridge. oGainesville - at University Boulevard to / from east oVA 234 Bypass / Prince William Parkway to / from west* oCushing Rd Park & Ride Lot / VA 234 Bypass to / from east* oManassas - Balls Ford Rd Park & Ride Lot to / from east oEast of Sudley Rd - I-66 mainline transition ramps to allow (i) eastbound movement from General Purpose Lns to I-66 Exprss Lns & (ii) westbound movement from I-66 Exprss Lns to General Purpose Lns oCentreville VA 28 to / from east & west (access between west & south excluded) oCentreville VA 28 HOV from north to west* oCentreville I-66 mainline transition ramps to allow all movements between I-66 General Purpose Lns & I-66 Exprss Lns oCentreville Stringfellow Rd to / from east oFair Oaks Monument Drive to / from east & west oFairfax US 50 to / from east (I-66) & northwest (US 50) oFairfax - US 50 to east (I-66) from southeast (US 50)* oFairfax VA 123 to / from east & west oVienna Vaden Drive to / from west (Heavy-trucks prohibited) oDunn Loring from Eastbound I-66 General Purpose Lns to Eastbound I-66 Exprss Lns ol495 interchange all movements towards the west of the I495 interchange are provided: (i) from northbound I495 General Purpose Lns & I495 Exprss Lns to westbound I-66 Exprss Lns, (ii) from southbound I495 General Purpose Lns & I495 Exprss Lns to westbound I-66 Exprss Lns, (iii) from eastbound I-66 Exprss Lns to northbound I495 General Purpose Lns & I495 Exprss Lns & (iv) from eastbound I-66 Exprss Lns to southbound I495 General Purpose Lns & I495 Exprss Lns * Ramps implemented in ultimate phase of Preferred Alternative by 2040; all other access is part of Phase 1, constructed by 2022. Access to the I-66 Exprss Lns will be available to automobiles, motorcycles, emergency vehicles, buses & transit vehicle

Project ID	Title	Cost (\$M)	Complete
CE3484	I-66 Multimodal Improvement Project, inside the Beltway		2040
Primary Project Typ		Location Tyhpe:	
Road - HOV/Managed Lanes		Road Segment	
Route	Facility	From:	To
I 66	I 66 Inside the Beltway	I 495 Fairfax County	RT 29 Near Roslyn, Arlington County
County		Municipality	
Arlington, Fairfax			
Description			
<p>The I-66 Multimodal Improvement Project (the Project) was originally submitted for the 2015 CLRP Air Quality Analysis, & this current submission provides the most recent updates to the project components, schedule, & costs. The Project is based on the recommendations from the June 2012 Final Report of the I-66 Multimodal Study inside the Beltway. The study team for the Multimodal Study included local, state, regional & federal stakeholders who participated in an interactive process which resulted in endorsements from these partners. The study, which built upon the 2009 Department of Rail & Public Transportation (DRPT) I-66 Transit/Transportation Demand Management (TDM) study, evaluated & recommended various multimodal improvements in the corridor that were further refined in the August 2013 Supplemental Report. The recommended improvements from the study included transit, bike/ped, TDM, integrated corridor management (ICM), tolling, & widening components, making this a truly multimodal solution for the corridor. VDOT is completing a categorical exclusion (CE) NEPA process to advance the tolling component identified in the I-66 Multimodal Study. VDOT is also completing a comprehensive traffic analysis as well as a traffic & revenue study to determine the expected project revenues by year. VDOT has been working with corridor stakeholders, including local jurisdictional partners, to review the results of the traffic analysis & refine the list of multimodal & operational improvements. VDOT will own & operate the facility inside the Beltway. Toll revenues will be used first to operate & maintain the facility, to repay the cost of construction, & then to implement multimodal solutions in the corridor. The Northern VA Transportation Commission (NVTC) will take the lead, in coordination with the local jurisdictions, in recommending to the Commonwealth Transportation Board (CTB) which multimodal projects should be funded using the toll revenues. This arrangement has been formalized through a Memorandum of Agreement (MOA) between CTB, VDOT & NVTC, which details the specific responsibilities of each agency. The multimodal improvement program administered by NVTC will implement multimodal projects beginning in 2017 in conjunction with the tolling component. The multimodal improvement program will be funded through net toll revenues allocated by CTB for the term of the MOA, which is 40 years. Multimodal projects will be selected through a process established by NVTC. The tolling component of the Project & Initial Multimodal Program will be implemented first. The tolling includes conversion of the existing I-66 facility inside the Capital Beltway to a Managed Lns facility with the following characteristics: oDynamic tolling during 4-hour peak periods oOpens to tolling in the peak direction only oWhen the tolling begins, HOV-2+ will be allowed to ride free. The free HOV occupancy requirement will be raised to HOV-3+ when the I-66 outside the Beltway project opens or converts to HOV-3+. oFacility free to all traffic during off-peak periods; oConsistent with current policy, heavy trucks will be prohibited. Concurrent with the tolling component, the first group of multimodal improvements will be implemented. The improvements will be based on recommendations from VDOTs June 2012 Final Report of the I-66 Multimodal Study Inside the Beltway, & the further refinements found in the August 2013 Supplemental Report, recommendations from DRPTs 2009 Transportation Demand Management/Transit Report, projects in the regions constrained long range plan (updated periodically) & including but not limited to multimodal transportation improvements to the corridor Rdways & associated transportation & transit facilities, as established by NVTC through a defined selection process. The net toll revenues will fund the multimodal improvements that can be obligated by the time tolling begins in the corridor & that meet project eligibility...</p>			

Project ID	Title	Cost (\$M)	Complete
CE3556	I-95 Express Lane Extension to Fredericksburg		2022

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

I 95 I 95

From:

Russell Road (exit 148)

To

0.25 miles south of Exit 148

County

Prince William

Municipality

Description

VDOT is conducting analysis to revise the Environmental Assessment previously prepared in 2011 for the I-95 Express Lanes between the Capital Beltway (I-495) and U.S. Route 17 (Mills Drive) in Stafford County, Virginia. This analysis will include a 10-mile extension of the I-95 Express Lanes from south of Route 610 (Garrisonville Road) in Stafford County to the vicinity of Route 17 (I-95 Exit 133). As part of this analysis, VDOT is evaluating enhanced access from the existing I-95 Express Lanes near Marine Base Quantico in the vicinity of Russell Road (Exit 148) in Prince William County, Virginia. This enhanced access will allow vehicles accessing the proposed 10-mile extension of the I-95 Express Lanes to have better access to Marine Base Quantico. Without providing this access, vehicle trips originating in Stafford County that travel to employment centers near the base would not have a choice to access the Marine Base Quantico via the I-95 Express Lanes system.

Project ID	Title	Cost (\$M)	Complete
CE2147	I-95 Reconstruct Interchange		2030

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Point Location

Route Facility

I 95 I 95 Capital Beltway Interchange

From:

VA 613

To

County

Fairfax

Municipality

Description

As needed, reconstruct existing interchange on I-95 to improve safety and efficiency.

Project ID	Title	Cost (\$M)	Complete
CE3697	I-95 Reversible Ramp to/from Express Lanes @ Optiz Blvd.		2022

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Point Location

Route Facility

I 95 I 95

From:

Optiz Blvd

To

County

Municipality

Description

Construct reversible ramp to/from express lanes at I-95/Optiz Blvd. Interchange

Project ID	Title		Cost (\$M)	Complete
CE3752	Interchange at US 15 & Bypass			
Primary Project Typ		Location Tyhpe:		
Road - Interchange improvement		Interchange		
Route	Facility	From:	To	
US 15	Bypass			
County		Municipality		
Description				
Complete the interchange				
Project ID	Title		Cost (\$M)	Complete
CE3187	Joplin Rd/Fuller Rd Quantico base access improvements			2025
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 619	VA 619 Fuller Road/Joplin Road	I-95 Ramp	Fuller Heights Rd	
County		Municipality		
Prince William				
Description				
The project widens Fuller Rd (east of Rte 1) to 4 lanes, and Joplin Road (west of Rte 1) to 3 lanes (Adds EB lane)				
Project ID	Title		Cost (\$M)	Complete
CE3474	Lee Highway Widening			2025
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
US 29	US 29 Lee Highway	VA 659 Union Mill Road	Buckleys Gate Drive	
County		Municipality		
Fairfax				
Description				
Widen Lee Highway from four to six general purpose lanes and provide pedestrian and bicycle facilities. Monitoring fund is under UPC# 111986				

Project ID	Title	Cost (\$M)	Complete
CE3736	Loudoun County Parkway		2022

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

VA 607 Loudoun County Parkway

From:

Shellhorn Road

To

Ryan Road

County

Municipality

Description

This project provides for right-of-way acquisition for the widening of Loudoun County Parkway (Route 607) from four to six lanes between Ryan Road (Route 772) and Shellhorn Road (Route 643), and the construction of turn lanes at the intersection. Construction of the roadway improvements are proffer conditions of the Silver District West development

Project ID	Title	Cost (\$M)	Complete
CE3315	Loudoun County Parkway Widening		2030

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

VA 607 VA 607 Loudoun County Parkway

From:

US 50

To

Route 606

County

Municipality

Loudoun

Description

Design and construct the widening to six lanes within an eight lane ROW consistent with CLRP project : "US 50 Interchange".

Project ID	Title	Cost (\$M)	Complete
CE1878	Loudoun County Pkwy		2025

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

VA 607 VA 607 Loudoun County Pkwy

From:

VA 620 Braddock Road @ VA 613

To

VA Harry Byrd Highway

County

Municipality

Description

Construct/widen 6/4-lane divided roadway within the cited limits. Widen/construct from Braddock to Edgewater is complete. Widen from Gloucester Pkwy to VA 7 from 2 to 4 lanes is complete. From Waxpool to W&OD trail Complete (VSL10ba) Includes VSL1b, which is actually Old Ox Rd

Project ID	Title		Cost (\$M)	Complete
CE3158	Magarity Road Widening from Rt 7 (Leesburg Pike) to Great Falls Street			2037
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
	Magarity Road	VA 7 Leesburg Pike	VA Great Falls Street	
County	Municipality			
Fairfax				
Description				
Magarity Road Widening from Rt 7 to Great Falls Street.				

Project ID	Title	Cost (\$M)	Complete
CE3061	Manassas National Battlefield Park Bypass	\$28.5	2035

Primary Project Typ

Road - New Construction

Location Tyhpe:

Road Segment

Route

Facility

Manassas National Battlefield Park
Bypass

From:

US 29 Intersection with Rte. 705
(Pageland Lane) & Rt 29

To

US West of intersection of Bull
Run Post Office Rd & Rt 29

County

Fairfax, Prince William

Municipality

Description

The proposed Manassas Battlefield Bypass (MBB) project includes the construction of a new 4-lane facility between the above limits and the closure of portions of two 2-lane facilities, Route 29 and Route 234. The proposed roadway would begin at the western edge of the Manassas Battlefield Park in Fairfax County, at the intersection of US 29 and Pageland Lane, travel north along Pageland La. to the intersection with Rte. 234 (Sudley Rd.) at Catharpin where the Battlefield Bypass would turn east and be co-located with an existing section of Route 234 that would be improved till Sudley Springs. The Battlefield Bypass would then continue east as new roadway between Sudley Springs and its terminus with US 29 at the eastern end of the Battlefield Park, to the east of the US 29 and Paddington La. intersection (west of Lucky Stone Quarry). The first segment of the Battlefield Bypass, between US 29/Pageland La. and Rte. 234 at Catharpin will be collocated with the Commonwealths Tri County Parkway (aka Rte. 234 Bypass Extension) which is already in the MPOs CLRP (2011). With the construction of the Battlefield Bypass, there will be a closure of about 4 miles of Route 29, from Pageland Lane west of the park to the bridge over Bull Run and the closure of about 3 miles of Route 234 from the southern Park boundary to the area known as Sudley Springs north of the park. The proposed roadway is the outcome of an environmental study (Draft Environmental Impact Statement, DEIS) completed by the FHWA's Eastern Federal Lands Division at the direction of the US Congress (US Congress Manassas National Battlefield Park Amendments of 1988). The US Congress mandated study was to develop alternatives that would allow for the closure of the portions of US Route 29 and VA Route 234, which currently transect the Manassas National Battlefield Park and to provide alternatives for traffic currently traveling through the park. The US Congress required this study due to the negative effects of the heavy traffic congestion within the Battlefield from non-park related traffic on historic preservation, park interpretation, visitor experience, and park management. The heavy volumes of non-park related traffic impede access to historic sites and create public safety conflict. The FHWA and NPS are currently working on developing the Final EIS for the project. The NEPA requires the FEIS project be included in a regionally conforming long range plan (CLRP) before it can be approved. Including the above project in the TPBs 2012 CLRP and the air quality conformity analysis for the 2012 CLRP will facilitate the completion of the FEIS and assist in developing the project for construction. There are several major transportation investments that are being considered by the state and the counties in the vicinity of the project including the construction of the Tri County Parkway (aka Rte. 234 Bypass Extension), improvements to I 66 and the I 66/US 29 interchange at Gainesville. The DEIS evaluated land use changes associated with the construction of the Battlefield Bypass. The Final EIS for in anticipated to include aspects that will the Park from any adverse impacts of development in the vicinity. Additionally the National Park Service has been working with VDOT and other stakeholders as part work on the Tri-County Parkway on this issue. VDOT has agreed to work toward the purchase of conservation easements on properties within the Tri-County Parkway corridor as mitigation for the construction of the Tri-County Parkway. The NPS has also been working with other stakeholders such as the Piedmont Environmental Council, the Coalition for Smarter Growth, the National Parks Conservation Association, and the National Trust for Historic Preservation and the Civil War Trust to keep them abreast of the status of the Manassas Battlefield Bypass and the NPS involvement in the Tri-County Parkway.

Project ID	Title		Cost (\$M)	Complete
CE3756	Marina Way Extended			2030
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
	Horner Road	Route 123/Gordon Blvd	Annapolis Way	
County	Municipality			
Prince William				
Description				
Construct extension of Marina Way to connect with Horner Road at Route 123 to create a parallel facility to Route 1 and I-95 and create internal road network to enhance access to Woodbridge VRE station and Route 123 Commuter lot. Extension will be constructed as a four-lane Urban Boulevard.				

Project ID	Title		Cost (\$M)	Complete
CE1985	McGraws Corner Drive			2040
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
	McGraws Corner Drive Parallel	US 29 Lee Highway	US 15 James Madison Highway	
County	Municipality			
Prince William				
Description				
Construct a 4-lane facility within the above limits.				

Project ID	Title		Cost (\$M)	Complete
CE3316	Mooreview Parkway (Missing Link)			2019
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 2298	VA 2298 Mooreview Parkway	Amberleigh Farm Drive	Old Ryan Road	
County	Municipality			
Loudoun				
Description				
Design and construct a controlled access median divided urban collector				

Project ID	Title	Cost (\$M)	Complete
CE3374	Neabsco Mills Road widen to 4 lanes		2023

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

VA 638 VA 638 Neabsco Mills Road

From:

1 Jefferson Davis Highway

To

Smoke Court

County

Prince William

Municipality

Description

Widen Neabsco Mills Road from Smoke Ct. to Dale Blvd. as a 4-lane divided facility. A sidewalk and trail are included

Project ID	Title	Cost (\$M)	Complete
CE2206	New Braddock Rd.		2025

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

VA 620 VA 620 New Braddock Rd.

From:

VA 28

To

US @VA 622 (Stone Rd.) @ VA 662
(Stone Rd.)

County

Municipality

Description

Construct / widen New Braddock Road from its intersection with VA 28 to an intersection with US 29 opposite VA 662 (Stone Rd.) Road will underpass I-66 via an existing structure.

Project ID	Title	Cost (\$M)	Complete
CE1748	New Guinea Road, Construct		2040

Primary Project Typ

Road - New Construction

Location Tyhpe:

Road Segment

Route Facility

VA 651 VA 651 New Guinea Road

From:

VA 123 Ox Road

To

Roberts Road

County

Fairfax

Municipality

Description

Construct new 4-lane facility, north of CSX RR tracks.

Project ID	Title		Cost (\$M)	Complete
CE1921	New Telegraph Rd/Summit School Road			2040
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 1781	VA 1781 New Telegraph Rd/Summit School Road	VA 849 Caton Hill	VA Minnieville Rd.	
County		Municipality		
Description				
Realign and ultimately widen to 4 lanes				
Project ID	Title		Cost (\$M)	Complete
CE3737	Northstar Boulevard			2028
Primary Project Type		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
VA 659	Northstar Boulevard	Tall Cedars Parkway	Braddock Road	
County		Municipality		
Description				
This project provides for the planning, design, right-of-way acquisition and construction of the remaining two lanes of Northstar Boulevard between Tall Cedars Parkway (Route 2200) and Braddock Road (Route 620). The project will include a shared use path along the new travel lanes, modifications to an existing traffic signal and new traffic signals where warranted				
Project ID	Title		Cost (\$M)	Complete
CE3318	Northstar Boulevard (Missing Link #79)			2022
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 659	VA 659 Northstar Boulevard Relocated	Shreveport Drive	U.S. 50	
County		Municipality		
Loudoun				
Description				
Design and construct a controlled access median divided (UM\$) urban arterial				

Project ID	Title	Cost (\$M)	Complete
CE3768	Pedestrian Bridge Over I-395 at Landmark		2037

Primary Project Typ

Bike/Ped

Location Tyhpe:

Bridge

Route

Facility

Pedestrian Bridge over I-395 at Landmark

From:

Quantrell Ave

To

Landmark Mall

County

Municipality

City of Alexandria

Description

This would design and construct a free-standing pedestrian-bicycle bridge across I-395 to connect neighborhoods west of I-395 with the developments that will occur at the Landmark Mall site.

Project ID	Title	Cost (\$M)	Complete
CE3321	Prentice Drive (Eastern Segment)		2026

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route

Facility

VA 1071 VA 1071 Prentice Drive

From:

Lockridge

To

Loudoun County Parkway

County

Municipality

Loudoun

Description

Design and construct a controlled access median divided collector to serve the Route 772 Silver Line Metro Station.

Project ID	Title	Cost (\$M)	Complete
CE3320	Prentice Drive (Western Segment)		2024

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route

Facility

VA 1071 VA 1071 Prentice Drive

From:

Loudoun County Parkway

To

Loudoun Station Drive

County

Municipality

Loudoun

Description

Design and construct a controlled access median divided urban collector to serve the route 772 Silver Line Metro Station

Project ID	Title		Cost (\$M)	Complete
CE3471	Prince William Parkway / University Boulevard Interchange			2030
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Interchange		
Route	Facility	From:	To	
VA 294	VA 294 Prince William Parkway	VA 840 University Boulevard		
County	Municipality			
Prince William				
Description				
Change from intersection to interchange (half clover leaf)				
Project ID	Title		Cost (\$M)	Complete
CE2008	Rippon Boulevard Extension			2040
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 1392	VA 1392 Rippon Boulevard Extension	US 1 Jefferson Davis Highway	Rippon VRE Station	
County	Municipality			
Prince William				
Description				
Construct 4-lane road in phases. Phase 1 - US 1 to West of Wigeon Way - COMPLETE Phase 2 - West of Wigeon Way to Rippon VRE Station				
Project ID	Title		Cost (\$M)	Complete
CE3501	Riverside Parkway (VA Route 7 North Collector Road) Extension			2023
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 2401	VA 2401 Riverside Parkway	VA 607 Loudoun County Parkway	VA 2020 Ashburn Village Boulevard Extension	
County	Municipality			
Loudoun				
Description				
Construction of a four-lane divided roadway with multi-use trails on both sides to complete the Route 7 North Collector Road between the Route 15 Bypass in Leesburg to the George Washington Boulevard in Ashburn				

Project ID	Title	Cost (\$M)	Complete
CE3301	Rolling Road Widening		2035

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Road Segment

Route Facility
Rolling Road

From:
Rt 5297 DeLong Road

To
Rt 4502 .01mi. N. of Fullerton Rd.

County
Fairfax

Municipality

Description
Rolling Road Widening

Project ID	Title	Cost (\$M)	Complete
CE3293	Rollins Ford Road Extension		2040

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Road Segment

Route Facility
Rollins Ford Road

From:
Linton Hall Road

To
Wellington Road

County
Prince William

Municipality

Description
Extend Rollins Ford Road from Linton Hall Road to Wellington Road. Will consist of a 4-lane divided facility. A sidewalk and trail are included

Project ID	Title	Cost (\$M)	Complete
CE3629	Roundabout Sudley/Centreville		2024

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Point Location

Route Facility
VA 28 VA 28 Centreville Street

From:
VA 234 Sudley Road

To

County

Municipality

Description
Construction of a two-lane roundabout intersection located at Sudley Road and Centreville Street.

Project ID	Title		Cost (\$M)	Complete
CE3173	Route 1 Improvements			2022
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
US 1	US 1 Jefferson Davis Highway	Mary's Way	VA Featherstone Drive	
County	Municipality			
Prince William				
Description				
The Rte 1 Improvements is proposed for the roadway extending north from Featherstone to Occoquan Road (ultimately - but to Mary's Way for the purposes of this application) to be widened to a 6-lane facility within a 16-foot raised median, a 10 ft asphalt shared use path and a 6' concrete sidewalk.				

Project ID	Title		Cost (\$M)	Complete
CE3760	Route 1 Multimodal Improvement			
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
US 1	Richmond Highway	10th Street S.	Four Mile Run	
County	Municipality			
Arlington				
Description				
Improve multimodal accessibility and safety on Route 1 in the vicinity of Crystal City.				

Project ID	Title		Cost (\$M)	Complete
CE3291	Route 1 Widening			2040
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
US 1	US 1 Jefferson Davis Highway	Fuller Road	Stafford County Line	
County	Municipality			
Prince William				
Description				
Widen Route 1 from Fuller Road to Stafford County Line. Will consist of a 6 lane divided facility				

Project ID	Title	Cost (\$M)	Complete
CE3757	Route 123/Old Bridge Road Innovative Intersection Improvements		2028

Primary Project Type

Road - Intersection improvement

Location Type:

Intersection

Route Facility

VA 123 Gordon Boulevard/Old Bridge Road

From:

Gordon Boulevard

To

Old Bridge Road

County

Prince William

Municipality

Description

Construct innovative improvements/interchange at the intersection of Route 123 and Old Bridge Road to improve operations and reduce congestion. This project is part of a larger VDOT planning effort to improve operations on the Route 123 corridor at I-95.

Project ID	Title	Cost (\$M)	Complete
CE3608	Route 15 Widening		2026

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route Facility

US 15 US 15 James Madison Highway

From:

Battlefield Parkway

To

VA 661 Montresor Road

County

Loudoun

Municipality

Town of Leesburg

Description

Reconstruction with added capacity. This two lane road will be widened to four lanes.

Project ID	Title	Cost (\$M)	Complete
CE3738	Route 15 Widening		2027

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route Facility

US 15

From:

Battlefield Parkway

To

Montresor Road

County

Municipality

Description

This project provides funding for the planning, design, right-of-way acquisition, and widening of Route 15 from two to four lanes from Battlefield Parkway in the Town of Leesburg to Montresor Road (Route 661). This project also includes intersection improvements at North King Street, traffic signal modifications at Whites Ferry Road (Route 655) / Raspberry Drive, a four-legged roundabout at Montresor Road with a realigned Limestone School Road (Route 661), and the construction of a shared use path on the west side of Route 15 entry at the roundabout, just north of Montresor Road.

Project ID	Title		Cost (\$M)	Complete
CE3739	Route 50 / North Collector Road			
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
	Route 50 (North Collector Road)	Tall Cedars Parkway	VA 28	
County		Municipality		
Description				
This project provides funding for planning, design, right- of- way acquisition, and construction of a roadway from Route 50 at Tall Cedars Parkway to the Air and Space Museum Parkway Interchange in Fairfax County at Route 28. The project entails construction of a four lane median divided roadway to the north of Route 50 to provide additional capacity to the Route 50 corridor.				
Project ID	Title		Cost (\$M)	Complete
CE3740	Route 50 Widening			2040
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
	Route 50	Tall Cedars Parkway	Loudoun County Parkway	
County		Municipality		
Description				
This project provides funding for planning, design, right of way acquisition, establishment of limited access control and construction to widen Route 50 to four lanes in each direction between Loudoun County Parkway and Tall Cedars Parkway				
Project ID	Title		Cost (\$M)	Complete
CE3603	Route 50/ Everfield Drive Roundabout			2022
Primary Project Typ		Location Tyhpe:		
		Point Location		
Route	Facility	From:	To	
	US 50 John Mosby Highway	Everfield Drive		
County		Municipality		
Description				
This project provides for the planning, design, right-of-way acquisition and construction of a roundabout at the intersection of Route 50 and Everfield Drive				

Project ID	Title	Cost (\$M)	Complete
CE3161	Route 7 (Leesburg Pike) Widening (I-495-I-66)		2030

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route Facility

VA 7 VA 7 Leesburg Pike

From:

I 495 Capital Beltway

To

I 66 Curtis Memorial Parkway

County

Fairfax

Municipality

Description

Road Widening between I-495 and I-66.

Project ID	Title	Cost (\$M)	Complete
CE3327	Route 7 George Washington Boulevard Overpass		2024

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route Facility

VA 1050 VA 1050 George Washington Boulevard Overpass

From:

George Washington Boulevard

To

Richfield Street

County

Loudoun

Municipality

Description

Design and construct a 4 lane bridge over VA 7 connecting Richfield Way and George Washington Boulevard via an overpass.

Project ID	Title	Cost (\$M)	Complete
CE3733	Route 7 Improvements, Phase 3		2030

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route Facility

VA 7 Route 7

From:

Route 9

To

Dulles Greenway

County

Loudoun

Municipality

Description

This project provides for the planning, design, right-of-way acquisition, and construction to widen Route 7 Eastbound from two lanes to three lanes between Route 9 and the Dulles Greenway (267), and Westbound from two lanes to three lanes from South King Street to West Market Street. The project also includes reconstruction or widening of the following bridges: West Market Street over Route 7, Dry Mill Road over West Market Street, Children's Center Road over Route 7, W & OD Trail over Route 7, and Route 7 over Route 15.

Project ID	Title		Cost (\$M)	Complete
CE3323	Route 772 Transit Station Connector Bridge			2019
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 772	VA 772 Transit Station Bridge	Dulles Greenway	Route 772 Transit Station	
County	Municipality			
Loudoun				
Description	Design and construct a bridge over the Dulles Greenway providing access to the Silver Line Station (772) and parking facilities.			

Project ID	Title		Cost (\$M)	Complete
CE1865	Rt. 28 Manassas Bypass		\$228.0	2025
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
	Manassas Bypass	VA 234 Sudley Road	VA 28 Centreville Road	
County	Municipality			
Prince William				
Description	Construct 4-lane, divided parkway between Sudley Road and Route 28 (Option 2A) of the Route 28 Corridor Feasibility Study. Results from the ongoing EIS will determine the exact alignment of the Bypass, and may include widening existing Route 28 from Liberia Avenue to the Fairfax County Line.			

Project ID	Title		Cost (\$M)	Complete
CE1784	Rte 123 Widen Roadway to 4 Lanes			2030
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 123	VA 123 Ox Road	Southward from Burke Center Parkway	Prince William County Line	
County	Municipality			
Prince William				
Description	Widen VA 123 (Ox Road) from an existing 2-lane roadway section to a 4-lane facility within a 6-lane right-of-way, as part of an overall project to widen Ox Road between the City of Fairfax and the Woodbridge area. Ultimately, In the 2010-2020 timeframe, this segment of Route 123 is planned for widening to 6 lanes and a parallel bridge across the Occoquan. Implement safety and operational improvements, as necessary. Reconstruct/replace bridges, as necessary. UPC 60042, Landscaping, is COMPLETE UPC 51135, Rte 123 - Widen from 2 to 4 Lanes on 6-Lane RW, COMPLETE			

Project ID	Title	Cost (\$M)	Complete
CE3064	Rte 29 Bridge Replacement over Little Rocky Run		2015

Primary Project Typ
Bridge - Rehab + Add Capacity

Location Tyhpe:
Road Segment

Route Facility
US 29 Lee Highway

From: To
29 0.2 miles east of Pickwick Road Union Mill Road

County
Fairfax

Municipality

Description

Reconstruct existing Rte 29 Bridge over Little Rocky RUn and widen for future improvements.

Project ID	Title	Cost (\$M)	Complete
CE3523	RTE 7 INTERCHANGE AT BATTLEFIELD PKWY		2035

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Point Location

Route Facility
VA 7 VA 7 Leesburg Pike

From: To
Battlefield Parkway

County
Loudoun

Municipality
Town of Leesburg

Description

Replacing existing at-grade intersection with an interchange of the Battlefield Parkway

Project ID	Title	Cost (\$M)	Complete
CE3324	Russell Branch Parkway (Western Segment)		2024

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Road Segment

Route Facility
VA 1061 VA 1061 Russell Branch Parkway

From: To
Belmont Bridge Road Tournament Drive

County
Loudoun

Municipality

Description

Design and construct controlled access median divided urban collector

Project ID	Title	Cost (\$M)	Complete
CE2667	SB I-95 Ramp		2020

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Road Segment

Route Facility
I 95 I 95 I-95 Ramp

From:
I 95 SB I-95

To
NB Fairfax County Parkway/EPG Southern Loop Road

County

Municipality
Region-wide

Description

The proposed construction would include adding a lane to the existing ramp from SB I-95 to NB Fairfax County Parkway. This additional lane would be barrier separated and would provide access to the EPG southern loop road. The proposed project will add an additional lane to the ramp from SB I-95 to NB Fairfax County Parkway. This additional lane will be barrier separated from the Parkway and will provide a dedicated lane for access to the EPG. This ramp is intended to be used only by Defense Department personnel employed at the EPG site. This project is being proposed as part of the nationwide BRAC activities, which calls for provision of 8,500 new Defense Department employees within the EPG site. The proposed roadway will improve traffic flow along the Fairfax County Parkway and provide for efficient access to the EPG site. The project is currently in Right-of-Way acquisition with construction anticipated to begin in late 2009 and be completed by November, 2010. Funding for the project is provided by the Department of Defenses Defense Access Roadway Program. Project type also cited as Interstate. Originally part of UPC #04700 and scoped prior to 3/18/04. Project taken over by FHWA â EFL project using DOD funding. Off ramp crosses over improved pedestrian facilities on Fullerton.

Project ID	Title	Cost (\$M)	Complete
CE3473	Shirley Gate Road Extension & Interchange with Fairfax County Parkway with NO connections with Popes		2025

Primary Project Typ
Study/Planning/Research

Location Tyhpe:
Road Segment

Route Facility
VA 286 VA 286 Fairfax County Parkway

From:
VA 267 Dulles Toll Road

To
Rugby Road

County
Fairfax

Municipality

Description

Study of corridor improvements, EA/FONSI, and/or Preliminary Engineering and construction. Participation with VDOT needed. Widen from 4 to 6 lanes.

Project ID	Title	Cost (\$M)	Complete
CE3468	Shirley Gate Road Extension & Interchange with Fairfax County Parkway with NO connections with Popes		2025

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#)[Facility](#)

VA 655 VA 655 Shirley Gate Road Extension (on new alignment)

[From:](#)

VA 620 Braddock Road

[To](#)

VA 286 Fairfax County Parkway

[County](#)**Fairfax**[Municipality](#)[Description](#)

Study, preliminary engineering, and environmental analysis of extension of 4-lane divided Shirley Gate Road from Braddock Road to the Fairfax County Parkway, including interchange, north of Popes Head Road; interconnect with Popes Head Road and combine into one interchange with Parkway. The project would include a raised median and pedestrian and bicycle facilities and direct access to Patriot Park (east)

Project ID	Title	Cost (\$M)	Complete
CE3762	Shirlington Interchange Improvements		

[Primary Project Typ](#)**Road - Intersection improvement**[Location Tyhpe:](#)**Interchange**[Route](#)[Facility](#)

Shirlington Circle

[From:](#)[To](#)[County](#)**Arlington**[Municipality](#)**City of Alexandria**[Description](#)

Safety and operational enhancements to Shirlington Circle.

Project ID	Title	Cost (\$M)	Complete
CE3326	Shreveport Drive (Western Segment)		2018

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#)[Facility](#)

VA 621 VA 621 Shreveport Drive

[From:](#)

Evergreen Mills Road

[To](#)

Belmont Ridge Road

[County](#)**Loudoun**[Municipality](#)[Description](#)

This section of roadway has recently been completed by the Brambleton Group

Project ID	Title	Cost (\$M)	Complete
CE3450	Soapstone Drive 4-Lane Overpass		2027

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

VA 4720 VA 4720 Soapstone Drive

From:

VA 5320 Sunrise Valley Drive

To

VA 675 Sunset Hills Drive

County

Fairfax

Municipality

Description

Construct 4-lane roadway over the Dulles Toll Road from Sunrise Valley Drive to Sunset Hills Road. The project would include pedestrian and bicycle facilities. It is recommended in the Reston Comprehensive Plan Amendment approved by the BOS.

Project ID	Title	Cost (\$M)	Complete
CE3451	South Lakes Drive 4-Lane Overpass		2020

Primary Project Typ

Bridge - Rehab + Add Capacity

Location Tyhpe:

Road Segment

Route Facility

VA 5329 VA 5329 South Lakes Drive

From:

VA 5320 Sunrise Valley Drive

To

VA 675 Sunset Hills Road

County

Fairfax

Municipality

Description

Construct 4-lane roadway over the Dulles Toll Road from Sunrise Valley Drive to Sunset Hills Road. The project would include pedestrian and bicycle facilities. It is recommended in the Reston Comprehensive Plan Amendment approved by the BOS.

Project ID	Title	Cost (\$M)	Complete
CE3329	Sterling Boulevard Extension		2025

Primary Project Typ

Road - New Construction

Location Tyhpe:

Road Segment

Route Facility

VA 846 VA 846 Sterling Boulevard Extension

From:

Pacific Boulevard

To

Moran Road

County

Loudoun

Municipality

Description

Design and construct a controlled access median divided urban collector

Project ID	Title		Cost (\$M)	Complete
CE1859	Stringfellow Rd.			2040
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 645	VA 645 Stringfellow Rd.	VA 7100 Fairfax County Parkway	US 50	
County		Municipality		
Fairfax				
Description				
Widen existing 2-lane facility to 4-lanes.				

Project ID	Title		Cost (\$M)	Complete
CE3467	Sudley Manor Drive/Prince William Parkway Interchange			2025
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Point Location		
Route	Facility	From:	To	
VA 234	VA 234 Prince William Parkway	VA 1566 Sudley Manor Drive		
County		Municipality		
Prince William				
Description				
Change from Intersection to an interchange including a bridge on Wellington over the parkway.				

Project ID	Title		Cost (\$M)	Complete
CE3641	Sudley Road Third Lane			2021
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 234	VA 234 Suddley Road	Grant Avenue	Godwin Drive	
County		Municipality		
		City of Manassas		
Description				
Install a northbound third lane on Sudley Road with curb, gutter, sidewalk and drainage.				

Project ID	Title	Cost (\$M)	Complete
CE1837	Telegraph Road widen		2024

Primary Project Typ

Road - Other Improvement

Route Facility

VA 1781 VA 1781 Telegraph Road

County

Prince William

Description

Widen Telegraph Road to 4 lanes.

Location Tyhpe:

Road Segment

From:

VA 294 Prince William Parkway

Municipality

To

VA Caton Hill Road

Project ID	Title	Cost (\$M)	Complete
CE3699	Town Center Parkway (underpass DTR)		2030

Primary Project Typ

Road - Other Improvement

Route Facility

Town Center Pkwy.

County

Description

Construct Town Center Parkway underpass DTR

Location Tyhpe:

Road Segment

From:

VA 5320 Sunrise Valley Drive

Municipality

To

VA 675 Sunset Hills Road

Project ID	Title	Cost (\$M)	Complete
CE1759	Transit Service Improvements		2022

Primary Project Typ

Road - Interchange improvement

Location Tyhpe:

Interchange

Route Facility

I 66 I 66

From:

Fauquier County Line

To

Rosslyn

County

Municipality

Region-wide

Description

Transit service improvements in the I-66 Corridor between Fauquier County and Rosslyn in Arlington County. Improvements to be investigated include increased feeder bus service to Metrorail, implementation of service between the Metro stations and unserved destinations in the Corridor, express bus to the Vienna Metro Station from sites west of Vienna, and extension of Metrorail from Vienna to Centreville. Construction of a transit access ramp from I-66 to the Vaden Drive bridge, adjacent to the Vienna Metrorail Station. The proposed ramps would access Vaden Drive from the center of I-66 providing for bus access from the HOV/leftmost lane east bound and to the HOV/leftmost lane west bound. Capital costs: #5 increased feeder bus service to Metrorail, implementation of service between the Metro stations and unserved destinations inside the Beltway: \$13.5M #16 Metrorail extension from Vienna to Centreville: \$672.0M. Project is an HOV ramp from I-66 to adjacent Vaden Dr. Phase 1 was a feasibility study so the scoping document will not be written until the end of Phase 2. Currently it is unknown whether bike/ped accommodations can be added. The ramp will be a two-lane ramp; one lane from EB I-66 to Saintsbury DR. and the other from Saintsbury Dr. to WB I-66; the ramp will be operational 24/7 and will be for buses only.

Project ID	Title	Cost (\$M)	Complete
CE2685	US 1 Construct 6-Lane divided roadway		2025

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

US 1 US 1

From:

VA 638 Neabsco Mills Road

To

VA Featherstone Road

County

Municipality

Prince William

Description

Widen to a 6-lane divided roadway within the above limits. This project will help alleviate congestion on the existing transportation infrastructure (primarily Route 1 and some of the side streets and intersections) considering that Route 1 is a major thoroughfare within Prince William County. This roadway carries also traffic from Fairfax and Stafford Counties. Many segments of Route 1 currently perform below LOS D during peak periods as well as daily. This project will be delayed until 2014 and changed to PE only due to loss of NVTAF funding. There is no federal or state funding for this project, so no congestion management documentation is required.

Project ID	Title	Cost (\$M)	Complete
CE2594	US 1 Construct 6-Lane Divided Roadway		2024

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

US 1 US 1

From:

VA 1109 Brady's Hill Road

To

VA Neabsco Mills

County

Municipality

Town of Dumfries

Description

US Route 1 Construct 6-Lane Divided Roadway within cited limits. Route 1 Northbound (Fralely Blvd) between Route 1109 (Brady's Hill Road) and Route 234 (Dumfries Road) is classified as an Urban Principal Arterial. The intent of this project is to widen Route 1 NB from 2-lanes undivided roadway to 6-lanes divided roadway from Brady's Hill Road to Possum Point Road so both NB / SB traffic will be on the existing Route 1 NB alignment and widen Route 1 NB / SB lanes from 4-lanes undivided roadway to 6-lanes divided roadway from Possum Point Road to Route 234-Dumfries Road. The proposed typical section for the 2.1 mile project will consist of six-lanes facility with three 12' lanes in each direction and appropriate turn lanes. The outermost lane in each direction will be 15' side to accommodate bicycles. The proposed design will provide a 16' raised median with sidewalks and shared use paths on opposite sides of the roadway. The design will follow the GS-5 (Urban Principal Arterial) standard at 45 mph design speed, as outlined in the Road Design Manual. The typical section will include CG-7 curbing and standard green space/buffer space adjacent to pedestrian facilities. The roadway superelevation will be based on urban low speed (TC-5.11 ULS) design standards. Side slopes will be 3:1 or flatter, where feasible. The existing SB Route 1 (Main St) is on separate alignment from NB Route 1 (Fralely Rd) for the majority of the project limits; the separate alignment will be converted to a two-way roadway for local traffic and the proposed design will include mill and overlay adjustments, along with signing and markings, to complete the conversion. Since the project is located in a built-up area the design baseline may have to be optimized to minimize Right of Way impacts. Environmental studies and NEPA document will be performed for the project. A Citizen Information meeting is being planned for late 2015 (Ongoing Prel. design by VDOT L&D, consistent with Route 1 Location Study, Segment A).

Project ID	Title	Cost (\$M)	Complete
CE1942	US 1, Widen, Reconstruct Interchange,	\$415.3	2035

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

US 1 US 1

From:

Stafford County Line

To

I Capital Beltway SCL Alexandria

County

Fairfax, Prince William

Municipality

City of Alexandria

Description

Improvements to Route 1 to improve the safety and operation of intersections and/or roadway segments. By 2015, widen to 6 lanes throughout Prince William County northward into Fairfax County to connect to the existing 6 lane roadway at Route 235 North. By 2025, widen an additional lane in each direction from VA 235 north to the Capital Beltway. During the peak period, in the peak direction, these additional lanes will be reserved for use by buses and right-turning vehicles. Reconstruct/replace bridges, as necessitated by maintenance demands or other causes, to the 6-lane width. PE for Location Study. The Location Study will follow-up on the US Route 1 Corridor Study and will result in Location Approval for the highway improvements recommended by the Corridor Study. 12906 - Widen 1 between 0.448 KILOMETER SOUTH LORTON ROAD and 0.223 KILOMETER NORTH TELEGRAPH ROAD - COMPLETE 16422 - 2010 Comp Date Widen Stafford Co. to Fairfax County Line. - \$197,000,000 (VP1ac) US 1 widening Possum Point Rd. to Wayside Lane covered by VA 234 interchange project - \$41,349,000 Replace Neabsco Creek Bridge, widen US 1 from VA 610 to VA 638 - UPC 16422 COMPLETE Construct US 1/VA 123 Interchange, Widen US 1 from Occoquan Road to Occoquan River - \$61,435,000 Widen Fairfax County Line to VA 235 north - \$230,000,000 Widen Armistead Rd. to Telegraph Rd. - \$23,014,000 Construct bus/right-turn lanes north of VA 235 N. - \$73,600,000 (VP1t)

Project ID	Title	Cost (\$M)	Complete
CE2161	US 1/ VA 123 Interchange, Widen		2028

Primary Project Typ

Road - New Construction

Location Tyhpe:

Point Location

Route Facility

US 1 US 1 Interchange

From:

VA 123

To

County

Prince William

Municipality

Description

Construct interchange at intersection of US 1 and VA 123 (VP10g) including: constructing bridge over CSX railroad to provide new access point to Belmont Bay, widening US 1 to 6 lanes from Mary's Way to Annapolis Way (VP1p), and widening VA 123 to 6 lanes from Annapolis Way to US 1. (VP10g) 100938 is for I/C and widening?: 14693 & T14939 are for the I/C project; 94102 is for US 1 widening S to N of VA 123 only;

Project ID	Title		Cost (\$M)	Complete
CE1803	US 15, Widen			2030
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
US 15	US 15 James Madison Highway	US 29 Lee Highway	VA 55	
County	Municipality			
Prince William				
Description				
Widen the existing 2-lane roadway to a 4-lane divided highway including Railroad Overpass. Implement safety and operational improvements as necessary. US 29 to I-66 I-66 to VA 234 (COMPLETE 2009) VA 234 to Loudoun Co. Line removed				
Project ID	Title		Cost (\$M)	Complete
CE1933	US 29, Construct, Widen			2025
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
US 29	US 29	ECL City of Fairfax (vic. Nutley St.)	I Capital Beltway	
County	Municipality			
Fairfax				
Description				
Widen US 29, between Nutley Street and I-495, to 6 lanes, and study the feasibility of constructing an interchange at US 29 and Gallows Road. Break into three segments: VP7AB - ECL City of Fairfax (vic. Nutley St.) to Espana Court, VP7AA - Espana Court to Merrilee Drive (UPC11424 in storage), and (2015)Merrilee Drive to I-495 (UPC11395 - 2013), including interchange at Gallows Rd (UPC 14869 Interchange Construction COMPLETE) As part of the Merrilee Drive to I-495 segment, widen VA 650 (Gallows Road) from 4 to 6 lanes between Gatehouse Road and approximately 1,072 ft north of Providence Forest Drive. Implement safety and operational improvements, as necessary. Reconstruct/replace bridges, as necessary.				
Project ID	Title		Cost (\$M)	Complete
CE3477	US 50 (Seven Corners Interchange)			2020
Primary Project Typ		Location Tyhpe:		
Study/Planning/Research		Road Segment		
Route	Facility	From:	To	
US 50	US 50 Arlington Boulevard	Patrick Henry Drive	South Street	
County	Municipality			
Fairfax				
Description				
Study Only Conduct feasibility study and develop conceptual engineering for interchange redesign as conceived in Seven Corners comprehensive planning process				

Project ID	Title	Cost (\$M)	Complete
CE2182	US 50 Improvements, Fairfax		2025

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

US 50 US 50

From:

ECL City of Fairfax

To

Arlington County Line

County

Fairfax

Municipality

Description

Extend Left Turn Lane and Implement safety improvements as needed. UPC 71291 Intersection @Jaguar Trail Complete (\$382K) Widen between ECL City of Fairfax and Arlington County Line

Project ID	Title	Cost (\$M)	Complete
CE1723	VA 123 Widen		2022

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

VA 123 VA 123 Chain Bridge Road

From:

VA 639 Horner

To

Devil's Reach Road

County

Fairfax

Municipality

Description

Widen to 6-lane road.

Project ID	Title	Cost (\$M)	Complete
CE1856	VA 123, Widen		2030

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route Facility

VA 123 VA 123 Chain Bridge Road

From:

Burke Center Parkway

To

Braddock Road

County

Fairfax

Municipality

Description

Widen from 4 to 6 lanes. Implement safety and operational improvements, as necessary. Reconstruct/replace bridges, as necessary.

Project ID	Title	Cost (\$M)	Complete
CE3703	VA 234 Bypass interchange @ Clover Hill Road		2026

Primary Project Typ
Road - Interchange improvement

Location Tyhpe:
Interchange

Route Facility
VA 234 VA 234 Bypass

From: To
Clover Hill Road

County Municipality
Prince William

Description
Construct interchange @ VA 234 Bypass and Clover Hill Road intersection

Project ID	Title	Cost (\$M)	Complete
CE3178	VA 234 Bypass Interchange @ Dumfries Road/Brentsville		2025

Primary Project Typ
Road - Interchange improvement

Location Tyhpe:
Interchange

Route Facility
VA 234 VA 234 Bypass

From: To
Dumfries Road/Brentsville

County Municipality
Prince William

Description
Route 234 Bypass Interchange at Dumfries Road/Brentsville. This interchange would eliminate one signalized intersection.

Project ID	Title	Cost (\$M)	Complete
CE1760	VA 236, Reconstruct, Widen		2035

Primary Project Typ
Road - Add Capacity/Widening

Location Tyhpe:
Road Segment

Route Facility
VA 236 VA 236

From: To
Pickett Road I 395

County Municipality
Fairfax

Description
Widen VA 236 from 4 lanes to 6 lanes. - 2030 Implement safety and operational improvements, as necessary. Reconstruct/replace bridges, as necessary. 17671 - Various intersections Spot improvements along Route 236 from Pickett Road easterly to Lake Drive. - COMPLETE 62692 - Improve safety by adding a second left turn lane on eastbound Route 236 - 2009 - grouped 62857 - Improve safety by adding a second left turn lane on westbound Route 236. - 2009 - grouped 63717 - This is a pedestrian safety project that was initiated by VDOT and FCDOT to resolve the issues of pedestrian crossings and minimize crashes identified in this location of Little River Turnpike between Oasis Drive and Beauregard Street. - COMPLETE

Project ID	Title	Cost (\$M)	Complete
CE2315	VA 244 - Columbia Pike Multi-Modal Corridor Improvements		2026

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route

Facility

VA 244 VA 244 Columbia Pike

From:

Fairfax County Line

To

Washington Blvd

County

Arlington

Municipality

Description

Modify street cross-section with reconfigured travel lanes, medians, and left-turn lanes, including concrete pads at transit stops, wider sidewalks, curb, gutter and utility undergrounding.

Project ID	Title	Cost (\$M)	Complete
CE3479	VA 28 Centreville Road (widen from 4-6 lanes divided)		2025

Primary Project Type

Study/Planning/Research

Location Type:

Road Segment

Route

Facility

VA 28 VA 28 Centreville Road

From:

VA 898 Old Centreville Road

To

Prince William County Line

County

Fairfax

Municipality

Description

Widen Route 28 (Centreville Road) from four to six lanes from Old Centreville Road to the Prince William County Line, and provide pedestrian and bicycle facilities.

Project ID	Title	Cost (\$M)	Complete
CE1734	VA 28 PPTA, Upgrade, Construct	\$100.0	2040

[Primary Project Type](#)**Road - HOV/Managed Lanes**[Location Type:](#)**Road Segment**[Route](#) [Facility](#)**VA 28** **VA 28**[From:](#)**I 66**[To](#)**Loudoun County Line**[County](#)**Fairfax, Loudoun**[Municipality](#)[Description](#)

Widen Rt. 28 from 6 to 8 lanes within cited limits Widening Route 28 from 6 to 8 lanes plus auxiliary lanes between I-66 and Loudoun County, with a later incorporation of HOV lanes into 8 lane roadway. This modifies the previous widening project (CLRP ID#1734) of 8 laning Route 28 (by 2025) to widening by 2025 and incorporating HOV lanes by 2040. Constructing Interchanges along VA 28 between the cited limits, upgrading this segment of VA 28 to a freeway is COMPLETE with the exception of: *VA 28 and Steeplechase Drive. The proposed plan to Remove the traffic lights and close the intersection has been modified to Provide an unsignalized right-in connection from Northbound Route 28 to Steeplechase Drive, to be completed in 2011. *VA 28 and Innovation. Upgrade from a right-in /right-out intersection at Northbound Route 28 by the construction of an interchange at Innovation to be complete by 2015 using private funds

Project ID	Title	Cost (\$M)	Complete
CE2045	VA 28, Widen		2025

[Primary Project Type](#)**Road - Add Capacity/Widening**[Location Type:](#)**Road Segment**[Route](#) [Facility](#)**VA 28** **VA 28**[From:](#)**Fauquier County Line**[To](#)**Pennsylvania Avenue**[County](#)**Prince William**[Municipality](#)[Description](#)

Widen from 2 to 4 lanes from Fauquier County Line to VA 215, and VA 215 to VA 219. Retain as facility type 3. Widen from 4 to 6 lanes from VA 219 (changed from 215) to Pennsylvania Avenue; This project provides multimodal access from Rt. 28 to the future enhanced Broad Run VRE Station through Piper Lane and the proposed access on Residency Drive. Utility relocation complete Implement safety and operational improvements as necessary.

Project ID	Title	Cost (\$M)	Complete
CE3705	VA 294 / VA 640 Interchange		2028

Primary Project Type

Bridge - Rehab + Add Capacity

Location Type:

Point Location

Route Facility

VA 294 VA 294 Prince William Parkway

From:

VA 640 Minnville Road

To

County

Municipality

Description

Construct interchange at VA 294 / VA 640

Project ID	Title	Cost (\$M)	Complete
CE3704	VA 294 / VA 641 Interchange		2028

Primary Project Type

Road - Interchange improvement

Location Type:

Interchange

Route Facility

VA 294 VA 294 Prince William Parkway

From:

VA 641 Old Bridge Road

To

County

Municipality

Prince William

Description

Construct interchange at VA 294 / VA 641

Project ID	Title	Cost (\$M)	Complete
CE1849	VA 602 Reston Parkway Improvements		2040

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route Facility

VA 602 VA 602 Reston Pkwy.

From:

VA 5320 Sunrise Valley Drive

To

VA 606 Baron Cameron Avenue

County

Municipality

Fairfax

Description

Widen Reston Parkway to 6 lanes. Implement safety and operational improvements, as necessary. 72599 and 64209 complete

Project ID	Title		Cost (\$M)	Complete
CE3475	VA 608, Frying Pan Road Widening			2030
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 608	va 608 Frying Pan Road	VA 28 Sully Road	VA 657 Centreville Road	
County		Municipality		
Fairfax				
Description				
Widen Frying Pan Road from 2 lanes to 4 lanes and provide pedestrian and bicycle facilities The project would include intersection improvements such as a turn lanes and signalization as well as pedestrian and bicycle facilities. Improves access to future Silver Line Metrorail Station and Dulles Airport. Provides relief to Centreville Road. Completes "missing" segments between existing sections of roadway already widened by development.				

Project ID	Title		Cost (\$M)	Complete
CE2186	VA 611 Telegraph Road Widening			2040
Primary Project Type		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
VA 611	VA 611 Telegraph Road	US 1	VA 644 Franconia Road	
County		Municipality		
Fairfax				
Description				
Telegraph Road is currently a 2 lane minor arterial serving a mix of commercial and residential developments. This project widens Telegraph Road to 4 lanes on 6-lane right of way. County will provide funding for a breakout project from S. Van Dorn Street to S. Kings Hwy UPC 58453 is from Leaf to S. Kings Hwy (PE only) UPC 11012 is from Leaf to Beulah Segment from S. Kings Hwy to Franconia Rd (UPC 5553) is COMPLETE US 1 to FFXCO Pkwy (UPC13933) COMPLETE Implement safety and operational improvements, as needed. Reconstruct/replace bridges, culverts, retaining walls, structures, etc.; as necessary.				

Project ID	Title		Cost (\$M)	Complete
CE3275	VA 613 Van Dorn Interchange at VA 644 Franconia Road PE COMPLETE			2035
Primary Project Typ		Location Tyhpe:		
Road - Other Improvement		Interchange		
Route	Facility	From:	To	
VA 613	Van Dorn Street			
County		Municipality		
Fairfax				
Description				
VA 613 Van Dorn Interchange at VA 644 Franconia Road PE COMPLETE				

Project ID	Title	Cost (\$M)	Complete
CE3693	VA 621 Devlin Road Widening		2028

Primary Project Typ
Road - Add Capacity/Widening

Location Tyhpe:
Road Segment

Route Facility
VA 621 VA 621 Devlin Road

From: To
VA 619 Linton Hall Road Wellington Road

County
Prince William

Municipality

Description
Widen Devlin Road from 2 lanes to 4 lanes Minor Arterial

Project ID	Title	Cost (\$M)	Complete
CE3478	VA 636 Hooes Road		2025

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Road Segment

Route Facility
VA 636 VA 636 Hooes Road

From: To
VA 286 Fairfax County Parkway VA 600 Silverbrook Road

County
Fairfax

Municipality

Description
Widen Hooes Road from 2 lanes to 4 lanes and provide pedestrian and bicycle facilities Widen existing Hooes Road to provide at a minimum 4-12' travel lanes, two in each direction. Provide curb and gutter on both sides of corridor along with 5' sidewalk on east side and 10' shared use path on west side. Provide handicap ramps at all intersection locations and "yield to pedestrian" signage at all unsignalized intersections. Provide pedestrian signals at Newton Forest Ave and Hooes Rd intersection. Extend existing cross culvert at South Run.

Project ID	Title	Cost (\$M)	Complete
CE1936	VA 638 Rolling Road Widening		2026

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Road Segment

Route Facility
VA 638 VA 638 Rolling Road

From: To
VA 6945 Hunter Village Drive VA Old Keene Mill Road

County
Fairfax

Municipality

Description
Widen Rolling Road to 4 lanes. From 0.369 mile north Rte 7100 (Fairfax County Parkway to Rte 644 (Old Keene Mill Road).

Project ID	Title		Cost (\$M)	Complete
CE2209	VA 643 Sycolin Road Paving/Widening			2035
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 643	VA 643 / Sycolin Road	Leesburg Town Limits	Belmont Ridge Road	
County	Municipality			
Loudoun				
Description				
Two phase project. UPC 58924/58293 Phase I - Pave existing dirt road within the cited limits. - COMP Phase II - Widen to four lanes within the cited limits. Segments may be constructed by developers.				

Project ID	Title		Cost (\$M)	Complete
CE1897	VA 659 Belmont Ridge Road, Reconstruct			2025
Primary Project Type		Location Tyhpe:		
Road - Other Improvement		Road Segment		
Route	Facility	From:	To	
VA 659	VA 659 Belmont Ridge Road Relocated	Prince William County Line	VA 7	
County	Municipality			
Loudoun				
Description				
Not Coded Construct or widen to a four-lane, divided road on a six-lane RW. VSL4a Widen from Nat'l Rec Pk Entrance to Dulles Greenway (2015) VSL4ab Widen from Dulles Greenway to VA 7 (2020) *(VSL4absplit) UPC 76243 Widen from Gloucester to VA 7) (2018) UPC 73823 (Widen from Truro Parish to Dulles Greenway) COMP UPC 8828 (PE from Dulles Greenway to VA 7) COMP VSL4c Widen Relocated VA 659 from PWCL/234 Bypass to US 50 (2020) VSL4d Widen Relocated VA 659 from VA 659 to US 50 (2020)				

Project ID	Title		Cost (\$M)	Complete
CE3701	VA 7 / 123 Interchange			2030
Primary Project Type		Location Tyhpe:		
Road - Interchange improvement		Interchange		
Route	Facility	From:	To	
VA 7	VA 7 Leesburg Pike	VA 123 Dolly Madison Road		
County	Municipality			
Description				
Reconstruct the interchange at VA 7/ 123.				

Project ID	Title	Cost (\$M)	Complete
CE1870	VA 7, Widen		2035

Primary Project Type

Road - Other Improvement

Location Type:

Road Segment

Route Facility

VA 7 VA 7 Bypass

From:

VA 7 Leesburg Pike West

To

US 15 South King Street (South)

County

Loudoun

Municipality

Description

Implement safety and operational improvements and widen the Leesburg Bypass from 4-lane divided to 6-lane divided freeway between the west Business VA 7 interchange and the east Business VA 7/US 15 interchange. Construct overpass at Sycolin Road. Broken up into 2 segments: US 15S (S King St) to VA 7/US 15E (16006) VA 7W to US 15S (S King St)(VP2ja)

Project ID	Title	Cost (\$M)	Complete
CE2175	VA 7, Widen	\$34.3	2030

Primary Project Type

Road - Add Capacity/Widening

Location Type:

Road Segment

Route Facility

VA 7 VA 7 Leesburg Pike

From:

Seven Corners

To

Bailey's Crossroads

County

Fairfax

Municipality

Description

Widen the existing 4-lane roadway to 6 lanes.

Project ID	Title	Cost (\$M)	Complete
CE2105	VA 7, Widen, Upgrade	\$314.0	2030

[Primary Project Typ](#)**Road - Add Capacity/Widening**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA 7** **VA 7 Leesburg Pike**[From:](#)**VA 7 Leesburg Bypass /US 15 East**[To](#)**I 495 Capital Beltway**[County](#)**Fairfax**[Municipality](#)[Description](#)

Widen VA 7 (52327) Rolling Holly Dr to Reston Ave, comp date 2012 (52328) Reston Ave to Dulles Toll Road Bridge Approaches comp date 2020 Improvements to VA 7 will improve the aesthetics of VA 7 (landscaping or erection of stone walls) or improve the safety/operation of intersections and/or non-regionally significant segments. Reconstruct/replace bridges, as necessitated by maintenance demands or other causes, to the 6-lane width. Reconstruct existing intersections as interchanges - Algonkian Parkway and Claiborne Parkway (VA 641 (Ashburn Road)/Lansdowne Boulevard). Widen and upgrade the existing 4-lane roadway to a 6-lane freeway between Leesburg and the Dulles Toll Road. VA 7 between the Dulles Toll Road and I-495 to be widened to 8 lanes/maintained as arterial. All improvements as described have been completed in Loudoun County

Project ID	Title	Cost (\$M)	Complete
CE1917	VA 9 Traffic Calming, Truck Enforcement, Reconstruct, Study		2025

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA 9** **VA 9**[From:](#)**West Virginia State Line**[To](#)**VA 7**[County](#)**Loudoun**[Municipality](#)[Description](#)

Improve the safety/operation of intersections and/or non-regionally significant segments of VA 9. Reconstruct/replace bridges, retaining walls, and other structures as necessitated by maintenance demands or other causes. Study feasibility of widening/relocating existing 2-lane roadway to 4 lanes. Total cost is anticipated to be \$50,000,000. 60859 and 70634 are complete. 70587 Grouped

Project ID	Title	Cost (\$M)	Complete
CE3383	VA Route 28 Study		2020

Primary Project Typ
Study/Planning/Research

Location Tyhpe:
Road Segment

Route Facility
VA 28 VA 28
County

From: To
VA 234 Sudley Road I 66
Municipality

Description

Evaluation of a seven mile corridor along Route 28 from Sudley Road to I-66 to determine short and long term solutions to the transportation congestion and access issues in this area. A short-term study (UPC 105482) was completed by VDOT. A long-term study led by Prince William County and the City of Manassas .is underway.

Project ID	Title	Cost (\$M)	Complete
CE3355	VA Route 606 Ramp		2030

Primary Project Typ
Road - Other Improvement

Location Tyhpe:
Interchange

Route Facility
VA 606 VA 606 Ramp
County
Loudoun

From: To
VA 606 Eastbound Lockridge Road northbound
Municipality

Description

VA Route 606 Ramp

Project ID	Title	Cost (\$M)	Complete
CE3502	VA Route 643 Extended - Shellhorn Road		2023

Primary Project Typ
Road - New Construction

Location Tyhpe:
Road Segment

Route Facility
VA 643 VA 643 Shellhorn Road Extension
County
Loudoun

From: To
VA 606 Loudoun County Parkway VA 634 Moran Road
Municipality

Description

Construction of a four-lane controlled access median divided urban collector, with left and right turn lanes required at all intersections. 40 mph design speed.

Project ID	Title		Cost (\$M)	Complete
CE3499	VA Route 645 Extended - Westwind Drive			2026
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
VA 645	VA 645 Westwind Drive Extended	VA 607 Loudoun County Parkway (opposite Moorefield Boulevard)	VA 606 Old Ox Road	
County		Municipality		
Loudoun				
Description				
Westwind Drive/Ladbrook Drive (VA Route 645 Extended) will provide an additional road connection across Broad Run between Loudoun County Parkway (VA Route 607) (in the Ashburn Community) and the Old Ox Road (VA Route 606) corridor. Future construction of this four lane divided road segment (Loudoun Typical Section for U4M) and bridge crossing will provide another east west connection in Loudoun's UDA. Between the Dulles Greenway and Evergreen Mills Road there are no other east west roadways across Broad Run, thereby hindering economic development and increasing vehicle miles travels for residents. This project can be found in Loudoun County's Capital Improvement Program and missing link #101 in Eastern Loudoun's Transportation Study.				

Project ID	Title		Cost (\$M)	Complete
CE3331	VA Route 7 Interchange at VA Route 690			2028

Primary Project Typ

Road - Other Improvement

Route

Facility

VA 7

VA 7 Interchange

County

Loudoun

Description

Complete preliminary engineering following environmental study

Location Tyhpe:

Road Segment

From:

VA 690

Municipality

To

Project ID	Title		Cost (\$M)	Complete
CE2664	VA Route 7/VA Route 659 Interchange			2018
Primary Project Type Road - Other Improvement		Location Tyhpe: Point Location		
Route	Facility	From:	To	
VA 7	VA 7 Interchange	VA 659 Belmont Ridge Road		
County Loudoun		Municipality		
Description Construction of a single point urban interchange. County bonds have funded a conceptual design RFP. The County, using Dewberry and Davis, has prepared 30% design plans for the interchange. The BOS has selected a preferred alternative. That work will be completed. It is currently estimated construction will be completed by 2020. Work is continuing in the preliminary design for the Route 15 / Route 659 interchange using previously allocated Loudoun County bond funds. There is no new FY 2009 funding to replace the NVTAF funds				

Project ID	Title		Cost (\$M)	Complete
CE3372	Van Buren Road - construct a four lane facility			2035
Primary Project Type Road - Other Improvement		Location Tyhpe: Road Segment		
Route	Facility	From:	To	
VA 627	VA 627 Van Buren Road	234 Dumfries Road	610 Cardinal Drive	
County Prince William		Municipality		
Description Extend Van Buren Road from Rte. 234 to Cardinal Drive. The widening will consist of a 4-lane divided facility. A sidewalk and trail are included				

Project ID	Title		Cost (\$M)	Complete
CE3766	Van Dorn- Duke Street to Holmes Run Parkway			2025
Primary Project Type Road - New Construction		Location Tyhpe: Road Segment		
Route	Facility	From:	To	
	Van Dorn	Duke Street	Holmes Run Parkway	
County		Municipality City of Alexandria		
Description The current entrance to Van Dorn will be upgraded to a complete intersection The free right turn from southbound Van Dorn to Duke Street will be eliminated to make the traffic movement easier. A 12 foot multi-use path will be placed along Van Dorn on the west side of the street				

Project ID	Title	Cost (\$M)	Complete
CE3371	Vint Hill Road		2020

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route

Facility

VA 215 VA 215 Vint Hill Road

From:

655 Schaeffer Lane

To

1566 Sudley Manor Drive

County

Prince William

Municipality

City of Manassas

Description

Widen Vint Hill Road from Schaeffer Ln to Sudley Manor Drive. The widening will consist of a 4-lane divided facility. A sidewalk and trail are included

Project ID	Title	Cost (\$M)	Complete
CE2830	Washington Boulevard Widening		2022

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route

Facility

Washington Boulevard

From:

Wilson

To

Kirkwood

County

Arlington

Municipality

Description

Widen Washington Boulevard between Wilson and Kirkwood In conformity table

Project ID	Title	Cost (\$M)	Complete
CE3333	Waxpool Road/ Loudoun County Parkway Intersection Improvements		2024

Primary Project Typ

Road - Intersection improvement

Location Tyhpe:

Intersection

Route

Facility

VA 606 VA 625 Waxpool Road/ VA 607 Loudoun County Parkway Intersection

From:

Loudoun County Parkway

To

Waxpool Road

County

Loudoun

Municipality

Description

Design and construct intersection improvements Smart Scale

Project ID	Title	Cost (\$M)	Complete
CE2145	Wellington Road	\$20.6	2035

[Primary Project Typ](#)**Road - Add Capacity/Widening**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA 674** **VA 674 Wellington Road**[From:](#)[To](#)**VA 619 Linton Hall Road Relocated** **VA Rixlew Lane**[County](#)**Prince William**[Municipality](#)[Description](#)

Widen to 4 lanes from Relocated Linton Hall Road to Rixlew Lane, where it will tie into the recently widened segment of Wellington Road between Rixlew Lane and the Western City Limit of Manassas. Relocate Wellington Road from the vicinity of its intersection with Limestone Drive and tie it into Relocated Linton Hall Road in the vicinity of Relocated Linton Hall's intersection with Lakeview Drive. The access point to Wellington Road from US 29 will be disconnected. Linton to Wellington Branch completed in 2007 Phase 1 - Devlin to Rixlew

Project ID	Title	Cost (\$M)	Complete
CE3695	Wellington Road		2028

[Primary Project Typ](#)**Road - Add Capacity/Widening**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA 55** **VA 55 John Marshall Highway**[From:](#)[To](#)**University Boulevard** **VA 621 Devlin / Balls Ford Road**[County](#)**Prince William**[Municipality](#)[Description](#)

Widening John Marshall Highway (VA 55) from 2 lanes to 4 lanes between (future) University Boulevard & Devlin Road / Balls Ford Road

Project ID	Title	Cost (\$M)	Complete
CE2357	Widen Balls Ford Rd		2035

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA 621** **VA 621 Balls Ford Road**[From:](#)**Devlin Road**[To](#)**234 Sudley Road**[County](#)**Prince William**[Municipality](#)[Description](#)

80347 - Widen Rt 621/Balls Ford Rd to 4 lanes from Rt 234 Business to 234 Bypass and then to Devlin Rd. Includes Rt 234 Bypass/621 interchange covered in 234 Bypass EIS and relocates 621 from interchange to Devlin Rd. Includes an interim tie-in from Doane Rd to existing Balls Ford Rd and Rte. 234 BP intx for RW/CN phases. Pavement and R/W varies along the project length. Widen to 4 lanes within cited limits. FROM: RTE.621- DEVLIN ROAD 1950' SOUTH OF RTE 674- WELLINGTON ROAD; TO: RTE.234 BUSINESS- SUDLEY ROAD Widening will increase capacity along rte621 corridor, relieve congestion.UPC 80347 PE includes widening of Ex Balls Ford Road, an interchange at Balls Ford Rd/Rte.234 BP, Rte.621 rel. The design will also include an interim tie in from Doane Rd to Ex B.F.Rd and Rte.234 BP intx for RW/CN phases. Project has been de-funded?

Project ID	Title	Cost (\$M)	Complete
CE3443	Widen Farmwell Road between Smith Switch and Ashburn Road		2022

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA 640** **Farmwell Road**[From:](#)**Smith Switch**[To](#)**Ashburn Road**[County](#)**Loudoun**[Municipality](#)[Description](#)

Widen Farmwell Road between Smith Switch and Ashburn Road from 2 to 6 lanes.

Project ID	Title	Cost (\$M)	Complete
CE2833	Widen Guinea Road		2040

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA Guinea Road**[From:](#)**VA 6197 Roberts Parkway**[To](#)**VA Pommeroy Drive**[County](#)**Fairfax**[Municipality](#)[Description](#)

Widen Guinea Road from 2 to 4 lanes between Roberts Parkway and Pommeroy Drive In conformity VSF33a

Project ID	Title	Cost (\$M)	Complete
CE3180	Widen Rte 1 from Telegraph Rd (Fairfax County) to Annapolis Way (Prince William Cnty)		2035

[Primary Project Typ](#)**Road - Other Improvement**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**US 1** **US 1 Jefferson Davis Highway**[From:](#)**Lorton Road (Fairfax County)**[To](#)**Annapolis Way (Prince William Country)**[County](#)**Fairfax, Prince William**[Municipality](#)[Description](#)

Widen to a 6-Lane divided roadway within the above limits. US 1 is a major thoroughfare in Prince William County and Fairfax County and is part of the National Highway System. This project will be part of a series of improvements being planned or engineered for the US 1 roadway in these two jurisdictions in northern Virginia. US 1 in this corridor serves significant land use activities in addition to serving as a commuter route connecting the core of the metropolitan Washington region with the surrounding and far off jurisdictions of northern Virginia. US 1 in this corridor also serves as an alternate route to I 95 and experiences congested travel conditions through many parts of the day particularly during the morning and afternoon peak periods. This project will directly tie with the BRAC funded project currently underway widening US 1 from 4 to 6 lanes in the Fort Belvoir area. Other improvements projects planned or being engineered include: (1) upgrading sections between Bradys Hill Road & Neabsco Road and between Neabsco Road & Featherstone Road to a six lane divided highway; (2) construction of a grade separated interchange at US 1 and VA 123 - constructing over CSX railroad to provide a new access point to Belmont Bay; (3) widening US 1 to 6 lanes from Occoquan Road to Annapolis Way, and (4) widening VA 123 to 6 lanes from Horner Road to US 1. This project is estimated to cost 125M. In Fairfax County, BRAC funding is upgrading a segment of US 1 in front of Fort Belvoir from 4 to 6 lanes, which will tie into the this project.

Project ID	Title	Cost (\$M)	Complete
CE3376	Widen VA 123, Chain Bridge Road from VA 7 to I-495		2030

[Primary Project Typ](#)**Road - Add Capacity/Widening**[Location Tyhpe:](#)**Road Segment**[Route](#) [Facility](#)**VA 123** **VA 123 Chain Bridge Road**[From:](#)**7 Leesburg Pike**[To](#)**495 Capital Beltway**[County](#)**Fairfax**[Municipality](#)[Description](#)

Road widening between Rt 7 and I-495. Pedestrian facilities included.

Project ID	Title	Cost (\$M)	Complete
CE3694	Widening John Marshall Highway		2028

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

Facility

VA 55

VA 55 John Marshall Highway

From:

US 29 Lee Highway

To

Fayette Street

County

Municipality

Description

Widening John Marshall Highway (VA 55) from 2 lanes to 4 lanes between Lee Highway (US 29) and Fayette Street (Town of Haymarket).

Project ID	Title	Cost (\$M)	Complete
CE3162	Widening of Rte 15 (James Madison Highway)		2024

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route

Facility

US 15

US 15 James Madison Highway

From:

Thoroughfare Road

To

1200' South of RR Tracks

County

Municipality

Prince William

Description

Widen to a 4-lane divided roadway between Monroe Glenn Dr. and Thoroughfare Road.

Project ID	Title	Cost (\$M)	Complete
CE3698	Widening VA 123		2030

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

Facility

VA 123

VA 123 Dolly Madison Blvd

From:

VA 267 Dules Access/Toll Road

To

VA 634 Great Falls street

County

Municipality

Fairfax

Description

Widen VA 123 between the stated limits

Project ID	Title	Cost (\$M)	Complete
CE2176	Williamson Boulevard		2030

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route

Facility

Williamson Boulevard

From:

VA 1566 Sudley Manor Drive

To

VA Portsmouth Road)

County

Prince William

Municipality

Description

Construct a new 4-lane facility.

Project ID	Title	Cost (\$M)	Complete
CE3679	Withdrawn I-66 Alternatives		

Primary Project Typ

Road - Other Improvement

Location Tyhpe:

Road Segment

Route

Facility

I 66

I 66 Inside the Beltway

From:

To

County

Municipality

Description

Withdrawn I-66 Alternatives

Transit

Project ID	Title	Cost (\$M)	Complete
CE2831	Arkendale to Powells Creek Third Track Project and Potomac Shores Station		2022

Primary Project Typ

Rail - Other

Location Tyhpe:

Own ROW

Route

Facility

Third Track

From:

CFP 72 Arkendale, Stafford County
VA

To

CFP 83.4 Powell's Creek, Prince
William VA

County

Prince William, Stafford

Municipality

Description

Final design and construction of 11.4 miles of third track along the CSX-owned and operated railroad from milepost CFP 72 Arkendale (Stafford County) to CFP 83.4 Powell's Creek (Prince William County). The project will allow for expanded intercity passenger rail service while preserving freight rail capacity. Once track is completed, Cherry Hill VRE station is planned to be built.

Project ID	Title		Cost (\$M)	Complete
CE3761	ART Operations and Maintenance Facility			2024
Primary Project Typ		Location Tyhpe:		
Transit - Capital		On Road		
Route	Facility	From:	To	
		2631 Shirlington Rd	2635 Shirlington Rd	
County		Municipality		
Arlington				
Description				
		Provides a new, expanded facility for parking, operations, and maintenance for Arlington's fleet of ART buses.		
Project ID	Title		Cost (\$M)	Complete
CE3660	Ballston Multimodal Improvements			2021
Primary Project Typ		Location Tyhpe:		
Transit - Other		Own ROW		
Route	Facility	From:	To	
	Ballston Metro Station	Fairfax Drive at Stuart Street		
County		Municipality		
Arlington				
Description				
		Modifies the sidewalks, bus bays, and curbside management of the bus transfer area outside Ballston Metro. Reconstructs and adds bus bays, replaces bus shelters and other street furniture, improves sidewalks, adds bicycle parking, installs real-time information displays, expands taxi and car-sharing spaces, and adds dedicated curbside spaces for private shuttles and kiss-n-ride users.		
Project ID	Title		Cost (\$M)	Complete
CE3633	Ballston-MU Metro Station West Entrance			2027
Primary Project Typ		Location Tyhpe:		
Transit - Other		Own ROW		
Route	Facility	From:	To	
	Ballston Metro station		Fairfax Drive at N Vermont Street	
County		Municipality		
Arlington				
Description				
		New second mezzanine and sidewalk entrance to the Ballston Metro station, at its western end. Project includes an underground pedestrian passageway and a new mezzanine with stairs, elevators, and escalators connecting the sidewalk to the train platforms, as well as fare gates, fare vending machines, and an attendant kiosk.		

Project ID	Title	Cost (\$M)	Complete
CE3659	Columbia Pike Transit Stations		2024

Primary Project Typ

Transit - Other

Location Tyhpe:

Own ROW

Route

Facility

Columbia Pike

From:

To

County

Arlington

Municipality

Description

Constructs high quality transit stations serving premium buses along Columbia Pike. Transit stations include shelters and platforms with electronic and printed information, maps of bus routes, ample seating, enhanced lighting, newspaper vendor corrals, and improved landscaping, sidewalks, curbs, and gutters. 23 new transit stations at 12 locations along Columbia Pike are planned, at the following intersections: Greenbrier, Dinwiddie, Buchanan, Taylor/Thomas, George Mason, Oakland, Glebe, Walter Reed, Barton, Courthouse, Scott, and Orme.

Project ID	Title	Cost (\$M)	Complete
CE1739	Courthouse Metro Station		2026

Primary Project Typ

Transit - Other

Location Tyhpe:

Own ROW

Route

Facility

Courthouse Metro Station

From:

To

County

Arlington

Municipality

Description

Implement/construct improvements to the Courthouse Metrorail Station in order to maintain and increase transit ridership using this facility. Improve the access to the Courthouse Metro Station by installing an additional elevator.

Project ID	Title	Cost (\$M)	Complete
CE3647	Crystal City Metro Station East Entrance		2025

Primary Project Typ

Transit - Other

Location Tyhpe:

Own ROW

Route

Facility

Crystal City Metro station

From:

Crystal Drive

To

County

Arlington

Municipality

Description

New Metro entrance at the east end of the station, near Crystal Drive, to provide easier access from Crystal Drive, the VRE station, and the northbound Transitway. Includes elevators, escalators and/or stairs, a fare payment area with fare vending machines, kiosk, and an underground passageway to the existing train platform and/or mezzanine.

Project ID	Title	Cost (\$M)	Complete
CE2931	Crystal City- Potomac Yard Streetcar Conversion Study		

Primary Project Type
Study/Planning/Research

Location Type:
Not Location Specific

Route Facility
Crystal City- Potomac Yard Streetcar Conversion

From: To
Braddock Road Metrorail Station Pentagon Metrorail Station

County
Arlington

Municipality
City of Alexandria

Description

This is a study of the conversion of a facility which is being built exclusively as a busway to a facility which can accommodate streetcars and buses. Alexandria and Arlington County are using local funds to do an environmental assessment of this project.

Project ID	Title	Cost (\$M)	Complete
CE3521	Crystal City Potomac Yard Transitway Northern Extension		2023

Primary Project Type
Transit - Other

Location Type:
On Road

Route Facility
Crystal City Transitway

From: To
Crystal City Metro Station Pentagon City Metro Station

County

Municipality

Description

Extend the Metroway bus rapid transit (BRT) from Crystal City Metro to Pentagon City Metro. The transitway operates in Crystal City on a paired one-way couplet along South Clark Street and Crystal Drive, ending at 15th Street South. This project will extend the transitway north along Clark Street and Crystal Drive as far as 12th Street South, at which point the transitway will turn left on 12th Street and continue as far as South Hayes Street. The project includes three new bi-directional BRT stations, at 12th/Clark, on 12th between Eads Street and Fern Street, and at 12th/Hayes/Pentagon City Metro. The project also includes construction of new 1-block segment of 12th Street South, between Fern Street and Eads Street. where there is currently no street.

Project ID	Title	Cost (\$M)	Complete
CE3648	Crystal City Potomac Yard Transitway Pentagon City Extension		2023

Primary Project Typ

Transit - Other

Location Tyhpe:

Own ROW

Route

Facility

Crystal City Potomac Yard Transitway

From:

Crystal City Metro station

To

Joyce Street at Army Navy Drive

County

Arlington

Municipality

Description

Project extends the existing busway from Crystal City Metro to Joyce St & Army Navy Drive Pentagon City, running along Crystal Drive, Clark Street, 12th Street, Hayes Street, and Army Navy Drive. Includes exclusive and/or dedicated transit lanes, passenger stations, utility relocations, signing and pavement marking, and traffic signal upgrades. Stations are anticipated to be located at 12th & Clark Streets, 12th & Eads Streets, 12th & Hayes Streets, and Joyce Street & at an expanded bus facility along Army-Navy Drive.

Project ID	Title	Cost (\$M)	Complete
CE3620	DASH Facility & Fleet Expansion Project		2022

Primary Project Typ

Transit - Other

Location Tyhpe:

Not Location Specific

Route

Facility

From:

To

County

Municipality

City of Alexandria

Description

DASH Facility & Fleet Expansion Project

Project ID	Title	Cost (\$M)	Complete
CE2933	DASH Service Expansion		2030

Primary Project Typ

Transit - Other

Location Tyhpe:

Not Location Specific

Route

Facility

Throughout Alexandria

From:

To

County

Municipality

City of Alexandria

Description

The DASH Service Expansion Plan will be a 10 year expansion plan which will expand the DASH fleet from 63 buses to 143 buses. This will be accomplished by bring the headways up to urban standards of 15 minutes during the peak, adding additional crosstown services, and establishing community based shuttles. The first part of this expansion will be funded with the proceeds from the proposed real estate tax.

Project ID	Title	Cost (\$M)	Complete
CE3754	Dedicated Bus/HOV Lanes on Dale Blvd		2030

Primary Project Typ

Road - HOV/Managed Lanes

Location Tyhpe:

Own ROW

Route

Facility

Dale Blvd/PW Pkwy/Minnieville Rd

From:

To

County

Prince William

Municipality

Description

Construction, or conversion of shoulder lanes into, dedicated bus/HOV lanes on Dale Blvd, Prince William Parkway and Minnieville Road to connect Park and Ride lots in Dale City to Route 1 and I-95 to improve travel time reliability and encourage transit use.

Project ID	Title	Cost (\$M)	Complete
CE2932	Duke Street BRT Design & Construction	\$87.0	2027

Primary Project Typ

Transit - BRT

Location Tyhpe:

On Road

Route

Facility

Duke Street BRT

From:

King Street Metro Station

To

Landmark

County

Fairfax

Municipality

City of Alexandria, City of Fairfax

Description

Develop a bus rapid transit service, featuring limited stops, and possibly some dedicated transit lanes from the King Street Metrorail Station to Landmark primarily using Duke Street. This service will eventually be extended to Fairfax County and the City of Fairfax when they desire this service to continue. This service will initially have 15 minute peak hour headways and 30 minute off-peak headways. The exact alignment and amount of dedicated lanes for transit is being determined now in this study.

Project ID	Title	Cost (\$M)	Complete
CE1981	Dulles Corridor Metrorail Project		2022

[Primary Project Type](#)**Transit - Metrorail/Heavy Rail**[Location Type:](#)**Own ROW**[Route](#) [Facility](#)[From:](#)**East Falls Church Metrorail Station**[To](#)**VA Loudoun County)**[County](#)[Municipality](#)**Region-wide**[Description](#)

The project is a 23.1 mile extension of the existing Metrorail system from the Orange Line in Fairfax County through Tysons Corner to Washington Dulles International Airport and Route 772 in Loudoun County. Phase 1, from E. Falls Church to Reston Wiehle East, is complete. Most of the extension would be constructed in the median of the Dulles Airport Access Road and Dulles Connector Road, but the alignment would also directly serve Tysons Corner and Dulles Airport. The extension would include 11 new Metrorail stations, a rail yard site on Dulles Airport property, and an expansion of the existing rail yard at West Falls Church. Four of the new stations would be located within Tysons Corner. Construction of the project would occur in two phases. Includes reconstruction of 7 between DTR and I-495

Project ID	Title	Cost (\$M)	Complete
CE3650	East Falls Church Metro Station Bus Bay Expansion		2023

[Primary Project Type](#)**Transit - Other**[Location Type:](#)**Own ROW**[Route](#) [Facility](#)**East Falls Church Metro station**[From:](#)[To](#)**North side bus bays**[County](#)[Municipality](#)**Arlington**[Description](#)

Expands and improves bus transfers at East Falls Church Metro by adding one to two new bus bays, and replacing the existing shelters. Project also includes pedestrian access improvements from the park-and-ride lot, improvements to the accessible parking access, and the addition of a signal and crosswalk at the entrance to the park-and-ride lot on Washington Boulevard. The project will be coordinated with a complete streets project on Sycamore Street as well as an expansion of bikeshare in the vicinity.

Project ID	Title	Cost (\$M)	Complete
CE3134	Eisenhower Metrorail Station		2024

Primary Project Typ
Transit - Maintenance

Location Tyhpe:
On Road

Route Facility
Eisenhower Ave. and Swamp Fox Rd

From: To

County

Municipality
City of Alexandria

Description

The project will fund the rebuilding of the bus loop and plaza surrounding the Eisenhower Metrorail Station to improve transit services and to be consistent with surrounding land uses.

Project ID	Title	Cost (\$M)	Complete
CE3706	Franconia to Occoquan 3rd Track Project		2028

Primary Project Typ

Location Tyhpe:
Own ROW

Route Facility
**CSX Richmond, Fredericksburg and
Potomac (RF&P) Subdivision**

From:
**One mile north of the Franconia-
Springfield VRE station (CFP 99.0)**

To
**Appx 400 ft north of Furnace Rd,
just north of the Occoquan River
(CFP 90.08)**

County

Municipality

Description

Add approximately nine miles of a third main line track to an existing two- track portion of the RF&P rail corridor from one mile north of the Franconia-Springfield VRE station to approximately 400 feet north of Furnace Road, just north of the Occoquan River

Project ID	Title	Cost (\$M)	Complete
CE3166	Herndon Metrorail Intermodal Access Improvements		2023

Primary Project Typ

Transit - Other

Location Tyhpe:

On Road

Route

Facility

VA Herndon Parkway

From:

VA 666 Van Buren Street (East of)

To

VA Spring Street (West of)

County

Municipality

Town of Herndon

Description

Passenger drop-off/pick up facility on Herndon Parkway The project's scope includes a section of Herndon Parkway (approx. 1,200" both lanes) to include roadway, pedestrian, bike and transit enhancements that will serve Transit Oriented Development (TOD) along Herndon Parkway and to link to Herndon Metrorail. Project Plans show right-of way acquisition for vehicle and bus pull-off bays and paver crosswalks, signalization and major intersection as well as bike/pedestrian streetscape enhancements.

Project ID	Title	Cost (\$M)	Complete
CE3071	Landmark Transit Center		2028

Primary Project Typ

Transit - Other

Location Tyhpe:

Own ROW

Route

Facility

Landmark Transit Center

From:

Van Dorn St.

To

Duke Street

County

Municipality

City of Alexandria

Description

This project will fund the construction of a transit center as part of a redevelopment of the Landmark Mall. This center will provide a comfortable waiting environment for the many transit passengers who go to the redeveloped Landmark Mall or transfer there between transit services. This function will be especially important, since this transit center will be the transfer location between two high-capacity transit lines serving Alexandria.

Project ID	Title	Cost (\$M)	Complete
CE3625	Mark Center		2024

Primary Project Typ

Transit - Other

Location Tyhpe:

Own ROW

Route

Facility

Mark Center

From:

Mark Center Drive

To

County

Municipality

City of Alexandria

Description

This project will build a transit center on the north side of Mark Center Drive across from the BRAC-133 facility. The project is expected to add 4-5 bus bays on the north side of the street.

Project ID	Title	Cost (\$M)	Complete
CE3700	New Herndon Station Park and Ride Garage		2020

Primary Project Typ

Transit - Other

Location Tyhpe:

Own ROW

Route

Facility

From:

To

Silver Line Phase 2 New Herndon
Metrorail (formerly Herndon-Monroe Park
and Ride site)

County

Municipality

Description

Construction of a 1900+ space garage for the Phase 2 of the Silver Line at the future Herndon Station. The new Herndon Metrorail garage complements the existing Herndon-Monroe garage to promote access to transit by providing a park and ride location for travelers who want to use Metrorail and the Fairfax Connector to reach their final destination such as Dulles Airport, Reston, Tysons Corner, and Downtown DC. The garage also provides secure and non-secure bicycle parking to allow for alternative modes of transportation to access the bus and Metrorail systems.

Project ID	Title	Cost (\$M)	Complete
CE2874	Park and Ride Lot at Arcola Center		2025

Primary Project Typ

Transit - Other

Location Tyhpe:

Own ROW

Route

Facility

From:

To

Park and Ride Lot

County

Municipality

Loudoun

Description

300 space developer proffered park and ride lot

Project ID	Title		Cost (\$M)	Complete
CE1816	Pentagon City Metrorail Station			2023
Primary Project Typ	Location Tyhpe:			
Transit - Other	Own ROW			
Route	Facility	From:	To	
County	Municipality			
Arlington				
Description	<p>Implement/construct improvements to the Pentagon City Metrorail/Metrobus Station in order to maintain and increase transit ridership using this facility. Improvements include, but are not limited to, constructing a new western elevator entrance to the Pentagon City Metro Station and canopies over the Metro escalators, and improving the bus facilities in the station area.</p> <p>Ongoing</p>			
Project ID	Title		Cost (\$M)	Complete
CE3013	Potomac Yard Metro STUDY ONLY			2022
Primary Project Typ	Location Tyhpe:			
Transit - Other	Not Location Specific			
Route	Facility	From:	To	
County	Municipality			
	City of Alexandria			
Description	<p>Project involves Preliminary Engineering for eventual Potomac Yard Metro Facility and the eventual construction of the Potomac Yards Metro station. The source of funding for the project includes City bonds and developer contributions.</p>			

Project ID	Title	Cost (\$M)	Complete
CE2188	Springfield Commuter Parking Garage		2023

Primary Project Type
Transit - Park and Ride

Location Type:
Own ROW

Route Facility

From:
Springfield CBC

To
Engineering Proving Grounds (EPG)

County
Fairfax

Municipality

Description

This project will be delayed until 2014 due to loss of NVTa funding. This project includes the design, land acquisition, and construction of a park-and-ride / multi-modal transportation facility in the vicinity of the I-95 interchange with Old Keene Mill Road in Springfield. This facility will include up to 1,000 parking spaces for commuters and other travelers who ride buses or travel via carpools / vanpools, particularly in the Shirley Highway (I-395) HOV lanes. Proximity to the entrance to the I-95/I-395 HOV lanes makes this location well suited for carpool and vanpool formation. The Springfield Underground, an informal citizen ridesharing system, has been operating for over 20 years in this area using several joint-use park-and-ride lots. It is expected that this facility will be a multi-level structure adjacent to Old Keene Mill Road.

Project ID	Title	Cost (\$M)	Complete
CE3496	US 1 Bus Rapid Transit		2030

Primary Project Type
Transit - BRT

Location Type:
On Road

Route Facility
US 1 Richmond Highway BRT

From:
**N. Kings Highway at Huntington
Metro**

To
Fort Belvoir

County

Municipality

Description

US 1 Bus Rapid Transit

Project ID	Title	Cost (\$M)	Complete
CE2420	VRE - Broad Run Expansion		2025

Primary Project Typ

Transit - Other

Location Tyhpe:

Own ROW

Route

Facility

From:

To

VRE Manassas Line

County

Prince William

Municipality

City of Manassas

Description

This project includes expansion of the Broad Run Maintenance and Storage Facility (MSF) and Station to support expanded Manassas Line service. Improvements include: expansion of the MSF site and construction of storage tracks for additional trains and equipment; construction of 300 additional station parking spaces and platform modifications to provide access to expanded parking, and construction of about 1.8 miles of third track within the NSR right-of-way. The project includes real estate acquisition to expand the station and MSF footprint and accommodate the third track. Also included are enhanced bike and pedestrian accommodations and real-time train arrival and parking availability information systems.

Project ID	Title	Cost (\$M)	Complete
CE2163	VRE - Rolling Stock Acquisition		2045

Primary Project Typ

Transit - Other

Location Tyhpe:

Not Location Specific

Route

Facility

From:

To

VRE Systemwide

County

Municipality

Region-wide

Description

This project includes the purchase of coaches/cab cars to expand seating capacity and lengthen VRE trains as well as ongoing equipment upgrades to comply with Federal mandates as well as safety, technology, and other improvements consistent with VRE's rolling stock asset management program. Debt service payments for locomotive/coach purchases and replacement of rolling stock at the end of their useful life are also included.

Project ID	Title	Cost (\$M)	Complete
CE2164	VRE - Stations and Facilities		2045

Primary Project Typ
Transit - Maintenance

Location Tyhpe:
Not Location Specific

Route Facility

From: To
Systemwide

County

Municipality
Region-wide

Description

This project includes expansion of existing station platforms and parking and construction of additional platforms at VRE stations. Also included is maintenance, replacement and enhancement of existing facilities including facilities asset management projects, safety and security (lighting, cameras, fencing) enhancements, automatic parking counters, station access improvements, and signage and traveler information system improvements.

Project ID	Title	Cost (\$M)	Complete
CE1996	VRE - Tracks and Storage Yards		2045

Primary Project Typ
Transit - Maintenance

Location Tyhpe:
Not Location Specific

Route Facility

From: To

County

Municipality
Region-wide

Description

As additional coaches and locomotives are added to the VRE fleet to accommodate ridership demand, equipment maintenance and storage facilities in Virginia and Washington, DC must be upgraded, expanded or obtained to store and service the fleet. Improvements to maintenance and storage facilities will allow ongoing maintenance and modifications to equipment and enable additional equipment to be stored. Improvements to track and signals are also critical to the safe and reliable operation of the VRE. Track, signal and related railroad improvements will maintain and enhance operational flexibility, state of good repair, and capacity, maintaining VRE's attractiveness to commuters..

Project ID	Title	Cost (\$M)	Complete
CE1908	VRE Grant and Project Management		2045
Primary Project Typ	Location Tyhpe:		
Study/Planning/Research	Not Location Specific		
Route	From:	To	
Facility	Systemwide		
County	Municipality		
	Region-wide		
Description			
Effective planning, service provision and grants management rely on well-trained staff with good information. Staff uses these funds to attend federal seminars on grant management, federal procurement regulations, and other grant related topics. The cost of grant and project management is then capitalized, reserving operating funds for service provision. Project specific funds and planning projects are also included in this category (i.e. fare collection and the strategic plan).			
Project ID	Title	Cost (\$M)	Complete
CE2832	VRE Service Improvements (Reduce Headways)		2035
Primary Project Typ	Location Tyhpe:		
Transit - Other	Not Location Specific		
Route	From:	To	
Facility			
	Fredericksburg and Manassas lines		
County	Municipality		
	Region-wide		
Description			
The reduction in headways is enabled by the completion of number of rail improvements, primarily a 3rd/4th track on the CSX line from DC to Fredericksburg. That project is being completed in stages with the initial capacity improvements included in the Transforming Rail in Virginia initiative by the Commonwealth of Virginia. The reduction in headways/change in VRE schedule is also subject to approval by the Virginia Passenger Rail Authority (VPRA) and host railroads.			
Project ID	Title	Cost (\$M)	Complete
CE3497	VRE Spotsylvania Station - COMPLETE		2015
Primary Project Typ	Location Tyhpe:		
Transit - Other	Own ROW		
Route	From:	To	
Facility			
County	Municipality		
Description			
Extend VRE to Spotsylvania.			

Project ID	Title	Cost (\$M)	Complete
CE2684	VRE Track Lease Improvements		2045

Primary Project Typ
Transit - Maintenance

Location Tyhpe:
Not Location Specific

Route Facility
VRE Tracks

From: To
Systemwide

County

Municipality
Statewide VA

Description

Provide capitalized access fees in the form of long term and related capital improvements on the railroad systems that VRE operates on and owned by Amtrak, CSX, and Norfolk Southern railroad systems.

Project ID	Title	Cost (\$M)	Complete
CE2930	West End Transitway	\$420.0	2026

Primary Project Typ
Transit - BRT

Location Tyhpe:
Own ROW

Route Facility
Van Dorn Metrorail Station

From: To
Van Dorn Metrorail Station **Pentagon Metrorail Station**

County

Municipality
City of Alexandria

Description

This project would build a bus rapid transit service from the Van Dorn Metrorail Station to the Pentagon Metrorail Station using Van Dorn, Sanger, Beauregard, Mark Center Drive, Southern Towers Drive, Beauregard, Walter Reed, Arlington Mill, and I-395. This service will initially have 15 minute peak hour headways and 30 minute off-peak hours. The exact alignment and amount of dedicated lanes will be determined in a study which is currently underway. The alignment, mode, and implementation plan will be developed by May, 2011 by the Transit Corridor Feasibility Study now being undertaken by the City's consultants. The project has been assigned funds from the proposed commercial real estate tax for transportation. These funds, together with developer contributions should fund this new service.

Project ID	Title	Cost (\$M)	Complete
CE3359	Western Loudoun Park and Ride Lot		2027

Primary Project Typ
Transit - Other

Location Tyhpe:
Own ROW

Route Facility

From: To

County
Loudoun

Municipality

Description

250 space Park and Ride Lot

Local Street

Project ID	Title	Cost (\$M)	Complete
T5503	Construction: Bridge Rehabilitation/Replacement/Reconstruction	\$2.4	

Primary Project Typ

Bridge - Rehab

Location Tyhpe:

Not Location Specific

Route

Facility

From:

To

District-wide Bridges

County

Municipality

Suburban VA

Description

TIP Grouping project for Construction: Bridge Rehabilitation/Replacement/Reconstruction. See CLRP for the derivation of STIP Grouping and how they are part of the TIP. Individual projects within STIP Group are shown on Appendix A.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$2,408,000**

Project ID	Title	Cost (\$M)	Complete
T6273	HOT Lanes Bicycle/Pedestrian Facilities - Phase II	\$13.4	2023

Primary Project Typ

Bike/Ped

Location Tyhpe:

Trail/Path Segment

Route

Facility

From:

To

I 495**Route 123 & Old Meadow Road****Tysons One Place & Fashion Boulevard**

County

Municipality

Fairfax

Description

HOT Lanes Bicycle/Pedestrian Facilities

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6485	Project Grouping: Construction: Recreational Trails	\$13.6	

Primary Project Typ

Bike/Ped

Location Tyhpe:

Various Locations

Route

Facility

From:

To

County

Municipality

Description

Project Grouping for construction of recreational trails that do not impact the Air Quality Conformity Analysis.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T5525	TIP Grouping for Preventive Maintenance for Bridges		\$38.3	
Primary Project Typ		Location Tyhpe:		
Bridge - Rehab		Various Locations		
Route	Facility	From:	To	
	Bridges	NoVA District		
County		Municipality		
		Region-wide		
Description				
TIP Grouping for Preventive Maintenance for Bridges.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:		\$17,159,076		
Non-Infrastructure				
Project ID	Title		Cost (\$M)	Complete
T6548	#HB2.FY17 Const Inter AT RTE 15/17/29 BUS GARVEE DEBT SERVICES		\$21.0	2033
Primary Project Typ		Location Tyhpe:		
Road - Interchange improvement		Other		
Route	Facility	From:	To	
	US 15 INTERCHANGE	US 29	VA 17	
County		Municipality		
		Region-wide		
Description				
#HB2.FY17 Const Inter AT RTE 15/17/29 BUS GARVEE DEBT SERVICES				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:		\$981,000		
Project ID	Title		Cost (\$M)	Complete
T8968	#SMART18 - POTOMAC TOWN CENTER GARAGE - GARVEE DEBT SERVICE		\$3.9	2037
Primary Project Typ		Location Tyhpe:		
Debt Service		Other		
Route	Facility	From:	To	
County		Municipality		
	Prince William			
Description				
Debt Service Required for CN UPC 111485				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title	Cost (\$M)	Complete
T5768	BRAC -Economic Development	\$5.7	

Primary Project Typ

Enhancement

Location Tyhpe:

Other

Route Facility

From:

To

County

Municipality

Region-wide

Description

Program is to finance BRAC State Administration.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6630	BUS REPLACEMENT (OMNIRIDE EXPRESS COMMUTER BUSES)	\$12.0	2025

Primary Project Typ

Transit - Bus

Location Tyhpe:

Other

Route Facility

From:

To

County

Municipality

Description

BUS REPLACEMENT (OMNIRIDE EXPRESS COMMUTER BUSES)This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$1,500,000**

Project ID	Title	Cost (\$M)	Complete
T6700	CLEAN AIR PARTNERS - FY22 TO FY24	\$0.9	2025

Primary Project Typ

TERMs

Location Tyhpe:

Other

Route Facility

From:

To

County

Municipality

Region-wide

Description

VDOT funds this public education prog.annually;CMAQ Funds used;COG implements. Continuation of UPC 52725 for FY22 - FY24 three years.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T6627	COMMUTER ASSISTANCE PROGRAM		\$33.5	2025
Primary Project Typ		Location Tyhpe:		
Transit - Administration		Other		
Route	Facility	From:	To	
County		Municipality		
Description				
COMMUTER ASSISTANCE PROGRAM				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$6,275,000				

Project ID	Title		Cost (\$M)	Complete
T6665	CONNECTOR ROAD FROM SUNRISE VALLEY DR TO INNOVATION AVE		\$2.0	2022
Primary Project Typ		Location Tyhpe:		
Bridge - Rehab + Add Capacity		Other		
Route	Facility	From:	To	
	Overpass	VA 5320 Sunrise Valley Drive	Innovation Avenue	
County		Municipality		
Fairfax, Loudoun				
Description				
Construct a four-lane roadway over the Dulles Toll Road from Sunrise Valley Drive on the south side to Innovation Avenue in Loudoun County on the north side. The project would include pedestrian and bicycle facilities.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title		Cost (\$M)	Complete
T6628	FAIRFAX COUNTYWIDE TRANSIT STORES		\$4.4	2025
Primary Project Typ		Location Tyhpe:		
Transit - Administration		Other		
Route	Facility	From:	To	
County		Municipality		
Fairfax				
Description				
FAIRFAX COUNTYWIDE TRANSIT STORES - This is to provide operating fund for the transit stores through out the county. Transit stores are facilities with personnel to assist the public with transportation information and materials regarding the Fairfax Connector bus service, Metrobus service and other public transportation services in Fairfax County.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$1,300,000				

Project ID	Title	Cost (\$M)	Complete
T6441	Project Grouping: Construction : Federal Lands Highway	\$28.4	

Primary Project Typ

Federal Lands Highway Program

Location Tyhpe:

Other

Route Facility

From:

To

County

Municipality

Description

Grouping for federally funded transportation improvements on federal lands. TIP AMD to add Federal Lands grouping - add \$163,363 (PB - FLAP) FFY15 CN phase (lco 05/27/15)

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6629	PRTC COMMUTER ASSISTANCE PROGRAM	\$2.1	2025

Primary Project Typ

Ridesharing

Location Tyhpe:

Other

Route Facility

From:

To

County

Municipality

Description

PRTC COMMUTER ASSISTANCE PROGRAM

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$700,000**

Project ID	Title	Cost (\$M)	Complete
T5506	TIP Grouping project for Construction: Safety/ITS/Operational Improvements	\$149.7	

Primary Project Typ

Transportation Operations

Location Tyhpe:

Other

Route Facility

From:

To

Safety/ITS/Operational Projects**Districtwide**

County

Municipality

Region-wide

Description

TIP Grouping project for Construction: Safety/ITS/Operational Improvements. See Appendix A for specific projects and UPC information.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$149,664,000**

Project ID	Title		Cost (\$M)	Complete
T5526	TIP Grouping project for Maintenance: Traffic and Safety Operations		\$64.2	
Primary Project Typ		Location Tyhpe:		
Transportation Operations		Other		
Route	Facility	From:	To	
	Traffic and Safety Operations	NoVA District		
County		Municipality		
		Region-wide		
Description				
TIP Grouping project for Maintenance: Traffic and Safety Operations. See CLRP for the derivation of STIP Grouping and how they are part of TIP. Individual projects within the STIP Group are found in Appendix A.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$16,409,000				
Project ID	Title		Cost (\$M)	Complete
T6626	Transit Store Funding - Alexandria		\$1.2	2025
Primary Project Typ		Location Tyhpe:		
Transit - Regional Fare Collection		Other		
Route	Facility	From:	To	
County		Municipality		
Description				
Monitoring Fund				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$600,000				
Project ID	Title		Cost (\$M)	Complete
T6696	Virginia Statewide Vehicle Fuel Conversion Program		\$0.4	
Primary Project Typ		Location Tyhpe:		
Alternative Fuel Infrastructure		Other		
Route	Facility	From:	To	
County		Municipality		
		Statewide VA		
Description				
Provide for vehicle Fuel conversion program statewide				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title	Cost (\$M)	Complete
T6631	WMATA REPLACEMENT BUSES	\$3.7	2025

Primary Project Typ

Transit - Bus

Location Tyhpe:

Other

Route Facility

From:

To

County

Municipality

Description

WMATA REPLACEMENT BUSESThis project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$3,700,000**

Roadways

Project ID	Title	Cost (\$M)	Complete
T6546	#HB2.FY17 RTE 7 CORRIDOR IMPROVEMENTS - PH 1 GARVEE DEBT SERVICE	\$70.2	2022

Primary Project Typ

Debt Service

Location Tyhpe:

Road Segment

Route Facility

VA 7 VA 7

From:

Reston Avenue

To

Jarrett Valley Drive

County

Municipality

Fairfax

Description

#HB2.FY17 RTE 7 CORRIDOR IMPROVEMENTS - PH 1 GARVEE DEBT SERVICEThis project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$5,082,000**

Project ID	Title	Cost (\$M)	Complete
T6519	#HB2.FY17 RTE 7 CORRIDOR IMPROVEMENTS - PHASE 1	\$187.9	2022

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

VA 7 RT 7 Leesburg Pike

From:

Reston Ave

To

Jarrett Valley Drive

County

Municipality

Fairfax

Description

Rt 7 Corridor Improvements to add one travel lane both EB and WB; upgrade intersections; and construct pedestrian and bicycle facilities EB and WB. FROM: Reston Avenue TO: Jarrett Valley Drive (0.5000 MI)This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$14,151,000**

Project ID	Title	Cost (\$M)	Complete
T6539	#HB2.FY17 RTE 7 CORRIDOR IMPROVEMENTS - PHASE 2	\$254.3	2024

Primary Project Typ
Road - Add Capacity/Widening

Location Tyhpe:
Road Segment

Route Facility
VA 7 VA 7 Leesburg Pike

From: To
Reston Avenue 500 ft. E of Colvin Forest Drive

County
Fairfax

Municipality

Description

Phase 2 for Rt 7 Corridor Improvements to add one travel lane both EB and WB; upgrade intersections; and construct pedestrian and bicycle facilities EB and WB Reconstruction w/ Added Capacity - FROM: Reston Avenue TO: 500 ft. E of Colvin Forest Drive (3.2500 MI) TIP AMD - add \$34,658 (RSTP) & \$956,677 (AC-Other GARVEE) FFY17 PE phase. (lco 9/27/16) child project of UPC 99478 FROM: Reston Avenue TO: 500 ft. E of Colvin Forest Drive (3.2500 MI)

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$3,920,000

Project ID	Title	Cost (\$M)	Complete
T6691	Boundary Channel Drive at I-395 Interchange	\$0.6	2025

Primary Project Typ
Road - Interchange improvement

Location Tyhpe:
Interchange

Route Facility
I 395

From: To
Boundary Channel Drive

County
Arlington

Municipality

Description

The project will upgrade the Boundary Channel Drive/I-395 interchange to improve traffic operations and safety for all users. The project also includes a bicycle connection from the Mount Vernon Trail to Long Bridge Park.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6707	BRADDOCK ROAD S-CURVE	\$0.6	2027

Primary Project Typ
Road - Recons/Rehab/Maintenanc

Location Tyhpe:
Road Segment

Route Facility
VA 620 VA 620 Braddock Road

From: To
Old Lee Road Tre Towers Court

County

Municipality

Description

Straighten and flatten the horizontal and vertical alignment of curve at Braddock Road and install right turn bay at Old Lee Road

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$550,000

Project ID	Title		Cost (\$M)	Complete						
T6602	Dulles West Boulevard Phase 3		\$22.7							
Primary Project Typ		Location Tyhpe:								
Road - New Construction		Road Segment								
Route	Facility	From:	To							
	Dulles West Blvd.	Arcola Blvd.	Northstar Blvd.							
County	Municipality									
Loudoun										
Description										
Construct new 4-lane divided										
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:										
Project ID	Title		Cost (\$M)	Complete						
T6520	Fairfax County Parkway widen from 4 to 6 lanes		\$130.2	2027						
Primary Project Typ		Location Tyhpe:								
Road - Add Capacity/Widening		Road Segment								
Route	Facility	From:	To							
VA 286	286 Fairfax County Parkway	123 Ox Road	29 2,000 ft. north of Lee Highway							
County	Municipality									
Fairfax										
Description										
Widen Fairfax County Parkway from 4 lanes to 6										
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$3,000,000										
Project ID	Title		Cost (\$M)	Complete						
T6664	FARMWELL ROAD WIDENING FROM 4 TO 6 LANES		\$32.1							
Primary Project Typ		Location Tyhpe:								
Road - Add Capacity/Widening		Road Segment								
Route	Facility	From:	To							
VA 640	VA 640 Farmwell Road	Smith Switch Road	VA 641 Ashburn Road							
County	Municipality									
Loudoun										
Description										
Widen Farmwell Road from 4 to 6 lanes										
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:										

Project ID	Title	Cost (\$M)	Complete
T6449	Frontier Dr Extension	\$180.2	2030

Primary Project Typ
Road - New Construction

Location Tyhpe:
Road Segment

Route Facility
Frontier Dr

From:
VA 289 Franconia-Springfield
Parkway

To
VA 789 Loisdale Rd

County
Fairfax

Municipality

Description

Extend Frontier Drive from Franconia-Springfield Parkway to Loisdale Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6547	HB2.FY17 RTE 7 CORRIDOR IMPROVEMENTS - PHASE 2 GARVEE DEBT SERVICES	\$34.7	2022

Primary Project Typ
Debt Service

Location Tyhpe:
Road Segment

Route Facility
VA 7 VA 7

From:
Reston Avenue

To
Jarrett Valley Drive

County
Fairfax

Municipality

Description

HB2.FY17 RTE 7 CORRIDOR IMPROVEMENTS - PHASE 2 GARVEE DEBT SERVICES

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$2,539,000

Project ID	Title	Cost (\$M)	Complete
T11577	I-495 EXPRESS LANES NORTHERN EXTENSION	\$500.0	2025

Primary Project Typ
Road - HOV/Managed Lanes

Location Tyhpe:
Road Segment

Route Facility
I 495 Beltway

From:
S. of Old Dominion Drive

To
American Legion Bridge

County
Fairfax

Municipality

Description

The northern extension of VDOTs I-495 High Occupancy/Toll (HOT) lanes has been in the long range transportation plan since 2005, as part of the larger project that resulted in creation of HOT lanes from the Springfield Interchange to Old Dominion Drive near Tysons. The plan is being amended to better coordinate with the I-495 HOT lanes project in Maryland. VDOT will extend the I-495 HOT Lanes from Old Dominion Drive north to the American Legion Bridge. The project will include two HOT lanes in each direction. VDOT anticipates this will be funded primarily by toll revenues, possibly through a public private partnership

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$400,000,000

Project ID	Title		Cost (\$M)	Complete
T6624	I-495 Express Lanes Northern Extension		\$19.8	2025
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
I 495	I 495 Beltway	S. of Existing Express Lanes	American Legion Bridge	
County	Municipality			
Fairfax				
Description				
Extend I-495 HOT Lanes north to the American Legion Bridge from south of their current northern terminus in the vicinity of Old Dominion Drive to the American Legion Bridge.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title		Cost (\$M)	Complete
T11576	I-495 NEXT - VDOT OVERSIGHT & Transportation Management Plan		\$52.4	2025
Primary Project Typ		Location Tyhpe:		
Transportation Operations		Road Segment		
Route	Facility	From:	To	
I 495	Capital Beltway	S. of Old Dominion Drive	American Legion Bridge	
County	Municipality			
Fairfax				
Description				
FROM: S. of Old Dominion Drive TO: American Legion Bridge				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title		Cost (\$M)	Complete
T6361	I-495 Northern Section Shoulder Use Debt Service		\$53.5	
Primary Project Typ		Location Tyhpe:		
Debt Service		Road Segment		
Route	Facility	From:	To	
	I-495	South of Old Dominion Drive Overpass	George Washington Memorial Highway	
County	Municipality			
Fairfax				
Description				
Debt service line item for I-495 Northern Section Shoulder Use. Associated with construction project UPC 105130.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$2,460,000				

Project ID	Title	Cost (\$M)	Complete
T5930	I-66 / Route 15 INTERCHANGE RECONSTRUCTION	\$158.8	

Primary Project Typ

Road - Interchange improvement

Location Tyhpe:

Interchange

Route Facility

I 66 I-66

From:

Rte. I-66/Rte 15 Interchange

To

County

Prince William

Municipality

Description

FROM: 0.224 Miles West of Rte. 15 TO: 0.371 Miles East of Rte. 15 (0.8380)

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$4,610,000

Project ID	Title	Cost (\$M)	Complete
T6543	I-66 / Route 15 INTERCHANGE RECONSTRUCTION GARVEE DEBT SERVICES	\$35.6	2033

Primary Project Typ

Debt Service

Location Tyhpe:

Interchange

Route Facility

I 66 I-66

From:

Rte. I-66/Rte 15 Interchange

To

County

Prince William

Municipality

Description

I-66 / Route 15 INTERCHANGE RECONSTRUCTION GARVEE DEBT SERVICES

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$2,382,000

Project ID	Title	Cost (\$M)	Complete
T6545	I-66 Inside of the Beltway Initiatives GARVEE DEBT SERVICES	\$74.5	2034

Primary Project Typ

Debt Service

Location Tyhpe:

Road Segment

Route Facility

I 66 I-66

From:

I 495

To

U 29 Near Rosslyn, Arlington

County

Arlington, Fairfax

Municipality

Description

I-66 Inside of the Beltway Initiatives GARVEE DEBT SERVICES

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$5,940,000

Project ID	Title	Cost (\$M)	Complete
T11510	I-95 Reversible Ramp to/from Express Lanes @ Optiz Blvd.	\$60.0	2022

Primary Project Typ

Road - HOV/Managed Lanes

Location Tyhpe:

Point Location

Route

I 95

Facility

I-95 Reversible Ramp

From:

Express Lanes @ Optiz Blvd.

To

Dale Blvd

County

Municipality

Description

Construct reversible ramp to/from express lanes at I-95/Optiz Blvd. Interchange

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6682	I-95 SB AUXILIARY LANE BETWEEN RTE 123 AND RTE 294	\$31.1	2023

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

I 95

Facility

I 95

From:

VA 294

To

VA 123

County

Municipality

Prince William

Description

This project includes adding an auxiliary travel lane on Southbound Interstate 95, from the Route 123 entrance ramp, which will merge into an existing lane before the Prince William Parkway exit ramp. The length of the project is approximately 1.4 miles.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6604	Lee Highway Widening Phase II	\$95.7	2027

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route

US 29

Facility

US 29 Lee Highway

From:

VA 659 Union Mill Road

To

Buckleys Gate Drive

County

Municipality

Fairfax

Description

Widen Route 29 from 4 lanes to 6 lanes from Union Mill Road to Buckley's Gate Drive, with added capacity, improved geometrics and pedestrian/bicycle facilities. Corresponding Debt Service UPC is 111986.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6605	Lee Highway Widening Phase II -- GARVEE DEBT SERVICE	\$41.2	2037

Primary Project Typ

Debt Service

Location Tyhpe:

Not Location Specific

Route Facility

US 29 US 29 Lee Highway

From:

VA 659 Union Mill Road

To

Buckleys Gate Drive

County

Municipality

Fairfax

Description

Debt Service Required for construction of UPC 110329This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$3,748,000**

Project ID	Title	Cost (\$M)	Complete
T6541	NEABSCO MILLS ROAD - Widen to 4 lanes	\$35.0	2025

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

VA 638 Neabsco Mills Road

From:

Smoke Court

To

US 1 Jefferson Davis Highway

County

Municipality

Prince William

Description

Widen Neabsco Mills Road to 4 lanes between Smoke Ct (S. of Dale Blvd) and Route 1.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6687	NORTHSTAR BLVD EXTENSION	\$39.9	2024

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

VA Northstar Blvd

From:

US 50 Lee Jackson Memorial Hwy

To

VA 2200 Tall Cedars Pkwy

County

Municipality

Loudoun

Description

Extend Northstar Blvd from Route 50 to Tall Cedars Parkway

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T6634	Northstar Blvd. Extension		\$112.2	2024
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
VA 3171	Northstar Extension	US 50 John Mosby Highway	Shreveport Drive	
County	Municipality			
Loudoun				
Description				
Northstar Blvd. Extension between US 50 (John Mosby Highway) & Shreveport Drive in Loudoun with a 6-lane divided roadway				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				
Project ID	Title		Cost (\$M)	Complete
T6443	RICHMOND HIGHWAY CORRIDOR IMPROVEMENTS		\$414.9	2029
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
US 1	US 1 Richmond Highway	VA Jeff Todd Way	VA Sherwood Lane	
County	Municipality			
Fairfax				
Description				
Project will reconstruct and widen Richmond Highway (US Route 1) from four to six lanes and add bicycle and pedestrian facilities between the Mount Vernon Memorial Highway and Napper Road.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				
Project ID	Title		Cost (\$M)	Complete
T6662	Riverside Parkway (VA Route 7 North Collector Road) Extension		\$14.0	2023
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
	Riverside Parkway	0.567 Mi W of Loudoun County Parkway	0.103 E. of Loudoun County Parkway	
County	Municipality			
Loudoun				
Description				
Construction of a four-lane divided roadway with multi-use trails on both sides to complete the Route 7 North Collector Road between the Route 15 Bypass in Leesburg to the George Washington Boulevard in Ashburn				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title	Cost (\$M)	Complete
T6247	Rolling Road	\$93.5	2026

Primary Project Typ
Road - Add Capacity/Widening

Location Tyhpe:
Road Segment

Route Facility
VA 638 VA 638 Rolling Road

From: To
VA 286 Fairfax Co. Pkwy (0.369 mi VA 644 Old Keene Mill Road
N. of Pkwy)

County
Fairfax

Municipality

Description
Widening to 4 lanes

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$54,078,000**

Project ID	Title	Cost (\$M)	Complete
T6692	Route 1 Widening (Fraley Blvd)	\$134.3	2022

Primary Project Typ
Road - Add Capacity/Widening

Location Tyhpe:
Road Segment

Route Facility
US 1 US 1 Farley Blvd

From: To
Brady's Hill Road Dumfries Road

County

Municipality
Town of Dumfries

Description
Project will widen Rte 1 northbound so both northbound and southbound traffic will be on the northbound alignment. - PE linked under UPC 90339. FROM: 0.1 Mi S. of Brady's Hill Road TO: .2 Mi. N. of Dumfries Road (Route 234) (2.1490 MI)

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6309	Route 123/ Route 1 Interchange in PWC	\$56.0	

Primary Project Typ
Road - Interchange improvement

Location Tyhpe:
Interchange

Route Facility
VA 123 VA 123 (Gordon Blvd.) & US 1

From: To
.50 miles south of existing Rte 123 .40 miles North of existing Rte 123

County
Prince William

Municipality

Description
Construct new interchange To improve the flow of traffic, reduce accidents, and support traffic demand from the planned development in the area. Linked to UPC 100938.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T6298	Route 28 Widening		\$21.0	2021
Primary Project Typ		Location Tyhpe:		
Road - Add Capacity/Widening		Road Segment		
Route	Facility	From:	To	
VA 28	VA 28 Nokesville Rd	Godwin Drive	City Southern Corporate Limits	
County		Municipality		
Prince William				
Description				
Widen to six lanes				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title		Cost (\$M)	Complete
T6553	ROUTE 7/GEORGE WASHINGTON BLVD OVERPASS		\$33.5	2024
Primary Project Typ		Location Tyhpe:		
Road - Grade Separation		Point Location		
Route	Facility	From:	To	
VA 7	VA 7 Harry Bird Highway	Overpass @ G.W. Blvd		
County		Municipality		
Loudoun				
Description				
Project will Improve traffic operations on Route 7 by constructing a grade separated overpass at Route 1050 George Washington Blvd. FROM: 0. 25 MI. S. OF RESEARCH PLACE TO: CENTER LINE OF RESEARCH PLACE (0.2500 MI)				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title		Cost (\$M)	Complete
T6618	ROUTE 7/ROUTE 690 INTERCHANGE #SMART18		\$1.6	2028
Primary Project Typ		Location Tyhpe:		
Road - Interchange improvement		Interchange		
Route	Facility	From:	To	
VA 7	VA 7 Harry Byrd Highway	VA 690 Hillsboro Road		
County		Municipality		
Loudoun				
Description				
This new Interchange at RT 7 and RT 690 will include a shared use path and four ramps.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title	Cost (\$M)	Complete
T6693	RTE 15 IMPROVEMENT WITH RAILROAD OVERPASS	\$45.0	2026

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

US 15 US 15 James Madison Hwy

From:

1000' north of the tracks (just south of Route 55 in the Tow

To

1200' south of the tracks

County

Prince William

Municipality

Description

The project will provide a 4-lane section with median and asphalt shared use path, consistent with and connecting the sections north and south of the tracks. When completed, this project will provide a grade-separated railroad crossing for 4 tracks and access to adjacent properties.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$2,065,000**

Project ID	Title	Cost (\$M)	Complete
T6623	Rte 621 BALLS FORD ROAD WIDEN TO 4 LANES	\$67.4	2023

Primary Project Typ

Road - Add Capacity/Widening

Location Tyhpe:

Road Segment

Route Facility

VA 621 VA 621 Balls Ford Road

From:

VA 234 Sudley Road

To

Groveton Road

County

Prince William

Municipality

Description

FROM: Groveton Road TO: Sudley Road (Route 234) (1.9000 MI)

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T5926	Rte 7/ Rte 659 Interchange	\$250.0	

Primary Project Typ

Road - New Construction

Location Tyhpe:

Interchange

Route Facility

VA 7 VA John Mosby Highway

From:

Route 659 Belmont Ridge Road

To

County

Loudoun

Municipality

Description

Construct interchange at Rte 7 and Rte 659 to alleviate congestion and reduce accidents at one of Loudoun County's most dangerous interchanges.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T6559	RTE 840 UNIVERSITY BOULEVARD WIDENING AND EXTENSION -PE ONLY		\$33.0	
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
VA 840	University Boulevard	VA 1566 Suddly Manor Drive	VA 621 Devlin Road	
County		Municipality		
Prince William				
Description				
FROM: Route 621 (Devlin Road) TO: Route 1566 (Sudley Manor Drive) (1.2900 MI)				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title		Cost (\$M)	Complete
T6583	Soapstone Connector		\$215.9	2027
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Point Location		
Route	Facility	From:	To	
VA 4720	Soapstone Connector	Sunrise Valley Dr	Sunset Hills Dr	
County		Municipality		
Fairfax				
Description				
New multimodal roadway between Sunset Hills Rd and Sunrise Valley Dr. in Reston. Near Wiehle-Reston East Metrorail Station, includes crossing over the Dulles Corridor. Includes 4 lane cross section, on-road bike, sidewalk, and shared use path.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$10,600,000				

Project ID	Title		Cost (\$M)	Complete
T6663	STERLING BOULEVARD - 4 LANE CONSTRUCTION ON NEW ALIGNMENT		\$24.1	2026
Primary Project Typ		Location Tyhpe:		
Road - New Construction		Road Segment		
Route	Facility	From:	To	
VA 846	VA 846 Sterling Blvd	VA 625 Pacific Blvd	VA 634 Moran Road	
County		Municipality		
Loudoun				
Description				
THE CONSTRUCTION PROJECT WILL COMPLETE AN EXISTING GAP BY PROVIDING A 4 LANE DIVIDED FACILITY FROM PACIFIC BOULEVARD TO MORAN ROAD.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title	Cost (\$M)	Complete
T5523	TIP Grouping project for Construction: Transportation Enhancement Byway Non-Traditional	\$23.1	

Primary Project Typ

Enhancement

Location Tyhpe:

Various Locations

Route

Facility

Transportation Enhancement Byway Non-Traditional projects

From:

NoVA District

To

County

Municipality

Suburban VA

Description

TIP Grouping project for Construction: Transportation Enhancement Byway Non-Traditional. See CLRP for the derivation of STIP Grouping and how they are part of the TIP. See Appendix A to see individual projects within this STIP Group.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$23,089,200**

Project ID	Title	Cost (\$M)	Complete
T5524	TIP Grouping project for Preventive Maintenance and System Preservation	\$122.5	

Primary Project Typ

Road - Recons/Rehab/Maintenanc

Location Tyhpe:

Not Location Specific

Route

Facility

Preventive Maintenance and System Preservation facilities.

From:

NoVA District

To

County

Municipality

Region-wide

Description

This listing covers a number of projects/programs throughout Northern Virginia District. The nature/scope of these projects are Preventive Maintenance and System Preservation. These projects have been determined to be exempt from conformity requirements and are eligible for a Categorical Exclusion (CE) under NEPA and hence may be grouped as per April 9, 2008 MOA between FHWA, FTA, VDOT & VDRPT which was subsequently adopted by the NCR-TPB. Individual projects within the STIP Group are found in Appendix A.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$33,087,842**

Project ID	Title	Cost (\$M)	Complete
T6549	TRANSFORM I-66 OVERSIGHT PROJECT	\$200.0	2023

Primary Project Typ

Debt Service

Location Tyhpe:

Road Segment

Route

Facility

I 66

I 66

From:

I 495 Beltway

To

US 15

County

Municipality

Fairfax

Description

TRANSFORM I-66 OVERSIGHT PROJECT

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6585	TRANSFORM66 OUTSIDE THE BELTWAY (P3 Project)	\$4,386.6	

Primary Project Typ
Study/Planning/Research

Location Tyhpe:
Road Segment

Route Facility
I 66 I 66

From: To
I 495 US 15

County
Fairfax, Prince William

Municipality

Description

The Transform 66 Outside the Beltway Project is a multimodal project which will provide 2 Express Lanes & 3 general purpose lanes in each direction, with a median width designed to accommodate future high quality transit. Anticipated funds to consist of TIFIA Loan, Debt, and Equity for Express Mobility Partners .

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6695	UNIVERSITY BLVD EXTENSION (PROGRESS COURT TO DEVLIN ROAD)	\$28.5	2030

Primary Project Typ
Road - New Construction

Location Tyhpe:
Road Segment

Route Facility
VA 840 VA 840 University Blvd

From: To
Devlin Rd Progress Court

County
Prince William

Municipality

Description

This project consists of extending University Boulevard from Devlin Road to Progress Court, as a 2 lane roadway (half section) with two (2) 12 travel lanes and a 10 shared use path. The project will include signaling the new intersection of Devlin Road at University Boulevard.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$3,900,000

Project ID	Title	Cost (\$M)	Complete
T6310	US 1/RT 123 Interchange Construction Phase-I (Route 1 Widening ony)	\$102.5	2021

Primary Project Typ
Road - Add Capacity/Widening

Location Tyhpe:
Interchange

Route Facility
US 1 US 1

From: To
0.50 miles South of existing Rte 123 0.40 miles North of existing Rte 123

County
Prince William

Municipality

Description

Wide Route 1 in association with the US-1/RT 123 Interchange project.. Purpose: improve the flow of traffic, reduce accidents, and support traffic demand from the planed development in the area.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6621	VA 234 Bypass Interchange @ Balls Ford Road	\$145.0	2027

Primary Project Typ

Road - Interchange improvement

Location Tyhpe:

Interchange

Route Facility

VA 234 VA 234

From:

Balls Foard Relocated

To

County

Prince William

Municipality

Description

Construct an interchange at Balls Ford Road FROM: 0.6 Mi. S. of Existing Balls Ford Road (Rte 621) TO: Existing Balls Ford Road (Rte 621) (0.6000 MI)

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6694	VA 286 - POPES HEAD ROAD INTERCHANGE	\$67.3	2024

Primary Project Typ

Road - Interchange improvement

Location Tyhpe:

Interchange

Route Facility

VA 286 Fairfax County Pkwy

From:

Popes Head

To

County

Fairfax

Municipality

Description

Provide congestion relief and improve safety by constructing an interchange at the intersection of Fairfax County Parkway, Popes Head Road and future Shirley Gate Road Extension. NEPA UNDER UPC 107937

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$57,648,000

Project ID	Title	Cost (\$M)	Complete
T6205	VA Route 28 Study	\$3.7	

Primary Project Typ

Study/Planning/Research

Location Tyhpe:

Road Segment

Route Facility

VA 28 VA 28

From:

VA 234 Sudley Road

To

I 66

County

Municipality

Description

VDOT will evaluate a seven mile corridor along Route 28 from Sudley Road to I-66 to determine short and long term solutions to the transportation congestion and access issues in this area.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6450	VA Route 28 Widening (Prince William County Line to Route 29)	\$86.5	2023

Primary Project Typ
Study/Planning/Research

Location Tyhpe:
Road Segment

Route Facility
VA 28 VA 28 Centreville Road

From: To
PW County Line Old Centreville Road

County
Fairfax

Municipality

Description

Widen from 4 to 6 lanes including intersection improvements and pedestrian/bicycle facilities.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6659	VA Route 645 Extended - Westwind Drive	\$47.9	2026

Primary Project Typ
Road - Add Capacity/Widening

Location Tyhpe:
Road Segment

Route Facility
VA 645 VA 645 Westwind Drive

From: To
VA 607 Loudoun County (opposite VA 606 Old Ox Road Moorefield Boulevard) Parkway

County
Loudoun

Municipality

Description

Westwind Drive/Ladbrook Drive (VA Route 645 Extended) will provide an additional road connection across Broad Run between Loudoun County Parkway (VA Route 607) (in the Ashburn Community) and the Old Ox Road (VA Route 606) corridor. Future construction of this four lane divided road segment (Loudoun Typical Section for U4M) and bridge crossing will provide another east west connection in Loudoun's UDA. Between the Dulles Greenway and Evergreen Mills Road there are no other east west roadways across Broad Run, thereby hindering economic development and increasing vehicle miles travels for residents. This project can be found in Loudoun County's Capital Improvement Program and missing link #101 in Eastern Loudoun's Transportation Study.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$38,624,000**

Project ID	Title	Cost (\$M)	Complete
T6701	VA286 POPES HEAD RD INTERCHANGE GARVEE DEBT SERVICE	\$20.5	2037

Primary Project Typ
Debt Service

Location Tyhpe:
Interchange

Route Facility
VA 286 POPES HEAD RD

From: To

County

Municipality

Description

Debt Service Required for CN UPC 111725

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$3,728,000**

Project ID	Title	Cost (\$M)	Complete
T8605	Van Buren Road Extension (Study Only)	\$93.0	2035

Primary Project Type
Study/Planning/Research

Location Type:
Road Segment

Route Facility
VA 627 VA 627 Van Buren Road
County
Prince William

From: To
VA 627 Van Buren Road 610 Cardinal Drive
Municipality

Description
Extend Van Buren Road from Rte. 234 to Cardinal Drive. The widening will consist of a 4-lane divided facility. A sidewalk and trail are included

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Transit			
Project ID	Title	Cost (\$M)	Complete
T6673	Alexandria 4th Track	\$185.0	2028

Primary Project Type
Transit - Metrorail/Heavy Rail

Location Type:
Own ROW

Route Facility
Alexandria 4th Track Project

From: To
Control Point Rosslyn (CFP RO) near milepost 110.1 south of the George Washington Parkway Control Point Alexandria (CFP AF) near milepost 104.3 south of Telegraph Road

County
Arlington

Municipality
City of Alexandria

Description
Construct 6 miles of fourth track from Control Point AF in Alexandria to the RO Interlocking near the south bank of the Potomac River in Arlington

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6671	Alexandria Potomac Yard Metro Station Improvements, Including Southwest Entrance	\$370.0	2023

Primary Project Type
Transit - Passenger Facilities

Location Type:
Own ROW

Route Facility
Potomac Yard Metro Station

From: To
Entrance @ E. Glebe Rd/ Potomac Ave.

County

Municipality
City of Alexandria

Description
The project consists of construction of a new Metro Station at Potomac Yards along the existing Metrorail Blue and Yellow Lines, including a Southwest Entry at E. Glebe Rd / Potomac Ave .

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$15,842,000**

Project ID	Title	Cost (\$M)	Complete
T6328	Amenities	\$2.6	

Primary Project Typ
Transit - Passenger Facilities

Location Tyhpe:
Not Location Specific

Route Facility

From: To

County

Municipality
Region-wide

Description
Amenities

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$2,574,000**

Project ID	Title	Cost (\$M)	Complete
T6670	Crystal City Metro Station East Entrance	\$97.1	2025

Primary Project Typ
Transit - Passenger Facilities

Location Tyhpe:
Own ROW

Route Facility
Crystal City Metro station

From: To
Crystal Drive

County
Arlington

Municipality

Description

New Metro entrance at the east end of the station, near Crystal Drive, to provide easier access from Crystal Drive, the VRE station, and the northbound Transitway. Includes elevators, escalators and/or stairs, a fare payment area with fare vending machines, kiosk, and an underground passageway to the existing train platform and/or mezzanine.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$37,589,400**

Project ID	Title	Cost (\$M)	Complete
T6672	Crystal City Potomac Yard BRT Expansion	\$8.3	2022

Primary Project Typ
Transit - BRT

Location Tyhpe:
Own ROW

Route Facility

From: To

County

Municipality
City of Alexandria

Description

Enhance transit use by extending transitway on NB Route 1. Includes dedicated center running transit lanes and stations, coordinated with other planned intersections improvements at Rte 1/E Glebe Road.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$2,500,000**

Project ID	Title	Cost (\$M)	Complete
T6402	CSX RF&P Rail Corridor Capacity Improvements- INFORMATIONAL	\$104.2	2027

Primary Project Typ

Transit - Passenger Facilities

Location Tyhpe:

Not Location Specific

Route

Facility

CSX RF&P Rail Corridor

From:

CF 557 Hamilton Interlocking (HA)

To

CF 1063 Slaters Lane Interlocking

County

Prince William

Municipality

Description

Track, Signal and Switch work and VRE platforms that support current and future service and operational flexibility, including the VRE Potomac Shores Station

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6706	Franconia to Occoquan 3rd Track Project	\$555.0	2028

Primary Project Typ

Transit - Metrorail/Heavy Rail

Location Tyhpe:

Own ROW

Route

Facility

CSX Richmond, Fredericksburg and
Potomac (RF&P) Subdivision

From:

1 mi. N. Franconia-Springfield VRE
Station (CFP 98.8)

To

Approximately 400' N. of Furnace
Rd, just N. of the Occoquan River
(CFP (90.08)

County

Municipality

Description

Add approximately eight miles of a third main line track to an existing two-track portion of the RF&P rail corridor from one mile north of the Franconia-Springfield VRE station to approximately 400 feet north of Furnace Road, just north of the Occoquan River. Project includes a three-mile passenger rail bypass (flyover) at the northern end of the project limits

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$691,000

Project ID	Title	Cost (\$M)	Complete
T4489	Grant and Project Management	\$3.9	2045

Primary Project Typ

Study/Planning/Research

Location Tyhpe:

Not Location Specific

Route

Facility

System Wide

From:

Northern Virginia

To

County

Municipality

Region-wide

Description

The costs of VRE grants and project management, as well as staff participation in federal grants management seminars, will be capitalized to the grants, reserving operating funds for service provision.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$3,900,000

Project ID	Title	Cost (\$M)	Complete
T11581	L'Enfant Station and Fourth Track	\$84.6	2028

Primary Project Typ

Transit - Metrorail/Heavy Rail

Location Tyhpe:

Own ROW

Route

Facility

Expanded VRE L'Enfant
Station/Additional Mainline Track

From:

L'Enfant (LE) Interlocking

To

Virginia (VA) Interlocking

County

Washington

Municipality

District of Columbia

Description

This project includes planning, design, permitting, and construction for an expanded VRE L'Enfant Station and an additional mainline track between L'Enfant (LE) and Virginia (VA) interlockings in Washington DC.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$84,590,000**

Project ID	Title	Cost (\$M)	Complete
T6727	Long Bridge VA - DC	\$27.0	2030

Primary Project Typ

Transit - Metrorail/Heavy Rail

Location Tyhpe:

Own ROW

Route

Facility

Long Bridge

From:

Control Point LE Interlocking in
Washington D.C.

To

Control Point RO in Arlington, VA

County

Arlington

Municipality

District of Columbia

Description

Design and build of four railroad tracks, a rail and pedestrian-bicycle bridge and related land and Potomac River crossing from Arlington, VA to Washington, DC.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$9,000,000**

Project ID	Title	Cost (\$M)	Complete
T6698	PENTAGON CITY TRANSITWAY EXTENSION SEGMENT I	\$3.2	2022

Primary Project Typ

Transit - Metrorail/Heavy Rail

Location Tyhpe:

On Road

Route

Facility

From:

To

County

Arlington

Municipality

Description

The Extension runs along Crystal Drive, Clark Street, 12th St, Hayes St. and Army-Navy Dr. Provides exclusive and/or dedicated transit lanes, passenger stations, utility relocations, signing and pavement marking, and traffic signal upgrades.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T4506	PRTC - Bus Acquisition / Replacement Program		\$0.9	
Primary Project Typ		Location Tyhpe:		
Transit - Bus		Not Location Specific		
Route	Facility	From:	To	
	PRTC - Bus Acquisition	NOVA Districtwide		
County	Municipality			
Prince William				
Description				
Ongoing replacement of commuter buses that have reached the end of their useful life.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$850,000				

Project ID	Title		Cost (\$M)	Complete
T5601	PRTC - Preventive Maintenance		\$43.5	2045
Primary Project Typ		Location Tyhpe:		
Transit - Maintenance		Not Location Specific		
Route	Facility	From:	To	
County	Municipality			
	Region-wide			
Description				
Maintenance of the Omniride and Omnilink fleet.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

Project ID	Title		Cost (\$M)	Complete
T5707	PRTC Security Enhancements		\$0.1	2023
Primary Project Typ		Location Tyhpe:		
Transit - Safety		Not Location Specific		
Route	Facility	From:	To	
	PRTC Transit Center			
County	Municipality			
Prince William				
Description				
Ongoing Improves safety and security at the PRTC Transit Center. Grantees must certify that at least 1% of Formula funding received each fiscal year is being used for transit security projects. Projects include cameras, additional lighting, drills, communications systems, facility access, System Safety Security Plan, etc.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$61,800				

Project ID	Title	Cost (\$M)	Complete
T4534	Rolling Stock Acquisition	\$63.5	2045

Primary Project Typ

Transit - Capital

Location Tyhpe:

Not Location Specific

Route

Facility

From:

To

VRE Rolling Stock**Systemwide**

County

Municipality

Region-wide

Description

This project includes funding for procurement of additional VRE rolling stock to support fleet expansion and fleet replacement and debt service for rolling stock acquisition. It includes 21 coaches plus options under a current contract with Alstom.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$63,465,683**

Project ID	Title	Cost (\$M)	Complete
T4818	Rolling Stock Modifications and Overhauls	\$23.5	2045

Primary Project Typ

Transit - Capital

Location Tyhpe:

Not Location Specific

Route

Facility

From:

To

VRE Rolling Stock**Systemwide**

County

Municipality

Suburban VA

Description

Technological developments and safety mandates from the Federal Railroad Administration (FRA), may require ongoing improvements to the VRE fleet as well as other ongoing improvements consistent with VRE's rolling stock asset management program. Projects that bring VRE into compliance with future federal mandates will be given the highest funding priority. Implementing PTC as required by FRA.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$23,462,168**

Project ID	Title	Cost (\$M)	Complete
T4277	Security Enhancements Systemwide	\$8.4	2045

Primary Project Typ

Transit - ITS/Technology

Location Tyhpe:

Not Location Specific

Route

Facility

From:

To

Systemwide

County

Municipality

Region-wide

Description

Grantees must certify that at least 1% of 5307 funding received each fiscal year is being used for transit security projects.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$2,208,700**

Project ID	Title		Cost (\$M)	Complete
T6281	Springfield CBD Commuter Parking Garage		\$79.6	2023
Primary Project Typ		Location Tyhpe:		
Transit - Park and Ride		Not Location Specific		
Route	Facility	From:	To	
	644 Old Keene Mill Road			
County		Municipality		
Description				
Springfield CBD Commuter Parking Garage				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				
Project ID	Title		Cost (\$M)	Complete
T6333	Transit : Access		\$23.3	
Primary Project Typ		Location Tyhpe:		
Transit - Passenger Facilities		Not Location Specific		
Route	Facility	From:	To	
County		Municipality		
		Region-wide		
Description				
Transit : Access				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$23,273,000				
Project ID	Title		Cost (\$M)	Complete
T6331	Transit : Vehicles		\$18.5	
Primary Project Typ		Location Tyhpe:		
Transit - Capital		Not Location Specific		
Route	Facility	From:	To	
County		Municipality		
		Region-wide		
Description				
Transit : Vehicles				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$18,473,000				

Project ID	Title	Cost (\$M)	Complete
T6330	Transit Ridesharing	\$19.8	

Primary Project Typ
Transit - ITS/Technology

Location Tyhpe:
Not Location Specific

Route Facility

From: To

County

Municipality
Region-wide

Description
Transit Ridesharing

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$7,177,000**

Project ID	Title	Cost (\$M)	Complete
T6680	US 1 Bus Rapid Transit	\$544.8	2027

Primary Project Typ
Transit - BRT

Location Tyhpe:
On Road

Route Facility
US 1 Richmond Highway

From: To
FORT BELVOIR HUNTINGTON METRORAIL STATION

County
Fairfax, Prince William

Municipality

Description
US 1 Bus Rapid Transit

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T6699	VRE MANASSAS LINE CAPACITY EXPANSION	\$0.4	2035

Primary Project Typ
Transit - Passenger Facilities

Location Tyhpe:
Not Location Specific

Route Facility
VRE MANASSAS LINE

From: To
VARIOUS

County

Municipality
Region-wide

Description
This project provides for improvements at VRE Manassas Line stations and facilities to serve forecast ridership demand, including station improvements at the Manassas Park Station and I-66 OTB improvements including rolling stock, Broad Run and Manassas station improvements, third main track, and real time traveler information upgrade.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$369,011**

Project ID	Title	Cost (\$M)	Complete
T4310	VRE Stations and Facilities	\$143.7	2045
Primary Project Typ Transit - Maintenance		Location Tyhpe: Not Location Specific	
Route	Facility	From:	To
	VRE Stations and Facilities	Systemwide	
County		Municipality	
		Region-wide	
Description To maintain VRE stations and facilities in a state of good repair and accommodate ridership demand, VRE facilities must be maintained, upgraded and/or obtained. This work will be done at various stations and facilities throughout the VRE system. Includes upgrades at Washington Union Terminal, Fredericksburg Station, Crystal City Station, Franconia-Springfield Station.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$143,657,266			
Project ID	Title	Cost (\$M)	Complete
T4070	VRE Storage Yards Improvements	\$259.3	2045
Primary Project Typ Transit - Maintenance		Location Tyhpe: Not Location Specific	
Route	Facility	From:	To
		Systemwide	
County		Municipality	
		Region-wide	
Description As additional rolling stock is added to the VRE fleet to accommodate service and ridership demand, VRE storage yards and maintenance facilities must be obtained and/or upgraded. Improvements to yards and maintenance facilities will allow maintenance to be performed by VRE contractors and fleet vehicles to be stored, including the Life-Cycle Overhaul and Upgrade Facility and NY Ave. Midday Storage Facility.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$151,650,140			
Project ID	Title	Cost (\$M)	Complete
T6368	VRE Woodbridge Station Improvements	\$4.1	2045
Primary Project Typ Transit - Maintenance		Location Tyhpe: Own ROW	
Route	Facility	From:	To
County		Municipality	
		Region-wide	
Description To keep the VRE Woodbridge Station in a state of good repair and accommodate ridership demand, it must be maintained and upgraded.			
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: \$903,640			

Washington Metropolitan Area Transit Authority

Transit

Project ID	Title	Cost (\$M)	Complete
T11589	Bus, Bus Maintenance Facilities and Paratransit		

Primary Project Typ

Transit - Capital

Location Tyhpe:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

a) Bus replacements, scheduled bus maintenance preventive maintenance, rehabilitation and overhauls and repairs. Replacement or repair of equipment (security, fare boxes, bike racks, ADA, etc.) b) Purchase replacement or expansion of Metro Access vehicles. c) Purchase of non-revenue service vehicles for service activities. d) Rehabilitation or replacement, expansion or redesign of bus garages and maintenance facilities to meet storage, maintenance needs, and diversification of fleet transition to zero emission buses.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T11590	Operations and Business Support	\$103.7	

Primary Project Typ

Transit - Capital

Location Tyhpe:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

a) New, replacement, rehabilitation of facilities, equipment, or other operational needs at stations, yards, or non-revenue facilities. b) Supports other non-revenue business operations (roof rehabilitation, environmental compliance, revenue collection, non-rev service vehicles etc..). c) Metro Transit Police Department (MTPD) support facilities and operations.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026: **\$103,700,000**

Project ID	Title	Cost (\$M)	Complete
T11586	Rail Systems: Replacement, Rehabilitation, and enhancement of Rail systems and Support Equipment		

Primary Project Typ

Transit - Capital

Location Tyhpe:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

a) Rail systems rehabilitation and/or replacement for State of Good Repair. b) Systemwide rail support equipment, radios/signals and communications, power supply, and propulsion. c) Preventative Maintenance

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T11585	Railcars and Rail Yards: Replacement, Rehabilitation, Expansion and Enhancements		

Primary Project Typ

Transit - Capital

Location Tyhpe:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

a) Railcar replacement or expansion of fleet. Railcar scheduled maintenance, rehabilitation, and overhauls. b) Rail Maintenance Facilities rehabilitation, replacement, enhancements and, or expansion of rail yards or associated rail facilities. c) Railcar Systems, operations and software replacement or upgrades. d) Preventative Maintenance.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title	Cost (\$M)	Complete
T11588	Station and Passenger Facilities		

Primary Project Typ

Transit - Capital

Location Tyhpe:

Not Location Specific

Route Facility

From:

To

County

Municipality

Description

a) Replacement, repair and, or rehabilitation of passenger (bus and rail) stations and facilities to maintain state of good repair b) Elevator and escalator facilities rehabilitation, replacement and expansion, parking facilities, etc. c) Rehabilitate, maintain and modernize station and passenger facilities, including capacity enhancements and safety improvements (e.g. canopies, shelters, lighting, cooling, bus stops and shelters, corridor service improvements). d) Improvements to bicycle and pedestrian facilities. e) Preventative Maintenance f) Fare management replacement, rehabilitation or upgrades to equipment or software.

This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:

Project ID	Title		Cost (\$M)	Complete
T11587	Track and System Structures			
Primary Project Type		Location Tyhpe:		
Transit - Capital		Not Location Specific		
Route	Facility	From:	To	
County		Municipality		
Description				
a) Rail systemwide track scheduled maintenance, replacement, or rehabilitation and acquisition of associated equipment. b) Rehabilitation, repair or replacement of track and rail structural infrastructure (ariel structures, tunnels, bridges (pedestrian and track). c) System rehabilitation to repair water leaks, vent shafts, air ducts, tunnels, tunnel liners, and other areas in the system to maintain state of good repair and safe operations. d) Preventative Maintenance.				
This project is programmed in the TIP. Total amount programmed FY 2023 - 2026:				

ATTACHMENT B: TECHNICAL INPUTS SOLICITATION SUBMISSION GUIDE

L RTP/Air Quality Conformity
Inputs: Due 2/12/2021

TIP Inputs: Due 3/11/2022

TECHNICAL INPUTS SOLICITATION: SUBMISSION GUIDE

For the constrained element of the Visualize 2045 Long-Range Transportation Plan (LRTP) update, the Transportation Improvement Program (TIP), and the Air Quality Conformity Analysis conducted for the LRTP and TIP.



National Capital Region
Transportation Planning Board

visualize
2045

VISUALIZE 2045 TECHNICAL INPUTS SOLICITATION

Submission Guide for Implementing Agencies

Final

About the TPB

The National Capital Region Transportation Planning Board (TPB) is the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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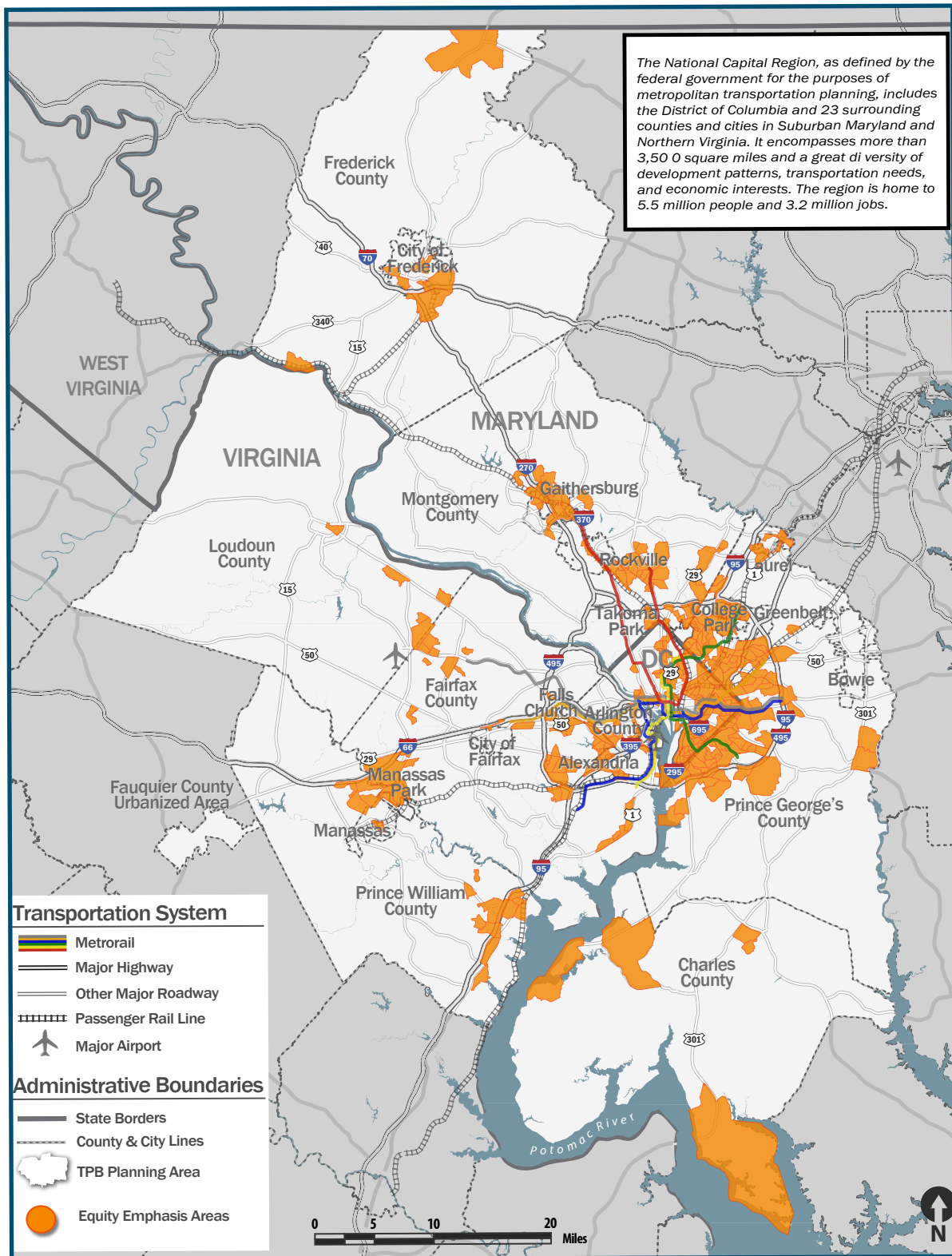
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National Capital Region



Introduction

Purpose

This document provides an overview of the process used by TPB and its member agencies to solicit technical inputs for two federally required documents: the quadrennial long-range transportation plan (LRTP), called Visualize 2045, and the biennial transportation improvement program (TIP). When either of these documents are updated, the federal government requires the TPB to conduct an in-depth analysis to ensure projected emissions generated by users of the region's future transportation system will not exceed (or "conforms to") the air quality emissions budgets set forth in the region's air quality plans. This is known as air quality conformity. Based on the results of the analysis, a determination is made to confirm conformity.

Technical Inputs Solicitation: Next Update

Long-Range Transportation Plan (LRTP) update:

Visualize 2045 is the current federally required long-range transportation plan (LRTP) for the National Capital Region. The LRTP is updated every four years; the next plan is due in 2022. The TPB is initiating the LRTP 2022 update. This update offers the opportunity to submit new projects, programs, and policies for the constrained element of the LRTP through 2045.

The TPB approved Visualize 2045 on October 17, 2018 and approved an Amendment to Visualize 2045 on March 18 2020. Visualize 2045 includes both a 'Constrained Element' and an 'Aspirational Element.' TPB approved an amendment to this plan on March 18, 2020. The Constrained Element identifies the investments agencies expect to be able to afford between now and 2045, while the Aspirational Element identifies seven initiatives that the TPB has endorsed to address some of the biggest transportation challenges that the region is expected to face in the coming decades. These aspirational initiatives can be implemented by TPB's member agencies by submitting, in response to this solicitation, projects, programs and policies that align with the concepts put forth in the initiatives.

Transportation Improvement Program (TIP) Update

The Transportation Improvement Program, or TIP, is a federal obligation document which describes the planned schedule in the next four years for distributing federal, state and local funds for state and local transportation projects. The TIP represents an agency's intent to construct or implement specific projects in the short term and identifies the anticipated flow of federal funds and matching state, local, and other contributions. The TPB approved the FY 2021-2024 TIP on March 18, 2020. The TIP is updated every two years.

In conjunction with the 2022 Update to Visualize 2045, the TPB will update the TIP to cover the period between FY 2023-2026. Project and funding inputs for the new TIP will be due in March 2022. The TIP should include all transportation projects and programs that are currently active or under construction and that receive federal funding and non-federally funded projects that are of a scale to be considered "regionally significant." Please note that all projects that add or remove capacity or otherwise change the capacity of the region's roadway or transit systems must be included in the inputs to the air quality conformity analysis for the 2022 Update, which have a due date of February 12, 2021, prior to the TIP inputs deadline.

Technical Inputs Due Dates

The TPB invites member agencies to review and update the existing projects and programs and propose new ones to be included in the constrained element of Visualize 2045 and the TIP.

The required analysis of this update will take about a year to complete. Therefore:

- The Technical Inputs for the LRTP and its air quality conformity analysis must be submitted by February 12, 2021 to ensure that the analyses can be completed and approved by June 2022.
- Financial inputs for the FY 2023-2026 TIP are due by 3/11/2022.

REGIONALLY SIGNIFICANT PROJECT

What is a 'regionally significant project?' In order to meet federal guidelines, the TPB defines it as:

- 1) Any project on a facility that is included in the coded regional network that adds or removes at least one continuous vehicular lane from one major road to the next, or adds a new access/egress location or capacity; or
- 2) Any transit project that adds or modifies fixed-guideway transit facilities (heavy rail, light rail, streetcar, bus rapid transit)

Requirements

The updated Constrained Element of Visualize 2045 and the TIP will undergo two federally required analyses to ensure that 1) sufficient financial resources will be available to implement the projects, and 2) that it conforms to the region's air quality plans. To properly analyze the Constrained Element of The Visualize 2045 (2022 update), the TPB must know what regionally significant projects, programs, and policies agencies are planning to implement between now and 2045.

What's Required

This Technical Inputs Solicitation requires that agencies undertake the following as part of the Technical Inputs Solicitation:

- Step 1. Financial Plan and Fiscal Constraint Analysis: Submit updated projected revenues and estimated expenditures to expand, operate, and maintain the region's transportation system through 2045.

- Step 2. LRTP and Air Quality Conformity Analysis: Review and update existing projects, programs, and policies.
- Step 3. LRTP and Air Quality Conformity Analysis: Add new projects, programs, and policies.
- Step 4. Additional Inputs for Air Quality Conformity Analysis

Step 1. Submit Financial Plan Inputs

In this step, TPB member agencies are required to submit updated projected revenues and estimated expenditures. Federal metropolitan planning regulations require MPOs to develop a financial plan that demonstrates how the adopted LRTP could be implemented given revenues that are "reasonably expected to be available." "Financial constraint" or "fiscal constraint" is the analysis performed to demonstrate that the forecast revenues which are reasonably expected to be available through 2045 will cover the estimated costs of adequately maintaining, operating, and expanding the highway and transit system in the region through that same timeframe. This analysis will be included in the financial elements of the 2022 update to Visualize 2045.

As of Fall, 2020, an interim financial analysis is being prepared to provide a baseline of anticipated revenues and existing planned expenditures. That analysis is based on projects and programs in the adopted FY 2021-2024 Transportation Improvement Program (TIP), the 2020 amendment to the constrained element of the Visualize 2045 LRTP and the existing Air Quality Conformity Inputs table for both the LRTP and TIP. The inputs provided by the implementing agencies in response to this Technical Inputs Solicitation and for conformity should start from this baseline and adjust their

revenues and expenditures to then enable TPB staff to determine financial constraint. The financial element will then be finalized as part of the Visualize 2045 LRTP when submitted for approval by the TPB.

Step 2. Review and update existing projects, programs, and policies.

As part of the Technical Inputs Solicitation for Plan and Air Quality Conformity, agencies must review and update existing projects, programs, and policies in the most recently adopted constrained element of LRTP, which is the Visualize 2045, March 18, 2020 Amendment. Agencies must update all project information, including project costs.

Step 3. Add new projects, programs, and policies.

As inputs to the Plan and Air Quality Conformity, agencies must submit any project, program, or policy not already in the plan that is deemed “regionally significant” as outlined below.

The following broad categories of inputs are anticipated as part of this Technical Inputs Solicitation:

- Capacity expansion projects
- Operations and maintenance programs
- Transit service and fare assumptions
- State of Good Repairs (see information on page 10 for more details on these)

For each submission, agencies must provide certain project details, including project descriptions, cost and revenue estimates, including tolls, in year of expenditure dollars, and completion dates. Agencies must also identify and describe what federal and regional policy considerations the investments address. Detailed instructions on how to conduct this activity can be found in Appendix A to this guide.

Note on tolling information:

Tolling and transit fare information are extracted from each agency and are needed to update the model. Toll revenue and fare projections are also used to inform the financial analysis for the plan.

Technical Inputs Categories

The Visualize 2045 update can include any kind of project or program. However, some projects and programs must be included. Per federal requirements, any project that adds roadway or transit capacity—and could therefore affect air quality—must be included, as must any project or program slated to receive federal funding. The LRTP must also identify the maintenance and operations programs and funding required to keep the system in a state of good repair. The inputs typically fall into one of the following categories:

Roadway Projects

- **System Expansion:** Increasing system capacity by building new transit lines, transit stations, or adding service to existing lines
- **System Preservation/State of Good Repair:** Major rehabilitation or complete replacement of aging roadways, bridges, technology and communications systems, and other infrastructure as it nears the end of its useful lifespan
- **Study:** Any project that does not have funding identified for right-of-way acquisition or construction. The study may include multiple design alternatives. Funding in the TIP is permitted for project planning or preliminary engineering only

Transit Projects

- **System Expansion:** Increasing system capacity by building new transit lines or adding service to existing lines
- **System Preservation/State of Good Repair:** Major rehabilitation or complete replacement of aging railcars, buses, rail track, stops and stations, and other infrastructure as it nears the end of its useful lifespan
- **Study:** Any project that does not have funding identified for right-of-way acquisition or construction. The study may include multiple design alternatives. Funding in the TIP is permitted for project planning or preliminary engineering only

Bicycle or Pedestrian Projects

- **Local Circulation:** Projects that support local circulation within Activity Centers. These can include streetscaping, traffic calming, bikeshare, bicycle lanes, sidewalks, and multi-use paths
- **Regional Facilities:** Multi-jurisdictional projects, projects that improve transit station access, and/or projects that are part of the National Capital Trail network

Operations and Maintenance Programs

- **Day-to-Day Operations and Maintenance:** This can include activities like repaving roadways, inspecting and maintaining bridges, clearing snow and debris, servicing transit vehicles, maintaining and operating traffic signals, and paying train and bus operators
- **Regional programs:** This can include programs like regional ridesharing and traveler information programs

Transit Service and Fare Assumptions

- **Bus transit:** New or updated routes, frequencies, and/or fare policies
- **Rail transit:** New or updated routes, frequencies, and/or fare policies
- **HOV/HOT:** New or updated lane restrictions and/or hours of operation

Step 4: Additional inputs for Air Quality Conformity Analysis

Other inputs that are required in order to perform the Air Quality Conformity Analysis include the following, which are gathered by staff with help from local, state, and other agencies and are not directly required as part of this solicitation:

- Baltimore area project inputs: Projects in the Baltimore Regional Transportation Board (BRTB) long-range transportation plan that are in jurisdictions in the TPB Modeled Area.
- Fredericksburg area project inputs: Projects in the Fredericksburg Area Metropolitan Planning Organization (FAMPO) long-range transportation plan that are in jurisdictions in the TPB Modeled Area.
- Calvert-St. Mary's area project inputs: Projects in the Calvert-St. Mary's Metropolitan Planning Organization (C-SMMPO) long-range transportation plan that are in jurisdictions in the TPB Modeled Area.
- Land-use forecasts for the modeled areas: Population and employment forecasts for the TPB Planning Area and jurisdictions outside the TPB Planning Area but within the TPB Modeled Area, including the Baltimore, Fredericksburg, and Calvert-St. Mary's metropolitan areas and Charles County (MD), Clark and Fauquier counties (VA), and Jefferson County (WV).
- Or you could just simplify it and say: Land Activity: Population and employment forecasts for the TPB Modeled Area Census-adjusted employment forecasts: Employment forecasts provided by COG are modified to reflect the latest Census estimates
- Other specialized trips: Estimates of external trips, through trips, and specialty-generator trips (e.g., for major sporting events).
- Vehicle registration information: Make, model, and year of all registered vehicles, used in the calculation of mobile emissions in the region.
- Non-travel related emissions model inputs: Air

temperature and humidity, fuel formulation, and inspection and maintenance program.

- Base-year transit assumptions: Route and schedule information for existing train and bus systems.
- Toll and fare updates: Existing toll and fare policies and usage, including toll collection methods, facility use by vehicle type, and hours of operation.

Review, Comment, and Approval Process

The draft technical inputs will undergo a process of review, comment, and approval before they are included in the long-range transportation plan. The steps of this process are outlined below.

Board and Committee Review:

It is the TPB's responsibility to approve project, program, and policy submissions for inclusion in the long-range transportation plan. These initiatives have typically undergone extensive local development and review, however, the TPB and its committees play an important review role. Their tasks are to:

- Become acquainted with project and program details
- Ensure key questions are answered and details are provided
- Ensure consistency with locally adopted plans and priorities
- Ensure that sufficient local input from the public and local officials has been provided
- Discuss whether and how submissions support the concept "think regionally, act locally"

Plan and TIP Update Schedule

2020	12/16/20	The TPB will be asked to approve the Technical Inputs Solicitation document to initiate the Call for Projects.
	2/12/21	Project inputs for the LRTP and Air Quality Conformity (AQC) analysis due to TPB staff.
	3/5/21, 4/2/21	The TPB Technical Committee will review the conformity project inputs table in March and the draft inputs to the Plan and the draft AQC scope of work in April.
	4/2/21- 5/3/21	Public comment period on inputs to the Plan/AQC analysis, and AQC scope of work. MWAQC TAC will review this information during the April meeting.
	4/21/2021	TPB will receive a briefing on the draft inputs to the Plan/AQC analysis and the draft AQC scope of work.
	5/19/21	The TPB will receive a summary of the public comments on the draft inputs to the Plan and AQC analysis. The TPB and the agencies sponsoring the projects will have the opportunity to discuss and advise staff on responses.
	6/16/21	The TPB will review responses to comments and updates to inputs to the Plan and scope of work for the AQC analysis. The TPB will be asked to approve the inputs and scope, authorizing staff to begin analysis.
2022	3/11/22	Transportation Improvement Program (TIP) inputs due for the FY 2023-2026 TIP
	4/1/22	The TPB Technical Committee will review the draft results of AQC analysis for the updated Plan and FY 2023-2026 TIP.
	4/1/22 - 5/1/22	Public comment period on the results of AQC analysis Determination for the updated Plan and FY 2023-2026 TIP.
	4/2022	MWAQC and MWAQC TAC will review the draft results of the AQC analysis during their meetings.
	4/20/22	The TPB will review the draft Plan, draft TIP, and AQC analysis and Determination.
	5/18/22	The TPB will review the draft results of the AQC analysis for the Plan and FY 2023-2026 TIP. The TPB will also receive a summary of the comments received on the analysis. The TPB and the agencies sponsoring the projects will have the opportunity to discuss and advise staff on responses to comments.
	6/15/22	The TPB will review the responses to the comments and the results of the AQC analysis. The TPB will be asked to approve the results of the AQC analysis and adopt the updated Plan and the FY 2023-2026 TIP.

Responsible Agencies

Any municipal, county, state, regional, or federal agency with the fiscal authority to fund transportation projects is responsible for providing required project, program, and policy inputs for the Constrained Element of Visualize 2045 update. Inputs must be submitted by a TPB member jurisdiction or agency within the TPB's planning area (Figure 1).

District of Columbia

District Department of Transportation (DDOT)

Suburban Maryland

Maryland Department of Transportation (MDOT)

State Highway Administration (MDOT SHA)

Maryland Transit Administration (MTA) Maryland
Transportation Authority (MDTA)

Charles County Department of Public Works

Frederick County Department of Public Works

Montgomery County Department of Transportation

Prince George's County Department of Public Works
and Transportation

Maryland-National Capital Park and Planning
Commission (M-NNCPPC)

City of Frederick Planning Department

Gaithersburg Public Works Department

Rockville Public Works Department

Takoma Park Public Works Department

Regional

Washington Metropolitan Area Transit Authority
(WMATA)

Eastern Federal Lands Highway Division of the
Federal Highway Administration

Metropolitan Washington Airports Authority (MWAA)

Northern Virginia

Virginia Department of Transportation (VDOT)

Virginia Department of Rail and Public
Transportation (VDRPT)

Virginia Railway Express (VRE)

Potomac and Rappahannock Transportation
Commission (PRTC)

Northern Virginia Transportation Authority (NVTA)
Northern Virginia Transportation Commission (NVTC)
Arlington County Department of Environmental
Services* Fairfax County Department of
Transportation*

Fauquier County Department of Community
Development*

Loudoun County Department of Transportation and
Capital Infrastructure*

Prince William County Department of
Transportation*

City of Alexandria Department of Transportation and
Environmental Services*

City of Fairfax Department of Public Works*

City of Falls Church Department of Public Works*

City of Manassas Public Works Department*

City of Manassas Park Public Works Department*

**Virginia local jurisdictions submit through VDOT but are
still responsible for providing required information*



Regional and Federal Policies

Regional Policy Framework and Priorities

The TPB's LRTP seeks to respond to both federal requirements and its own adopted set of policy goals and priorities. To a large extent, federal and regional goals intersect. The following pages summarize the federal requirements and the region's policy goals.

The TPB has worked continually to develop and adopt a set of consensus-based policy goals and priorities to inform local decision making on the types of projects, programs and policies it seeks for its LRTP and TIP. The [Vision](#), adopted in 1998, is the overarching policy document that describes regional goals and objectives as well as strategies to achieve them. This vision informed the 2014 [Regional Transportation Priorities Plan](#). The vision and goals focus on multimodal transportation solutions that give people greater choice in finding the travel

mode that works best for them. It emphasizes the important role of land-use, especially strengthening the region's Activity Centers by providing high-quality connections between centers and improving non-auto travel options within them. System maintenance is also paramount, recognizing that our existing roadways and transit systems must be in a state of good repair to be safe, efficient, and reliable.

Climate Resiliency

In 2010, the TPB joined MWCOC's action to set greenhouse gas (GHG) reduction targets to mitigate the impact of climate change. Over the last decade the TPB completed two studies to evaluate strategies to address these targets, including the [What Would It Take](#) analysis and the [Multisector Working Group](#) study that identified the various types of projects, programs and policies that have the greatest potential to reduce GHG in the transportation sector.

In October 2020, the TPB endorsed new interim GHG reduction goals and new climate resiliency goals. These include a 2030 interim regional greenhouse gas reduction goal of 50% below 2005 levels by 2030; the region's climate resilience goals of becoming a Climate Ready Region and making significant progress to be a Climate Resilient Region by 2030; and the need to incorporate equity principles and expand education on climate change into CEEPC, COG and TPB members' actions to reach the climate mitigation and resiliency goals. This will require a reduction in vehicle miles traveled and associated emissions in Visualize 2045.

Equity

In 2020, the TPB established equity as its fundamental value and as an integral part of all its activities and decisions. TPB asks the member agencies explicitly consider the equity impacts of the projects, programs and policies that they sponsor and propose for inclusion in the TPB's LRTP.

Strategies for our Future: Seven Aspirational Initiatives

In 2018, the TPB adopted seven transportation initiatives grounded in the TPB's Vision to advance the Regional Transportation Priorities Plan. TPB noted that these ideas, if funded and enacted, would have the potential to significantly improve the region's transportation system performance compared to current plans and programs. The realization of these initiatives would not only improve mobility, accessibility and air quality in the region it would also contribute to the region's greenhouse gas reduction and climate resiliency goals.

The seven Aspirational Initiatives are:

1. **Bring Jobs and Housing Closer Together** by having more housing and jobs in central locations to take advantage of underused Metro stations and reducing single occupant auto commute trips.
2. **Expand Bus Rapid Transit and Transitways** throughout the region to provide people not only more transit options but also a reliable and fast bus service for work and non-work trips.
3. **Move More People on Metrorail**, having restored it to an excellent state of good repair, provide more frequent services with longer trains and expanded stations that are accessible by non-motorized modes.
4. **Provide More Telecommuting and Other Options for Commuting** to take advantage of the many jobs suitable to telework and provide employees with transit and non-motorized travel benefits and disincentivize commute parking.
5. **Expand Express Highway Network** strategically, in an environmentally sensitive manner to create a network that connects much of the region, with express bus systems operating and where carpools and vanpools are exempt from tolls.
6. **Improve Walk and Bike Access to Transit**, as investments that remove barriers to walking and biking to transit stations not only help to reduce auto travel but also helps to fully utilize the investments already made in high capacity transit.
7. **Complete the National Capital Trail Network** to create an extensive network of trails that provides walk and bicycle access to jobs and other activities by connecting communities across the region to activity centers.

The project submission form seeks detailed project information that will help staff assess how the next set of projects in the LRTP and TIP address regional priorities and federal planning requirements.

Through this project technical inputs solicitation process the TPB requires its member agencies to prioritize investments on projects, programs, and policies to reduce greenhouse gas emissions, prioritize the aspirational strategies, and achieve COG's land use and equity goals as they submit their inputs for inclusion in the TPB's LRTP and TIP.

Shared Regional Goals and Priorities

When agencies submit new projects, policies or programs for inclusion in the Visualize 2045 update, they will be asked to document how the initiatives support or advance regional goals, including equity and climate considerations, as shown in the table below. Agencies will also be asked how projects implement the Aspirational Initiatives.

Provide a Comprehensive Range of Travel Options	<ul style="list-style-type: none"> Does this project promote non-auto travel or can it be expected to reduce VMT? Identify all travel mode options that this project provides, enhances, supports or promotes. Is this project physically in an Equity Emphasis Area (EEA)? How does it improve equity? Does this project improve accessibility for historically transportation-disadvantaged individuals (i.e., persons with disabilities, low incomes, and/or limited English proficiency)?
Promote Regional Activity Centers	<ul style="list-style-type: none"> Does this project begin or end in an Activity Center? Does this project connect two or more Activity Centers? Does this project promote non-auto travel within one or more Activity Centers? Does this project connect an Equity Emphasis Area to an Activity Center?
Ensure System Maintenance, Preservation, and Safety	<ul style="list-style-type: none"> Does this project contribute to enhanced system maintenance, preservation?
Maximize Operational Effectiveness and Safety	<ul style="list-style-type: none"> Is this project primarily designed to reduce travel time on highways and/or transit without building new capacity (e.g., ITS, bus priority treatments, etc.)? Is this project expected to significantly reduce fatalities or injuries among motorists, transit users, pedestrians, and/or bicyclists?
Protect and Enhance the Natural Environment	<ul style="list-style-type: none"> Is this project expected to contribute to reductions in emissions of criteria pollutants, specifically, to attainment of ozone levels consistent with the National Ambient Air Quality Standard (NAAQS)? Is this project expected to contribute to meeting the regional goal of reducing greenhouse gasses by 50% below 2005 levels by 2030?
Support Interregional and International Travel and Commerce	<ul style="list-style-type: none"> Does this project enhance, support, or promote the following freight carrier modes: long-haul truck, local delivery, rail, or air freight carrier modes? Does this project enhance, support, or promote the following passenger carrier modes: air, Amtrak intercity passenger rail, intercity bus?

Federal Requirements and Policy Considerations

Visualize 2045 meets all federal requirements for a Metropolitan Planning Organization's long-range plan and was approved by the Federal Highway Administration and the Federal Transit Administration in December 2018. Any updates to Visualize 2045 must continue to meet these federal requirements in order to receive federal approval and for federal funding to flow to transportation projects in our region. The two main requirements are that the plan must:

- Identify all regionally significant projects and programs for which funding is reasonably expected to be available between now and 2045. Regionally significant projects and programs are those that add or remove capacity on the existing transportation system.
- Demonstrate that these projects and programs together support regional air quality improvement goals. An official Air Quality Conformity Analysis carried out by the TPB must show that forecast vehicle-related emissions under the plan will not exceed approved regional limits.

Under federal law, the plan must also address ten federal planning factors, as identified by the U.S. Department of Transportation (USDOT). (See sidebar)

Updates to the constrained element of Visualize 2045 must meet a number of other federal requirements as well, including non-discrimination and equity, congestion management documentation, public participation, and others. For a full listing of these requirements, refer to the Resources and Maps section of this document.

FEDERAL PLANNING FACTORS

Federal law also identifies a list of planning factors meant to guide metropolitan transportation planning. Collectively, the projects, programs, and policies in Visualize 2045 must address these factors. Agencies will therefore be asked to identify which of the federal.

1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety of the transportation system for all motorized and non-motorized users;
3. Increase the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and non-motorized users;
4. Increase accessibility and mobility of people and freight;
5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
7. Promote efficient system management and operation;
8. Emphasize the preservation of the existing transportation system;
9. Improve resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation (New under the FAST Act); and
10. Enhance travel and tourism. (New under the FAST Act)

Performance-Based Planning and Programming

The Fixing America's Surface Transportation (FAST) Act put forth seven National Goals for Performance-Based Planning and Programming (PBPP):

1. Safety
2. Infrastructure Condition
3. Congestion Reduction
4. System Reliability
5. Freight Movement and Economic Vitality
6. Environmental Sustainability
7. Reduced Project Delivery Delays

These goals mirror the goals in the TPB Vision and other regional policy documents. Following federal regulations on PBPP, a set of measures and targets were developed and approved by the TPB for Visualize 2045 for the following areas:

- Highway Safety Performance
- Pavement and Bridge Condition Performance
- Highway System Performance
- Congestion Mitigation and Air Quality Program Performance
- Transit Asset Management Performance
- Transit Safety Performance

Visualize 2045 was the first long-range transportation plan to document the performance targets adopted by the TPB in accordance with federal PBPP requirements. PBPP documentation was also included in the FY 2019-2024 TIP and the FY 2021-2024 TIP. The Performance-Based Planning and Programming section of the TIP documents provide analysis of the number of projects and amounts of funding using specific sources that pertained to each performance area.

During the development of the 2022 update of Visualize 2045 and the FY 2023-2026 TIP, agencies will be asked to provide additional information about projects that are aimed at improving these performance areas that may use funds outside of the sources traditionally associated with those goals. For instance, a project designed to increase safety may use National Highway Performance program rather than the Highway Safety Improvement program funding, but these investments should still be captured. Once these additional data points have been agreed upon, they will be reflected in the TIP database and the instructions in Appendix A.

TPB will continue to report and will add to existing performance measures beyond minimum federal requirements. Measures will be considered and developed for this LRTP to monitor progress in achieving regional priorities such as equity, greenhouse gas reductions, access to jobs and services, access to transit, vehicle miles traveled, and non-auto mode share.

Basic Submission Instructions for Conformity Inputs

The TPB's Project InfoTrak system is a new on-line database application that will be used to collect project and program information from each agency. The database includes records for the LRTP, Air Quality Conformity Analysis, the TIP, Congestion Management documentation, and the Bicycle and Pedestrian Plan. The baseline data for inputs to the 2022 Update to Visualize 2045 are the projects included in the approved 2020 Amendment to Visualize 2045, approved in March 2020. The baseline inputs for the FY 2023-2026 TIP will be the projects and funding included in the FY 2021-2024 TIP, as amended through January 2022. Moving forward, the Project InfoTrak system will keep a record of all changes to projects in the LRTP and TIP and provide an archive of previous versions of every project or program.

Project InfoTrak has several levels of permissions from full editing capabilities to read-only access. Access to the system is available to staff from TPB member implementing agencies and representatives from Federal Highway Administration and the Federal Transit Administration who have approval roles for the LRTP, TIP and State TIPs. Please see Appendix A to this document for instructions on signing up for an account and submitting project information.

Recordings of three training sessions for the Project InfoTrak system are available online:

[Session 1](#) - June 9

[Session 2](#) - June 11

[Session 3](#) - June 16

Project InfoTrak also includes a set of helpful tutorials on common tasks that users are likely to perform. In addition to these resources, TPB staff are available to provide one-on-one training to any new users. Project InfoTrak also features online support from the application developer, EcolInteractive.

Amendments to the Plan and TIP

Guidelines for Scheduled and Unscheduled Plan Amendments

After the TPB approves the 2022 Update to Visualize 2045, this will be the plan of record until it is required be amended. The next major update to the plan will be approved in 2026, at which time the TPB will revise the financial analysis of the plan.

While the long-range transportation plan is updated every four years, the TIP is updated on a two-year cycle. Like an update to the plan, any new TIP must be analyzed for air quality conformity. The TPB is scheduled to develop and approve the FY 2025-2028 TIP by mid-2024, and it will issue a revised version of this document in late 2023, calling for amendments to the plan to be included in the conformity analysis.

In the off-years between the approval of long-range transportation plan and TIP updates, agencies may, in consultation with TPB staff, determine that an off-cycle amendment and conformity analysis is required to include a project in the Plan and TIP. There will not be a new solicitation document provided for any off-cycle amendments, and the requesting agency(ies) will be responsible for covering the cost of additional staff time needed to produce the conformity analysis.

Funding for any new projects submitted during the interim TIP update or an off-cycle amendment must

be accounted for in the financial analysis of the 2022 Update of Visualize 2045. Otherwise, the submitting agency must submit a detailed financial plan for the project(s) indicating what new funding sources will be used to pay for construction, operations and maintenance.

Guidelines for Amendments and Modifications to the TIP

See Appendix A for definitions and complete guidelines for submitting administrative modifications and amendments to the FY 2023-2026 TIP. All amendment requests to the TIP must be either included in the most recent Air Quality Conformity Analysis or be exempt from the air quality conformity Requirement.

Depending on their scale, amendments to the TIP can be approved at the monthly TPB Steering Committee meetings or elevated to the full TPB for approval as a part of its monthly agenda. This typically happens when a project is of a high-profile nature, or when an agency is requesting an update to project and funding information for one of the fiscal years in the TIP or for all four years. The latter example would also require a 30-day public comment and interagency review period.

Administrative modifications to the TIP may be requested during specified TIP Action periods established in the Project InfoTrak database. Modifications can be approved by TPB staff typically within two business days.

A tentative schedule for modifications and amendments to the FY 2023-2026 TIP will be provided at the time of its adoption in 2022. This schedule will be subject to change as a result of unplanned TIP amendment requests to be handled by the full TPB.

Resources and Maps

The following resources and maps may be helpful for agencies and jurisdictions as they report on how their technical submissions support or advance regional goals and priorities.

TPB Vision

www.mwcog.org/TPBvision

Regional Transportation Priorities Plan

www.mwcog.org/RTPP

Activity Centers Map and List

www.mwcog.org/ActivityCenters

Federal PBPP Targets

www.mwcog.org/PBPP

Federal Regulations

www.govregs.com/regulations/title23_chapterI_part450_subpartC_section450.324

Congestion Management Process

www.mwcog.org/cmp

Bike/Ped Plan

www.mwcog.org/bikepedplan

Equity Emphasis Areas Map

www.mwcog.org/EquityEmphasisAreas

Region Forward

www.mwcog.org/RegionForward

Transit Access Focus Areas (TAFA)

www.mwcog.org/TAFA

National Capital Trail Network (NCTN)

www.mwcog.org/NCTN

Safety Strategies

www.mwcog.org/safety

Freight Plan

www.mwcog.org/documents/2010/07/28/national-capital-region-freight-plan-freight/

Contact Information

Questions about the TIP and technical questions about Project InfoTrak and input submissions

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Questions about transit assumptions and air quality conformity:

Jane Posey | jposey@mwkog.org | (202) 962-3331

All other questions about Visualize 2045:

Stacy Cook | scook@mwkog.org | (202) 962-3335



National Capital Region
Transportation Planning Board

visualize
2045

TECHNICAL INPUTS SOLICITATION: APPENDIX A

Project InfoTrak Documentation and Project Description Form Instructions

December 2020, Final



National Capital Region
Transportation Planning Board

visualize
2045

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About Visualize 2045 & The TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning (DTP) at the Metropolitan Washington Council of Governments (COG).

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Section 1: Introducing Project InfoTrak

Project InfoTrak is a new database application to gather detailed project information from TPB's implementing agencies. Project InfoTrak (or "InfoTrak" for brevity) collects information for the long-range plan (Visualize 2045 and its updates), the Transportation Improvement Program (TIP), the air quality conformity analyses of those documents, documentation of the Congestion Management Process, for verifying financial constraint of the plan and TIP, and for reporting on federal obligations of funds in the TIP. Replacing the previous system, the iTIP, InfoTrak will be used for the adoption of new plan and TIP documents, as well as for any subsequent amendments to them.

A variety of user roles in the system enables a wide swath of stakeholders to have access to and review the same sets of data. It also empowers more people to participate from local, state, regional, and federal levels. InfoTrak reduces duplicative processes and increases transparency for systems users at every level; from project creation and submission to the TPB, to state approvals of their own State Transportation Improvement Programs (STIPs), to federal approval of plans, air quality determinations, and state STIP updates and amendments.

Project InfoTrak was built and customized by our consultant, EcolInteractive. Provided as a "software as a solution" product, InfoTrak will include Help Desk support provided by EcolInteractive, as well as continual innovations to the product.

Getting Started: Signing Up for an Account and Logging In

To log in or sign up for an account or to log in to the system, visit www.mwcog.org/projectinfotrak

(Note this will redirect you to a secure login at <https://projectinfotrak.mwcog.org/secure/login>).

To create a new account, follow the steps below:

1. Enter your email address, answer the Captcha image that is shown, and click "Submit".
2. Complete the user registration form shown. Note that the password is case sensitive while the username is not.
3. Select your agency name.
4. If you work with editing/adding projects in MWCOC's Long Range Plan, mark YES for 'Do you need access to LRTP' (this will be most of you).
5. Select user type:
 - a. For agency members entering and editing project information, select SPONSOR.
 - b. For federal review agency members, select FED FHWA or FED FTA
6. Once the system receives your Project InfoTrak User Account request, an email will be sent for email verification.
7. Finally, your user account must be granted access by an Administrator. Once approved as a user, Project InfoTrak will send an e-mail notification and you can begin to use the system. This may take anywhere from a few minutes to the next business day, depending on the time of the request. **You will not be able to log in until you receive the notification that your account has been approved.**

Project InfoTrak Database Structure and Nomenclature

The introduction of the new project database system brings with it a few changes in the way “things are done.” The new database structure changes the way we describe the relationship between LRTP and TIP records, and also uses a different vocabulary when we talk about approving and amending the long-range plan and the TIP. This section describes some of the fundamental changes resulting from the transition from the TPB’s previous data-gathering system (iTIP) to Project InfoTrak.

Relationship between LRTP and TIP records

The TIP is often described as the implementation of, or the first four years of the long-range transportation plan. Federal law requires that for a project to be in the TIP, it also must be included in the long-range transportation plan. This remains true in the Project InfoTrak system, just in a slightly different way, conceptually.

In the iTIP database, this was represented by assigning a parent-child relationship between LRTP projects and TIP projects, and also the air quality conformity records (for the purposes of this explanation, we’ll presume there’s a one-to-one correlation between the TIP and conformity records and we’ll focus on the relationship between the LRTP and TIP records). Aside from the scope of work (project limits, completion, cost, etc.) The LRTP project description form covered a wide range of information about the project (federal requirements, regional goals, environmental protections, etc.) and the TIP project description form captured other information (Complete Streets, bicycle and pedestrian accommodations, etc.) Due to the parent-child relationship, all TIP projects inherited certain data points from their parent records, whether they

were true or not. An update to a TIP record that changed the scope of work might also require that the LRTP record be updated as well, however there were no data-integrity enforcements in place to ensure that this happened.

In Project InfoTrak, the LRTP and TIP records all carry with them the same data points, but there is a distinction: a project is either in the LRTP or in the TIP. Since the TIP form contains all the same data points as the LRTP form, the requirement that any TIP project is included in the long-range plan is met. When a portion of an LRTP project is ready to move into the TIP, a new TIP record must be created and filled out from scratch. At the same time, the LRTP form must be updated to exclude the scope of work in the new TIP project (most likely reducing the project limits and cost). Moving forward, if there is any change to the scope of work of the TIP project, no updates are needed to the LRTP form. The projects can still be linked using the Associated Project ID fields and/or the Grouped Project fields.

Adoptions and Amendments

The term “Adoption” is used to refer to any initial board approval of a long-range plan or TIP document. The term “Amendment” is used to cover any formal amendments to plan or TIP approved by TPB or Steering Committee and administrative modifications approved by TPB staff. See Section 2 of this appendix for definitions of Amendments and Administrative Modifications.

LRTP Numbering Conventions

Each LRTP is given a version number, like 45-00. The first two digits indicate out-year of plan, and the second two indicates the version of the plan. Typically “-00” is used to refer to the initial adoption of a plan document. Version 45-00 would refer to the first Visualize 2045 as the quadrennial plan update that was adopted by the TPB in October 2018. The

initial data import into InfoTrak included approved projects from the 2020 Amendment to Visualize 2045. In this naming convention, that would be 45-01.

For the 2022 Update to Visualize 2045, the out-year remains at 2045. Since the 2018 LRTP has been retroactively named 45-00, in order to differentiate the 2022 Update for Visualize 2045, this adoption will be referred to as 45-22. An amendment to that plan is scheduled for 2044 with the biennial TIP update. Presuming no off-cycle amendments are requested before that update, the LRTP version number will be 45-23. Conceivably there could be a 45-24 and 45-25 if an off-cycle amendment is requested between the 2022 amendment, TIP update, and again before the next four-year update.

TIP Numbering Conventions

A similar numbering convention is used for the TIP. The first two numbers in the TIP version refer to the annual element or first year of the program and the second two refer to the version, again with “-00” indicating the initial adoption of a TIP by the TPB. Amendments and modifications will be processed in groups and each amendment or modification grouping will increase the version number by one.

Section 2: Amendments and Administrative Modifications to the LRTP and TIP

This section provides guidelines for amending and modifying the TIP in general. Following the approval of the 2022 Update to Visualize 2045 and the FY 2023-2026 TIP, a schedule will be published

detailing the windows available for entering project and funding information for amendments and modifications for the remainder of the two-year TIP cycle.

Procedures for Revisions to Visualize 2045 and the TIP

On January 16, 2008, the TPB adopted procedures for processing revisions to its Long-Range Transportation Plan and TIP. A revision is a change to the Long-Range Transportation Plan or TIP that occurs between scheduled periodic updates. A minor revision is an administrative modification and a major revision is an amendment. These procedures are in accordance with the US DOT planning regulations at 23 CFR 450. These procedures were amended by the TPB Steering Committee on December 5, 2014 and again on September 6, 2019.

According to 23 CFR 450.326: TIP Revisions and Relationship to the STIP, the regional TIP projects must be included without change in a federally approved state transportation improvement program (STIP) in order for them to receive federal funding. In this region, the District of Columbia Department of Transportation (DDOT), the Maryland Department of Transportation (MDOT), and the Virginia Department of Transportation (VDOT) each provide the project descriptions and funding information for the development of the regional TIP and Long-Range Transportation Plan. Each DOT has adopted procedures for revising its STIP. When it becomes necessary for a DOT to revise the project information in the TIP, its procedures must be consistent with the TPB procedures for revising its regional TIP. The TPB procedures are based upon the procedures adopted by DDOT, MDOT and VDOT. The procedures define what an administrative modification is and what an amendment is.

Definitions

Administrative Modifications are minor changes to a project included in the Long-Range Transportation Plan, TIP or STIP that do the following:

1. Revise a project description without changing the project scope or conflicting with the environmental document;
 2. Change the source of funds;
 3. Change a project lead agency;
 4. Splits or combines individually listed projects; as long as cost, schedule, and scope remain unchanged;
 5. Changes required information for grouped project (lump sum) listings; or,
 6. Adds or deletes projects from grouped project (lump sum) listings as long as the funding amounts stay within the guidelines in number two above.
 7. Revise the funding amount listed for a project's phases subject to the applicable definition of the funding limitations adopted by DDOT, MDOT, and VDOT for their respective STIPs.
 - a. For projects to be included in the DDOT STIP, the additional funding is limited to 20 percent of the project cost.
 - b. For projects to be included in the MDOT STIP, changes to the funding amount is limited based upon a sliding scale that varies by the total cost of the project as follows:
 - If the total project cost is less than \$3 million, an Administrative Modification shall be used for an increase or decrease in cost of up to 50% of the total project cost or \$1 million, whichever is less.
 - If the total project cost is greater than \$3 million but less than \$10 million, an Administrative Modification shall be used for an increase or decrease in cost up to 30% of the total project cost.
 - If the total project cost is greater than \$10 million, an Administrative Modification shall be used for an increase or decrease of cost up to 20% of the total project cost.
- c. For projects to be included in the VDOT STIP, the additional funding is limited based upon a sliding scale that varies by the funding source and amount listed for the project as follows:
- For transit projects using FTA funds:
 - If the Approved STIP total estimated project cost is \$2 million or less, an Administrative Modification shall be used for an increase of up to 100% of the total project cost.
 - If the project cost is greater than \$2 million but is \$10 million or less, an Administrative Modification shall be used for an increase of up to 50% of the total project cost.
 - If the project cost is greater than \$10 million, an Administrative Modification shall be used for an increase of up to 25% of the total project cost
 - For highway projects using FHWA funds:
 - If the Approved STIP total estimated project cost is \$2 million or less, an Administrative Modification shall be used for an increase of up to 100% of the total project cost.
 - If the project cost is greater than \$2 million but is \$10 million or less, an

Administrative Modification shall be used for an increase of up to 50% of the total project cost.

- If the project cost is greater than \$10 million but is \$20 million or less, an Administrative Modification shall be used for an increase of up to 25% of the total project cost.
- If the project cost is greater than \$20 million but is \$35 million or less, an Administrative Modification shall be used for an increase of up to 15% of the total project cost.
- If the project cost is greater than \$35 million, an Administrative Modification shall be used for an increase of up to 10% of the total project cost.

An Administrative Modification can be processed in accordance with these procedures provided that:

- It does not affect the air quality conformity determination;
- It does not impact financial constraint; and
- It does not require public review and comment.

Amendments are major changes to a project included in the Long-Range Transportation Plan, TIP or STIP that are not Administrative Modifications.

Procedures

When it becomes necessary for a DOT to revise the information for a project in the Long-Range Transportation Plan or TIP, the agency will review the type of changes to the project and apply the above definitions to determine if it can be processed by the TPB as an administrative modification or an amendment. The DOT will then submit the project

changes to the TPB and request that it take the appropriate action to approve either a project administrative modification or a project amendment.

Administrative Modifications

The TPB has delegated approval of Long-Range Transportation Plan and TIP project administrative modifications to the Director, Department of Transportation Planning of the Metropolitan Washington Council of Governments. Requests for Long-Range Transportation Plan and TIP project administrative modifications will be submitted to the Director or his or designee. The requests will be reviewed and those meeting the definition of administrative modification will be approved and forwarded to the requesting implementing agency. All TPB approved requests for Long-Range Transportation Plan and TIP project administrative modifications will be posted on the TPB web site. Once approved by the appropriate state DOT, the administrative modification will be incorporated into the STIP and no federal action will be required.

Amendments

Requests for Long-Range Transportation Plan and TIP project amendments will be submitted to the Chairman of the TPB. The requests will be reviewed by TPB staff and those meeting the definition of an amendment will be presented to the TPB Steering Committee. The Steering Committee will consider and be asked to approve project amendments that are non-regionally significant. Under the TPB Bylaws, the Steering Committee “shall have the full authority to approve non-regionally significant items, and in such cases, it shall advise the TPB of its action.” The Steering Committee will consider and place all other project amendments on the TPB agenda for consideration and approval after meeting the applicable US DOT planning regulations for Long-Range Transportation Plan and TIP amendments.

All TPB approved requests for Long-Range Transportation Plan and TIP project amendments will be forwarded to the requesting DOT, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) and posted on the TPB web site. Once the TPB amendment is approved by the requesting DOT, the DOT will forward the amendment to FHWA and FTA for federal approval. After approval by FHWA and FTA, the amendment will be incorporated into the DOT's STIP. The FHWA and FTA approval will be addressed to the DOT with copies to the TPB.

Dispute Resolution

If a question arises on the interpretation of the definition of an amendment, the TPB, the requesting DOT, FHWA and FTA (the parties) will consult with each other to resolve the question. If after consultation, the parties disagree on the definition of what constitutes an amendment, the final decision will rest with the FTA for transit projects and FHWA for highway projects.

TIP Actions

For any agency to make an adjustment to the TIP, a TIP Action needs to be created in Project InfoTrak. When creating a TIP Action, the system administrator defines:

- the type of action (Adoption, Formal Amendment, or Administrative Modification),
- which agencies may submit edits to project information, and
- when agency staff may begin editing and the deadline for edits to be complete.

For each modification and amendment period, DDOT, MDOT, VDOT and WMATA will be enabled as submitting agencies by default. Any local agencies that need to request an amendment or modification

should contact TPB staff to request access to the appropriately schedule action.

Each month typically allows approximately three weeks for modifications and then one week for amendments to be approved by the TPB Steering Committee. Some scheduling is condensed around holidays. The dates in the table are tentative and subject to change. Any revisions to the schedule will be provided to all implementing agencies at the earliest possible opportunity.

Any requests to amend the TIP that cannot be accommodated by the TPB Steering Committee (i.e. a complete annual element or full four-year revision) need to be arranged in advance with TPB staff so that they may be put on the appropriate TPB agendas and any comment periods may need to be scheduled. Please provide at least 60 days' notice of any request for an amendment that will require board approval.

During any open comment period or pending TPB approval of an amendment, no additional modifications or amendments will be permitted for the agency in review.

Section 3: Using The Project InfoTrak System

Create A New LRTP Project

To create a new project, click the “LRTP Adoption” link (to associate it with an open LRTP adoption) or “Amend LRTP” link (to associate it with an open amendment) or on the main menu.

In Progress Amendments Amend TIP / Amend Bike/Ped / Amend LRTP ⓘ 465 In Progress (TIP) 📈 0 In Denied (TIP) ⌕	In Progress Adoptions TIP Adoption / LRTP Adoption ⓘ 116 In Progress (TIP) 📈 1256 In Progress (LRTP) 📈 0 In Denied (tip) ⌕
Submitted Amendments 0 Pending (TIP) ⓘ 39 Accepted (TIP) ✓	Submitted Adoptions 0 Pending (TIP) ⓘ 354 Accepted (TIP) ✓ 1 Accepted (LRTP) ✓

Click “Create New Project” and choose the appropriate LRTP adoption or amendment for your new project.

After filling out details for the new project (see detailed instructions on following pages), save the project using the buttons at the bottom of the form:

- Save - Use if further changes will need to be made to this project before submitting it for review.
- Submit for Review - Use this option to submit the project to the MPO for review.
- Reset Form - Use this option to clear the form.

When a project is submitted, an email is automatically sent to MPO users to alert them of a pending project needing review. If issues are found that would prevent the project from being reviewed (for example, invalid values or missing fields), a list of remaining requirements will be displayed at the top of the form:

After saving the new project, access the other tabs to enter additional details for the project.

If “Save” was chosen, the new project will be considered “In-Progress” and can be quickly accessed using the “In Progress” links under the “In Progress Amendments” or “In Progress Adoptions” sections of the main menu:

Your project has been saved
Please resolve the following errors below.

TIP ID: 4900 VERSION: 1 STATUS: In Progress - Completed
LAST MODIFIED BY: Andrew Austin LAST MODIFIED DATE: 9/23/2020

TIP Programming **Obligation** Map Project IDS Documents Amendment History

YOUR PROJECT HAS BEEN SAVED TO "IN PROGRESS." BEFORE SUBMITTING TO MWCOC, PLEASE RESOLVE THE FOLLOWING ERRORS:

- SYSTEM IS REQUIRED
- LOCATION TYPE IS REQUIRED
- CAPACITY IS REQUIRED

Update Existing Projects

'In Progress' projects can be accessed (to continue to make edits to or submit the project) in several ways. In Progress projects can always be accessed via the toolbar at the top. The In-Progress projects are broken up by Amendment versus Adoption and by program type (TIP, Long Range Plan, Bike & Ped). To view all the 'In Progress' projects within one of these categories, click on 'VIEW ALL'.

In Progress projects can always be accessed on the main landing page. Again, In Progress projects are broken up by Amendment versus Adoption and by program type (TIP, Long Range Plan, Bike & Ped).

You can use 'Advanced Search' to search TIP projects in the system. Results that have an In-Progress icon next to them are projects in the In-Progress section.

To be able to make edits or submit the project, click the In-Progress icon for a particular project.

If you click on the Project ID instead, you'll be shown a read-only version of the project page.

Submitting In-Progress Projects

There are two ways to submit an In-Progress project:

1. At the bottom of In Progress project pages there is a 'Save and Submit' button. When viewing the list of In Progress projects accessed either through the In Progress icon in the tool bar at the top or the In Progress link on the landing page, there is an ability to select projects in bulk and submit them.
2. Not all projects will have a checkbox allowing them to be selected. These are projects that are missing some information required for submittal. Once required information has been entered and saved, then the checkbox will appear next to that project.

Section 4: Detailed Project Form Instructions

L RTP and TIP Project Form Instructions

This section provides line item instructions for each field on the project description form. Included on this form are data fields that serve as the inputs for Visualize 2045, the L RTP financial analysis (referred to on the form as RTP Programming) or TIP programming, the inputs for the air quality conformity analysis, the Congestion Management Process, and the Bicycle and Pedestrian Plan. The project description form is now the same for both L RTP and TIP projects since they are treated equally. The Programming Information section will provide instructions for both; programming for the Visualize 2045 financial analysis, and programming for the FY 2023-2026 TIP. Fields in **BOLD RED** type are required.

Each project description form has six tabs at the top of the form: RTP/TIP Programming, Obligation, Map, Project IDs, Documents, and Amendment History. Pages 12 -25 provide line-item instructions for the Programming tab. Descriptions and instructions for the remaining tabs will be provided in separate documentation. **Please note that providing a mapped representation of the project on the Map tab is required for all new projects.**

Administrative Area

1	ADOPTION/AMENDMENT	2	GROUP PROJ	3	GROUP NAME	4	L RTP ID
	45-00 L RTP ADOPTION 2019		No				CE1202

- 1. Adoption/Amendment** - - - - - This Indicates which version of the L RTP or TIP that the project is being submitted for. For the 2022 Update to Visualize 2045, 45-22. See the explanations in Section 2.
- 2. Grouped Project** - - - - - "Yes" means the project is grouped together with other projects that are related or adjacent, such as a corridor or mega-project. This feature is new in Project InfoTrak and no projects are currently grouped together. This may be employed in consultation with agency staff during the development of the 45-22 L RTP Adoption.
- 3. Group Name** - - - - - If you are associating this project with a grouped project, select the Project Group name from the drop-down list. Contact TPB staff if you wish to establish a new project grouping.
- 4. L RTP ID/TIP ID** - - - - - Unique project ID number assigned to each long-range pan project when created.

Project Information

5 PROJECT TITLE [Spell Check](#)

6 PROJECT DESCRIPTION [Spell Check](#)

7 PRIMARY PROJECT TYPE

8 LEAD AGENCY 9 SECONDARY AGENCY 10 COUNTY 11 MUNICIPALITY

12 PRIMARY CONTACT 13 PHONE (10-DIGIT) 14 EMAIL 15 URL

16 ACCOMMODATIONS 17 COMPLETE STREET ADVANCE 18 COMPLETE STREET EXEMPT

19 SYSTEM a ROUTE b LOCATION TYPE c ROAD NAME d FROM e TO f DIST (MILES) g [Map](#)

5. Project Title ----- Provide a brief, public-friendly name for the project

6. Project Description ----- Describe the project as clearly as possible. Use public-friendly phrasing and avoid technical jargon where possible

7. Primary Project Type ----- Classify the major purpose or nature of the project using one of the following values:

Transit	Roadways	Bridges	Other
<ul style="list-style-type: none"> Administration BRT Bus Capital Ferries High Capacity Maintenance Operating Park and Ride Passenger Facilities Regional Fare Collection Rehab Vanpool Safety ITS/Technology CMAQ Other 	<ul style="list-style-type: none"> Access Management Add Capacity/Widening Grade Separation HOV/Managed Lanes Interchange Improvement Intersection Improvement New Construction Reconstruction/Rehab/Maintenance Resurface Signals/Signs Autonomous Vehicle Technology ITS Technology CMAQ Federal Lands Highway Program Other 	<ul style="list-style-type: none"> New Construction Preventative Maint. Rehabilitation Rehab./Add Capacity Replace Replace/Add Capacity ITS/Technology 	<ul style="list-style-type: none"> Alternative Fuel Infrastructure Debt Service Environmental Only Infrastructure Resiliency Intermodal Facilities Landscaping/Beautification Preliminary Engineering/Environmental Analysis Study/Planning/Research Training Transportation Options Ridesharing Human Service Transportation Coordination TERMS Enhancements
		Active Transportation <ul style="list-style-type: none"> Bike/Ped Safe Routes To Schools ITS/Technology Other Trails 	
		Rail <ul style="list-style-type: none"> Highway Grade Separation Protective Devices ITS/Technology Other 	
			Freight <ul style="list-style-type: none"> Freight Movement

8. Lead Agency - - - - -	The agency that is submitting (and will be responsible for updating) the project information. The default value for this field is the user's agency. Note: There may be instances where the actual implementing agency is different than the submitting agency. Please use the agency of the staff person submitting the information (or it won't show up next time you log in). In these cases, the name of the actual implementing agency should be entered in the Secondary Agency field.
9. Secondary Agency - - - - -	Other agency working in conjunction with primary agency.
10. County - - - - -	The county(ies) in which the project is wholly or partially located. Multiple values may be selected from the dropdown menu. Values selected in this field are used to populate the routes available to select from in the project System/Location field found at the bottom of this section. For projects in the District of Columbia, please select "Washington" as the county in order to fully populate the route selection. Sorry, City of Alexandria!
11. Municipality - - - - -	The municipality(ies) in which the project is located. Multiple values may be selected from the dropdown menu.
12. Primary Contact - - - - -	Name of project manager or point-of-contact for more information.
13. Phone - - - - -	Phone number for project manager or point-of-contact for information.
14. Email - - - - -	Email address for project manager or point-of-contact for information
15. URL - - - - -	Website address for additional project information
16. Accommodations - - - - -	Use the dropdown responses to indicate if the project: <ul style="list-style-type: none">• Includes bicycle/pedestrian accommodations• Does not include bicycle/pedestrian accommodations• Bicycle/pedestrian accommodations would not be applicable to this type of project

-
- 17. Complete Street Advance** - - - - - Use the dropdown menu to indicate if the project:
- Advances the jurisdiction's Complete Streets policy goals
 - Not applicable to a Complete Streets policy
 - Is exempt from the jurisdiction's Complete Streets policy because of criteria identified in the following question.
- 18. Complete Street Exempt** - - - - - Use the dropdown menu to identify one of the following exemption criteria to the Complete Streets policy:
- Grandfathered
 - User group prohibited by law
 - Excessive cost
 - Absence of need
 - Environmental
 - Historic preservation
 - Accommodation of user group contrary to jurisdiction/agency policy or plans
- 19. Project Location** - - - - - Use this set of fields to describe the entirety of the project's physical location. The fields available will change based on the System and Location Type selected. Use the Conformity Information fields below to define the project for conformity modeling.
- a. System** - - - - - Select from the menu to indicate if the project is on:
- Roadway System (Functional Class 1-3, 5)
 - Local Street System (Functional Class 4)
 - Transit System
 - Non-Infrastructure (None of the above)
- b. Route** - - - - - This field only appears if the roadway system type is selected. Identify the Interstate, US or state highway designation from the dropdown menu. The routes have been pre-populated based on the project's county(ies).

c. Location Type

Select from the menu the best option to describe the project's location type. The list of available options will change, based on the System selected:

Roadways	Local Streets
<ul style="list-style-type: none">• Bridge• Intersection• Interchange• Road Segment• Point Location• Various Locations• Non-Location Specific	<ul style="list-style-type: none">• Bridge• Intersection• Non-Location Specific• Point Location• Street Segment• Trail/Path Segment• Various Locations
Transit	Non-Infrastructure
<ul style="list-style-type: none">• Non-Location Specific• On Road• Own ROW	<ul style="list-style-type: none">• Other

d. Facility Name

Full name of facility; e.g. "Capital Beltway," "East Street," or "Red Line". To the extent possible, this field should be limited to actual street names or transit routes.

e. From/To (Interchanges, Cross Streets)

For projects that cover any distance on a facility, please identify the terminal limits of the project. For projects identified as Interchanges, these fields are repurposed for the names of up to two intersecting facilities with interchanges. Similarly, for Location Type: Intersection, these are repurposed as "Primary and Secondary Cross Streets."

f. Distance

Please identify the approximate length of the project in miles if a "From" and "To" are provided.

g. Map

For any project that provides one or more specific locations, a map of the project will be required. You can click on this, or the Map tab at the top of the form to use the interactive project mapping feature. Please see the instructions on page 26 for more information.

h. Bridge #

For projects with Location Type: Bridge, please identify the federal bridge number.

i. # Locations

If "Various Locations" was selected as the project type, please identify the approximate number of locations the project will be implemented at, where possible.

Congestion Management Process Information

The questions in this section address the federal requirement known as the Congestion Management Process (CMP). Please see www.mwcog.org/CMP for more information. These questions should be answered for every project. In addition, a Congestion Management Process Documentation Form should be completed for each non-exempt project or action proposing an increase in SOV capacity.

20 **CMP**

21 ☒ Traffic congestion conditions necessitate the proposed project or program and are

21a ☒ If the congestion is on another facility, please identify it:

22 ☒ This project is capacity-increasing and on a limited access highway or other principal arterial

22a ☐ The following exemption criteria are true about the project? (Choose one, or indicate that none of the exemption criteria apply)

- 20. CMP** ----- Answer questions 21-22a, and if the answer to 22a indicates that a CMP documentation form is required, select "Yes" from this pull-down
- 21. Congested Conditions** ----- Do traffic congestion conditions on this or another facility necessitate the proposed project or program? Check the box if this project is being planned specifically to address congestion conditions and indicate whether the congestion is recurring or non-recurring from the drop-down menu.
- a. Other Facility ----- If the congestion is on a different facility, fill in the name of the congested parallel or adjacent route that this project is intended to relieve in the text box provided.
- 22. Capacity Increase** ----- Check this box if the project will increase capacity on an SOV facility of functional class 1 (limited access highway), 2 (principal arterial) or 5 (grade-separated interchange on limited access highway). The federally-mandated Congestion Management Process requires that alternatives to major highway capacity increases be considered and, where reasonable, integrated into capacity-increasing projects. Except if projects fall under at least one of the exemption criteria listed under part (a), projects in the following categories require a Congestion Management Process Documentation Form:
- New limited access or other principal arterial roadways on new rights-of-way
 - Additional through lanes on existing limited access or other principal arterial roadways
 - Construction of grade-separated interchanges on limited access highways where previously there had not been an interchange.

22. a. CMP Exemption

- - - - -

If the box for question 22 is checked, are any of the following exemption criteria true about the project? (Choose one, or indicate that none of the criteria apply):

- The project will not use federal funds in any phase of development or construction (100% state, local, and/or private funding).
- The number of lane-miles added to the highway system by the project totals less than one lane-mile
- The project is an intersection reconstruction or other traffic engineering improvements, including replacement of an at-grade intersection with an interchange
- The project, such as a transit, bicycle or pedestrian facility, will not allow private single-occupant motor vehicles.
- The project consists of preliminary studies or engineering only, and is not funded for construction
- Construction cost for the project is less than \$10 million.
- None of the exemption criteria above apply to this project – a CMP Documentation Form is required. Use the link provided below to download a blank form. Fill this form out per the instructions for that form found later in this section, then upload it

Conformity Information

Use this section to provide sufficient detail on how the project should be coded by TPB staff. Multiple segment records may be required to distinguish pieces of the project that have different completion dates, improvement types, changes to number of lanes, etc.

If the project is required to be included in the air quality conformity analysis, at least one location segment must be entered here, including a duplication of the information in question 19. To add more segments, click "[ADD NEW LOCATION]".

MODEL Yes 23

24 [REMOVE LOCATION]

SYSTEM	ROUTE	LOCATION TYPE	FROM	TO	DIST MILE(S)
Roadways	VA 655	Road Segment	VA 286 Fairfax County Pt	VA 620 Braddock Road	
a					
CONFORMITY ID	CONFORMITY NUMBER	AGENCY PHASE ID	IMPROVEMENT TYPE	FACILITY TYPE FROM	FACILITY TYPE TO
688	VSF17b		Construct		Minor Arterial
g h i j k l f					
LANES FROM	LANES TO	UNDER CONSTRUCTION	ROW ACQUIRED	PROJECTED COMPLETION YEAR	COMPLETED YEAR
0	4			2025	
l m n o					

[ADD NEW LOCATION]

23. Model ----- The project is included in the regional travel demand model

24. Conformity Information ----- The fields on the first line of each Conformity location record behave in the same manner as the project location fields described in 19 a-f on pages 15-16. See the definitions and descriptions those fields there if needed.

g. Conformity ID ----- Automatically generated unique conformity segment identifier. This field is not editable.

h. Conformity Number ----- A project code assigned by TPB staff that is used for modeling inputs. This field is not editable by agency sponsors.

i. Agency Phase ID ----- The fields on the first line of each Conformity location record behave in the same manner as the project location fields described in 19 a-f on pages 15-16. See the definitions and descriptions those fields there if needed.

- j. Improvement Type ----- Pull-down field to identify type of improvement being made to the facility. The following values are available to select from:
- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • Construct • Widen • Upgrade • Relocate • Reconstruct • Rehabilitate • Study • Construct/Widen • Widen/Upgrade | <ul style="list-style-type: none"> • Acquisition • Expansion • Implementation • Installation • Landscaping • Other • Modify • Realign Intersection • Widen/Revise Ops | <ul style="list-style-type: none"> • Remove/Close • Implement • Downgrade • Close • Complete • Convert • Withdrawn • Revise Operations • Reduce Capacity |
|---|--|---|
- k. Facility Type From/To ----- Number of lanes on facility before improvement
- l. ROW Acquired ----- Right-of-way has been acquired for the facility
- m. Under Construction ----- Construction has begun on the facility
- n. Projected Completion ----- Estimated year that the project will be complete
- o. Completed Year ----- Year that the project was completed (open to traffic) or implemented

Environmental Review Information

25 ENVIRONMENTAL REVIEW DOCUMENT
Categorical Exclusion

26 ENVIRONMENTAL REVIEW STATUS
▼

☐ This project has been identified for the following potential environmental mitigation activities. ▼

25. Document Type ----- Type of NEPA documentation required, if any
26. Review Status ----- Current status of any required NEPA documentation
27. Environmental Mitigations ----- These potential environmental mitigation activities have been identified for the project (select all that apply):
- | | |
|---|--|
| <ul style="list-style-type: none"> • Air Quality • Energy • Floodplains • Noise • Vibrations | <ul style="list-style-type: none"> • Geology, Soil and Groundwater • Hazardous and Contaminated Materials • Socioeconomics • Wetlands • Surface Water |
|---|--|

Financial Plan Information

Note: This section is an expansion of the LRTP form question that previously asked agencies to identify the types of funding (federal, state, local, etc.) that were anticipated to be used for the project. To enhance the Financial Plan for Visualize 2045, Update 2022, agencies are asked to provide projected amounts of each funding type and the approximate time frame (or band) of expenditure: the first four years (in the FY 2023-2026 TIP), the next six years (FY 27 – FY 32), or the remaining out-years of the plan (FY 33 – FY 45). This section uses Project InfoTrak’s built-in programming tool which requires a higher degree of specificity on funding years and phase type than agencies are expected to report. See the instructions for the fields below and the example following the instructions for guidance on how to use this section to describe the projected expenditures. If the available data doesn’t provide enough information to complete this level of detail, consult with TPB staff on the best alternate approach.

28.

a. FFY - - - - -

Use this field to indicate in which of these three bands the various funding types are projected for programming: the first four years (in the FY 2023-2026 TIP) the following six years (2027 – 2032) or the outyears of the plan (2033 – 2045). TPB staff will only report on the funding by band so users may select any fiscal year within each band. For simplicity and consistency, TPB staff recommends selecting the first fiscal year of a band (2023, 2027 or 2033).

b. Fund Type - - - - -

Select the first (or only) type of source that is anticipated to be used to fund the project: federal, state, local, private, bonds, or other. For the purposes of the financial plan and TIP District of Columbia-generated funding should be entered as state funding.

c. Amount (Phases) - - - - -

To the extent possible, identify the amount of funds (in year-of-expenditure dollars) from this record’s source type to be programmed in the band identified. The financial plan does not analyze funding by project phase. TPB staff recommends that all funding amounts be entered in the “Other” column. The example below explains this further.

d. Totals - - - - -

The Total column and the Fiscal Year and Grant Total fields are automatically calculated and are not editable.

Financial Plan Example

If any amount of funding falls within the span of the proposed TIP (FY 2023-2026), submit the project as an amendment/adoption to the TIP rather than the LRTP. For LRTP projects, identify whether the anticipated programming is in the mid-term (the 6 years following the TIP, i.e. 2032) or in the out years of the plan. Identify projected costs for all phases of the project to the extent possible.

In this example a construction of a project is anticipated to cost \$500 million, with preliminary engineering (PE) projected at \$1 million, and right-of-way acquisition (ROW) at \$10 million. The project will be paid for using a federal funding program like the Surface Transportation Block Grant program which requires a 20% matching contribution.

FFY (OCT/SEPT)	FUND TYPE	AC/CP	STUDY	PLANNING	PE	ROW	CON	UT	OTHER	TOTAL
2030	Federal				\$800,000					\$800,000
2030	State or District Funding				\$200,000					\$200,000
Outer FY	Federal					\$8,000,000				\$8,000,000
Outer FY	State or District Funding					\$2,000,000				\$2,000,000
Outer FY	Federal						\$400,000,00			\$400,000,00
Outer FY	State or District Funding						\$100,000,00			\$100,000,00
										\$0
FFY 2030										
\$0										
FFY Outer FY										
\$0										
Federal										
\$0										
State or District Funding										
\$0										
GRAND TOTAL										
\$0										

ESTIMATED TOTAL PROJECT COST IS EQUAL TO TOTAL PROGRAMMED \$

Schedule Information

29 ESTIMATED PROJECT COMPLETION DATE
2024

30 ACTUAL PROJECT COMPLETION DATE

31 CURRENT IMPLEMENTATION STATUS

- 29. Estimated Project Completion** ----- Estimated year that the project will be open to traffic or implemented.
- 30. Actual Project Completion** ----- Use this field to indicate the year that the full scope of the project has been opened to traffic or implemented.
- 31. Current Implementation Status** ----- Indicate the current status of the project using one of the following project milestones or activities:
- Environmental Document/ Pre-Design Phase (PAED)
 - Engineering/Plans Specifications and Estimates (PS&E)
 - ROW Acquisition
 - Bid/Advertise Phase
 - Contract/Project Award
 - Construction/Project Implementation Begins
 - Project Closeout
 - No Project Activity
 - Construction/ Implementation Complete Project Open to Use
 - First Vehicle/Equipment Delivered
 - All Vehicles/Equipment Delivered
 - Contract/Project Complete
 - Ongoing Operating/ Maintenance Project
 - Project Cancel

Regional Policy & Federal Planning Factor Support

The questions in this section address the goals identified in the Regional Transportation Priorities Plan (RTPP). Question 39 should be used to provide additional context of how this project supports the TPB Aspirational Initiatives the RTPP goals or other regional needs identified in the Technical Inputs Solicitation Project Submission Guide.

- 32. Non Auto Travel** a. ----- Does the project promote non-auto travel or can it be expected to reduce VMT?
- b. Transportation Options ----- Identify all travel mode options that this project provides, enhances, supports, or promotes.
- Single Driver
 - Carpool/HOV
 - Metrorail
 - Commuter Rail
 - Streetcar/Light Rail
 - Walking
 - BRT
 - Express/Commuter Bus
 - Metrobus
 - Local Bus
 - Bicycling
 - Other
- 33. Accessibility Improvement** ----- Does this project improve accessibility for historically transportation-disadvantaged individuals (i.e., persons with disabilities, low-incomes, and/or limited English proficiency?)
- 34. Equity Emphasis Areas** a. ----- Is this project physically in an Equity Emphasis Area (EEA)?
- b. Additional Equity Response ----- Please provide additional written information that describes how this project further supports or advances equity as described by the TPB July 2020 resolution.
- 35. Activity Centers** ----- Indicate if the project begins or ends within an activity center, connects two or more centers, and/or promotes non-auto travel within one or more centers
- a. Begins or Ends in ----- Does this project begin or ends in an Activity Center?
- b. Activity Center without ----- Does this project connect two or more Activity Centers?
- c. Non-Auto Travel within ----- Does this project promote non-auto travel within one or more Activity Centers?
- d. EEA-Activity Center Connect ----- Does this project connect an Equity Emphasis Area to an Activity Center?

-
36. **Maintenance** ----- Does this project contribute to enhanced system maintenance or preservation?
37. **Operations and Travel Demand** ----- Does this project reduce travel time on highways and/or transit without building new capacity, (e.g., ITS, bus priority treatments, etc.)?
38. **Safety** ----- Is this project expected to significantly reduce fatalities or injuries among motorists, transit users, pedestrians, and/or bicyclists?
39. **Reduce Emissions Pollutants** ----- Is the project expected to contribute to reductions in emissions of criteria pollutants, specifically, to attainment of ozone levels consistent with the National Ambient Air Quality Standard (NAAQS)?
40. **Reduce Greenhouse a. Gases** ----- Is this project expected to contribute to reductions in emissions of greenhouse gases by 50% below 2005 levels by 2030?
- Additional response. b ----- If the answer to question #40 regarding contributing to greenhouse gas emission reductions was yes, then how is this project anticipated to reduce emissions? If 'No', please describe how the project will mitigate increased greenhouse gas emissions or vehicle miles traveled.
41. **Promotes Freight** ----- This project enhances, supports, or promotes the following freight carrier modes (select all that apply):
- Air
 - Local Delivery
 - Long-Haul Truck
 - Rail
42. **Passenger Carrier Modes** ----- This project enhances supports, or promotes the following passenger carrier modes (select all that apply):
- Air
 - Amtrak Intercity Passenger Rail
 - Intercity Bus
43. **Aspirational Initiatives** ----- Please check each initiative that is implemented by this project. The aspirational initiatives are: (see next page)

-
- Bring Jobs and Housing Closer Together.
 - Expand Bus Rapid Transit and Transitways Regionwide.
 - Move More People on Metrorail.
 - Provide More Telecommuting and Other Options for Commuting.
 - Expand Express Highway Network.
 - Improve Walk and Bike Access to Transit.
 - Complete the National Capital Trail Network

44. Additional Policy a. Framework

----- Please provide additional written information that describes how this project further supports or advances the TPB Aspirational Initiatives.

b.

----- Please provide additional written information that describes how this project further supports or advances other regional goals or needs.

45. Federal Planning Factors

----- This project supports the following planning factors (select all that apply):

- Emphasize the preservation of the existing transportation system.
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- Enhance travel and tourism
- Improve resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation
- Increase accessibility and mobility of people
- Increase accessibility and mobility of freight
- Increases the ability of the transportation system to support homeland security and to safeguard the personal security of all motorized and non-motorized users.
- Increases the safety of the transportation system for all motorized and non-motorized users.
- Promote efficient system management and operation.
- Protect and enhance the environment, promote energy conservation, improve the quality of life and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
- Support the economic vitality of the metropolitan area especially by enabling global competitiveness productivity and efficiently.

The TIP Project Description Form Instructions

The fields and instructions for the TIP form are exactly the same as the LRTP form with the exception of the funding program area. Where the LRTP form features data on the financial analysis for Visualize 2045, the TIP form has programming tables for the FY 2023-2026 TIP.

FFY - - - - -	Enter the federal fiscal year in which the funds are programmed for obligation. You may program funds beyond the window of the current TIP, which will be included in the Grand Total summaries below.
Fund Type - - - - -	See the next section for a definition of and links to resources for more information on each funding source.
AC/CP - - - - -	<p>If your agency is programming Advanced Construction (AC) funds on a project the following conditions must be met:</p> <ol style="list-style-type: none">1. Any amounts designated as AC must note that in the pull-down menu in this column.2. The source for those funds must be listed as the anticipated federal source that the agency intends to use to pay back the state coffers.3. For any amount of AC programmed, there must be an equal amount of ACCP scheduled in the program. These amounts should be demonstrated within a year or two at most, of the initial AC programming.
Phase - - - - -	<p>Place the programmed funds in the appropriate column depending on which phase they are programmed for:</p> <ul style="list-style-type: none">• Study• Planning• PE – Preliminary Engineering• ROW – Right of Way Acquisition• CON – Construction Reserve for construction of roadway or transit facility infrastructure.• UT – Utilities• Other – Use for program operations, vehicle or other purchases, construction of maintenance facilities, debt service, or other purposes that don't comport to one of the phases above

Total - - - - -	This is a calculated field, summing the line item.
Grand Total Block - - - - -	This block provides calculated totals by FFY, source, and a grand total. Note: this provides a running total of all fiscal years, prior to, including, and beyond the program window of the TIP.
Total Project Cost - - - - -	Enter the total project cost in the field to the right. This should equal or exceed the amount of funding programmed in the calculated Grand Total field above. If it is less than the programmed amount, the system will present an error message when attempting to submit the TIP description form. If the project cost is equal to the amount programmed (or for perpetual, ongoing maintenance or operational programs), you can check the box on the left, indicating that the estimated total cost is equal to the total programmed amount.

Section 5: Federal Funding Resources

The following sources are included in the Project InfoTrak database for programming. If additional or new sources are needed, please contact the EcoInteractive help desk.

Federal Highway Administration – Title I Sources

Accelerated Innovation Deployment Demonstration Program (Demo)

The Accelerated Innovation Deployment (AID) Demonstration program provides incentive funding for activities eligible for assistance in any phase of a highway transportation project between project planning and project delivery including: Planning, financing, operation, structures, materials, pavements, environment, and construction that address the TIDP goals. The FHWA expects approximately \$10 million to be made available for AID Demonstration in each of Fiscal Years 2016 through 2020 from amounts authorized under section 6002 of the FAST Act.

https://www.fhwa.dot.gov/innovation/grants/edc4_aiddemo_factsheet.pdf

Congestion Mitigation and Air Quality Improvement Program (CMAQ)

The FAST Act continued the CMAQ program to provide a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas).

<https://www.transportation.gov/sustainability/climate/federal-programs-directory-congestion-mitigation-and-air-quality-cmaq>

Federal Lands Access Program (FLAP)

The Federal Lands Access Program was established in 23 U.S.C. 204 to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The Access Program supplements state and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on high-use recreation sites and economic generators.

<https://highways.dot.gov/federal-lands/programs-access>

High Priority Project (HPP)

The High Priority Projects Program (pre-MAP-21 23 U.S.C. 117) provided designated funding for specific projects identified in SAFETEA-LU. A total of 5,091 projects are identified, each with a specified amount of funding over the 5 years of SAFETEA-LU. The program was discontinued by MAP-21.

<https://www.fhwa.dot.gov/programadmin/hpp.cfm>

Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program is a core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned roads and roads on tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance.

<https://safety.fhwa.dot.gov/hsip/>

National Highway Freight Program (NHFP)

The FAST Act establishes a new National Highway Freight Program to improve the efficient movement of freight on the National Highway Freight Network (NHFN) and support several goals, including:

- investing in infrastructure and operational improvements that strengthen economic

competitiveness, reduce congestion, reduce the cost of freight transportation, improve reliability, and increase productivity;

- improving the safety, security, efficiency, and resiliency of freight transportation in rural and urban areas;
- improving the state of good repair of the NHFN;
- using innovation and advanced technology to improve NHFN safety, efficiency, and reliability;
- improving the efficiency and productivity of the NHFN;
- improving State flexibility to support multi-State corridor planning and address highway freight connectivity; and
- reducing the environmental impacts of freight movement on the NHFN. [23 U.S.C. 167 (a), (b)]

<https://www.fhwa.dot.gov/fastact/factsheets/nhfpfs.cfm>

National Highway Performance Program

The FAST Act continues the National Highway Performance Program, which was established under MAP-21. The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS.

<https://www.fhwa.dot.gov/fastact/factsheets/nhfpfs.cfm>

Regional Surface Transportation Planning

RSTP provides flexible funding to Northern Virginia, and similar regions across the country, that may be used for projects to improve and preserve conditions and performance on federal-aid highways, public bridges and tunnels, bicycle and pedestrian infrastructure, and transit capital projects. In Virginia,

these funds are available to Metropolitan Planning Organizations (MPOs) with populations greater than 200,000. While the NVTA is not a federally designated MPO, it fulfills this function for Northern Virginia.

<http://thenovaauthority.org/programming/cmaq-rstp/>

State Transportation Innovation Council (STIC)

The State Transportation Innovation Council Incentive program provides resources to help STICs foster a culture for innovation and make innovations standard practice in their States. Through the program, funding up to \$100,000 per State per Federal fiscal year is made available to support or offset the costs of standardizing innovative practices in a State transportation agency or other public sector STIC stakeholder. The program is administered by FHWA's Center for Accelerating Innovation.

Surface Transportation Block Program (STBG)

The FAST Act converts the long-standing Surface Transportation Program into the Surface Transportation Block Grant Program acknowledging that this program has the most flexible eligibilities among all Federal-aid highway programs and aligning the program's name with how FHWA has historically administered it. [FAST Act § 1109(a)]. The STBG promotes flexibility in State and local transportation decisions and provides flexible funding to best address State and local transportation needs.

<https://www.fhwa.dot.gov/fastact/factsheets/stbgfs.cfm>

Transportation Alternatives Program (TAP)

The FAST Act eliminates the MAP-21 Transportation Alternatives Program (TAP) and replaces it with a set-aside of Surface Transportation Block Grant (STBG) program funding for transportation alternatives (TA). These set-aside funds include all projects and activities that were previously eligible under TAP, encompassing a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity.

<https://www.fhwa.dot.gov/fastact/factsheetstransportationalternativesfs.cfm>

Federal Transit Administration - Title III Sources

Section 5303, Section 5304 – Metropolitan and State Planning Program

Provides funding and procedural requirements for multimodal transportation planning in metropolitan areas and states that is cooperative, continuous and comprehensive, resulting in long-range plans and short-range programs of transportation investment priorities. The planning programs are jointly administered by FTA and the Federal Highway Administration (FHWA), which provides additional funding.

<https://www.transit.dot.gov/funding/grants/metropolitan-statewide-planning-and-nonmetropolitan-transportation-planning-5303-5304>

Section 5307 - Urbanized Area Formula Program

The Urbanized Area Formula Funding program (49 U.S.C. 5307) makes federal resources available to urbanized areas and to governors for transit capital and operating assistance in urbanized areas and for transportation-related planning.

<https://www.transit.dot.gov/funding/grants/urbanized-area-formula-grants-5307>

Section 5309 - New Starts

Provides grants for new and expanded rail, bus rapid transit, and ferry systems that reflect local priorities to improve transportation options in key corridors.

<https://www.transit.dot.gov/funding/grant-programs/capital-investments/fact-sheet-fixed-guideway-capital-investment-grants-new>

Section 5310 - Elderly & Persons with Disabilities Program

This program (49 U.S.C. 5310) provides formula funding to states for the purpose of assisting private nonprofit groups in meeting the transportation needs of older adults and people with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs.

<https://www.transit.dot.gov/funding/grants/enhanced-mobility-seniors-individuals-disabilities-section-5310>

Section 5311 – Formula Grants for Rural Areas

The Formula Grants for Rural Areas program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations of less than 50,000, where

many residents often rely on public transit to reach their destinations. The program also provides funding for state and national training and technical assistance through the Rural Transportation Assistance Program.

<https://www.transit.dot.gov/rural-formula-grants-5311>

Section 5337 - State of Good Repair Grant Funds

The State of Good Repair Grants Program (49 U.S.C. 5337) provides capital assistance for maintenance, replacement, and rehabilitation projects of high-intensity fixed guideway and bus systems to help transit agencies maintain assets in a state of good repair. Additionally, SGR grants are eligible for developing and implementing Transit Asset Management plans.

<https://www.transit.dot.gov/funding/grants/state-good-repair-grants-5337>

Section 5339 (a) - Alternatives Analysis Funding

The objective of the Alternatives Analysis program (49 U.S.C. 5339) is to assist in financing the evaluation of all reasonable modal and multimodal alternatives and general alignment options for identified transportation needs in a particular, broadly defined travel corridor.

<https://www.transit.dot.gov/funding/grants/alternatives-analysis-5339>

Section 5333 (b) – Bus and Bus Facilities Discretionary Program

The purpose of the Bus Program is to improve the condition of the nation's public transportation bus fleets, expand transportation access to employment,

educational, and healthcare facilities, and to improve mobility options in rural and urban areas throughout the country.

<https://www.transit.dot.gov/funding/applying/notices-funding/5339b-bus-and-bus-facilities-discretionary-program-bus-program-2016>

Section 5339 (c) - Low or No Emission Vehicle Program

The Low or No Emission Competitive program provides funding to state and local governmental authorities for the purchase or lease of zero-emission and low-emission transit buses as well as acquisition, construction, and leasing of required supporting facilities. Under the FAST Act, \$55 million per year is available until fiscal year 2020.

<https://www.transit.dot.gov/funding/grants/lowno>

Passenger Rail Investment and Improvement Act of 2008 (PRIIA)

Sec. 106 of this bill provides the authorization for capital and preventative maintenance projects for the Washington Metropolitan Area Transit Authority (WMATA).

<https://www.congress.gov/bill/110th-congress/house-bill/6003/text>

Other Funding Sources

AC	Advanced Construction
ACC	Advanced Construction Conversion
DOD - OEA	Department of Defense, Office of Economic
GARVEE	Grant Anticipation Revenue Vehicles (Bonds)
NPS	National Park Service
NRT	National Recreational Trails Program
P3	Private-Public Partnership
PRIV	Private Developer
WIP	WMATA Insurance Proceeds

2022 UPDATE TO VISUALIZE 2045
BLANK DESCRIPTION FORM



National Capital Region
Transportation Planning Board

visualize
2045



Administrative Area

1. Adoption/Amendment

2. Grouped Project?

3. Group Name

4. CE ID/TIP ID

Project Information

5. Project Title

6. Project Description

7. Primary Project Type

8. Lead Agency

9. Secondary Agency

10. County

11. Municipality

12. Primary Contact

13. Phone

14. Email

15. URL

16. Accommodations

17. Complete Street Advance

18. Complete Street Exempt

19. Project Location

a. System

b. Route

c. Location Type

d. Facility Name

e. From

e. To

f. Distance

g. Map



k. Bridge #

l. # of Locations

Congestion Management Process Information

20. CMP

☐ 21. Traffic congestion conditions necessitate the proposed project or program and are

21 a. If the congestion is on another facility, please identify it:

☐ 22. This project is capacity-increasing and on a limited access highway or other principal arterial

22 a. The following exemption criteria are true about the project? (Choose one, or indicate that none of the exemption criteria apply)

Conformity Information

23. Model

23. Conformity Segments

a. System

b. Route

c. Location Type

d. Road Name

e. From

e. To

f. Distance

g. CON ID

h. Conformity Number

i. Agency Phase ID

j. Improvement Type

k. Facility Type From

k. Facility Type To

l. Ln From

l. Ln. To

m. ROW Acquired

n. Under Construction

o. Projected Completion

p. Completed Year

Environmental Review Information

25. Document Type

26. Review Status

27. This project has been identified for the following potential environmental mitigation activities:

Programming Information

28. LRTP Funding

a. FFY (Band)

b. Fund Type

c. Phases

d. Total

Schedule Information

29. Estimated Completion

--

28. Actual Completion

--

30. Current Implementation Status

--

Regional Policy & Federal Planning Factor Support

- ☐ 32 a. This project promotes non-auto travel or can be expected to reduce VMT in the region.

32 b. Please identify all travel mode options that this project promotes, enhances, or supports.

--

- ☐ 33. This project improves accessibility for historically transportation-disadvantaged individuals (i.e., persons with disabilities, low-incomes, and/or limited English proficiency)

- ☐ 34 a. This project is physically located in an Equity Emphasis Area (EEA)

34 b. Please provide additional written information that describes how this project further supports or advances equity as described by the TPB July 2020 resolution.

--

- ☐ 35 a. This project begins or ends in an Activity Center.

- ☐ 35 b. This project connects two or more Activity Centers.

- ☐ 35 c. This project promotes non-auto travel within one or more Activity Centers.

- ☐ 35 d. This project connects an Equity Emphasis Area to an Activity Center?

- ☐ 36. This project contributes to enhanced system maintenance or preservation.

- ☐ 37. This project is primarily designed to reduce travel time on highways and/or transit without building new capacity (e.g., ITS, bus priority treatments, etc.).

- ☐ 38. Is this project expected to significantly reduce fatalities or injuries among motorists, transit users, pedestrians, and/or bicyclists?

- ☐ 39. This project is expected to contribute to reductions in emissions of criteria pollutants, specifically, to attainment of ozone levels consistent with the National Ambient Air Quality Standard (NAAQS).

- ☐ 40 a. This project is expected to contribute to reductions in emissions of greenhouse gases by 50% below 2005 levels by 2030.

40 b. If the statement above was checked as "Yes," describe how this project is anticipated to reduce emissions. If 'No', please describe how the project will mitigate increased greenhouse gas emissions or vehicle miles traveled.

--

- ☐ 41. This project enhances, supports, or promotes the following freight carrier modes.

--

- ☐ 42. This project enhances, supports, or promotes the following passenger carrier modes.

--

43. Please check each initiative that is implemented by this project.

--

44 a. Please provide additional written information that describes how this project further supports or advances the TPB Aspirational Initiatives

--

44 b. Please provide additional written information that describes how this project further supports or advances other regional goals or needs

--

45. Federal Planning Factors: This project supports the following planning factors (select all that apply)

--

visualize 2045

A long-range
transportation plan
for the National
Capital Region

APPENDIX C

Air Quality Conformity Analysis

Draft as of March 2022



National Capital Region
Transportation Planning Board

**AIR QUALITY CONFORMITY ANALYSIS FOR THE 2022 UPDATE TO VISUALIZE 2045
LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION**

March 2022 (footer added)

ABOUT VISUALIZE 2045 & THE TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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INTRODUCTION

This memorandum documents summary results of the air quality conformity analysis of the 2022 update to the Visualize 2045 Long-Range Transportation Plan (LRTP) and FY 2023-2026 Transportation Improvement Program (TIP) with respect to ozone season pollutants: Volatile Organic Compounds (VOC) and Nitrogen Oxides (NO_x). The analysis indicates that the estimated emissions from motor vehicle traffic predicted to use roads in the LRTP and TIP conform to the U.S. Environmental Protection Agency (EPA) approved motor vehicle emissions budgets (MVEBs) for the pollutants analyzed, VOC and NO_x. The results and findings of the analysis have been reviewed by the National Capital Region Transportation Planning Board (TPB) Technical Committee and the Metropolitan Washington Air Quality Committee Technical Advisory Committee (MWAQC TAC). The findings will be released on April 1, 2022 for a 30-day public comment and interagency consultation period, which will end on May 1, 2022.

OZONE STANDARD & MOBILE EMISSIONS BUDGETS

The federal Clean Air Act establishes National Ambient Air Quality Standards (NAAQS) for a set of airborne pollutants. Areas in the country that exceed these standards are identified and designated as non-attainment areas. Non-attainment areas are required to develop and implement plans to attain the federal standards. Such implementation plans typically establish limits for the amounts of pollutants from the various sectors that emit such pollutants. In the transportation sector these are referred to as motor vehicle emissions budgets (MVEB). Air quality conformity is a process intended to ensure that activities using federal transportation funding are consistent with the air quality goals set forth in the implementation plans in non-attainment areas. The conformity requirements for transportation are found in Section 176(c) of the Clean Air Act (42 USC § 7506(c)). The U.S. Environmental Protection Agency (EPA) regulations to implement the conformity requirements are found at 40 CFR Part 93.

2008 OZONE STANDARD MAINTENANCE PLAN BUDGETS

In 2012, the EPA designated the Metropolitan Washington, DC (DC-MD-VA) region as “marginal” non-attainment for the 2008 Ozone Standard. With this designation, EPA regulations do not require the development of MVEBs. Instead, as per EPA regulations, conformity analyses for the region’s LRTP and TIP were being demonstrated to previously approved MVEBs from the older 1997 Ozone Standard.

In 2015, the region attained the 2008 Ozone Standard, based on the readings from ambient air quality monitors. The Metropolitan Washington Air Quality Committee (MWAQC) developed a Redesignation Request and Maintenance Plan which the State Air Agencies submitted to the EPA in early 2018. The 2008 Ozone Maintenance Plan included MVEBs for VOC and NO_x. In August 2018, EPA found these mobile emissions budgets adequate for use in the region’s air quality conformity analyses.

The 2008 Ozone Maintenance Plan established VOC and NO_x emissions budgets for three specific periods: the attainment year (2014), an intermediate year (2025), and for the final year (2030) of the Maintenance Plan. The plan includes two sets of mobile budgets for each pollutant. The first set of budgets, referred to as “Tier 1 budgets,” were based on projected emissions developed as part of

the Maintenance Plan, and were set at the inventory level for each year. The second set of budgets, referred to as “Tier 2 budgets,” were developed by adding a 20 percent safety margin to the mobile emissions inventories for VOC and NO_x in 2025 and 2030. Tier 1 and Tier 2 mobile emissions budgets for VOC and NO_x are shown in Table 1 and Table 2, below.

The maintenance plan provides for using the Tier 2 budgets (safety margin) in situations “where the conformity analysis must be based on different data, models, or planning assumptions, including but not limited to updates to demographic, land use, or project-related assumptions, than were used to create the [mobile emissions budgets] in the Maintenance Plan”.¹

Table 1 Tier 1 Mobile Emissions Budgets (see note #1 in next table)

Year	NO _x On-Road Emissions (tpd)	VOC On-Road Emissions (tpd)
Attainment Year 2014 Emission & Budget	136.8	61.3
Intermediate Year 2025 Emission & Budget	40.7	33.2
Final Year 2030 Emission & Budget	27.4	24.1

Table 2 Tier 2 Mobile Emissions Budgets (see note #1 below the table)

Year	NO _x On-Road Emissions (tpd)	VOC On-Road Emissions (tpd)
Attainment Year 2014 Emission & Budget	136.8	61.3
Predicted 2025 Emission	40.7	33.2
Transportation Buffer	8.1	6.6
Intermediate Year 2025 Budget	48.8	39.8
Predicted 2030 Emission	27.4	24.1
Transportation Buffer	5.5	4.8
Final Year 2030 Budget	32.9	28.9
Note: ¹ The MVEBs with transportation buffers will be used only as needed in situations where the conformity analysis must be based on different data, models, or planning assumptions, including but not limited to updates to demographic, land use, or project-related assumptions, than were used to create the first set of MVEBs in the maintenance plan.		

¹Maintenance Plan for the Washington DC-MD-VA 2008 Ozone NAAQS Non-attainment Area. Prepared by the Metropolitan Washington Council of Governments for the District Department of the Environment, the Maryland Department of the Environment, and the Virginia Department of Environmental Quality on behalf of the Metropolitan Washington Air Quality Committee. December 20, 2017.
<https://www.mwcog.org/documents/2017/09/18/washington-dc-md-va-2008-ozone-naaqs-marginal-nonattainment-area-redesignation-request-and-maintenance-plan-air-quality-air-quality-conformity-ozone/>

OZONE STANDARD

The US EPA promulgated new and tougher NAAQS for Ozone in 2015. Effective August 3, 2018, the EPA designated the metropolitan Washington, DC (DC-MD-VA) region as “marginal” non-attainment for the 2015 Ozone NAAQS. Under a “marginal” designation, it is not necessary to develop MVEBs, and consequently there are no MVEBs specific to the 2015 Ozone Standard. Provisions of the conformity regulations,² however, require that emissions from the LRTP and TIP conform to previously approved (or “found adequate for conformity purposes”) MVEBs. The current MVEBs for the DC-MD-VA non-attainment area are those developed for the Maintenance Plan for the 2008 Ozone Standard (discussed above). The emissions from the 2022 update to the Visualize 2045 LRTP and FY 2023-2026 TIP adhere to these 2008 Ozone NAAQS MVEBs.

BUDGET SETTING VS. CONFORMITY

An air quality conformity analysis is conducted to formally demonstrate that projected motor vehicle emissions associated with the LRTP and TIP are less than or equal to the mobile emissions budgets for each analysis year. The conformity regulations require the use of the “latest planning assumptions,” which means that each conformity analysis must incorporate the most up-to-date planning inputs and technical methods available at the beginning of the process. Therefore, the inputs used in regional air quality conformity analyses change with time. Mobile emissions budgets in air quality plans are established based on analyses that incorporate the “latest planning assumptions” when the air quality plan is developed, and the emissions budgets do not change with time.

Changes to the inputs used in air quality conformity analyses are not limited to transportation projects. They include other assumptions such as vehicle fleet mix and demographics. Such changes to inputs in conformity analyses relative to inputs used to establish mobile emissions budgets will inevitably yield mobile emissions differences that are not strictly attributable to the transportation plan itself. Additionally, the models used to estimate future travel and emissions change as do the data the models use, which also will yield mobile emissions differences not attributable to the projects in the transportation plan.

Anticipating such situations, federal air quality conformity regulations allow air quality (Attainment and Maintenance) plans to provide a “conformity buffer” while establishing MVEBs. Accordingly, the DC-MD-VA 2008 Ozone Maintenance Plan established the Tier 2 mobile emissions budgets with a 20 percent buffer to address uncertainty that is introduced when inconsistent assumptions are used between budget-setting and the conformity analysis.

Table 3 below lists the contrasting assumptions used in the mobile budget development and in the current air quality conformity analysis (of the 2022 update to the Visualize 2045 LRTP and FY 2023- 2026 TIP). Details related to these inputs are discussed in the next section of this summary report.

² U.S. Environmental Protection Agency Transportation Conformity Regulations as of April 2012; EPA-420-B-12-013 April 2012; <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100E7CS.PDF?Dockey=P100E7CS.PDF>

Table 3 Input Assumptions

	Maintenance SIP Mobile Budgets	2022 Update to Visualize 2045 Conformity Emissions
Cooperative Forecasts	Round 9.0	Round 9.2
Vehicle Fleet	2014 VIN	2020 VIN
Travel Demand Model	Version 2.3.66	Version 2.4
Project Inputs	2016 CLRP	2022 Update
Metrorail Constraint ³	Yes	No

WORK ACTIVITIES & TECHNICAL INPUTS

The TPB approved the Scope of Work and project submissions for the 2022 update to Visualize 2045 and the FY 2023-2026 TIP air quality conformity analysis on June 16, 2021. On July 21, 2021 the TPB amended the project submissions to include Phase 1 of Maryland's Traffic Relief Plan on I-495 and I-270. The air quality conformity Scope of Work is included as Attachment A.

Key technical planning assumptions and methods include:

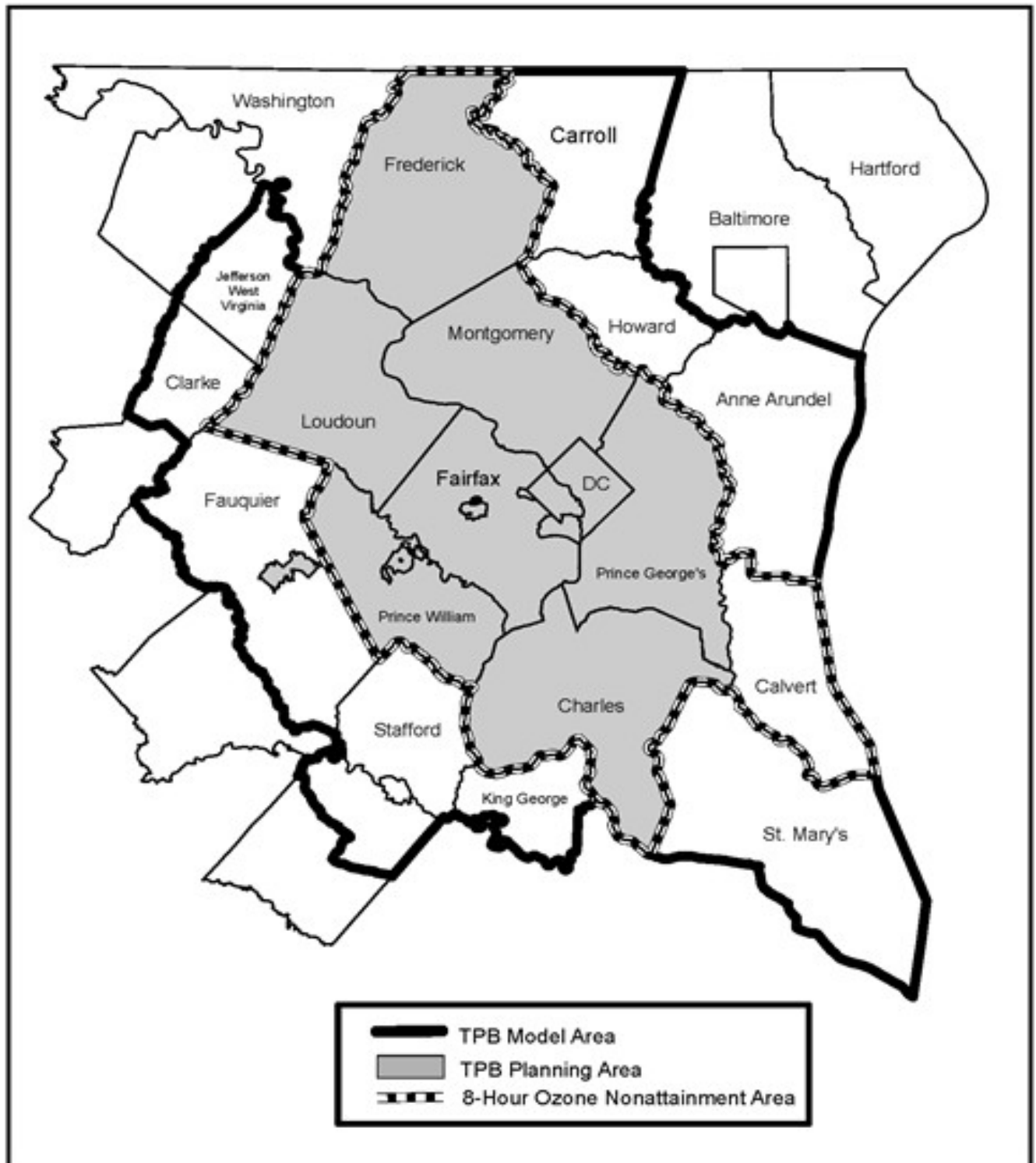
- New Cooperative Forecasts for land activity: Round 9.2
- New vehicle registration data: July 2020 (DC)⁴ and December 2020 (MD/VA)
- New transportation projects and updates to existing projects
- Metrorail capacity constraint through the regional core (modeling assumption): No longer used (see footnote 3)
- EPA's MOVES 2014b Mobile Emissions Model
- TPB Gen2/Version 2.4 Travel Demand Model

Mobile emissions inventories were developed for ozone season VOC and NO_x for six forecast years (2021, 2023, 2025, 2030, 2040 and 2045). These inventories address a primary conformity requirement to demonstrate that emissions associated with the plan and TIP do not exceed the EPA-approved mobile emissions budgets. Figure 1 depicts the geographic areas for travel demand modeling and for emissions reporting.

³ In 2000, WMATA requested that COG/TPB staff add a mechanism, known as the "Metrorail constraint to and through the regional core," to the TPB Travel Model to represent the fact that, due to funding shortfalls, it was believed that the Metrorail system would not be able to handle all of the peak-period demand to and through the regional core at some future time. As of the Gen2/Ver 2.3.75 Travel Model, the Metrorail constraint to and through the regional core has been removed due to the stable, long-term funding of \$500 million a year for Metro to support WMATA's plans to implement all 8-car trains during peak periods. See later discussion in memo.

⁴ Due to the backlogs in processing new District of Columbia vehicle registrations resulting from COVID related restrictions, the District of Columbia Department of Energy and Environment (DOEE) staff estimate that the July 2020 dataset is more representative of the number of registered vehicles in December 2020 than the December 2020 dataset.

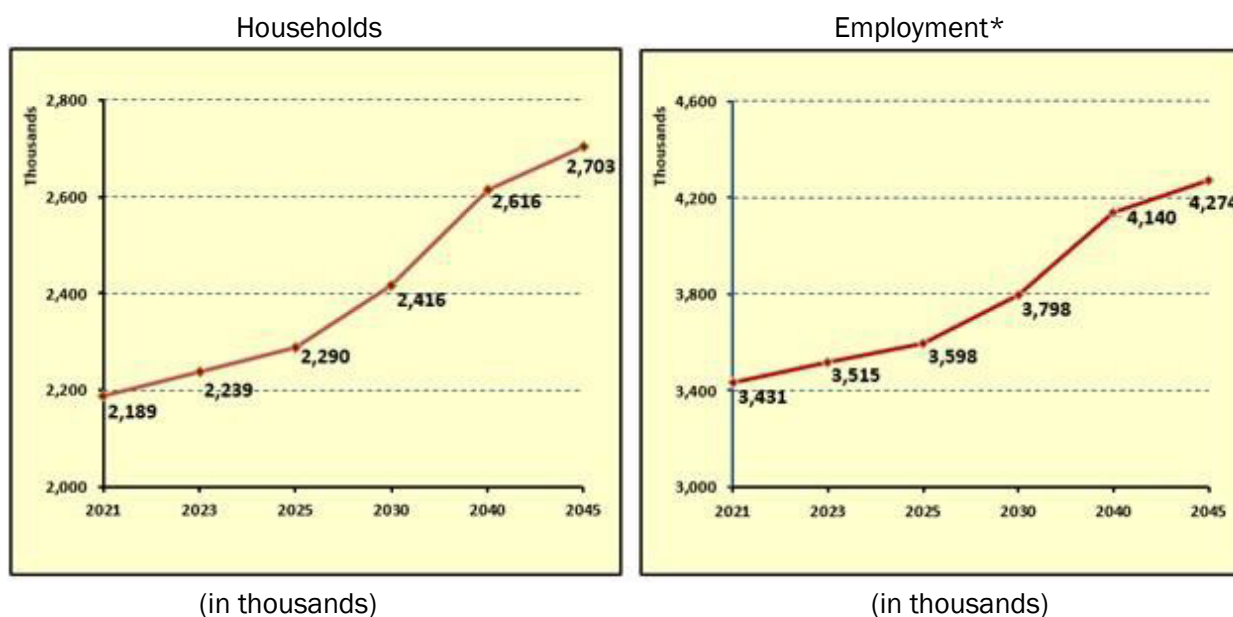
Figure 1 TPB Model Area, TPB Planning Area, and 8-hour Ozone Non-attainment Area



COOPERATIVE FORECASTS

The Metropolitan Washington Council of Governments (COG) Board approved, in June 2021, the draft Round 9.2 Cooperative Forecasts for use in the air quality conformity analysis of the 2022 Update to Visualize 2045 Plan and FY 2023-2026 TIP. In addition to forecasts from the TPB Planning Area, the Round 9.2 Cooperative Forecasts include the Baltimore Metropolitan Council's (BMC) Round 9A (endorsed July 28, 2020); the George Washington Regional Commission (GWRC)/Fredericksburg Area Metropolitan Planning Organization's (FAMPO) 2050 Socioeconomic Data Projections (revised November 2018); and the Maryland Department of Planning's Historical and Projected Total Population for Calvert and St. Mary's Counties (August 2017). TPB staff revised employment definition adjustment factors to assure a consistent definition of employment for all jurisdictions.⁵ The Round 9.2 data were used for the air quality conformity analysis of the 2022 Update to the Visualize 2045 plan and are summarized in Figure 2.

Figure 2 Round 9.2 Cooperative Forecasts, Households and Employment, In the Non-attainment Area



*Includes employment definition adjustment

VEHICLE REGISTRATION DATA

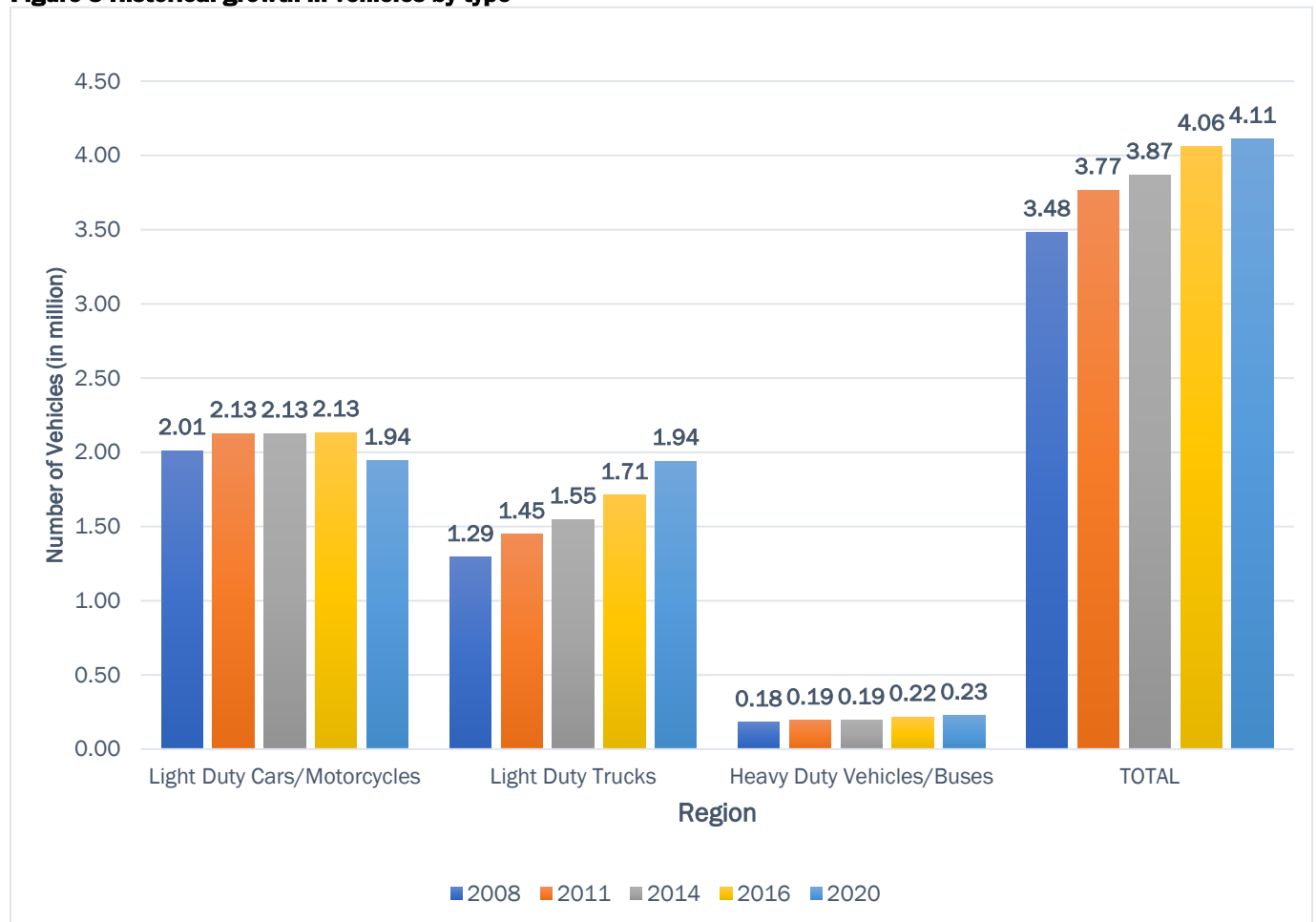
TPB staff have analyzed motor vehicle fleet inventory information on a regular basis since 2005. This information is used to understand the vehicle type composition and vehicle age distributions, which are important determinants of mobile emissions. Periodic inventory reviews enable staff to refresh mobile emissions modeling inputs with the latest available information.

⁵ Nicole McCall to Mark Moran et al., "Travel Model Employment Definition Adjustment Factors for Round 9.2," Memorandum, April 19, 2021.

The current data are from December 2020.⁶ TPB staff analyzed the 2020 vehicle registration data (known as Vehicle Identification Number or VIN data) and the analysis was reviewed by the COG/TPB technical oversight committees prior to being approved for use in transportation planning applications.

Figure 3 and Table 4 show characteristics of the region's vehicle fleet through time. The exhibits indicate that the fleet is continuing to grow, and that light duty trucks (SUVs) are growing at the fastest rate, relative to other vehicle types. On average, light duty trucks have a higher emissions rate than light duty cars. The vehicle fleet has also continued to age, with more people holding on to vehicles for a longer period of time.

Figure 3 Historical growth in vehicles by type



⁶ Maryland and Virginia data are from December 2020 and the District of Columbia data are from July 2020. Due to the backlogs in processing new District of Columbia vehicle registrations resulting from COVID related restrictions, the District of Columbia Department of Energy and Environment (DOEE) staff estimate that the July 2020 dataset is more representative of the number of registered vehicles in December 2020 than the December 2020 dataset.

Table 4 Average age of regional vehicle fleet by year

Year	Light Duty Vehicles* (LDV)	Light Duty Trucks (LDT)	Heavy Duty Vehicles (HDV)	All Vehicle Types
2008	8.51	7.53	9.21	8.18
2011	9.25	8.55	10.56	9.05
2014	9.62	9.09	11.30	9.49
2016	9.32	8.68	11.29	9.16
2020	10.05	8.74	11.51	9.51

*Motorcycles are included

TRANSPORTATION PROJECT INPUTS

Attachment B contains the transportation projects that are included in the 2022 update to Visualize 2045 conformity analysis. Project changes from the previous conformity analysis are identified in the table. An on-line interactive map showing all projects can be found here:

METRORAIL CAPACITY CONSTRAINT

In March 2018, lawmakers from the District of Columbia, Maryland, and Virginia agreed to jointly provide an additional \$500 million annually for regional transit under the Washington Metropolitan Area Transit Authority (WMATA). All three governments passed legislation to provide dedicated funding sources to support the transit agency. This money will fund WMATA's capital improvements to ensure the system is in a state of good repair, which will include investments such as the infrastructure and equipment needed to support a 100 percent 8-car train system.

Since 2000, due to the lack of such a funding commitment for WMATA's capital needs, the TPB's air quality conformity analysis had included a technical adjustment to travel forecasts to account for the expectation that future peak-period Metrorail ridership to and through the region's "core" downtown area would be subject to capacity limitations of the Metrorail system. This so-called "Metrorail transit constraint" was used to account for WMATA's expressed concern that the Metrorail ridership would exceed peak period capacity in the regional core unless the rail fleet and station infrastructure were expanded to allow for 8-car trains. The 2018 legislation establishing stable long-term funding will now support WMATA's plans to implement all 8-car trains during peak periods. Consequently, the transit constraint was removed from the travel model process for the Visualize 2045 Plan and subsequent updates.

TRAVEL MODELING

Travel demand forecasts were developed for each of the analysis years using the Gen2/Version 2.4 Travel Demand Model. Changes between the version of the model used to set the mobile emissions budgets (Gen2/Version 2.3.66) and the version of the model used for this conformity analysis (Gen2/Version 2.4) include updates to airport trips to more accurately reflect travel to and from the region's three commercial airports, enhancement of managed lanes modeling to account for the

operational nature of facilities in MDOT's Traffic Relief Plan (TRP), updates to more accurately reflect trips from outside the region that come into the region or pass through the region, and improved modeling of commuter rail trips. Figure 4 presents the resulting average weekday vehicle and transit trips through time for each conformity analysis year for the non-attainment area.

Figure 4 Vehicle and transit trips in the non-attainment area

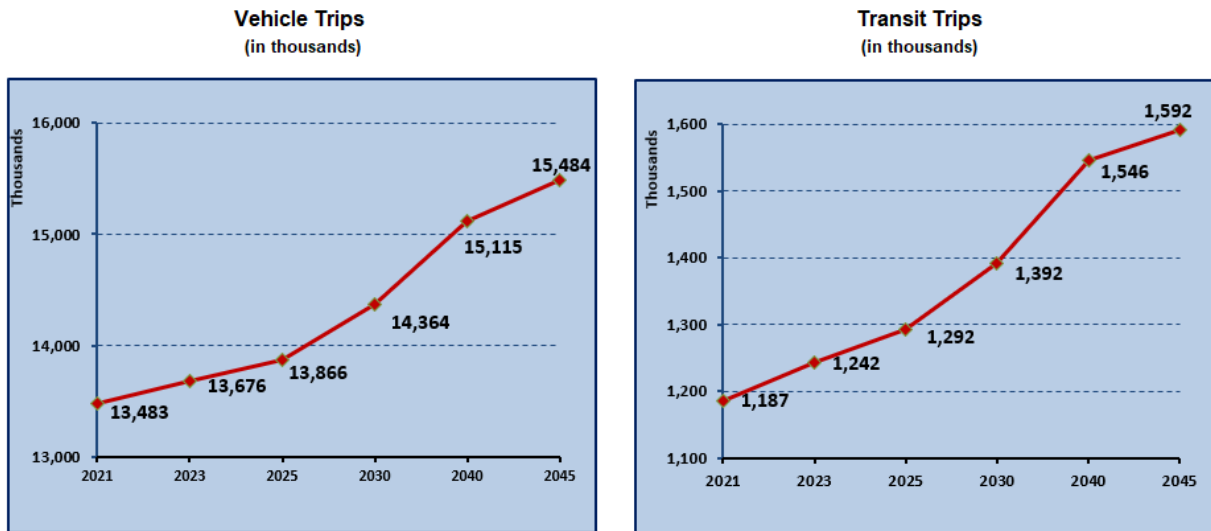
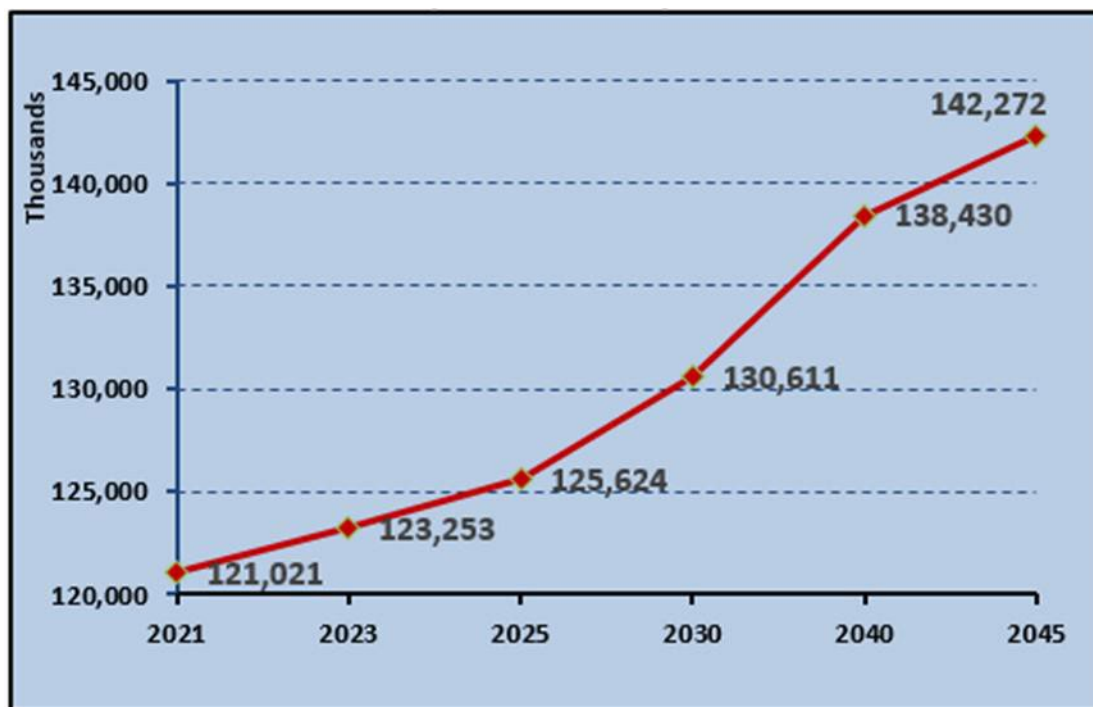


Figure 5 shows Vehicle Miles Traveled (VMT) results through time for each conformity analysis year for the non-attainment area.

Figure 5 Vehicle miles traveled in the non-attainment area (thousands)



EMISSIONS

MOBILE EMISSIONS INVENTORIES & TIER 1 AND TIER 2 MOBILE BUDGETS

Estimated ozone season emissions totals are illustrated in Figure 6 and Figure 7. The estimated emissions are shown in relation to the Tier 1 and Tier 2 mobile emissions budgets for each pollutant. Estimated emissions levels for VOC and NO_x are slightly above the Tier 1 mobile budgets for the 2025 and 2030 analysis years. For the 2025 analysis year, the VOC emissions level is 1 ton/day above the 34.2 tons/day Tier 1 budget, and the NO_x emissions level is 1.9 tons/day above the 40.7 tons/day Tier 1 budget. For the 2030 analysis year, the VOC emissions level is 1.5 tons/day above the 24.1 tons/day Tier 1 budget, and the NO_x emissions level is 0.1 tons/day above the 27.4 tons/day Tier 1 budget. These estimated emissions are higher than Tier 1 budget levels due to the differences in the inputs used in this conformity analysis relative to those used in the 2008 Ozone Maintenance Plan.

The transportation buffers established in the Tier 2 Mobile Budgets were implemented to account for changes in data, models, or planning assumptions used in the conformity analysis. As described earlier in this report, there were numerous input changes between the conformity analysis and the analysis used to set the mobile emissions budgets. Therefore, the Tier 2 budgets are used to demonstrate conformity of the 2022 update to the Visualize 2045 transportation plan and FY 2023-2026 TIP with respect to VOC and NO_x. Emissions levels for VOC and NO_x are well below the Tier 2 mobile budgets for all analysis years, as shown in Figure 6 and Figure 7.

Figure 6 Mobile source emissions, ozone season VOC

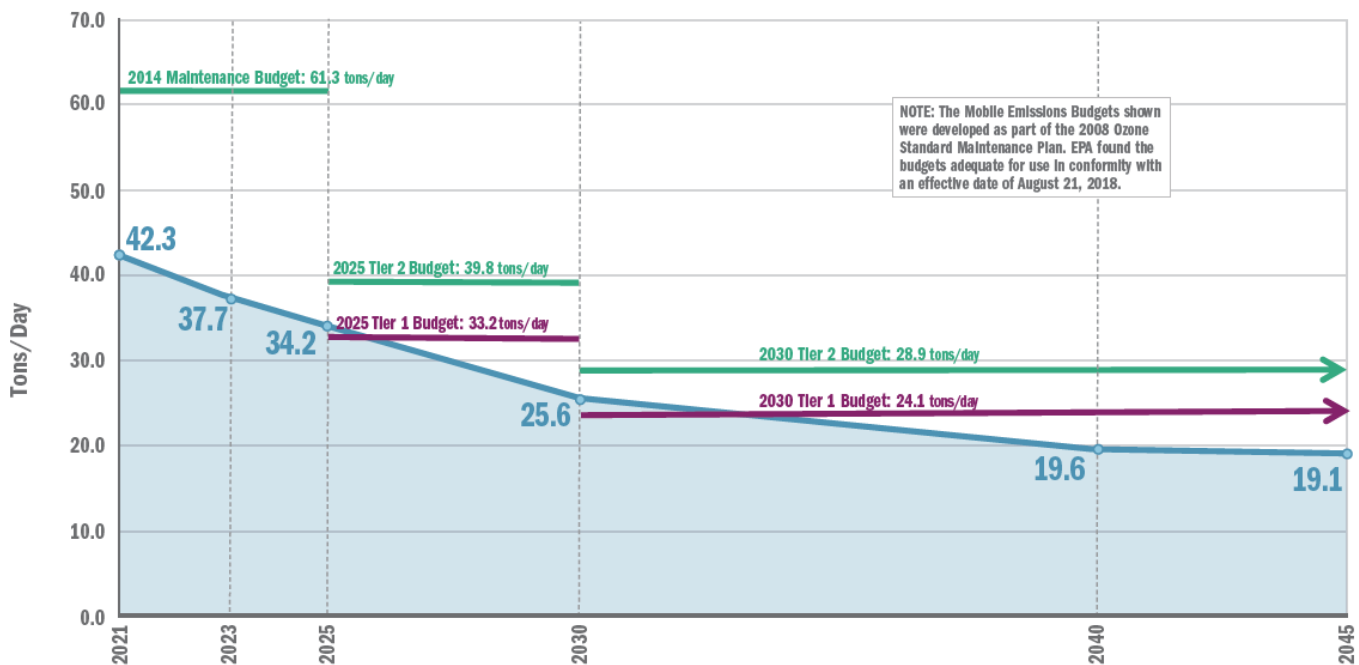
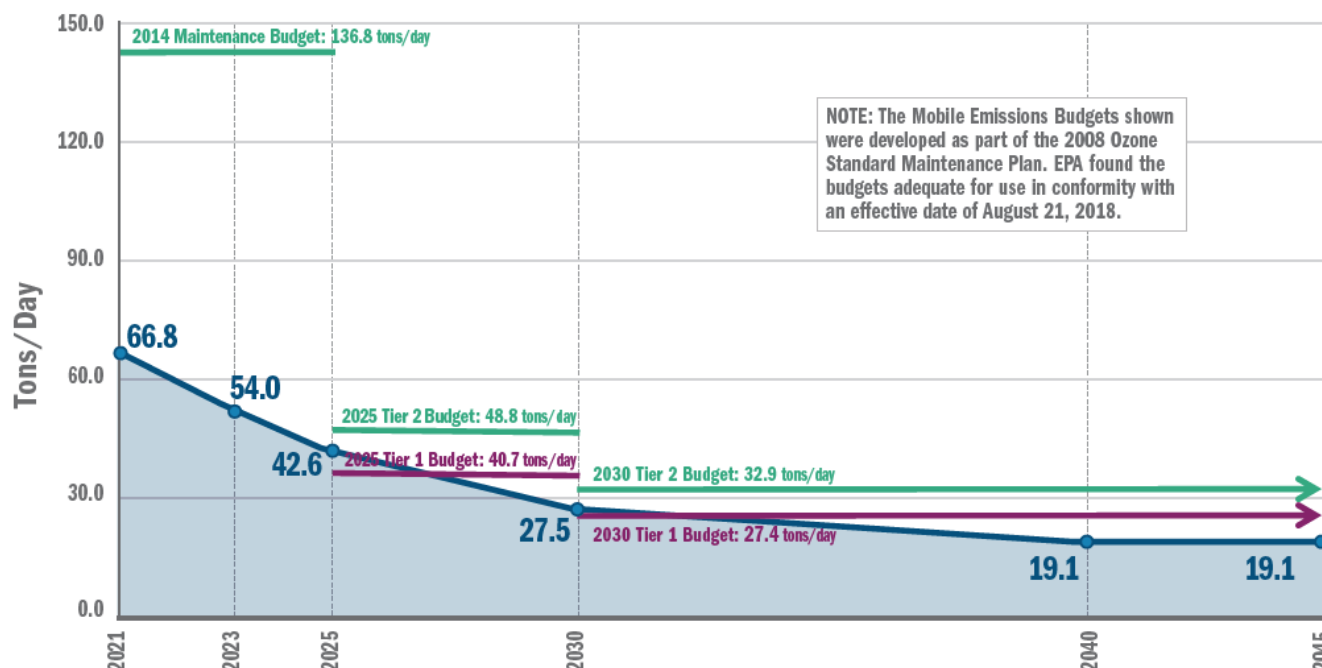


Figure 7 Mobile source emissions, ozone season NO_x

VIN DATA SENSITIVITY TEST

Each input to the conformity analysis impacts the resulting emissions estimates. It would not be feasible with respect to the project schedule to test the impact of each input change individually, but staff has conducted sensitivity tests to determine the impact of the changes to the vehicle fleet. Most recently staff tested the impact of the 2020 VIN data relative to the 2016 VIN data and the 2016 VIN data relative to the 2014 VIN data (2014 VIN data were used in the Maintenance Plan to set the MVEBs). The sensitivity tests indicated that the updated vehicle fleet data caused most of the increase in emissions in the conformity analyses when compared to the analysis used to create the mobile emissions budgets.

TERMS

Transportation Emission Reduction Measures (TERMs) are special strategies or actions that the TPB and/or its member agencies can employ to further reduce forecasted emissions from mobile sources. All TERMS are intended to reduce motor vehicle emissions by reducing either the number of vehicle trips (VT), vehicle miles traveled (VMT), or both. These strategies may include ridesharing and telecommuting programs, improved transit and bicycling facilities, clean fuel vehicle programs or other possible actions. TERMS benefits are not included in the emissions summaries for the air quality conformity analysis.

TERMs analyzed for the Visualize 2045 conformity analysis were grouped into four categories:

- TPB Commuter Connections Program

- Regional Incident Management Program
- Pedestrian Facilities Expansions & Enhancements
- Freeform Carpooling (Slug Lots)

Table 5 lists the emission reduction potential of these TERMS, by pollutant, for each analysis year. The benefits of these projects are not included in the conformity emissions totals in this report, but are available, if necessary, to ensure that regional emissions stay below the approved motor vehicle emissions budgets and help offset future growth in mobile emissions.

Table 5 Transportation Emission Reduction Measures

ADDITIONAL EMISSIONS REDUCTIONS: ALL TERMS COMBINED		
Years/Pollutants	Ozone - VOC	Ozone - NOx
	(tons/day)	(tons/day)
2021	0.195	0.249
2023	0.187	0.212
2025	0.181	0.172
2030	0.148	0.113
2040	0.135	0.083
2045	0.137	0.082

NOTE: Benefits from these TERMS are not included in the emissions totals in this conformity analysis.

COMMENTS / RESPONSE TO COMMENTS

(to be completed after the completion of the 2022 comment period)

SUMMARY

The analytical results described in this air quality analysis provide a basis for a determination, by the TPB, of conformity for the 2022 update to the Visualize 2045 Long-Range Transportation Plan and the FY 2023-2026 TIP. This finding is based on adherence to the region's current motor vehicle emissions budgets in the approved State Implementation Plan (SIP).

ATTACHMENT A – AIR QUALITY CONFORMITY SCOPE OF WORK

June 4, 2021

AIR QUALITY CONFORMITY ANALYSIS: 2022 UPDATE TO VISUALIZE 2045 & FY 2023-2026 TIP SCOPE OF WORK

I. INTRODUCTION

The list of projects solicited for the 2022 Update to the Visualize 2045 Long-Range, Transportation Plan (LRTP) and FY 2023-2026 Transportation Improvement Program (TIP) is scheduled to be finalized at the June 16, 2021 meeting of the National Capital Region Transportation Planning Board (TPB). This work effort addresses requirements associated with attainment of the ozone National Ambient Air Quality Standards (NAAQS). Volatile organic compounds (VOC) and nitrogen oxides (NOx) are ozone precursor pollutants.

The amended plan must meet air quality conformity regulations: (1) as originally published by the Environmental Protection Agency (EPA) in the November 24, 1993 Federal Register, and (2) as subsequently amended, most recently on March 14, 2012, and (3) as detailed in periodic Federal Highway Administration (FHWA) / Federal Transit Administration (FTA) and EPA guidance. These regulations specify both technical criteria and consultation procedures to follow in performing the assessment.

This scope of work provides a context in which to perform the conformity analyses and presents an outline of the work tasks required to address all regulations currently applicable.

II. FEDERAL REQUIREMENTS

As described in the 1990 Clean Air Act Amendments, conformity is demonstrated if transportation plans and programs:

1. Are consistent with most recent estimates of mobile source emissions budgets
2. Provide expeditious implementation of Transportation Control Measures (TCMs)
3. Contribute to annual emissions reductions

The federal requirements governing air quality conformity compliance are contained in

CONFORMITY CRITERIA & PROCEDURES	
All Actions at all times	
§93.110	Latest Planning Assumptions
§93.111	Latest Emissions Model
§93.112	Consultation
§93.113	TCMs
§93.114	Currently conforming Plan and TIP
§93.115	Project from a conforming Plan and TIP
§93.116	CO, PM10 and PM2.5 hot spots
§93.117	PM10 and PM2.5 Control Measures
§93.118 and/or §93.119	Emissions Budget and/or Interim Emissions

§93.110 through §93.119 of the Transportation Conformity Regulations (printed April 2012), as follows:

§ 93.110 Criteria and procedures: Latest planning assumptions - The conformity determination must be based upon the most recent planning assumptions in force at the time of the conformity determination.

§ 93.111 Criteria and procedures: Latest emissions model - The conformity determination must be based on the latest emission estimation model available.

§ 93.112 Criteria and procedures: Consultation – The conformity must be determined according to the consultation procedures in this subpart and in the applicable implementation plan, and according to the public involvement procedures established in compliance with 23 CFR part 450.

§ 93.113 Criteria and procedures: Timely implementation of TCMs - The transportation plan, TIP, or any FHWA/FTA project which is not from a conforming plan and TIP must provide for the timely implementation of TCMs from the applicable implementation plan.

§93.114 Criteria and procedures: Currently conforming transportation plan and TIP - There must be a currently conforming transportation plan and currently conforming TIP at the time of project approval.

§93.115 Criteria and procedures: Projects from a plan and TIP - The project must come from a conforming plan and program.

§93.116 Criteria and procedures: Localized CO, PM10, and PM2.5 violations (hot spots) -The FHWA/FTA project must not cause or contribute to any new localized CO, PM10, and/or PM2.5 violations or increase the frequency or severity of any existing CO, PM10, and /or PM2.5 violations in CO, PM10, and PM2.5 non-attainment and maintenance areas.

§93.117 Criteria and procedures: Compliance with PM₁₀ and PM_{2.5} control measures -The FHWA/FTA project must comply with PM₁₀ and PM_{2.5} control measures in the applicable Implementation Plan.

§93.118 Criteria and procedures: Motor vehicle emissions budget - The transportation plan, TIP, and projects must be consistent with the motor vehicle emissions budget(s).

§93.119 Criteria and procedures: Interim emissions in areas without motor vehicle budgets - The FHWA/FTA project must satisfy the interim emissions test(s).

Assessment Criteria:

Ozone season pollutants will be assessed by comparing the forecast year pollutant levels to the mobile emissions budgets in the 2008 Ozone NAAQS⁷ Maintenance Plan. In August 2018 EPA found these budgets adequate for use in conformity analyses, and the budgets were used in the 2020 Amendment to Visualize 2045 conformity analysis. The 2008 Ozone NAAQS Maintenance Plan includes mobile emissions budgets for 2014 (attainment year), 2025 (intermediate year), and 2030 (out year). The 2014 budgets will be used for any analysis year between 2014 and 2024, the 2025 budgets will be used for any analysis year between 2025 and 2029, and the 2030 budgets will be used for any analysis year beyond 2029.

⁷ The region did not develop mobile emissions budgets for the 2015 ozone NAAQS when the region was designated as “marginal” non-attainment because marginal non-attainment areas are not required to develop mobile emissions budgets. Therefore the current mobile emissions budgets are from the 2008 Ozone NAAQS Maintenance Plan.

III. POLICY AND TECHNICAL APPROACH

The table below summarizes the key elements of the Policy & Technical Approach:

Pollutants	Ozone Season VOC and NOx
Emissions Model	MOVES2014b
Conformity Test	<u>Budget Test</u> : Using mobile emissions budgets most recently approved by EPA: 2008 Ozone NAAQS Maintenance Plan mobile budgets found adequate by EPA in August 2018.
Vehicle Fleet Data	July 2020 (DC) ⁸ and December 2020 (MD & VA) vehicle registration data
Geography	8-hour ozone non-attainment area
Network Inputs	Regionally significant projects
Land Activity	Cooperative Forecasts Round 9.2
HOV/HOT	<u>VA</u> : I-95, I-395, and I-495 are all HOT3+; I-66 inside the Beltway will convert from HOT2+ to HOT3+ when I-66 outside the Beltway opens as HOT3+; the Dulles Toll Road will convert from HOV2+ to HOV3+ in 2023; all other HOV facilities will be HOV2+ through 2045 <u>MD</u> : HOV facility on US 50 will remain HOV2+ through 2045; HOV facility on I-270 will convert from HOV2+ to HOT3+ when an additional HOT lane is added; planned additional Capital Beltway express toll lanes will be HOT3+ when added
Roadway Restrictions	Roadway restrictions, such as truck prohibitions, are reflected in the travel model network using information supplied by the Departments of Transportation
Transit Constraint	NO Metrorail “capacity constraint” (removed with March 2018 passage of annual funding for WMATA agreement)
Analysis Years	2021 and/or 2023 ⁹ , 2025, 2030, 2040, and 2045
Modeled Area	6,800 square mile area with 3,722 Transportation Analysis Zones (TAZs)
Travel Demand Model	Gen2/Version 2.4 or latest

⁸ Due to the backlogs in processing new District of Columbia vehicle registrations resulting from COVID-related restrictions, the District of Columbia Department of Energy and Environment (DOEE) staff estimate that the July 2020 dataset is more representative of the number of registered vehicles in December 2020 than the December 2020 dataset.

⁹ Staff will analyze the region’s attainment date for the 2015 Ozone Standard. It is currently 2021 but may be changed to 2023 or 2024 if the region’s non-attainment designation is changed from “marginal” to “moderate”.

IV. CONSULTATION

The TPB adheres to the specifications of the consultation procedures (as outlined in the consultation procedures report adopted by the TPB on May 20, 1998). The TPB will participate in meetings of the Metropolitan Washington Air Quality Committee (MWAQC), its Technical Advisory Committee (MWAQC-TAC), and its Conformity Subcommittee to discuss the Scope of Work, project inputs, and other elements as needed.

V. WORK TASKS

The work tasks associated with the air quality conformity analysis are as follows:

1. Receive project inputs from programming agencies and organize into conformity documentation listings by:
 - Project type, limits, etc.
 - Phasing with respect to forecast years
 - Transit operating parameters, e.g., schedules, service
2. Update Travel Model Base Transit Service to reflect:
 - Service current to December 2019 (most recent available transit service prior to COVID restrictions)
 - Fares current to March 1, 2021
3. Determine Characteristics of the Motor Vehicle Fleet by Preparing 2020 Vehicle Registration/Vehicle Identification Number (VIN) Data
 - Purchase VIN decoding software
 - Set up and test VIN decoding software
 - Collect and decode VIN data for the District, Maryland, and Virginia
4. Review and Update Land Activity files to reflect Round 9.2 Cooperative Forecasts:
 - Develop zonal data files
 - Ensure consistent definition of employment throughout the modeled area by applying the “employment definition adjustment factors” to the land activity forecasts.
 - Estimate households by auto ownership, size and household income (done as part of the travel model)

- Coordinate with agencies outside the MWCOG Cooperative Forecast area, e.g., the Baltimore Metropolitan Council (BMC), the Fredericksburg Area Metropolitan Planning Organization (FAMPO), and the Calvert-St. Mary's Metropolitan Planning Organization (C-SMMPO).
 - Develop trip tables for exogenous/residual travel: 1) through vehicle trips; 2) external-to-internal and internal-to-external vehicle trip ends; 3) taxi, visitor/tourist and school vehicle trips; and 4) airport-passenger auto-driver trips.
5. Prepare forecast-year highway and transit networks including regionally significant projects, as follows:
 - 2021, 2023, 2025, 2030, 2040, and 2045 highway networks
 - 2021, 2023, 2025, 2030, 2040, and 2045 transit network input files
 - Update highway tolls and transit fares as necessary
 6. Execute travel demand modeling for years 2021, 2023, 2025, 2030, 2040, and 2045
 7. Derive mobile emissions estimates for years 2021, 2023, 2025, 2030, 2040, and 2045 using inputs from the 2008 Ozone NAAQS Maintenance Plan mobile budgets
 8. Summarize key inputs and outputs (VMT, mode share, emissions, etc.) of the conformity determination
 9. Assess conformity and document results in a report
 - Document methods
 - Draft conformity report
 - Forward to technical and policy committees
 - Make available for public and interagency consultation
 - Receive comments
 - Respond to comments and present to TPB for action
 - Finalize report and forward to FHWA, FTA, and EPA

Plan and TIP Update Schedule

2020	12/16/20	The TPB will be asked to approve the Technical Input Solicitation document to initiate the Call for Projects.
	2/12/21	Project inputs for the LRTP and Air Quality Conformity (AQC) analysis due to TPB staff.
2021	3/5/21, 4/2/21	The TPB Technical Committee will review the conformity project inputs table in March and the draft inputs to the Plan and the draft AQC scope of work in April.
	4/2/21-5/3/21	Public comment period on inputs to the Plan/AQC analysis, and AQC scope of work. MWAQC TAC will review this information during the April meeting.
	4/21/2021	TPB will receive a briefing on the draft inputs to the Plan/AQC analysis and the draft AQC scope of work.
	5/19/21	The TPB will receive a summary of the public comments on the draft inputs to the Plan and AQC analysis. The TPB and the agencies sponsoring the projects will have the opportunity to discuss and advise staff on responses.
	6/16/21	The TPB will review responses to comments and updates to inputs to the Plan and scope of work for the AQC analysis. The TPB will be asked to approve the inputs and scope, authorizing staff to begin analysis.
2022	3/11/22	Transportation Improvement Program (TIP) inputs due for the FY 2023-2026 TIP
	4/1/22	The TPB Technical Committee will review the draft results of AQC analysis for the updated Plan and FY 2023-2026 TIP.
	4/1/22 - 5/1/22	Public comment period on the results of AQC analysis Determination for the updated Plan and FY 2023-2026 TIP.
	4/2022	MWAQC and MWAQC TAC will review the draft results of the AQC analysis during their meetings.
	4/20/22	The TPB will review the draft Plan, draft TIP, and AQC analysis and Determination.
	5/18/22	The TPB will review the draft results of the AQC analysis for the Plan and FY 2023-2026 TIP. The TPB will also receive a summary of the comments received on the analysis. The TPB and the agencies sponsoring the projects will have the opportunity to discuss and advise staff on responses to comments.
	6/15/22	The TPB will review the responses to the comments and the results of the AQC analysis. The TPB will be asked to approve the results of the AQC analysis and adopt the updated Plan and the FY 2023-2026 TIP.

ATTACHMENT B - PROJECT INPUTS FOR THE FY2023-2026 TIP & 2022 UPDATE TO THE VISUALIZE 2045 PLAN

2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	ConID	Scenario	Improvement	Facility	From	To	Projected Completion Date
DDOT								
1	5754	613	DCSTHST2	Construct	Benning Road Streetcar Extension	Oklahoma Avenue NE	45th Street/Benning Road Metro	2023 2026
2	6103	793	WATEREXT	Implement	DC Circulator Expansion	Navy Yard Route Realignment	36th St.	2018 Complete
3	6103	794	UHOWEXT	Implement	DC Circulator Expansion	Rosslyn to Dupont Circle Route	Extension to U St./Howard University	2018 2026
4	6103			Implement	DC Circulator Realignment	Potomac Ave.	Skyland	2018 Complete
5	CE3196	822	HIBUS	Implement	H St. NW Peak Period Bus-Only Lanes Pilot Project	19th St NW	14th St NW	2019 Complete
6	CE3196	823	HIBUS	Implement	I St. NW Peak Period Bus Only Lanes Pilot Project	13th St. NW	Pennsylvania Ave. NW	2019 Complete
7	CE3081			Construct	K St. NW Transitway	9th St. NW	21st St. NW	2024 2025
8	CE3081	610	DCSTGTWN	Construct Implement	Union Station/Georgetown Streetcar	K Street/34th Street NW	3rd Street/H Street NE	2030 2040
9	6638	989		Implement	16th St. Bus Priority Improvements	H St. NW	Arkansas Ave NW	2020 2022
10	3212			Implement	H St. and I St Bus lanes Phase 2	13th St. NW	Pennsylvania Ave NW	2021
11	3212	7823		Study	7th St. NW Bus Improvements	Massachusetts Avenue	Pennsylvania Ave.	Not Coded
12	3212	7835		Study	H St. NW Bus Improvements	14th St. NW	North Capitol St.	Not Coded
13	3212	7834		Study	Minnesota Avenue SE Bus Improvements	Pennsylvania Avenue SE	East Capitol Street	Not Coded
14	3212	10614		Study	MLK Ave SE Bus Improvements	Good Hope Road	Redwood Street	Not Coded

NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.

2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	ConID	Scenario	Improvement	Facility	From	To	Projected Completion Date
MDOT/MTA								
15	CE3427	617	MARCFRQ	Implement	Brunswick Line Service Improvements			2029
16	CE3427	618	MARCFRQ	Implement	Camden Line Service Improvements			2029
17	CE1649	481	CCTBRT	Construct	Corridor Cities BRT	Shady Grove	Comsat	2028 2035
18	CE3427	619	MARCFRQ	Implement	Penn Line Service Improvements			2029
19	2795	479	PURPLE	Construct	Purple Line Transitway	Bethesda	New Carrollton	2020 2023
20		480	SSTCTR	Construct	Silver Spring Transit Center	Phase II		2017 complete
Montgomery County								
21		669		Study	Countywide BRT	various corridors		Not Coded
22	CE3662		RANDBRT	Implement	Randolph Road BRT	US 29	MD 355	2040
23	CE3663	5062	NBETHBRT	Implement	North Bethesda Transitway BRT	Montgomery Mall Transit Center	White Flint	2035 2030
24	CE3424		MD355BRT	Implement	MD 355 BRT	MD 410 East-West Highway	Clarksburg Rd.	2045 2030
25	CE3103		VEIRSBRT	Implement	Veirs Mill Road BRT	MD 355 Rockville Pike	MD 97 Georgia Ave.	2030 2025
26	CE3672	982	NHBRT	Implement	New Hampshire Ave. BRT	Colesville Park and Ride	Takoma Metro Station	2045
27	CE3423		29BRT	Implement	US 29 BRT	Burtonsville	Silver Spring Transit Center	2020 Complete

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	ConID	Scenario	Improvement	Facility	From	To	Projected Completion Date
28	CE1249	483	MCT7	Construct	Olney Transit Center	adjacent to or north of MD 108		2045
29	CE1253	487	TIGERVEIR	Construct	Veirs Mill Road Bus Enhancement	Rockville	Wheaton	2020 2021
VDOT								
30		1028		Construct	Long Bridge	Control Point RO (Arlington) Rosslyn (RO) Interlocking near Long Bridge Park in Arlington, Virginia	L'Enfant (LE) Interlocking near 10th Street SW in the District of Columbia	Not Coded 2030
31	CE3758	3680		Construct	VRE 4th Track Project	L'Enfant Interlocking	Virginia Interlocking	2028
32		1029		Construct	Alexandria 4th Track Project	Control Point Rosslyn (CFP RO) near milepost 110.1 south of the George Washington Parkway	Control Point Alexandria (CFP AF) near milepost 104.3 south of Telegraph Road	2025 2028
33		1030		Construct	Franconia to Occoquan 3rd Track Project	One mile north of the Franconia-Springfield VRE station (CFP 98.8)	Approximately 400 feet north of Furnace Road, just north of the Occoquan River (CFP 90.08)	2028
34	CE2420			Construct	Broad Run Expansion- 3rd Track Project	Broad Run	Manassas (Wellington Road)	2025
35	CE2832	504	VREFREQ	Implement	VRE Service Improvements (Reduce Headways) - associated with 3rd and 4th Track Projects	Fredericksburg and Manassas lines		2028 2035
36	CE1942	795	US1VABUS	Widen	US 1 (bus/right-turn lanes)	VA 235 North	SCL Alexandria (I-95 Capital Beltway)	2035

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	ConID	Scenario	Improvement	Facility	From	To	Projected Completion Date
37	CE3521	861		Construct	Crystal City Transitway: Northern Extension - complete dedicated lanes	Crystal City Metro Station	Army Navy Drive Transit Station (Army Navy Dr halfway between Hayes St and Joyce St)	2022
38			MWAYEXT2	Construct	Crystal City Transitway: Southern Extension - complete dedicated lanes	South Glebe Road	Alexandria city line	2025
39			MWAYROW	Construct	Crystal City/Potomac Yard Transitway- realign with dedicated right-of-way	East Glebe Road	Evans Lane	2030
40	CE2685	677		Study	US 1 Corridor Streetcar Conversion	Four Mile Run	Braddock Road	Not Coded
41	CE3013	489	POTYDS	Construct	Metro Station	Potomac Yard		2021 2022
42	CE2188	493		Construct	Park-and-Ride Lot Garage	Springfield CBD	vic. I-95 & Old Keene Mill Road	2022 2023
43	CE2871	670		Construct	Park-and-Ride Lot	Dulles Town Center	300 Spaces	2014 2019 complete
44		499		Construct	Park and Ride Lot	Arcola Center 300 spaces		2015 2024
45	CE1981	503	SILVER 2	Construct	Dulles Corridor Metrorail	Wiehle-Reston East Station	Ashburn Station	2020 2022
46	CE3700	1018	SILVER 2	Construct	Park-and-Ride Garage	Herndon-Monroe Station		2020
47	CE3700	1019	SILVER 2	Construct	Park-and-Ride Garage	Innovation Station	2000+ parking spaces	2020

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	ConID	Scenario	Improvement	Facility	From	To	Projected Completion Date
48	CE2831	629	POTSHRS	Construct	VRE - Potomac Shores Commuter Rail Station	Potomac Shores	Prince William County	2020 2022
49	CE2930	505	VANDBRT	Construct	West End Transitway (City Funded)	Van Dorn Street Metro	Pentagon & Landmark	2026 & 2035
50	CE2930	1034	VANDBRT2	Construct	West End Transitway Phase II (Southern Segment)	Van Dorn Street Metro	Landmark Mall	2026
51	CE3071	507	NRS	Construct	Landmark Transit Center	Duke Street and Van Dorn Street		2023
52	CE2933	508	ALEXBUS	Implement	DASH Service Expansion	citywide		2020 2030
53		820	BELTHOT	Implement	Beltway HOT lanes transit service			2020
54		821	BELTHOT	Implement	Beltway HOT lanes transit service			2030
55	CE2932	509	DUKEBUS	Construct	Duke Street Transitway	King Street Metro	Fairfax County Line	2024 2027
56	CE2695	672		Construct	Leesburg Park and Ride Lot (new location)	Crosstrails Blvd (approx)	300 Spaces	2018
57	CE3357	673		Construct	Sterling Park and Ride Lot		200 Spaces	2014 2019 complete
58		674		Construct	One Loudoun Park and Ride Lot	VA 7 & Loudoun County Parkway	200 Spaces	2019
59	CE3359	675		Study	Western Loudoun Park and Ride Lot		250 Spaces	Not Coded
60	CE3484	797	I66HOTI	Implement	I-66 Corridor Enhanced Bus Service (details shown with project description sheet)	Inside the beltway		2025
61	CE3484	798	I66HOTI	Implement	I-66 Corridor Enhanced Bus Service (details shown with project description sheet)	Inside the beltway		2030 2040

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	ConID	Scenario	Improvement	Facility	From	To	Projected Completion Date
62	CE3448	799	I66HOTO	Implement	I-66 Corridor Enhanced Bus Service (details shown with project description sheet)	Outside the beltway		2021 2022
63	CE3448	800	I66HOTO	Implement	I-66 Corridor Enhanced Bus Service (details shown with project description sheet)	Outside the beltway		2025 2030 & 2040
64	CE3448	801		Construct	I-66 Corridor Park and Ride lot	Haymarket		2021
65	CE3448	802		Construct	I-66 Corridor Park and Ride lot	University Blvd. in Gainesville		2021
66	CE3448	803		Construct	I-66 Corridor Park and Ride lot	Balls Ford Road in Manassas		2021
67	CE3448	804		Expand	I-66 Corridor Park and Ride lot	Prince William Pkwy (Cushing Rd)		2021 2040
68	CE3448	806	NRS	Construct	I-66 Corridor Park and Ride garage	Monument Drive	garage replaces surface lot	2021 2023
69	CE3496	808	US1BRT	Construct	Bus Rapid Transit (BRT)	US 1 Richmond Highway	Huntington Metro to Hybla Valley to Ft. Belvoir to Woodbridge VRE	2030

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

								Facility		Lanes		
	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Fr	To	Fr	To	Completion Date
DDOT												
70	CE2860	605	DI9	Reconstruct	I 295 Interchange at Malcolm X Blvd.	Add above grade ramp connection from NB I-295 off ramp to new St. Elizabeth's Access Road						2020 2022
71	3232	663	DS45	Reduce Capacity	Adams Mill Rd. NW	Kenyon	Klinge			3	2	2016 Complete
72	3232	832	in base	Reduce Capacity - bike lanes	Blair Road NW	Peabody St. NW	Aspen St. NW			3	2	2021
73	3232	705	DS12	Reduce Capacity	Brentwood Parkway NE	6th Street/Penn Street	9th Street			2	1	2016 Complete
74	3232	1008	DS28	Reduce Capacity - bike lanes	Dalecarlia Pkwy NW	Loughboro Road	Westmoreland Circle			4	2	2020 2040
75	6315	567	DP16	Reduce Capacity	East Capitol Street	40th Street	Southern Ave			6	4	2021
76	6195	710		Reduce Capacity	Florida Avenue NE	2nd Street	3rd Street			6	5	2019 2023
77	6195	717	DS13	Reduce Capacity	Florida Avenue NE	3rd Street	West Virginia Avenue			6	4	2019 2023
78	3232	1004	DP41	Reduce Capacity - bike lanes	Florida Ave NE	West Virginia Ave	14th St			3	2	2019 Complete

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
79	3232	860	DS23	Reduce Capacity - bike lanes	Harewood Road NW	Rock Creek Church Road NW	North Capitol Street			2	1	2020-2022
80	CE3653	949	DP37	Reduce Capacity - bike lanes	Irving Street NE/NW	Michigan Avenue NE	Warder Street NW			6	4	2020 Completed
81	3212	7839	DS39	Reduce Capacity - bike lanes	Kenyon St NW, Irving, St NW and Michigan St NE Protected Bike Lanes	Warder St NW	4th St NE	3	3	8	6	2020 Completed
82	3232	835	DP22	Reduce Capacity - bike lanes	Louisana Avenue NW	Columbus Circle NE/ Mass Ave NE	Constitution Avenue NW			4	3	2020-2040
83	CE3075 6014	585	DS6	Reduce Capacity	Maryland Ave. NE	6th St. NE	15 St. NE			4	2	2019-2021
84	3212	7824	DS41	Reduce Capacity - Bus Lanes	Martin Luther King Jr. Ave SE	W Street	Redwood Street	3	3	4	2	2020 Completed
85	3232	1006	DS30	Reduce Capacity - bike lanes	Mount Olivet Rd NE	Brentwood	West Virginia Ave			4	3	2020-2022
86	3232	1010	DP40	Reduce Capacity - bike lanes	Nebraska Ave NW	New Mexico Ave	Loughboro Road			4	3	2020-2022
87	CE3399	608		Reconstruct	New Jersey Avenue NW 1-way to 2-way	H Street NW	N Street NW					2020-2021

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
88	CE3081	842	DS26	Reduce Capacity - Streetcar	New Jersey Avenue NW	H St NW	K Street NW			3 lanes 1-way	1 lane each 2-way	2030 2040
89	3232	707	NRS	Reduce Capacity	New Jersey Avenue NW	H Street	Louisiana Ave			4	2	2020 2021
90	3212	7836	DS42	Reduce Capacity -	Park Place/5th Street NW	Grant Circle	Kenyon St NW	3	3	2	1	2022
91	CE3447	712	DS15	Reduce Capacity	Pennsylvania Avenue NW	17th Street	18th Street			6	4	2021 2025
92	CE3447	713	DS14	Reduce Capacity	Pennsylvania Avenue NW	18th Street	20th Street			5	4	2020 2025
93	CE3447	714	DS18	Reduce Capacity	Pennsylvania Avenue NW	20th Street	26th Street			6	4	2021 2040
94	CE3447	715	DS16	Reduce Capacity	Pennsylvania Avenue NW	26th Street	28th Street			5	4	2021 2040
95	CE3447	716	DS17	Reduce Capacity	Pennsylvania Avenue NW	28th Street	29th Street			4	2	2021 2040
96	CE3654	947	DP35	Reduce Capacity - bike lanes	Pennsylvania Ave SE	2nd Street SE	14th Street SE	2	2	6	4	2020 2023
97	3232	1009	DP36A	Reduce Capacity - bike lanes	Pennsylvania Ave SE	2nd St	17th St.			8	6	2021
98	CE3654	948	DP36	Reduce Capacity - bike lanes	Pennsylvania Ave SE	14th Street SE	Barney Circle			8	6	2020 2024

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
99	3423	541	DP9A	Widen	South Capitol Street Corridor: Frederick Douglas Bridge	Independence Avenue (East)	Martin Luther King, Jr. Blvd. (west)	2	2	5	6	2021 2025
100	5803	542	DP9C	Construct	South Capitol Street Intersection	at Potomac Avenue						2021 2022
101	6114	609		Reduce Capacity	South Capitol Street	Firth Sterling Ave.	Southern Ave Maryland state line			5	4 5	2015 -2022
102	6038	543	DP9D	Construct	Suitland Parkway interchange	at Martin Luther King, Jr. Boulevard to complete movements						2021
103	3212	7825	DS43	Reduce Capacity -	Virginia Ave NW	Rock Creek and Potomac Pkwy NW	18th St NW	3	3	6	5	2021
104	3212	7837	DS44	Reduce Capacity - bike lanes	Warder Street/7th Street NW	Kenyon St NW	New Hampshire Ave NW	4	4	2	1	2022
105	3232	709	DS19	Reduce Capacity	Wheeler Road SE	Alabama Avenue	Southern Avenue			4	2	2020 2021
106	CE3077	558	DP42	Reduce Capacity	C Street/N. Carolina Avenue	Oklahoma Avenue	14th Street NE			5	3	2020 -2022

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
107	CE2813	604	DS32	Construct	F Street NW	2nd Street NW	3rd Street NW			0	2	2018-2019 Complete
108	CE3081	841	DP25	Reduce Capacity - Streetcar	H Street NE/NW	3rd Street NE	New Jersey Ave NW			6	4	2030-2040
109	3212	1111 6	DP43A	Reduce Capacity Bus Lanes	H Street NW	Pennsylvania Ave	Connecticut Ave	2	2	4	3	2021
110	3212	1111 7	DP43B	Reduce Capacity Bus Lanes	H Street NW	Connecticut Ave	Vermont Ave	2	2	4	2	2021
111	3212	1111 8	DP43C	Reduce Capacity Bus Lanes	H Street NW	Vermont Ave	15th Street	2	2	4	3	2021
112	3212	1111 9	DP43D	Reduce Capacity Bus Lanes	H Street NW	15th Street	14th Street	2	2	3	2	2021
113	CE3196	582	DS27	Reduce Capacity	H St. NW Peak Period Bus-Only Lanes Pilot Project	19th St NW	14th St NW	3	3	5	4	2019 Complete
114	CE3196	583	DP38	Reduce Capacity	I St. NW Peak Period Bus Only Lanes Pilot Project	13th St. NW	Pennsylvania Ave. NW	2	2	4	3	2019 Complete
115	3212	1112 0	DP44A	Reduce Capacity Bus Lanes	I Street NW	13th Street	14th Street	2	2	3	2	2021
116	3212	1112 1	DP44B	Reduce Capacity Bus Lanes	I Street NW	16th Street	Connecticut Ave	2	2	3	2	2021

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
117	3212	1112 2	DP44C	Reduce Capacity Bus Lanes	I Street NW	17th Street	18th Street	2	2	3	2	2021
118	3212	1112 3	DP44D	Reduce Capacity Bus Lanes	I Street NW	19th Street	20th Street	2	2	3	2	2021
119	CE3652	946	DP34	Reduce Capacity - bike lanes	K Street NW	3rd Street NW 7th St NW	1st Street NE			6-4	4-2	2020 2021
120	CE3081	844	DP26A	Reduce Capacity - Streetcar	K Street NW	New Jersey Avenue NW	7th Street NW			3	2	2030 2040
121	CE3081	845	DP27	Reduce Capacity - Transitway	K Street NW	9th Street NW	12th St NW			4	2	2021 2025
122	CE3081	846	DP28	Reduce Capacity - Transitway	K Street NW	12th St NW	21st St NW			6	4	2021 2025
123	CE3081	847	DP29	Reduce Capacity - Streetcar	K Street NW	21st St NW	25th Street NW			4	2	2030 2040
124	CE3081	848	DP30	Reduce Capacity - Streetcar	K Street NW	25th Street NW	29th Street NW			6/4	4	2030 2040
125	CE3081	849	DP31	Reduce Capacity - Streetcar	K Street NW	29th Street NW	Wisconsin Avenue NW			4	2	2030 2040

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
126	3232	1007	DS29	Reduce Capacity - bike lanes	K St NE	1st St	8th St			3	2	2019 Complete
127	3212	1067 5	DS40	Reduce Capacity - Bus Lanes	M Street SE	10th Street	Half Street	3	3	6	4	2020 Completed
128	3232	1005	DS31	Reduce Capacity - bike lanes	M St SE	Half St	11th St			6	5	2020 2022
129	3232	701	DS8	Reduce Capacity	6th Street NE	Florida Avenue	K Street			2	1	2016 Complete
130	3232	829	DS21	Reduce Capacity - bike lanes	6th Street NW	Constitution Avenue	Massachusetts Avenue			6 peak-4 offpeak	4 peak-2 offpeak	2019-2030
131	3232	830	DS22	Reduce Capacity - bike lanes	6th Street NW	Massachusetts Avenue	Florida Ave NW			4	2-3	2019-2030
132	3232	702	DS9	Reduce Capacity	7th Street NW	New York Avenue	N Street			4	2	2016-2021
133	3232	1013	Within DP39	Reduce Capacity - bike lanes	9th St NW	New York Avenue NW	H Street NW			3	2	2030
134	3232	1013 831	NRS	Reduce Capacity - bike lanes	9th St NW	Massachusetts Ave	Florida Ave			4	2 3	2019-2030

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
135	3232	1012	DP39	Reduce Capacity - bike lanes	9th St NW	Constitution Ave	Massachusetts Ave			6/4	4/2	2019-2030
136	3232	704	DS11	Reduce Capacity	14th Street NW	Florida Avenue	Columbia Road			4	2	2016 Complete
137	3212	7820	DS35	Reduce Capacity - bike lanes	15th Street Cycletrack	Pennsylvania Ave NW	East Basin Dr. SW	3	3	4	3	2021
138	6638	839	DP23	Reduce Capacity - Bus Priority	16th Street NW	Arkansas Avenue NW	Columbia Road NW			6	4	2020-2022
139	6638	840	DP24	Reduce Capacity - Bus Priority	16th Street NW	Columbia Road NW	W Street NW			5	4	2020-2022
140	6638	838	NRS	Reconstruct	16th Street NW	W Street NW	H Street NW			4	4	2022
141	CE3651 3212	944	DP32	Reduce Capacity - bike lanes	17th Street NW	New Hampshire Avenue	K St. NW	3	3	2	1	2020-2021
142	3212	7821	DS37	Reduce Capacity - bike lanes	20th St. NW Bike Lanes	G St.	Massachusetts Ave.	4	4	4	2	2022
143	3212	7827	DS38	Reduce Capacity - bike lanes	21st St. NW	Constitution Ave NW	Massachusetts Ave NW	3	3	3	2	2021

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

								Facility		Lanes		
	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Fr	To	Fr	To	Completion Date
MDOT												
		Interstate										
144		126	MI2Q	Construct	I 270 Interchange	at Watkins Mill Road		1	1	8	8	2020
145	6432 CE1186	125	MI2U1	Construct/Wi den	I 270 Toll Lanes	I 495	I 270Y on the entire western spur, and on the eastern spur from MD187 north to the main I-270	1	1	4 + 2 HOV	4 + 4 HOT +2 HOV +4 ETL	2025
146	6432 CE1186	892	MI2U2	Construct/Wi den	I 270 Toll Lanes	I 270Y	I 370	1	1	10 + 2 HOV	10 + 4 HOT +2 HOV +4 ETL	2025
147	6432 CE1186	893	MI2U3	Construct/Wi den	I 270 Northbound Toll Lanes	I 370	Middlebrook Road	1	1	3 + 1 HOV NB	3 + 2 HOT NB ETL	2025-2030
148	6432 CE1186	893	MI2U4	Construct/Wi den	I 270 Southbound Toll Lanes	Middlebrook Road	I-370	1	1	4 SB	4 + 2 HOT SB +2 ETL	2025-2030
149	6432 CE1186	894	MI2U5	Construct/Wi den	I 270 Northbound Toll Lanes	Middlebrook Road	MD 121	1	1	2 + 1 HOV NB	2 + 2 HOT NB +1 HOV NB +2 ETL	2025-2030

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
150	6432 CE1186	894	MI2U6	Construct/Widen	I 270 Southbound Toll Lanes	MD 121	Middlebrook Road	1	1	3 SB	3 + 2 HOT SB + 2 ETL	2025-2030
151	6432 CE1186	895	MI2U7	Construct/Widen	I 270 Toll Lanes	MD 121	I 70 / US 40	1	1	4	4 + 4 HOT + 4 ETL	2025-2030
152	6444	952	MI2TSB6	Construct	I270 southbound auxiliary lane (innovative congestion management)	South of Shady Grove Rd local slip ramp	South of Shady Grove Rd express lanes slip ramp	1	1			2019 complete
153	6444	953	MI2TSB7	Construct	I270 southbound auxiliary lane (innovative congestion management)	Md 28 on-ramp	MD 189 off-ramp	1	1			2019 2021
154	6444	954	MI2TSB8	Construct	I270 southbound (innovative congestion management)	MD 189 on-ramp	Montrose Road off-ramp	1	1			2019 complete
155	6444	955	MI2TSB1 2	Construct	I270 southbound (innovative congestion management)	North of Montrose Road	Democracy Boulevard	1	1			2019 complete
156	6444	956	MI2TNB1	Construct	I270 northbound (innovative congestion management)	Democracy Boulevard on-ramp	North of Montrose Road slip ramp to local lanes	1	1			2019 complete

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
157	6444	957	MI2TNB2	Construct	I270 northbound auxiliary lane (innovative congestion management)	MD 189 on-ramp	MD 28 off-ramp	1	1			2019 2021
158	6444	958	MI2TNB2	Construct	I270 northbound auxiliary lane (innovative congestion management)	South of MD 28 slip ramp to express lanes	North of MD 28 slip ramp to local lanes	1	1			2019 2021
159			MI2TNB3	Construct	I270 northbound (innovative congestion management)	Shady Grove Road	I-370 off-ramp	1	1			2019
160			MI2TNB4	Construct	I270 northbound (innovative congestion management)	MD 124 on-ramp	Watkins Mill Road off-ramp	1	1			2019
161			MI2TNB4	Construct	I270 northbound auxiliary lane (innovative congestion management)	Watkins Mill Road on-ramp	Middlebrook Road westbound off-ramp	1	1			2019
162	6444	962	MI2TNB5	Construct	I270 northbound (innovative congestion management)	MD 121	Comus Road Bridge	1	1			2019 2021 complete
163		210	MI4	Widen	I 70	Mt. Phillip Road	West of I 270	1	1	4	6	2035
164	CE2250	151	MI4a	Reconstruct	I 70	at MD 144FA, Meadow Road, and Old National Pike		1	1	6	6	2025 2022
165				Study	I-295 Toll Lanes-planning study	US 50	I-95 (in Baltimore)					Not Coded

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
166	CE1479	108	MI1P MI1PR	Construct	I-95/I-495	at Greenbelt Metro Station		1	1	8	8	2030
167	6432 CE3281	696	MI1Q	Construct/Widen	I 495 Toll Lanes	Virginia State line/Potomac River (including American Legion Bridge)	I 270Y - western spur	1	1	8/10	8/10 + 4 ETL-HOT	2025
168	6432 CE3281	856	MI1R	Construct/Widen	I 495 Toll Lanes	I 270Y - western spur	MD 355	1	1	6	6 + 4 ETL-HOT	2025
169	6432 CE3281	905	MI1S	Construct/Widen-Study	I 495 Toll Lanes	MD 355	I 95	1	1	8	8 + 4 ETL-HOT	2025 2030-not coded
170	6432 CE3281	906	MI1T	Construct/Widen-Study	I 95 / I 495 Toll Lanes	I 95	Baltimore Washington Parkway	1	1	8	8 + 4 ETL-HOT	2025 2030-not coded
171	CE1182	907	MI1U	Construct/Widen-Study	I 95 / I 495 Toll Lanes	Baltimore Washington Parkway	Glenarden Parkway	1	1	8	8 + 4 ETL-HOT	2025 2030-not coded
172	CE1182	908	MI1V	Construct/Widen-Study	I 95 / I 495 Toll Lanes	Glenarden Parkway	MD 202F	1	1	10	10 + 4 ETL-HOT	2025 2030-not coded

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
173	CE1182	909	MI1W	Construct/Widen Study	I 95 / I 495 Toll Lanes	MD 202F	Potomac River (not including Wilson Bridge)	1	1	8	8 + 4 ETL-HOT	2025 2030-not coded
		Primary										
174	3108	139	MP10A	Reconstruct	US 1	College Avenue	MD 193	2	2	4	4	2023
175	CE1202	935 936	NRS	Reconstruct	US 1	MD 193	I 95 / I 495	2	2	4	4	2030 2035
176	CE1200	370	MP9	Widen	MD 2/4 Solomons Island Road	North of Stoakley Road/Hospital Drive	South of MD 765A (south junction) just south of Parkers Creek	2	2	4	6	2040 2045
177	CE1200	913	NRS	Construct	MD 2 / MD 4 Interchange	at Stoakley Road/Hospital Drive and at MD 765A (south junction)		2	5	4	6	2040 2045
178	CE2246	645	NRS	Reconstruct	MD 4 Interchange	at MD 235		2	2	2	2—4	2031
179		127	MP2C	Widen	MD 3 Robert Crain Highway	I595/US 50/US 301	Anne Arundel County Line	2	2	4	6	2035
180	CE1194	355	NRS	Construct	MD 4	at Westphalia Road		2	5	4	6	2040
181	3547	393	NRS	Construct	MD 4 Pennsylvania Avenue	at Suitland Parkway		5	5	4	4	2020
182	CE1194	933	NRS	Construct	MD 4 Interchange	at Dower House Road		5	5	4	6	2040
183	CE1194	212	MP3A	Widen	MD 4 Pennsylvania Avenue	I-95/I-495	MD 223	5	5	4	6	2040

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
184	CE1196 3469	440	NRS	Construct	MD 5	at Earnshaw/Burch Hill Roads		2	5	4	6	2030 2035
185	3469 CE1196	205	MP4F	Widen/Upgrade	MD 5 Branch Avenue	US 301 at T.B.	North of I95 / I 495	2	5	4	6	2030 2035
186		354	NRS	Construct	MD 5	at MD 373 and Brandywine Road		2	5	4	6	2019
187	3469 CE1196	441	NRS	Construct	MD 5 Branch Avenue	at Surratts Road		2	5	4	6	2030 2035
188	CE3567	914	MP15B	Construct/Widen	US 15	MD 26	North of Biggs Ford Road	5	5	4	6	2045 2040
189	CE3566	915	MP15A	Construct/Widen	US 15	US 340 / South Jefferson Street	MD 26	5	5	4	6	2030
190	CE913	358	MP15	Construct	US 15 Interchange	at Monocacy Blvd./Christophers Crossing		3	3	4	4	2019 2018 complete
191	3641 CE1197	211	NRS	Construct	US 29 Columbia Pike	at Musgrove/Fairland Road				6	6	2035
192	CE1197	551		Construct	US 29 Columbia Pike	at Tech Road / Industrial Road		5	5	6	6	2030
193	CE1197	552, 919, 918	MP19A MP19B MP19C	Construct	US 29 Columbia Pike Interchange	at Stewart Lane, Greencastle Road, & Blackburn Road		5	5	6	6	2045
194		647	MP5e NRS	Study	US 29 Columbia Pike	North of MD 650 New Hampshire Avenue	Howard County Line	5	5	6	6	2045
195	CE3425	941	NRS	Reconstruct	US 50	District of Columbia line	I 95 / I 495	2	2	4	4	2035

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
196	CE1210	858	FP2B	Widen	MD 85	South of English Muffin Way	Crestwood Drive/Shockley Drive	2	2	2/4	4	2035
197	6483	391	FP2A	Construct/Widen	MD 85 Buckeystown Pike	Crestwood Drive/Shockley Drive	Spectrum Drive	2	2	4	6	2022
198	CE1210	859	FP2C	Construct/Widen	MD 85 Buckeystown Pike	Spectrum Drive	North of Grove Road	2	2	4	6	2035
199	CE1190	387	MP14	Reconstruct	MD 202	at Brightseat Road		2	2	6	6	2045
200	4879	353	NRS	Upgrade	MD 210	at Kerby Hill Road/Livingston Road		5	5	6	6	2021
201	4879	124	MP6D	Upgrade	MD 210 Indian Head Highway	I-95/495	MD 228	2	5	6	6	2040
202	5527	384	MP18	Construct	US 301 Gov. Nice Bridge	Charles County, MD	King George County, VA	2	2	2	4	2023
203	CE1004	940	MP8E	Widen	US 301	Harry Nice Bridge	I-595 / US 50	2	5	4/6	6	2045
204	CE2239	939	NRS	Reconstruct	US 301 Interchange	at MD 5 Business/MD 228		2	5	6	6	2030 2040
205	CF2239	938	NRS	Reconstruct	US 301	at MD 5 (south junction)		2	5	6	6	2030 2035
206	CE1619	937	NRS	Construct	US 301 Interchange	at MD 197		5	5	6	6	2030 2035
Secondary												
207	3476 CE1462	206	MS2F	Widen	MD 28 Norbeck Road	MD 97	MD 182	2	2	2	2-4	2045
208	3476 CE1462	925	NRS	Reconstruct	MD 28 Norbeck Road	MD 182	Norwood Road	2	2	4	4	2045

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
209	3476 CE1462	926	NRS	Reconstruct	MD 198	Norwood Road	MD 650	2	2	2	2	2045
210	3476 CE1462	927	NRS	Reconstruct	MD 198	MD 650	Old Columbia Pike	2	2	2	2	2045
211	3476 CE1462	928	NRS	Reconstruct	MD 198	Old Columbia Pike	US 29A	2	2	4	4	2045
212	3476 CE1462	929	NRS	Reconstruct	MD 198	US 29A	I 95	2	2	4	4	2045
213	3106	137	MP12C	Construct	MD 97 Brookeville Bypass	Gold Mine Road	North of Brookville	0	2	0	2	2021
214	CE2618	931	NRS	Widen Reconstruct	MD 97	MD 390	MD 192 / Forest Glen Road	2	2	6/7	7/8 6/7	2025 2030
215	CE1211	392	NRS	Upgrade	MD 97 Georgia Avenue Interchange	at MD 28 Norbeck Road		2	2	6	6	2035
216		135	NRS	Upgrade	MD 97 Georgia Avenue Interchange	at Randolph Road		2	2	6	6	2018
217	CE1203	115	MS32	Widen Reconstruct	MD 117 Clopper Road	I270	Metropolitan Grove Road	2 3	2 3	2/4 4	4	2030
218	CE1203	921	NRS	Reconstruct	MD 117 Clopper Road	Metropolitan Grove Road	West of Game Preserve Road	3	3	2/4 2	2/4 3	2030 2035

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
219	3057 CE1206	118	MS6B	Widen	MD 124 Woodfield Road	Midcounty Highway	South of Airpark Drive	3	3	2	6	2035
220	3057 CE1206	1	MS6D	Widen	MD 124 Woodfield Road	North of Fieldcrest Road	Warfield Road	3	3	2	6	2035
221	CE2253	356	MS35	Widen	MD 197 Collington Road	MD 450	Kenhill Drive	2	2	2	4	2025 2030
222	CE2261	924	MS36A	Construct/Widen	MD 180	Greenfield Drive	I 70 (west junction)	4	4	2	4	2030-2035
223		857	MS36B	Construct/Widen	MD 180	I 70 (west junction)	Ballenger Center Drive	4	4	2/4	4	2021
224	CE1204	359	MS10B	Widen	MD 201 Edmonston Rd. / Old Baltimore Pike	Cherrywood Lane	Ammendale Way	3	3	2/3	4	2045
225	CE1204	965	MS10E	Construct/Widen	MD 201 Extended (Cedarhurst Dr.)	Muirkirk Road	US 1	3	3	2	4	2045
226	CE2248	942	NRS	Reconstruct	MD 223	MD 4	Steed Road	3	3	2	2	2045
227	CE1207	175	MS18D	Widen	MD 450 Annapolis Road	Stonybrook Drive	west of MD 3	2	2	2	4	2020 2030
228		516	same as MC15B	Construct	Montrose Parkway	Randolph Road	East of Parklawn Drive	0	2	0	4	2020
229	6384	152	BRAC nrs	Reconstruct	BRAC Intersection Improvements near the National Naval Medical Center, Bethesda			2	2			2020 complete
Frederick County												
		Secondary										

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
230		648	MS36C	Widen/Upgrade	MD 180 Ballenger Creek Pike	Ballenger Center Drive	Corporate Drive	3	2	2	4	2020
231		993	in FS3	Widen/Upgrade	Christopher's Crossing	Whittier Drive	Poole Jones Road	3	3	2	4	2024
232		880	FS3	Expansion	Christopher's Crossing	Walter Martz Road	Thomas Johnson Drive	3	3	0 to 2	4	2020
233		879	NRS	Construct	Christopher's Crossing	Shookstown Road	Rocky Springs Road	3	3	0	4	2026
234		651	FS2a	Widen	Monocacy Boulevard	Schifferstadt Boulevard	Gas House Pike	3	3	2	4	2019
235		691	NRS	Construct	Spectrum Drive	Technology Way	MD 85 Buckeystown Pike	0	4	0	2	2030

Montgomery County

Secondary

236	3498	208	NRS	Construct	Burtonsville Access Road	MD 198 Spencerville Road	School Access Road in Burtonsville	0	4	0	2	2025
237	5944	597	NRS	Construct	Century Boulevard	Current terminus south of Oxbridge Tract	Intersection with future Dorsey Mill Road	0	3	0	4	2020 2013 Completed
238	CE1577	199	MC43	Construct	Dorsey Mill Road Bridge over I-270	Century Blvd.	Milestone Center Dr.	0	3	0	4	2020 2030
239	3049	112	MC7A	Widen	Goshen Road South	South of Girard Street	1000 feet north of Warfield Road	3	3	2	4	2025-2030
240				Widen	Little Seneca Parkway	MD355	Observation Drive	3	3	2	4	2035
241	CE1245	172	MC11A	Construct	M-83 MidCounty Highway Extended	MD 27 Ridge Road	Middlebrook Road	0	2	0	4-6	2025-2045

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
242	CE1245	204	MC11D	Construct	M 83 Midcounty Highway Extended	Middlebrook Road	Montgomery Village Avenue	0	2	0	4-6	2025-2045
243		113	MC12F	Widen	MD 118 Germantown Road Extended	MD 355	M 83 at Watkins Mill Road	2	2	3	4	2020
244	CE1229	161	MC14G	Widen	Middlebrook Road Ext.	MD 355	M 83	2	2	3	4	2025-2045
245	3703	214	MC15B	Construct	Montrose Parkway East	Eastern Limit of MD 355/Montrose Interchange	Veirs Mill Road/Parkland Road Intersection	0	2	0	4	2022-2045
246	7503			Construct	Extend Observation Drive	Waters Discovery Lane	West Old Baltimore Road	0	3	0	4	2035
247	7503			Construct	Extend Observation Drive	Little Seneca Parkway	Existing Observation Drive near Stringtown Road	0	3	0	2	2045
248	CE2912 5948	428	NRS	Construct	Platt Ridge Drive Extended	Jones Bridge Road	Montrose Driveway			0	2	2018 Completed
249	CE1236	119	MC34	Widen	Snouffer School Road	MD 124 Woodfield Road	Centerway Road	3	3	2	4	2019-2021
		Urban										
250	5985	421	NRS	Construct	Executive Blvd Extended East	MD 355 Rockville Pike	New Nebel Street Extended			0	4	2020-2026
251	5985	422	NRS	Construct	Executive Blvd Extended West	MD 187 Old Georgetown Road	Marinelli Road			0	4	2020-2026
252	5986	424	NRS	Construct	Hoya Street	Executive Blvd	Montrose Parkway			0	4	2020-2030
253	5986	425	NRS	Construct	Main Street / Market Street	MD 187 Old Georgetown Road	MD 355 Rockville Pike			0	2	2020-2030

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
254	5986	423		Construct	MD 187 Old Georgetown Road	MD 187 Old Georgetown Road	Nicholson Lane/Tilden Lane			0	6	2020 2030
Prince George's County												
		Secondary										
255	6367	361	PGS3a	Widen	Addison Road	Walker Mill Road	MD 214 Central Avenue	3	3	2	4	2023 2026
256	6367	362	NRS	Reconstruct	Addison Road	Sherieff Road	MD 704	4	4	2	2	2025 2028
257	CE1270	386	PGS5	Construct	Allentown Road Relocated	MD 210 Indian Head Highway	Brinkley Road		3		4	2025 2028
258	CE1320	365	PGS73	Widen	Ardwick-Ardmore Road	MD 704	91st Ave.	4	4	2	4	2025 2030
259	CE1272	388	PGS9a	Widen	Bowie Race Track Road	MD 450 Annapolis Road	Old Chapel Road Clearfield Road	4	4	2	4	2025 2024
260	CE1272	389	PGS9b	Widen	Bowie Race Track Road	MD 197 Laurel Bowie Road	Old Chapel Road	4	4	2	4	2025
261	CE1273	390	PGS10	Widen	Brandywine Road	Piscataway Road (north of)	Thrift Road	4	4	2	4	2020
262	CE1274	418	PGS12	Widen	Brinkley Road	MD 414 St. Barnabas Road	MD 337 Allentown Road	3	3	4	6	2020
263	CE1275	434	PGS13	Construct	Brooks Drive Extended	Marlboro Pike	Rollins Avenue	0	3	0	4	2020
264	CE1277	140	PGS16a	Construct	Campus Way North	Lake Arbor Way	south of Lottsford Road	0	4	0	4	2023
265	CE1277	138	PGS16b	Construct	Campus Way North Extended	south of Lottsford Road	Evarts Drive	0	4	0	4	2020

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
266	CE1278	141	PGS17	Widen	Cherry Hill Road	Powder Mill Road	Selman Road	3	3	2	4	2019 Complete
267	CE1279	142	PGS18	Widen	Church Road	Woodmore Road	Central Ave. (MD 214)	4	4	2	4	2021 2028
268	CE1280	144	PGS20b	Widen	Columbia Park Road	US 50	Cabin Branch Road	4	4	2	4	2020 2014 Complete
269	CE1280	143	PGS20a	Widen	Columbia Park Road	Cabin Branch Road	Columbia Terrace	4	4	2	4	2020
270	CE1281	145	PGS21a	Widen	Contee Road	US 1	MD 201 Virginia Manor Road	4	4	2	4	2018 Complete
271	CE1282	146	PGS22	Widen	Dangerfield Road	Cheltenham Avenue	MD 223 Woodyard Road	4	4	2	4	2020
272	CE1283	147	PGS24b	Widen	Dower House Road	Foxley Road	MD 4 Pennsylvania Avenue	4	4	2	6	2025
273	CE1283	155	PGS24a	Widen	Dower House Road	MD 223 Woodyard Road	Foxley Road	4	4	2	4	2025
274	CE1284	156	PGS25	Widen	Fisher Road	Brinkley Road	Holton Lane	4	4	2	4	2025
275	CE1285	157	NRS	Construct	Forbes Boulevard Extended	south of Amtrak	MD 193 Greenbelt Road	0	4	0	4	2020
276	CE1287	159	PGS29	Widen	Fort Washington Road	Riverview Road	MD 210 Indian Head Highway	4	4	2	4	2025
277	CE1288	160	PGS30b	Widen	Good Luck Road	Cipriano Road	MD 193 Greenbelt Road	4	4	2	4	2025

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
278	CE1288	162	PGS30a	Widen	Good Luck Road	MD 201 Kenliworth Avenue (east of)	Cipriano Road	4	4	2	4	2025
279	3132	164	PGS34a	Widen	Hill Road	MD 214 Central Avenue- Consideration Lane	MD 704 ML King Jr Highway	4	4	2	4	2018 complete
280	3132	163	PGS34B	Widen	Hill Road	Consideration Lane	MD 214 Central Avenue	4	4	2	4	2018 2028
281	CE1015	416	NRS	Construct	Iverson Street Extended	Wheeler Road	19th Avenue	0	4	0	4	2018
282	CE3438	666	PGS35	Widen	Karen Boulevard	Walker Mill Road	MD 214 Central Avenue	4	4	2	4	2020
283	5806	165	PGS38b	Widen	Livingston Road	Piscataway Creek	Farmington Road	4	4	2	4	2020 2025
284	CE1291	417	PGS38a	Widen	Livingston Road	MD 210 Indian Head Highway at Eastover	Kerby Hill Rd.	4	3	2	4	2025 2028
285		213	PGS40a	Widen	Lottsford Road	Archer Lane	MD 193 Enterprise Road	3	3	2	4	2021
286			PGS40b	Reduce Capacity - bike lanes	Lottsford Road	MD 202 (Landover Rd.)	Largo Dr. West	3	3	6	4	2020
287	CE1292	166	PGS39b	Widen	Lottsford Vista Road	MD 704 ML King Jr Highway	Ardwick-Ardmore Road/Relocated	4	4	2	4	2020

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
288	CE1295	360	PGP4a	Construct	MD 193 Greenbelt Road	Baltimore-Washington Parkway (ramp to)		0	5	0	4	2025
289	CE1294	167	PGS42	Widen	MD 223 Woodyard Road	Rosaryville Road	Dower House Road	2	2	2	4	2020-2017 Complete
290	CE1294	2	PGS42C	Widen	MD 223 Woodyard Road Relocated	Piscataway Creek/Floral Park Road	MD 4 /Livingston Road	3	3	2	4	2017
291	CE1295	169	PGS44b	Widen	Metzerott Road	Adelphi Road	MD 193 University Boulevard	4	4	2	4	2020
292	CE1295	168	PGS44a	Widen	Metzerott Road	MD 650 New Hampshire Avenue	Adelphi Road	4	4	2	4	2020
293	CE1296	171	PGS46	Widen	Murkirk Road	US 1 Baltimore Avenue (west of)	Odell Road	4	4	2	4	2020
294	CE1297	173	PGS47	Widen	Oak Grove and Leeland Roads	MD 193 Watkins Park Road	US 301 Robert Crain Highway	4	4	2	4	2020 2028
295	CE1298	174	PGS48	Widen	Old Alexandria Ferry Road	MD 223 Woodyard Road	MD 5 Branch Avenue	4	4	2	4	2025
296	CE1299	649	PGS50	Widen	Old Branch Avenue	MD 223 Piscataway Road (north of)	MD 337 Allentown Road	4	4	2	4	2020 2028
297	CE1533	395	PGS90	Construct	Old Fort Road Extended	MD 223 Piscataway Road	Old Fort Road	4	4	0	4	2020
298		369	PGS51a	Widen	Old Gunpowder Road	Powder Mill Road	Greencastle Road	3	3	2	4	2018
299	CE1324	193	PGS81	Construct	Presidential Parkway	Suitland Parkway	Melwood Road	0	3	0	6	2025 2020 Complete
300	CE1301	150	NRS	Reconstruct	Rhode Island Avenue	MD 193	US Route 1	4	4	2	2	2025

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
301	CE1302	176	PGS56a	Widen	Ritchie-Road/Forestville Road	Alberta Drive	MD 4 Pennsylvania Avenue	3	3	2	4	2020
302	CE2623	153	PGS55b	Widen	Ritchie-Marlboro Road	White House Road	Old Marlboro Pike	2	2	2	4	2020 2028
303	CE1303	177	PGS57	CE1197}	Rollins Avenue	MD 214 Central Avenue	Walker Mill Road	4	4	2	4	2020
304	CE1304	178	PGS58	Widen	Rosaryville Road	US 301	MD 223 Woodyard Road	3	3	2	4	2020
305	CE1305	179	PGS60B	Widen	Spine Road	MD 5 Branch Avenue / US 301	MD 381 Brandywine Road	3	3	2	4	2025 2020 Complete
306	CE1306	109	PGS61	Widen	Springfield Road	Lanham-Severn Road	Good Luck Road	4	4	2	4	2020
307	CE1307	122	PGP2-NRS	Construct	Suitland Parkway Interchange at	Rena/Forestville Roads		5	5			2025 2021 Complete
308	CE1309	181	PGS63	Widen	Sunnyside Avenue	US 1	MD 201 Kenilworth Avenue	4	4	2	4	2022
309	CE1313	185	PGP5a	Construct	US 50 Columbia Park Road Ramp	wb ramp to Columbia Park Rd						2025 2014 Complete
310	CE1314	187	PGS67a	Widen	Van Dusen Road	Contee Road	MD 198 Sandy Springs Road	3	3	2	4	2020
311	CE1314	186	PGS67b	Construct	Van Dusen Road Interchange at	Contee Road		-	-			2025
312		188	PGS68	Widen	Virginia Manor Road	Muirkirk Road	Old Gunpowder Road	4	4	2	4	2014
313	CE1316	429	PGS69a	Widen	Walker Mill Road	Silver Hill Road	I 95	3	3	2	4	2020-2028

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
314	CE2624	154	PGS91	Widen	Westphalia Road	MD 4 Pennsylvania Avenue	Ritchie-Marlboro Road	2	2	2	4	2020-2028
315	3166	189	PGS70	Widen	Wheeler Road	DC Limits	St. Barnabas Road	3	3	2	4	2018 complete
316	CE1318	437	PGS71	Widen	White House Road	Ritchie-Marlboro Road	MD 202 Largo-Landover Road	3	3	2	6	2020
317	CE1319	190	PGS72	Widen	Whitfield Chapel Road	CE1319	Ardwick-Ardmore Road	4	4	2	4	2020
318		436	PGS40b	Construct	Woodmore Road	MD 193 Enterprise Road	Church Road	3	3	2	4	2025
Anne Arundel County												
319			AA14C	Widen	US 50 EB only	MD 70	MD 2 NB	1	1	6	7	2019 complete
320			AA14D	Widen	US 50	I-97	MD 2	1	1	6	8	2045
321				widen	I-97 HOV lanes	MD 32	US 50/301		2	4	6	
322			AA15a	Widen	I-295	I-195	MD 100	1	1	4	6	2035
323			AA3E	Widen	MD 2	US 50	I-695			4	6	2035
324			AA4e	Widen	MD 3	MD 32	St. Stephen's Church Rd. MD 424	2	2	4	6	2025
325				Widen	MD 32 HOV?	I-97	Howard County Line		2	6	8	
326			AA6e	Widen	MD 100	Howard Co. Line	I-97		5/1	4	6	2035
327			AA8b	Widen	MD 175	MD 170	National Business Parkway MD 295 BW Parkway		2	4	6	2025
328			AA35	Widen	MD 177	MD 2	Lake Shore Dr.			2	4	2045
329			AA30	Widen	MD 198	MD 32	BW Parkway	2	2	2	4	2030
330				Widen	MD 214	MD 424	Shoreham Beach Dr.			2	4	2045

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
331			AA34a	Widen	MD 713	MD 175	Stoney Run Dr. MD 176		2	2	4	2040
Carroll County												
332			CA1B	Widen	MD 140	Sullivan Road	Market St.		1	6	8	2035
333			CA2a	Widen	MD 26	MD 32	Liberty Reservoir			4	6	2035
334			CA4A	widen	MD 32	MD 26	Howard County Line		2	2	4–5	2040
335			CA5	Widen	MD 97	MD 140	Bachmans Valley Rd.		2	2	4	2035
337	Howard County											
336			HW1b	Widen	I-70	US 29	MD 32	1	1	4	6	2035
337			HW19	Widen	I-95 Peak period shoulder use	MD 32	MD 100	1	1	4	4+1	2035
338			HW20	Widen	US 1	Howard/PG line	Howard/Balt. Co. line			4	6	2045
339			HW10b	Widen	US 29 NB	Middle Patuxent River	Seneca Dr.		5	4	6	2030
340			HW10F	Widen	US 29 NB	Seneca Dr.	MD 100	5	5	5	6	2017 complete
341			HW3c	Widen	MD 32	Cedar Lane	Anne Arundel County Line Brock Bridge Rd.		1	4/6	8	2045
342			HW3B	Widen	MD 32	MD 108	I-70		2	2	4	2021
343			HW3D	Widen	MD 32	I-70	Howard/ Carroll County Line River Rd			2	4	2045
344			HW5F	Widen	MD 100	I-95	AA/Howard Line	1	1	4	6	2035
345			HW6c	Widen	MD 108	Trotter Rd.	Guilford Rd.	2	2	2	4	2035

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
346			HW7C	Widen	MD 175	Oceano Ave	Howard/AA Col Line			2	4	2045
347			HW8b	Widen	MD 216	High School Access Rd.	Maple Lawn Blvd.		3	2	4	2015
348			HW14c	Widen	Snowden River Parkway	Oakland Mills Road	Broken Land Parkway		3	4	6	2023
349			NRS	Widen	Dorsey Run Rd.	MD 175	CSX RR spur			2	4	2021

Calvert-St. Mary's MPO

350	CE2246	644	MP9B	Construct	Thomas Johnson Bridge replacement	over the Patuxent River		2	2	2	4	2031
351			MP9C	Widen	MD 4 (in St. Mary's County)	Thomas Johnson Bridge	MD 235	2	2	2	4	2031
352			nrs	Construct	MD 4/ MD 235 Interchange	in Lexington Park		2	2	--	--	2028
353			MP9D	Widen	MD 4 (in Calvert County)	Thomas Johnson Bridge	Patuxent Point Parkway	2	2	2	4	2031
354			nrs	Reconstruct	MD 5 Great Mills Project	MD 471 Indian Bridge Road	MD 246 Great Mills Road			2	2	2026

356 VDOT

Federal Lands												
355	CE3061	433	FED3a	Construct	Manassas Battlefield Bypass	US 29 West of Centreville	East of Gainesville, via 234	0	1	0	4	2035 2040
356	CE3061	434	FED3b	Remove/Close	US 29 Lee Highway	Pageland Lane	Bridge over Bull Run	2	2	2/4	0	2035 2040
357	CE3061	435	FED3c	Remove/Close	VA 234 Sudley Road	Southern Park Boundary	Sudley Springs (north of park)			2	0	2030
Interstate												

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
358	CE1759	399	VI1AJ	Construct	I 66 Vienna Metro Station bus ramp (duplicate project with ConID 759, below)	Transit Ramps- from EB & to WB	Saintsbury Dr. @ Vaden Dr.	1	1	0	2	2021-2022
359	CE2096	271	VI1AF	Reconstruct	I 66 WB Operational/Spot Improvements	Westmoreland Dr. / Washington Blvd Exit	Haycock Rd /Dulles Access Highway	1	1	3	4	2020-2016 complete

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
360	CE2096	350	VI1AG	Reconstruct	I 66 WB Operational/Spot Improvements	Lee Highway/Spout Run On-Ramp	Glebe Road Off- Ramp	1	1	2	3	2020 2022
361	CE3448	718	VI1Y	Widen / Revise Operations	I-66	I-495	US 50	1	1	3 general purpose in each direction + 1 HOV in peak direction during peak period	3 general purpose + 1 Auxiliary + 2 HOT each direction	2021-2022

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
362	CE3448	851	VI1Z	Widen / Revise Operations	I-66	US 50	US 29 Centreville	1	1	4 general purpose in each direction off-peak, 3 general purpose + 1 HOV in peak direction during peak period	3 general purpose + 1 Auxiliary + 2 HOT in each direction (2 Aux per direction btwn VA 286 & VA 28 only)	2021–2022
363	CE3448	852	VI1ZA	Widen / Revise Operations	I-66	US 29 Centreville	University Boulevard Ramps (new interchange for HOT only)	1	1	4 general purpose in each direction off-peak, 3 general purpose + 1 HOV in peak direction during peak period	3 general purpose + 2 HOT in each direction	2021–2022

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
364	CE3448	852	VI1ZA1	Widen / Revise Operations	I-66	VA 234 Bypass	University Blvd.	1	1	4 general purpose in each direction off-peak, 3 general purpose + 1 HOV in peak direction during peak period	3 general purpose+ 2 HOT in each direction (+1 Auxiliary each direction between US 29 and VA 234 Bypass only)	2021–2022
365	CE3448	853	VI1ZB	Widen / Revise Operations	I-66	University Boulevard Ramps (new interchange for HOT only)	US 15 (1.2 miles west of)	1	1	4 general purpose in each direction off-peak, 3 general purpose + 1 HOV in peak direction during peak period	3 general purpose+ 2 HOT in each direction (+1 Auxiliary each direction between US 29 and VA 234 Bypass only)	2040

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
366	CE3484	740	VI1X	Revise Operations	I-66	I-495	US 29 near Rosslyn	1	1	HOV 2 in peak direction during peak period	HOT 2 in peak direction during peak period	2017 complete
367	CE3484	862	VI1X1	Revise Operations	I-66	I-495	US 29 near Rosslyn	1	1	HOT 2 in peak direction during peak period	HOT 3 in peak direction during peak period	2021–2022
368	CE3484	863	VI1X2	Revise Operations	I-66	I-495	US 29 near Rosslyn	1	1	HOT 3 in peak direction during peak period	HOT 3 in both directions during peak period	2040
369	CE3448	7221		Study	I-66 Revise Operations by 2024	I495	US 29 near Rosslyn			HOT 3 in peak direction during peak period	HOT 3 in both directions during peak period	not coded
370	CE3484	788	VI1XB	Construct/Widen	I 66 Eastbound	VA 267 DTR	Washington Blvd. Off-Ramp	1	1	3	4	2020

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
371	CE3484	789	VI1XC	Construct/Widen	I 66 Eastbound	Washington Blvd. Off-Ramp	North Fairfax Drive	1	1	2	3	2020
372	CE3484	786	VI1XD	Construct/Widen	I 66 Westbound	Sycamore Street	Washington Blvd. On-Ramp	1	1	2	3	2040
373	CE3448	752	I66R31 I66R32 I66R34	Construct	I-66 Express Lanes Interchange Ramps	EB Expr to SB GP NB GP to WB Expr SB Expr to WB Expr EB Expr to NB GP SB GP to WB Expr	I-495 Interchange (Capital Beltway GP and Express Lanes)	0	1	0	1	2022
374	CE3448	753	I66R37	Construct	I-66 General Purpose Lanes Interchange Ramp	NB Expr to WB GP (modification of existing loop ramp)	I-495 Interchange (Capital Beltway GP and Express Lanes)	0	1	0	1	2022
375	CE3448	754		Relocate / Reconstruct	I-66 Interchange	Dual-lane loop ramp from NB I-495 GP to I-66 GP relocated to dual-lane flyover & existing ramp modified to NB I-495 GP to I-66 WB HOT	@ I-495	1	1	2	2	2022
376	CE3448	755		Reconstruct	I-66 Interchange	EB GP to SB GP WB GP to SB GP WB GP to SB Expr NB GP to EB GP SB GP to WB	@ I-495	1	1	—	—	2022
377	CE3448	756	I66R29	Construct	I-66 flyover ramp	EB general purpose to EB express lanes	.5 mile east of VA 243	0	1	0	1	2022
378	CE3448	757	NRS	Reconstruct	I-66 Interchange	Cloverleaf interchange converted to diverging diamond interchange	@ Nutley Street (VA 243)	1	1	—	—	2022

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
379	CE3448	759	I66R27 I66R28	Construct	I-66 Express Lanes Interchange Ramps (duplicate project with ConID 399, above)	EB off-ramp, WB on-ramp to/from I-66 Express lanes	@Vaden Dr.	1	1		Bus / HOV-3 / HOT from proposed Express Lanes	2022
380	CE3448	983	I66R43	Remove	I-66 ramp	remove existing EB on-ramp from Saintsbury Dr. at Vaden Dr.						2022
381	CE3448	762	VI1YA	Reconstruct	I-66 Interchange	Reconfigured interchange to eliminate C-D roads & replacemodify EB to NB loop ramp with flyover& WB to SB flyover	@ Chain Bridge Road (VA 123)	1	1	—	—	2022
382	CE3448	763	I66R25 I66R26	Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp, EB off-ramp, WB on-ramp, WB off-ramp to/from I-66 Express Lanes	@ Chain Bridge Road (VA 123)	0	1	0	1	2022
383	CE3448	765	I66R23 I66R24	Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp, WB off-ramp to/from I-66 Express lanes	@ Lee Jackson Mem Highway (US 50)	0	1	0	1	2022
384	CE3448	766	I66R62	Construct	I-66 Express Lanes Interchange ramps	EB Express Lanes on-ramp from NB US 50	@ Lee Jackson Mem Highway (US 50)	0	1	0	1	2040
385	CE3448	767	I66R19A I66R20A I66R21A I66R22A	Relocate / Reconstruct	I-66 Interchange	Reconfigure interchange with Express lanes ramps shifted to the north of I-66; ; Construct new EB off-ramp, WB on-ramp to/from I-66 Express lanes	@ Monument Drive (US 50)	1	1	Bus / HOV-2 Reversible by time of day	Bus / HOV-3 / HOT Movements in both directions 24 hrs/day	2040

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
386	CE3448	768	I66R19 I66R20 I66R21 I66R22	Reconstruct / Revise Operations / Construct	I-66 Interchange	Conversion of existing HOV ramps to HOT; Construct new EB off-ramp, WB on-ramp to/from I-66 Express lanes	@ Monument Drive (US 50)	1	1	Bus / HOV-2 Reversible by time of day	Bus / HOV-3 / HOT Movements in both directions 24 hrs/day	2022
387	CE3448	769	I66R17 I66R18	Revise Operations	I-66 Express Lanes Interchange Ramps	<p>Existing reversible HOV ramp converted to HOT EB on-ramp only, 24 hrs/day; Construct new flyover ramp for HOT WB off-ramp from I-66 Express Lanes, operating 24 hrs/day</p> <p>The existing reversible HOV ramp at Stringfellow Road will be expanded and converted to Express Lanes ramps providing access to and from the east using the Express Lanes. The new ramps will allow two-way traffic to and from the Express Lanes toward the Beltway 24 hours a day.</p>	@ Stringfellow Road	1	1	Bus / HOV-2 Reversible by time of day	Bus / HOV-3 / HOT both directions 24 hrs / day	2022

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								Fr	To	Fr	To	
388	CE3448	771	I66R16	Construct	I-66 flyover ramp	EB express lanes to EB general purpose	1.5 miles west of VA 286	0	1	0	1	2022
389	CE3448	772	I66R41	Construct	I-66 slip ramp	EB general purpose to EB express lanes	2.5 miles west of VA 286	0	1	0	1	2022
390	CE3448	773	I66R15	Construct	I-66 flyover ramp	WB express lanes to WB general purpose	1 mile west of VA 286	0	1	0	1	2022
391	CE3448	774	I66R42	Construct	I-66 slip ramp	WB general purpose to WB express lanes	2.0 miles west of VA 286	0	1	0	1	2022
392	CE3448	776	I66R11 I66R12 I66R13 I66R14 I66R40	Construct	I-66 Express Lanes Interchange Ramps	EB Expr to NB GP WB Expr to NB GP SB GP to EB Expr SB GP to WB Expr NB GP to EB Expr	Route 28 Interchange	0	1	0	1	2022
393	CE3448	781?	I66R61	Construct	I-66 Express Lanes Interchange ramps	SB HOV to WB Expr	Route 28 Interchange	0	1	0	1	2040
394	CE3448	917	I66R45	Construct	I-66 flyover ramp	EB general purpose to EB Express Lanes	.65 miles east of VA Bus 234	0	1	0	1	2022
395	CE3448	920	I66R46	Construct	I-66 flyover ramp	WB Express Lanes to WB general purpose	.65 miles east of VA Bus 234	0	1	0	1	2022
396	CE3448	778	I66R9 I66R10	Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp, WB off-ramp to/from I-66 Express lanes	@ Balls Ford Road / Ashton Avenue Connector 1.25 mile west of VA Bus 234	0	1	0	1	2022
397	CE3448	779	I66R7 I66R8	Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp, WB off-ramp to/from I-66 Express lanes	@ Cushing Road Park-Ride Lot .5 mile east of VA 234 Bypass	0	1	0	1	2040
398	CE3448	855	I66R38 I66R39	Construct	I-66 Express Lanes Interchange Ramps	EB off-ramp, WB on-ramp to/from I-66 Express lanes	@ VA 234 Bypass to/from south of I-66	0	1	0	1	2040

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
399	CE3448	781	I66R5 I66R6	Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp, WB off-ramp to/from I-66 Express lanes	@ University Boulevard .75 mile east of US 29	0	1	0	1	2022
400	CE3448	784	I66R1 I66R1A I66R2 I66R2A	Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp & off-ramp, WB on-ramp & off-ramp to/from I-66 Express lanes	@ New connector road between Heathcote Boulevard and VA 55 approx .5 mile west of US 15	0	1	0	1	2040
401	CE3448	785	VSP49C	Construct	I-66 Express Lanes Access Connector Road	Heathcote Boulevard Extension	John Marshall Highway (VA 55)	0	1	0	1	2040
402	CE3179	444	VI2T	Widen	I 395 southbound	VA 236 Duke Street (north of)	VA 648 Edsall Road (south of)	1	1	3	4	2018 Complete
403		854	VI2V	Widen/Revise Operations	I-395 reversible HOV lanes	Turkeycock Run	vicinity of Eads Street	1	1	2 reversible HOV 3+ lanes during peak periods	3 reversible HOT-3+ lanes operating nb in am and sb in pm	2019 complete
404				Revise Operations	I-395 Flyover Ramp South of Duke Street (NB)	I-395 NB GP lanes	I-395 HOV lanes	1	1	HOV-3+ in am peak period	HOT-3+ in morning hours	2019 complete
405				Revise Operations	I-395 HOV nb on-ramp at Seminary	Seminary Road	I-395 HOV lanes	1	1	HOV-3+ in am peak period	HOT-3+ in morning hours	2019 complete
406				Revise Operations	I-395 HOV sb off-ramp at Seminary	I-395 HOV lanes	Seminary Road	1	1	HOV-3+ in pm peak period	HOT-3+ in evening hours	2019 complete

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
407				Revise Operations	I-395 HOV nb on- ramp at Shirlington Circle	Shirlington Circle	I-395 HOV lanes	1	1	HOV-3+ in am peak period	HOT-3+ in morning hours	2019 complete
408				Revise Operations	I-395 HOV sb off- ramp at Shirlington Circle	I-395 HOV lanes	Shirlington Circle	1	1	HOV-3+ in pm peak period	HOT-3+ in evening hours	2019 complete
409				Revise Operations	I-395 HOV sb off- ramp near Edsall Rd.	I-395 HOV lanes	I-395 SB GP lanes	1	1	HOV-3+ in pm peak period	HOT-3+ in evening hours	2019 complete
410				Revise Operations	I-395 NB HOV Ramp to Washington Blvd.	I-395 NB HOV lanes	Washington Blvd. NB	1	1	HOV-3+ in am peak period	HOT-3+ in morning hours	2019 complete
411				Revise Operations	I-395 SB HOV Ramp from Washington Blvd.	Washington Blvd. SB	I-395 SB HOV lanes	1	1	HOV-3+ in pm peak period	HOT-3+ in evening hours	2019 complete
412				Revise Operations	I-395 HOV nb off ramp at Eads Street			1	1	HOV-3+ in am peak period	HOT-3+ in morning hours	2019 complete
413				Revise Operations	I-395 sb HOV on- ramp at Eads Street			1	1	HOV-3+ in pm peak period	HOT3+ in evening hours	2019 complete
414			VI2R47	Remove	I-395 HOV/HOT SB Slip Ramp to I-395 main lanes	Just south of Eads St		1	0	1	0	2019 complete
415	CE2147	270	VI2AC	Reconstruct	I 95 Interchange	VA 613 Van Dorn Street		1	1			2030

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

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								Fr	To	Fr	To	
416	CE3556			Construct	I-95 HOT lanes ramp	.25 miles south of Russell Road (Exit 148)	Russell Road	0	1	0	1	2022
417	CE3093	6	NRS	Reconstruct	Boundary Chanel Drive	Old Jefferson Davis Highway (off of I-395 Boundary Chanel Interchange)						2020-2022
418	CE2667	378	BRAC	Construct	I 95 NB Off Ramp at Newington	I-95 NB	Fairfax County Parkway NB	1	1	0	1	2020
419	CE2668	8	BRAC0004 / VI2ra	Construct	I 95 Reversible Ramp (Colocated w/ existing slip ramp from HOV to GP lanes)	I 95 HOV/BUS/HOT Lanes (Located N of Rte. 7100/I 95 I/C Phase II DAR)	EPG Southern Loop Road AM Only	0	1	0	1	2025
420		16	VI2r43a	Construct	I 95 HOV/Bus/HOT Ramp SB Gen Purpose Lanes to SB HOV/Bus/HOT lanes	Between Dumfries Rd. and Joplin Rd.		0	1	0	1	2018
421		18	VI2r45a	Construct	I 95 HOV/Bus/HOT Ramp NB HOV/Bus/HOT lanes to NB Gen Purpose Lanes	Between Joplin Rd. and Russell Rd.		0	1	0	1	2018
422		969	VI2X	Construct	I-95 Auxiliary Lane SB	VA 123	VA 294	1	1	0	1	2022
423	CE3697	1011	VI2R48	Construct	I-95 Opitz Drive Reversible Ramp	I-95 Express Lanes at Opitz Drive	Optiz Drive	1	1	0	1	2022
424	CE3763			Study	I 95/I 495 Gap Study - Study HOT lanes, including potential ramp access at Van Dorn St. and US 1	East Side of Springfield Interchange	East of Wilson Bridge	1	1			not coded

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
425	CE3272	20	VI4Iaux1	Widen	I 495 Capital Beltway NB Auxiliary Lane	North of Hemming Ave. Underpass	Braddock Road Off Ramp	1	1	4+2	5+2	2030
426	CE3272	21	VI4Iaux2	Widen	I 495 Capital Beltway SB Auxiliary Lane	Braddock Road On Ramp	North of Hemming Ave. Underpass	1	1	4+2	5+2	2030
427	CE3272	22	VI4Iaux3	Widen	I 495 Capital Beltway NB Auxiliary Lane	Braddock Road On Ramp	VA 236 Off Ramp	1	1	4+2	5+2	2030
428	CE3272	24	VI4Iaux5	Widen	I 495 Capital Beltway NB Auxiliary Lane	VA 236 On Ramp	Gallows Road Off Ramp	1	1	4+2	5+2	2030
429	CE3272	25	VI4Iaux6	Widen	I 495 Capital Beltway SB Auxiliary Lane	Gallows Road On Ramp	VA 236 Off Ramp	1	1	4+2	5+2	2030
430	CE3272	29	VI4Iaux10	Widen	I 495 Capital Beltway NB Auxiliary Lane	US 50 On Ramp	I 66 Off Ramp	1	1	5+2	6+2	2030
431	CE3272	32	VI4Iaux13	Widen	I 495 Capital Beltway SB Auxiliary Lane	VA 7 On Ramp	I 66 Off Ramp to WB	1	1	4+2	5+2	2030
432	CE3272	35	VI4Iaux16	Widen	I 495 Capital Beltway SB Auxiliary Lane	VA 123 On Ramp	VA 7 Off Ramp	1	1	5+2	6+2	2030
433	CE3272	38	VI4Iaux19	Widen	I 495 Capital Beltway NB Auxiliary Lane	VA 267 On Ramp	VA 193 Off Ramp	1	1	4+2	5+2	2030—2025
434	CE3272	39	VI4Iaux20	Widen	I 495 Capital Beltway SB Auxiliary Lane	VA 193 On Ramp	VA 267 Off Ramp	1	1	4+2	5+2	2030—2035
435	CE2069	999	VI4IRMP1	Construct	I-495 Express Lanes On-Ramp	Dulles Connector Road WB	I-495 Express Lanes NB	0	1	0	1	2025
436	CE2069	1000	part of VI4KA	Construct	I-495 Express Lanes (Shoulder Lane) — NB DIRECTION-PEAK PERIODS ONLY	Dulles Connector WB On-Ramp	GW Parkway Off-Ramp	0	1	0	1	2025
437	CE2069	1001	VI4IRMP2	Construct	I-495 NB Exchange Ramp	Interstate Ramp I-495 NB GP Lanes at Dulles Toll Road	I-495 NB GP-Express Lanes at Dulles Toll Road	0	1	0	1	2045

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
438	CE2069	1002	VI4IRMP3	Construct	I-495 SB Exchange Ramp	Interstate Ramp I-495 SB GP-Express Lanes at Dulles Toll Road	I-495 SB Express-GP Lanes at Dulles Toll Road	0	1	0	1	2045
439	CE2069	40	VI4K	Construct	I 495 Capital Beltway HOT Lanes	American Legion Bridge	George Washington Parkway (south of)	1	1	8	8+4	2025
440	CE2069	41	VI4KA	Construct	I 495 Capital Beltway HOT Lanes	George Washington Parkway (south of)	Old Dominion Drive (south of)	1	1	8	8+4	2025
441	CE3186	49	Part VI4IHOTa	Relocate	I 495 Capital Beltway Interchange Flyover Ramp (Phase 4)	EB Dulles Airport Access Highway to NB General Purpose	at VA 267 Dulles Toll Road	1	1	1	1	2030-2045
442	CE3186	519	VI4IRMP6	Construct	I 495 Capital Beltway Interchange (Phase IV)	Provide SB HOT to EB HOV	at VA 267 Dulles Toll Road	1	1			2030-2035
443	CE3186	519	VI4IRMP5	Construct	I 495 Capital Beltway Interchange (Phase IV)	Provide EB DTR to NB HOT	at VA 267 Dulles Toll Road	1	1			2030-2025
444	CE3186	517	Part VI4IHOTa	Widen	I 495 Capital Beltway Interchange Ramp (Phase III DTR)	Widen EB DTR ramp to 2 NB lanes	NB GP Lanes	1	1	1	2	2030-2045
445	CE3186	520	VI4IRMP7	Construct	I 495 Capital Beltway Interchange Flyover Ramp (Phase 4)	I 495 Capital Beltway NB GP lanes	Dulles Airport Access Highway (DAAH) WB	0	1	0	1	2030-2045
446	CE3208	50	VI4IHOTb	Construct	I 495 Capital Beltway Interchange Ramp (Phase II, Ramp 3 DAAH)	I 495 Capital Beltway SB	Dulles Airport Access Highway WB	0	1	0	1	2020-2035
447	CE3680	991	VP21G	Widen	Dulles Greenway - eastbound only	Toll Plaza	Dulles Toll Road	1	1	2	3	2019
448				Widen	VA 267 Dulles Toll Road - eastbound only	Dulles Greenway	Centreville Rd. off-ramp	1	1	4	5	2019

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								Fr	To	Fr	To	
449	CE3152	534	VP15E	Construct	VA 267 Dulles Toll Road Ramp	New Boone Boulevard Extension at Ashgrove		0	1	0	2	2037
450	CE3153	535	VP15B	Construct	VA 267 Dulles Toll Road Ramp	Greensboro Drive @ Tyco Road		0	1	0	2	2036
451	CE1965	236	MW1	Widen	Dulles Airport Access Road	Dulles Airport	VA 123	1	1	4	6	2030
		Primary										
452	CE3291	549	VP1AH	Widen	US 1 Richmond Highway	Fuller Road	Stafford County Line	2	2	4	6	2040
453	CE2594	631	VP1AD	Widen	US 1 Fraley Blvd. (Town of Dumfries)	Brady's Hill Road	VA 234 Dumfries Road	2	2	4	6	2025
454	CE2594	632	VP1ADA	Widen	US 1 Richmond Highway	VA 234 Dumfries Road	Cardinal Drive/Neabsco Road	2	2	4	6	2030
455	CE3173	84	VP1AF	Widen	US 1 Richmond Highway	Featherstone Road	Mary's Way	2	2	4	6	2022
456	CE2161	239	VP1P	Widen	US 1 Richmond Highway	Mary's Way	Annapolis Way	2	2	4	6	2019
457	CE2161	633	NRS	Reconstruct	US 1 Richmond Highway	at VA 123 Gordon Boulevard (Interchange)						2028
458	CE2161	634	VSP63	Construct	Belmont Bay Drive Extension	US 1 Jefferson Davis Highway	Heron's View Way			0	4	2025
459	CE3180	85	VP1AG	Widen	US 1 Richmond Highway	Annapolis Way	Lorton Road-Pohick Road	2	2	4	6	2035
460	CE1942	322	VP1U	Widen	US 1 Richmond Highway	VA 235 North-Mt. Vernon Memorial Highway	VA 235 South—VA 626 Sherwood Hall Ln	2	2	4	6	2025-2028
461	CE3331	653	VP2P	Construct	VA 7 Interchange	At VA 690		2	2	0	4	2025

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								Fr	To	Fr	To	
462	CE1870	86	VP2JA	Widen	VA 7 Bypass	VA 7 West	US 15 South King Street South	5	1	4	6	2040
463	CE1870	299	VP2J	Widen	VA 7 Bypass	US 15 South King Street	VA7/US 15 East	5	1	4	6	2040
464	CE2105	221	VP2M	Widen	VA 7	Reston Avenue	West Approach to Bridge over Dulles Toll Road—Jarrett Valley Dr.	2	2	4	6	2025—2024
465	CE2105	628	VP2Lb	Widen	VA 7 Leesburg Pike	VA 123 Chain Bridge Road	I 495 Capital Beltway	2	2	6	8	2030
466	CE3161	87	VP2N	Widen	VA 7 Leesburg Pike	I 495	I 66	2	2	4	6	2030
467	CE2175	347	VP2B	Widen	VA 7	Seven Corners	Bailey's Crossroads	2	2	4	6	2030
468	CE3701	1022	NRS	Study	VA 7 Interchange	VA 123 Dolly Madison Road						2030
469	CE3327	682	NRS	Construct	VA 7 Overpass at	George Washington Boulevard		0	4	0	4	2022—2024
470	CE2664	621	nrs	Construct	VA 7 Interchange	at VA 659 Belmont Ridge Road		2	2	6	6	2017—2020 complete
471	CE3523	1023	NRS	Construct	US 15 Bypass / Battlefield Parkway Interchange			2	2	4	4	2035
472	CE3162	253	VP4EA	Widen	US 15 James Madison Highway	US 29 Lee Highway	Haymarket Drive	3	3	2	4	2040
473	CE3162		VP4EC	Widen	US 15 James Madison Highway Overpass	1200' S of RR tracks	1000' N. of RR tracks	3	3	2	4	2030

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								Fr	To	Fr	To	
474	CE3738	881	VP4G	Widen	US 15	Battlefield Parkway	Montresor Road	2	2	2	4	2022–2026
475	CE2045	88	VP6H	Widen	VA 28	Fauquier County Line	VA 652 Fitzwater Drive	3	3	2	4	2040
476	CE2045	309	VP6kA	Widen	VA 28	VA 652 Fitzwater Drive	VA 215 Vint Hill Road	3	3	2	4	2019
477	CE2045	326	VP6MA	Widen	VA 28	Godwin Drive	Manassas City limits	3	2	4	6	2019
478	CE2045	89	VP6K	Widen	VA 28 Nokesville Road	Manassas City Limits	VA 619 Linton Hall Road	3	3	4	6	2022
479	CE1734	1037	VP6EDD	Convert	VA 28 PPTA Phase II-HOV	I-66	Westfields Blvd	5	5	8+ 2 aux	6 + 2aux + 2 HOV	2040
480	CE1734	873	VP6EDE	Convert	VA 28 PPTA Phase II-HOV	Westfields Blvd	Dulles Toll Road	5	5	8	6 + 2 HOV	2040
481	CE1734	310 791	VP6EAA	Widen	VA 28 PPTA Phase II	I 66	Westfields Blvd	5	5	6	8+ 2 aux	2021
482	CE1734		VP6EAB	Widen	VA 28 PPTA Phase II	Westfields	US 50	5	5	6	8	2025
483	CE1734		VP6EBB	Widen	VA 28 PPTA Phase II	US 50	Sterling Blvd.	5	5	6	8	2016

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								Fr	To	Fr	To	
484	CE1734	310	VP6ECC	Widen	VA 28 PPTA Phase II	Sterling Blvd.	VA 7	5	5	6	8	2025
485	CE3181	656		Study	VA 28 Manassas Bypass /VA 411	VA 234 Godwin Drive/Route 234 on the western edge of the City of Manassas	I66 proposed interchange btwn Rt234 Business & Rt28 on I-66 Proposed Interchange					Not Coded
486	CE3479	737	VP6N	Widen	VA 28 Centreville Road	US 29	Prince William County Line	2	2	4	6	2023
487	CE1865	995	VP6O	Construct	VA 28 Manassas Bypass	VA 234 Sudley Road	VA 28 Centreville Road	0	5	0	4	2025
488	CE3383	730		Study	VA 28	US 29	Liberia Avenue					Not Coded
489		620	VP7s	Widen	US 29 (add NB lane)	I 66	Entrance to Conway Robinson MSF	3	2	4	5	2030
490	CE1933	620	VP7AG	Widen	US 29 (add NB lane)	Legato Raod	Shirley Gate/Waples Mill Rd.	3	2	4	5	2017-2019 complete
491	CE1933	349	VP7AA	Widen	US 29	ECL City of Fairfax (vic. Nutley St.)	Espana Court	2	2	4	6	2025-2040
492	CE1933	625	VP7AB	Widen	US 29	Espana Court	I 495 Capital Beltway	2	2	4	6	2025-2040
493	CE3474	731	VP7T	Widen	US 29 Lee Highway	VA 659 Union Mill Road	Buckleys Gate Drive	2	2	4	6	2024
494	CE2182	319	VP8H	Widen	US 50	ECL City of Fairfax	Arlington County Line	2	2	4	6	2025-2035
495	CE3739	2500	VP25	Construct	US50 North Collector Road	Tall Cedars Parkway	VA 28/ Air and Space Museum	0	2	0	4	2029

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								Fr	To	Fr	To	
496		94	NRS	Construct	US 50 Interchange	VA 606 Loudoun County Parkway		2	2	6	6	2025
497		657	NRS	Construct	US 50 Interchange	West Spine/Gum Springs Road		2	2	6	6	2035
498		658	NRS	Construct	US 50 Interchange	South Riding Boulevard		2	2	6	6	2035
499		659	NRS	Construct	US 50 Interchange	Tall Cedars Parkway		2	2	6	6	2035
500	CE3603	885	NRS	Upgrade/ Intersection	Route 50 & Everfield Drive			2	2	2	2	2022-2026
501	CE3694	997	VP16	Widen	VA 55	Route 29	Town of Haymarket- Fayette St.			2	4	2028
502	CE1723	245	VP10G	Widen	VA 123	US 1	Annapolis Way	2	2	4	6	2025
503	CE1784	235	VP10H	Widen	VA 123 Ox Road	Hooes Rd.	Fairfax Co. Parkway	2	2	4	6	2030
504	CE1784	337	VP10F	Widen	VA 123 Ox Road	Fairfax Co. Parkway	Burke Center Parkway	2	2	4	6	2030
505	CE1856	300	VP10R	Widen	VA 123	Burke Center Parkway	Braddock Road	2	2	4	6	2030
506		95	VP10S	Widen	VA 123	VA 677 Old Courthouse Road	VA 7 Leesburg Pike			4	6	2030
507	CE3376	595	VP10T	Widen	VA 123 Chain Bridge Road	VA 7 Leesburg Pike	I 495 Capital Beltway	2	2	6	8	2030
508	CE3698	1016	NRS	Upgrade	VA 123	I-495 Capital Beltway	VA 267 Dulles Access Road	2	2	6	6	2030
509	CE3698	1015	VP10U	Widen	VA 123	VA 267 Dulles Access Road	VA 634 Great Falls Street	2	2	4	6	2030
510	CE3371	590	VP24B	Widen	VA 215 Vint Hill Road	Kettle Run Drive	VA 1566 Sudley Manor Drive	4	4	2	4	2020
511	CE3641			Widen	VA 234 Sudley Road	Grant Road	Godwin Drive	2	2	2	3	2021

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								Fr	To	Fr	To	
512	CE1897	286	VP120	Construct	VA 234 Bypass Extension North	VA 234 Bypass@I-66 (Prince Wm. Co.)	US 50 (Loudoun Co.)		5		4	2040
513	CE3177	678		Construct	VA 234 Bypass Interchange	Balls Ford Road Relocated						2022
514	CE3178	660		Construct	VA 234 Bypass Interchange	Dumfries Road/Brentsville Road						2025—2024
515		739		Construct	VA 234 Byp-Prince William Parkway Interchange at	VA 840 University Boulevard						2030
516	CE3703		NRS	Construct	VA 234 Bypass Interchange	Clover Hill Road						2026
517	CE3467	727	NRS	Construct	VA 234 Prince William Parkway Interchange at	VA 1566 Sudley Manor Dr.						2030
518	CE1760	311	VP13A	Widen	VA 236	Pickett Road	I 395	2	2	4	6	2025—2035
519	CE2106	264	VSF25aa	Convert	VA 286 Fairfax County Parkway HOV	VA 267 Dulles Toll Road	Sunrise Valley Drive	5	5	6	4+2	2035
520	CE2106	96	VSF25ea	Widen	VA 286 Fairfax County Parkway	Sunrise Valley	West Ox Road Rugby Road	5	5	4	6	2035
521	CE2106	97	VSF25e	Convert	VA 286 Fairfax County Parkway HOV	West Ox Road	US 50	5	5	6	4+2	2035
522	CE3702	1024	NRS	Widen/Construct	VA 286 Fairfax County Parkway Interchange	VA 654 Pope's Head Road		2	2	4	6	2025—2024
523	CE2106	98	VSF25y	Upgrade	VA 286 Fairfax County Parkway HOV	US 50	VA 7735 Fair Lakes Parkway	2	5	6	4+2	2035

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								Fr	To	Fr	To	
524	CE2106	101	VSF25z	Widen/Upgrade	VA 286 Fairfax County Parkway HOV	VA 7735 Fair Lakes Parkway	I-66	2	5	6	6+2	2035
525	CE2106	320	VSF25g	Widen	VA 286 Fairfax County Parkway	US 29	Rolling Rd.-VA 123 Ox Road	5	5	4	6	2030
526			VSF25GA	Widen	VA 286 Fairfax County Parkway	VA 123	Sydenstricker Road	5	5	4	6	2030-2040
527	CE1833	304	VSF26	Construct	VA 289 Franconia-Springfield Parkway HOV	VA 286 Fairfax County Parkway	VA 2677 Frontier Drive	5	5	6	6+2	2025
528	CE1833	104	NRS	Construct	VA 289 Franconia-Springfield Parkway Interchange	Neuman Street		1	1			2035
529	CE1833	105	VSF26b	Upgrade	VA 289 Franconia-Springfield Parkway HOV	VA 638 Rolling Road	VA 617 Backlick Road	5	5	6	6+2	2025
530		408	VSP23d	Widen	VA 294 Prince William County Parkway	VA 776 Liberia Avenue	VA 642 Hoadly Road	2	2	4	6	2040
531	CE3704	1028	NRS	Construct	VA 294 Prince William Parkway Intersection Improvements	VA 641 Old Bridge Road						2028
532	CE3705	1027	NRS	Construct	VA 294 Prince William Parkway Interchange	VA 640 Minnieville Road						2028
533	CE3151	106	VP15CD	Construct	Collector-Distributor Rd Westbound (parallels Dulles Toll Rd.)	Route 7 Leesburg Pike	VA 828 Wiehle Avenue	0		0	+1	2035-2037

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
534	CE3154	107	VP15CDE	Construct	Collector-Distributor Rd Eastbound (parallels Dulles Toll Rd.)	VA 828 Wiehle Avenue	Route 7 Leesburg Pike	0		0	+1	2035–2036
535	CE3154	1033	VP15CD2	Construct	Collector-Distributor Rd Westbound (parallels Dulles Toll Rd.)	Route 7 Leesburg Pike	Spring Hill Rd.			0	+2	2035
536	CE3151		VP15CDE2	Construct	Collector-Distributor Rd Eastbound (parallels Dulles Toll Rd.)	Spring Hill Rd.	Route 7 Leesburg Pike			0	+2	2035
		Urban										
537	CE2139	313	VU28B	Construct	Battlefield Parkway	US 15 south of Leesburg	Dulles Greenway	0	2	0	4	2020
538	CE3222	52	VU30F	Widen/Reconstruct	East Elden Street	Monroe Street	Fairfax County Parkway	3	2	4	6	2020–2026
539	CE1783	328	VU52	Widen	Eisenhower Avenue	Mill Road	Holland Lane	3	3	4	6	2019–2023
540	CE3300	553	VU55	Widen	Evergreen Mills Road	US 15 S. King Street	South City Limits of Leesburg	4	4	2	4	2022–2021 Complete
541	CE3286	681	VU56	Construct	Farrington Avenue	Van Dorn Street at Eisenhower Avenue	Edsall Road	0	4	0	2	2035–2034
542	CE1952	267	VU10B	Widen/Reconstruct	Spring Street	Herndon Parkway (East)/Spring Street	Fairfax County Parkway Interchange	3	2	4	6	2021–2024
543	CE2073	232	VU33	Widen	Sycolin Road	VA7/US 15 Bypass	SCL of Leesburg	4	4	2	4	2020–2027
544	CE2671	382	NRS	Construct	US 15 Bypass Interchange	At Fort Evans Road and Edwards Ferry Road	-	5	2	4	4	2025

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
545	CE2020	290	VU45	Widen	VA 234 Dumfries Road Business	South Corporate Limits	Hastings Drive	3	3	2	4	2040
546	CE3375	594	NRS	Reconstruct	VA 234 Grant Avenue	Lee Avenue	Wellington Road	3	3	4	2	2020
547	CE3174	53	nrs	Construct	Intersection Improvement	King Street	Beauregard Street					2018–2025
548	CE3175	54	nrs	Construct	Ellipse	Seminary Road	Beauregard Street					2020-2028
549	CE3166	56	NRS	Reconstruct	Herndon Parkway (East): Transit Drop-off/Pick-Up Access to Herndon Metrorail Station	East of Rte 666/Van Buren Street (at 593 Herndon Parkway)	West of Rte 675 / Spring Street (at 575 Herndon Parkway)	2	2	4	4	2018–2023
550		725	NRS	Reconstruct	Herndon Parkway/Van Buren Street (south) intersection	Herndon Parkway/Van Buren Street (south)	Worldgate Drive/Van Buren Street (south)	2	2	4	4	2019-2022
551	CE3441	687	NRS	Reconstruct	VA 17 Intersection Improvements in Warrenton	South of Frost Ave.	South of Winchester St.					2021
		Secondary										
		Arlington County										
552	CE2830	411	AR17a	Widen	Washington Boulevard	Wilson	Kirkwood	3	3	3	4	2019–2022
553	CE3657	951	NRS	Construct	12th Street South	VA-120 (South Glebe Rd.)	South Monroe St	4	4	0	2	2019–2024
554	CE3677	987	AR30	Convert to 2-way	27th Street South	US-1	Crystal Drive	4	4	4	4	2019

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
555	CE3678	988	AR31	Demolish	South Clark Street	12th Street South	20th Street South	4	0	2	0	2019
	Fairfax County											
556	CE1849	336	FFX2a	Widen	VA 602 Reston Pkwy.	VA 5320 Sunrise Valley Dr.	VA 606 Baron-Cameron Avenue-Sunset Hills Road	3	3	4	6	2020–2040
557			FFX2c	Widen	VA 602 Reston Pkwy.	Sunset Hills Road	New Dominion Parkway	3	3	4	6	Complete
558	CE1849	4041	FFX2b	Widen	VA 602 Reston Pkwy.	New Dominion Parkway	VA 606 Baron Cameron Avenue	3	3	4	6	2040
559	CE3475	732	VSF44	Widen	VA 608 Frying Pan Road	VA 28 Sulley Road	VA 657 Centreville Road	3	3	2	4	2025–2030
560	CE2186	218	VSF4ca	Widen	VA 611 Telegraph Road	Leaf Road North	VA 635 Hayfield Road	3	3	2	4	2025–2040
561	CE2186	298	VSF4i	Widen	VA 611 Telegraph Road	VA 635 Hayfield Road	VA 613 (Van Dorn St.)	3	3	2	4	2025–2040
562	CE2186	62	VSF4h	Widen	VA 611 Telegraph Road	VA 613 S. Van Dorn	VA 644 Franconia Road	3	3	2	3	2025–2040
563	CE3275	63	VSF15b	Construct	VA 613 Van Dorn Interchange	VA 644 Franconia Road		0	0	0	0	2025–2035
565	CE2158	301	VSF8g	Widen	VA 620 Braddock Road	VA 286 Fairfax County Parkway	VA 123 Ox Road	3	3	4	6	2025–2040
566	CE2206	334	VSF8j	Construct/Widen	VA 620 New Braddock Rd.	VA 28	US 29 @ VA 662 (Stone Rd.)	0/4	3	0/2	4	2025

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
567	CE3478	736	VSF45	Widen	VA 636 Hooes Road	VA 286 Fairfax County Parkway	VA 600 Silverbrook Road	3	3	2	4	2025
568	CE1936	302	VSF10a	Widen	VA 638 Rolling Road	VA 286 Fairfax County Parkway—Viola St.	VA 644 Old Keene Mill Road	3	3	2	4	2025 2026
569	CE3301	586	VSF10E	Widen	VA 638 Rolling Road	Rt 5297 DeLong Drive	Fullerton Drive—Virginia Dr.	3	3	2	4	2022—2035
570	CE2645	377	VSF10c	Widen	VA 638 Pohick Road	VA 1	I 95	3	3	2	4—2	2025
571	CE1859	217	FFX11a	Widen	VA 645 Stringfellow Road	US 50	VA 286 Fairfax County Parkway	3	3	2	4	2030—2040
572		64	VSF37a	Widen	VA 650 Gallows Road	VA 7 Leesburg Pike	VA 699 Prosperity Ave.	2	2	4	6	2038
573	CE2833	65	VSF33a	Widen	VA 651 Guinea Road	VA 6197 Roberts Parkway	VA 4807 Pommeroy Drive	3	3	2	4	2025—2040
574	CE1748	255	FFX12a	Construct	VA 651 New Guinea Road	VA 123 Ox Road	Roberts Road	0	3	0	4	2025—2040
575	CE3442	688	VSF17b	Construct	VA 655 Shirley Gate Road	VA 286 Fairfax County Parkway	VA 620 Braddock Road	0	3	0	4	2030
576		346	VSF18C	Widen	VA 657 Centreville Road	VA 8390 Metrotech Dr.	VA 668 McLearn Road	3	3	4	6	2040
577	CE3150	66	NRS	Construct	Boone Boulevard Extension	VA 123 Chain Bridge Road	Ashgrove Lane			0	4	2036
578	CE3460	724	VSF46	Construct	VA 2677 Frontier Drive	Franconia-Springfield Transportation Center	VA 789 Loisdale Road	0	4	0	4	2024—2030

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
579	CE3155	69	NRS	Construct	Greensboro Drive WB	Spring Hill Road	Tyco Road	0	4	0	2	2034
580	CE3158	68	VSF43	Widen	Magarity Road	VA 7 Leesburg Pike	VA 694 Great Falls Street			2	4	2037
581	CE3157	67	NRS	Construct	New Bridge/Road Crossing- bike ped only	Tysons Corner Center Ring Road	Old Meadow Road			0	0	2036-2022
582	CE3609	882	VSF48	Construct	Rock Hill Road- Overpass-Davis Dr. Bridge	VA 5320 (Sunrise Valley Dr.)	VA 209 (Innovation Avenue)	0	4	0	4	2030
583	CE3450	722	VSF49	Construct	Soapstone Drive 4-Lane Overpass	Sunrise Valley Drive	Sunset Hills Road	0	4	0	4	2027
584	CE3699	1017	VSF50	Construct	Town Center Parkway Underpass of Dulles Toll Road	VA 5320 Sunrise Valley Dr.	VA 675 Sunset Hills Road	0	4	0	4	2030
585	CE3060	442	VSF41	Construct/Widen	VA 8102 Scotts Crossing Rd	VA 123 Dolly Madison Blvd	Jones Branch Dr			0/2	4	2018
586	CE3759	4080	NRS	Construct	Worldgate Drive Extension	Van Buren Street	Herndon Parkway	0	3	0	4	2030
Loudoun County												
587	CE3355	661	NRS	Construct	VA 606 Ramp	VA 606 Eastbound	VA 789 Lockridge Road Northbound			0	2	2020
588		330	VSL1B	Widen/Upgrade	VA 606/607 Old Ox Rd/Loudoun County Parkway	VA 634 Moran Rd	VA 621 Evergreen Mills Rd	4	3	2	4	2018
589	CE3315	566	VSL10E	Widen	VA 607 Loudoun County Parkway	US 50	VA 606 at new Arcola Blvd.	3	3	4	6	2030

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
590		275	VSL10bb	Widen/Upgrade	VA 607 Loudoun County Parkway	W&OD Trail	Redskin Park Drive	4	3	4	6	2025
591	CE3736	2493	VSL10F	Widen	VA 607 Loudoun County Parkway	Shellhorn Road	Ryan Road	3	3	4	6	2022
592	CE3604	890	VSL2C	Widen	VA 620 Braddock Rd	VA 659	Fairfax County Line	3	3	2	4	2025
593	CE3605	889	VSL2D	Widen	VA 620 Braddock Rd	VA 659	Royal Hunter Drive	4	4	2	4	2025
594	CE3606	884	NRS	Reconstruct	VA 620 Braddock Road	Braddock Road	Summerall/Supreme	4	4	2	2	2020-2022
595	CE3601	887	NRS	ReAlign Intersections	VA 621 Evergreen Mills Rd	Watson Road	Reservoir Road	3	3	2	2	2020-2024
596	CE3311	578 580	VSL62	Widen	VA 621 Evergreen Mills Road (Eastern Segment)	VA 607 Loudoun County Parkway Northstar Boulevard	VA 659 Belmont Ridge Road Stone Springs Boulevard	4	4	2	4	2025
597	CE3312	578 580		Construct	VA 621 Evergreen Mills Road (Western Segment)	VA 842 Arcola Boulevard	VA 659 Belmont Ridge Road	4	4	2	4	2025
598	CE3333	683	NRS	Construct	VA 625 Waxpool Road/ VA 607 Loudoun County Parkway Interchange Intersection Improvements	Loudoun County Parkway	Waxpool Road	3	3	4	4	2019-2024
599	CE3443	689	VSL54	Widen	VA 640 Farmwell Road	VA 1950 Smith Switch Road	VA 641 Ashburn Road	4	4	4	6	2020-2022
600	CE2209	335	VSL45	Widen-Study	VA 643	Leesburg Town Limits	Crosstrails Boulevard	3	3	2	4	2035 not coded
601	CE3502	827	VSL65	Construct	VA 643 Shellhorn Extended	VA 606 Loudoun County Parkway	VA 634 Moran Road	0	4	0	4	2020-2023

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
602	CE3499	825	VSL64	Construct	VA 645 Westwind Blvd Drive Extended	VA 607 Loudoun County Parkway	VA 606 Old Ox Rd.	0	4	0	4	2020–2026
603	CE3734	2489	VSL68	Widen	VA 645 Croson Ln.	Clairborn Parkway	Old Ryan Road			2	4	2027
604	CE1897	72	VSL4ac	Widen	VA 659 Belmont Ridge Road	VA 7 Leesburg Pike	VA 267 Dulles Greenway	4	3	2	4	2018
605	CE1897	746	VSL4AD	Widen/Upgrade	VA 659 Belmont Ridge Road	VA 645 Croson Lane	VA 267 Dulles Greenway	4	3	2	4	2025–2023
606	CE1897	2523	VSL4G	Widen	VA 659 Belmont Ridge Road	Arcola Mills Drive	Shreveport Drive			2	4	2028
607	CE1818	297	VSL4f	Widen	VA 659 Gum Spring Rd.	Prince William County Line	VA 620 Braddock Road	4	4	2	4	2035
608	CE3306 CE3307 CE3308	573 574 575	VSL61	Construct	VA 842 Arcola Boulevard (Southern Segment)	US 50	VA 607 Loudoun County Parkway	0	4	0	4	2022
609	CE3067	76	VSL40F	Construct	VA 901 Clairborne Parkway	VA 645 Croson Lane	VA 772 Ryan Road	0	4	0	4	2019
610	CE3309	576	VSL63	Construct	VA 774 Creighton Road (completion of eastern end)	VA 659 Belmont Ridge Road-Northstar Boulevard	VA 621 Evergreen Mills Road	0	4	0	4	2025–2020
611	CE3323	641	VSL58	Construct	Ashburn Silver Line Station Connector Bridge	VA 267 Dulles Greenway	Ashburn Silver Line Station	4	4	0	4	2019 Complete
612	CE3734	883	VSL66	Widen	Croson Ln	Clairborn	Mooreview Pkwy	4	4	2	4	2025

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
613		577	VSL56	Construct	Crosstrail Boulevard	VA 625 Sycolin Road	Kincaid Boulevard	0	4	0	4	2019 Complete
614	CE3735	2491	VSL56A	Construct	Crosstrail Boulevard	VA 625 Sycolin Road	Dulles Greenway	0	4	4	4	2026
615		662	NRS	Construct	VA 868 Davis Drive	VA 606 Old Ox Road	VA 846 Sterling Boulevard	0	4	0	4	2025
616	CE3313 & CE3314	564 & 565	VSL67A	Construct	Dulles West Blvd. Phase I & Phase II	Dulles Landing Drive VA 607 Loudon County Parkway	Arcola Blvd	0	4	0	4	2022
617	CE2582	1031	VSL67B	Construct	Dulles West Blvd. Phase III	Arcola Blvd	Northstar Dr.	0	4	0	4	2025
618		888	NRS	Reconstruct	Elk Lick Rd Intersections	US 50	Tall Cedars Pkwy	4	4	2	2	2020
619	CE3602	886	NRS	Construct	Moorefield Boulevard	Mooreview Parkway	Moorefield Station	0	4	0	3	2020
620	CE3316	568	VSL57	Construct	VA 2298 Mooreview Parkway (Missing Link)	VA 2773 Amberleigh Farm Drive	VA 772 Old Ryan Road	0	4	0	4	2019
621	CE3318	570	VP12R	Construct	VA 3171 Northstar Boulevard (Missing Link #79)	Shreveport Drive	US 50	0	3	0	4	2022
622	CE3737	2495	VP12S	Construct	VA 3171 Northstar Boulevard	Tall Cedars Parkway	Braddock Road	0	3	0	4	2028

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	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
623	CE3320	572	VSL59	Construct	VA 1071 Prentice Drive (Western Segment)	VA 607 Loudoun County Parkway	Loudoun Station Drive	0	4	0	4	2019–2026
624	CE3321	556	VSL59	Construct	VA 1071 Prentice Drive Eastern Segment	VA 789 Lockridge Road	VA 607 Loudoun County Parkway	0	4	0	4	2019–2026
625	CE3501	826	VSL48B	Construct	VA 2401 Riverside Parkway	VA 607 Loudoun County Parkway	VA 2020 Ashburn Village Boulevard Extension	0	4	0	4	2018–2022
626	CE3324	559	VSL49B	Construct	VA 1061 Russell Branch Parkway (Western Segment)	VA 659 Belmont Ridge Road	Tournament Parkway	0	4	0	4	2017–2024
627	CE3326	563	VSL55A	Construct	Shreveport Drive (Western Segment) Evergreen Mills Road	VA 621 Evergreen Mills Road	VA 659 Belmont Ridge Road	0	4	0	4	2025–2021 Completed
628	CE3329	562	VSL60	Construct	VA 846 Sterling Boulevard Extension	VA 1036 Pacific Boulevard	VA 634 Moran Road	0	4	0	4	2025
629	CE3332	555		Widen	VA 2119 Waxpool Road	VA 2070 Demott Road	VA 2020 Ashburn Village Boulevard	4	4	2	4	2018
		Prince William County										
630	CE3187	82	VSP2i	Widen	VA 619 Fuller Road	US 1	VA 619 Fuller Heights Road Relocated			2	4	2025
631	CE3693	996	VSP3D	Widen	VA 621 Devlin Road	Linton Hall Road	Wellington Road			2	4	2028
632	CE2357	79	VSP3b	Widen/Upgrade	VA 621 Balls Ford Road	Sudley Rd	Doane Drive	4	3	2	4	2022
633	CE2357	690	VSP64		VA 621 Balls Ford Road Relocated	Doane Drive	Devlin Road	0	3	0	4	2022
634	CE3372	591	VSP66	Construct	VA 627 Van Buren Road	VA 234 Dumfries Road	VA 610 Cardinal Drive	0	4	0	4	2040

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								Fr	To	Fr	To	
635	CE3374	593	VSP65	Widen	VA 638 Neabsco Mills Road	US 1 Jefferson Davis Highway	Smoke Ct.			2	4	2023
636		376	VSP5e	Widen	VA 640 Minnieville Road	VA 643 Spriggs Road	VA 234 Dumfries Road	3	3	2	4	2018
637	CE3695	998	VSP17C	Widen	VA 674 Wellington Road	University Boulevard	VA 621 Devlin Road/Balls Ford Road	3	3	2	4	2028
638	CE2145	646 581	VSP17ba	Widen	VA 674 Wellington Road	VA 621 Devlin Road/Balls Ford Road	VA 234 Prince William Parkway Bypass	3	3	2	4	2025
639	CE2145	338 589	VSP17b	Widen	VA 674 Wellington Road	VA 234 Bypass Prince William Parkway	VA 668 Rixlew Lane	3	3	2	4	2035
640	CE1754	308	VSP18	Widen	VA 676 Catharpin Rd.	VA 55 John Marshall Highway	Heathcote Blvd.	3	3	2	4	2040 —2020
641	CE3753	4600	NRS	Construct	Annapolis Way Extension	VA 123 Commuter Lot Entrance	Current termini west of Marina Way			0	2	2028
642	CE3754	3520		Study	HOV lanes on Dale Blvd/PW Pkwy/Minnieville Rd	Dale Blvd / PW Pkwy / Minnieville Rd						not coded
643	CE3756	3580	NRS	Construct	Marina Way Extended	VA 123 Gordon Blvd	Annapolis Way	0	4	0	4	2030
644	CE2876	4123	VU14B	Widen	Liberia Avenue	VA 28	Richmond Avenue			4	6	2025
645	CE1985	401	NRS	Construct	McGraws Corner Dr. / Thoroughfare Rd.	US 29 Lee Highway @ Virginia Oaks Dr.	US 15 @ Thoroughfare Dr.	0	4	0	4	2040
646	CE1921	219	VSP25b	Widen	VA 1781 New Telegraph Road/Summit School Road	Horner Road/Park'n'Ride Lot Access	VA 2190 Summit School Road Extension	4	4	2	4	2025
647	CE3480	745	NRS	Construct	VA 234 Potomac Shores Parkway	US 1 Jefferson Davis Highway	VA 4700 River Heritage Boulevard	0	4	0	4	2020
648	CE2008	325	VSP20C	Widen/Upgrade	VA 1392 Rippon Boulevard Extension	West of Wigeon Way	Rippon VRE Station	4	3	2	4	2040 —2030

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								Fr	To	Fr	To	
649	CE3482	743	NRS	Widen	VA 4700 River Heritage Boulevard	VA 234 Potomac Shores Parkway	Dominica Drive	4	4	2	4	2020
650	CE3481	744	NRS	Construct	VA 4700 River Heritage Boulevard	Dominica Drive	VA 234 Potomac Shores Parkway	0	4	0	2	2020
651	CE3293	642	VSP62a	Construct	Rollins Ford Road	Wellington Road	Linton Hall Road	0	3	0	4	2040
652		643	VSP67	Construct	VA 2190 Summit School Road Extension	Telegraph Road	VA 2190 Summit School Road (south end of existing)	4	4	2	4	2025
653	CE1837	257	VSP25c	Widen	VA 1781 Telegraph Rd.	VA 294 (Prince William Pkwy)	VA 849 (Caton Hill Rd.) Horner Road Park-n-Ride Lot Access	4	4	2	4	2025
654	CE3755	3560	NRS	Construct	Thorough Blvd.	VA 640 Minnieville Road	Elm Farm Road			0	2	2030
655		83	VSP47e	Construct	University Boulevard	Sudley Manor Drive	Wellington Rd/Progress Ct.	0	3	0	4	2035
656	CE2176	904		Construct	Williamson Blvd	Sudley Manor Drive	Portsmouth Road			0	4	2030

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	Project ID	Improvement	Facility	From	To	Fr	To	Fr	To	Completion Date
FAMPO										
657	VI2RFA	Construct/revise operations	I-95 :HOV/Bus/HOT Lanes- single reversible lane	north of Garrisonville Road (south of Aquia Creek) at flyover	south of Garrisonville Road	1	1	0	1	2018
658	VI2RFB	Construct	I 95 : HOV / Bus / HOT Lanes: Southbound Ramp	South of Garrisonville Road	SB HOT Lanes to SB GP Lanes	1	1	0	1	2018
659	VI2RFC	Construct	I 95 : HOV / Bus / HOT Lanes: Northbound Ramp	South of Garrisonville Road	NB GP Lanes to NB HOT Lanes	1	1	0	1	2018
660	VI2rf	Construct	I 95 : HOV / Bus / HOT Lanes	Rte. 610 (Garrisonville Rd.) in Stafford County	VA 17 Warrenton Rd. (exit 133)	1	1	0	2	2022
661		Study	I 95 : HOV / Bus / HOT Lanes	VA 17 Warrenton Road (exit 133)	VA 17 in Spotsylvania County (exit 126)	1	1	0	2	not coded
662		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	South of Telegraph Road (North of Aquia Creek)	SB GP Lanes to SB HOT Lanes	1	1	0	1	2022
663		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	South of Telegraph Road (North of Aquia Creek)	NB HOT Lanes to NB GP Lanes	1	1	0	1	2022
664		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	North of Garrisonville Road (south of Aquia Creek)	NB GP Lanes to NB HOT Lanes	1	1	0	1	2022
665	VI2RFD	Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	At Courthouse Rd.	NB AM on-ramp	1	1	0	1	2022
666	VI2RFE	Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	at Courthouse Rd.	SB PM off-ramp	1	1	0	1	2022
667	FAI1F	Widen	I-95 northbound	Exit 126 (US 1/VA17)	Exit 130 (VA 3 Plank Rd.)	1	1	3	4	2035
668	FAI1G	Construct	I-95 northbound 3 lane collector distributor road	Exit 130 (VA 3 Plank Rd.)	Exit 133 (VA 17 Warrenton Rd.)	1	1	3	6	2025
669	FAI1H	Widen	I-95 northbound	Exit 133 (VA 17 Warrenton Rd.)	Exit 136 (Centerport Parkway)	1	1	3	4	2045
670	FAI1HA	Construct	I-95 4th auxiliary lane	Exit 133 (VA 17 Warrenton Rd.)	Exit 136 (Centerport Parkway)	1	1	X	X+1	2045
671	FAI1J	Widen	I-95 southbound	Exit 130	Exit 126 (US 1/VA17)	1	1	3	4	2035
672	FAI1K	Construct	I-95 southbound	1.3 miles south of Exit 130	.3 miles north of Truslow Rd	1	1	x	x+3cd	2025
673	FAS22A	Widen	VA-3 (William St)	Gateway Blvd.	William St./Blue Gray Parkway			4	6	2030
674	FAS22	Widen	VA 3 (Spotsylvania)	Chewing Lane	VA 627 (Gordon Rd.)	2	2	4	6	2013
675	FAP6E	Widen	Tidewater Trail US 17 Business/VA 2	Beulah Salisbury Dr.	US 17 Bypass (Mills Dr.)	2	2	2	4	2035
676	FAP6	Widen	US 17	US 1	Hospital Blvd.	2	2		4	2025
677	FAP6C	Widen	US 17 (Warrenton Rd.)	McLane Drive	Stafford Lakes Parkway	2	2	4	6	2020
678	FAP7A	Widen	VA 218 (Butler Rd.)	Carter St.	Castle Rock Dr.	4	4	2	4	2045
Fredericksburg										
679		Construct	Carl D. Silver Pkwy Ext.	current terminus	Gordon Shelton Blvd.			0	4	2035
680	FAU1		Fall Hill Ave./ Mary Washington Blvd. Extension	Mary Wash. Blvd.	Gordon Shelton Blvd.			2	4	2020
681			Lafayette Blvd.	City Limit	VA-3 (Blue & Gray Parkway)				4	2045
682	FAU2		Gateway Blvd. Extended	William St. (PR-3)	Fall Hill Ave (UR-3965)			0	4	2035
Stafford County Secondary										
683	NRS		VA 610	Shenandoah Ln	Orville Rd				6	2021
684	FAS5b		VA 630 (Courthouse Rd)	Austin Ridge Dr.	VA 648 (Shelton Shop Rd)	4	4	2	4	2035
685	FAS13		VA 648 (Shelton Shop Rd.)	VA 610 (Garrisonville Rd)	VA 627 (Mountainview Rd)	4	4	2	4	2035
686	FAS3E	Widen	Garrisonville Rd.	Eustace Rd.	Shelton Shop Rd.			4	6	2045
Spotsylvania County Secondary										
687	FAS26A		VA 606	US 1	I-95				4	2025
688	FAS18B		VA-620 (Harrison Rd.)	US-1 BUS (Lafayette Blvd.)	VA-639 (Salem Church Rd.)			2	4	2035
689	FAS19		VA 636 (Mine Rd./ Hood Dr.)	VA 208 (Courthouse Rd.)	US 1	4	4	2	4	2025
690	FAS19B		VA 636 (Mine Rd./ Hood Dr.)	Falcon Dr. / Spotsylvania Ave	Landsdowne Rd	4	4		4	2035

NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.

visualize 2045

A long-range
transportation plan
for the National
Capital Region

APPENDIX D

System Performance Report

March 2022



National Capital Region
Transportation Planning Board

SYSTEM PERFORMANCE REPORT FOR THE VISUALIZE 2045 (2022 UPDATE)
LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION
March 2022

ABOUT VISUALIZE 2045 & THE TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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SYSTEM PERFORMANCE REPORT

This report summarizes the work of the National Capital Region Transportation Planning Board (TPB), the Metropolitan Planning Organization (MPO) for the Washington, DC metropolitan area, in the field of performance-based planning and programming (PBPP) and the establishment of performance measure targets in accordance with the federal requirements authorized in the Fixing America's Surface Transportation (FAST) Act. As part of the regional 2022 update to the Visualize 2045 long-range metropolitan transportation plan (LRTP), this system performance report provides an overview of the performance process and targets developed by the TPB in close coordination with the state departments of transportation (DOTs) and providers of public transportation in response to federal requirements for the long-range transportation plan.

This is the second edition of the System Performance Report. The first System Performance Report was approved in October 2018 as [Appendix D of the Visualize 2045 \(2018\) LRTP](#). The System Performance Report is a requirement of Metropolitan Planning Organizations (MPOs) per federal statutes 23 USC 134(i)(2)(C) and 49 USC 5303(i)(2)(C). The MPO is required to prepare a System Performance Report every four years as part of the quadrennial update of the LRTP. The system performance report evaluates the condition and performance of the transportation system with respect to the applicable performance targets in each area: Highway Safety; Highway Assets: Pavement and Bridge Condition; System Performance (Interstate and National Highway System (NHS), Freight Movement on the Interstate System, and the Congestion Mitigation and Air Quality Improvement Program); Transit Asset Management and Transit Safety

OVERVIEW OF PERFORMANCE-BASED PLANNING AND PROGRAMMING REQUIREMENTS

Under the Moving Ahead for Progress in the 21st Century Act (MAP-21) and reinforced in the FAST Act, federal surface transportation regulations require the implementation of a performance management process through which states and MPOs will “transition to a performance-driven, outcome-based program that provides for a greater level of transparency and accountability, improved project decision-making, and more efficient investment of federal transportation funds.”

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have issued a set of rulemakings for the implementation of PBPP. Each rulemaking laid out the goals of performance for a particular area of transportation, established the measures for evaluating performance, specified the data to be used to calculate the measures, and established requirements for the setting of targets.

Under the PBPP process, state DOTs, MPOs, and providers of public transportation must link federal investment priorities to the achievement of performance targets in each of the performance areas. The final *Statewide and Metropolitan Planning Rule*, published May 27, 2016, provides direction and guidance for the implementation of PBPP, including specified measures and data sources, forecasting performance, target-setting, documentation in the statewide and metropolitan long-range transportation plans and Transportation Improvement Programs (TIPs), and reporting requirements.

The PBPP process requires coordination and agreement on specific responsibilities for each agency in accordance with the planning rule.

INTEGRATING PBPP INTO THE TRANSPORTATION PLANNING PROCESS

MAP-21, signed into law in 2012, placed increased emphasis on performance management within the federal-aid highway program, including development of national performance measures to be used by state DOTs and MPOs in setting targets. The law specifically called for the use of performance-based decision-making within metropolitan transportation planning processes. PBPP involves integrating performance management concepts into established federally required transportation planning and programming processes.

Each of the following sections of this report discusses the performance of an area of the PBPP performance measures. A brief description of the methodology for forecasting future performance and setting the 2018-2021 targets is described, with more detail available in the 2018 report. In general, the methodology for setting targets was to assess the trends in recent performance for each performance measure and then forecast performance based on the trend as well as the predicted impact of the projects in the long-range plan and TIP, using relevant indicators from the travel demand model. This reflects the anticipated effect of the projects toward achieving the TPB's performance targets. Performance compared to targets informs the plans, projects, and policies of the TPB and member agencies, linking investment priorities to the performance targets.

PBPP AND VISUALIZE 2045 (2022)

This System Performance Report was prepared as an appendix of the Visualize 2045 LRTP scheduled for approval in June 2022. At the time of drafting this report, the PBPP process was in an interval of transition. For the PBPP targets that were set for a four-year period from 2018 through 2021, not all actual performance data through 2021 is yet available. This impacts some of the PBPP measures in the areas of Highway Assets and System Performance. In addition, new four-year targets in these areas for the period 2022 through 2025 have not yet been established in coordination with the state DOTs; these targets are to be set by October 1, 2022.

Accordingly, this report only touches lightly on performance in the areas of Highway Asset and Highway System Performance. It is the intention of TPB staff to prepare a revised System Performance Report with respect to these PBPP performance areas near the end of calendar year 2022 to include newly available data on actual performance for the 2018-2021 period versus the targets for that period and to include information on the newly set targets for 2022-2025.

OVERVIEW OF TPB ADOPTED PERFORMANCE TARGETS

The TPB adopts targets throughout the year as required: highway safety and transit safety targets are adopted annually; other targets are adopted every four years or as otherwise necessary. Table 1 below is a summary table of the most recent targets adopted by the TPB for the region for each of the five performance areas (for measures with multiple sub-targets, such as for transit asset classes, example targets are shown).

Table 1: Summary of TPB Adopted Performance Targets

Performance Area	Measure	Metric	Adopted Targets as of March 16, 2022
Highway Safety	Five-Year Rolling Average	# of Fatalities	253.0
	Five-Year Rolling Average	Rate of Fatalities	0.588
	Five-Year Rolling Average	# of Serious Injuries (SI)	1889.7
	Five-Year Rolling Average	Rate of Serious Injuries	3.867
	Five-Year Rolling Average	# of Non-Motorized Fatalities and SI	492.4
Highway Asset Condition	Percent Pavement Lane Miles Interstate / NHS (excl. Interstate)	In Good Condition	52.7% / 31.1%
	Percent Pavement Lane Miles Interstate / NHS (excl. Interstate)	In Poor Condition	1.7% / 7.0%
	Percent Bridge Deck Area	In Good Condition	29.4%
	Percent Bridge Deck Area	In Poor Condition	3.9%
Highway Reliability	Percent Person Miles Traveled Interstate / NHS (excl. Interstate)	Level of Travel Time Reliability	58.5% / 72.7%
Freight	Index	Truck Travel Time Reliability	2.12
Congestion	Annual Hours per Capita	Peak Hour Excessive Delay	26.7
	Percentage	Non-SOV Travel	37.2%
Vehicular Emissions	Total Emissions Reduction (kg/day)	VOCs / NOx	2.195 / 4.703
Transit Asset Management	Percentage	Revenue Vehicles exceeding Useful Life	6.9% (Bus)
	Percentage	Service Vehicles exceeding Useful Life	46.7% (Truck)
	Percentage	Track Segments with Performance Restrictions	3.5% (Heavy Rail)
	Percentage	Facilities rated Marginal or Poor	4.1% (Pass. Facilities)
Transit Safety	Number and Rate (per Revenue Vehicle Mile)	Fatalities by Mode (showing Bus)	0 / 0
	Number and Rate (per Revenue Vehicle Mile)	Reportable Injuries by Mode (showing Bus)	411 / 0.69
	Number and Rate (per Revenue Vehicle Mile)	Reportable Safety Events by Mode (showing Bus)	463 / 0.78
	Mean Distance	Between Major Mechanical Failures by Mode (showing Bus)	13,654

RECENT INFORMATION ON PERFORMANCE VS. TARGETS

Similar to the preceding section, Table 2 is a summary of actual performance for which data are available compared to the relevant targets. At the time of this report, not all measures have data available for 2021 or other applicable target years or periods.

Performance data versus adopted targets is available for the areas of highway safety, bridge condition, highway reliability, and CMAQ Program emissions reduction. Further sections in this report will discuss performance vs. targets in more detail.

Table 2: Recent Performance vs Targets

	Performance Measure	Applicable Target Year / Period	Adopted Targets	Actual Performance	Met / Not Met
Highway Safety	# of Fatalities	2016-2020	253.0	304.4	Not Met
	Rate of Fatalities	2016-2020	0.588	0.704	Not Met
	# of Serious Injuries	2016-2020	2692.1	2437.0	Met
	Rate of Serious Injuries	2016-2020	6.517	5.616	Met
	# of Non-Motorized Fatalities and Serious Injuries	2016-2020	508.6	555.5	Not Met
Highway Bridge Condition	NHS Bridges in Good Condition	2021	29.4%	39.4%	Met
	NHS Bridges in Poor Condition	2021	3.9%	1.7%	Met
Highway Reliability	Intestate Travel Time Reliability	2021	58.5%	71.7%	Met
	NHS (Non-Interstate) Travel Time Reliability	2021	72.7%	91.2%	Met
	Truck Travel Time Reliability	2021	2.12	2.30	Not Met
	Peak Hour Excessive Delay	2021	26.7	12.3	Met
Vehicular Emissions Reduction	Emissions Reduction VOCs	2018-2021	2.195	23.677	Met
	Emissions Reduction NOx	2018-2021	4.703	134.629	Met

HIGHWAY SAFETY PERFORMANCE

This chapter summarizes the federal requirements related to the establishment of regional highway safety performance targets and describes the methodology used to develop the National Capital Region's highway safety targets. The targets described in this report meet the MAP-21/FAST performance-based planning and programming (PBPP) requirements and are consistent with the target setting approaches of Maryland, Virginia, and the District of Columbia.

The FHWA published the *National Performance Management Measures: Highway Safety Improvement Program; Final Rule* on March 15, 2016, with an effective date of April 24, 2016, followed by one year for implementation. Under the Highway Safety rule, State DOTs establish and report annual targets for five highway safety performance measures by August 31 of each year. MPOs then set targets specific to the metropolitan planning area within 180 days.

The goal of the implementation of the highway safety rule is to improve both the quantity and quality of safety data pertaining to serious injuries and fatalities. State DOTs and MPOs are expected to use the information generated by these regulations to make investment decisions that result in the greatest possible reductions in fatalities and serious injuries. Implementation of the rule will promote greater transparency by disseminating the data publicly. In addition, aggregation of targets and progress at the national level will become possible through improved data consistency among the states and MPOs.

The TPB adopted the first set of highway safety targets for the National Capital Region in January of 2018. Since then, the TPB has devoted considerable effort to: 1) better understand the factors driving the unacceptably high numbers of fatal and serious injury crashes in the region, 2) identify countermeasures and strategies that are proven to be effective in reducing fatal and serious injury crashes, and 3) encourage TPB member jurisdictions and agencies to implement countermeasures and strategies to significantly reduce fatalities and serious injuries on the region's roadways.

Progress was made in each of these areas over the past four years. In the spring of 2020, the TPB reviewed the findings of a regional crash data analysis and considered the recommendations resulting from a consultant-led regional safety study that began in 2019. This work led to the adoption of a major safety resolution during the TPB's July 2020 meeting. A key element of this resolution was the establishment of the Regional Roadway Safety Program (RRSP) to assist member jurisdictions and the region to develop and/or implement projects, programs, or policies to equitably improve safety outcomes for all roadway users; two sets of RRSP projects have been approved since.

The TPB anticipates that the RRSP, combined with the continued safety improvement efforts of member agencies and jurisdictions, will result in improved performance that will be reflected in the federally required regional safety performance measures in future years.

HIGHWAY SAFETY PERFORMANCE MEASURES

Annual safety measures are defined as five-year rolling averages. The five required safety performance measures, along with the prescribed data sources, are outlined in Table 3 below.

Table 3: Summary of Highway Safety Measures

Performance Measure	Description	Data Source
Number of Fatalities (5 year rolling average)	Total number of fatalities during a calendar year	FARS ¹
Rate of Fatalities per 100 million VMT (5 year rolling average)	Ratio of total fatalities to VMT	FARS and HPMS ² (or MPO estimate)
Number of Serious Injuries (5 year rolling average)	Total number of serious injuries during a calendar year	State reported serious injury data
Rate of Serious Injuries per 100 million VMT (5 year rolling average)	Ratio of total serious injuries to VMT	State reported serious injury data and HPMS
Number of Non-Motorized Fatalities and Serious Injuries (5 year rolling average)	Total number of fatalities and serious injuries during a calendar year	FARS and State serious injury data

¹ FARS: Fatality Analysis Reporting System

² HPMS: Highway Performance Monitoring System

States and MPOs must fulfill the federal target setting requirements annually. State DOTs are required to set statewide targets for each of the five performance measures. Targets for the first three performance measures (number of fatalities, rate of fatalities, and number of serious injuries) must be identical to the targets set by the State Highway Safety Office (SHSO). Each target must also represent the anticipated performance outcome for all public roadways in the state, regardless of ownership. A breakdown of responsibilities for target setting are listed below.

State DOTs:

- Required to set statewide targets for each of the five performance measures:
 - Each of these targets must be identical to those set by the SHSO.
 - Each target shall represent anticipated performance outcome for all public roadways in the State, regardless of ownership.
 - Targets cannot be changed after they are reported.

MPOs:

- For each performance measure, the MPO will either:
 - Agree to plan and program projects so they contribute toward accomplishing the state DOT safety target for that PM, or

- Commit to a quantifiable target for that PM for the MPO planning area:
 - Each target shall represent anticipated performance outcome for all public roadways in the MPO planning area, regardless of ownership.
 - MPOs shall coordinate with the state DOT(s) to ensure consistency.

MPO Coordination with State DOTs

MPOs are required to establish their performance targets in coordination with their state partners and these targets should be data-driven and realistic. The requirement for these safety targets to be evidence based and predictive of anticipated outcomes does not supersede or diminish any aspirational targets to which local, regional, or state jurisdictions are committed. Coordination is essential between these two entities in setting highway safety targets. Both should work together to share data, review strategies and understand outcomes.

TPB staff have developed the regional highway safety targets in close coordination with the Maryland Highway Safety Office of the Maryland Motor Vehicle Administration and the State Highway Administration's Innovative Performance Planning Division; the Transportation Operations Administration of the District of Columbia Department of Transportation (DDOT); and the Highway Safety Analysis Program at the Virginia Department of Transportation (VDOT). Each state's unique target setting approach was incorporated into the methodology used to develop the regional targets.

Target Reporting

State DOTs must report their targets to the FHWA within the state's HSIP (Highway Safety Improvement Program) annual report due each year on August 31.

MPOs do not report their targets to the FHWA, but rather to their respective state DOTs in a manner that is documented and mutually agreed upon. MPOs also report progress toward achieving their targets within the System Performance Report portion of their LRTP. In addition, MPO TIPs must include a discussion of how the implementation of the TIP will further the achievement of the targets.

FHWA Determination of Significant Progress

States do not have to meet each of their safety targets to avoid the consequences outlined in the rule but must either meet the target or make significant progress toward meeting the target for four of the five performance measures. The FHWA determines that the significant progress threshold is met if the performance measure outcome is better than the "baseline"; defined as the five-year rolling average for that performance measure for the year prior to the establishment of the target. MPO targets are not evaluated by the FHWA.

Consequences for Failing to Meet Targets of Making Significant Progress

State DOTs that have not met or made significant progress toward meeting their safety performance targets lose some flexibility in how they spend their HSIP funds and are required to submit an annual implementation plan that describes actions the DOT will take to meet their targets.

There are no consequences outlined in the rule for MPOs not meeting their targets. However, the FHWA will review how MPOs are incorporating and discussing safety performance measures and targets in their long-range transportation plans and TIPs during MPO certification reviews.

RECENT TRENDS IN SAFETY DATA

Recent trends in data are shown in Table 4 below. It should be noted that the final safety data for the year is published towards the end of the following year; targets for 2022 were developed during calendar year 2021 when actual performance data for 2020 was still being finalized.

Table 4: National Capital Region Safety Trends

	2016	2017	2018	2019	2020	Change from 2019 to 2020
# of Fatalities	279	313	303	300	321 ¹	↑ 7.0 %
Fatality Rate (per 100 MVMT)	0.633	0.695	0.673	0.659	0.876 ¹	↑ 32.9 %
# of Serious Injuries	2,916	2,592	2,464	2,371	1,842	↓ 22.3 %
Serious Injury Rate (per 100 MVMT)	6.614	5.755	5.473	5.211	5.026	↓ 3.6 %
# Nonmotorist Fatalities & Serious Injuries	555	586	552	595	440	↓ 26.1 %

Note 1: 2016-2019 fatality data from NHTSA's Fatality Analysis Reporting System; 2020 fatality data from State DOTs

Fatalities increased seven percent between 2019 and 2020 which, combined with the dramatic reduction in Vehicle Miles Traveled (VMT associated with the COVID pandemic, drove the fatality rate (per VMT) higher by 32.9 percent over the same period. The number of serious injuries fell over 22 percent while the rate of serious injuries declined by a more modest 3.6 percent. The number of nonmotorist fatalities plus serious injuries, driven by the dramatic reduction in overall serious injuries, decreased by 26.1 percent between 2019 and 2020.

PROGRESS TOWARDS THE 2016-2020 SAFETY TARGETS

Table 5 (next page) shows the region's performance on the five safety performance measures with respect to the 2016-2020 targets adopted in December 2019.

Table 5: Highway Safety 2016-2020 Actuals vs. Targets

Performance Measure (5-year rolling average)	2016-2020 Actual	2016-2020 Target	Status
# of Fatalities	304.4 ¹	253.0	Not met
Fatality Rate (per 100 MVMT)	0.704 ¹	0.588	Not met
# of Serious Injuries	2,437.0	2,692.1	Met
Serious Injury Rate (per 100 MVMT)	5.616	6.157	Met
# Nonmotorist Fatalities & Serious Injuries	555.5	508.6	Not met

Note 1: Figures listed are from state fatality data; official 2020 NHTSA Fatality Analysis Reporting System data are not yet published

As shown above, the region met the 2016-2020 targets for the number of serious injuries and the serious injury rate performance measures. However, the region did not meet the targets set for the number of fatalities, the number of nonmotorist fatalities and serious injuries, and the fatality rate targets.

REGIONAL SAFETY TARGET SETTING APPROACH

To account for and incorporate the different target setting approaches used by Maryland, Virginia, and the District of Columbia into targets for the entire National Capital Region (NCR), staff has applied the following target setting methodology to develop the TPB approved targets:

- identify a “sub-target” for the Maryland portion of the NCR by applying MDOT’s target setting approach to the NCR safety data;
- identify a “sub-target” for the Virginia portion of the NCR by applying VDOT’s target setting approach to the NCR safety data;
- identify a “sub-target” for the District of Columbia portion of the NCR by directly incorporating DDOT’s targets; and
- establish targets for the entire NCR by mathematically combining items 1 through 3.

Overview of Member States’ Target Setting Methodologies

Maryland: In previous years Maryland set quantifiable and data driven highway safety targets that supported their Toward Zero Deaths (TZD) approach by developing interim targets to reduce overall fatalities and serious injuries by at least 50 percent by 2030.

In 2021 Maryland adopted a new methodology to set highway safety targets. Unlike the TZD approach, annual targets this year were set using a two-pronged approach. Targets that are experiencing a decreasing trend over time are set using five-year rolling averages and an exponential trend line without a fixed endpoint to calculate future targets. For those targets experiencing increasing trends, however, projections are based on a 2 percent decrease from the 2016-2020 five-year average, continuing with a 2 percent decrease for each successive five-year average.

Maryland officials provided TPB staff with trend lines and interim targets for each of the five performance measures based on the safety data for the Suburban Maryland portion of the NCR.

Virginia: The method used by Virginia to set annual targets is based on a model that forecasts future fatalities and serious injuries based on a broad range of factors. VDOT then estimated the collective impact of their planned and programmed countermeasures and reduced the model forecast by the projected impacts of their engineering and behavioral efforts. This process is only viable at a statewide level and cannot be used effectively to determine targets for smaller regions within the state. To assist their MPOs, VDOT advised MPOs to apply linear regression techniques to make projections for each of the numeric performance measures¹ to calculate the 2018-2022 regional targets. For the rate performance measures², VDOT advised MPOs to divide the annual forecasts for fatalities and serious injuries by projected VMT (vehicle miles traveled) to make 2021 and 2022 projections which were then used to calculate the 2018-2022 regional targets.

District of Columbia: The District of Columbia analyzed their safety data using a combination of annual and five-year average data and polynomial trend lines to determine their targets. TPB staff directly incorporated the District of Columbia targets, as published in their HSIP Annual Report, into the NCR target setting methodology.

CALCULATION OF THE NATIONAL CAPITAL REGION HIGHWAY SAFETY TARGETS

Numerical Targets

The NCR targets for the number of fatalities, number of serious injuries, and number of nonmotorist fatalities and serious injuries were calculated by summing the sub-targets for the Suburban Maryland, Northern Virginia, and District of Columbia portions of the region. This is straightforward mathematical addition.

As a final step, the calculated numerical targets were compared to the corresponding targets adopted by the TPB last year and the lower (more aggressive) target for each performance measure was selected.

Rate Targets

Determination of rate targets (fatality rate and serious injury rate) are somewhat more complicated and involve mathematically combining the effects of the Suburban Maryland, Northern Virginia, and District of Columbia targets according to their respective proportions of total regional VMT. The

¹ Number of fatalities, number of serious injuries, and number of nonmotorist fatalities plus serious injuries

² Fatality rate per 100 million VMT and serious injury rate per 100 million VMT

following steps illustrate the process for the fatality rate (a similar process was used for the serious injury rate):

- 1) Determine the percent fatality rate reduction represented by each sub target.

Fatalities per 100 MVMT	2016-2020 Average	2018-2022 Average (sub target)	Percent change
Suburban MD	0.878	0.735	-16.30%
NOVA	0.475	0.430	-9.34%
DC	0.839	1.070	27.52%

- 2) Determine the proportion of total regional VMT attributable to Suburban Maryland, Northern Virginia, and DC.

Sub region	100 MVMT (2020)	Proportion
Suburban MD	183.79	50.14%
NOVA	152.45	41.59%
DC	30.28	8.26%
Sum	366.51	100.00%

- 3) Determine the percent change for the regional rate by multiplying the percent change (from step 1) by the VMT proportion (from step 2).

Sub region	A: Percent change in fatality rate (from step 1)	B: Proportion (from step 2)	A x B
Suburban MD	-16.30%	50.14%	-8.173%
NOVA	-9.34%	41.59%	-3.885%
DC	27.52%	8.26%	2.273%
Sum			-9.755%

- 4) Apply the percent change for the regional rate calculated in step 3 to the 2016-2020 average fatality rate. This is the regional fatality rate target for 2018-2022.

Fatalities per 100 MVMT	2016-2020 Average	Regional percent change (from step 3)	2018-2022 Average (regional target)
NCR	0.704	-9.755%	0.635

As a final step, the calculated rate targets were compared to the corresponding targets adopted by the TPB last year and the lower (more aggressive) target for each performance measure was selected. Since the fatality rate target of 0.588 set last year is lower than the 0.635 figure calculated by mathematically combining the three sub-regional targets, the staff-recommended target is 0.588 (and not 0.635).

REGIONAL HIGHWAY SAFETY TARGETS

Table 6 displays the 2018 - 2022 National Capital Region Highway Safety targets, adopted by the TPB on January 19, 2022. As per federal regulations, the National Capital Region highway safety targets are updated on an annual basis by no later than February 28 of each calendar year.

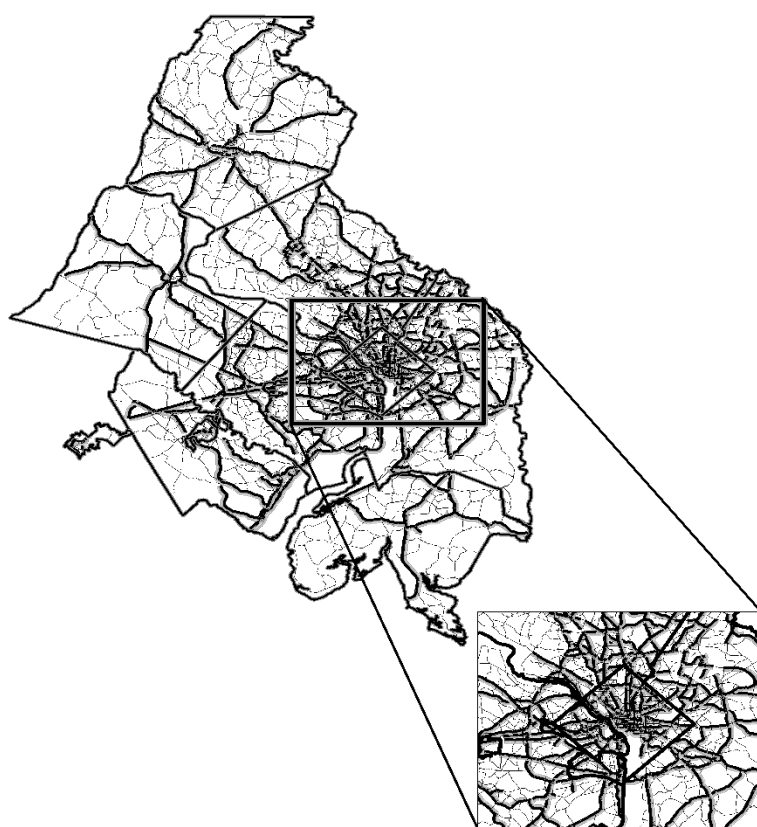
Table 6: Summary of Regional Highway Safety Performance Measure Targets

Performance Measure (5-year rolling average)	2016- 2020 Target	2017- 2021 Target	2018- 2022 Target	Difference	Percent Difference
# of Fatalities	253.0	253.0	<u>253.0</u>	0.0	0.0%
Fatality Rate (per 100 MVMT)	0.588	0.588	<u>0.588</u>	0.0	0.0%
# of Serious Injuries	2,692.1	2,435.8	<u>1,889.7</u>	-546.1	-22.4%
Serious Injury Rate (per 100 MVMT)	6.110	5.539	<u>3.867</u>	-1.672	-30.2%
# Nonmotorist Fatalities & Serious Injuries	508.6	508.6	<u>492.4</u>	-37.5	-7.1%

PAVEMENT AND BRIDGE CONDITION PERFORMANCE

This report provides an overview of the performance measures concerning the condition of bridges and pavements within the TPB's metropolitan planning area. The National Performance Management Measures; Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program Final Rule addresses requirements established by MAP-21 and the FAST Act. The rule became effective on May 20, 2017, with one year for implementation. This section describes the TPB's methodology for determining the initial performance targets and coordination with the departments of transportation of the District of Columbia, Maryland, and Virginia. Targets for the period 2018 through 2021 were approved by the TPB on July 18, 2018 in Resolution R2-2019. New targets for the period 2022 through 2025 are being developed in calendar year 2022.

NATIONAL HIGHWAY SYSTEM



Several of the MAP-21 performance measures directly involved the NHS. The NHS includes the Interstate Highway System as well as other roads important to the nation's economy, defense, and mobility. The NHS was developed by the United States Department of Transportation (DOT) in cooperation with the states, local officials, and MPOs. With the adoption of MAP-21 on October 1, 2012, the NHS became the "enhanced-NHS" by adding roads that were previously classified as principal arterials but not yet part of the system. These Interstate and Non-Interstate roadways on the NHS are the primary roadways for the assessment of the PBPP measures, shown in Figure 1. When performance measures are referring to the Interstate or Non-Interstate roadways on the NHS, it is the MAP-21 "enhanced-NHS."

Figure 1: National Highway System Network in TPB Planning Region

State DOTs have the ability to make modifications to the NHS by either removing or adding additional roadways. This can be done in writing to the FHWA Division Office. Supporting documents must be included such as maps and documentation of the coordination with the effected jurisdictions. The FHWA Division Office will review, summarize, and move changes for recommendation to FHWA Headquarters. FHWA Headquarters will approve any modifications to the NHS.

PAVEMENT AND BRIDGE CONDITION PERFORMANCE MEASURES

The Pavement and Bridge Condition Performance Measures final rule, published in the Federal Register on January 18, 2017, established measures for state DOTs to assess the condition of pavements on the non-Interstate NHS; pavements on the Interstate System; and bridges carrying the NHS, including on- and off-ramps connected to the NHS. Targets must be set for six particular areas; 1) Percent of pavements on the Interstate System in good condition, 2) Percent of pavements on the Interstate in poor condition, 3) Percent of pavements on the NHS (excluding Interstate) in good condition, 4) Percent of pavements on the NHS (excluding Interstate) in poor condition, 5) Percentage of NHS bridge deck classified in good condition, 6) Percentage of NHS bridge deck classified in poor condition. Table 7 provides a summary of the measures as well as the 2018-2021 adopted targets.

Data for these performance measures are available through databases overseen by the FHWA: the Highway Performance Monitoring System (HPMS) and the National Bridge Inventory (NBI). State DOTs have the responsibility to report data to the HPMS and the NBI annually.

Table 7: Summary of Pavement and Bridge Performance Measures and 2018-2021 Targets

Interstate Pavement	CY 2018 – 2021 Four Year Target
(1) Percentage of pavements on the Interstate System in Good condition	52.7%
(2) Percentage of pavements on the Interstate System in Poor condition	1.7%
NHS (Non-Interstate) Pavement	
(3) Percentage of pavements on the NHS (excl. Interstate) in Good condition	31.1%
(4) Percentage of pavements on the NHS (excl. Interstate) in Poor condition	7.0%
Bridges	
(5) Percentage of NHS Bridges Classified as in Good Condition	29.4%
(6) Percentage of NHS Bridges Classified as in Poor Condition	3.9%

Pavement Condition

The HPMS database includes the data needed for calculating the good and poor metrics. Data include roughness, cracking, rutting for asphalt pavement, and faulting for concrete pavement. The measures are aggregated by lane miles. In addition, HPMS pavement data collection requirements have been revised to require more comprehensive collection of data for the NHS network.

State DOTs must establish targets, regardless of ownership, for the full extent of the Interstate and non-Interstate NHS. The initial statewide two and four-year targets for the non-Interstate NHS and four-year targets for the Interstate were required to be adopted by May 20, 2018, with subsequent reporting to FHWA by October 1, 2018, for the baseline period of 2018 through 2021.

The second round of target setting for this PBPP area covers the calendar year period 2021 through 2025, with targets required to be set and reported by October 1, 2022. MPOs can either support the relevant state DOTs four-year target or establish their own within 180 days after the state DOT's target are established.

Bridge Condition

For the bridge condition performance measures, the measures are calculated based on deck area and a classification of the bridge structure condition. The classification is based on NBI condition ratings for the Deck, Superstructure, Substructure, and Culvert. Condition is determined by the lowest rating of deck, superstructure, substructure, or culvert. If the lowest rating is greater than or equal to 7, the bridge is classified as good; if is less than or equal to 4, the classification is poor. (Bridges rated below 7 but above 4 are classified as fair; there is no related performance measure.) Deck area is computed using NBI criteria of Structure Length, Deck Width or Approach Roadway Width (for some culverts).

State DOTs must establish targets for all bridges carrying the NHS, which includes on- and off-ramps connected to the NHS within a state, and bridges carrying the NHS that cross a State border, regardless of ownership. As with the pavement performance measures, MPOs can either support the relevant state DOT(s) four-year target or establish their own within 180 days after the State DOT's targets are established.

Pavement and Bridge Penalties

If FHWA determines that a state DOT's Interstate pavement condition falls below the minimum level for the most recent year, the state DOT must obligate a portion of National Highway Performance Program (NHPP) and transfer a portion of Surface Transportation Program (STP) funds to address Interstate pavement condition. If for three consecutive years more than 10.0 percent of a state DOT's NHS bridges' total deck area is classified as Structurally Deficient, the state DOT must obligate and set aside National Highway Performance Program (NHPP) funds for eligible projects on bridges on the NHS.

PAVEMENT AND BRIDGE CONDITION TARGET SETTING APPROACH

The following approaches were used by the region's DOTs in developing the 2018-2021 pavement and bridge condition targets.

District of Columbia

Tables 8 and 9 below are the established performance measures for both pavement and bridge conditions in the District of Columbia. Targets were established by use of historical data, future programmed projects, and future budgets appropriated to maintain pavement in a state of good

repair. It should be noted that the District of Columbia has a number of bridges and roadways that are not maintained by DDOT, but rather by the National Park Service (NPS). Though DDOT has no ability to impact the condition of bridges owned by other entities, those NPS bridges, e.g., the Arlington Memorial Bridge, are factored into the overall bridge condition in the District Columbia.

Table 8: Summary of the DC 2018-2021 Targets for Pavement Condition

Interstate	CY 2018 – 2020 Two Year Target	CY 2018 – 2022 Four Year Target
Percent Good	10%	5%
Percent Poor	5%	5%
NHS (Non-Interstate)	CY 2018 – 2020 Two Year Target	CY 2018 – 2022 Four Year Target
Percent Good	67%	54%
Percent Poor	7.1%	14.1%

Table 9: Summary of the DC 2018-2021 Targets for Bridge Condition

Bridges	CY 2018 – 2020 Two Year Target	CY 2018 – 2022 Four Year Target
Deck Area Good	15.8%	24.9%
Deck Area Poor	8.6%	4.1%

Maryland

Tables 10 and 11 below are the established 2018-2021 performance targets for both pavement and bridge conditions in the portion of Interstate and NHS (non-Interstate) roadways within the TPB planning area for the state of Maryland. Targets were established by use of historical data, future programmed projects, and future budgets appropriated to maintain pavement in a state of good repair.

Table 10: Summary of MD 2018-2021 for Pavement Condition

Interstate	CY 2016 – 2018 Two Year Target	CY 2016 – 2020 Four Year Target
Percent Good	Not Required	62.8%
Percent Poor	Not Required	0.3%
NHS (Non-Interstate)	CY 2016 – 2018 Two Year Target	CY 2016 – 2020 Four Year Target
Percent Good	32.4%	31.6%
Percent Poor	6.5%	7.2%

Table 11: Summary of MD 2018-2021 Targets for Bridge Condition

Bridges	CY 2018 – 2019 Two Year Target	CY 2018 – 2021 Four Year Target
Deck Area Good	29.5%	27%
Deck Area Poor	2%	5%

Virginia

Tables 12 and 13 below are the established 2018-2021 performance targets for both pavement and bridge conditions for Virginia. Through coordination between TPB staff and VDOT staff it was determined that, contrary to the case in Maryland, a forecast for Northern Virginia alone was not feasible. Statewide targets were established by use of historical data, future programmed projects, and future budgets appropriated to maintain pavement in a state of good repair.

Table 12: Summary of VA 2018-2021 Targets for Pavement Condition

Interstate	CY 2018 – 2019 Two Year Target	CY 2018 – 2021 Four Year Target
Percent Good	45%	45%
Percent Poor	<3%	<3%
NHS (Non-Interstate)	CY 2018 – 2019 Two Year Target	CY 2018 – 2021 Four Year Target
Percent Good	25%	25%
Percent Poor	<5%	<5%

Table 13: Summary of VA 2018-2021 Targets for Bridge Condition

Bridges	CY 2018 – 2019 Two Year Target	CY 2018 – 2021 Four Year Target
Deck Area Good	33.5%	33%
Deck Area Poor	3.5%	3%

REGIONAL PAVEMENT AND BRIDGE TARGETS

MPOs have two options for setting targets for the pavement and bridge performance measures. The first option is to support the statewide targets established by the state DOTs. The second option is for the MPO to establish their own quantifiable four-year targets for both measures. The TPB chose the latter option for 2018-2021, setting its own targets for these performance measures for the metropolitan planning area. The coordination for the establishment of these targets was closely linked to the information provided by the states as well as information obtained from the HPMS and the NBI.

Pavement

As a first step in forecasting performance in four-years for pavement conditions for the TPB planning area, data was obtained and analyzed for the HPMS database using the field manual inventory, which contains metrics for rutting, faulting, cracking, and international roughness index (IRI). Next, TPB staff were able to calculate the number of lane miles within the planning area for the District of Columbia, Maryland, and Virginia. Table 14 gives the lane mileage for each state or part of the state, as well as the regional total number of lane miles in the TPB region. Finally, the statewide targets, for the District of Columbia and Virginia were applied to their respective lane miles within the TPB region. For the state of Maryland, forecasted targets for the portion of the state in the TPB planning area were provided and applied to the lane miles.

Table 14: Summary of the 2018 Lane Miles for Interstate and Non-Interstate Roadways in the TPB Region

	Interstate Lane Miles	Non-Interstate Lane Miles
DC	55.2	464.4
MD*	853.6	2272.4
VA*	767.2	1897.4
Region	1676.0	4634.2

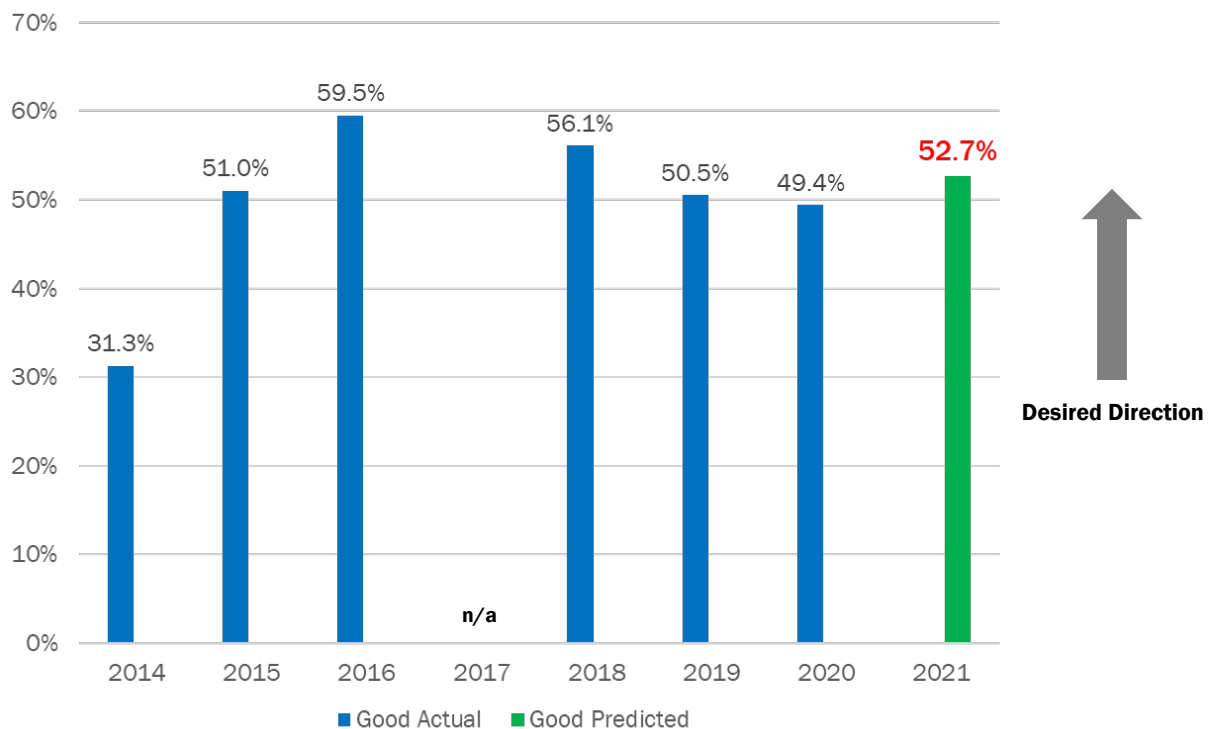
* Lane miles within the TPB's metropolitan planning area

RECENT PERFORMANCE

At the time of this report, pavement condition data is available through 2020. Figures 2 through 5 below display actual performance data annually through 2020 (except for 2017 data, which was not available) in comparison to the 2021 targets. In addition, Figures 4 and 5 for pavement condition on the NHS (Non-Interstate) include the two-year forecast performance for 2019 determined during the target forecasting process, though these were not adopted targets.

Observing trends through 2020, it appears that the four-year targets for Good condition pavement will not be met, narrowly in the case of the Interstate and considerably for the NHS (Non-Interstate). However, the reverse is apparent for the measure of the percentage of pavement in Poor condition; The four-year targets for the Interstate and NHS (non-Interstate) should be met easily. One explanation is that the State DOTs have prioritized their pavement improvement projects for fixing the poorest sections of pavement rather than keeping good pavement in that condition. Another, or concurrent, explanation for the differences observed in actual performance versus the targets is that methodological assumptions and forecasting techniques were not well developed in 2018.

Figure 2: Interstate Pavement: Performance vs. Targets (Good Condition)



n/a – 2017 data not available at the time of this report.

Numeric targets are shown in Red. Blue bar graphs are actual data; green bars are the forecasts and/or targets developed in 2018.

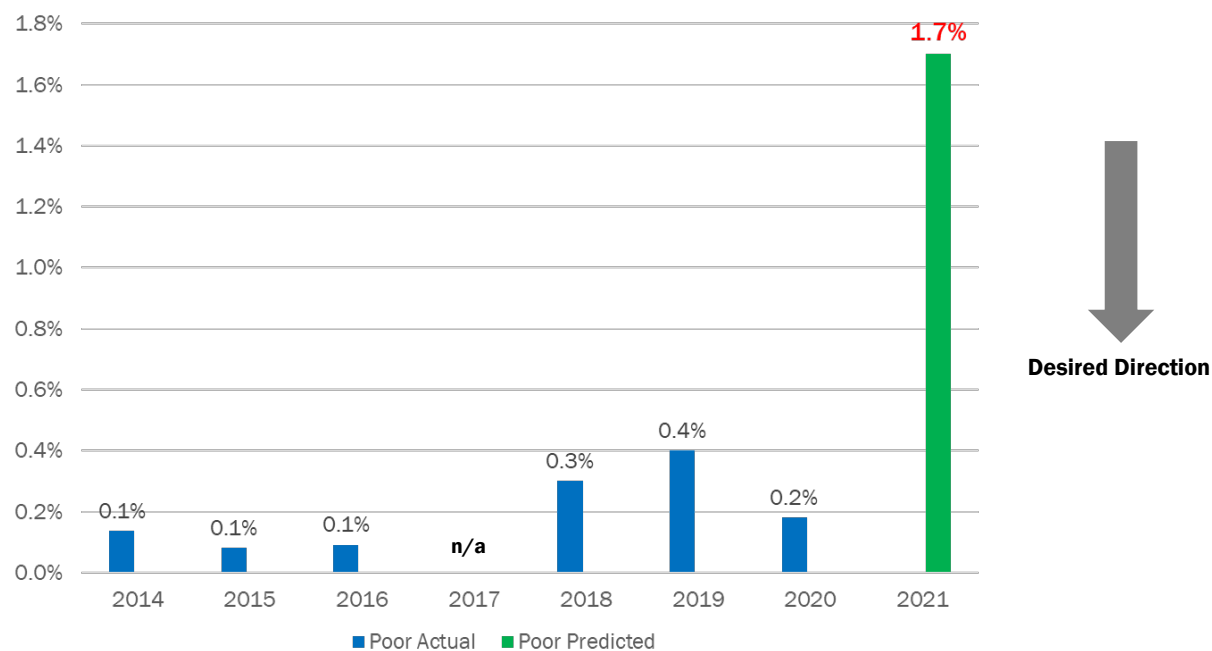
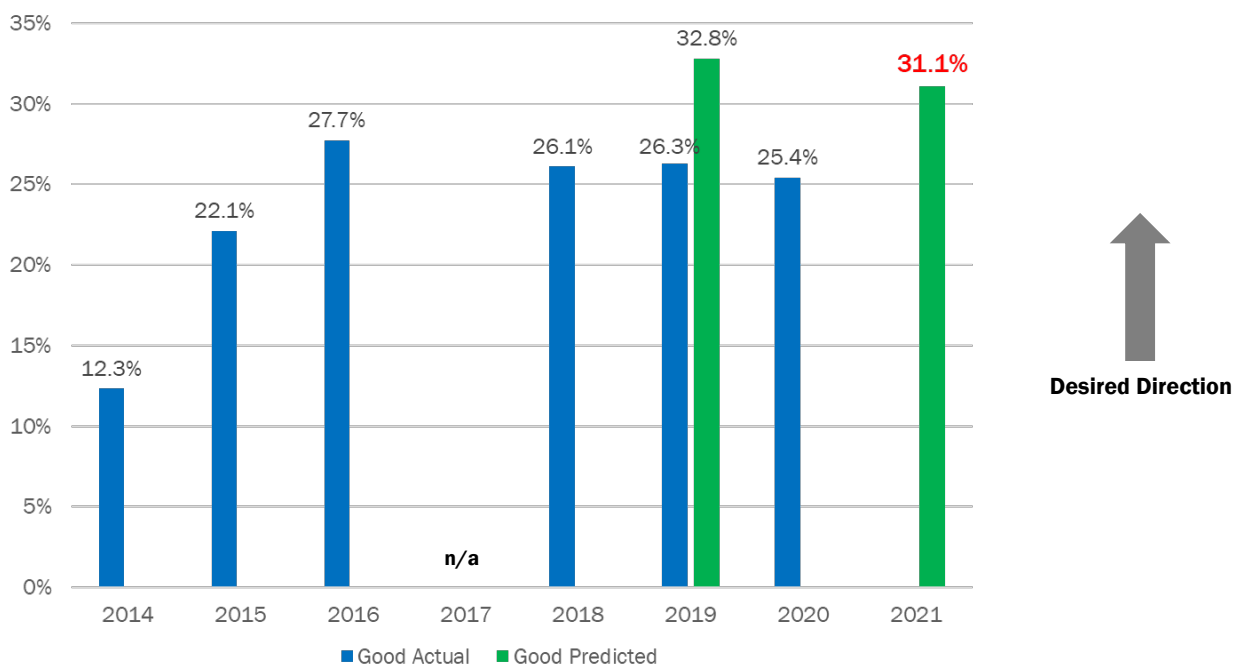
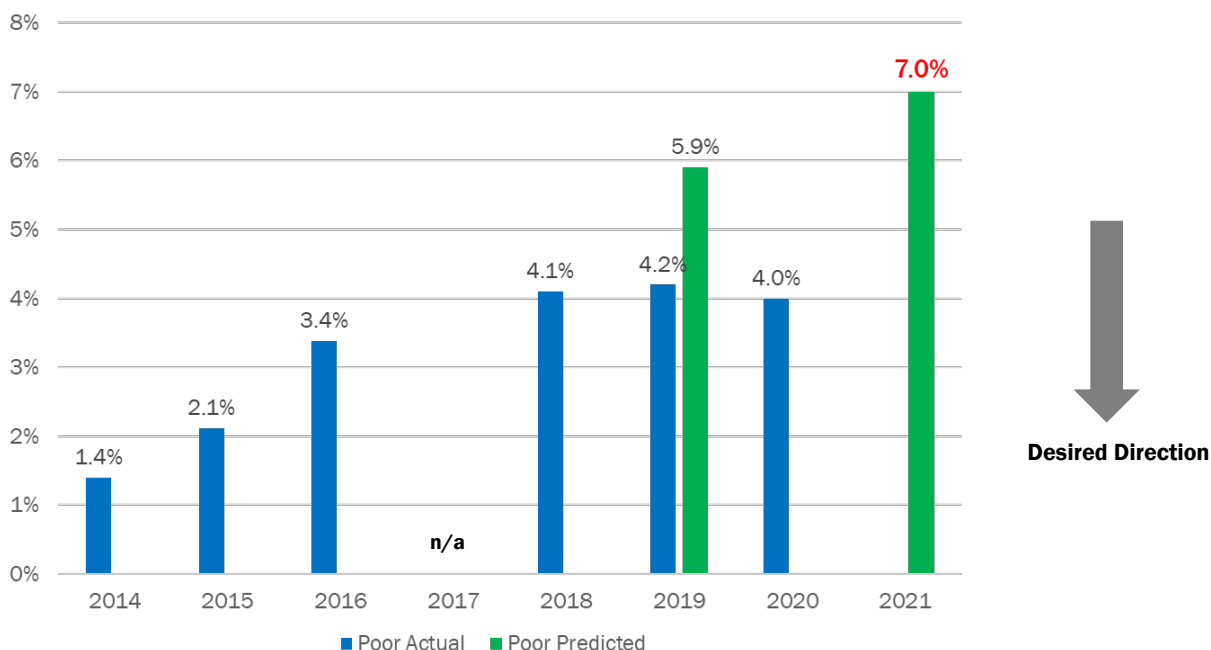
Figure 3: Interstate Pavement: Performance vs. Targets (Poor Condition)**Figure 4: NHS (Non-Interstate) Pavement: Performance vs. Targets (Good)**

Figure 5: NHS (Non-Interstate) Pavement: Performance vs. Targets (Poor)

Bridges

In terms of forecasting the 2018-2021 four-year performance for bridge condition within the TPB region, a similar methodology to that of pavement was used. TPB staff collected data from the NBI, analyzing the condition of the surface area as the applicable metric. Next, the deck areas of bridges within the District of Columbia and the portions of Maryland and Virginia that are within the TPB planning area was calculated. Table 15 provides a breakdown of the surface area of bridges within the TPB planning area in 2018. Finally, the statewide targets were applied to the respective deck areas for each state in the planning area and four-year targets for the region was calculated.

Table 15: Summary of the 2018 Total Deck Area of Bridges in the TPB Region

State	Deck Areas (square feet)
DC	4,931,177
MD*	9,846,949
VA	12,961,104
National Capital Region	24,469,229

* Deck area in the sub-region of the state within TPB region.

*

PERFORMANCE VS. TARGETS

At the time of this report, bridge condition data is available through 2021. Figures 6 and 7 below display actual performance data in comparison to the 2021 targets. The four-year target for Good bridge performance of 29.4 percent was easily met with actual performance measured at 39.4 percent. Though the trend line has been downwards, regionally several significant bridge projects have been completed, especially the rehabilitation of the Arlington Memorial Bridge in the District as well as multiple projects on the Capital Beltway, which has kept overall bridge condition in good shape.

The four-year target for Poor bridge performance of no more than 3.9 percent was also met, with actual performance of 1.7 percent, as shown in Figure 7. It is noteworthy that this percentage decreased after higher actual performance in 2019 and 2020, presumably a result of the aforementioned bridge projects completed in the region.

Figure 6: Bridges: Performance vs. Target (Good)

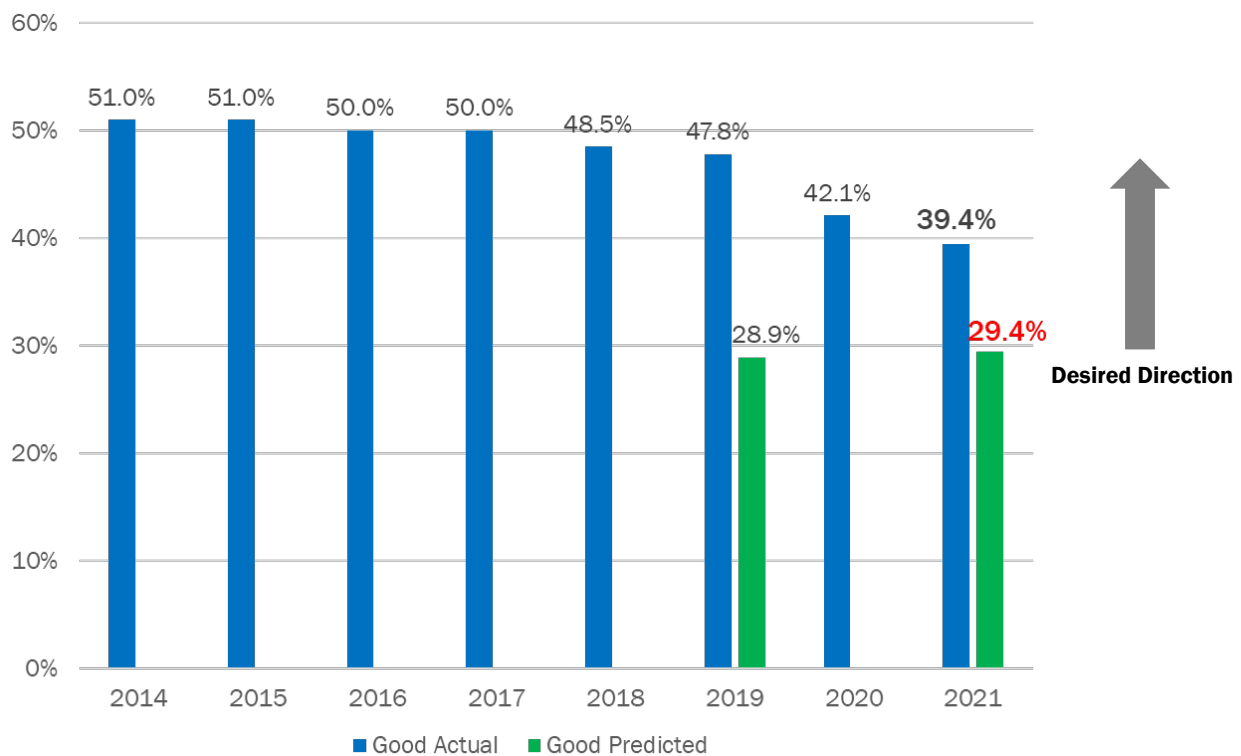
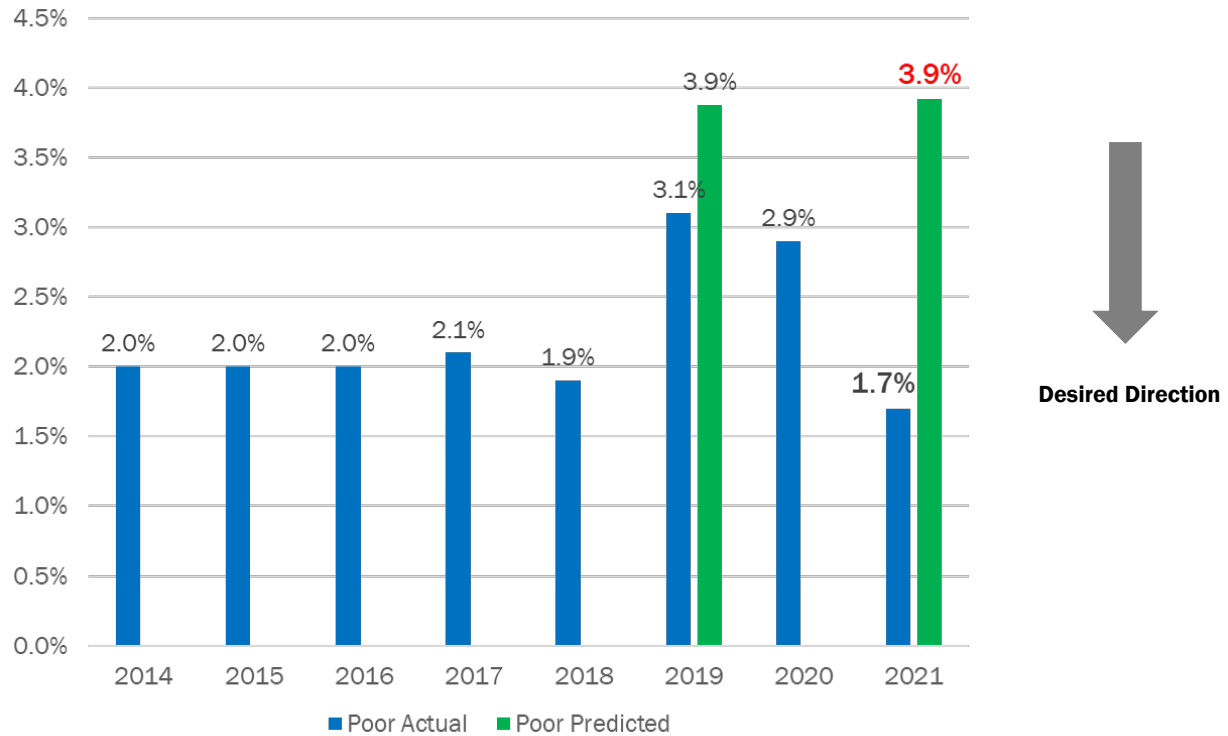


Figure 7: Bridges: Performance vs. Target (Poor)

HIGHWAY SYSTEM PERFORMANCE

This section summarizes the federal requirements for the TPB in the establishment of performance targets associated with Highway System Performance. This includes performance concerning Travel Time Reliability (TTR) on both the Interstate and Non-Interstate roadways as well as the Truck Travel Time Reliability (TTTR) on Interstate roadways. The targets described in this report meet the MAP-21/FAST PBPP requirements and are consistent with the target setting approaches of Maryland, Virginia, and the District of Columbia. The four-year targets for the period 2018 through 2021 were approved by the TPB on July 18, 2018 in Resolution R1-2019.

HIGHWAY SYSTEM PERFORMANCE MEASURES

The FHWA published the System Performance: Highway and Freight, Congestion Mitigation and Air Quality (CMAQ) Final Rule on January 18, 2017, with an effective date of May 20, 2017, followed by one year for implementation. Accordingly, state DOTs had until May 20, 2018 to initially set targets. The rule requires state DOTs to set targets for four performance measures concerning Highway and Freight: 1) Interstate Travel Time Reliability (TTR), 2) National Highway System (NHS) TTR, and 3) Freight Reliability (Truck Travel Time Reliability (TTTR))³, shown in Table 16. In addition, the FHWA requires state DOTs to set three performance measures under the CMAQ Program: 1) Peak Hour Excessive Delay (PHED), 2) Mode Share (Non-SOV), and 3) Emission Reductions, which are covered in the next chapter.

This section of the report covers the Highway and Freight Performance Measures, specifically, TTR and TTTR, and provides an overview of the measures, data collection, and the methodology and forecasting methods used for target setting.

Table 16: Summary of Highway System Performance Measures

	Performance Measures
National Highway System	(1) Interstate (IS) Travel Time Reliability (TTR) - Percent of person-miles traveled on the Interstate System that are reliable
	(2) NHS (Non-Interstate) Travel Time Reliability (TTR) - Percent of person-miles traveled on the non-Interstate NHS that are reliable
Freight Movement	(3) Freight Reliability (TTTR) - Percent of the Interstate System Mileage providing for Reliable Truck Travel Times

Travel Time Reliability and Truck Travel Time Reliability

The TTR measure assesses the reliability of roadways on the Interstate and Non-Interstate (NHS) systems. TTR is defined by the FHWA as the percent of person-miles on the Interstate/NHS that are reliable. Concerning freight, reliability is the ratio of the Interstate System Mileage providing for reliable TTTR. Data are derived from the travel time data set found in the National Performance

³ An additional performance measure for Greenhouse Gas Emissions was repealed on May 31, 2018.

Management Research Data Set (NPMRDS). Performance data for the measures for the region was obtained from NPMRDS. This data was collected by INRIX using a widget created for the Regional Integrated Transportation Information System (RITIS). RITIS is an automated data sharing, dissemination, and archiving system that includes many performance measure, dashboard, and visual analytics tools that help agencies gain situational awareness, measure performance, and communicate. To create a measure, the data from this is calculated by the University of Maryland Center for Advanced Transportation Technology Laboratory (CATT Lab). The RITIS widget is designed to provide historical data and baseline metrics. The metrics used are Level of Travel Time Reliability (LOTR) and the TTTR Index.

For the first four-year performance period of 2018-2021 state DOTs were required to establish two and four-year targets for the Interstate, but initially only a four-year target for TTR of the NHS. The statewide targets were included in the state DOTs' baseline performance period reports submitted to the FHWA by October 1, 2018. As with other performance measures, MPOs then had 180 days following to establish their own targets or endorse the statewide targets. The targets set by the region's three DOTs are shown in Table 17 for the TTR for Interstate and Non-Interstate roadways and in Table 18 for TTTR.

Table 17: Statewide TTR 2018-2021 Targets

State	Interstate or Non-Interstate	Two-Year State Target	Four-Year State Target
District of Columbia	Interstate	24.0%	23.0%
	Non-Interstate	Not Applicable	60.0%
Maryland	Interstate	72.1%	72.1%
	Non-Interstate	Not Applicable	81.7%
Virginia	Interstate	82.2%	82.0%
	Non-Interstate	Not Applicable	82.5%

Table 18: Statewide TTTR 2018-2021 Targets

State	Two-Year Target	Four-Year Target
District of Columbia	4.0	4.0
Maryland	1.87	1.88
Virginia	1.54	1.57

REGIONAL HIGHWAY SYSTEM PERFORMANCE TARGET SETTING APPROACH

As all state DOTs and MPOs are required to do for this group of performance measures, TPB staff obtained data from the NPMRDS and utilized RITIS with the MAP-21 widget. This enabled staff to review the TTR and TTTR for the TPB Planning Area from 2014 to 2017. With this collection of data, staff applied three general methodologies to determine performance forecasting: the extrapolation of measured performance, the use of travel demand model data, or the average of the two.

- Extrapolation of Measured Performance
 - For this approach, measured data for the previous years of 2014 through 2017 was selected and extrapolated, via polynomial regression, through the year 2021.
- Travel Demand Model
 - In 2016 TPB produced a travel demand model which produced congestion/related outputs for modelled years 2016, 2020, 2025, etc. Forecasts were made by utilizing such outputs as Percentage of Congested AM Peak Hour VMT estimates to project change in congestion, applying the percentage changes to measured performance.
- Averaging
 - Taking the average of both the extrapolation of measured performance and the utilization of the Travel Demand Model as a means of forecasting the targets.

The averaging approach was selected by TPB staff to forecast future performance for 2018-2021 and to develop the targets adopted by the board. More explanation of the process and graphs displaying the different approaches can be found in the 2018 system performance report.

REGIONAL HIGHWAY SYSTEM PERFORMANCE TARGETS

Based on the performance data and forecasting methodology used, Table 19 shows the adopted regional four-year targets for the period 2018 through 2021, for the TPB planning area for the three highway system performance measures.

Table 19: Summary of 2018-2021 Targets for TTR and TTTR for the TPB Region

	CY 2018 – 2021 Four Year Target
TTR – Interstate Percent of person-miles traveled on the Interstate System that are reliable	58.5%
TTR – Non-Interstate NHS Percent of person-miles traveled on the non-Interstate NHS that are reliable	72.7%
TTTR Index Ratio of the Interstate System Mileage providing for Reliable Truck Travel Times	2.12

PERFORMANCE VS. TARGETS

Performance data for the three targets above was obtained from the NPMRDS by TPB staff on an annual basis. The data for 2021 became available early in 2022, so actual performance can be compared to the targets established in 2018. It should be noted that the four-year performance measure targets are set for conditions at the end of the performance period, i.e., the 2021 performance; they are not based on averages throughout the period.

The impacts of the coronavirus pandemic that began in March 2020 on the highway travel performance measures are evident in Figures 8 and 9. For 2020 and 2021 the performance for TTR (Interstate) and TTR (NHS Non-Interstate) changed significantly with travel reliability significantly higher than expected. The four-year targets were easily met.

In contrast to the above, the TTTR Index performance did not meet the predicted target, even with the pandemic. As shown in Figure 10, while TTTR decreased in 2020 to below predicted, the measure rebounded in 2021. Possible explanations for missing the target include that the TTTR is focused on major roads, which experienced higher traffic volumes. In addition, in retrospect it appears the region's target was too ambitious, being largely determined by performance improving (index falling) in years prior to 2018.

Figure 8: TTR (Interstate): Performance vs. Target

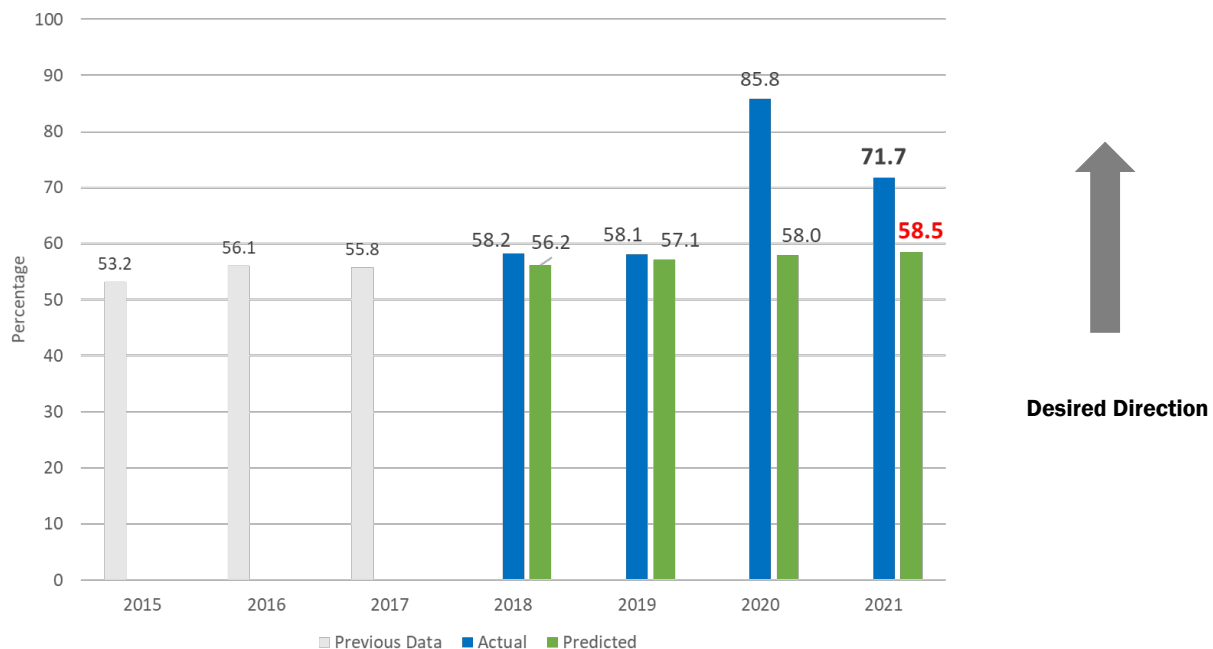
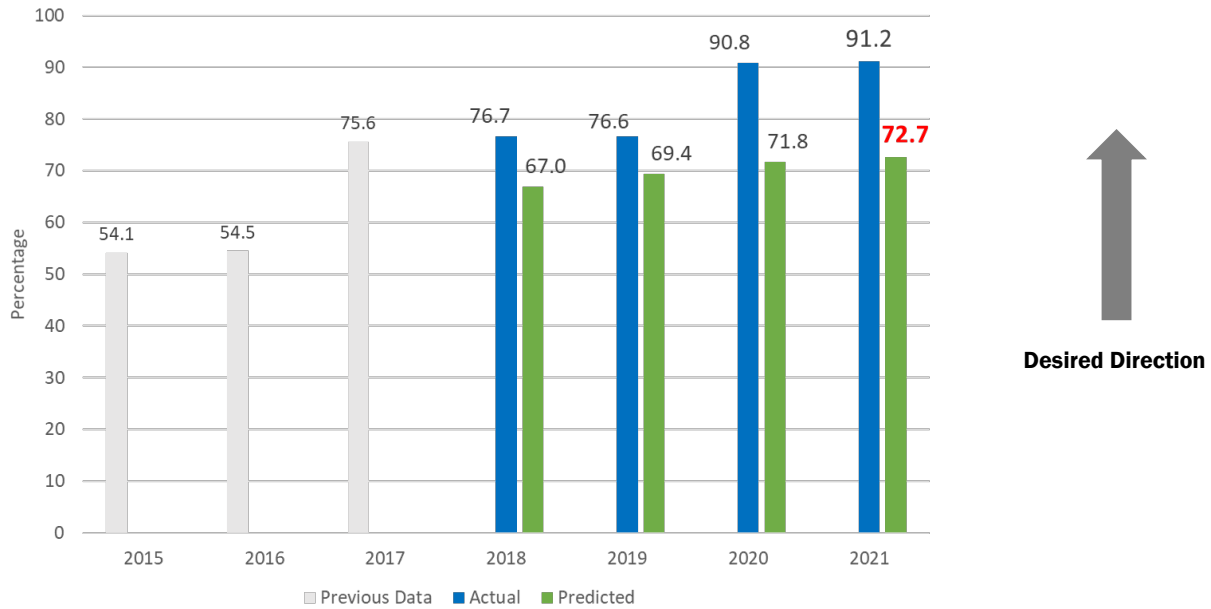
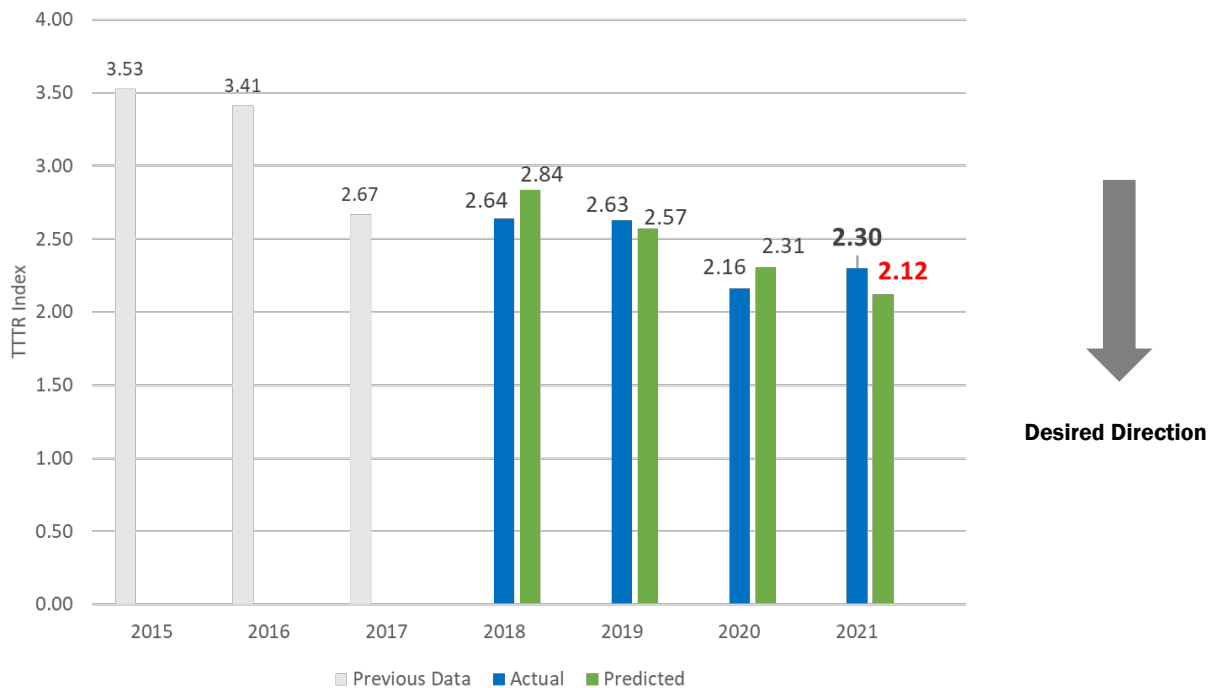


Figure 9: TTR (NHS Non-Interstate): Performance vs. Target**Figure 10: TTTR Index: Performance vs. Target**

CMAQ PROGRAM PERFORMANCE

This section summarizes the federal requirements for the TPB, in the establishment of performance measure targets associated with the Congestion Mitigation and Air Quality (CMAQ) Program. These include unified urbanized targets for the performance measures of Peak Hour Excessive Delay (PHED) and Mode Share in the area of traffic congestion and targets for Emissions Reduction for applicable pollutants and precursors for the nonattainment/maintenance area within the TPB planning area boundary.

The initial targets for the 2018-2021 period of performance were approved by the TPB at its regular meeting on June 20, 2018 in Resolution R19-2018. The targets met the MAP-21/FAST PBPP requirements and were consistent with the target setting approaches of Maryland, Virginia, and the District of Columbia.

CMAQ PROGRAM PERFORMANCE MEASURES

The FHWA published the System Performance: Highway and Freight, Congestion Mitigation and Air Quality (CMAQ) Final Rule on January 18, 2017, with an effective date of May 20, 2017. The state DOTs then had one year until May 20, 2018 to set their initial targets. The rule requires states to set targets for three performance measures concerning CMAQ: 1) PHED, 2) Mode Share (Non-SOV), and 3) Emissions Reduction. Table 20 summarizes these three performance measures.

This section covers the two CMAQ Program: Traffic Congestion performance measures and the CMAQ Program: Emissions Reduction performance measure. It provides an overview of the measures, data collection, and the methodology utilized for target setting. Additionally, information concerning the CMAQ Program in general is presented, as well as details concerning CMAQ project selection and programming for the states of Virginia, Maryland, and the District of Columbia.

Table 20: Summary of CMAQ Program Performance Measures

	Performance Measures
CMAQ Program: Traffic Congestion	Peak Hour Excessive Delay – Annual hours of peak hour excessive delay per capita
	Mode Share – Percent of Non-SOV Travel on the NHS
CMAQ Program: Emissions Reduction	Emissions – CMAQ-funded projects on-road mobile source total emissions reduction for each applicable criteria pollutant and precursor

CMAQ PROGRAM TARGET SETTING AND COORDINATION

Peak Hour Excessive Delay (PHED)

Applicable State DOTs and MPOs were required to and collectively established a single PHED target for each applicable urbanized area for the first performance period by May 2018. As part of a phased implementation approach, only four-year targets were required for the State DOT's baseline performance period report submitted in October 2018. There was no requirement for States to report two-year targets or baseline condition for the first four-year performance period. With the first mid performance period progress report submitted in October 2020, four-year targets could be adjusted, and two-year condition/performance reported as a baseline condition.

After the state DOTs establish their targets, MPOs have 180 days to adopt a target. It should be noted again that this target for the applicable urbanized area must be unified, and applicable DOTs and MPOs should have coordinated and exchanged information with the development of these targets.

Mode Share (Non-SOV)

Applicable State DOTs and MPOs must collectively establish a single, unified two-year and four-year mode share target for each applicable urbanized area for the first four-year performance period. The baseline report for the first performance period was submitted in October 2018 and included two and four-year targets and a description of the data collection method used. After the states established their targets in May 2018, MPOs had 180 days to adopt a target. As with the PHED measure, the Mode Share target for the applicable urbanized area must be unified, and both DOTs and MPOs should have coordinated and exchanged information with the development of these targets.

Emissions Reduction

State DOTs, with coordination from the MPO, must establish statewide two and four-year targets for total emissions reduction of on-road mobile source emissions for each performance period for all nonattainment and maintenance areas within the state boundary, for each applicable criteria pollutants and precursors. For the first four-year performance period, State DOTs set targets by May 2018 and targets were submitted to FHWA in October 2018. MPOs, in coordination with state DOTs, must similarly establish two and four-year emissions reduction targets for all nonattainment and maintenance areas within the metropolitan planning area. Targets are to be set within 180 days after state DOTs have set their targets. In both cases, the targets shall reflect the anticipated cumulative emissions reductions to be reported by state DOTs in the CMAQ Public Access System (CPAS) for CMAQ projects included in the Statewide Transportation Improvement Program (STIP).

It is important to note that in contrast to all other performance measures and targets, the emissions reductions targets are measured by federal fiscal year (October 1 – September 30) to align with the data in CPAS and that emissions reductions performance is measured additively, with two-year targets summing all emissions reductions achieved across two years and four-year targets summing all emissions reductions achieved across the full four years of the performance period.

MPO COORDINATION WITH STATE DOTs

MPOs are required to establish their performance targets in coordination with their state partners and these targets should be data-driven and realistic. The requirement for these targets to be evidence based and predictive of anticipated outcomes does not supersede or diminish any aspirational targets to which local, regional, or state jurisdictions are committed. Coordination is essential between the MPO and state DOTs in setting the CMAQ Program targets. Both are to work together to share data, review strategies, and understand outcomes.

TPB staff worked in close coordination with the DDOT, MDOT and VDOT in the development of the 2018-2021 performance targets, shown in Table 21. The TPB and these state DOTs also signed Letters of Agreement (LOAs) which detail the guidelines and expectations in terms of coordination on data sharing and the development of these targets. This is in accordance with 23 CFR 450.208 which sets forth the requirements for coordination between applicable states and MPOs.

Table 21: 2018-2021 CMAQ Program Performance Measure Targets

Performance Measure	CY 2018 – 2019 Two Year Target	CY 2018 – 2021 Four Year Target
Peak Hour Excessive Delay (PHED)	Not Required	26.7 Hours
Mode Share (Non-SOV)	36.9%	37.2%

PHED AND MODE SHARE TARGET SETTING APPROACH

In developing a method that could be utilized for the target setting of these two performance measures, TPB staff followed the same approach as used for the travel time reliability (TTR) measure as described in the previous section, averaging factors from the TPB Travel Demand Model and an extrapolation of past performance.

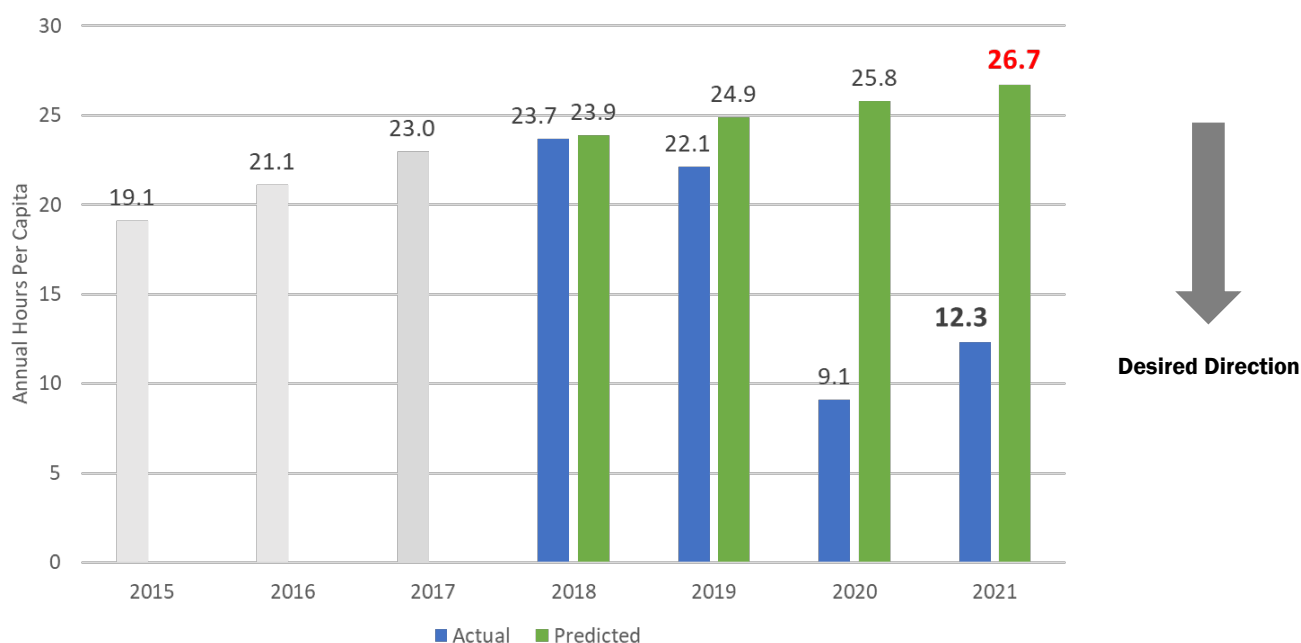
Peak Hour Excessive Delay (PHED)

PHED is based on the calculation of all segments of the NHS. PHED is defined as the extra amount of time spent in congested conditions defined by speed thresholds that are lower than a normal delay threshold. For this measure, the speed threshold is 20 mph or 60% of the posted speed limit, or whichever is greater. The FHWA requires that the data collected must occur during the weekdays (Monday through Friday), with a required morning peak timeframe of 6:00AM – 10:00AM, and a choice between two evening peak timeframes: 3:00PM – 7:00PM or 4:00PM – 8:00PM. TPB staff selected the earlier PM peak (3:00PM – 7:00PM) for all calculations; the same PM peak is also being used by the coordinating state DOTs. Data was collected for the region from the NPMRDS, using the INRIX data available in the RITIS widget.

As shown in Figure 11, performance of the PHED measure was similar to that of travel time reliability. The impacts of the pandemic are evident, with actual performance in 2020 and 2021 significantly below target. The four-year target was accordingly met.

Figure 11 shows data previous to the four-year target period in gray-colored bars. Actual performance data is shown in blue bars, with predictions from 2018 shown in green bars and the numeric target in red.

Figure 11: PHED Performance vs. Target



Mode Share (Non-SOV)

Mode Share is a calculation of the percent of Non-SOV Travel within the urbanized area. Non-SOV Travel, defined by the FHWA, applies to travel occurring on modes other than driving alone in a motorized vehicle and includes travel avoided by telecommuting. It is a measure of the percentage of all surface transportation occurring in an urbanized area with a population of at least 1 million. For the TPB region, this includes the Washington DC-MD-VA Urbanized Area (UZA).

The FHWA has provided three data collection models as a means of estimating the required performance targets. Model A allows use of the U. S. Census Bureau's American Community Survey (ACS) data found in the table titled "Journey to Work." Model B allows for data collected from localized surveys. Model C involves estimating the percent of non-SOV based on volume measurements of actual use for each mode of transportation, including telework. For purposes of this region's measure, Model A was utilized.

In selecting this model, explicit guidelines are detailed on how to utilize the ACS data. Data is to be obtained from the "Journey to Work" dataset, labeled *DPO3*. These data sets contain the five-year estimates of the economic characteristics of those surveyed. Within, this dataset is a breakdown on

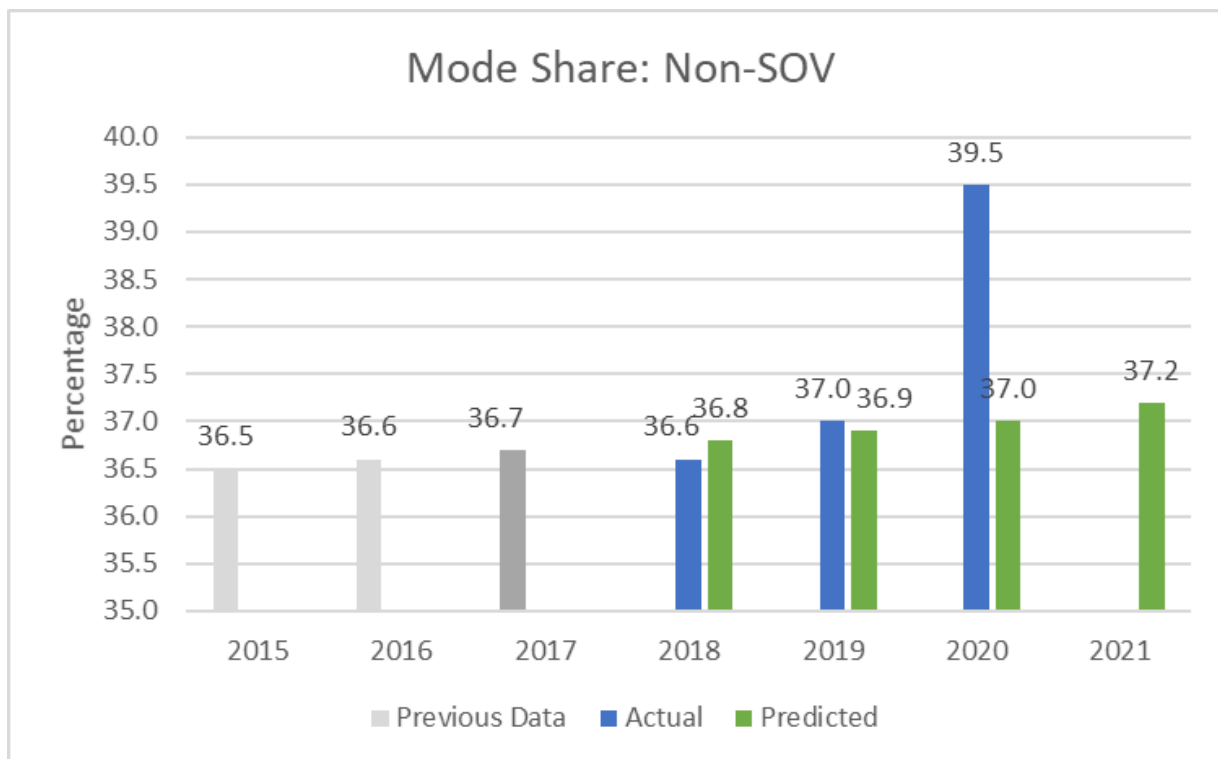
how people commute to work, either by driving alone (SOV) or car-pooling, public transportation, walking, other means, or working at home (Non-SOV).

The data in Figure 12 was created from the “Journey to Work” DP03 dataset. Until the 2016-2020 dataset, there had not been significant change in the rate of SOV or Non-SOV travel within the Washington UZA. The impact of the pandemic on travel in 2020 is the most likely factor in this change. It will not be until early 2023 when the 2021 five-year dataset is published that it will be known how actual performance compares to the target established in 2018.

The TPB was responsible for setting both two-year (2018-2019) and four-year (2018-2021) unified targets with DDOT, MDOT, and VDOT. In determining the unified targets for both two and four years, there is no formula or calculation specified. The FHWA only requires estimations for target projections. TPB staff developed forecasts and targets using the averaging method previously described, combining recent performance trends with the short-term predictions of the TPB’s travel demand model.

Figure 12 shows data previous to the four-year target period in gray-colored bars. Actual performance data is shown in blue bars, with predictions from 2018 shown in green bars.

Figure 12: Mode Share (Non-SOV) Performance vs. Target

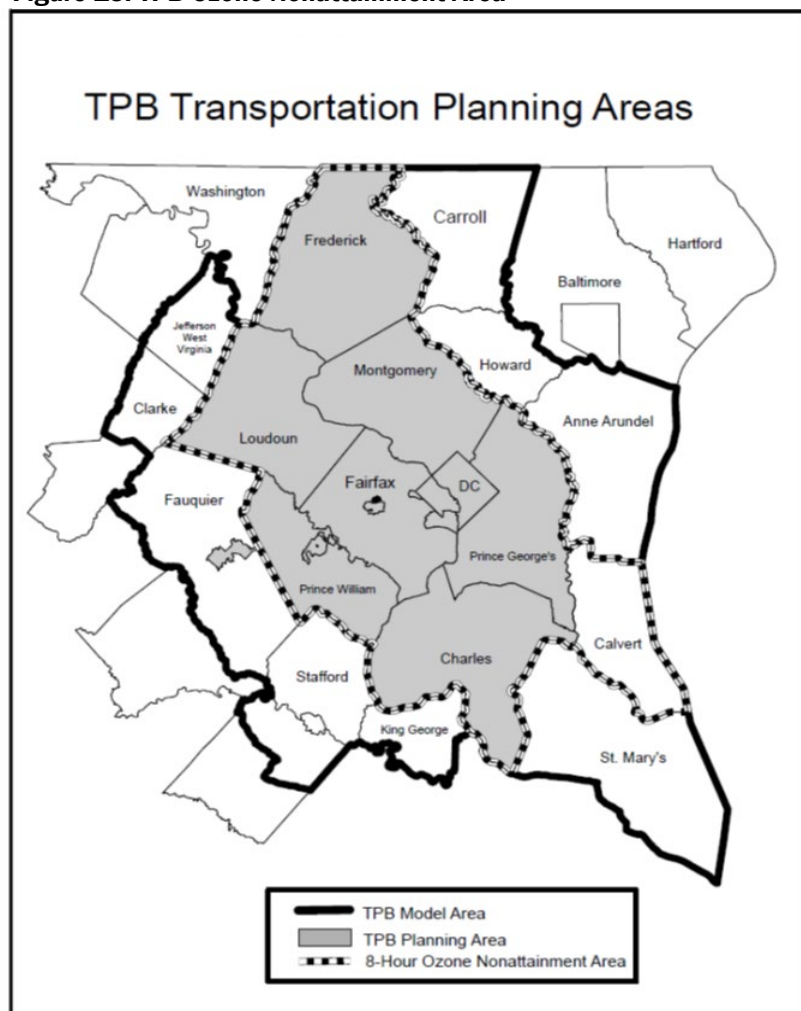


Emissions Reduction

Emissions reduction is defined as the total on-road mobile source emissions reduction for each applicable criteria pollutant and precursor for a nonattainment area. For the nonattainment area in the TPB region, the applicable criteria pollutants are Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NO_x). This performance measure applies to projects that receive or are programmed for CMAQ funding. Data was collected from the CMAQ Public Access System, as specified in the federal rulemaking. State DOTs report emissions reductions information in the Public Access System for CMAQ funded projects in their Statewide Transportation Improvement Program (STIP).

It should be noted that the regional nonattainment area includes Calvert County; however, this county is not part of the TPB planning area. MDOT and Calvert County are conducting a separate performance measure analysis for emissions reduction for that portion of the nonattainment area. The TPB Ozone Nonattainment Area is shown in Figure 13.

Figure 13: TPB Ozone Nonattainment Area



FEDERAL REQUIREMENTS FOR CMAQ PROJECT FUNDING

The CMAQ program supports two important goals of the U.S. Department of Transportation: improving air quality and relieving congestion. While these goals are not new elements of the program, they were strengthened in SAFETEA-LU and further bolstered in provisions added to the MAP-21. Growing highway congestion continues to rise at a faster rate than transportation investments. Reducing congestion is a key objective of federal surface transportation policy, and one that has gathered increasing importance in the past several years. The costs of congestion can be an obstacle to economic activity. In addition, congestion can hamper quality of life through diminished air quality, lost personal time, and other

negative factors. Accordingly, the CMAQ Program includes federal funds programmatically allocated to each state for funding applicable projects.

The state DOTs each receive CMAQ funding and allocate it annually to fund applicable projects. Each state follows its own selection process for identifying and funding CMAQ projects; for Maryland and Virginia many such projects are funded elsewhere in the state than the TPB planning area. Projects are selected on various criteria, only one of which is estimated emissions reduction benefits. Projects are not required to have quantifiable emissions reduction benefits; a qualitative assessment is sufficient. All projects awarded annually must be entered into the CMAQ Public Access System (PAS). Data for the CMAQ Emissions Reduction performance measure for the region is taken from the quantified benefits included in the projects listed in the PAS that have been funded in the region. Further information on each state's CMAQ project process and methodology for forecasting future performance and setting targets follows.

CMAQ PROJECT PROGRAMMING

Three state jurisdictions share the Washington DC-MD-VA Ozone Nonattainment area. All three of these states have different internal processes concerning the selection and programming of CMAQ projects. These separate processes are detailed as follows.

Maryland

The Maryland Consolidated Transportation Program (CTP) is a six-year capital budget for transportation projects, where CMAQ programming is determined during the one-year development process. CMAQ projects are selected for programming based on criteria provided by the CTP. Projects should meet all federal and legal requirements; support departmental program priorities; meet all federal match requirements to maximize federal revenue; support State plans and objectives; support existing project commitments and uphold intergovernmental agreements; and support alternative modes of transportation (transit, bike, pedestrian). Projects selected for programming must be included in the STIP, and must also be consistent with local plans and be included in the regional MPO long-range plan.

In the past, a majority of the CMAQ funding in Maryland has been used for transit projects (bus replacements, MARC, and light rail). CMAQ funding has also been used for park and ride projects, traffic flow improvement projects, such as signal synchronization and the Coordinated Highways Action Response Team (CHART) program.

Virginia

Within the region, the Northern Virginia Transportation Authority (NVTA) coordinates Northern Virginia's annual programming of federal CMAQ projects as well as Regional Surface Transportation (RST) funds. CMAQ funds contribute to the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS).

The recommendation of programming is done through the NVTA's Regional Jurisdiction and Agency Coordinating Committee (RJACC). Final approval is given by the Commonwealth Transportation Board (CTB). VDOT provides local matches for approved CMAQ projects, but only if the project utilizes the

funds within an established timeline. Recipients have 24 months to obligate the funds and then 48 months to expend the funds. CMAQ projects are eligible for potential funding after an application submission, a Transportation Emissions Estimation Models (TEEM) worksheet submittal for air quality benefit calculation, and a resolution of support from the respective governing bodies. VDOT encouraged the use of the FHWA CMAQ calculator tool kit for all applicable project types.

District of Columbia

DDOT does not have any additional steps in determining CMAQ programming beyond the federal requirements. In the past, a majority of the CMAQ programs that have been selected for funding have involved bike lanes and TDM.

REGIONAL EMISSIONS REDUCTIONS TARGETS

In developing the 2018-2021 emissions reduction performance targets, TPB staff used a method that incorporated the states' respective methodologies for state targets, to create regional emissions reductions targets for the applicable portion of the Washington DC-MD-VA nonattainment area. In terms of developing a methodology that could be utilized for target setting, TPB staff considered four techniques. First, taking the average past years' data and setting targets reflective of those averages. Second, setting a trend line based on past years' data and setting targets based on those projections. Third, using the percentage of CMAQ funding in the TIP and the cost-effectiveness (kg/ton), created by a ratio, of quantified CMAQ projects in the CMAQ Public Access System to forecast future emissions and thereby creating targets. Fourth, listing the expected CMAQ projects for the next four years and summing the forecast emissions reduction benefits forecast by each state for CMAQ projects planned in the region. The combined emissions reduction could then be used to develop the two-year and four-year targets for the two applicable pollutants. This fourth method was suggested from FHWA presentations and webinars; however, it is not a requirement. The fourth method was utilized for target setting using information provided by the three state DOTs.

Based on the available quantified data and the information provided by the District of Columbia, Maryland, and Virginia departments of transportation, the TPB summed the forecast emissions reduction benefits forecast by each state for CMAQ projects planned in the region. The combined emissions reduction was then used to set the two-year and four-year targets for the two applicable pollutants, shown in Table 22.

Figures 14 and 15 include the data submitted in CPAS by the three State DOTs as of the time of this report for VOCs and NOx emissions reduced. CMAQ emissions reductions are cumulative. The projects submitted into CPAS for the past three years have quantitative estimates that considerably exceed the two-year and four-year targets set in 2018.

Table 22: 2018-2021 Targets for Emissions Reduction in the TPB Planning Area

Total Emissions Reductions for the TPB portion of the Washington DC -MD-VA nonattainment area		FFY 2018 – 2019 Two Year Target	FFY 2018 – 2021 Four Year Target
	Volatile Organic Compounds (VOCs)	1.838 Kg/Day	2.195 Kg/Day
	Nitrogen Oxides (NOx)	4.019 Kg/Day	4.703 Kg/Day

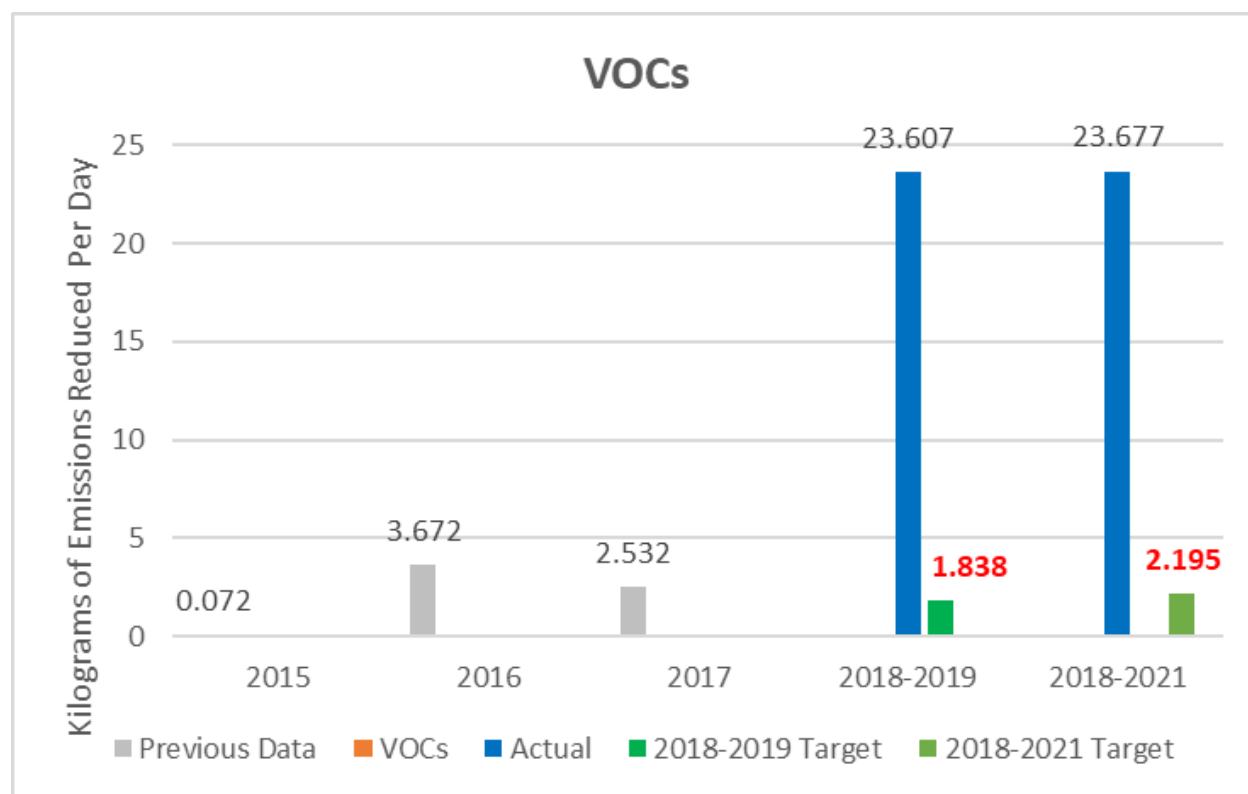
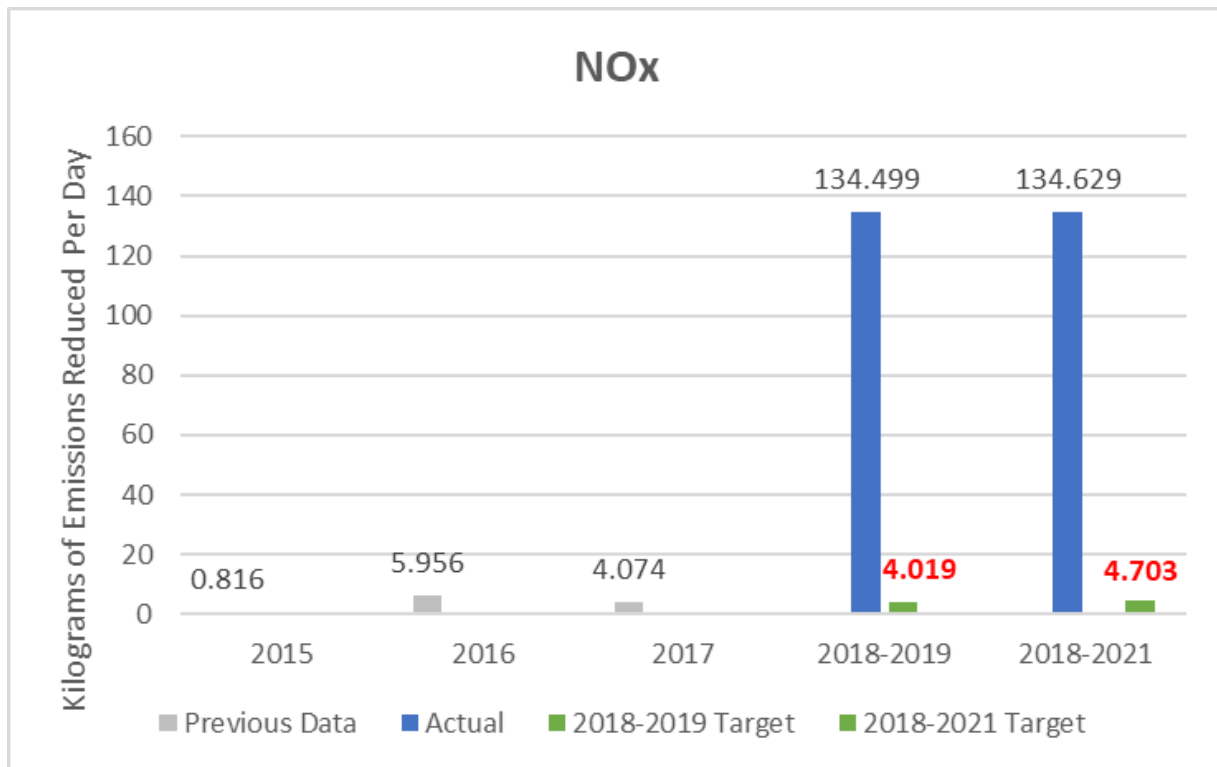
Figure 14: 2018-2021 CMAQ Emissions Reduction Performance for VOCs

Figure 15: 2018-2021 CMAQ Emissions Reduction Performance for NOx

TRANSIT ASSET MANAGEMENT PERFORMANCE

This section presents the transit asset management (TAM) targets adopted by the National Capital Region Transportation Planning Board (TPB) for 2022. The final Transit Asset Management rule was published in the Federal Register on July 26, 2016, and became effective October 1, 2016.⁴ Transit asset management (TAM) is “a strategic and systematic process of operating, maintaining, and improving public transportation capital assets effectively through the life cycle of such assets.”

Under the final TAM rule, transit providers must collect and report data for four performance measures, covering rolling stock, equipment, infrastructure, and facility condition. For these measures, transit providers have to annually set targets for the fiscal year, develop a four-year TAM plan for managing capital assets, and use a decision support tool and analytical process to develop a prioritized list of investments.

Each provider of public transportation was required to adopt annual targets for the performance of their transit assets, initially by January 1, 2017. Subsequently, MPOs have 180 days to adopt transit asset targets for their metropolitan planning area to comply with requirements.

REGIONAL TRANSIT ASSET TARGET SETTING APPROACH

The final TAM rule applies to all recipients and subrecipients of federal transit funds (e.g., Section 53XX funds) that own, operate, or manage capital assets used in the provision of public transportation and requires accounting for all assets used in the provision of public transportation service, regardless of funding source, and whether used by the recipient or subrecipient directly, or leased by a third party.

The federal TAM rulemaking defines two tiers of providers of public transportation. Tier 1 providers are those that operate rail service or more than 100 vehicles in regular service. Tier 2 providers are those operating less than 100 vehicles in regular service. Tier 1 providers must set transit asset targets for their agency, as well as fulfilling other additional reporting and asset management requirements. Tier 2 providers can set their own targets or participate in a group plan with other Tier 2 providers whereby targets are set for the group as a whole. Note that a parent organization can operate several services, such as bus service and paratransit service, that combined exceed 100 vehicles.

The region has seven Tier 1 providers of public transportation as defined in the federal rulemaking:

1. WMATA: Metrorail, Metrobus, MetroAccess
2. District of Columbia: Streetcar, Circulator
3. Fairfax County: Connector, Community and Neighborhood Services
4. Montgomery County: Ride On
5. Prince George's County: TheBus, Call-A-Bus
6. Potomac and Rappahannock Transportation Commission (PRTC): OmniRide, OmniLink
7. Virginia Railway Express (VRE)

⁴ <https://www.gpo.gov/fdsys/pkg/FR-2016-07-26/pdf/2016-16883.pdf>

The region has twelve Tier 2 providers as defined in the federal rulemaking, including several small paratransit providers and non-profit providers:

Northern Virginia

1. Alexandria: DASH, DOT
2. Arlington: ART
3. Fairfax City: CUE
4. Loudoun County Transit
5. Virginia Regional Transit (VRT)
6. The Arc of Greater Prince William
7. Every Citizen Has Opportunities, Inc. (ECHO)
8. Endependence Center of Northern VA
9. Weinstein Jewish Community Center
10. Prince William Area Agency on Aging

Suburban Maryland

11. Charles County: VanGo
12. Frederick County: TransIT

All of the Tier 2 providers in the region have chosen to participate in a group plan with their respective state agency: the Maryland Transit Administration (MTA) or the Virginia Department of Rail and Public Transportation (DRPT). Accordingly, there are nine reporting entities in the TPB's metropolitan planning area.

Providers of public transportation operating within the region but based outside of the TPB's metropolitan planning area, such as MTA Commuter Bus and MARC commuter rail, do not need to be included.

The following schedule for TAM requirements was published in the final rulemaking in July 2016, and subsequently modified by FTA through issued guidance in February and April 2017⁵.

- **In January 2017:** Providers of public transportation established initial performance targets.
- **By June 2017:** The MPO (i.e., TPB) were to adopt transit asset targets for the metropolitan region within 180 days as required by the Statewide and Metropolitan Planning Rule.
 - Subsequently, the FTA issued planning guidance that regional transit asset targets should be adopted with every new long-range plan or Transportation Improvement Program (TIP).
- **Starting in October 2017:** Providers of public transportation reported performance data and targets in the National Transit Database (NTD) within four months after fiscal year end:
 - Mandatory starting in October 2018, with FY 2018 performance data and FY 2019 targets (if agency fiscal year is July-June).
 - Starting October 2019, providers were required to submit a narrative report describing changes in the condition of the provider's transit system from the previous year and progress made during the year to meet the performance targets.
- **By October 2018:** Providers of public transportation were to develop four-year TAM Plans. Subsequently, plans must be updated every four years.

⁵ February 2017 guidance: <https://www.transit.dot.gov/TAM/gettingstarted/htmlFAQs>

April 2017 guidance: <https://www.transit.dot.gov/regulations-and-guidance/transportation-planning/metropolitan-planning-organization-responsibilities>

TRANSIT ASSET PERFORMANCE MEASURES

As shown in Table 23, there are four transit asset performance measures, two of which are age-based and two of which are condition-based:

1. Rolling stock (Age)
2. Equipment: (non-revenue) service vehicles (Age)
3. Infrastructure: rail fixed-guideway track, signals, and systems (Condition)
4. Stations/Facilities (Condition)

Within each of the performance measures, assets are further divided into asset classes. For example, distinct asset classes for buses can be articulated buses, standard buses, or minibuses. Each asset class is measured separately for performance and for target-setting.

For the age-based performance measures, providers set their own standard — the useful life benchmark (ULB) — for each asset class. The ULB is the anticipated useful lifetime of the asset. Accordingly, each provider in the region can set a different standard for its buses as well as different targets for the anticipated percentage of buses that will exceed those standards, to reflect different degrees of usage and operating conditions, variations in maintenance efforts, etc. This affects the feasibility of comparison among agencies and the integration of data to measure regional performance and set regional targets.

Providers of public transportation measure their performance in accordance with the definitions and requirements of federal rulemaking, including the TAM final rule and the final rule on National Transit Database (NTD) Asset Inventory Reporting. The FTA also published a Guideway Performance Assessment Guidebook and a Facility Performance Assessment Guidebook to provide guidance to providers of public transportation on how to collect data and measure performance for these assets.

Table 23: Transit Asset Management Performance Measures

	Performance Measure	Asset Classes
Rolling stock (Age)	Percentage of revenue vehicles within a particular asset class that have met or exceeded useful life benchmark (ULB).	40 foot bus, 60 foot bus, vans, automobiles, locomotives, rail vehicles
Equipment - (non-revenue) service vehicles (Age)	Percentage of vehicles that have met or exceeded their ULB.	Cranes, prime movers, vehicle lifts, tow trucks
Infrastructure-rail fixed-guideway track, signals, and systems (Condition)	The percentage of track segments, signal, and systems with performance restrictions.	Signal or relay house, interlockings, catenary, mechanical, electrical and IT systems
Stations/ Facilities (Condition)	The percentage of facilities, within an asset class, rated below 3 on the TERM scale.	Stations, depots, administration, parking garages, terminals

REGIONAL TRANSIT ASSET MANAGEMENT TARGETS

Transit asset management targets for the metropolitan planning region are developed by collecting the targets and asset data from each provider of public transportation in the region. Targets for the region are calculated by adding the individual agency targets, which takes into account the differences in targets and standards among the individual providers of public transportation. The metric for the performance measures and for the targets is a threshold for the maximum allowed or the observed percentage of assets at or exceeding acceptable standards.

Following the establishment of initial TAM targets by the providers of public transportation in January 2017, the TPB adopted the first set of transit asset targets for the region in June 2017. Initially, TPB staff in consultation and coordination with the region's providers developed a set of TAM targets for the region that summarized those reported by all agencies in table or matrix format. Subsequent sets of regional TAM targets were adopted for 2019 in February 2019 and for 2020 in February 2020. TPB staff has continued to provide the targets of the region's providers of public transportation in a matrix, and the summary of 2022 TAM targets for the nine providers of public transportation in the region that are reporting entities are shown in Table 24.

However, starting in 2019, the regional TAM targets were developed in accordance with the FTA guidance, which suggests that the MPOs adopt a single target for each asset class in the region. The regional targets calculate the total number of each asset class and the associated target based on the targets of each provider of public transportation. Table 25 shows the formally adopted 2022 TAM targets for the region.

Table 24: Summary of Providers' 2022 TAM Targets

Reporting Entity	Rolling Stock	Service Vehicles	Rail Infrastructure	Station/ Facility Condition
WMATA	0% Rail, 5% Bus ^a	44% ^c	3.5%	5% ^f
DDOT*	0% Rail, 0% Bus	n/a	5%	0% ^g
Ffx. Co.	10%	10% ^d	n/a	0%
Mont. Co.	5%	50% ^d	n/a	0%
Pr. Geo. Co.*	34%	n/a	n/a	0%
PRTC	11% ^b	25% ^d	n/a	0% ^g
VRE	0%	0% ^e	n/a	0%
Maryland Tier 2 (MTA)	18% ^a	44.0% ^e	n/a	0% ^g
Virginia Tier 2 (DRPT)	15% ^a	25% ^e	n/a	10% ^g

a: 40-foot buses; b: 45-foot buses; c: autos; d: trucks; e: service vehicles; f: passenger, g: maintenance/administrative facilities

* Previous year's data

Table 25: 2022 Regional TAM Targets

Percentage of revenue vehicles that have met or exceeded useful life benchmark	Regional Assets Total	Regional Target
AB- Articulated bus	95	2.5%
AO- Auto	253	0.0%
BR- Over-the-road bus	214	12.4%
BU- Bus	2616	6.9%
CU- Cutaway bus	112	0.7%
HR- Heavy rail passenger car	866	0.0%
LR- Light rail vehicle	6	0.0%
RL- Commuter rail locomotive	20	0.0%
RP- Commuter rail passenger coach	100	0.0%
VN- Van	693	0.0%
<i>Revenue Vehicle Totals</i>	<i>4975</i>	

Percentage of service vehicles that have either met or exceeded their useful life benchmark		
Automobiles	177	41.8%
Trucks and other Rubber Tire Vehicles	1407	46.7%
Steel Wheel Vehicles	77	25.0%
<i>Service Vehicle Totals</i>	<i>1661</i>	
Percentage of track segments, signals, and systems with performance restrictions (over length in miles)		
CR - Commuter Rail	0	0.0%
HR - Heavy Rail	234	3.5%
SR - Streetcar Rail	5.6	5.0%
<i>Track Segments Totals</i>	<i>239.6</i>	
Percentage of Passenger and Maintenance facilities rated below condition 3 on the condition scale		
Passenger Facilities	113	4.1%
Passenger Parking Facilities	87	4.3%
Maintenance Facilities	106	9.2%
Administrative Facilities	26	8.0%
<i>Facility Totals</i>	<i>332</i>	

TRANSIT SAFETY

The Federal Transit Administration (FTA) published the Public Transportation Agency Safety Plan (PTASP) final rule on July 19, 2018 with an effective date of July 19, 2019, followed by one year for implementation. The PTASP final rule applies to providers of public transportation that are recipients and sub-recipients of FTA Section 5307 funding and that fall under the safety jurisdiction of the FTA. Applicable providers of public transportation are required to develop Public Transportation Agency Safety Plans, which include the process and procedures for implementing Safety Management Systems (SMS); they were required to certify their safety plan by July 20, 2020. In addition, they were required to set initial targets for the four transit safety measures by July 20, 2020 (thereafter annually), following which MPOs must set transit safety targets for the metropolitan planning area within 180 days.

The issuance of this final rulemaking served as a capstone for a collection of rules making up the Public Transportation Safety Program, including the National Public Transportation Safety Plan Rule which defined the four transit safety performance measures for which providers of public transportation and MPOs have to set targets. These measures include the number and rate of fatalities, injuries, safety events (derailments, collisions, fires, and evacuations), and system reliability (mean distance between major and other mechanical system failures). When regional targets are established, the TPB must collect data and report the performance outcomes in the long-range transportation plan. The results of this monitoring effort are intended to inform future funding decisions on projects and programs that affect transit safety.

This report includes the 2021 transit safety targets adopted by the TPB with Resolution R6-2022 on November 17, 2021.

TRANSIT SAFETY FOR THE NATIONAL CAPITAL REGION

The following providers of public transportation in the region are required to set transit safety targets in accordance with the PBPP requirements. These targets are required for each mode operated by the provider, including heavy rail, streetcar, commuter bus, bus, and paratransit (demand response).

Regional recipients of FTA Section 5307 funding and the modes they operate include:

- WMATA: Metrorail, Metrobus, MetroAccess
- DDOT: DC Circulator, DC Streetcar
- MDOT-MTA: MTA Commuter Bus
- PRTC OmniRide: commuter bus, local bus, and paratransit

Regional sub-recipients of FTA Section 5307 funding include:

- VanGo (Charles Co.)
- TransIT (Frederick Co.)
- Ride On (Montgomery Co.)
- The Bus (Prince George's Co.)

Note that while local bus systems in Suburban Maryland are sub-recipients of FTA funds through the State of Maryland's Locally Operated Transit Systems (LOTS) funding programs, the local bus

systems operated by jurisdictions in Northern Virginia do not receive federal funds and the PTASP rule is not applicable to them. In addition, commuter rail systems including MARC and VRE have their safety regulated by the Federal Railroad Administration (FRA) and the PTASP rule does not apply to them.

CALCULATION OF REGIONAL TRANSIT SAFETY TARGETS

Targets for the region are based on those adopted by each provider of public transportation. The measures shown in Table 26 are calculated for each mode:

- Number of Fatalities/Serious Injuries/Safety Events: total number for all providers of that mode.
- Rate of Fatalities/Serious Injuries/Safety Events: total number for all providers of the mode divided by the total number of Vehicle Revenue Miles (VRM) for that mode (reported in rate per 100,000 VRM). VRM are the miles that vehicles are scheduled to be or actually traveled while in revenue service (i.e., doors open to customers, from first stop to last stop).
- Mean Distance Between Failure (MDBF): the total number of VRM for that mode divided by the total number of failures for all providers of the mode.

Table 26: Transit Safety Performance Measures

	Performance Measures
Fatalities	Total number of reportable fatalities and the rate per total vehicle revenue miles by mode
Injuries	Total number of reportable injuries and the rate per total vehicle revenue miles by mode
Safety Events*	Total number of reportable events and the rate per total vehicle revenue miles by mode
System Reliability	Mean distance between major mechanical failures by mode

The targets calculated for the region for the performance measures – for each mode of public transportation in the region – are shown in Table 27. These 2021 targets were adopted by the TPB on November 17, 2021.

Table 27: 2021 Regional Transit Safety Targets

	Fatalities		Serious Injuries		Safety Events		Reliability
	Number	Rate	Number	Rate	Number	Rate	MDBF
Heavy Rail (HR)	0	0	244	0.31	84	0.11	254,000
Streetcar Rail (SR)	0	0	0	0.00	4	0.27	672
Urban Bus (MB)	0	0	411	0.69	463	0.78	13,654
Commuter Bus (CB)	0	0	6	0.07	20	0.23	13,265
Demand Response (DR)	0	0	40	0.19	18	0.08	0
Vanpools (VP)	0	0	6	0.05	118	1.05	9,500

Rate - Per 100,000 Vehicle Revenue Miles MDBF = Mean Distance Between Failures

ADDITIONAL DATA - TRANSIT SAFETY DATA FOR THE REGION

In addition to the PBPP transit safety targets, the FTA collects safety and security data monthly from urban reporting transit systems through a module of the National Transit Database (NTD)⁶. Definitions and criteria have some differences as well as more detail than the information used for developing the regional transit safety performance measures targets. All of the transit providers in the region report to the database, including the local bus systems in Northern Virginia. Table 28 shows data for fatalities, injuries, and safety events for the years 2017 through 2020 from this database. This information is provided to assist in a regional review of safety on all transit systems irrespective of the federal requirements associated with PBPP.

⁶ <https://www.transit.dot.gov/ntd/data-product/safety-security-time-series-data>

Table 28: NTD Safety & Security Time Series Data for the Region (2017-2020)

	# Fatalities				# Serious Injuries				# Safety Events			
	2017	2018	2019	2020	2017	2018	2019	2020	2017	2018	2019	2020
Heavy Rail (HR)												
MetroRail	0	3	2	3	50	56	85	11	68	86	99	237
Streetcar Rail (SR)												
DC Streetcar	0	0	0	0	10	0	0	0	1	0	0	0
Urban Bus (MB)												
Metrobus	0	0	0	1	363	351	349	0	211	270	270	213
DASH	0	0	0	0	0	0	0	0	0	0	0	6
ART	0	0	0	0	7	3	7	0	11	4	14	4
CUE	0	0	0	0	0	0	0	0	0	0	0	0
Fairfax Connector	0	0	0	1	15	10	24	0	11	23	38	26
Transit	0	0	0	0	0	0	2	0	0	0	1	4
VanGo	0	0	0	0	10	7	2	0	5	2	1	3
Ride On	1	1	0	0	58	47	30	0	39	57	44	43
The Bus	1	1	0	0	13	30	16	0	28	37	15	3
PRTC/OmniRide	0	0	0	0	1	0	1	0	1	1	2	1
Loudoun	0	0	0	0	1	0	2	0	2	0	3	0
DC Circulator	0	0	0	0	2	3	0	0	2	1	0	0
TOTAL	2	2	0	2	470	451	433	0	310	395	388	303
Commuter Bus (CB)												
MTA Commuter Bus	0	0	0	0	1	0	0	0	1	0	0	0
PRTC/OmniRide	0	2	0	0	7	4	0	0	9	8	2	0
Loudoun	0	0	0	0	1	1	1	0	1	3	7	1
TOTAL	0	2	0	0	8	4	0	0	10	8	2	0
Demand Response (DR)												
MetroAccess	0	0	0	0	50	28	20	0	33	20	17	19
Charles County	0	0	0	0	0	0	0	0	0	0	0	0
Frederick County	0	0	0	0	1	0	0	0	1	0	0	0
Prince George's County	0	0	0	0	1	0	2	0	2	0	3	0
PRTC				0				0				0
TOTAL	0	0	0	0	52	28	22	0	36	20	20	19
Vanpools (VP)												
PRTC	0	0	0	0	0	0	0	0	0	1	0	0

visualize 2045

A long-range
transportation plan
for the National
Capital Region

APPENDIX E

Congestion Management Process Federal Compliance and Impact on Plan Development

Draft, March 2022



National Capital Region
Transportation Planning Board

**CONGESTION MANAGEMENT PROCESS FEDERAL COMPLIANCE
AND IMPACT ON PLAN DEVELOPMENT VISUALIZE 2045 UPDATE (2022)
LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION
DRAFT, MARCH 2022**

ABOUT VISUALIZE 2045 & THE TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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INTRODUCTION AND SUMMARY

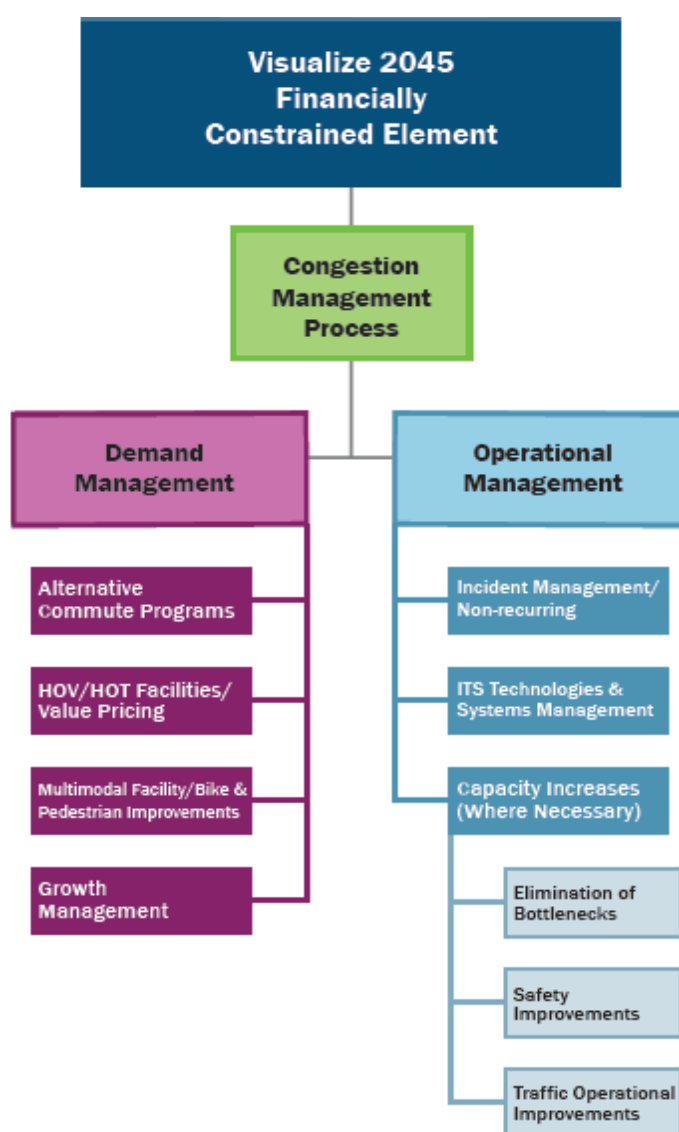
The TPB maintains a regional Congestion Management Process (CMP) in accordance with federal law (USC Titles 23 and 49) and associated regulations. In the TPB's 2022 update to Visualize 2045 (Visualize 2045), Chapters 6 and 8 include Visualize 2045's primary information on the CMP. As a complement to Chapters 6 and 8, this appendix serves specifically to document the compliance of Visualize 2045 with federal CMP law and regulations, and to provide more information on how the CMP impacted plan development.

A critical section of USC Title 23 states, "...the transportation planning process under this section shall address congestion management through a process that provides for effective management and operation ... through the use of travel demand reduction and operational management strategies." The metropolitan Washington region addresses travel demand reduction and operational management strategies through projects, programs, and policies reflected in Visualize 2045.

Under federal regulations, the CMP is an integrated process informing the planning, strategies and ultimately the projects, programs and policies documented in Visualize 2045 rather than a standalone product of the regional transportation planning process. This appendix clarifies this integration by reviewing the components of the CMP and how they inform and are integrated into Visualize 2045. See Figure 1 for a visual reference to CMP and Visualize 2045 integration.

In addition to the CMP components described in Visualize 2045, technical information regarding CMP strategies and analyses is compiled under the auspices of TPB's Technical Committee into a biennial regional Congestion Management Process Technical Report [www.mwcog.org/cmp].

Figure 1: Visualize 2045 and the CMP



Components of the CMP are Integrated in Visualize 2045

There are four major components of the CMP as described in Visualize 2045:

- Monitoring and evaluating transportation system performance
- Defining and analyzing strategies
- Compiling project-specific congestion management information
- Implementing and assessing strategies

See Table 1 for an overview of the CMP products and resources associated with each component of the CMP, also described in the following sections.

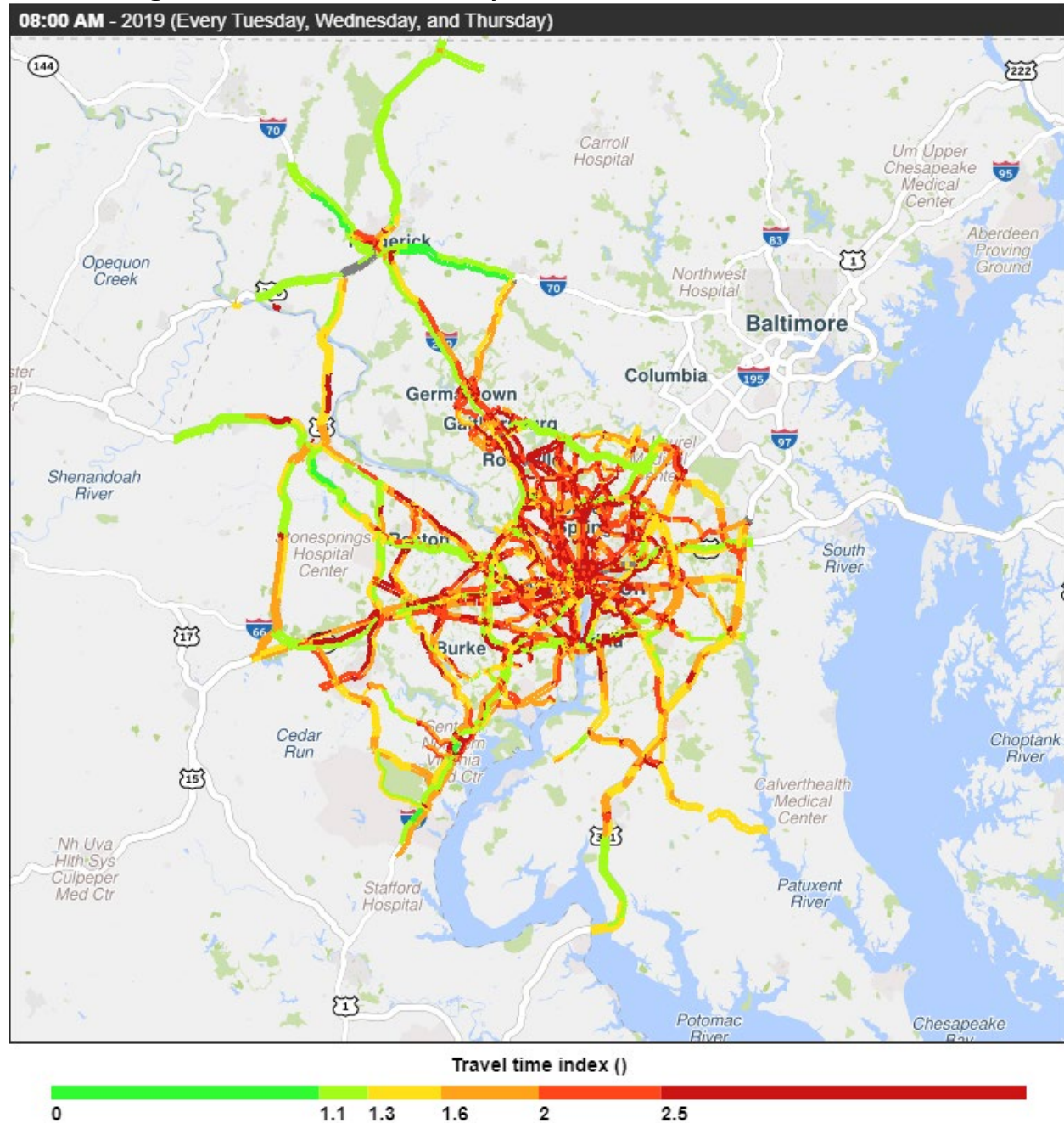
Table 1: Visualize 2045 CMP Components

	<i>Component</i>	<i>TPB Role</i>	<i>CMP Documentation</i>
1.	Monitoring and evaluating transportation system performance	The TPB monitors the performance of the region's transportation system and identifies and evaluates the benefits that various congestion management strategies may have.	The TPB travel monitoring activities associated with the CMP are communicated to inform decision makers on the region's congestion through numerous documents, graphics and text compiled on the TPB website including an ongoing series of reports: National Capital Region Congestion Report.
2.	Defining and analyzing strategies	With accurate and reliable data, the TPB and regional partners work to establish potential strategies and initiatives to help alleviate congestion, such as the seven Aspirational Initiatives that the TPB endorsed in 2018. Strategies include both demand management and operational management strategies as described in the additional CMP documentation.	<p>The TPB's congestion management strategies can be found online at: Major CMP Strategies.</p> <p>The TPB's Congestion Management Technical Report provides updated congestion information and congestion management strategies on the region's transportation systems, as well as the process integrating the CMP into the update to Visualize 2045.</p>
3.	Compiling project-specific congestion management information	The TPB collects from project sponsors a CMP Documentation Form for projects that require them. The requirement is that SOV capacity-increasing projects are only supposed to be implemented if non-SOV-capacity strategies were also considered. The forms document that such consideration has occurred.	CMP Forms are provided by implementing agencies as part of TPB's Technical Inputs Solicitation for LRTP and TIP projects that have significant CMP impacts. See an example of a blank form in Figure 3.
4.	Implementing strategies	The TPB manages the Commuter Connections program to promote and implement regional demand management. TPB members implement the strategies and submit projects, programs and policies to the TPB for inclusion in the LRTP and TIP.	As TPB members implement regionally significant projects, programs and policies that reflect the CMP strategies, they are included in the LRTP and TIP. Notable strategies include the region's incenTrip app and overall Commuter Connections programs, more information is available at: commuterconnections.org .

MONITORING AND EVALUATING SYSTEM PERFORMANCE

In monitoring and evaluating transportation system performance, the TPB uses vehicle probe data (see Figure 2) to support both the CMP and travel demand forecast model calibration, complementing operating agencies' own information, and illustrating locations of existing congestion. Travel demand modeling forecasts, in turn, provide information on future congestion locations. This provides an overall picture of current and future congestion in the region, and helps set the stage for agencies to consider and implement CMP strategies, including those integrated into capacity-increasing roadway projects informing Visualize 2045 development.

Figure 2: Example CMP Congestion Summary Using Travel Time Index – Travel Time Index on Selected NHS Arterials during 8:00-9:00 am on Middle Weekdays in 2019



Source: 2020 Congestion Management Process Technical Report. Note: Congestion levels are categorized by the value of TTI, where TTI = 1.0 signifies free-flow conditions.

For planned (Visualize 2045) or programmed (Transportation Improvement Program) projects, cross-referencing the locations of planned or programmed improvements with the locations of congestion helps guide decision makers to prioritize areas for current and future projects and associated CMP strategies. Table 2 shows that most of the region's top roadway bottlenecks (2019) also have projects in the update to Visualize 2045 programmed in their vicinity.

Implementation of CMP strategies is encouraged. The region relies particularly on non-capital congestion strategies in the Commuter Connections program of demand management activities, and operations management strategies examined by the Systems Performance, Operations, and Technology planning program, notably traffic incident coordination through the Metropolitan Area Transportation Operations Coordination (MATOC) Program.

Table 2: Comparison of Top Ten Bottleneck Locations (2019) and Visualize 2045 (2020 Amendment) Projects

Rank (2019)	Bottleneck Location	Visualize 2045 Projects/ Studies in Vicinity
1	I-95 SB between US 1 (Exit 161) & VA 123	Multiple Projects
2	I-495 IL between VA 267 & GW Pkwy.	Multiple Projects
3	I-495 IL between Wisconsin Ave. & Connecticut Ave.	One Project
4	I-395 NB between Eads St. & 14 th St. Bridge	Multiple Projects
5	DC 295 NB between 11 th St. Bridge & Pennsylvania Ave.	Multiple Projects
6	I-495 OL east of US 1 (Richmond Hwy.)	Multiple Projects
7	US 301 NB vicinity of Old Indian Head Rd./Rosaryville Rd.	No Projects
8	I-495 OL vicinity of University Blvd.	No Projects
9	I-495 OL between Telegraph Rd. & US 1 (Richmond Hwy.)	Multiple Projects
10	VA 28 SB vicinity of Westfields Blvd.	One Project

Sources: 2020 Congestion Management Process Technical Report (bottlenecks), and 2020 Visualize 2045 Update Air Quality Conformity determination (technical inputs/projects). IL = Inner Loop; OL = Outer Loop.

DEFINING AND ANALYZING STRATEGIES

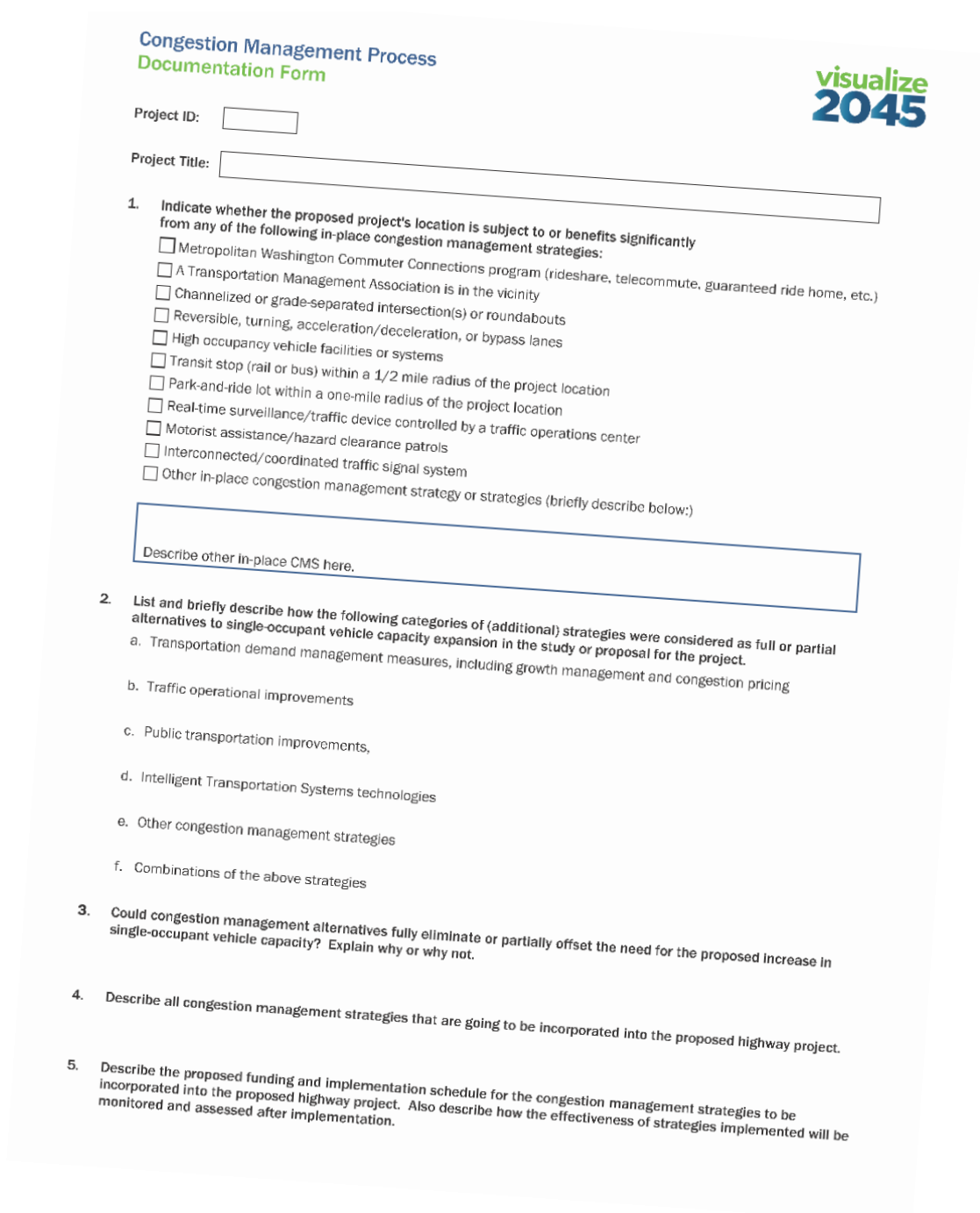
The CMP component of Visualize 2045 defines and analyzes a wide range of potential demand management and operations management strategies for consideration. The TPB, through its Technical Committee, Systems Performance, Operations, and Technology Subcommittee, Travel Forecasting Subcommittee, and other committees, reviews and considers both the locations of congestion and the potential strategies when developing Visualize 2045. The TPB's Congestion Management Process Technical Report provides technical details and updated congestion information and congestion management strategies on the region's transportation systems, as well as the process integrating the CMP into the update to Visualize 2045.

COMPILING PROJECT-SPECIFIC CONGESTION MANAGEMENT INFORMATION

The TPB also compiles information pertinent to specific projects in its CMP documentation process form (Figure E3). These forms provide documentation that the planning of federally-funded SOV projects has included considerations of CMP strategy alternatives, and integrate such components where feasible. In the "Technical Inputs Solicitation" for the update to Visualize 2045 and the TIP, for

any project providing a significant increase to SOV capacity, it must be documented that the implementing agency considered all appropriate systems and demand management alternatives to the SOV capacity. A Congestion Management Documentation Form (see Figure 3) is distributed along with the Technical Inputs Solicitation and a special set of SOV congestion management documentation questions must be answered for any project to be included in the Plan or TIP that significantly increases the single occupant vehicle carrying capacity of a highway.

Figure 3. Visualize 2045 Update Technical Inputs Solicitation, Congestion Management Documentation Form



Congestion Management Process Documentation Form

Project ID:

Project Title:

1. Indicate whether the proposed project's location is subject to or benefits significantly from any of the following in-place congestion management strategies:

- ☐ Metropolitan Washington Commuter Connections program (rideshare, telecommute, guaranteed ride home, etc.)
- ☐ A Transportation Management Association is in the vicinity
- ☐ Channelized or grade-separated intersection(s) or roundabouts
- ☐ Reversible, turning, acceleration/deceleration, or bypass lanes
- ☐ High occupancy vehicle facilities or systems
- ☐ Transit stop (rail or bus) within a 1/2 mile radius of the project location
- ☐ Park-and-ride lot within a one-mile radius of the project location
- ☐ Real-time surveillance/traffic device controlled by a traffic operations center
- ☐ Motorist assistance/hazard clearance patrols
- ☐ Interconnected/coordinated traffic signal system
- ☐ Other in-place congestion management strategy or strategies (briefly describe below:)

2. List and briefly describe how the following categories of (additional) strategies were considered as full or partial alternatives to single-occupant vehicle capacity expansion in the study or proposal for the project.

- a. Transportation demand management measures, including growth management and congestion pricing
- b. Traffic operational improvements
- c. Public transportation improvements,
- d. Intelligent Transportation Systems technologies
- e. Other congestion management strategies
- f. Combinations of the above strategies

3. Could congestion management alternatives fully eliminate or partially offset the need for the proposed increase in single-occupant vehicle capacity? Explain why or why not.

4. Describe all congestion management strategies that are going to be incorporated into the proposed highway project.

5. Describe the proposed funding and implementation schedule for the congestion management strategies to be incorporated into the proposed highway project. Also describe how the effectiveness of strategies implemented will be monitored and assessed after implementation.

IMPLEMENTING AND ASSESSING STRATEGIES

The fiscally constrained list of projects in the Visualize 2045 update and TIP project selection is informed by the CMP, and implementation of CMP strategies is encouraged through TPB committee discussions and consensus building around strategies, such as the TPB endorsement of the Aspirational Initiatives as priority strategies for the region. The region relies particularly on non-capital congestion strategies in the Commuter Connections program of demand management activities, and operations management strategies examined by the Systems Performance, Operations, and Technology Subcommittee. The Commuter Connections staff conduct regular evaluations of its programs, and the TPB conducts regular travel monitoring updates and studies to look at trends and impacts. These activities provide feedback to inform future long-range transportation plan cycles.

The CMP serves to document the region's consideration and implementation of congestion management strategies as alternatives to SOV capacity expansion. Both demand management and operational management strategies have been considered and supported in the region, including in the major Commuter Connections and Metropolitan Area Transportation Operations Coordination (MATOC) programs. The update to Visualize 2045 is reflective of the TPB's longstanding pursuit of such strategies.

DEMAND MANAGEMENT IN THE VISUALIZE 2045 UPDATE

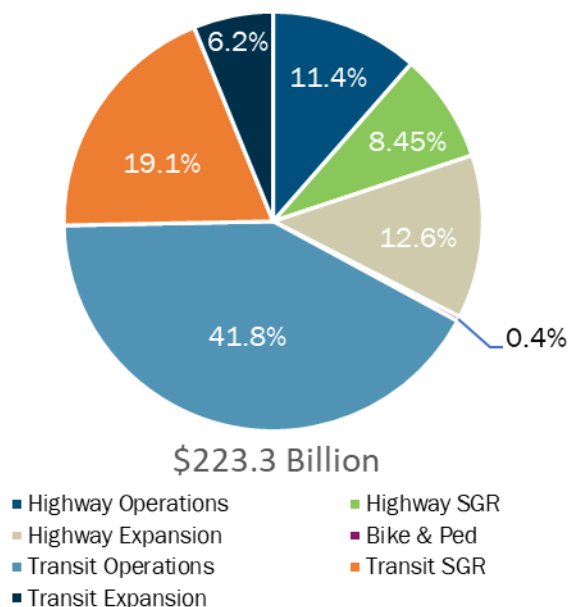
Transportation Demand Management (TDM) aims at influencing travelers' behavior for the purpose of redistributing or reducing travel demand. Existing demand management strategies contribute to a more effective use and improved safety of existing and future transportation systems. The Visualize 2045 update takes a number of demand management strategies into consideration when planning for the region's transportation infrastructure; many of those strategies are represented in the TPB's endorsed Aspirational Initiatives. Such strategies include alternative commute programs, managed facilities (such as HOV facilities and variably priced lanes), public transportation improvements, pedestrian and bicycle facility improvements, and growth management (implementing transportation and land use activities). These strategies are detailed in Chapter 6 of the plan, including the board-endorsed TDM concepts represented by the Aspirational Initiatives.

As noted in Chapter 6 of the plan, the region's primary demand management strategy is the multi-faceted Commuter Connections program, encouraging a wide range of alternatives to SOVs, including ridesharing, transit, bicycling, telework, and living near work. Regional long-range plans have reflected TDM programs, such as employer outreach, marketing, and the regional Guaranteed Ride Home program. And TDM study results have advised development or revisions of past or current Visualize 2045 or TIP projects, such as the I-95/I-395 HOV-HOT-Bus Lanes project (2008) or the [insert official name of Maryland project] (2020).

Visualize 2045's commitment to TDM is also reflected in its significant support for transit, and its overall multimodal approach. Maintaining and increasing the share of travel in the region by transit (instead of SOV) is critical to meeting regional congestion management. Figure 4 shows total expenditures, separated by mode and type. Transit expenditures include those for WMATA, local transit, and commuter rail. Over the 23-year period of the Visualize 2045 update, public

transportation is projected to absorb 68 percent of the total expenditures of \$221.8 billion – evidence of the region’s commitment to transit as an alternative to SOV capacity.

Figure 4. Multimodal Visualize 2045 Update (2022) Projected to Devote 67.1 percent of Expenditures for Transit (Billions)



OPERATIONAL MANAGEMENT IN VISUALIZE 2045

The TPB Vision states that the region “will use the best available technology to maximize system effectiveness.” An important part of the CMP effort focuses on defining the existing operational management strategies that contribute to the more effective use and improved safety of existing and future transportation systems.

Part of the CMP effort focuses on defining the existing operational management strategies that contribute to the more effective use and improved safety of existing and future transportation systems. Such strategies include incident management programs, Intelligent Transportation Systems technologies, Advanced Traveler Information Systems, and traffic engineering improvements. Many of these strategies are ongoing programs by member agencies, or, as in the case of ITS, are secondary aspects of overall capital projects, but are nonetheless crucial for the region’s CMP.

The Metropolitan Area Transportation Operations Coordination (MATOC) Program is a critical component of the region’s operational management. Since 2009, MATOC has performed real-time monitoring of transportation systems conditions, providing alert notifications to member agencies who operate portions of those systems, to mitigate and reduce impacts of incidents on congestion.

CAPACITY INCREASES IN VISUALIZE 2045 AND THEIR CMP COMPONENTS

Federal law and regulations list capacity increases as another possible component of operational management strategies, for consideration in cases of:

- *Elimination of bottlenecks*, where a modest increase of capacity at a critical chokepoint can relieve congestion affecting a facility or facilities well beyond the chokepoint location.
- *Safety improvements*, where safety issues may be worsening congestion (such as at high-crash locations), addressing the safety issues may help alleviate congestion associated with those locations.
- *Traffic operational improvements*, including adding or lengthening left turn, right turn, or merge lanes or reconfiguring the engineering design of intersections to aid traffic flow while maintaining safety.

These considerations are included in the Congestion Management Documentation Form in Visualize 2045 and TIP project submissions.

CMP Certification

The TPB, in approving its self-certification documentation in association with the 2022 update Visualize 2045, certifies that it addresses congestion management through maintaining a process for integrated management and operation of the multimodal transportation system. The 2022 update to Visualize 2045 is a multimodal plan that emphasizes travel demand reduction and operational management, reflective of the region's CMP.

visualize 2045

A long-range
transportation plan
for the National
Capital Region

APPENDIX F

Roadway Safety Planning

Draft, March 2022



National Capital Region
Transportation Planning Board

ROADWAY SAFETY PLANNING FOR THE VISUALIZE 2045 UPDATE (2022)
LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION
March 2022

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A safe transportation system is a foundational element of a livable region. With approximately 260 deaths and nearly 3,000 serious injuries in crashes every year on the region's roads, improving safety of all modes is critical to improving the quality of life for residents and visitors. It requires commitment to a coordinated, collaborative, and comprehensive transportation safety planning process that is informed by analysis of safety data.

Planning for safety is also a federal requirement for metropolitan planning organizations. It is a required federal planning factor and performance area for Performance-based Planning and Programming (PBPP), each established through the Moving Ahead for Progress Act of 2014. The federal planning factor states: *Increase the safety of the transportation system for all motorized and non-motorized users.*

This document supplements the safety discussions and data provided in the 2022 update to Visualize 2045 and in the plan's Appendix D, the Systems Performance Report, to further demonstrate how the TPB complies with federal requirements and responds to the Transportation Planning Board's commitment to roadway safety.

THE TRANSPORTATION PLANNING BOARD'S COMMITMENT TO ROADWAY SAFETY

Two signature programs highlight the Transportation Planning Board's (TPB) commitment to reducing the number of fatalities and serious injuries on the region's roadways; the Street Smart program and the Regional Roadway Safety Program (RRSP). The Street Smart program works to protect vulnerable road users by raising public awareness and promoting enforcement of pedestrian and bicycle safety laws, while the Regional Roadway Safety Program (RRSP) provides short-term consultant services to member jurisdictions and agencies for planning and preliminary engineering projects that address roadway safety issues.

The TPB also ensures that safety is considered throughout the regional transportation planning process. Transportation safety is highlighted in the TPB Vision, included in the Regional Transportation Priorities Plan, considered in the projects that go into Visualize 2045, and addressed as part of this region's Performance-based Planning and Programming (PBPP) requirements.¹ The TPB's Transportation Safety Subcommittee meets regularly to guide ongoing highway safety analysis, identify the most significant highway safety problems, and foster regional coordination.

To better understand the factors contributing to the unacceptable numbers of fatal and serious injury crashes in the region, the TPB commissioned a Regional Roadway Safety Study. The recommendations from this study informed the TPB's development and adoption of Resolution R3-2021 which instituted a regional safety policy and established and funded the RRSP.

Collaboration with TPB safety partners at the Maryland Department of Transportation (MDOT), the Virginia Department of Transportation (VDOT), and the District Department of Transportation (DDOT) is ongoing and essential. TPB staff work with our state partners on the development of each state's Strategic Highway Safety Plan, and our state partners regularly participate in Transportation Safety Subcommittee meetings. Each member state shares safety data and assists with its analysis.

¹ See Chapter 8 and Appendix D of this plan.

Safety also plays a significant role in TPB program areas such as the Congestion Management Process, Systems Performance, Management, and Operations Planning, Bicycle and Pedestrian Planning, Regional Public Transportation Planning, Freight Planning, and the Transportation-Land Use Connections program. The TPB staff also present safety planning information to the TPB's Access for All Advisory Committee, and garner feedback that can inform future planning activities.

STREET SMART

Since 2002, the region's Street Smart pedestrian and bicyclist safety outreach campaign and program has worked to protect vulnerable road users by raising awareness and promoting enforcement of safety laws. The region-wide Street Smart public safety campaign targets drivers, pedestrians, and bicyclists in the District of Columbia, Suburban Maryland, and Northern Virginia. The initiative integrates several components, including purchase and placement of advertising, donated media/public service announcements, media relations, street-level outreach events, digital efforts, and increased law enforcement. Waves of paid and donated media run in the fall and spring in conjunction with changes from and to Daylight Savings Time.

The goals of the Street Smart program are to:

- Reduce pedestrian and cyclist injuries and deaths in the region;
- Educate drivers, pedestrians, and cyclists about safe use of roadways; and
- Use enforcement and related press coverage to raise awareness of pedestrian and bicycle safety laws.

An annual online survey assesses the effectiveness of the campaign. The surveys measure awareness and attitudes among drivers and pedestrians. The groups surveyed are a representative sample of residents living in three geographic areas: the Maryland suburbs, Northern Virginia, and the District of Columbia. The surveys measure recognition of the campaign ads and messaging. A measure of success of the program is that ads created for Street Smart campaigns have been requested to be shared with numerous agencies across the country, and even abroad. Campaign materials can be found on the web site, www.bestreetsmart.net.



HER LIFE IS FRAGILE.

Yield to pedestrians
when turning.

**STREET
SMART**
BeStreetSmart.net

REGIONAL ROADWAY SAFETY PROGRAM

TPB Resolution R3-2021 adopted in July of 2020 established the Regional Roadway Safety Program (RRSP) and funded it at a level of \$250,000 per fiscal year.

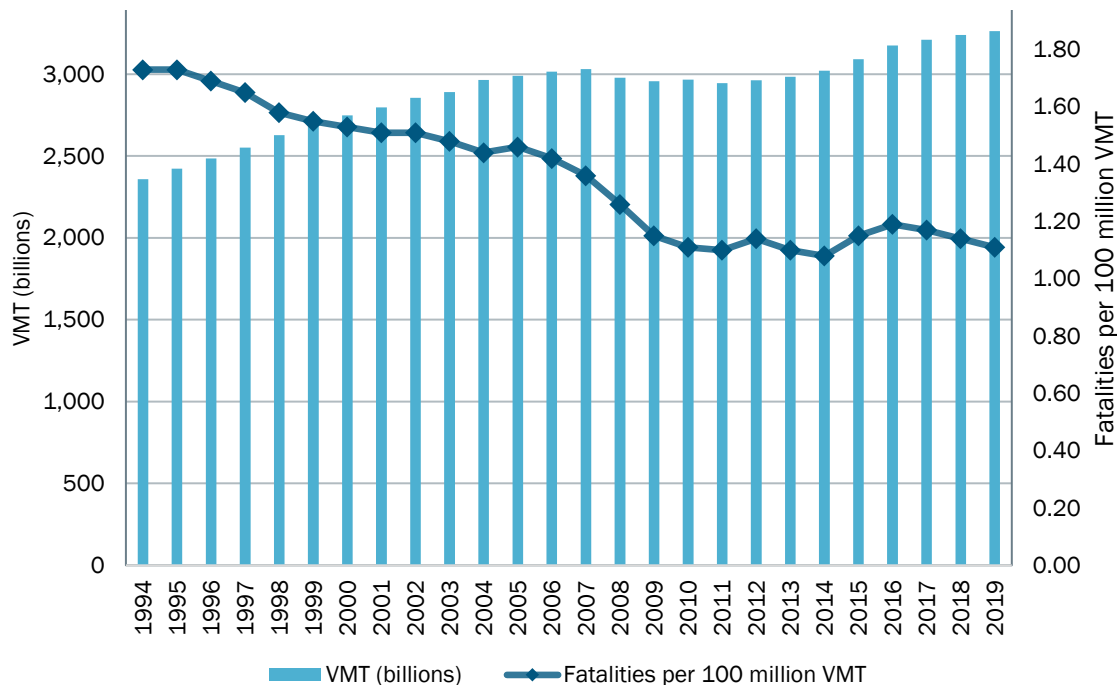
The RRSP provides technical assistance (short-term consultant services) to member jurisdictions or agencies to assist with planning or preliminary engineering projects that address roadway safety issues. Examples include studies, planning, or design projects that will improve jurisdictional or regional roadway safety and lead to a reduction in fatal and serious injury crashes.

Any TPB member jurisdiction or agency can apply to the program during periodic open application periods. Projects are eligible to receive up to \$60,000 in assistance for studies or planning projects and up to \$80,000 for design or preliminary engineering projects. Awardees receive short-term consultant services, not direct financial assistance.

As of February 2022, the TPB has awarded \$500,000 in RRSP technical assistance to ten projects, five with fiscal year (FY) 2021 funds and five with FY 2022 funds. TPB-approved and funded RRSP technical assistance has included roadway safety audits, preliminary engineering for road diets, roundabouts and complete streets, and development of school zone speed camera guidelines, among others.

NATIONAL AND REGIONAL ROADWAY SAFETY TRENDS

According to data published by the National Highway Traffic Safety Administration (NHTSA) for the United States as a whole, roadway fatalities increased by 1.7 percent from 2015 to 2019, and the fatality rate fell from 1.15 to 1.11 fatalities per 100 million vehicle miles of travel (VMT). A total of 36,096 people lost their lives in motor vehicle crashes in 2019. Most persons killed in traffic crashes were drivers (50 percent), followed by pedestrians (17 percent), vehicle passengers (16 percent), motorcyclists (14 percent), and bicyclists (2 percent). Of the persons who were killed in traffic crashes in 2019, 28 percent died in alcohol-impaired driving crashes. Figure 1 (below) shows the fatality rate per 100 million VMT for the United States from 1994 to 2019.

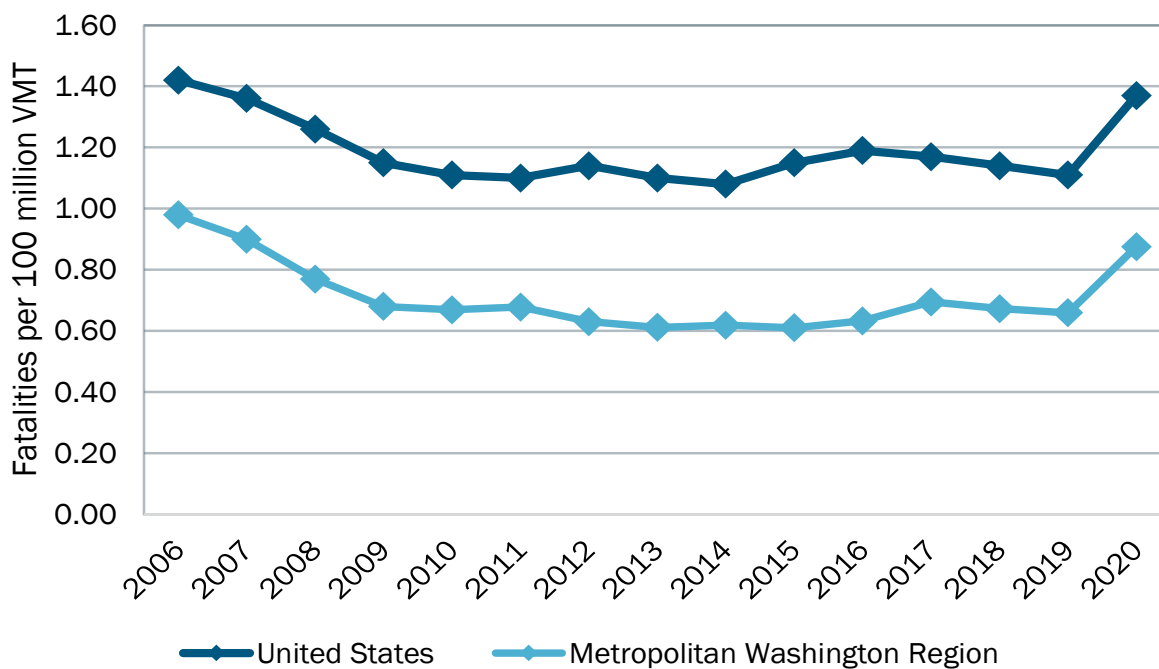
Figure 1: U.S. Roadway Fatality Rate per 100 million Vehicle Miles of Travel (VMT)

Source: Fatality Analysis Reporting System (FARS), National Highway Traffic Safety Administration

According to NHTSA, driving patterns and behaviors in the United States changed significantly after the declaration of the COVID-19 public health emergency in March 2020. While many fewer drivers were on the road, some of those that remained engaged in riskier behavior, including speeding, failure to wear seat belts, and driving under the influence of alcohol or other drugs.² Early estimates from NHTSA indicate 38,680 roadway fatalities nationally in 2020, an increase of 7.2 percent compared to the 36,096 fatalities reported in 2019. VMT decreased by about 13.2 percent between 2019 and 2020 and the combination of lower VMT and higher numbers of fatalities resulted in a rate of 1.37 fatalities per 100 million VMT for 2020, the highest level since 2006. The main behaviors that drove this increase, according to NHTSA's analysis, were impaired driving, speeding, and failure to wear a seat belt.

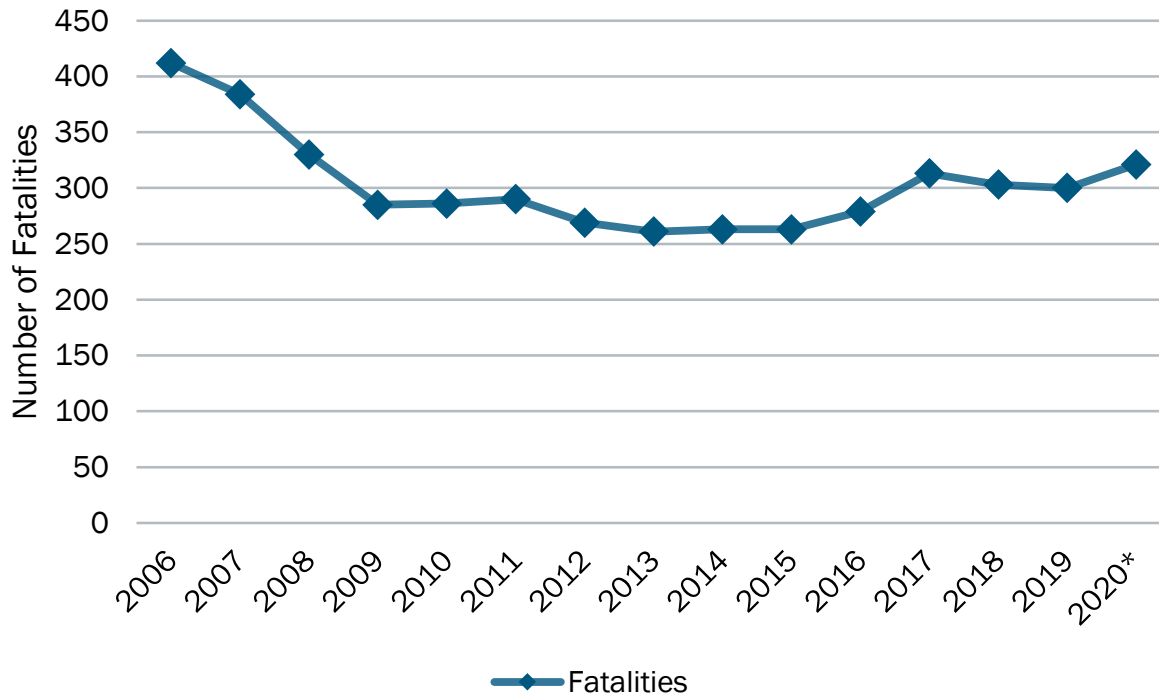
As shown in Figure 2, the metropolitan Washington region's roadway fatality rate is significantly less than that of the nation overall. Because roadway fatality rates are generally lower in urban areas than rural areas, the lower rate of fatalities for metropolitan Washington likely reflects our region being more urban and less rural than the nation as a whole. Nevertheless, fatality rates increased sharply for both the metropolitan Washington region and the United States in 2020, reflecting the effects of the pandemic as described in the preceding paragraph.

² NHTSA Traffic Safety Facts Research Note, *Continuation of Research on Traffic Safety During the COVID-19 Public Health Emergency: January – June 2021*, October 2021

Figure 2: Roadway Fatality Rate per 100 million VMT, U.S. and Metropolitan Washington Region

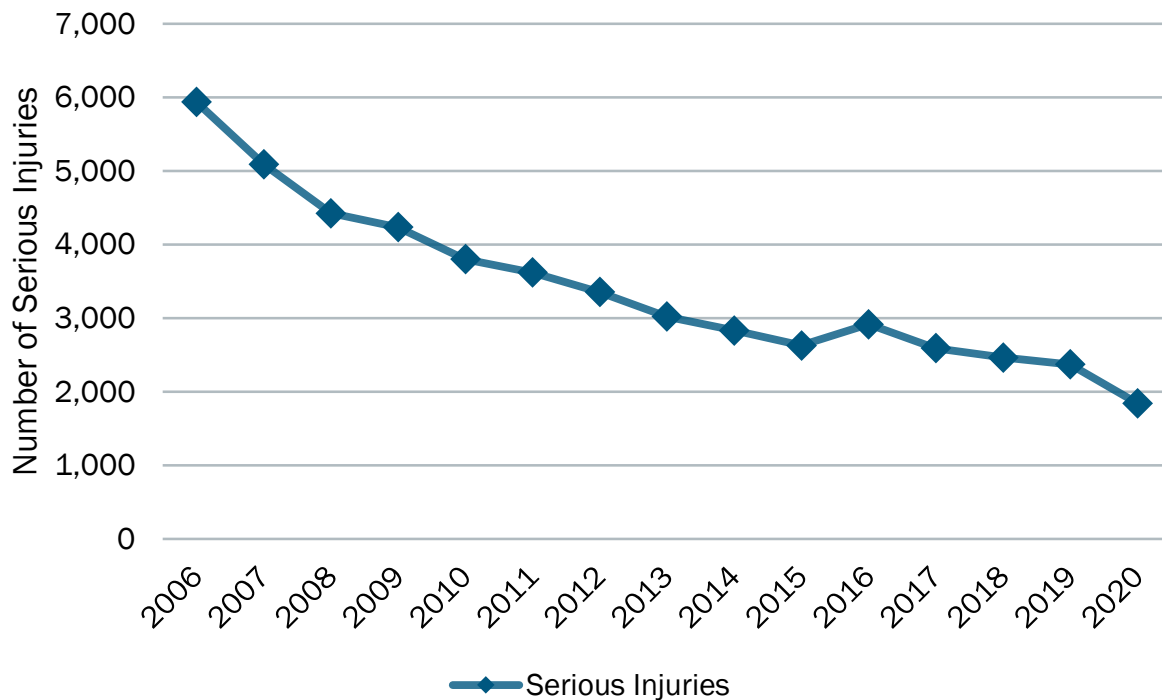
Sources: TPB analysis of NHTSA and State DOT data

In 2006, 412 people died in crashes on the region's roadways. By 2009, the number of annual fatalities declined to 285. Between 2009 and 2016 the number of roadway fatalities in our region plateaued (see Figure 3 below) to between 260 and 290 annually. Since 2016, however, the number of roadway fatalities has increased to over 300 per year, with a notable increase to 321 in pandemic-affected 2020.

Figure 3: Roadway Fatalities in the Metropolitan Washington Region

Sources: TPB Analysis of NHTSA and state crash data. Note that MDOT, DDOT, and VDOT crash data were used to compile year 2020 fatalities whereas NHTSA data were used to compile data for the other years.

The TPB compiles crash data for serious injuries in addition to fatalities. The number of serious injuries in metropolitan Washington has declined steadily in the past decade (see Figure 4). In 2006 there were 5,935 serious injuries in the region and by 2020 the number had declined by more than 68 percent to 1,842.

Figure 4: Roadway Serious Injuries in the Metropolitan Washington Region

Sources: TPB analysis of State crash data

REGIONAL ROADWAY SAFETY STUDY

In 2019, the TPB commissioned a Regional Roadway Safety Study to do the following:

- Understand the factors contributing to fatal and serious injury crashes in the National Capital Region (NCR);
- Determine where crashes on the roadway transportation network are over-represented;
- Compare safety outcomes in TPB Equity Emphasis Areas to safety outcomes in the rest of the NCR;
- Identify and recommend proven effective solutions (policy, programmatic, project);
- Provide the TPB and member jurisdictions specific suggestions to improve safety; and
- Inform future Transportation Safety Subcommittee and Street Smart efforts.

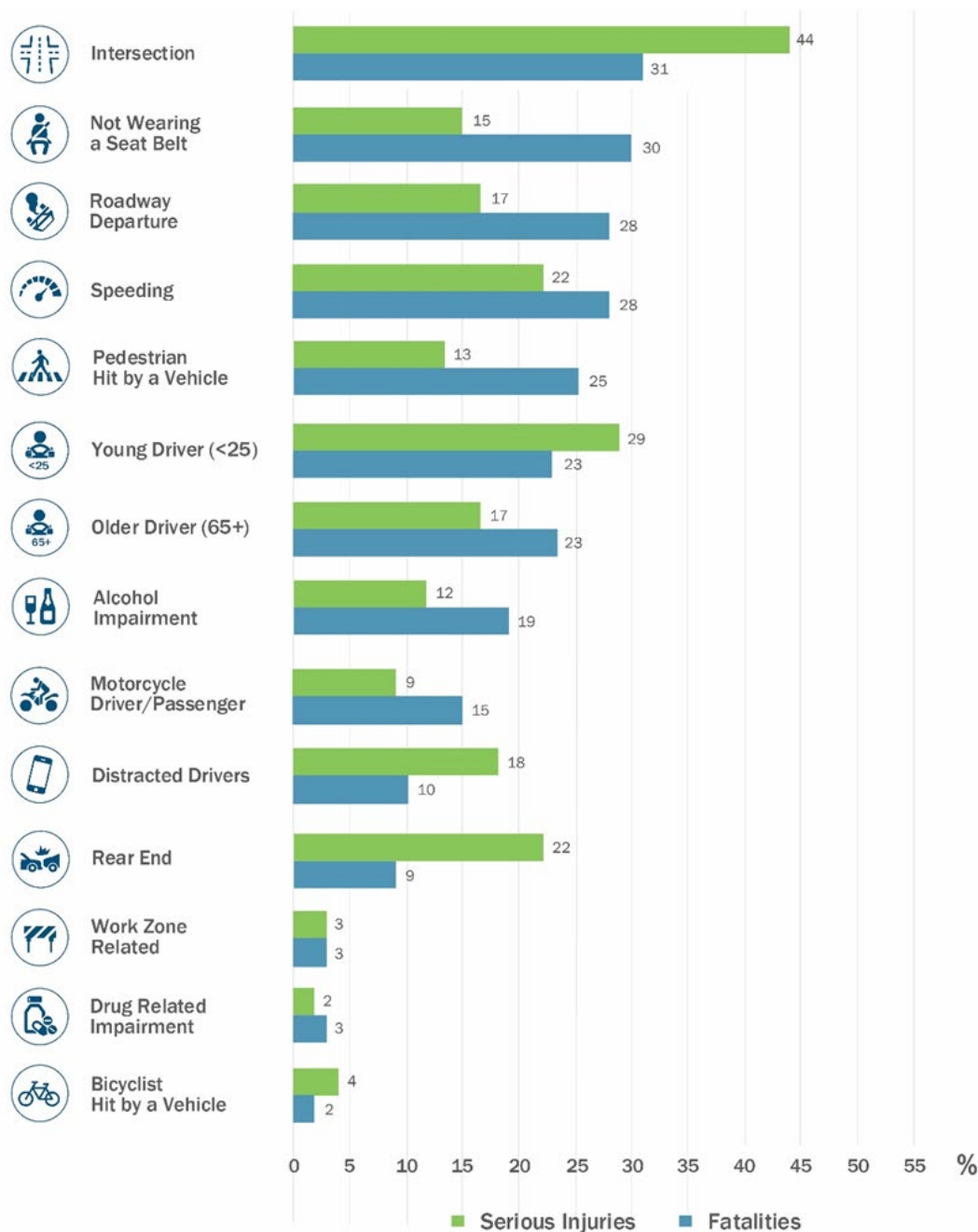
Key findings from the safety study included the results of an analysis of the factors that contribute to the region's roadway fatalities and serious injuries, the differences in safety outcomes between the region's Equity Emphasis Areas (EEA) and the rest of the region, and a list of countermeasures supported by research to be effective in addressing our region's fatal and serious injury crashes.

Key Factors that Contribute to Roadway Fatalities and Serious Injuries in the Region

The following figure illustrates the key contributing factors for the region's fatal and serious injury crashes. A contributing factor is something that increases the likelihood of a crash or its severity. Frequently, there are multiple contributing factors behind a crash. Consider the following

hypothetical example where a person under the age of 25 hits and kills a pedestrian while speeding and driving while drunk. That one crash would have four contributing factors; (1) a driver under the age of 25, (2) a driver who is speeding, (3) a driver that is drunk, and (4) a crash involving a pedestrian.

Figure 5 shows the most frequent contributing factors for fatal and serious injury crashes in the region for the years 2013 to 2017. The contributing factor is on the left – the lower (blue) bars show the percentage of fatal crashes where that contributing factor was present, and the upper (green) bars show the percentage of serious injury crashes where that contributing factor was present. This figure profiles which factors most contribute to the fatal and serious injury crashes in our region.

Figure 5: Top Contributing Factors for Roadway Fatalities and Serious Injuries in the Region, 2013-2017

Source: TPB Regional Roadway Safety Study

Note that crashes occurring at intersections is the most common contributing factor in fatal crashes (31 percent of all fatal crashes). This is followed closely by crashes involving people not wearing seat belts (30 percent), crashes where the vehicle leaves the roadway (28 percent), crashes where speeding is involved (28 percent), crashes involving a pedestrian (25 percent), and crashes involving either younger (under 25) or older (65 and over) drivers (23 percent each).

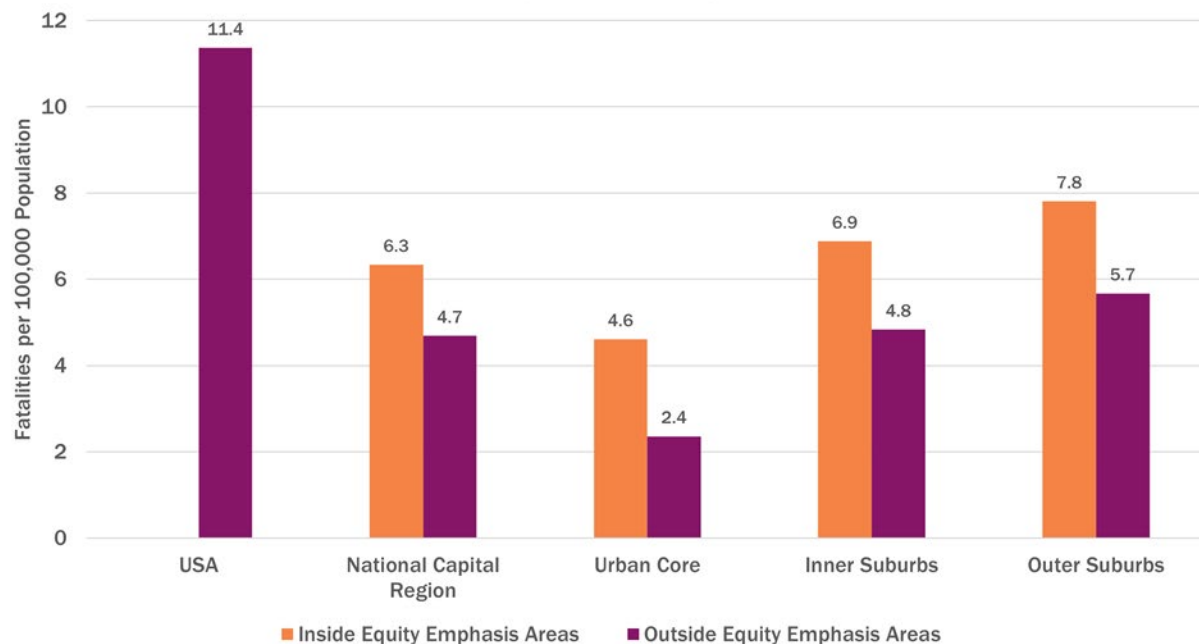
Crashes occurring at intersections is also, by far, the most common contributing factor in serious injury crashes (44 percent), followed by crashes involving younger drivers (29 percent), crashes where one vehicle collides with the back of another vehicle (22 percent), and crashes involving speeding (22 percent).

Understanding the underlying factors contributing to fatal and serious injury crashes in the region enables community leaders and safety officials to develop strategies, implement programs, and design improvements to mitigate those factors and lead to fewer roadway fatalities and injuries.

Equity Emphasis Area Analysis of Fatalities and Serious Injuries in the Region

To determine whether roadway fatalities and serious injuries disproportionately impact low-income and/or minority communities, the Regional Roadway Safety Study team calculated the fatality rate per capita both within and outside of Equity Emphasis Areas (EEAs). The results of the analysis show that between 2014 and 2018 (inclusive) there were 6.3 roadway fatalities per 100,000 people within EEAs compared to 4.7 roadway fatalities per 100,000 people in parts of the region that are not within EEAs. Figure 6 shows that the disparity is evident in all parts of the region from the urban core to the outer suburbs.

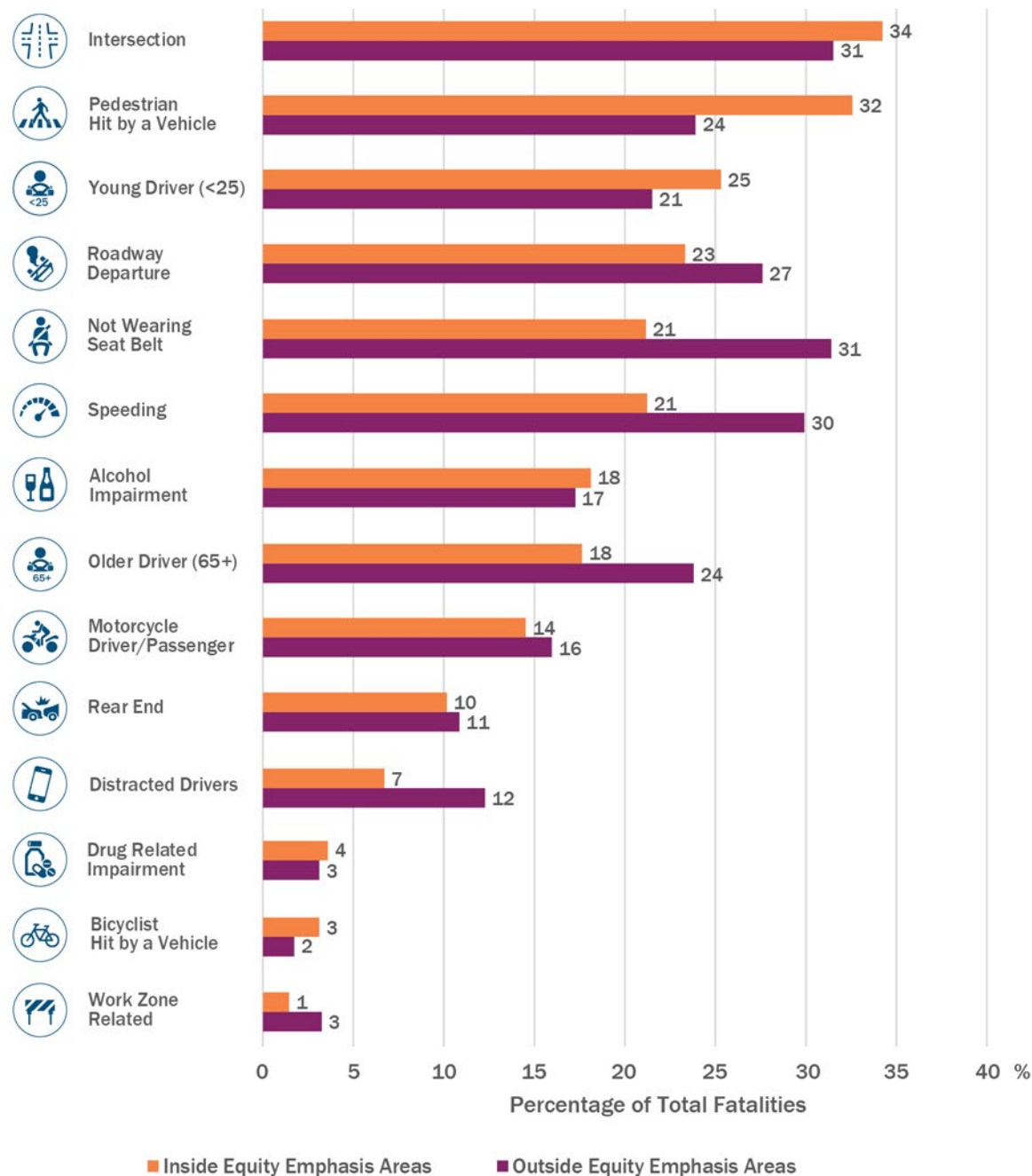
Figure 6: Fatalities per 100,000 Population Inside and Outside EEAs, 2014-2018



Source: TPB Regional Roadway Safety Study

Figure 7 shows the most frequent contributing factors for fatal and serious injury crashes in the region.³ The upper (orange) bars show the percentage of fatal crashes within EEAs where that contributing factor was present, and the lower (magenta) bars show the percentage of fatal crashes outside of EEAs where that contributing factor was present.

³ These are the same contributing factors that were presented in Figure 5.

Figure 7: Percentage of Fatalities Inside and Outside EEAs by Contributing Factors, 2014-2018

Source: TPB Regional Roadway Safety Study

Crashes involving pedestrians and young drivers as well as crashes at intersections, result in a greater proportion of fatalities within EEAs, whereas crashes involving vehicle occupants not wearing seat belts, speeding, older drivers, roadway departures, and distracted drivers result in a greater proportion of fatalities outside of EEAs. This information can help transportation planners, engineers, and safety officials develop and implement safety countermeasures that are tailored to the conditions within EEAs.

Regional Roadway Safety Study Recommendations

Based on the findings of the Regional Roadway Safety Study, the TPB adopted resolution R3-2021 in July 2020 that urges its members to reaffirm road user safety as a top priority and prioritize the implementation of projects, programs, and policies that strive to reduce the number of fatal and serious injury crashes on the region's roadways by:

- increasing seat belt use among all motor vehicle occupants;
- reducing unsafe vehicle speeds on all roadways in the region;
- reducing impaired and distracted driving;
- adopting safety goals consistent with Vision Zero or Towards Zero Deaths policies;
- developing local roadway safety plans and ensuring their equitable impacts on all road users;
- (for member states) adopting procedures that increase the use of ignition interlock devices for impaired driving offenders; and
- identifying and implementing applicable countermeasures as appropriate and on a case-by-case basis, especially those outlined in Table 1 on the following page.

The TPB also specifies that the above actions be done in an equitable and non-racist manner, consistent with the TPB's Policy Statement on Equity (shown below).

















TPB POLICY STATEMENT ON EQUITY

The TPB and its staff commit that our work together will be anti-racist and will advance equity including every debate we have, and every decision we make as the region's MPO; and The TPB affirms that equity, as a foundational principle, will be woven throughout TPB's analyses, operations, procurement, programs, and priorities to ensure a more prosperous, accessible, livable, sustainable, and equitable future for all residents; and We recognize past actions that have been exclusionary or had disparate negative impacts on people of color and marginalized communities, including institutionalized policies and practices that continue to have inequitable impacts today, and we commit to act to correct such inequities in all our programs and policies.⁴






The following countermeasures (Table 1) are recommended for the metropolitan Washington region based on analyses conducted as part of the Regional Roadway Safety Study. Each of the countermeasures is supported by research and if implemented, can significantly reduce the number of people killed or seriously injured on the region's roadways. The appropriateness of any of these countermeasures should be determined on a case-by-case basis. This list of strategies is not comprehensive and does not preclude the use of other proven effective strategies to improve roadway safety.

⁴ TPB Resolution R3-2021

Table 1: Recommended Roadway Safety Countermeasures**Legend**

	Intersections		Principal Arterials		Roadway Departure
	Speeding		Alcohol Impaired Driving		Distracted Driving
	Pedestrians		Young Drivers		Older Drivers
	Education		Emergency Medical Services		Communications
	Rear-end Collisions		Occupant Protection		Enforcement
	Legislation				

COUNTERMEASURES TO DESIGN AND OPERATE SAFER INFRASTRUCTURE

	Install pedestrian hybrid beacon and advanced yield signs, stop markings and signs, high visibility crosswalk markings.
	Implement leading pedestrian interval (LPI) at intersections with high turning vehicle volumes.
	Conduct pedestrian road safety audits in areas with a higher than average crashes.
	Reduce motor vehicle speeds by using data driven, effective, and equitable enforcement methods that utilize available technology, such as automated speed cameras, and other traffic calming strategies such as narrower lanes, adding roundabouts, and implementing road diets.
	Evaluate mid-block crossings with higher rates of fatalities and serious injuries (especially those over 10,000 Annual Average Daily Traffic (AADT)) to determine the need for more improvements such as medians, refuge islands, pedestrian hybrid beacon, and rectangular rapid flashing beacons.

COUNTERMEASURES TO DESIGN AND OPERATE SAFER INFRASTRUCTURE

 	Install pedestrian countdown signals.
 	Improve geometry of pedestrian and bicycle facilities at signalized intersections with high frequencies of pedestrian and/or bicycle crashes and on routes serving schools or other generators of pedestrian and bicycle traffic.
  	Install lighting at intersection and mid-block crossings to ensure motorists can see pedestrians crossing the road at locations with high pedestrian crashes.
 	Evaluate double-right turns at intersections to determine if removal of one right-turn lane is warranted.
 	Implement audible pedestrian crossing signals where appropriate.
	Create pedestrian safety zone programs in areas with high occurrences of pedestrian crashes.
 	Replace intersections that have high numbers of fatalities and serious injuries with roundabouts, a circular intersection configuration with channelized approaches and a center island that results in lower speeds and fewer conflict points, wherever feasible.
 	Utilize multiphase signal operation at signalized intersections with a high frequency of angle crashes involving left turning and opposing through vehicles as well as rear-end and sideswipe crashes.
 	Increase change intervals (when the traffic lights change) at signalized intersections at locations where too-short signal change intervals cause rear-end crashes and crashes between vehicles continuing and entering the intersection between phases.
	Improve left-turn channelization (providing definite paths for vehicles to follow) at signalized intersections where left-turn crashes are an issue.
 	Improve right-turn channelization at signalized intersections with a high number of rear-end collisions.
	Install LED heads and reflective backplates (reflective borders around traffic lights that make them more visible) in locations with high numbers of signalized intersection fatal and serious injury crashes.

COUNTERMEASURES TO DESIGN AND OPERATE SAFER INFRASTRUCTURE



Restrict access to properties using driveway closures or turn restrictions that are near signalized intersections with high crash frequencies related to driveways.



Restrict or eliminate turning maneuvers (including right turns on red) or employ signal coordination at signalized intersections with a high frequency of crashes related to turning maneuvers.



Improve signage at unsignalized intersections by ensuring foliage does not block the sign, the lettering is still reflective, and the sign is located where it can be seen by motorists.



Add reflective material to sign posts at unsignalized intersections.



Install LED-enhanced stop signs at unsignalized intersections where there are a higher-than-average number of fatal and serious injury crashes.



Implement high friction treatment at intersections that have a high number of rear-end crashes.



Implement left-turn traffic calming (left turn hardening) to reduce left turn speeds and provide for safe turning behavior at intersections that show a pattern of pedestrian-related left turn crashes and intersection geometry that facilitates high speeds.



Implement roadside design improvements such as clear zones, slope flattening, and adding or widening shoulders to improve ability for drivers to safely recover if they leave the travel lane.



Implement enhanced delineation treatments to alert drivers in advance of the curve including pavement markings; post-mounted delineation; larger signs and signs with enhanced retro-reflectivity; and dynamic advance curve warning signs and sequential curve signs.



Implement improvements including installation of cable barriers, guardrails, and concrete barriers to reduce the severity of roadway departure crashes.



Identify areas in the region that could benefit from traffic calming including road diets that reduce the number of traffic lanes and planting trees that encourage reduced speeds.

COUNTERMEASURES TO DESIGN AND OPERATE SAFER INFRASTRUCTURE



Install high friction surface treatment (HFST) in locations where the available pavement friction is not adequate to support operating speeds at a sharp curve, inadequate cross-slope design, wet conditions, polished roadway surfaces, or driving speeds in excess of the curve advisory speed.



Install longitudinal rumble strips and stripes in locations where run-off-the-road crashes are high.



Install the Safety Edge to eliminate the vertical drop-off at the pavement edge, allowing drifting vehicles to return to the pavement safely.



Develop a regional Safety Checklist or template as a tool for local jurisdictions to use during planning and project identification efforts

visualize 2045

A long-range
transportation plan
for the National
Capital Region

APPENDIX G

Environmental Consultation and Mitigation

Draft, March 2022



National Capital Region
Transportation Planning Board

ENVIRONMENTAL CONSULTATION AND MITIGATION FOR THE VISUALIZE 2045 UPDATE (2022)
LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION
March 2022

ABOUT VISUALIZE 2045 & THE TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future. The plan is updated at least every four years, the Visualize 2045 update is scheduled for 2022.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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ENVIRONMENTAL CONSULTATION

The TPB's consultation process was developed during environment consultation initiatives completed between 2007 and 2009. This effort established relationships with environmental agencies to solicit input and comments on the draft long-range transportation plan and mitigation discussion. During this process, input from environmental agencies representatives concluded that agency staff would be challenged to provide meaningful comments on regional, system-wide long-range transportation plan due to lack of project-level details and resources. These agencies are intimately involved at project-level planning and/or during National Environmental Policy Act (NEPA) review processes for specific projects.

An activity that agency staff commented on as helpful is the development of maps identifying environmental and historic resources along with the transportation projects. An updated interactive map provides a regional-level resource to inform the relationship between the transportation and environmental concerns: mwcog.org/EnviroInventoryMap. The map allows the public and decision makers to view the natural resource data layers along with the transportation projects expected to be built by 2045 from the financially constrained element of this plan. By defining and inventorying environmental resources and data, the interactive map can be used to inform state and local agencies and the public about the relationship between the projects in the constrained element and environmental concerns at the regional scale.

Further, to keep agencies aware of transportation projects in the long-range transportation plan, the TPB staff maintains a list of agency contacts and includes them on all TPB public comment period announcements. Staff also present to and receive feedback from COG and TPB committees, including COG's Climate Energy & Environment Policy Committee on various planning activities that inform the plan, such as the TPB's Resiliency Study.

POTENTIAL ENVIRONMENTAL MITIGATION ACTIVITIES

This discussion of potential environmental mitigation activities for Visualize 2045 provides an overview of mitigation activities being considered throughout the region. It also includes a new climate change mitigation and resiliency section in the plan, with companion reports documented in Appendices M and N of the plan. Federal regulations require that the TPB include: "A discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan. This discussion may focus on policies, programs or strategies, rather than at the project level" (23 C.F.R. § 450.322(f)(7)).

VISUALIZE 2045 AND PROJECT-LEVEL ENVIRONMENTAL ANALYSIS

The Visualize 2045 update includes projects expected to be built by 2045. Many projects are represented at early stages of project planning and development. Many project details, such as exact alignments and dimensions, are often under development and can often change. As an improvement approaches the preliminary engineering stage, detailed consideration of environmental resources is expressly conducted at the local, project-specific level through the NEPA review process.

The National Capital Region is composed of three states: the District of Columbia, Maryland, and Virginia; all of which have their own approach and regulations on the environment and implementing transportation projects. Currently, with exceptions for regional ambient air quality, offsetting environmental impacts during the long-range transportation planning process is not required.

ENVIRONMENTAL MITIGATION OVERVIEW

Environmental resources and areas are generally impacted by transportation projects as a result of construction, increased traffic, stormwater runoff from paved surfaces, among others. Examples of these resources where mitigation efforts can be focused include:

- Neighborhoods and communities, homes and businesses
- Cultural resources (e.g., historic properties or archaeological sites);
- Parks and recreation areas;
- Wetlands and water resources;
- Forested and other natural areas;
- Agricultural areas;
- Endangered and threatened species; and
- Air Quality.

Environmental mitigation is the process of addressing damage to the environment caused by transportation or other public works projects. Actions taken to avoid or minimize environmental damage are considered the most preferable method of mitigation.

Potential environmental mitigation activities may include:

- avoiding impacts altogether;
- minimizing a proposed activity/project size or its involvement;
- rectifying impacts (restoring temporary impacts);
- precautionary and/or abatement measures to reduce construction impacts;
- employing special features or operational management measures to reduce impacts; and
- Compensating for environmental impacts by providing suitable, replacement or substitute environmental resources of equivalent or greater value, on or off-site.



APPENDIX H

Public Participation Summary: Public Outreach and the TPB Participation Plan

Draft, March 2022



National Capital Region
Transportation Planning Board

PUBLIC OUTREACH AND THE TPB PARTICIPATION PLAN FOR THE VISUALIZE 2045 UPDATE (2022) LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION

March 2022

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Introduction

This appendix describes the public outreach and participation activities conducted during the process to update Visualize 2045 and explains how these activities were developed consistent with the TPB's Participation Plan and Title VI of the Civil Rights Act of 1964.

The outreach activities include:

- Voices of the Region public opinion survey
- Voices of the Region focus groups
- Voices of the Region Aspiration to Implementation (QR outreach)
- Public comment April 2021
- Public comment April 2022
- Virtual open houses

TPB Participation Plan

The TPB updated its Participation Plan in 2020. This update reflects a year-long process to make the plan easier for the public and staff to use.

The plan articulates the TPB's policy for public participation. It describes how members of the public can get involved and demonstrates how staff work to meet and exceed federal requirements. The plan guides TPB staff interactions with the public so that public-facing work can: 1) reach as many people as inclusively as possible, and 2) collect meaningful input and build support to inform TPB plans and programs, and aid in decision making.

The Participation Plan is required under federal laws and regulations pertaining to metropolitan planning. The plan builds on previous efforts designed to encourage participation in the TPB process and provide reasonable opportunities for residents and other interested agencies to be involved in the metropolitan transportation planning process.

As required by federal regulation, TPB staff developed the Participation Plan in consultation with interested parties, including residents, representatives of people with disabilities, users of public transportation and bicycle and pedestrian facilities, and affected public agencies.

PARTICIPATION POLICY

The TPB Participation Policy consists of four parts.

- The *Policy Statement* articulates the TPB's commitment to making its process and products accessible to everyone who lives in metropolitan Washington.
- The *Policy Goals* state what the TPB is trying to achieve through its public-facing work.
- The *Principles of Engagement* declare the TPB's values or interacting with the public.
- The *Constituencies for Engagement* describe three target audiences to help staff focus information and participation activities.

POLICY STATEMENT

It is the TPB's policy to provide public access and involvement under a collaborative planning process in which the interests of all TPB constituencies are reflected and considered. It is the TPB's intent to make both its policy and technical process inclusive of an accessible to all constituencies.

The TPB believes that public input into its process is valuable and makes its products better. Regional transportation planning cannot, and should not, be based simply upon technical analysis. The information derived from public involvement is essential to good decision-making.

POLICY GOALS

The Policy Goals describe what the TPB is trying to achieve through its participation activities. When planning public-facing work, staff should use these goals to set desirable outcomes, and then refer to the goals when evaluating their work.

- Engage different audiences effectively using a variety of tools.
- Provide clear and open access to information and participation opportunities.
- Gather input from diverse perspectives.
- Give consideration to input received and respond meaningfully.
- Promote a regional perspective.

PRINCIPLES FOR ENGAGEMENT

The Principles for Engagement state the TPB values around informing and engaging the public. These principles recognize that most people who are impacted by transportation decisions are not technical experts and that being inclusive means meeting people where they are. These principles guide engagement and point towards the Policy Goals without specifying those goals or the means to achieve them.

- **Equity perspective** - Staff strive to incorporate an equity perspective into their work activities so that work acknowledges and seeks to accommodate different contexts, experiences, and abilities.
- **Plain language** - Staff strive to use plain language and prepare their materials in a variety of ways.
- **Early and continuing participation** - Staff strive to maximize public input by involving the public early in planning processes. Staff also strive to involve the public throughout processes to create repeat interactions with the public.
- **Timely response** - Staff strive to acknowledge receipt of public input in a timely manner and provide information about how public input will be used.
- **Clarity of purpose** - Staff strive for clarity of purpose when planning public-facing work.

CONSTITUENCIES FOR ENGAGEMENT

The TPB acknowledges that not every person is aware of the TPB or has an understanding for how decisions are made at the regional, state, and local levels. To make sure that TPB participation efforts are most effective, it is important to tailor communications and outreach to different constituencies.

The constituencies below are grouped according to varying levels of engagement in regional transportation planning processes and awareness of regional transportation issues.

- **Active participants** are both knowledgeable about transportation policy issues in general, as well as in the TPB's role in regional transportation planning process.
- **Community leaders** have some knowledge of transportation policy issues but are less familiar with the TPB's role in the regional transportation planning process.
- **The general public** has an inherent interest in transportation challenges but often possess little direct knowledge of transportation policy making.

An equity perspective is vital for understanding how to work within these different constituencies. The TPB recognizes that each of these constituent groups include people of color, people with limited English proficiency, differing abilities, people with low incomes, and people of all ages, including youth and elders. Staff remain aware of the need to make extra efforts to engage these populations through information and participation.

Voices of the Region

For the Visualize 2045 update, the TPB conducted public engagement known as 'Voices of the Region' to gather information about public opinions on transportation through a survey, focus groups, and a regional virtual activity about the TPB's Aspirational Initiatives. The role of the Voices of the Region is to gather public opinion on issues important to the TPB, provide a more nuanced understanding how regional transportation policies affect people in the metropolitan Washington region, and to highlight voices that have been underrepresented in the past.

As a package, the Voices of the Region outreach accomplished all five of the TPB's Policy Goals for participation. Each activity took different approaches to incorporating the Principles for Engagement into its planning and execution. And while the primary constituency for participation in the three activities was the general public, the audience for the input collected was the other constituencies — active participants, community leaders, and decision-makers who serve on the TPB.

The following sections provide a summary of the specific Voices of the Region participation activities and a description for how they sought to achieve the Policy Goals, incorporate the Principles for Engagement, and engaged the Constituencies for Engagement.

For more information on Voices of the Region visit: visualize2045.org/voices-of-the-region.

PUBLIC OPINION SURVEY

The Voices of the Region public opinion survey was a representative and statistically significant regional survey of residents in the metropolitan Washington region.

The purpose of the survey was to gather information on attitudes and behaviors related to transportation topics in order to inform the Visualize 2045 update and other regional planning efforts. The study focused on topics addressed in the plan, including transportation access and mobility, future technology, and climate change.



Dash bus, City of Alexandria, VA (Martin Barna/City of Alexandria)

Respondents were randomly selected using an address-based sample of 10 county and city-level jurisdictions in the metropolitan Washington region, and were invited to participate in a web survey via a series of letters they received in the mail.

2,407 people participated in the survey.

The TPB conducted this study in collaboration with the Survey Research practice within ICF. The survey report and presentations can be found online at: visualize2045.org/voices-of-the-region.

Table 1.1: Public Opinion Survey & the Policy Goals

Policy Goals	
Gather input from diverse perspectives	The public survey solicited input from a randomly selected group of residents from the Washington region. This group was selected to represent the region's diversity and so that survey results were statistically significant. Effort put into soliciting a representative selection of the region's residents helped to ensure that feedback represented diverse perspectives. The methodology is documented in the survey report online at: visualize2045.org/voices-of-the-region .
Give consideration to input received and respond meaningfully	Results of the public opinion survey were summarized in a report that was posted to visualize2045.org . The findings were also presented to the Technical Committee, Community Advisory Committee, Access for All Advisory Committee, and the TPB. Additionally, findings from the public opinion survey were included in the Visualize 2045 plan document. Findings were made available online via a report and presentations at: visualize2045.org/voices-of-the-region .
Promote a regional perspective	By ensuring that the participants in the public opinion survey were statistically representative of the Washington region, the output of this activity promotes a regional perspective. To further the use of the survey results at the local level the TPB collected data of statistical significance for all member counties and made that data available.

Table 1.2: Public Opinion Survey & the Principles for Engagement

Principles for Engagement	
Plain language	The survey was prepared using plain language so that it was accessible to adults with a basic reading level. Additionally, the survey was prepared in Spanish to make it more accessible to Washington area residents. For those that preferred to complete the survey over the phone, a call-in number was an option for survey respondents.

Table 1.3: Public Opinion Survey & the Constituencies for Engagement

Constituencies for Engagement	
General public	The general public was the primary audience for participation in the public opinion survey. Survey respondents were selected at random.
Active participants	Findings and analysis from the public opinion survey were shared with people who are active in the TPB process, including presentations at the Technical Committee, Access for All Advisory Committee, and the Community Advisory Committee. Additionally, the findings were shared with the TPB at the February 2021 TPB meeting. An audio and video recording of the briefing to the TPB is posted to COG's website and at: visualize2045.org/voices-of-the-region .
Community leaders	In addition to the ways that the findings were shared with active participants, the primary way that the public opinion survey was meant to reach community leaders was via TPB News and social media. As the survey results were of regional interest, numerous media outlets sought TPB staff for interviews about the survey results. TPB staff also produced a Story Map of the results as another means of access for community leaders to engage with and share the results.

FOCUS GROUPS

In the winter of 2021, the TPB conducted 11 virtual focus groups with 112 residents from around the Washington region. Each session was created with a specific demographic or geographic focus to better understand the perspectives of different populations groups of the region. The groups discussed the participants' lived experiences, challenges, and opportunities associated with transportation equity, safety, and climate change. Through the lens of these three topics, insights were provided across a range of TPB policy priorities.

These "Voices of the Region" focus groups were designed to be part of a wider package of public engagement activities that supported the update of Visualize 2045.

The purpose of the focus groups was to gather qualitative and in-depth data that contextualizes and informs how different population groups understand and experience transportation equity, safety, and climate change. The project prioritized recruiting and selecting participants from historically underrepresented population groups to supplement perspectives received in the public opinion survey.

Table 2.1: Focus Groups & the Policy Goals

Policy Goals	
Gather input from diverse perspectives	The focus group activity was explicitly planned to supplement the public opinion survey by seeking out input from groups that were underrepresented in the survey responses and whose voices are not often heard in the transportation planning process. In addition to groups consisting of people who live in the core, inner suburbs, and outer suburbs, there were focus groups for the following demographics: people with low-income; young adults (18-25 years old); older adults (60+ years old); people of color; people with long-term disabilities; Spanish-speaking people. These groups were selected because their voices can often be left out of discussions about transportation.
Give consideration to input received and respond meaningfully	Like the public opinion survey, results of the focus groups were summarized in a report that was posted to visualize2045.org. The findings were also presented to the Technical Committee, Community Advisory Committee, Access for All Advisory Committee, and the TPB. Additionally, findings from the public opinion survey were included in the Visualize 2045 plan document.
Promote a regional perspective	By ensuring that the participants in the focus groups were selected from the three geographic areas the output of this activity promotes a regional perspective.

Table 2.2: Focus Groups & the Principles for Engagement

Principles for Engagement	
Equity perspective	An equity perspective was built into the plans for the focus groups from the start. The focus groups designed to gather input not captured during the public opinion survey and to gather input from groups that have historically not participated at the TPB.
Plain language	To ensure that the focus groups were conducted using language and concepts accessible to participants, focus group facilitators received several trainings. In addition to sharing standards and techniques for leading the discussions, these trainings also included discussion of strategies to use to help understand complex issues. These trainings were supported with scripts that facilitators used as they lead discussion.
Clarity of purpose	To achieve clarity of purpose, participants received a consent form in advance of the focus group. Facilitators also read this document and shared it on the screen before the discussion started. This helped set standards for participation. It also clarified the purpose of the focus groups and explained how content generated through discussion would be used.

Table 2.3: Focus Groups & the Constituencies for Engagement

Constituencies for Engagement	
General public	The general public was the primary audience for participation in the focus groups. The focus groups sought the opinion of people who have an inherent interest in transportation, but typically are not typically involved in the planning process. The specific constituent groups that participated in the focus groups were selected to supplement and provide a more diverse perspective than captured in the public opinion survey.
Active participants	Findings and analysis from the focus groups were shared with people who are active in the TPB process, including presentations at the Technical Committee, Access for All Advisory Committee, and the Community Advisory Committee. Additionally, the findings were shared with the TPB at the November 2021 TPB meeting. An audio and video recording of the briefing to the TPB is posted to COG's website.
Community leaders	In addition to the ways that the findings were shared with active participants, the primary way that the public opinion survey was meant to reach community leaders was via TPB News and social media. The TPB staff also produced a Story Map of the results as another means of access for community leaders to engage with and share the results.

ASPIRATION TO IMPLEMENTATION

In the summer of 2021, the TPB conducted a public engagement campaign called Aspiration to Implementation to solicit input for the update of Visualize 2045, the region's long-range transportation plan. The campaign, which was conducted virtually, used posters and signs with QR codes to obtain comments from the general public about ways in which regional transportation projects, programs, and policies have affected their daily lives.

The campaign's QR code posters asked people for their personal reflections on projects or policies that are linked to the TPB's seven Aspirational Initiatives, which are policy-level strategies approved by the TPB in 2018.

The Aspirational Initiatives are:

- Bring Jobs and Housing Closer Together
- Expand Bus Rapid Transit and Transitways Regionwide
- Move More People on Metrorail
- Provide More Telecommuting and Other Options for Commuting
- Expand Express Highway Network
- Improve Walk and Bike Access to Transit
- Complete the National Capital Trail Network



Aspiration to Implementation sign (TPB)

Table 3.1: Aspiration to Implementation & the Policy Goals

Policy Goals	
Engage different audiences effectively using a variety of tools	The Aspiration to Implementation activity was open to the general public, unlike the public opinion survey and the focus groups. Posters were placed throughout the region as an invitation to participate. The public could either use their phone to scan a QR code and take a quick survey or document the URL and take the survey later on a computer.
Provide clear and open access to information and participation opportunities	Access to the activity is considered open because it was available to anyone who passed by one of the posters.
Gather input from diverse perspectives	The Aspiration to Implementation was designed “to meet people where they are.” Signs were placed in 40 locations throughout the Washington region, including some Equity Emphasis Areas. Demographics for activity participants can be found in the final report: visualize2045.org/voices-of-the-region .
Promote a regional perspective	By ensuring that posters were placed throughout the Washington region, the output of this activity promotes a regional perspective.

Table 3.2: Aspiration to Implementation & the Principles for Engagement

Principles for Engagement	
Plain language	To make the Aspiration to Implementation accessible to everyone that saw a poster, the posters were designed using graphics and language that clearly communicated the purpose of the activity and how to engage with the activity.

Table 3.3: Aspiration to Implementation & the Constituencies for Engagement

Constituencies for Engagement	
General public	The general public was the primary audience for participation in the Aspiration to Implementation. This activity sought the opinion of people who have an inherent interest in transportation. TPB staff also produced a Story Map of the results as another means of access for community leaders to engage with and share the results.
Active participants	Findings and analysis from the Aspiration to Implementation campaign was shared with people who are active in the TPB process, including presentations at the Technical Committee, Access for All Advisory Committee, and the Community Advisory Committee. Additionally, the findings were included in materials shared with the board for the February 2022 TPB meeting.
Community leaders	In addition to the ways that the findings were shared with active participants, the primary way that the public opinion survey was meant to reach community leaders was via TPB News and social media. TPB staff also produced a Story Map of the results as another means of access for community leaders to engage with and share the results.

Public Comment

To support plan development, provide the public an opportunity to weigh in on plan technical inputs, conformity findings, plan and TIP documentation, and meet federal requirements the TPB conducted two public comment periods. Each 30-day public comment period sought feedback at different critical steps during the development of the Visualize 2045 update.

PUBLIC COMMENT – APRIL 2021

At the April 2021 TPB meeting, the board was briefed on the draft project submissions to be included in the Air Quality Conformity Analysis of the constrained element (project list) of the update to Visualize 2045 and the FY 2023-2026 TIP. The project submissions were released for a 30-day public comment and interagency review period at the TPB Technical Committee meeting on April 2, 2021. The comment period closed on May 3, 2021.

During this comment period, the TPB received: 163 comments via email, 65 from the public comment form on the TPB website, 1 comment via phone call, and 11 letters sent by individuals and advocacy groups.

Comments were summarized in a memo dated May 13, 2021 and were presented to the board on May 19, 2021. The board was asked to take these comments into consideration when approving project inputs and the Air Quality Conformity Analysis scope of work at the June TPB meeting. This comment period was not required by federal regulations.

PUBLIC COMMENT – APRIL 2022

This section will be updated after the April 2022 Comment Period is complete.

Table 4.1: Public Comment & the Policy Goals

Policy Goals	
Engage different audiences using a variety of tools	There are several ways for the public to comment on TPB plans and activities. The public comment periods for Visualize 2045 sought feedback via email, online form, phone number, and letters. Making the comment period available through different mediums made the comment periods more accessible to more people.
Provide clear and open access to information and participation opportunities	TPB public comment periods are always open to the public. To announce and promote public comment periods for the Visualize 2045 update by posting announcement in regional newspapers: The Washington Post, the Washington Hispanic, and the Afro American. The TPB also gets the word out via email to subscribers of TPB email lists, TPB News, social media, websites (mwcog.org and visualize2045.org), and through TPB and committee meetings.
Gather input from diverse perspectives	Comment received during the public comment periods reflected a variety of perspectives from residents of the Washington region. Some were motivated by specific projects and others by reducing the climate change impacts of the region's transportation system.
Give consideration to input received and respond meaningfully	Both 30-day comment periods were scheduled so that there was sufficient time for TPB staff to summarize comments and when possible provide a response from member agencies and jurisdictions. The memo summarizing these comments and responses was distributed with TPB materials six-days before the board meeting. This plan schedule added two months, so that the TPB would have a full month to consider public comment before taking any action on the plan inputs or plan/TIP approval.
Promote a regional perspective	Comments from both comment periods were received from residents across the Washington region, reflecting that the activity promotes a regional perspective.

Table 4.2: Public Comment & the Principles for Engagement

Principles for Engagement	
Plain language	<p>The 2021 comment period materials were provided in numerous formats to make the information accessible to various constituencies. An introductory memorandum summarized the purpose of the comment period and the materials included in the packet. The memo highlighted major projects in the plan, with mode-specific maps to illustrate project location in the region. For new major projects, attractively designed 'project profiles' were produced to highlight information about these projects. Simple, organized project description forms were made available in the comment packet as well, providing detailed but straightforward information about the projects. TPB staff produced an interactive website to show projects proposed for the plan inputs. Lastly, the detailed conformity list was made available to the public for the purposes of transparency.</p> <p>The TPB also prepared infographics and animated videos for the comment period to make learning about the plan and the Aspirational Initiatives more public-friendly.</p>
Early and continuing participation	The TPB continues to share information through meetings, media, websites. Members of the public have an opportunity to provide comments at the start of each TPB meeting year-round.
Timely response	When comments are submitted by email, which is how most comments are received by TPB, an automated email thanks the individual for his/her comment. After the comment period closes, the TPB summarizes the comment and presents the summary in a memorandum, to which all detailed comments and letters are attached.
Clarity of purpose	For each comment period, the TPB communicates the general purpose of the comment period.

Table 4.3: Public Comment & the Constituencies for Engagement

Constituencies for Engagement	
General public	The public comment periods were open to the general public.
Active participants	The public comment periods were open to active participants, including advocacy groups and other organizations. Through public notices as well as other means of engagement, such as TPB committees, the TPB ensures that all parties that are federally required to have the opportunity to comment are given the chance to do so.
Community leaders	The public comment periods were open to community leaders.

Virtual Open Houses

This section will be updated after the April 2022 Comment Period is complete.

Table 5.1: Virtual Open House & the Policy Goals

Policy Goals	
Engage different audiences using a variety of tools	The virtual open houses are just one of the ways that the TPB promoted Visualize 2045 and educated the public about plan contents. The open houses used recorded presentations and a question and answer session to make the meeting accessible. Similar content was shared via TPB News, etc.
Provide clear and open access to information and participation opportunities	The first part of the open house program featured a recorded presentation. This presentation included closed captions. The presentation was also presented to the visualize2045.org website so that the public could review the content before and after the open house. The video content is supported by plan documents, charts, infographics, and other materials on the Visualize 2045 website.
Gather input from diverse perspectives	This activity was not primarily designed to seek input from the public. The purpose of the virtual open houses was to share information with the public.
Give consideration to input received and respond meaningfully	This activity was not primarily designed to collect input from the public. The purpose of the virtual open houses was to share information with the public.
Promote a regional perspective	The virtual open houses promote a regional perspective by highlighting the collaborative process for developing the plan and the shared vision and priorities for the shared future of the region's transportation system.

Table 5.2: Virtual Open House & the Principles for Engagement

Principles for Engagement	
Plain language	When preparing the presentation for the open houses, staff worked to use plain language and clearly explain technical jargon when necessary. The video was also close captioned to provide another way for viewers to access the content.
Early and continuing participation	The virtual open houses were not primarily designed to seek input from the public. They did, however, cap off a series of continuing participation activities starting in 2020 and continue into 2022. These activities include Voices of the Region and the public comment periods.
Timely response	The virtual open houses were not primarily designed to seek input from the public. There was no response for staff to provide.
Clarity of purpose	The purpose of the open houses was clearly stated on postcard invitations, social media posts, and a TPB News article. The purpose was restated at the beginning of the program.

Table 5.1: Virtual Open House & the Constituencies for Engagement

Constituencies for Engagement	
General public	The general public is the primary audience for the virtual open houses.
Active participants	Active participants were invited to attend the virtual open houses. Active participants likely interacted with plan content during TPB committee meetings, while watching TPB meetings, or participating in public engagement. This group was encouraged to attend open houses and promote the opportunity to their colleagues, members of their community, and other community leaders who might not be familiar with Visualize 2045.
Community leaders	Community leaders were invited to attend the virtual open houses. They were invited to attend by active participants in the TPB process, through TPB emails, and xxx.

Title VI

The TPB Participation Plan is part of the COG Title VI Plan and Program.

Title VI of the Civil Rights Act of 1964 and its amendments (Title VI) prohibit excluding people from participating in or being discriminated in any federally funded program or activity on the basis of race, color, or national origin.

The public engagement activities for the update to Visualize 2045 were all designed to be supportive of and consistent with Title VI requirements and principles. In preparing for all the activities described in this appendix, staff actively considered options for expanding outreach to historically underserved communities and individuals. When appropriate and possible, enhancements were

made to widen engagement. In one case, the Voices of the Region focus groups, the outreach activity was conducted for the explicit purpose of including “hard-to-reach” voices in the long-range transportation plan.

In FY 2023, the TPB will conduct an evaluation of its public engagement activities, which, among other factors, will examine the effectiveness of outreach to underserved communities during the development of Visualize 2045. This evaluation will help the TPB and its staff craft engagement activities in the future that will effectively solicit input from these communities and individuals, and identify ways to incorporate consideration of their needs, preferences, and suggestions into the regional planning process.

visualize 2045

A long-range
transportation plan
for the National
Capital Region

APPENDIX I

Summary of Public Comment Periods

Draft, March 2022



National Capital Region
Transportation Planning Board

**SUMMARY OF PUBLIC COMMENT PERIODS FOR THE VISUALIZE 2045 UPDATE (2022)
LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION**
March 2022

ABOUT VISUALIZE 2045 & THE TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

CREDITS

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ACKNOWLEDGEMENTS

Special thanks to the public for participating in the TPB’s public comment period and the many other regional staff who provided responses to public comments.

ACCOMMODATIONS POLICY

Alternative formats of this document are available upon request. Visit www.mwcog.org/accommodations or call (202) 962-3300 or (202) 962-3213 (TDD).

TITLE VI NONDISCRIMINATION POLICY

The Metropolitan Washington Council of Governments (COG) operates its programs without regard to race, color, and national origin and fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations prohibiting discrimination in all programs and activities. For more information, to file a Title VI related complaint, or to obtain information in another language, visit www.mwcog.org/nondiscrimination or call (202) 962-3300.

El Consejo de Gobiernos del Área Metropolitana de Washington (COG) opera sus programas sin tener en cuenta la raza, el color, y el origen nacional y cumple con el Título VI de la Ley de Derechos Civiles de 1964 y los estatutos y reglamentos relacionados que prohíben la discriminación en todos los programas y actividades. Para más información, presentar una queja relacionada con el Título VI, u obtener información en otro idioma, visite www.mwcog.org/nondiscrimination o llame al (202) 962-3300.

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SUMMARY OF PUBLIC COMMENT PERIODS

In addition to engaging the public in broad outreach related to transportation policies, as discussed in Appendix I, the plan development scheduled includes two public comment during the official public comment and interagency review periods for this plan. The two comment periods include the opportunity to review the technical inputs for the Air Quality Conformity analysis and the results of the analysis, along with the draft 2022 update to Visualize 2045 and the FY 2023-2026 Transportation Improvement Program (TIP). The comment summaries and comment listing can be found in this Appendix. The summary of the second comment period will be included following the completion of the April 2022 comment period.

PUBLIC COMMENT – APRIL 2, 2021 – MAY 3, 2021

At the April 2021 TPB meeting, the board was briefed on the draft project submissions to be included in the Air Quality Conformity Analysis of the constrained element (project list) of the update to Visualize 2045 and the FY 2023-2026 TIP. The project submissions were released for a 30-day public comment and interagency review period at the TPB Technical Committee meeting on April 2, 2021. The comment period closed on May 3, 2021. During this comment period, the TPB received: 163 comments via email, 65 from the public comment form on the TPB website, 1 comment via phone call, and 11 letters sent by individuals and advocacy groups.

Comments were summarized in a memorandum dated May 13, 2021, and were presented to the board on May 19, 2021. The board was asked to take these comments into consideration when approving project inputs and the Air Quality Conformity Analysis scope of work at the June 2021 TPB meeting. This comment period was not required by federal regulations. A summary of these comments and the acknowledgments provided by TPB staff, and the implementing agencies are presented in the attached memorandum. A compilation of all comments received during this period follows that memorandum. The TPB held a special work session for the board to provide additional information on the technical inputs, provide the opportunity for the board to ask questions of the technical experts for the projects from the local member agencies, and to document board comments on the inputs. The memorandum dated June 10, 2021 that summaries board comments during the TPB work session is also provided.

PUBLIC COMMENT – APRIL 1, 2022 – MAY 1, 2022

The draft 2022 update to Visualize 2045, TPB's long-range transportation plan, the TPB's FY 2023-2026 TIP and the Air Quality Conformity analysis results for the plan and TIP are available for public comment from April 1, 2022 - May 1, 2022. This section will be updated after the April 2022 Comment Period is complete.

APRIL 2, 2021 – MAY 3, 2021, COMMENT PERIOD



National Capital Region
Transportation Planning Board

MEMORANDUM

TO: Transportation Planning Board
FROM: Stacy Cook, TPB Transportation Planner, Karen Armendariz, TPB Outreach Specialist
SUBJECT: Summary of Comments Received and Proposed Responses on the Project Submissions for Inclusion in the Air Quality Conformity Analysis of the Constrained Element of the Visualize 2045 update and the FY 2023-2026 Transportation Improvement Program (TIP)
DATE: May 13, 2021

PURPOSE

The purpose of this memorandum is to provide information to the board members as the board continues its review and discussions of the projects proposed to be included in the regional conformity analysis. Due to the extensive amount of information received during the comment and interagency review period, the TPB staff prepare and provide this summary memorandum as a courtesy to the board. The full extent of comments and letters received is provided in Appendix A.

This memorandum includes the following attachments:

- Appendix A: Letters Received and Comment Compilation
- Appendix B: TPB April Work Session Summary and attachment
- Appendix C: Conformity Analysis Tables revised with technical corrections received during interagency review

This comment period and interagency review process is a tradition of the TPB and is not a federal requirement. A compilation of the comments submitted by individuals, organizations and businesses have been posted on the TPB's meeting page and at www.mwcog.org/TPBcomment. These comments are also included at the end of this memorandum, which provides a summary of the comments received and includes responses provided by TPB staff and the implementing agencies. The acknowledgements and clarifications from TPB staff and the transportation agencies are provided as recognition of these summarized comments, most essentially noting that the TPB staff are making this information available to the members of the board. As the comment period also serves as interagency review, the comments received by the agencies regarding minor technical corrections have been reflected in the updated conformity table, which can also be found attached to this memorandum.

BACKGROUND

At its April 2021 meeting TPB staff briefed the members of the board on the draft project submissions to be included in the Air Quality Conformity Analysis of the constrained element of the update to Visualize 2045 and the FY 2023-2026 TIP. The project submissions were released for a 30-day public comment and interagency review period at the TPB Technical Committee meeting on April 2, 2021. This comment period closed on May 3, 2021 at midnight.

At its May meeting the TPB staff will brief the members of the board on the comment period process, the comments received, and the draft responses provided by TPB staff and sponsoring agencies. During the meeting, the board will be provided the opportunity to indicate if it requires any more information beyond the responses provided in this summary.

At its June 2021 meeting, the TPB staff will ask the board to approve the inputs to the air quality conformity analysis (conformity analysis) of the long-range transportation plan (Visualize 2045) and Transportation Improvement Program (TIP) and the scope of work for the conformity analysis.

Please note, the projects proposed to be included in the air quality conformity analysis are a subset of projects in Visualize 2045 and TIP. Not all projects in the plan and TIP can, nor should be, included in the conformity analysis. Federal conformity analysis regulations inform the projects and programs to be included in the analysis and publishes a list of projects that are exempt from such analysis. Also, the inputs, assumptions, and methodology used to conduct the conformity analysis are guided by the federal requirements to ensure that estimated levels of criteria pollutants comply with the federally established emissions levels.

2021 PUBLIC COMMENT PERIOD

The TPB held an open public comment period and interagency review of the conformity input tables from April 2 – May 3, 2021. Members of the public were invited to review the public comment materials available on the TPB comment page (mwcog.org/tpbcomment) and to submit public comment on the draft list of projects submitted to the TPB.

TPB staff advertised the public comment period via the TPB's public comment email distribution list, social media, TPB News, and newspaper advertisements on the Washington Post, Washington Hispanic, and the Afro-American Newspapers. Additionally, information about the public comment period was shared with the TPB's Technical, Community Advisory, and the Access for All Committees.

Interested parties were able to submit a comment through four different platforms, the options and the number of comments received via each platform is shown in Table 1.

Table 1 Platforms for Comments and Number of Comments Received

<i>Platforms for commenting</i>	<i>Number of Comments Received by platform</i>
<i>Sending email to tpbcomment@mwcog.org</i>	163
<i>Writing to the TPB Chair at TPB</i>	0
<i>Using the form online at mwcog.org/tpbcomment</i>	65
<i>Calling the TPB Public Comment Line at 202-962-3262 and leaving a 3-minute voice mail.</i>	1

The TPB staff received emails/letters from several individuals. The TPB staff also received letters from the following government officials, TPB Community Advisory Committee members, and other organizations as listed below:

- Prince George's County, County Council Member, Danielle Glaros (TPB Board Member)
- The City of Rockville, MD, Bridget Donnell Newton Mayor (TPB Board Member)
- Nancy Abeles, Bethesda, MD (CAC member)
- Eyal Li of Takoma Park, MD (CAC member)
- Arlington Chamber of Commerce
- Citizens Against Beltway Expansion
- Coalition for Smarter Growth
- Greater Washington Partnership
- Northern Virginia Transportation Alliance
- Southern Environmental Law Center
- Washington Area Bicyclist Association

This memorandum provides a summary of the comments in two sections, a section that summarizes and provides examples of general themes and topics, and a section on project-specific comments. Where examples of specific comments are provided, minor editorial corrections have been made without changing the meaning of the comment. Acknowledgements and clarifications from TPB staff and the transportation agencies are provided as responses to these summarized comments.

GENERAL COMMENTS AND THEMES/TOPICS

Topic 1: The draft project does not meet the region's climate goals [145 Comments]

TPB staff received 142 comments stating that the draft list of projects submitted to the TPB would not achieve the region's adopted greenhouse gas reduction targets. Within these comments, people are requesting the TPB to fix the current draft list to meet the region's climate goals.

Comment: "We must fight climate change. Transportation is the largest source of climate pollution in the region (42%), and you have the power to support projects and plans that reduce emissions and oppose those that do not.

Therefore, I urge you to act now to fix the draft list of projects submitted to the Transportation Planning Board (TPB) for the Visualize2045 update to the regional long range transportation plan.

The draft list is almost identical to that of the previous (2018) plan, which was shown to fall far short of meeting the region's adopted greenhouse gas reduction targets. Just last month, the TPB director, Kanti Srikanth, admitted that the currently proposed list of projects would not achieve those targets either.

It is inexcusable for this region to propose a transportation plan that fails to implement the COG climate plan and do our part to reduce emissions.

I ask you and each jurisdiction's representative at the TPB to fight for these options:

- 1) Model a smart growth/climate-friendly plan in addition to their business-as-usual plan, ideally adopting the climate-friendly plan in the coming year
- 2) Fix the current draft plan now, deleting the road projects that will increase emissions and adding in more transit and local street projects that create more walkable, transit-oriented communities.

A smart growth/climate-friendly network would focus on increasing accessibility to jobs, housing, and services in the region in ways that make our region more equitable, livable, and sustainable. This means reducing the need to drive by creating walkable, mixed-use, transit-oriented communities and addressing the east-west jobs divide, affordable housing, and investments in walking, biking, and transit. These strategies are already being successfully implemented in some parts of our region, and they provide many benefits (equity, safety, health, livability, economic) in addition to significantly reducing GHG emissions.

Please be a leader in fighting climate change via all means, including transportation plans that offer major reductions in emissions.”

TPB Staff Response: The TPB agrees that the region should enhance and expediate its efforts to implement transportation projects, programs and policies to effectively mitigate and adapt to climate change.

In 2010, the TPB joined MWCOG's action to set greenhouse gas (GHG) reduction targets to mitigate the impact of climate change. Over the last decade the TPB completed two major climate change focused studies to evaluate strategies to address these targets, including the What Would It Take analysis and the Multisector Working Group study that identified the various types of projects, programs and policies that have the greatest potential to reduce GHG in the transportation sector.

In October 2020, the TPB endorsed new interim GHG reduction goals and new climate resiliency goals. These include a 2030 interim regional greenhouse gas reduction goal of 50% below 2005 levels by 2030; the region's climate resilience goals of becoming a Climate Ready Region and making significant progress to be a Climate Resilient Region by 2030; and the need to incorporate equity principles and expand education on climate change into CEEPC, COG and TPB members' actions to reach the climate mitigation and resiliency goals.

The TPB has adopted a comprehensive set of multi-modal goals and objectives to support the socioeconomic and environmental development of the National Capital Region. These represent the policy element of its long range transportation plan (Visualize 2045) and are explicitly documented in the TPB's policy documents: the TPB Vision, Region Forward, Regional Transportation Priority Plan and TPB Aspirational Initiatives. Climate change and equity are important elements of the TPB's policy priorities.

The solicitation of inputs to update Visualize 2045 explicitly notes the above policy documents and calls for projects, programs and policies proposed to be added to the long-range plan to be consistent with and advance these policy goals and priorities. Visualize 2045 projects and programs generally advance/support the policy goals and priorities; some projects focus on reducing congestion, others on adding travel options (transit, ridesharing, walk/bike), others to improve roadway safety and others support freight movement.

Overall, each successive update / amendment to the region's long range transportation plan has resulted in reduced growth in congestion, reduced growth in vehicle mile traveled and emissions of pollutants, improved mobility, and accessibility, while accommodating considerable growth in population and employment, as reported in the performance analysis of Visualize 2045. Yet these improvements fall short of the goals the TPB has adopted for roadway safety, mobility/accessibility, and climate change. The progress anticipated in Visualize 2045 also falls short of the timeframe to achieving some of these goals (such as for safety, equity, and climate change).

The TPB periodically conducts scenario studies reimagining future land use, travel demand, transportation projects, programs, and policies and fuel type to serve as alternatives to its official long-range transportation plan. One of the purposes of these studies is to help inform transportation investment decisions being made at local, sub-regional and state levels. The most recent scenario analysis was the 2018 Long-Range Transportation Plan Task Force's ten alternative scenarios, five of which have now been adopted as Aspirational initiatives. The official long range transportation plan, however, per United States (U.S.) Environmental Protection Agency (EPA) and the U.S Department of Transportation (USDOT), must be based on officially adopted land use and transportation project investments and policy decisions.

The TPB manages a program called Transportation and Land Use Connections that helps to fund the study and design of local streets projects that meet criteria based on TPB's goals. Most local streets projects are not reflected in the air quality conformity analysis due to the specific technical requirements of what should be included in the analysis.

Topic 2: Opposition to highway expansion and road widening [24 comments]

The TPB staff received 24 comments explicitly opposing any road widening and high expansion projects. Within this category, people expressed opposition to highway expansion and road widening for the following reasons:

Comment 1) Highway expansion comes with negative environmental impacts.

Example: "Rural residents are struggling to maintain the health and ambiance of their communities. Automobile exhaust is the major source of greenhouse gasses which diminish air quality, and which many feel has contributed significantly to climate change in the form of rising temperature, more ferocious storms and flooding, long stretches of drought, and forest fires. As Loudoun continues to grow, mountain forests and quality soils are lost to concrete, traffic, housing (another producer of GHGs) and thus is losing the most natural ability to cleanse air and recharge groundwater. Loudoun is set to develop Rivana - a multi-use development on the border with Fairfax County, which keeps housing and development in the urban area....as it should. Please re-focus your efforts on plans which make use of existing public transportation lines and proximity to existing employers."

Comment 2) The road-widening projects do not solve the problem of traffic congestion and increases pollution.

Example: "The road widening elements of the draft plan are a travesty. They are will not achieve the traffic reduction goals they aim to achieve and will make it much harder to travel by any other mode. A century of evidence has shown that road widening lead to increased car use and decreases in every other mode. By forcing all trips onto cars, you are making travel more expensive

for everyone in the region.”

Comment 3) Highway expansion and road widening projects remove attention from funding public transportation.

Example: “In our region, transportation is a major source of emissions and we are an air quality non-attainment zone. Urban and suburban areas can promote transit over personal vehicles, while in rural areas transit is not as easy to implement. Transit takes vehicles off the road, reducing vehicle miles travelled as well as reducing air pollution. Regrettably, the long range planning and programs, Vision 2045 proposes \$40 Billion in highway expansion compared to only \$24 B in Transit expansion. This allocation of funds is opposite to what is needed in order to meet the region's GHG reduction goals as articulated in the Metropolitan Washington 2030 Climate and Energy Action Plan, adopted in November 2020. Expanding highways will put more vehicles on the road that will emit more GHG pollution in contradiction to the adopted plan.”

TPB Staff Response: The TPB has provided the comments to the members of the TPB and their technical agencies.

Topic 3: Prioritize investments in sustainable transportation options [19 comments]

The TPB staff received 18 comments asking the board to prioritize funding for sustainable projects. Within this topic, people expressed the following issues:

Comment 1) Incentivize people to choose sustainable transportation by increasing funding for public transportation.

Example: “I am concerned that Vision 2045 will fuel further sprawl in Maryland instead of shaping our communities around sustainable transportation that will prepare us better for climate change. Highway widening just leads to induced demand. I know my own tendency to hop in a car to get somewhere 10 minutes earlier than public transportation will get me there. I actually prefer to take transit, but to make transit and active transportation work better for me and other Maryland residents, our budgets need to reflect these priorities. Instead of making it easier to drive, we need to make it easier to use every other form of transportation, and our land use planning needs to follow suit. Please don't create more sprawl by temporarily making it easier to drive on highways! The gains for car commutes will disappear within a few years, but we'll be stuck with the sprawl for decades.”

Comment 2) Invest in roads that are environmentally friendly and that increase the safety of pedestrians and bicyclists.

Example: “Dear planning board, I'm concerned that the draft plan includes \$40 billion on road projects, which will further contribute to car culture, climate change, pollution and habitat destruction. A higher portion of the budget should be spent on public transportation and on making our communities more walkable and bike-able. Walking and biking are the most eco-friendly, affordable and healthiest ways to get around our area but we spend the least amount of money on them. I am a bike commuter (from Montgomery Co. to DC) and I see every day how much more money needs to be spent in our area to ensure safety for walkers and bikers.”

Comment 3) Invest in local projects that create more walkable, transit-oriented communities.

Example: “Fix the current draft plan now, deleting the road projects that will increase emissions and adding in more transit and local street projects that create more walkable, transit-oriented communities. A smart growth/climate-friendly network must increase accessibility to jobs, housing, and services to make our region more equitable, livable, and sustainable. This means reducing the need to drive by creating walkable, mixed-use, transit-oriented communities and addressing the east-west jobs divide, affordable housing, and investments in walking, biking, transit, and renewable energy. Unlike in the 2018 plan, our region must implement these strategies to meet or exceed its adopted greenhouse gas reduction targets of 60% by 2030.”

TPB Staff Response: The TPB has provided the comments to the members of the TPB and their technical agencies.

Topic 4: Strategic road projects will bring balance to the plan and benefits during/post pandemic [6 comments]

The TPB staff received 6 comments in support of road widening projects in the draft project list. The support behind these projects expressed in the comments includes the following:

Comment 1) Population growth increases the need for more road infrastructure

Example: “For the last quarter century or so this area has lagged far behind in the need to build additional roads and increase the capacity of existing ones to match the increase in population over those years. We need not only the roads being proposed in this plan but more. Thanks for helping make this happen.”

Comment 2) Road projects are needed to travel during and post pandemic.

Example: “The recent pandemic has proven the limitations of spoke and hub public transit. Teleworking have given people the freedom to live wherever they most desire, and being forced to endure a crowded, noisy, unpleasant urban core is not a desirable option for most. Thanks to international pressure, electric vehicles are coming rapidly – the popularity of Tesla proves their potential, and the worldwide commitment to their use will soon make them economically practical and desirable. The “building roads creates congestion” assertion no longer applies, because the travel patterns of daily life will change radically. Please keep the critical funding for the critical highway funding in the plan.”

Comment 3: Removing the limited, strategic roadway improvements currently in Visualize 2045 will do little to reduce GHG or VMT.

Example: “As we work together as a region to tackle this important challenge, the Alliance urges DC area elected officials to trust your local transportation planning experts, focus on meaningful changes that produce real benefits, and avoid “quick fixes” that do little to address this important issue.

For example, removing the limited, strategic roadway improvements currently in Visualize 2045 will do little to reduce GHG or VMT. That is because VMT alone is a poor metric for evaluating GHG emission reductions. In fact, VMT is more closely tied to population growth than roadway improvements. The most recent update of Visualize 2045 shows only an 8% increase in lane miles of roadway while VMT increases by 20% and population by 23%.

The reality is that strategic roadway improvements can reduce carbon emissions even though there is a slight increase in VMT. In the 2016 Multi-Sector Work Group (MSWG) study evaluating different emissions reduction strategies, improving roadway operational efficiency provided greater GHG reduction benefits than reducing transit fares, travel times, and headways combined. However, if you only looked at VMT you would conclude the exact opposite. In fact, failing to make these important improvements could have the reverse impact of increasing congestion and associated emissions, especially if no action is taken to significantly increase dense, mix-use development in regional activity centers served by high-capacity transit.”

TPB Staff Response: The TPB has provided the comments to the members of the TPB and their technical agencies.

Topic 5: Equity and Climate Change [5 comments]

The TPB staff received 5 comments specifically asking the TPB to consider equity and climate change as they approve the draft project list.

Example: “This plan is set up to fail future generations and the region with a lack of response to climate change impacts. Expanding roadways only will bring more single occupant internal combustion engines to our roadways, increasing the heat emergency effects of summer (and starting to impact spring and fall already) and further contributing to the emissions of our area. Only conversion of existing lanes to HOV should be utilized in this plan, with a greater focus on smart access to multimodal options. The addition of toll roads once again increases the inequity in our country allowing the rich to throw some money at a problem, since their time is viewed as more valuable. How does this support vulnerable and low income communities that often have the longest commute times to minimum wage jobs? The federal government is getting serious about emission reduction targets by 2030, it is past time that this plan be reevaluated, and course corrected.”

TPB Staff Response: The TPB has provided the comments to the members of the TPB and their technical agencies.

PROJECT-SPECIFIC COMMENTS AND RESPONSES

Public comments were received that focused on specific projects. TPB staff have reviewed each comment and summarized their main points in this memorandum. For public comments that are project-specific in nature, the implementing agencies have provided responses in the form of acknowledgements of clarifications. Additionally, the Coalition for Smarter Growth included a list of project specific recommendations in its letter, to view that set of project-specific comments, please view the letter that is in the compilation in Appendix A to this memorandum. Section L includes a series of other non-project specific comments on the plan development process and inputs, and other project concepts for consideration.

Comments on specific projects that are existing or proposed as technical inputs:

- A. Maryland Traffic Relief Plan I-270/I-495
- B. MD-97 Georgia Avenue, MD83 Mid-County Highway extension and Montrose Expressway
- C. Maryland Bus Rapid Transit Projects)
- D. Governor Harry Nice Bridge
- E. US Route 15
- F. Northstar Boulevard
- G. Route 28 corridor /Manassas Bypass
- H. Long Bridge Rail
- I. VRE 3rd and 4th Track projects
- J. Metro Silver Line
- K. Crystal City Transitway
- L. Other Comments

PROJECT-SPECIFIC PUBLIC COMMENTS

Projects in Maryland:

A. The Maryland Traffic Relief Plan Projects on I-270 and I-495 [7 comments]

The TPB staff received seven comments on MDOT's Maryland Traffic Relief Plan, which includes projects on I-270 and I-495. This project is already in the plan, for this update, MDOT has proposed changes on the projects. The following is a summary of those comments:

1. **Comment:** This project should not move on to the predevelopment phase prior to completion of the Environmental Impact Statement.

Response from the Maryland Department of Transportation (MDOT): Predevelopment work generally references the phase of preliminary design of a project between the origination of the concept and the initiation of final design and construction. It is the period of gathering information, exploring options, minimizing impacts, eliminating and reducing risks, and making decisions around the definition of the project. The predevelopment work involves, in large part, developing a financially feasible project in collaboration with all parties and stakeholders. The predevelopment work will develop a project that is bankable, can obtain debt financing, and can reach close of finance. This preliminary design work supports the completion of the Environmental Impact Statement and Record of Decision to authorize the final design and construction.

2. **Comment:** The proposed additional lanes will increase traffic and greenhouse gas emissions and will contribute to an increase in climate change.

Response from MDOT: Regional vehicle miles traveled (VMT) is anticipated to increase between now and 2045 (consistent with national and local trends over the last several decades). The results from the Metropolitan Washington Council of Governments (MWCOC) model show that there would only be expected to be a slight increase (less than one percent) in VMT in the future years with the addition of high-occupancy toll (HOT) lanes. Additionally, the new HOT lanes will reduce travel times on the Interstate for everyone, allow free usage of vehicles with three or more people, provide new opportunities for reliable suburban transit through express bus connecting people with activity centers,

and reduce traffic delays on local roads. Provisions for carpools and transit will also incentivize drivers to shift to carpools and transit rather than single-occupancy vehicles. Our studies have shown that person throughput increases up to 50 percent on sections of the Interstate during the peak hours.

The results of an air quality analysis completed show a decrease in both Mobile Source Air Toxics (MSAT) and Greenhouse Gas (GHG) emissions in the design year (2040) compared to existing conditions. This is a result of the changeover in fuels and vehicle mix in the future year. More fuel-efficient vehicles and cleaner fuel mixes cause a decline in emissions even as VMT would be expected to increase very slightly. Electric vehicles are accounted for as a fuel type in the air quality model and are factored into the analysis. The results of a quantitative GHG analysis showed a slight increase in GHG emissions from the build alternatives compared to the no-build alternative attributable to the very slight increase in VMT in the design year. However, the build alternatives would result in less GHG emissions compared to existing conditions.

Maryland is committed to reducing GHG and to preparing our State for the impacts of climate change. The Maryland Commission on Climate Change (MCCC) and its Mitigation Working Group (MWG) have demonstrated that commitment by working collaboratively with experts and stakeholders across State and local agencies, environmental, non-profit and academic institutions. The resulting body of work quantifies baseline GHG emissions by sector to understand the impacts that specific plans, policies, and programs will have on future emissions economy-wide. Statewide analyses do not indicate that the HOT lanes will impede Maryland's ability to meet our GHG emission reduction goals. In fact, the Greenhouse Gas Reduction Act (GGRA) Plan documents Maryland's existing and future emissions reductions under several scenarios, all of which include this project. The document illustrates that Maryland will not only meet the 40% by 2030 goal, but that we are dedicated to working together to exceed that goal and to strive for a 50% reduction by 2030.

MDOT continues to be an active partner in the MCCC and Maryland's GHG reduction efforts. We are leading the way on transportation sector scenario and emissions analyses. We have worked with stakeholders, communities, and our partners on the MWG to better understand the impacts of the changes within the transportation sector, ranging from technology improvements, such as the deployment of automated, connected, and electric vehicles to the importance of improving mobility and expanding telework.

- 3. Comment:** The need for this project should be re-evaluated given the potential shift in travel and commuting patterns following the pandemic.

Response from MDOT: The current traffic conditions associated with the COVID-19 pandemic are anticipated to be temporary, as compared with the ultimate 2045 design year long-term traffic which the high-occupancy toll (HOT) lanes are required to be designed to accommodate. MDOT has closely monitored traffic patterns and traffic projections throughout the pandemic and daily traffic volumes have already recovered to 85% to 90% of pre-COVID levels. Traffic volumes are anticipated to return to pre-COVID levels before the time the HOT lanes are operational.

It is also important to note that I-495 was at or over capacity since the late 1980s during peak hours and I-270 was at or over capacity since the late 1990s during the peak hours. As the years have gone by, those hours of peak congestion on I-495 and I-270 have increased to 10 and 7 hours, respectively. These conditions are expected to return before the time the HOT lanes are operational, and hours of

congestion will only grow with a projected 1.3 million more people and nearly 1 million more jobs in the National Capital Region by 2045.

B. MD-97 Georgia Avenue, MD 83 Mid-County Highway extension and building the Montrose Expressway East. [2 comments]

The TPB staff received one comment on Georgia Avenue and the MD 83 Mid-County Highway and two comments regarding the Montrose Expressway. The following is a summary of those comments:

1. **Comment:** These proposed transportation projects that would be seriously damaging to the environment and people's health from increased pollution, that would perpetuate auto-dependent land use and sprawl, and therefore should not proceed.

MDOT Response: The MD 97 (Georgia Ave) project will not be widening to 8 lanes; it will be removing the center reversible lane and replacing it with a median and dedicated left turn lanes at specific locations. This project will make safety and accessibility improvements to MD 97 in Montgomery Hills for all users, including a dedicated 2-way cycle track for bicyclists. (The change to 8 lanes for the project was an error, and the LRTP and TIP inputs will be updated to reflect the accurate project details which at its widest is 7 lanes.)

Montgomery County DOT Response: Response: Both Mid-County Highway Extension and Montrose Parkway East are projects in Montgomery County Master Plans of Highways and Transitways and are included in several area master plans to accommodate population and employment growth projected in master plans and also to relieve congestion in the future. Current County planning has changed to an emphasis on complete communities and complete streets, Vision Zero and expansion of the role of public transportation. In addition, the County has developed a draft Climate Action Plan (CAP) that outlines actions needed to meet our greenhouse gas emission goals. As such, the County is reevaluating both of these projects and will not be advancing them in the proposed Transportation Improvement Program.

C. Maryland Bus Rapid Transit Projects [2 comments]

The TPB staff received one comment on two BRT projects on the roadways MD 355 and US-29.

1. **Comment:** Two particularly valuable projects being planned that I hope will proceed are: BRT on MD 355 (CE3424), and BRT on US-29 so that it extends from Montgomery into Howard County, and is modified so that virtually the entire length of the BRT line runs on a dedicated lane.

MDOT Response: Additional information from MDOT (with attached map): The Central Maryland Regional Transit Plan (CMRTP, published October 2020) does identify transit service along the US 29 corridor as one of the 'Early Opportunity' Regional Transit Corridors (#27 Ellicott City to Silver Spring which starts in Howard county and ends in Montgomery county.)

Montgomery County Response: Response: The County shares the commenter's emphasis on the importance of building out the BRT network in the County. This network includes the recently opened US 29 Flash as well as the MD355 BRT. The County is advancing both projects in the coming year with

funding for preliminary engineering and design. The County has been in discussions with Howard County and MDOT on BRT service along US 29 to Howard County.

D. Governor Harry W. Nice Memorial/Senator Thomas “Mac” Middleton Bridge on US 301
[1 comment]

The TPB staff received one comment on Governor Harry W. Nice Memorial/Senator Thomas “Mac” Middleton Bridge encouraging inclusion of a dedicated lane and one comment suggesting that all planned bridges should have pedestrian and bicycle facilities.

1. **Comment:** The replacement of the Governor Harry Nice Bridge on US 301 should proceed but it needs to be modified so that it includes the promised pedestrian and bicycle lane.

MDOT Response: The Maryland Transportation Authority (MDTA) provided several project updates to the Transportation Planning Board (TPB) in 2019, informing the Board of MDTA’s plans to leverage a bid alternative process evaluating two options: 1) for a barrier separated shared use lane, and 2) for a lane sharing concept for bikes to share the right travel lane with other vehicles. On November 21, 2019, the MDTA Board voted and selected the bicycle lane sharing concept for the new bridge. Final design for the new bridge with the lane sharing concept commenced in January 2020, and construction started in July 2020 for the fully developed bicycle lane sharing design. The MDTA is no longer considering a barrier separated shared use lane for the Nice/Middleton Bridge.

PROJECTS IN VIRGINIA

E. U.S. Route 15 (US 15) [3 comments]

The TPB staff received three sets of comments on US 15, two comments that expressed concerns about project impacts and one comment that supported the project. The following is a summary of those comments:

1. **Comment:** These projects will create induced demand and encourage poor land use development.

Response from Loudoun County: Travel on Route 15, or that more people will travel on Route 15 in the future just because of the proposed improvements.

The project scope includes:

- Widen Route 15 to a rural four-lane median divided cross section from Battlefield Parkway to Montresor Road.
- a signalized Continuous Green “T” (CGT) intersection at North King Street to allow through traffic to continue north on Route 15 without stopping.
- an updated signalized intersection at Whites Ferry Road.
- a two-lane hybrid roundabout at Montresor Road.
- a realigned section of Limestone School Road to connect with the Montresor Road roundabout.
- a shared use path on the west side of Route 15 from Tuscarora High School to Montresor Road.
- a shared use path along the entire length of Whites Ferry Road

The design process includes context-sensitive methods and follows the Journey Through Hallowed Ground guidelines where possible.

Loudoun County's zoning ordinance and land development regulations do not allow poor land use development. The County's Zoning Ordinance was revised in 2016 to assign the majority of the Route 15 north corridor the Agricultural Rural-1 (AR-1) zoning district which limits development in the area. The corridor was also designated as the Limestone Overlay District, which has development regulations.

On February 2, 2021 The Loudoun Board of Supervisors unanimously endorsed the proposed location and major design elements of the Route 15 – Battlefield Parkway to Montresor Road widening project and directed staff to proceed with the completion of the final design and construction documents. More information about this project can be found at: [Route 15 North Widening: Battlefield Pkwy. to Montresor Rd. | Loudoun County, VA - Official Website](#)

Response from the Virginia Department of Transportation (VDOT): The purpose of the project is to improve safety and operations in this highly congested section of Route 15. As a result of the limited project scope and the applicable land use policies for this area in the comprehensive plan, as well as applicable design standards related to the Journey Through Hallowed Ground the project will not result in induced demand or “poor land use development” within this segment of Route 15 as indicated in the County's response above.

2. **Comment:** The need for widening US 15 should be re-evaluated given the potential shift in travel, commuting, and teleworking patterns following the pandemic.

Response from Loudoun County: Travel surveys have shown that the traffic on most roads have returned to about 80% of pre-Pandemic traffic. Traffic shifts have occurred primarily in the time of day that trips are occurring. This is subject to change as the Country moves into the fall, schools are open and more return to work. Teleworking a few days, a week is likely to continue as an option for the next year or more. When the nation recovers from the COVID pandemic, traffic patterns may return to normal, pre-pandemic levels.

Response from VDOT: The County and the region as a whole are monitoring traffic volumes and patterns during the pandemic and impacts to the future volumes during post pandemic conditions and will be able to make adjustments if needed.

3. **Comment:** The US 15 will reduce congestion and travel times. Projects should include non-motorized travel components wherever feasible.

Response from Loudoun County: A shared use path is proposed on the west side of Route 15 from Tuscarora High School to Montresor Road; a shared use path is proposed along the entire length of Whites Ferry Road

Response from VDOT: The purpose of the project is to improve safety and operations. As indicated in the County's response above, a shared use path is proposed on Route 15 and along White's Ferry Road to accommodate bicycle/pedestrian mobility wherever feasible. The project is part of the County's Comprehensive plan and needed to improve multimodal continuity and connectivity within the area.



- 4. Comment:** This project should be replaced with an approach that manages traffic flow on US 15 with traffic-calming improvements and roundabouts.

Response from Loudoun County: The project scope includes:

- a signalized Continuous Green "T" (CGT) intersection at North King Street to allow through traffic to continue north on Route 15 without stopping
- an updated signalized intersection at Whites Ferry Road
- a two-lane hybrid roundabout at Montresor Road
- a realigned section of Limestone School Road to connect with the Montresor Road roundabout
- a shared use path on the west side of Route 15 from Tuscarora High School to Montresor Road
- a shared use path along the entire length of Whites Ferry Road

Additionally, Loudoun County has a separate project that is currently in design for a roundabout at Spinks Ferry Road and realigned Newvalley Church Road.

Response from VDOT: Please note the County's response indicating use of innovative intersections and roundabout in the project area.

- 5. Comment:** Scenic byways like US 15 should be preserved, not widened, to minimize increases in auto emissions and damage to ecological health.

Response from Loudoun County: The design process includes context-sensitive methods and follows the Journey Through Hallowed Ground guidelines where possible.

Response from VDOT: Under the current conditions, even a minor crash results in road closures, gridlock, additional time for emergency response and longer detours which adds to increased emissions. The purpose of the project is to provide safety and operational improvements to alleviate these conditions while following context sensitive design standards.

F. Northstar Boulevard [1 comment]

The TPB staff received one comment on Northstar Boulevard.

- 1. Comment:** This project would encourage development of an outer beltway and should be replaced with one that serves as a local collector and features a low-speed design with traffic calming elements.

Response from Loudoun County: There are two Phases of this Project:

Phase 1: Northstar Boulevard: Shreveport Drive (now called Evergreen Mills Road) to Route 50 - This project will design and construct a new four-lane, median divided segment of Northstar Boulevard from Evergreen Mills Road to U.S. Route 50. The project scope includes a 10-foot-wide shared use path on both sides of the roadway and a traffic signal at Route 50. At the northern end of the project, a new bridge will carry Northstar Boulevard over North Fork Broad Run. Arcola Mills Drive will then be realigned to the south to intersect with Northstar Boulevard. In conjunction with new construction, the project will improve two intersections:

- The intersection at Youngwood Lane will be realigned from its existing intersection with Racefield Lane to a new connection with Northstar Boulevard. This new connection will become the western end of the planned Dulles West Boulevard.
- Racefield Lane will be reconstructed and widened, and it will become the primary access point to the Virginia Department of Transportation (VDOT) Arcola Area Headquarters.

Once constructed, the new 1.6-mile segment of Northstar Boulevard will serve as a minor arterial roadway from John Mosby Highway (Route 50) to Evergreen Mills Road.

Phase 2: Northstar Boulevard: Route 50 to Tall Cedars Parkway - This project provides for the construction of a segment of Northstar Boulevard, a minor arterial roadway, from John Mosby Highway (Route 50) to Tall Cedars Parkway. The plans include the construction of a new signalized intersection on Route 50 located near the Virginia Department of Transportation's Arcola maintenance area headquarters. When completed, this segment of Northstar Boulevard will provide an alternative north/south connection to Route 50, improving capacity and safety on existing roadway networks within the Dulles South area.

Response from VDOT: The roadway is not planned to be designed or operated as an outer bypass. The Loudoun County Comprehensive Plan classifies it as a minor arterial. The road is needed to accommodate north-south travel movements within the County.

G. Route 28/The Manassas Bypass/Nokesville Rd/Godwin Drive [2 comments]

The TPB staff received 3 sets of comments regarding these projects and roadways. The following is a summary of those comments:

- 1. Comment:** This project would encourage development of an outer beltway and negatively impact the Manassas National Battlefield Park.

Response from Prince William County: The Manassas Battlefield Bypass Project - CE3061 was initially submitted to the Transportation Planning Board for inclusion to the Constrained Long Range Plan by the Federal Highway Administration. This area was evaluated as part of the Bi-County Parkway (Formally Tri-County Parkway) Location Study completed in 2005. The study included the completion of a National Environmental Policy Act-NEPA Draft Environmental Impact Statement (EIS). The NEPA study evaluated potential environmental impacts and included coordination with the Manassas National Battlefield Park.

Response from VDOT: The Manassas National Battlefield Park (MNBP) Bypass would allow for the closure of the portions of Route 29 and Route 234, which currently bisect the MNBP. The MNBP Bypass will assist in preserving the park by removing commuter traffic passing through the park. The commuter traffic is unrelated to the park function and creates negative environmental impacts on the park. The MNBP study was prepared by the National Park Service, pursuant to specific federal legislation intended to protect the park. (including the Manassas National Battlefield Amendments of 1980 (P.L.96-442§2(c)), and . PL 100-647§10004, which authorized a study regarding "the relocation of highways (known as US 29 and SR 234) in and in the vicinity of" the park.

- 2. Comment:** The Manassas Bypass project will have significant negative environmental, historic, and equity impacts.

Response from Prince William County: The Manassas Bypass - VA-234 Bypass - CE1897 (Bi-County Parkway) project is not currently in the Prince William County Comprehensive Plan. Prince William County is in the process of updating the Comprehensive Plan which includes evaluating various improvements throughout the County. The Virginia Department of Transportation (VDOT), in cooperation with the Federal Highway Administration (FHWA) completed a National Environmental Policy Act (NEPA) for the Manassas Bypass - VA-234 Bypass (Bi-County Parkway). The NEPA Study has detailed information on potential impacts as it relates to the environment and cultural resources.

Response from VDOT: The Bypass is in the approved Air Quality Conformity Analysis with a 2040 completion date. The project addresses a lack of north-south routes connecting western Prince William County and the Dulles Corridor. An updated environmental document will be needed before the project moves forward. This will provide a further opportunity to evaluate any impacts and identify mitigation actions if needed.

- 3. Comment:** Improvements to the existing Virginia Route 28 corridor should be prioritized over building the Manassas Bypass.

Response from Prince William County: Prince William County is in the process of updating the Prince William County Comprehensive Plan which includes evaluating additional improvements along the Route 28 Corridor.

Response from VDOT: VDOT recently completed a study to identify potential safety and operational improvements to the existing Route 28 corridor.

Manassas Bypass (Bi-County Parkway) and Manassas Battlefield Bypass were included as part of a National Environmental Policy Act (NEPA) and a (Draft Environmental Impact Statement (DEIS) that was completed in 2005, information about those analysis can be found at:

- http://www.virginiadot.org/projects/resources/NorthernVirginia/Bi_County/BCP_Brochure_Oct13CIMS_Web.pdf
- http://www.virginiadot.org/projects/resources/Tri-County_DEIS_031605_with_FHWA_Signature.pdf

H. Long Bridge [1 comment]

The TPB staff received one comment on the Virginia Department of Rail and Public Transportation (DRPT) Long Bridge Project.

- 1. Comment:** Support the Long Bridge Railroad Crossing project as it will alleviate a critical bottleneck and allow for significantly expanded commuter/passenger rail service.

Response from TPB Staff: This comment has been shared with the members of the Transportation Planning Board and the sponsoring agency.

I. VRE 3rd and 4th Track Projects [1 comment]

1. **Comment:** The VRE 3rd and 4th Trak projects will provide much-needed capacity on these commuter rail routes.

Response from TPB Staff: This comment has been shared with the members of the Transportation Planning Board and the sponsoring agency.

J. Metro Silver Line [1 comment]

1. **Comment:** The Metro Silver Line – Phase 2 will provide a vital multimodal link in the region and remove congestion on travel routes to and from Dulles Airport.

Response from TPB Staff: This comment has been shared with the members of the Transportation Planning Board and the sponsoring/implementing agencies.

K. Crystal Cities Transitway [1 comment]

The TPB staff received one comment on the Crystal Cities Transitway.

1. **Comment:** The Crystal City Transitway BRT is also a key connector for our area. These projects will create easier, cleaner, more convenient commuting than driving SOVs.

TPB Staff Response: This comment has been shared with the members of the Transportation Planning Board and the sponsoring agency.

L. Other

The TPB staff received several other comments related the plan development process, inputs and projects that are not in the plan at this time.

1. **Comment:** The analysis of the plan should use reflect the increases in telework since the pandemic began.

TPB Staff response: The current, adopted, production-use TPB travel demand forecasting model (Gen2/Ver. 2.3.78) was calibrated and validated to year-2007 conditions (using the 2007/2008 COG Household Travel Survey and other data sets) and validated to year 2010 and 2014 conditions. Documentation can be found on our Model Documentation web page (<https://www.mwcog.org/transportation/data-and-tools/modeling/model-documentation/>). The Gen2/Ver. 2.3.78 Travel Model is an aggregate, trip-based model, sometimes known as a four-step model (FSM). Such models typically do not have telecommuting sub-models, and that is also the case for the Ver. 2.3.78 Model. This means that telecommuting is not explicitly accounted for in our model, but it is implicitly accounted for, in the sense that the year-2007 data used for model calibration had some level of telecommuting present in the data. Similarly, the model validation to year-2010 and 2014 conditions means that it was able to represent travel patterns in those years with the associated levels of telecommuting that existed in those years. We have, in the past, done a rough off-line estimate of the impacts of telecommuting on emissions, and the impacts produce a reduction in the levels of emissions in the region. So, although no model is able to replicate real world conditions with 100% fidelity, our travel model actually somewhat overestimates vehicle travel since it only partially reflects the reduced vehicle miles travelled (VMT) associated with telecommuting. As we mentioned

earlier, we are currently updating our travel model to include an explicit telecommute sub-model, but that model will not be available for the analysis of the 2022 Update to Visualize 2045.

2. Comment: There were 4 comments on a concept called the Capital Regional Rail Vision.

Comment: Include the addition of regional run through train operations in the Transportation Planning Board's Long-Range Transportation Plan, Visualize 2045, and support the Capital Regional Rail Vision:

TPB Staff Response: While there is not a project in the plan called the Capital Regional Rail Vision, some components of this vision plan refer to infrastructure or services of TPB member agencies. This comment has been shared with the members of the Transportation Planning Board and the sponsoring/implementing agencies.

Virginia Railway Express Response: VRE's long-range System Plan 2040, adopted by the VRE Operations Board in 2014, does not identify run-through service to Maryland among planned VRE service improvements. VRE will update its System Plan in the coming year and will give consideration to recommendations for run-through service, as outlined in the Capital Region Rail Vision plan, in the update of the plan. Inclusion, at this time, of a project in Visualize 2045 that identifies VRE run-through service to Maryland would be inconsistent with VRE's currently adopted System Plan.

3. Comment: Projects for planned bridges without bicycle facilities should add bicycle facilities:

TPB Staff Response: This comment has been shared with the members of the Transportation Planning Board and their technical agencies.

4. Comment: on the US 1, Richmond Highway, Expansion Project

There was one comment on the US Richmond Highway

1. The comment identified a technical error in the US 1 Expansion Project 3180 and details and noted that if VDOT is not planning to add vehicle capacity over the for the state to consider adding a VRE/Amtrak rail bridge over the Occoquan or a dedicated bus transit bridge with bike/ped over the Occoquan.

TPB Staff Response: This comment has been shared with the members of the Transportation Planning Board and their technical agencies. A technical correction has been made by TPB staff for project CE3180 in the conformity tables.

Appendix A

**Information to support board action
on Visualize 2045:**

Comment Period and Inter-agency Review Packet

Letters and Compilation of Comments Received



Draft - March 2022

PRINCE GEORGE'S COUNTY COUNCIL

Dannielle M. Glaros

Council Member

Council District 3

(301) 952-3060

May 3, 2021

Together Strengthening Our Community

Charles Allen, Chair
National Capital Region Transportation Planning Board
Metropolitan Washington Council of Governments
Via email to: TPBComment@mwkog.org

Re: Visualize 2045 2021 Public Comment

Dear Chair Allen,

Thank you to the Transportation Planning Board members and MWCOG staff for your hard work on the update to the long-range transportation plan, Visualize 2045.

I'm writing today to urge the inclusion of the regional rail through train operations, outlined in the Capital Region Rail Vision report, into Visualize 2045. I was proud to sit on the steering committee for this work. This project should be included as part of the financially constrained element and as an input for the Air Quality Conformity analysis. Details of the Greater Washington Partnerships' Capital Region Rail Vision report of December 2020 can be found at: https://greaterwashingtonpartnership.com/wp-content/uploads/2020/12/Capital-Region-Rail-Vision-Report_Final.pdf.

I believe this project fits the criteria for the financially constrained element because there are strong opportunities for federal funding for this plan given President Biden's focus on infrastructure. In fact, this is a crucial time for funding because the Capital Region Rail Vision report indicates that decisions made in the next five years, "will determine whether a more coordinated, integrated regional rail network continues as a viable possibility or remains a missed opportunity."

This project will also influence air quality. The Capital Region Rail Vision report outlines the benefits of this project, including a significant increase in the use of transit over vehicles. This would have a dramatic effect on air quality. For example, in the section, "Benefits by Geography," the Capital Region Rail Vision report estimates that implementation of the plan will increase total weekday am trips on transit by 250% between New Carrollton and Crystal City alone. Without investments like this to streamline transit, congestion will continue to grow in this region along the Beltway.

Again, I strongly recommend the addition of regional run through train operations in the Transportation Planning Board's Long-Range Transportation Plan, Visualize 2045. The time is now to chart the future of our region and achieve a more connected and economically-sustainable transportation system.

Together Strengthening Our Community,

Dannielle M. Glaros



City of Rockville
111 Maryland Avenue
Rockville, Maryland
20850-2364
www.rockvillemd.gov

240-314-5000
TTY 240-314-8137

April 30, 2021

Charles Allen, Chair
National Capital Region Transportation Planning Board
Metropolitan Washington Council of Governments
777 North Capitol Street NE, Suite 300
Washington, DC 20002-4239

Dear Chair Allen and Members of the Board

Thank you and the National Capital Region Transportation Planning Board (TPB) for your diligent efforts to update the Region's long-range transportation plan, Visualize 2045. We appreciate the opportunity to provide comments on the projects listed under this plan.

This letter provides the City of Rockville's specific concerns regarding the I-270 and I-495 Traffic Relief Plan P3 – a plan which was to “consider transformative solutions” for users “including improvements to highways and transit.” This plan would convert the existing HOV lanes to HOT and add one (1) managed lane in each direction. Vehicles with three (3) or more people would travel free – a change from the current requirement of two (2) people. Additionally, MDOT's preferred alternative might require the State to provide a subsidy of up to \$482 million to the P3 contractor and \$50 million for predevelopment costs if the project doesn't move forward as planned. According to recent findings, taxpayers may be on the hook for up to \$2 billion to move existing water and sewer lines along I-270. Consequently, we join the entire Montgomery County Council in our support of MDOT's No-Build Alternative (which still provides for multiple highway improvements) and urge you to do the same for the following reasons:

The TPB has been a champion when it comes to air quality and has made much needed progress in this area in recent years. TPB's Vision Goal #5 is to plan and develop a “transportation system that enhances and protects the region's natural environmental quality, cultural and historic resources, and communities.” The proposal for I-270 is tone-deaf to environmental justice concerns and will cause further degradation of our efforts to reach the Washington Metropolitan Region's Council of Governments unanimously approved 2030 Climate Resiliency goals. According to the International Panel of Climate Change, GHG (global greenhouse gas emissions) must be reduced by at least 45% between 2010 and 2030 and reach carbon neutrality by 2050. The proposal is also inadequate in addressing environmental impacts to Rockville's natural resources and related systems, including critically important stormwater management, parks and open space and the Watts Branch, Rock Creek and Cabin John Creek watersheds – all of which are part of the greater Potomac River Basin which itself drains into the Chesapeake Bay

The Draft Environmental Impact Statement (DEIS) was begun prior to the COVID 19 pandemic, which has resulted in radical changes in daily lifestyles, commuting patterns and telework opportunities. The move to approve any portion of this P3 prior to a new DEIS being approved is unthinkable. Rockville and the County question the validity of the outdated Travel Demand Model used to project 2040 travel volumes and patterns. The wide acceptance of teleworking and extensive use of virtual

MAYOR
Bridget Donnell Newton

COUNCIL
Monique Ashton
Beryl L. Feinberg
David Myles
Mark Pierzchala

CITY MANAGER
Robert DiSpirito

CITY CLERK/DIRECTOR OF
COUNCIL OPERATIONS
Sara Taylor-Ferrell

ACTING CITY ATTORNEY
Cynthia Walters

Chair Charles Allen and Members of the Transportation Planning Board
April 30, 2021
Page Two

meetings suggests that travel models must be revised taking into consideration these changes in order to accurately project future demand.

Goal # 4 of TPB's strategies is to support Regional, State and Federal programs which promote a cost-effective combination of technological improvements and transportation strategies to reduce air pollution, including promoting use of transit options, financial incentives, and voluntary emissions reduction measures. This project clearly lacks the application of any significant transit option.

Similarly, the proposal ignores social justice concerns. TPB's vision goal #1 is for the region's transportation system to provide reasonable access at reasonable cost to everyone in the region. The proposed tolls will be unsustainable for those who have moved outside the Beltway to find more affordable homes. The exorbitant cost of tolls at peak periods, which are expected to be \$2 per mile for a 25-mile stretch during rush hour, and an average of \$0.77 per mile for other times, is simply unaffordable for most regional commuters. This does not support social equity, as required by NEPA, and is totally unacceptable.

The focus on increasing capacity in the southern portion before fixing north I-270 is equally concerning as currently there are only two lanes in each direction between I-370 and Frederick. The daily bottleneck is a result of that choke point, and adding capacity on the northern part of the highway should be the first priority of any future project to address congestion. A 2001MWCOC study showed that by 1999, traffic counts along the I-270 exceeded those predicted for 2010 and traffic congestion had already returned to unacceptable levels. What's going to be different this time?

There are nine City of Rockville neighborhoods abutting I-270, along with Julius West Middle School, Rockville Nursing Home, First Baptist Church of Rockville, Rockville Christian Church, and the Wee Center, a children's early learning program. Three of our bridges span I-270 and the traffic impacts caused by reconstruction and congestion will be monumental. The plan to convert Wootton Parkway and Gude Drive to toll lane access roads will further impact our residents with additional noise and air pollution, and will be hazardous to those who use our bike/pedestrian paths, which run adjacent to these roads. Wootton Parkway and Gude Drive are already overburdened and are used as alternative routes to Rockville Pike when there are incidents or congestion on I-270.

Further exacerbating congestion on our local roads, the I-270 managed lanes will function as a "highway within a highway," with no interconnections between managed and free lanes. Cars will have to exit the managed lanes onto local roads, and then take local roads to another ramp to get back on the managed lanes. I-270 will also lose one free lane in each direction, likely sending more drivers onto our roads to escape congestion.

In the City's official comments on the DEIS (attached), submitted in November 2020, we laid out our many concerns about the project and the deficiencies in the DEIS. I refer you to those comments and the accompanying list of 23 specific areas of concern. All of those issues as well as the ones described in this letter to you remain current and unaddressed.

Another TPB Vision Goal (# 7), is to achieve an enhanced funding mechanism(s) for regional and local transportation system priorities that cannot be implemented with current and forecasted

Chair Charles Allen and Members of the Transportation Planning Board

April 30, 2021

Page Three

Federal, State, and Local Funding. However, this P3 is a fifty-year financial commitment on a massive scale which offers no benefit to anyone except a private entity whose sole responsibility is to their shareholders. This puts all Maryland taxpayers at great risk. The negative impacts to the City of Rockville and Montgomery County residents, as well as regional commuters, must not be overlooked. By considering alternative approaches, such as the monorail and other environmentally sustainable options, together we can find a solution that is environmentally, socially and economically viable.

We respectfully request your strong support in removing this project from those listed under the Maryland Major Highways in the Visualize 2045 Plan, and we pledge to work together with you to find a more environmental, equitable and sustainable solution to the Region's traffic congestion along the I-270 and 495 corridors

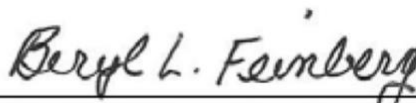
Sincerely,



Bridget Donnell Newton
Mayor



Monique Ashton, Councilmember



Beryl L. Feinberg, Councilmember



David Myles, Councilmember



Mark Pierzchala, Councilmember

And Councilmembers Ashton, Feinberg, Myles and Pierzchala.

cc:

Senator Benjamin Cardin
Senator Christopher Van Hollen
Congressman David Trone
Congressman Jamie Raskin
Congressman Anthony Brown
District 17 Delegation
Montgomery County Council President and Councilmembers
Montgomery County Executive

May 3, 2021

Mr. Charles Allen, Chair
National Capital Region Transportation Planning Board
Metropolitan Council of Governments
777 North Capital Street NE, Suite 300
Washington DC 20002-4239

Re: Visualize 2045 2021 – Comments on MDOT/SHA I-270 and I-95/495 Traffic Relief Plans

Dear Chair Allen,

I write to comment on these tandem plans as a Montgomery County resident who lives near the I-270/495 spur ramps at MD Rte. 355. Also, as immediate past chair, WMCOG TPB CAC, and CAC alternate representative to the Visualize 2045 Aspirations Task Force, as well as a member of multiple local road and transportation project advisories. I have tracked these MDOT projects since their introduction at a local open house.

Our region's need to tackle network congestion is undeniable. Yet we now live in a new world order that will continue to change personal behaviors of all manner. Our new federal administration is concurrently rethinking transportation infrastructure in relation to immediate threats of irreparable environmental and climate damage. We also now acknowledge past faulty transportation strategies, including highway projects that exacerbated racial inequities. COG's recent virtual Town Halls identified our existence in a state of "VUCA", or Volatility, Uncertainty, Complexity, and Ambiguity. In that they fail to truthfully actualize Visualize 2045 Aspirational Initiatives, those same adjectives perfectly describe these projects' vague Visualize 2045 update submissions. My comments track their submissions' goal by Visualize 2045 goal:

Goal 1: Provide a Comprehensive Range of Transportation Options As Kacy Kostiuk, TPB member from Takoma Park, MD pointed out during the TPB's April 21, 2021 meeting, document Table 1 implies the projects are predominantly transit plans. Governor Hogan imposed the projects upon Frederick, Prince George, and Montgomery Counties absent collaboration with their planning agencies or officials. MoCo had a more holistic strategy for congestion remediation: peak time reversible lanes without widening, better multimodal splits and potential TDM management, and complementary, better land-use. Transit was added to MDOT's plan after outrage from MoCo citizens, planners, and officials, who still oppose widening.

Goal 2: Promote a Strong Regional Economy, Including a Healthy Regional Core and Dynamic Activity Centers Widening impends harm to the major Activity Center Rockville and its local road network, as cited at the TPB by Mayor Bridget Newton. MoCo's regional transportation network has greater need of "infill," as with development buildout, to contain

sprawl. Our Activity Center web needs interstitial bus service to complement densifying areas and serve non-commuter trips in and around “complete communities.” Instead of a widened highway, electric high-frequency bus fleets could less detrimentally bring commuters or travelers to the nearest high-capacity transit station, where infill housing could also maximize transit use.

Phase 2 at Bethesda, where I-270 spurs and I-495 converge at MD 355 and where pillars elevate Metro train tracks, the project is expected to somehow insert a fly ramp as well as additional lanes. Now just lines in a dense flat diagram, absent a full visualization we can only envision a massively obtrusive highway “mixing-bowl” that compounds complicated local road traffic patterns that already imperil driver and ped safety in a constrained segment entering Bethesda, amid vulnerable trees and parkland. (Thus the EIS assures nothing.) If anything, the area needs to blend contiguously with the Rockville Pike Boulevard plan and Bethesda’s CBD, and become walkable and bikeable. A short distance away, Walter Reed cannot relinquish ROW due to Homeland Security. A bit further, Holy Cross Hospital seems already about to topple into the Beltway, and, contiguously, homes will be compromised or condemned.

Economically, Marylanders fear another P3 financial debacle like Purple Line’s. The relocation of inground infrastructure has nether been considered in terms of interruption nor as calculated into the project’s cost outside the P3 paradigm. This poses incalculable risks to peoples’ daily lives, businesses, and wallets.

Goal 3: Ensure Adequate System Maintenance, Preservation, and Safety From an infrastructure standpoint, we can barely perform highway maintenance as it stands, and TPB prioritizes *State of Good Repair* above expansions. The P3 risks cause additional add doubt.

At local presentations, MDOT fudged over the projects’ subsumption of road shoulders, with potential compromise of emergency vehicle access in event of crashes. Speed is emphasized above over safety while crash injuries and fatalities continue to increase here and throughout the nation. With speed and human behavior as primary crash causations, imagine induced volume on more multiple more lanes with proportionately more distracted drivers.

Goal 4: Maximize Operational Effectiveness and Safety of the Transportation System

Planners have other TDM tools in their toolbox to reduce congestion without widening. Moreover, appalled MoCo residents including myself were told by MDOT at a recent virtual update that the managed lanes would be accessible only at intermittent interchanges! Drivers from some highway segments must first travel in opposite direction, in general purpose lanes, then get off and circle back. Or pile onto local roads, overloading those networks. How does that reduce VMT and travel time, on the highway or in surrounding areas? And is not the purpose of a highway to benefit communities that live around it?

Goal 5: Enhance Environmental Quality and Protect Natural and Cultural Resources

Further, as proven fact, additional lanes will cause people to decide to drive more, and to more places. This is equally proven to result in Induced Demand and increased VMT. These facts are

acknowledged by a growing group of state DOTs--but apparently not ours. DOTs like those of Minnesota and California also recognize that EVs will not solve congestion if they recreate or increase volume. This project's DEIs perhaps purposefully excludes these considerations. EPA's 2002 *Guidebook on Induced Demand* states:

"... omission of induced travel demands results in underestimation of highway project costs and impacts..."

and cites (page 16) an earlier MoCo I-270 widening:

"... trip generation projections did not account for the project's effect on induced travel demand... By 1999, traffic counts along the I-270 exceeded those predicted for 2010, and traffic congestion had already returned to unacceptable levels ... In response to public debate surrounding the I-270, the United States Environmental Protection agency requested that induced demand effects be included in future transportation improvement programs (TIPs) and regional plans ..."

These projects will increase emissions rates and elevate pollutant and GHG levels in densely built-out residential communities, including disadvantaged Equity Emphasis areas that are already subject to unfairly unhealthy conditions. Increased air and noise pollution will penetrate well beyond project study lines, as acknowledged by MDOT staff in response to open house questions. As cited by MoCo's planning department, the project will reduce precious, already dwindling urban tree canopy and parkland, increase heat retention, and worsen already problematic storm water runoff--all of which amplify any pollution impacts. Moreover, in line with MDT's "*Under Preparation*" submission response, we fear non-disclosure of full environmental reviews for current or later construction phases of this major project, due to the P3 contract's elongated design/engineering timeline that preclude full and fair NEPA studies.

Goal 6: Support Inter-Regional and International Travel and Commerce This could be supported instead by interjurisdictional BRT and express bus connectivity, on managed but unwidened highway. Meanwhile, in contrast to MDOT's proposed widening, Virginia has positioned a rail plan to increase regional connectivity and grow the regional economy. As cited by VRE Director Jennifer Mitchell in her presentation to TPB, their specific goal is to not add or widen roads, to not increase vehicle volume and congestion.

IN CONCLUSION, especially after regional lessons learned on forecasting and modeling, it seems best to reconsider the relevance and value of these and other LRP constrained projects, and to rethink our foundational local/regional planning paradigm. An opportunity for true innovation, either for immediate and mid-term response to the pandemic and resulting economic conditions, or potentially for long-term depending on outcomes, perhaps transportation planning should follow the VUCA basis of flexibility for resilience. To be able to adapt to our less predictable future and avoid past errors, perhaps our planning paths forward should center around a selection of adaptable scenarios rather than on fixed assumptions and prescriptions.

Thank you for consideration of my comments.

--Nancy Abeles, Bethesda

Dear Chair Allen, Transportation Planning Board Members, and TPB Staff,

Thank you for the opportunity to comment on the draft conformity project list.

As a young adult born and raised in Takoma Park, MD, I am concerned about the planned direction of our region's transportation system. I'm fearful for my safety and that of my friends and family when we walk and bike around the region. When I drive places, I am discouraged by the soul-crushing traffic on our roads. I also feel for members of my extended community who are unable to shoulder the expensive burden of vehicle ownership, but who's mobility is limited by the unsafe or unreliable active and public transportation options available to them. Moreover, lower income families in the region are unable to afford housing in transit and job accessible neighborhoods. Our transportation system acts as a barrier to the many opportunities in our region, and I'd like to see it transformed into a tool that empowers all residents and furthers equity.

Beyond these immediate issues, I'm worried that the long-range plan ignores the reality of the climate crisis that we are facing more and more every year.

I am concerned that the proposed projects for the air quality conformity analysis fail to meet MWCOG's 2030 Climate and Energy Action Plan (CEAP), and **TPB should either fix the draft plan to comply with the CEAP or model a climate-friendly plan that explores alternative projects and policies necessary to meet the urgency of climate change.**

As a member of the TPB's Community Advisory Committee, it is unclear to me how well the public comment materials address public input after comments are reviewed. **Do the draft projects, assumptions to be used in the AQ conformity modeling, and the information provided to the public in response to comments take into account what the public has expressed?** Has TPB shared their intention to solicit informed feedback from the public and stakeholders next year on the update to the draft plan?

These comments cover three main topics – why the TPB should change the plan to reflect COG's climate target, how we can meet this goal, and why if the plan is not changed, the TPB should model a climate friendly scenario in the coming months as an alternative to the existing draft plan.

The "Why"

The current Visualize 2045 plan fails to prioritize comprehensive transportation and land use projects and policies that reduce the region's residents' reliance on automobiles. The current plan is projected to reduce per-capita vehicles miles travelled (VMT) by [3%](#)¹ by 2045. This miniscule reduction in per-capita VMT [prevents us](#)² from [meeting our climate targets](#)³ and leaves many of the benefits of reduced driving on the table, including:

- Reduced air pollution: Federal vehicle emissions standards for criteria pollutants are mileage-based, and unrelated to vehicle fuel economy, so reduced driving per capita will reduce levels of criteria air pollution.
- Improved Traffic Safety: Vehicle crash related fatalities and injuries are closely [correlated with VMT](#)⁴, so higher VMT reductions will reduce traffic injuries and fatalities in line with TPB member jurisdictions' "Vision Zero" goals.

- More efficient use of existing infrastructure: Reduced per-capita VMT will enable the region to absorb the projected population growth without corresponding increases in congestion and traffic delay, reducing the need for costly infrastructure investments.

Electrifying the light duty vehicle fleet will not reduce emissions at the rate needed to meet climate targets, and the policies that will accelerate this technological transition are largely [outside of TPB's control](#)⁵. As written in WMATA's letter to TPB Director Kanti Srikanth on November 9th, 2020:

"TPB does control the collaborative vision for the region's transportation network and the amount of VMT we can tolerate while meeting shared climate goals. We can use the next update of the Visualize 2045 long-range plan to further those outcomes proven to reduce GHGs: expanded access to transit and non-motorized travel options, shifts in travel mode choice, and reduced trip times and trip length achieved through proximity to transit, housing, jobs, and daily needs."

In order to meet our climate goals, and yield the aforementioned co-benefits of reduced miles driven per resident, **TPB must set a absolute VMT reduction goal that will enable us to achieve carbon neutrality by 2050**. I reiterate the demands made by WMATA in the [November 2020 letter](#)⁶ for TPB to (1) evaluate different VMT reduction scenarios, based on the implementation of all or part of the recommendations made in the CEAP, and (2) to develop an approach to incorporate a VMT reduction metric into the long range planning process, project selection, and performance assessment.

The "How"

Adapting Visualize 2045 to meet TPB's climate targets of 50% reductions in GHG emissions below 2005 levels will involve pairing back infrastructure projects that will increase VMT, and doubling down on projects and policies that reduce VMT. We know how to do this.

Building off existing TPB research and evidence from other US metropolitan areas, TPB should plan for the implementation of transportation demand management (TDM) policies, incentivize land use development that meets COG's regional housing targets, and encourage public transit improvements. More on each of these items below.

Transportation Demand Management: There are numerous TDM policies available for TPB to consider that reduce congestion on the region's roads. These would improve the efficiency of the transportation system, while helping to reduce VMT and resulting GHG emissions.

- TPB's [Long Range Plan Task Force Draft Analysis](#)⁷ from November 2017 projected amplified employer-based TDM as a strategy that would reduce daily VMT by 6% and vehicle hours of delay (VHD) by 24% (with a 7% reduction in CO2 emissions).
- Other TDM policies that would reduce VMT and GHG emissions include congestion pricing on individual roads or in select districts, mileage fees, and additional incentives for high occupancy vehicles.
- Another promising TDM approach is repricing transportation by converting fixed and hidden driving costs to variable charges and rebates. These "[non-toll pricing](#)"⁸ policies give commuters the incentive of saving money if they drive less and/or forego a workplace parking benefit. Nationally, this policy bundle was projected to reduce [VMT by 23.2%](#)⁹ by 2030, with a similar percentage reduction in CO2 emissions. This suite of policies includes:
 - o Pay-as-you-drive-and-you-save (PAYDAYS) car insurance

- Parking cash outs
- Variably priced metered parking
- Pricing of off-street parking
- Car sharing
- The conversion of fixed state and local vehicle purchase sales taxes into mileage-based fees designed to raise equivalent revenue

Regional Land Use: Encouraging housing and commercial development on the east side of the region, prioritizing housing growth in neighborhoods near high-capacity public transit stations, meeting affordability goals, and eliminating restrictive zoning regulations would enable the region grow and improve the efficiency of the transportation system, reduce per-capita VMT (and emissions), and redress the history of racist land use development in the region. We can tackle the dual issues of the housing crises and climate change by concentrating development in areas served by high capacity transit, while increasing our commitments to provide affordable housing. Though TPB and Visualize 2045 cannot directly implement these housing policies, they are regional goals that will affect the types of transportation infrastructure investments that are needed, and which are effective or not, and TPB needs to model and evaluate the housing development goals when deciding on projects.

- The 2017 LRPTF draft analysis projected optimizing the East-West land use balance would [reduce per-capita VMT by 6%](#)¹⁰ and reduce VHD by 19%. It was also projected to increase the percentage of jobs accessible by transit or by private automobile by 10%.
- The LRPTF projected that meeting COG's 3 regional housing targets of Amount, Accessibility, and Affordability would [reduce congestion by 20%](#)¹¹ with continued investments in transportation infrastructure and supportive land use policies.
- Eliminating exclusionary zoning in neighborhoods near high-capacity public transit would allow more of the regions residents to live in high opportunity, accessible neighborhoods, and get around without relying on a personal vehicle. These reforms would go lengths to improving [housing affordability](#)¹² and addressing the legacy of segregation and inequity in the region.

Improving Public Transit: Improving transit goes hand in hand with the regional land use and TDM strategies to improve transportation system efficiency, reduce VMT, and GHG emissions. TPB should plan to incorporate more public transit expansions and service in the long range plan. These services include:

- Bus rapid transit (BRT) and transit way projects. Notably, the project list should include the Route 7 BRT project in Virginia.
- The 2017 LRPTF analysis highlights BRT and transit ways, transit rail extensions, and increasing Metro rail core capacity as tactics that reduce VMT while significantly increase job accessibility and shares of households and jobs in high capacity transit zones.

TDM, transit-oriented land use development, and improved transit service all work together to provide residents with more mobility options, improve access to jobs, schools, and other desirable locations, while reducing car dependence, VMT, and GHG emissions.

On the other hand, road widening projects increase VMT, pushing the region out of reach of our climate targets, while exacerbating the inequities and inefficiencies inherent to the auto-oriented transportation system. Transportation experts have [analyzed](#)¹³ how roadway expansions fails to reduce congestion in

the long run, due to the impacts of [induced traffic demand](#)¹⁴, and how regional planning organizations and DOTs often [ignore this relationship](#)¹⁵. The I-495 and I-270 expansion project is [not immune](#)¹⁶ to this, as this exact phenomenon happened after the [1989 expansion of I-270](#)¹⁷. The TPB should downsize or eliminate the road widening projects and specifically the I-495 and I-270 managed lanes project. Adding tolled express lanes is a necessary step to manage congestion, though adding highway capacity will make it difficult if not impossible to meet the climate targets. TPB should encourage the Maryland Department of Transportation State Highway Administration to add toll lanes on existing lanes, instead of adding new lanes.

- While the 2017 LRPTF projected that the construction of an express travel network would reduce VHD by 11%, it would also [increase VMT by <1%](#)¹⁸, though taking into account the impacts of induced travel demand on new highway capacity would likely increase VMT further. TDM and optimizing the regional land use balance would reduce VHD more than the express travel network while also reducing VMT.

The Way Forward

TPB should amend the project list to reflect the necessary constraints demanded of us by the changing climate. If TPB decides not to change the project list, it should model a climate friendly Visualize 2045 plan to adopt in the coming year. TPB has the technical expertise to complete this task, and thanks to the three extra months for federal review and one extra month for air quality conformity analysis included in the 2022 Visualize 2045 update timeline, TPB has the capacity to complete this necessary analysis. TPB also has the options to use COG's climate consulting contract or TPB's climate change study to complete this work. TPB can start by building off the 2030 CEAP mode shift strategies including:

- MTSB - 1 Invest in Infrastructure that Increases Transit, Carpooling, and Non-Motorized Travel
- MSTB - 2 Bring Jobs and Housing Closer Together
- MSTB - 3 Enhance Options for Commuters

Lastly, the COVID-19 pandemic has changed the world as we know it and transportation models must account for these changes. TPB should amend its *From No Build to All Build* analysis and the Climate-Friendly Plan to reflect realistic assumptions about the transportation system post-pandemic. TPB should model the likely increase in teleworking reflected in the [Voices of the Region survey](#)¹⁹: **"Ninety-one percent of those currently teleworking want to do it in the future"** and the Commuter Connections Employer Telework Survey which showed 57% of respondents wanting to continue teleworking post-pandemic at pandemic levels or more.

I hope that TPB can reform the Visualize 2045 plan to ensure that our region does its part to stem our climate impact, and address the related issues of congestion, traffic safety, and social inequity.

Thank you for your consideration.

Eyal Li

Takoma Park, MD

Eyaldanli97@gmail.com

CAC Member

References

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- ¹ Visualize 2045 Update Long-Range Transportation Plan – April 15th, 2021 CAC Meeting Presentation
<https://www.mwcog.org/file.aspx?&A=XqmhbRyWEwgh0444dPPJRkdNg0fuQI1gAIBFYPtM2i0%3d>
- ² CSG Report: Cutting Transportation Emissions by 2030 and Beyond: Smart Land Use and Travel are Essential
<https://www.smartergrowth.net/resources/climate-change-energy/csg-report-cutting-transportation-emissions-by-2030-and-beyond-smart-land-use-and-travel-are-essential/>
- ³ This regional plan tries to tackle climate change by 2030. Does it go far enough?
<https://ggwash.org/view/79867/this-regiona-adopts-a-2030-climate-plan-but-more-commitments-are-needed-on-transportation-and-land-use>
- ⁴ NHTSA - 2006 Traffic Safety Annual Assessment
<https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/810791>
- ⁵ TPB December 2020 - Letters Sent/Received
<https://www.mwcog.org/file.aspx?&A=7tl86gyFNlRdJZK9PLtJQ8ts%2Bq8igHjfsqVVtwNogJo%3D>
- ⁶ TPB December 2020 - Letters Sent/Received
<https://www.mwcog.org/file.aspx?&A=7tl86gyFNlRdJZK9PLtJQ8ts%2Bq8igHjfsqVVtwNogJo%3D>
- ⁷ TPB Long-Range Plan Task Force: Draft Analysis Results 2017
<https://www.mwcog.org/file.aspx?&A=p4JrCe45zbv1oUd3kATAKPZvxFjPC2LqsK%2fcA4dpYQw%3d>
- ⁸ US DOT FHWA - Non-Toll Pricing A Primer
<https://ops.fhwa.dot.gov/publications/fhwahop08044/fhwahop08044.pdf>
- ⁹ Comparing Greenhouse Gas Reductions and Legal Implementation Possibilities for Pay-to-Save Transportation Price-shifting Strategies and EPA's Clean Power Plan https://www.vtpi.org/G%26E_GHG.pdf
- ¹⁰ TPB Long-Range Plan Task Force: Draft Analysis Results 2017
<https://www.mwcog.org/file.aspx?&A=p4JrCe45zbv1oUd3kATAKPZvxFjPC2LqsK%2fcA4dpYQw%3d>
- ¹¹ TPB Long-Range Plan Task Force Reports Home Page 2017
<https://www.mwcog.org/documents/2017/12/20/long-range-plan-task-force-reports-projects-regional-transportation-priorities-plan-scenario-planning-tpb/>
- ¹² Plan DC - SINGLE-FAMILY ZONING IN THE DISTRICT OF COLUMBIA APRIL 2020
https://plandc.dc.gov/sites/default/files/dc/sites/Comprehensiveplan/007_Single%20Family%20Housing%20Report.pdf
- ¹³ National Center for Sustainable Transportation - Increasing Highway Capacity Unlikely to Relieve Traffic Congestion https://cal.streetsblog.org/wp-content/uploads/sites/13/2015/11/10-12-2015-NCST_Brief_InducedTravel_CS6_v3.pdf
- ¹⁴ CityLab University: Induced Demand
<https://www.bloomberg.com/news/articles/2018-09-06/traffic-jam-blame-induced-demand>
- ¹⁵ Transportation Research Board - Induced Vehicle Travel in the Environmental Review Process
<https://journals.sagepub.com/doi/abs/10.1177/0361198120923365>

¹⁶ Op-Ed: Highway Expansion Would Take Md. in the Wrong Direction

<https://usa.streetsblog.org/2021/02/15/op-ed-highway-expansion-proposal-would-take-md-in-the-wrong-direction/>

¹⁷ US EPA – Guidebook on Induced Travel Demand December 2002

<https://nepis.epa.gov/Exe/ZyPDF.cgi/94004L98.PDF?Dockkey=94004L98.PDF>

¹⁸ TPB Long-Range Plan Task Force: Draft Analysis Results 2017

<https://www.mwcog.org/file.aspx?&A=p4JrCe45zbv1oUd3kATAKPZvxFjPC2LqsK%2fcA4dpYQw%3d>

¹⁹ TPB NEWS - What did the Voices of the Region survey tell us about travel during COVID-19 and beyond?

<https://www.mwcog.org/newsroom/2021/03/09/what-did-the-voices-of-the-region-survey-tell-us-about-travel-during-covid-19-and-beyond-tpb-visualize-2045/>



May 3, 2020

National Capital Region Transportation Planning Board
Metropolitan Washington Council of Governments
777 North Capitol Street NE, Suite 300
Washington, DC 20002

Dear Chair Allen,

The Arlington Chamber of Commerce encourages the National Capital Region Transportation Planning Board to include cross-river rail service as part of its Visualize 2045 long-range transportation plan. Regional investments are critical to improving the connectivity of the District of Columbia, Maryland, and Virginia, but such direct passenger rail connection is not included in the draft of Visualize 2045.

The current regional rail network connects both Maryland and Virginia with DC, but requires any person traveling between Maryland and Virginia to change between MARC and Virginia Railway Express service, or to connect to Metro. The lack of a seamless connection for rail passengers prevents Greater Washington from enjoying the benefits of a unified rail network, such as facilitating commutes between a home in Maryland and a job in Virginia, or vice versa.

The construction of the new Long Bridge and establishment of the Virginia Passenger Rail Authority expect to expand passenger rail capacity within the Commonwealth and to open opportunity for more connection between Virginia, the District of Columbia, and Maryland. Regional leadership from the Transportation Planning Board can help the region to take advantage of this additional connectivity by including cross river MARC/VRE operation in Visualize 2045.

We thank you for your consideration of these comments.

Sincerely,

A handwritten signature in black ink that reads "Kate Bates". The signature is written in a cursive, flowing style.

Kate Bates
President & CEO

Mr. Charles Allen, Chair
National Capital Region Transportation Planning Board
Metropolitan Council of Governments
777 North Capital St. NE, Suite 300
Washington, DC 20002-4239

Dear Chair Allen:

I am writing on behalf of Citizens Against Beltway Expansion, Don'tWiden270.org and the Maplewood Citizens Association to urge the Transportation Planning Board (TPB) to exclude the I-495/I-270 project from its Visualize 2045 update. The plan to add toll lanes to these highways has been rejected by local government planners for Montgomery and Prince George's Counties. Moreover, the proposed project fails to meet a number of the goals set out by the Transportation Planning Board.

The project fails to meet the TPB's Goal 1 to provide a comprehensive range of transportation options.

The Maryland-National Capital Park and Planning Commission does not concur with the proposal by the Maryland Department of Transportation (MDOT) to widen I-495 and I-270. In a recent [letter](#) declaring nonconcurrence, the Commission cited, among other concerns, MDOT's failure to consider transit and an alternative that would divert more traffic to the ICC/MD 200.

The flawed design of the project fails to meet the TPB's Goal 4 to maximize operational effectiveness and safety of the transportation system. MDOT's plan would increase traffic on local roads. The highway design would not allow drivers in the general lanes to transition directly to the toll lanes. Instead, the toll lanes would only be accessible from intermittent ramps on local roads. Drivers in general lanes would have to exit the highways and drive on local roads to access ramps to the toll lanes.

The project fails to meet TPB's Goal 5 to enhance environmental quality and protect natural and cultural resources. Widening the highways would induce more people to drive, providing only temporary relief from congestion. The EPA's 2002 [Guidebook on Induced Travel Demand](#) states that planners in the 1990s did not account for induced demand and presents the last widening of I-270 as a case study of induced demand. The EPA noted that traffic congestion levels that were predicted for 2010 were reached 11 years earlier in 1999. Unfortunately, MDOT has not learned the lesson of the last widening of I-270 and has again failed to account for induced demand and the impact it would have on the I-495/I-270 project. The increase in traffic that would result from adding toll lanes to I-495/I-270 would also increase greenhouse gases and other air pollutants including particulate matter. These emissions would harm the health of those residing in the densely populated communities that border the highways and undermine efforts to reduce global warming.

We urge the Transportation Planning Board to exclude MDOT's proposal to add toll lanes to I-495 and I-270 from the Visualize 2045 update.

Sincerely,

Citizens Against Beltway Expansion
Don'tWiden270.org
Maplewood Citizens Association

To: TPB Public Comment

From: Stewart Schwartz, Executive Director
Bill Pugh, Senior Policy Fellow

Date: May 3, 2021

Re.: Comments on Visualize 2045 Draft Conformity Inputs

TPB Members: the choice to create a better plan and support a livable climate is yours

TPB board members can choose to create a long-range transportation plan that achieves our region's adopted climate targets, serves the region's adopted housing goals, improves the accessibility of jobs and other basic needs, and promotes safer, more sustainable and more affordable travel modes.

Or, TPB board members can choose to adopt a business-as-usual list of projects, model them with outdated travel patterns, fail to help achieve regional climate targets, and make no commitments to travel demand management and land use, found by TPB itself to be the most effective regional transportation solutions.

It is entirely within the power of TPB board members and TPB staff leadership to create a better plan now rather than wait until the next four-year update of Visualize 2045. The world has little time left to rapidly reduce greenhouse gas emissions and prevent global catastrophe.

Transportation is the largest source of emissions in the region, depending on electric vehicles is not enough, and it would be totally unacceptable for the region's planning agencies to adopt a climate action plan and then turn around and draft a transportation plan inconsistent with the climate plan.

It is because of the urgency of the moment and the shortcomings of the current draft plan, that our comments must be particularly pointed at this juncture.

The Coalition for Smarter Growth submits the following comments on the Visualize 2045 draft conformity inputs:

1. **It is unacceptable for TPB to draft a transportation plan that does not commit to the regional climate plan's transportation strategies and emission targets.** The region cannot wait another four years to create a transportation plan that includes strategies to achieve emission targets and that commits to them, given the urgency of the climate crisis. The National Capital Region of the United States has the technical capabilities, talented personnel, and stature to tackle pressing challenges – if this region cannot take decisive action on climate change, then it leaves little hope for much of the rest of the world.

2. **TPB's own climate studies to date and the experience of peer metropolitan areas provide sufficient guidance to create a better Visualize 2045** that achieves necessary reductions in vehicle miles traveled and emissions while improving access to jobs and services and enhancing equity, safety and health.
 - a. TPB's [2018 LRPTF](#) for example, demonstrates ways to address regional travel priorities and reduce driving and emissions, without pursuing a laundry list of destructive highway expansion projects.
 - b. WMATA's [ConnectGreaterWashington study](#) also demonstrates that land use and travel policies combined with a few strategic transit investments and improved station access can significantly reduce VMT and emissions, while improving travel and accessibility across the region.
 - c. See CSG's Report: [Cutting Transportation Emissions by 2030 and Beyond: Smart Land Use and Travel are Essential](#) for examples of other local and national strategies and our recommendations for the region.
3. **The projects and other conformity inputs must be revised so that they are consistent with TPB's own directives, voted 22-0 by the board (with several abstentions) on December 16, 2020.** The current mix of proposed conformity inputs does not meet the TPB's criteria in the Technical Inputs Solicitation that:
 - a. "...the TPB requires its member agencies to prioritize investments on projects, programs, and policies to reduce greenhouse gas emissions, prioritize the aspirational strategies, and achieve COG's land use and equity goals..." and
 - b. Meeting greenhouse gas emissions targets "...will require a reduction in vehicle miles traveled and associated emissions in Visualize 2045."
4. **TPB and many project sponsors did not provide sufficient information for the current public comment period on the regional policy consistency of most proposed projects.**
 - a. The public comment materials excluded the vast majority of projects (all of those in the previous plan without significant changes) with regard to how they would address important regional policy priorities. These include policy goals like promoting non-SOV travel, reducing VMT, contributing to reductions in greenhouse gas emissions, and serving equity-emphasis areas. For example, of the approximately 100 major projects in Visualize 2045, the public comment materials provided regional policy consistency information for only 4 major projects. TPB staff set a deadline of April 30 for project sponsors to submit this information, at the very end of the public comment period. While the public may not be as interested in receiving this information for the many maintenance or ongoing operations projects included in the conformity inputs, the several hundred highway/road expansion and transit/rail expansion projects carried over the previous plan are certainly of interest in regards to how they support regional and federal policies.

- b. For the relatively small number of projects that did have regional policy factor information in the public comment materials (25 new or significantly changed projects), many of the projects provided incomplete or vague answers with no explanation as to how they promoted non-SOV travel, would reduce VMT, or would contribute to reductions in GHG emissions.
5. **Modeling and evaluating the plan and future no-build condition using telecommuting assumptions from 2014 would be a tremendous missed opportunity and waste of public resources.**
- a. The short Visualize 2045 promotional video shows someone on a video conference meeting, a clear reference to the massive expansion in telecommuting and tele-services that the pandemic accelerated. Yet TPB has proposed modeling and evaluating its projects using 2014 travel habits.
 - b. Use of outdated telework info would falsely inflate the benefits highway agencies claim for many highway and roadway expansion projects that are largely based on the premise of reducing congestion during traditional AM and PM peak commuting hours.
 - c. Telework was steadily rising even before the pandemic. The [2019 State of the Commute Survey](#), showed that 35% of regional commuters in 2019 teleworked at least occasionally, up from 27% in 2013 and 25% in 2010. The report of the 2019 survey results devoted 7½ pages to the topic of changing telework patterns pre-pandemic.
 - d. Looking forward, 33% of the region’s residents anticipate telecommuting at least one day a week after the pandemic, up from 16% who telecommuted at least one day a week pre-pandemic. These [TPB survey results](#) are consistent with the [plans of major regional employers](#), and indicate a future with lower peak hour travel demand.
 - e. TPB should seek federal guidance and check with other MPOs on how they are addressing post-pandemic teleworking in conformity and other regional forecasting. TPB could also perform sensitivity testing using a range of estimated post-pandemic telecommuting rates aside from the official conformity results if they are required to reflect pre-pandemic travel data.
6. **Evaluate how the project network serves regional policy goals like the adopted housing targets.** If we’re committed to equity and supporting the housing crisis, we should shape our transportation system to meet those goals. In justifying the co-benefits of its housing targets, [COG has cited TPB studies](#) that achieving the regional housing targets would help reduce congestion in the region by 20%. The housing targets would locate more housing in the region from outside and would place most of the new housing near high-capacity transit stations in activity centers. This strategy is also one of the COG 2030 Climate and Energy Action Plan transportation strategies. TPB needs to adjust the project and conformity inputs according to its directive to require that member agencies prioritize projects that achieve “COG’s land use and equity goals.”

7. **Consider the public input provided for the plan in choosing the projects and other conformity inputs.** TPB has conducted an impressive survey and series of focus groups for the plan, providing invaluable information and perspectives from the region's residents, including groups often excluded. Thus, it is disappointing that TPB officials are not asking project sponsors to review their project submissions based on this new information.
- a. When the TPB Community Advisory Committee received a presentation on the Voices of the Region survey at its March meeting, CAC members asked how the survey results would be used. TPB staff responded that it was largely too late for the survey results to influence the projects in the plan, but that hopefully the survey results would guide some aspirational policy statements to be added to the plan and other subsequent transportation planning efforts in the region.
 - b. Important results of the survey, which suggest the current project mix does not adequately represent the priorities and mobility needs of the region's residents, include:
 - i. When asked "What transportation investments should we make today that future generations will thank us for tomorrow?", the majority of the answers involved clean transportation, public transportation, and improvements for walking and biking. A much smaller group cited parking and roads, with roads comprising a mix of fixing existing roads and bridges and responses related to more or wider roads.
 - ii. 84% of the region's residents agree with the statement that elected officials need to consider the impacts of climate change when planning transportation in the future. For residents under 30 years of age, those most impacted by our long-range planning decisions and by climate change, that percentage rises to 92%. In contrast, less than half of respondents (44%) indicated that traffic congestion is a significant concern that impacts their lives, and 25% said congestion was somewhat a concern that impacted their lives a little.
 - iii. 33% of respondents anticipate telecommuting at least one day a week after the pandemic, up from 16% who telecommuted at least one day a week pre-pandemic.
8. **TPB has two options to change course and create a better Visualize 2045 plan – model a climate-friendly plan in addition to the current proposed business-as-usual plan, or remove destructive, unnecessary highway expansion projects now:**

Option 1: Include and model in the conformity scope of work a climate-friendly plan with land use and travel demand management strategies and appropriate projects, in addition to modeling the business-as-usual project list. TPB staff are correct that projects by themselves have limited impact in achieving the outcomes we want. That is

why TPB should create a second “build” scenario that incorporates the strategies that TPB has found to be most effective, with a network of projects that support these:

- Travel Demand Management – including fair parking pricing, commuter benefits, congestion pricing on existing lanes, and other strategies.
- Land Use – prioritizing transit-oriented and compact walkable development in existing activity centers, achieving the regional housing targets, and addressing the east-west jobs/housing imbalance.
- Projects based on TPB’s other Aspirational Initiatives, but restricting any new toll highway projects to installing tolling on existing lanes.

Option 2: Fix the current draft plan now, deleting the road widening projects that will increase driving and emissions and adding in more transit and local street projects that create more walkable, transit-oriented communities. See CSG project-specific comments under comments 10 - 12 below.

- 9. TPB has both time and resources to create a better Visualize 2045.** We believe that TPB can accommodate creating and modeling a climate-friendly plan in its LRTP update schedule. The current Visualize 2045 schedule has 4 extra months: 3 extra months than needed for federal review plus 1 additional month than needed for air quality conformity. The Visualize 2045 process has a roughly \$10 million budget. Alternatively, TPB could collaborate with COG to use its on-call climate consulting contract, or TPB could use part of its TPB Climate Change Study to prepare and model this scenario.
- 10. Change the list of projects.** Repeating \$40 billion in highway and road widening projects is a wasteful public investment given changes in travel patterns accelerated by the pandemic. Even before the pandemic, many of the proposed highway and road widening projects in Visualize 2045 were based on flawed travel assumptions that ignored induced demand and promoted auto-dependent land use and travel inconsistent with regional and local policy goals. CSG recommends the following changes to the list of proposed major highway and roadway projects or supports their inclusion where noted:

Proposed Major Highway Projects

Location	Project Description (Map #, TIP #, description)	CSG Comments
DC	1. I-295 (CE2860) - reconstruct interchange at Malcolm X Blvd, 2022 (\$200M)	Keep in LRTP - because it replaces existing infrastructure and will include improvements for bike/ped
DC	2. South Capitol St (CE3423) - convert to 6 lane urban Blvd., incl. Franklin Douglas Bridge Reconstruction, 2025 (\$777M)	Keep in LRTP - because it replaces existing infrastructure and will include improvements for bike/ped.
DC	3. Lane Reductions/Reconfigurations for Bicycle Lanes, various years, not mapped	Keep in LRTP - but we call for an even higher level of investment at a much faster pace. Other jurisdictions should adopt

		these road configurations as a primary strategy in lieu of road expansions.
Charles	12. US-301 - Governor Harry Nice Memorial Bridge, 2023 (\$768M)	Modify project in LRTP - Current program needs to include ped/bike accommodations, as this is a 100-year decision. Should also include enhanced demand management on 301 corridor.
Frederick	4. I-70 (CE1187, CE2250) - widen to 6 lanes with interchange at Meadow Rd, 2025, 2035 (\$176M)	Remove from LRTP
Frederick	9. US-15 (Frederick Fwy and Catocin Mtn Hwy) (CE3566, CE3567) - widen to 6 lanes with interchange at Biggs Ford Rd, 2030, 2040 (\$420M)	Remove from LRTP
Frederick	17. MD-85 (Buckeystown Pke) (CE1210) - widen to 4, 6 lanes, 2022, 2035 (\$220M)	Remove from LRTP - Project answered policy questions claiming GHG reductions and promoting non-auto modes but only checking single-occupant vehicle as mode supported. GHG reduction for this widening project is unsupported; project will instead cause induced demand.
Montgomery/ Prince George's	6. I-95/I-495 (CE3281, CE1182, CE6432) - So called "Traffic Relief Plan," construct 2 managed lanes in each direction, 2025 (\$4.2B)	Remove from LRTP, Replace with Alternative - Instead, support alternative transit-oriented Metro and Purple Line station buildout on east side of region to fix jobs/housing imbalance and reduce long-distance car commuting; combine with more transit; and demand management; convert an existing lane to bus/HOV-3.
Montgomery/ Frederick	7. I-270 (CE6432) - So called "Traffic Relief Plan," construct 1 managed lane & convert HOV to managed lane in each direction, 2025 (\$3.4B)	Remove from LRTP, Replace with Alternative - Instead, support alternative transit-oriented Metro and Purple Line station buildout on east side of region to fix jobs/housing imbalance and reduce long-distance car commuting; combine with more transit; and demand management; convert an existing lane to bus/HOV-3. Existing challenge is really to the N to/from Frederick - potential to add just one lane BUT ONLY IF dedicated from the outset to express bus and HOV-3 + adding MARC Brunswick Line service and Route355 BRT.
Montgomery	10. US-29 (Columbia Pke) (CE1197, CE3641) - improve interchanges at Stewart Ln, Tech Rd/Industrial Pkwy, Musgrove Rd/Fairland Rd, Greencastle Rd, and Blackburn Rd, 2030, 2025, 2045 (\$646M)	Remove from LRTP, Replace with Alternative - These interchanges come at a huge cost, and public funds would be better spent in expanding the frequency and coverage of bus rapid transit on US-29 and connecting to 29.
Montgomery	16. MD-28 (Norbeck Rd) / MD- 198 (Spencerville Rd) (CE1462, CE3476) - reconstruct, widen portions to 4 lanes, 2045 (\$413M)	Remove from LRTP - While we offered this idea as an alternative to the Intercounty Connector (ICC) when it was being planned, now with the ICC built, these roads should remain two lanes. Roundabouts can improve intersection performance. Otherwise, widening will fuel more auto-dependent development.
Montgomery	18. MD-97 (Georgia Ave) (CE2618) - widen to 8 lanes, 2030 (\$104M)	Remove from LRTP
Montgomery	19. MD-97 (Brookeville Bypass) (CE1213) - construct 2 lane bypass, 2021 (\$52M)	Remove from LRTP - Bypasses open up new land to sprawling development and

		undermine downtowns; use roundabouts as alternative.
Montgomery	20. MD-117 (Clopper Rd) (CE1203) - widen to 3, 4 lanes, 2030, 2035 (\$69M)	(No comment)
Montgomery	21. MD-124 (Woodfield Rd) (CE1206, CE3057) - widen to 6 lanes, 2035 (\$129M)	(No comment)
Montgomery	26. Midcounty Hwy Extension (MD-83) (CE1245) - construct 4, 6 lanes, 2045 (\$202M)	Remove from LRTP, Replace with Alternative - It would destroy forests, wetlands, streams and harms parks, Ag Reserve, communities. CSG alternative with the TAME group is bus rapid transit on Route 355, express bus on 270, improved local street connections and using roundabouts at intersections; and reducing auto-dependent development in Clarksburg area.
Montgomery	27. Middlebrook Rd Extended (CE1229) - widen to 4 lanes, 2045 (\$16M)	Remove from LRTP
Montgomery	28. Montrose Pkwy East (CE3703) - construct 4 lanes, 2025 (\$120M)	Remove from LRTP, Replace with Alternative - This would further divide White Flint. Instead fund needed local street network, protected bike lanes, and 355 Bus Rapid Transit.
Prince George's	5. I-95/I-495 (CE1479) - interchange at Greenbelt Metro Sta, 2030 (\$196M)	Keep in LRTP - Would add two missing movements to the interchange and would support mixed-use transit-oriented development at the Greenbelt Metro Station. If FBI moves out of DC (not our preference) the Greenbelt Metro is the best location option.
Prince George's	8. US-1 (Baltimore Ave) (CE1202, CE3108) - reconstruct 4 lanes, 2023, 2035 (\$116M)	Keep in LRTP - it includes much safer bike/ped facilities and crossings.
Prince George's/Charles	11. US-301 (Crain Hwy) - widen to 6 lanes, 2045 (\$4.6B)	Remove from LRTP, Replace with Alternative - The massive cost of this project requires a different approach - stopping sprawling development proposals, looking at local street networks, demand management, and enhanced commuter bus service.
Prince George's	13. MD-3 (Robert Crain Hwy) (CE1195) - widen to 6 lanes, 2035 (\$1.8B)	Remove from LRTP, Replace with Alternative - The massive cost of this project requires a different approach - stopping sprawling development proposals, looking at local street networks, demand management, and enhanced commuter bus service.
Prince George's	14. MD-4 (Pennsylvania Ave) (CE1194, CE3547) - widen to 6 lanes with interchanges at Dowerhouse Rd, Westphalia Rd, and Suitland Pkwy, 2040 (\$533M)	Remove from LRTP, Replace with Alternative - Better local street grid, bus.
Prince George's	15. MD-5 (Branch Ave) (CE1196, CE3469) - upgrade, widen to 6 lanes including interchanges, 2030, 2035 (\$790M)	Remove from LRTP, Replace with Alternative - Enhanced commuter bus service, bus lanes, and TDM investments
Prince George's	22. MD-197 (Collington Rd) (CE2253) - widen to 4 lanes, 2030 (\$94M)	Remove from LRTP, Replace with Alternative - Traffic management using roundabouts and traffic calming, including addition of protected bike/walk facilities but without four laning.
Prince George's	23. MD-202 (Landover Rd) (CE1190) - Largo Town Center Metro Access Improvement, reconstruct 6 lanes, 2045 (\$24M)	Remove from LRTP, Replace with Alternative - Investments that increase

		walk, bike and transit access and safety in the area
Prince George's	24. MD-210 (Indian Head Hwy) (CE1199) - upgrade to 6 lanes and interchange improvement, 2040 (\$754M)	Remove from LRTP - This will induce more traffic and sprawl.
Prince George's	25. MD-450 (Annapolis Rd) (CE1207) - widen to 4 lanes, 2030 (\$67M)	Remove from LRTP - This will induce more traffic and sprawl.
Arlington/ Fairfax	29. I-66 HOT (Inside Beltway) (CE2096, CE3484), revise operations from HOT 2+ to HOT 3+ during peak hours and bus service, 2022, 2040 (\$375M)	Modify project in LRTP - Update the current project so that it is tolled in both directions, goes from HOV-2 to HOV-3 and the continued use of revenues for expanding transit and bike/ped access to transit.
Arlington	31. I-66 (CE3484) - Extend existing westbound acceleration/deceleration lane and add additional lane eastbound 2022, 2040 (\$59M)	(No comment, project completed)
Fairfax/ Prince William	30. I-66 HOT (Outside Beltway) (CE3448) – widen/construct HOT lanes and bus service, 2021, 2022, 2040 (\$4.4B), under construction	Project as designed is a done deal, but note the destructive impact in terms of hundreds of acres of tree loss and expansion of heat inducing pavement and stormwater.
Fairfax	32. I-95/Fairfax County Parkway (CE2667, CE2668) - enhanced interchanges for BRAC, 2025 (\$57M)	(No comment, project likely a done deal necessitated by BRAC decisions)
Fairfax/ Alexandria	34. I-95/I-495 (CE2147) - reconstruct interchange at Van Dorn St, 2030 (\$40M)	(No comment at this time; Need more information on this project.)
Fairfax	37. I-495 (CE2069) - construct 4 HOT lanes with northbound shoulder lane and new ramps, 2025 (\$500M)	Remove from LRTP, Replace with Alternative - Instead of further VA HOT lanes expansion, pursue a regional transit-oriented development and travel demand solution. Meanwhile this proposed project if it goes forward includes far too little money for transit and taxpayers have to pay Transurban if more than 24% of vehicles are buses and carpools.
Fairfax	38. I-495 Auxiliary Lanes (CE3272) - construct 2 auxiliary lanes in both directions, 2030 (\$3M)	(No comment at this time; Need more information on this project.)
Fairfax	39. I-495 (CE3208, CE3186, CE2069) - interchanges at VA 267, 2025, 2030, 2045 (\$70M)	Remove from LRTP, Replace with Alternative - We support bus rapid transit expansion instead.
Fairfax	40. Dulles Toll Rd (VA-267) (CE3151, CE3154) - Collector-Distributor Road west-bound, 2035, 2037 (\$62M)	Remove from LRTP, Replace with Alternative - Silver Line Phase 2, Route 7 BRT, and parking pricing can all reduce driving demand. We should be favoring transit access to Tysons not facilitating more driving into Tysons
Fairfax	41. Dulles Toll Rd (VA-267) (CE3151, CE3154) - Collector-Distributor Road east-bound, 2035, 2036 (\$124M)	Remove from LRTP, Replace with Alternative - Silver Line Phase 2, Route 7 BRT, and parking pricing can all reduce driving demand. We should be favoring transit access to Tysons not facilitating more driving into Tysons
Fairfax	42. Dulles Toll Rd (VA-267) (CE3152) - interchange at New Boone Blvd Extension, 2037 (\$79M)	Modify project in LRTP - Refine as a limited scale interchange connection to the New Boone Boulevard Extension. The new extension is part of the planned Tysons grid of streets and this connection can reduce demand on Route 7.
Fairfax	43. Dulles Toll Rd (VA-267) (CE3153) - interchange at Greensboro Drive/Tyco Rd, 2036 (\$28M)	(No comment at this time; need more information on this project. Possibly

		support as potential connection to the grid of streets within Tysons.)
Fairfax/ Loudoun	44. Dulles Access Rd (VA 267) (CE1965) - widen to 6 lanes including interchange reconstruct at I-495, 2030 (\$40M)	Remove from LRTP, Replace with Alternative - The Silver Line is the appropriate alternative commute mode. Consider turning Dulles Airport Access Road to a HOT lane facility remaining under control of a government entity so maximum revenues can go to transit.
Fairfax	45. US-1 (Richmond Hwy) (CE1942) - widen to 6 lanes, 2028 (\$37M)	Modify project in LRTP - Refine cross section as two lanes in each direction for cars and one in each direction for bus rapid transit. Cost estimate appears to be far too low. Incorporate design changes to reduce the width and for a design speed of 35mph instead of 45mph.
Fairfax	46. US-1 (Richmond Hwy) (CE3180) - widen to 6 lanes, 2035 (\$127M)	Modify project in LRTP - Refine cross section so it does not add new car lanes. If widening continues in this southern section the new lane in each should be limited to use as dedicated bus lanes or dedicated bus and HOV. But it doesn't make sense to do this project without expanding the Occoquan crossing. Note though a new bridge crossing could be restricted by the I-95 Concessionaire Agreement with Transurban.
Fairfax	54. US-29 (Lee Hwy) (CE1933) - widen to 6 lanes, 2040 (\$130M)	Remove from LRTP - I-66 HOT lanes will provide increased capacity for through trips. Wider roads like this divide communities.
Fairfax	55. US-29 (Lee Hwy) (CE3474) - widen to 6 lanes, 2024 (\$32M)	Remove from LRTP - Again, the new I-66 HOT lanes provide additional capacity for longer distance trips. This would also put increased pressure to widen 29 through historic Manassas National Battlefield Park.
Fairfax	57. US-50 (Arlington Blvd) (CE2182) - widen to 6 lanes, 2035 (\$249M)	Modify project in LRTP - Any additional lanes should be BRT only, and bike/ped facilities should be added as part of creating a mixed-use walkable, transit oriented corridor.
Fairfax	59. VA-7 (Leesburg Pke) - (CE3161) widen to 6 lanes, 2030 (\$71M)	Modify project in LRTP - - If lane added it should be limited solely to the Route 7 BRT.
Fairfax	60. VA-7 (Leesburg Pke) (CE2105) - widen to 6, 8 lanes, 2024, 2030 (\$314M)	Modify project in LRTP - Opposed to expansion to 6 lanes unless it was dedicated to BRT. Project is under construction but call for the new lane to be BRT only or BRT + HOV3. We strongly oppose a fourth lane in each direction. Alternative is supporting transit access to Tysons and other job centers.
Fairfax	61. VA-7 (Leesburg Pke) (CE2175) - widen to 6 lanes, 2030 (\$34M)	Remove from LRTP, Replace with Alternative - Opposed to adding lanes for more cars through this diverse area with significant walk, bike and transit using population. If a third lane is added in each direction it should be solely for Route 7 BRT.

Fairfax	62. VA-28 (Sully Rd) (CE1734) - widen to 8-10 lanes, HOV in additional lanes during peak, 2021, 2025, 2040 (\$100M)	Remove from LRTP, Replace with Alternative - This is a longstanding project which illustrates the costs of sprawling auto-dependent development in Eastern Loudoun and Western Fairfax. We oppose 10 lanes and instead support conversion of the fourth lane in each direction to bus only with HOV. This should also be pursued instead of widening the Fairfax County Parkway.
Fairfax	64. VA-123 (Chain Bridge Rd) (CE3376, CE3698) - widen to 6, 8 lanes, 2030 (\$22M)	Remove from LRTP, Replace with Alternative - Opposed to further widening of Chain Bridge Road. Tysons is to be a walkable, bikeable, transit oriented center.
Fairfax	65. VA-123 (Ox Road) (CE1784, CE1856) - widen to 6 lanes, 2030 (\$70M)	Remove from LRTP - Like so many other projects it will increase driving.
Fairfax	66. VA-236 (Little River Tpke) (CE1760) - widen to 6 lanes, 2030 (\$58M)	Remove from LRTP - Full study needed of sustainable transit and bike alternative.
Fairfax	67. VA-286 (Fairfax County Pkwy) (CE2106) - widen to 6, 2030, 2035, 2040 (\$197M)	Remove from LRTP - Promotes more driving and will be followed by pressure to expand development in areas without good transit.
Loudoun	51. US-15 (James Madison Hwy) (CE3738) - widen to 4 lanes, 2026 (\$110M)	Remove from LRTP, Replace with Alternative - A study showed that keeping to two lanes and using roundabouts would be safer, allow for flow, preserve a historic Scenic Byway, and cost far less. Full widening to four lanes is part of Loudoun's plan to widen the whole northern stretch to Point of Rocks and would induce more driving.
Loudoun/ Fairfax	56. US-50 North Collector Road (CE3739) – construct new 4 lane road, 2029 (\$110M)	Remove from LRTP, Replace with Alternative - Can provide an alternative to Route 50 but as part of this, Route 50 lanes (one in each direction) should be converted to dedicated bus + HOV2 or HOV3 lanes. Alternatively, this road and Tall Cedar Parkway could be given dedicated transit lanes.
Loudoun	58. VA-7/US-15 Bypass (Harry Byrd Hwy) (CE1870) - upgrade and widen to 6 lanes, 2040 (\$55M)	(No comment)
Prince William/ Fairfax	33. I-95 (CE3667) - add southbound auxiliary lane, 2022 (\$54M), under construction	Keep in LRTP - To be complete in 2022
Prince William	35. I-95 (CE3697) - construct HOT reversible ramps to access VA-642 (Opitz Road), 2022 (\$60M)	Modify project in LRTP - Support since 95 lanes have been built. Private Funding, No Lane Capacity, Just new ramp from I-95 Express Lanes
Prince William	36. I-95 (CE3556) - construct HOT lanes ramp south of Russell Rd., 2022 (\$16M), under construction	Modify project in LRTP - Support since 95 lanes have been built. Private Funding, No Lane Capacity, Just new ramp from I-95 Express Lanes
Prince William	47. US-1 (Richmond Hwy) (CE3173) - widen to 6 lanes, 2022 (\$125M), under construction (complete 2022)	Modify project in LRTP - Third lane in each direction should be a dedicated BRT lane.
Prince William	48. US-1 (Richmond Hwy) (CE2594) - widen to 6 lanes, 2030 (\$127M)	Modify project in LRTP - Third lane in each direction should be BRT lane.
Prince William	49. US-1 (Richmond Hwy) (CE3291) - widen to 6 lanes, 2040 (\$58M)	Remove from LRTP - because, I-95 (CE3556) - construct HOT lanes ramp south of Russell Rd., 2022 (\$16M) and

		Transforming Rail in VA provides additional capacity for Quantico.
Prince William	50. US-15 (James Madison Hwy) (CE3162) - widen to 4 lanes, 2030 (\$45M)	No comment
Prince William	52. US-15 (James Madison Hwy) (CE3162)- widen to 4 lanes, 2040 (\$54M)	No comment
Prince William	53. US-29 (Lee Hwy) (CE1993) - widen to 5 lanes, 2030 (\$255M)	Remove from LRTP - This is potentially a part of Bi-County Parkway/Manassas Battlefield Bypass and would increase pressure to widen Route 29 through historic Manassas National Battlefield Park.
Prince William	63. VA-28 (Nokesville Rd) (CE2045) - widen to 4 or 6 lanes, 2022, 2040 (\$71M)	Remove from LRTP - This would increase pressures to open up more rural land to development.
Prince William	68. VA-294 (Prince William Pkwy) - widen to 6 lanes, 2040 (\$263M)	Remove from LRTP - Innovative Intersections changes should be sufficient through 2045.
Prince William	69. Manassas Bypass (VA-234 Bypass) - (CE1897) construct 4 lanes, 2040 (costs captured in other projects)	Remove from LRTP - Opens up Rural Crescent to development. I-66 and Route 28 will provide fastest access to Dulles Airport. We support roundabouts for 29 and Pageland, 234 and Pageland, 234 and 659 to move local traffic.
Prince William	70. Manassas Battlefield Bypass (CE3061) - construct 4 lanes and close portions of US-29 (Lee Hwy) and VA-234 (Sudley Rd), 2030, 2040 (\$28M)	Remove from LRTP - Opens up Rural Crescent to development. I-66 and Route 28 will provide fastest access to Dulles Airport. We support roundabouts for 29 and Pageland, 234 and Pageland, 234 and 659 to move local traffic.
Prince William/ Manassas	71. VA 28 Manassas Bypass (CE1865) - construct 4 lanes, 2025 (funding not listed)	Remove from LRTP, Replace with Alternative - The PW County selected version would take affordable homes from immigrant and low-income residents and impact Flat Branch which feeds Bull Run and the Occoquan drinking water supplies. We support innovative design solutions for Route 28 on the east side of Manassas and Manassas Park. Existing 234 bypass and expanded I-66 will provide plenty of capacity for commuter trips.

11. We generally support these valuable transit and rail projects. In the case of a few, we request that they be modified or replaced with better alternatives that do not involve expanded highway lane capacity and promote auto-dependence. In addition, we note projects that need to be explicitly incorporated into Visualize 2045. See comments in table below on major transit/rail projects.

Proposed Major Transit-Rail Projects

Map ID	Project Description	CSG Comments
1	DC Streetcar (CE3081,5754) , 2026, 2040	Keep in LRTP - Prioritize the Benning Road Streetcar Extension

2	DC Dedicated Bicycle Lane Network, various years (not mapped)	Keep in LRTP
3	16th Street Bus Priority Improvements (6638), 2022	Keep in LRTP
4	DDOT H and I street Bus- Only Lanes (grouped project ID 3212)	Keep in LRTP
5	Corridor Cities Transitway BRT (CE1649) - from Shady Grove to COMSAT, 2035	Keep in LRTP
6	North Bethesda Transitway BRT (CE3663) - from Montgomery Mall to White Flint Metro, 2030	Keep in LRTP
7	Veirs Mill Rd BRT (CE3103) - from Wheaton Metro to Rockville Metro, 2025	Keep in LRTP
8	Randolph Rd BRT (CE3662) - from US-29 to MD-355, 2040	Keep in LRTP
9	New Hampshire Ave. BRT (CE3672) - from Takoma Metro to Colesville P&R, 2045	Keep in LRTP
10	MD-355 BRT (CE3424) - from Bethesda Metro to Clarksburg, 2030	Keep in LRTP
11	MARC (CE3427) - Increase trip capacity and frequency along all commuter rail lines, 2029	Keep in LRTP
12	Purple Line (CE2795) - Bethesda to New Carrollton, (completion date under review)	Keep in LRTP - TPB should call for urgent action by the Hogan Administration to restart the project. Related bike/ped, and local street network projects that will improve station access should also be prioritized in the LRTP.
13	Crystal City Transitway Northern & Southern Extension BRT - (CE3521, CE3648), 2022, 2025, 2030	Keep in LRTP
14	Metro Silver Line (Dulles Corridor Metrorail Project) (CE1981) - Phase 2, 2022	Keep in LRTP - Project is in the final phase of construction but needs further bike/ped and local street network projects to provide safe access to the stations. Those are missing at many stations now.
15	Duke St Transitway - (CE2932) King St Metro to Fairfax County line, 2027	Keep in LRTP
16	Potomac Shores VRE Station, (CE2831) 2022	Keep in LRTP
17	Potomac Yard Metro Station, (CE3013) 2022	Keep in LRTP - Support related projects that will improve station access.
18	US-1 BRT from Huntington Metro Station to Woodbridge, (CE3496) 2030	Modify project in LRTP - CSG supports the BRT but we have opposed the road widening of additional segments of Route 1 and would prefer that the configuration were two car lanes in each direction + the two BRT lanes.
19	US-1 bus lanes and improved intersections, (CE1942) 2035	Modify project in LRTP - CSG supports the BRT but we have opposed the road widening of additional segments of Route 1 and would prefer that the configuration were two car lanes in each direction + the two BRT lanes.
20	West End Transitway (CE2930) - Van Dorn St Metro to Pentagon Metro and to Landmark, 2026, 2035	Keep in LRTP
21	VRE - 3rd and 4th track projects to reduce headways along the Manassas and Fredericksburg Lines, (CE2832, CE2420) 2025, 2028, 2035	Keep in LRTP
22	I-495 HOT Lane Express Bus Service, 2030	Remove from LRTP, Replace with Alternative - CSG supports express bus service but opposes the HOT lane extension. In addition to transit, we support a transit-oriented development focus for the region to reduce driving demand.
23	I-66 HOT Lane Enhanced Bus Service (CE3484, CE3448), 2025, 2040	Remove from LRTP, Replace with Alternative - CSG supports express bus service but opposes the HOT lane extension. In addition to transit, we

		support a transit-oriented development focus for the region to reduce driving demand.
24	Additional Long Bridge railroad crossing with two-tracks and pedestrian/bike access, 2027	Keep in LRTP - Also support the full Virginia rail corridor expansion to Richmond and North Carolina
NA	Route 7 BRT (missing from list of Major Projects)	CSG asks for this project to be explicitly included in the plan. We also prefer that the transitway be added without expanding the right of way. As part of this, if there is an existing six car lane section, two lanes should be converted to BRT; if there is a two lane in each direction section, they should use existing median space for the BRT. If there is not a wide median along a two lane in each direction section, a new third lane in each direction must be dedicated to the BRT. (Based on the info provided, it is unclear if the BRT is included in various Route 7 road widening projects as listed in Visualize 2045)
NA	Other regional transit/rail projects at various stages of development across the region (missing from list of Major Projects)	CSG supports including these projects if they meet CLRP project development stage requirements: segments of the 81-Mile Montgomery County BRT network not yet included, the Duke Street Transitway, MARC investment plan, Route 28 BRT in PW and Fairfax, regionwide safe routes to transit projects (bike/ped), Wilson Bridge Metrorail and American Legion Bridge Metrorail.

12. For new/significantly changed minor projects, some of the road widening projects did not fully answer the regional policy factor support questions but make claims that they would promote non-auto travel and reduce VMT. See comments in table below on new/significantly changed minor projects.

New/Significantly Changed Minor Projects

Policy Tables ID (pp. 11-14 of PDF, full packet)	Project	Project Description	CSG Comments
6	MD 85 Buckeystown Pike	Widen MD 85 to a four-lane divided highway from south of English Mountain Way to south of Crestwood Boulevard/Shockley Drive, then six lanes north to Grove Road and including I-270 interchange reconstruction. Auxiliary lanes will be included where necessary. Phases include: Phase 1 (in construction, anticipated complete 2021) - South of Crestwood Boulevard/Shockley Drive to North of Spectrum Drive, including I-270 interchange (see TIP ID 6483 - project cost of \$82,000 has been subtracted from previously provided cost of \$220,000,000)	Remove phases not already under construction from LRTP - Project answered policy questions claiming GHG reductions and promoting non-auto modes but only checking single-occupant vehicle as mode supported. GHG reduction for this widening project is unsupported; project will instead cause induced demand.
7	VA 620 Braddock Rd	Widening Braddock Road between Paul VI Eastern Entrance & Loudoun County Parkway	Provide additional information re. regional policy factor questions to

		from 2 to 4 lanes. This project provides for the planning, design, right-of-way acquisition, and construction to widen Braddock Road (Route 620) to four lanes between the Eastern Entrance of Paul VI high school and Loudoun County Parkway. The project entails the construction of a four lane, median-divided roadway within a 90 -foot right-of-way and includes the construction of shared use paths on both sides of the road. This project provides a Shared Use Path (SUP) that promotes bike and walking to regional transit that serves Metrorail Stations.	document how this road widening project promotes non-auto travel and VMT reduction. This is very distant from the Loudoun Metro stations.
8	Worldgate Dr Ext.	Herndon Metrorail Intermodal Access Improvements - PH II - (Worldgate Drive Extension at Herndon Parkway). Worldgate Drive Extension will link Van Buren Street to Herndon Parkway to alleviate congestion for the transit-oriented core of the Herndon Metrorail Station Area	Keep in LRTP
9	VA 607 Loudoun Cty Pky	This project provides for right-of-way acquisition for the widening of Loudoun County Parkway (Route 607) from four to six lanes between Ryan Road (Route 772) and Shellhorn Road (Route 643), and the construction of turn lanes at the intersection. Construction of the roadway improvements are proffer conditions of the Silver District West development	Provide additional information re. regional policy factor questions to document how this road widening project promotes non-auto travel and VMT reduction. Six-lane high-speed arterials divide communities and undermine bike/walk/transit unless the 6th lane is dedicated to bus.
10	VA 645 Croson Ln	This project provides for the planning, design, right-of-way acquisition, and construction to widen Croson Lane (Route 645) to four lanes between Claiborne Parkway (Route 901) and Old Ryan Road (Route 722). The project entails the construction of a four-lane, median-divided roadway within a 120-foot right-of-way, and includes the construction of a sidewalk on one side of the road and a shared use path on the other side.	Support in LRTP if ROW is reduced to limit the road to four lanes with full bike ped access on both sides of the road.
11	VA 659 Belmont Ridge Rd	VA 659 Belmont Ridge Road, Reconstruct. Construct or widen to a four-lane, divided road on a six-lane RW.	Do not support in LRTP
12	Crosstrail Blvd	Segment C. This project provides for the planning, design, right-of-way acquisition, and the construction of a four-lane median divided road as a Major Collector between Sycolin Road and the Dulles Greenway on a 120 ft. wide right- of- way. The project also includes shared use paths on both sides of Crosstrail Boulevard and a bridge over Sycolin Creek.	(Appears to be already in progress)
13	VA 3171 Northstar Blvd	This project provides for the planning, design, right-of-way acquisition and construction of the remaining two lanes of Northstar Boulevard between Tall Cedars Parkway (Route 2200) and Braddock Road (Route 620). The project will include a shared use path along the new travel lanes, modifications to an existing traffic signal and new traffic signals where warranted	Do not support in LRTP

14	Annapolis Way Extension	Construct approximately 0.28-mile segment of roadway between existing segments of Annapolis Way to create a connection between Route 1 and Route 123 (Gordon Blvd). #3753	Support in LRTP with lanes limited to 10 to 11 feet width
15	Horner Rd	Construct extension of Marina Way to connect with Horner Road at Route 123 to create a parallel facility to Route 1 and I-95 and create internal road network to enhance access to Woodbridge VRE station and Route 123 Commuter lot. Extension will be constructed as a four-lane Urban Boulevard.	Support in LRTP with lanes limited to 10 to 11 feet width
16	Dale City Pkwy Node New Through Blvd	Construct an approximately 0.5-mile new thorough boulevard between Minnieville Road and Elm Farm Road that will create a connection between Minnieville Road and the Prince William Parkway (Route 294).	Support in LRTP
17	Williamson Blvd	Construct a new 4-lane facility; alternate facility to Route 234, #2176	CSG requests more information on why the project cannot be built with two lanes rather than four if it is intended to promote non-auto travel.
18	Alexandria 4th Track	Constructs 6 miles of fourth track from Control Point AF in Alexandria to the RO interlocking near the south bank of the Potomac River in Arlington	Support in LRTP
19	Broad Run Expansion	This project includes expansion of the Broad Run Maintenance and Storage Facility (MSF) and Station to support expanded Manassas Line service.	Support in LRTP
20	Observation Drive	Design and construction of a 2.2 mile long roadway within a minimum 150-foot right-of-way. The project provides multimodal access including provisions for two stations of the proposed Corridor Cities Transitway and for the MD355 BRT that will operate in the median of Observation Drive.	We believe narrower ROW would be appropriate for a transit corridor using a max of 2 vehicle lanes in each direction and two dedicated lanes for BRT along with bike/ped facilities.

April 30, 2021

RE: Comments for TPB's Visualize 2045 Update

Dear National Capital Region Transportation Planning Board,

The Greater Washington Partnership is a civic alliance of the region's leading employers and entrepreneurs committed to making the Capital Region—from Baltimore to Richmond—one of the world's best places to live, work, and build a business. We look forward to continuing to partner with the National Capital Region Transportation Planning Board to advance shared priorities around equitable transit-oriented development, expansion of the regional trail network, bus and transit prioritization, and growth of the performance driven tolling network; solutions the Partnership advocated for in our [Blueprint for Regional Mobility](#).

The Partnership encourages the TPB to include regional rail run-through service in the update to the Visualize 2045 Long Range Transportation Plan and the Constrained Elements. This element of regional transportation planning is not included in the Visualize 2045 long range transportation plan, and recent activity both shows need and consensus that more integrated, seamless regional rail service is a priority for the region that should be included in this update. These activities include:

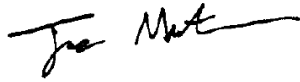
- [MARC Cornerstone Plan](#) includes exploration of run-through service;
- [TPB's Market Assessment and Technical Feasibility for VRE-MARC Run-Through Service in the National Capital Region](#), using a conservative ridership approach and existing service levels, showed 17,500 run-through trips would be taken by 2040;
- [Maryland General Assembly passage of the MARC Expansion Act](#) (HB1236 of 2020) which directs MARC to study and, if deemed appropriate, enter into agreements with VRE, Virginia, and CSX to run MARC trains into Northern Virginia, as well as connecting the Penn and Camden Lines in Baltimore and extending MARC trains to Delaware;
- [Strong Regional Support for Run-Through Operations in WUS DEIS Public Comment](#) (see appendix), with 15 business, rail, labor, and environmental organizations encouraging the Federal Railroad Administration to plan for run-through operations on all MARC and VRE as part of the EIS process; and
- [The Capital Region Rail Vision](#) was developed with the support of many public sector, private sector, advocates, labor unions, and environmentalists, and presents a clear strategy to grow regional rail ridership by 200 percent by 2045 and shift trips off congested roadways by allowing for seamless run-through train operations between MARC and VRE territory and greatly expanding service on all MARC and VRE corridors. Key goals for the effort include enhancing our region's economic competitiveness and collaboration, ensuring inclusive growth, and expanding access to moderate and affordable housing.

As we hope you can see, the level of support is broad and multi-jurisdiction. We also believe it is enduring and can deliver upon the Rail Vision's planned outcomes. Therefore, we encourage you to include expansion regional rail run-through plans in the Visualize 2045 update.



The Greater Washington Partnership would like to thank TPB Chair, the Honorable Charles Allen, MWCOG Deputy Executive Director Kanti Shrikanth, and the entire board for their leadership in advancing transportation priorities that can make the Washington metro and the Capital Region one of the best places to live, work, and build a business.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe McAndrew", with a long horizontal flourish extending to the right.

Joe McAndrew
Vice President, Transportation
Greater Washington Partnership



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May 3, 2021

Charles Allen, Chair
National Capital Region Transportation Planning Board
Metropolitan Washington Council of Governments
777 North Capitol Street NE, Suite 300
Washington, DC 20002-4239

RE: Visualize 2045 2021 Public Comment

Dear Chairman Allen:

Climate change is a serious challenge facing our community and the Northern Virginia Transportation Alliance commends the Transportation Planning Board (TPB) for recognizing transportation's role in producing greenhouse gas (GHG) emissions and developing strategies to reach the region's stated GHG reduction goals by 2030 and beyond.

On-road transportation accounts for 34% of the DC area's GHG emissions, which is 2nd only to residential and commercial buildings at 50%. Passenger vehicles contribute about 72% of on-road emissions and 84% of the region's vehicle miles traveled (VMT).

However, as we work together as a region to tackle this important challenge, the Alliance urges DC area elected officials to trust your local transportation planning experts, focus on meaningful changes that produce real benefits, and avoid "quick fixes" that do little to address this important issue.

For example, removing the limited, strategic roadway improvements currently in Visualize 2045 will do little to reduce GHG or VMT. That is because VMT alone is a poor metric for evaluating GHG emission reductions. In fact, VMT is more closely tied to population growth than roadway improvements. The most recent update of Visualize 2045 shows only an 8% increase in lane miles of roadway while VMT increases by 20% and population by 23%.

The reality is that strategic roadway improvements can reduce carbon emissions even though there is a slight increase in VMT. In the 2016 Multi-Sector Work Group (MSWG) study evaluating different emissions reduction strategies, improving roadway operational efficiency provided greater GHG reduction benefits than reducing transit fares, travel times, and headways combined. However, if you only looked at VMT you would conclude the exact opposite.

In fact, failing to make these important improvements could have the reverse impact of increasing congestion and associated emissions, especially if no action is taken to significantly increase dense, mix-use development in regional activity centers served by high-capacity transit.

Despite the current focus on VMT and transportation projects, a March TPB memo on this issue concluded, "Construction and implementation of new highway and transit projects has a lower potential to significantly impact VMT and GHG emissions." In fact, the 2017 Long Range Plan Task Force (LRPTF) study showed that the Regional Express Lanes Network (Initiative 1) and expanded commuter rail service (Initiative 5) including a new Long Bridge and improved service – i.e. Transforming Rail in Virginia – produced the same level of carbon emission reductions, less than 1%.

In contrast, current fuel efficiency standards already on the books will reduce on-road emissions by 53% in 2040 compared to the 2005 business as usual scenario. And every gain in fuel efficiency, electrification, and clean energy production reduces the perceived benefit of VMT reductions.

Rather than fighting over important multimodal projects that all have some level of carbon reduction benefits and are all needed to serve the anticipated 1.3 million new people in the DC area by 2045, we instead need to focus on the priorities that will have the biggest impact for our community.

And unlike a simple vote, strikethrough on a planning document, and eye-catching graphic proclaiming progress, major emissions reductions measures will require tremendous leadership. That means convincing constituents to accept more density and development in their neighborhoods, allowing more renewable energy facilities everywhere including undeveloped land, increasing telework and other TDM strategies that could reduce transit ridership, and requiring people to pay more for the privilege of using an automobile through tolls, higher gas/VMT taxes, and purchasing more expensive fuel-efficient vehicles.

The TPB's most recent analysis shows the carbon reduction benefits of these initiatives are far greater than the reduced emissions from individual transportation improvements. And they are all necessary if we are serious about reaching the regional GHG reduction goals adopted last year. They are also vastly more difficult to achieve and will require significant regional collaboration above and beyond anything our region has seen before.

Therefore, the Alliance urges the TPB to trust the numerous studies conducted by its own staff over the last decade showing the carbon reduction benefits of strategic roadway improvements and operational efficiencies. Furthermore, we hope that TPB members will listen to the transportation planners and experts of your own local Departments of Transportation who know these multimodal improvements benefit the community far beyond emissions reductions and are needed to accommodate growth, improve our quality of life, grow our economy, and increase equitable access to opportunity. Taking these projects out of the region's long-range plan with the stated goal of reducing VMT is short-sighted, misleading, ineffective, and harmful to the long-term goals of reducing GHG emissions and improving our region's transportation system.

Thank you for your time and consideration of this important matter.

Sincerely,

A handwritten signature in black ink that reads "Jason Stanford". The signature is fluid and cursive, with the first name "Jason" and last name "Stanford" clearly legible.

Jason Stanford
President



May 3, 2021

Charles Allen, Chair
National Capital Region Transportation Board
Metropolitan Washington Council of Governments
777 North Capitol Street NE, Suite 300
Washington, D.C. 20002-4239

VIA EMAIL

RE: Visualize 2045 2021 Public Comment

Dear Mr. Allen:

The Southern Environmental Law Center (SELC) provides the following comments on the proposed air quality conformity project list for the Visualize 2045 update. SELC is a non-partisan, non-profit organization that works throughout Virginia to advance transportation and land use decisions that protect our environment and our health while promoting more equitable and resilient communities.

We have been encouraged by some recent actions of the Metropolitan Washington Council of Governments (COG) and the Transportation Planning Board (TPB) that demonstrate an increasing recognition of the urgency of reducing greenhouse gas emissions—and from the region's transportation sector, in particular. These actions include the COG's adoption last fall of a goal to reduce regional greenhouse gas emissions 50 percent below baseline levels by 2030. They also include the resolution the TPB adopted by a resounding margin this past December requiring member agencies to prioritize investments that, among other benefits, reduce greenhouse gas emissions and achieve COG's land use and equity goals, and recognizing the need for a reduction in vehicle miles traveled and associated emissions in Visualize 2045.

However, when we review the list of projects proposed for inclusion in the air quality conformity analysis for Visualize 2045, we are concerned that it contains far too many proposals for destructive new highways and highway expansions that will spur sprawling development patterns, encourage more driving, destroy carbon sinks, and thereby undermine efforts to reduce greenhouse gas emissions. Although there are a number of important transit projects included on the list that will help reduce emissions and expand travel options for communities that are underserved by current transportation systems, the total amount of funding proposed for transit expansion projects (\$24 billion) is dwarfed by the amount proposed for highway expansion projects (\$40 billion). In short, based on the set of projects proposed for inclusion in the conformity analysis, the update to Visualize 2045 seems likely to do far too little to reduce single-occupancy driving, expand access to new transportation options, and address greenhouse gas pollution from the transportation sector relative to what is needed to achieve the region's climate emissions reduction goals.

Below we highlight some key projects of concern as well as notable projects we support, and we flag a project that we strongly believe needs to be included in some form in the conformity project list and in the final list of fiscally constrained projects for Visualize 2045.

Key Projects of Concern:

Route 15 Widening between Battlefield Parkway and Montresor Road (CE3738; 881; VP4G): We have serious concerns with the proposal to widen a segment of this National Scenic Byway because it would result in attracting more traffic—especially regional trips—to the corridor. Once one portion of the road is widened to four lanes, the new bottlenecks it generates upstream will generate pressure to widen the next segment. This forces the county and the state into a wasteful and repetitive cycle of successive and expensive widening projects that simply shift the location of congestion while destroying the historic character of the corridor. To avoid this costly and damaging outcome while addressing legitimate transportation needs, we urge you to remove this proposal from further consideration and replace it with an approach that manages traffic flow on Route 15 with traffic-calming improvements and roundabouts.

Manassas Battlefield Bypass (CE3061; 433; FED3a): SELC has long opposed this project and supported alternatives because it would promote construction of the proposed Outer Beltway and inflict serious damage on the Manassas National Battlefield Park. We support closing to through-traffic the portions of Route 29 and Route 234 that cross the Battlefield, but this destructive proposal is not the solution.

Northstar Boulevard between Tall Cedars Parkway and Braddock Road (CE3737; 2495; VP12S): We are concerned that widening this existing stretch of Northstar Boulevard will increase pressure to construct a major limited-access highway along this corridor. We understand the need to address transportation challenges in the vicinity of Arcola, but any widening of this existing segment should be designed with a low design speed and traffic-calming features to ensure it serves a local collector purpose.

VA 28 Manassas Bypass (CE1865; 995; VP6O): We are still in the process of learning more about this proposal as Prince William County proceeds with the design process, but even at this early point it is clear that the project raises major water quality and environmental justice concerns, would damage parkland and historic resources, and is likely to encourage more single-occupancy driving. Options to improve the existing Route 28 corridor should be prioritized over building a new highway through this sensitive area.

Key Projects We Support:

Long Bridge Railroad Crossing: Constructing an additional Long Bridge railroad crossing with two-tracks and pedestrian/bicycle access would alleviate a critical bottleneck for all commuter, passenger, and freight rail services crossing the Potomac River into Washington, D.C. This would enable significant expansion of these services in the near future, with significant benefits to the public and the environment.

Metro Silver Line - Phase 2 (CE1981): Connecting Dulles Airport to the region's light rail line will provide a vital link in the region's multimodal system, help reduce congestion and increase safety, and provide a reliable transit alternative for reaching jobs along a growing tech corridor.

VRE—3rd and 4th track projects to reduce headways along the Manassas and Fredericksburg Lines (CE2832, CE2420): Improving these VRE lines would provide much-needed additional travel options and capacity for commuters along highly-congested highway corridors.

West End Transitway—Van Dorn St Metro to Pentagon Metro and to Landmark (CE2930): Centering on a BRT system that will enhance connectivity between major transit facilities (Van Dorn Metro Station, Mark Center Transit Center, Shirlington Transit Center, and the Pentagon Transit Center), as well as several neighborhoods along the corridor, this project will provide many transportation and land use benefits. It will also improve sidewalks, bikeways, landscaping, and traffic operations along many parts of the Van Dorn to Beauregard corridor.

Projects Missing from List:

Transit across American Legion Bridge: Finally, we want to emphasize the importance of including an expansion of transit service across the American Legion Bridge (Bridge) as part of Visualize 2045. Although there are several projects on the list that relate to adding High Occupancy/Toll (HOT) lanes to the I-495 Beltway and expanding the Bridge, it is not clear that funding and implementing transit service across the Bridge is included as part of any of them, and it does not appear to be included as a stand-alone transit project either. Expanding transit across the bridge is crucial to helping to counter the potential of these HOT lane proposals to increase vehicle miles traveled and greenhouse gas emissions, and to beginning to address some of the equity concerns they raise regarding access to the HOT lanes. Virginia and Maryland have finalized a joint study of potential route and service improvements for transit service across the Bridge. Different components of the identified transit service should be included in the air quality conformity analysis, and the final update to Visualize 2045 should include specific projects and the funding for implementation.

In closing, thank you for the positive steps taken in recent months to recognize the imperative of significantly reducing greenhouse gas emissions from the region's transportation network. This update to Visualize 2045 is where those stated values and goals must now get translated to identifiable projects and plans. The current set of proposals under consideration has some transformative pieces, but too many projects are vestiges of an outdated approach to transportation that is driving us deeper into the climate crisis. Please take the bold steps needed to ensure this plan will put us on the path to achieving the region's emissions reduction goals.

Sincerely,

A handwritten signature in black ink, appearing to read "Morgan Butler".

Morgan Butler
Senior Attorney



National Capital Region Transportation Planning Board
777 North Capitol Street NE, Suite 300
Washington, DC 20002-4239

May 3, 2021

Re: Visualize 2045 2021 Public Comment

Dear Transportation Planning Board Chair Allen,

With the urgency of the climate crisis, we urge the TPB to draft a transportation plan that commits to meeting the goals outlined in the regional climate & energy action plan.

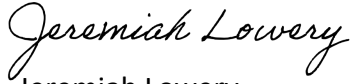
We call on TPB to fix the draft plan to address regional climate, equity and livability goals via one of two routes:

- 1) Model in the conformity process a climate-friendly plan in addition to modeling the business-as-usual project list. A climate-friendly plan would include travel demand management and land use strategies (including the regional housing targets), enhanced transit, pedestrian and bicycle improvements, and removal of many highway and arterial expansion projects, OR
- 2) Fix the current draft plan now, deleting the road widening projects that will increase driving and emissions and adding in more transit and local street projects that create more walkable, transit-oriented communities.

Public input for Visualize 2045 showed that 84% of the region's residents agree that "elected officials need to consider the impacts of climate change when planning transportation in the future." The survey results also show that the region's residents want to walk and bike more, drive less, and support transit. Repeating \$40 billion in highway and road widening projects from the last plan would be a wasteful public investment given changes in travel patterns accelerated by the pandemic.

We cannot afford to wait another four years to take swift action on climate.

Sincerely,

A handwritten signature in black ink that reads "Jeremiah Lowery". The script is fluid and cursive, with the first letter of each word being capitalized and prominent.

Jeremiah Lowery

Advocacy Director

Washington Area Bicyclist Association

Dear Chair Allen:

TPB's Director, Kanti Srikanth, said at the March board meeting that the draft list of projects will not achieve the region's adopted climate targets.

TPB's Visualize 2045 project list and planning assumptions do not commit to the transportation strategies in the climate plan, even though transportation is the largest source of greenhouse gas emissions in the region (42%).

The time to act is Now. Not two years from now, not four years from now. What are we waiting for? Who do we think will step forward and save us?

We're doing the same old same old by expanding highways and ignoring the fact that this will bring more cars onto the road, increase VMT, enable people to live farther away and have them commute farther for their various trips.

TPB is composed of leaders throughout our region. The climate crisis is here already, and we are the generation that makes the decisions that will affect the next generation. Can we please take this responsibility seriously? If the TPB cannot muster the leadership to radically demand that we put our emphasis on transit and forget about accommodating single occupancy vehicles, then we will truly meet face to face with the climate emergency this decade and then there will be no way to turn it back.

Don't tell me about toll roads (works well for the wealthy), don't tell me about EVs (works well for the wealthy), don't tell me that transit can use the toll lanes for free (this is not a transit "network" and please don't try to sell it as one!). So the 270/495 multi billion dollar highway expansion project is more business as usual, taking us down the road to 2050, doing all the stuff that got us into the climate crisis in the first place. And again, (doing "business as usual") we completely bypass any concerns about Equity.

Wake up! There's nothing new here.

Tina Slater
Silver Spring MD 20910-5515
301-585-5038

KGP_{design studio}

April 30, 2021

Metropolitan Washington Council of Governments Transportation Plan

Today presents a unique time in our history and an opportunity to break with trends of the last 70 years – and do something for people rather than cars. There has always been congestion – and the answer has always been – build more roads, add lanes. Where has that gotten us? Just more congestion. To end this cycle, we **MUST** change our building habits so that we're building for people, not cars. That means providing more options for movement, building more compact communities where multiple means of transportation make more sense and it means using our public right-of-way for much more than just autos. This means road diets, not more lanes. Keeping a level of congestion helps get people out of cars and saves billions of dollars wasted on wider roads.

Again, this is a unique time in our history. We've stopped commuting for a year and look how much more pleasant our lives have become. Look around, we don't really need all those lanes for cars if we change people's habits. In Washington, the streets are being used for other purposes like bikes, scooters, cafés and the city is much more pleasant and less polluted. I know so many more people would bike if there were more protected bike lanes.

Adding lanes to relieve congestion only encourages more people to drive which will again create more congestion. I've watched this for the past 50 year. Luckily in Washington, there are no places to add more lanes and there are no more places to park cars. So, stop sending more cars into our city. Let people telework, let them work different hours, and keep them from building in areas where the only way to go anywhere is by car. That time has passed.

So, I do not approve what is being planned – this is way too car centric. I grew up on Capitol Hill – and walked everywhere or rode my bike. We moved to McLean when I was 10 for my “freedom” – and I became my mother's prisoner – she had to drive me everywhere. What a waste of two lives. Options for older and younger people who can't drive are critical. Car sharing is fine – but not necessary to do the simple things in life. We have to change our habits. And one big way is with your plan – but not the plan you've outlined. Get those wider roads out of the plan – add more transit, bus, bike, scooter lanes. And create better places for pedestrians.

After living around the world, I now live back in Washington and couldn't be happier. I walk or bike to work and use public transportation. In fact, everywhere I've lived I've been able to ride my bike to work. Everyone deserves to have a chance to live as I do – without traffic and headaches.

You can do a much better job –

Thank you.

Bill Gallagher

April 30, 2021

Mr. Charles Allen, Chair
National Capital Region Transportation Planning Board
MWCOG

Dear Chair Allen:

Please accept this comment on **Visualize 2045** ("2045 Plan"), the Board's proposed constrained long-range transportation plan.

Last November 2020, after numerous meetings, technical discussions, research, and outreach to stakeholders, MWCOG prepared a *Climate and Energy Action Plan* ("Climate Plan"). It was a thorough examination of various climate-related trends, greenhouse gas ("GHG") emissions, different action scenarios, and equity implications. Guided in part by the visionary *Region Forward* perspectives, and acting with the urgency demanded, given the unsettling climate future we will face absent serious changes to "business as usual," the Climate Plan developed new GHG goals and a set of regional, collaborative actions for achieving them.

The goals of the Climate Plan included a 50% reduction in GHG emissions below 2005 levels, by 2030, significant progress toward regional climate resiliency in that same timeframe, and the recognition that equity principles not only demanded action but would need to attend all the solutions. In December 2020, the TPB voted to require that its member governments and agencies prioritize transportation investments on projects, programs and policies to reduce GHG emissions, and prioritize the means for achieving COG's land use and equity goals. So far, so good.

Unfortunately, however, while more than 40 percent of the greater Washington region's GHG emissions come from transportation sources (much higher, in fact, than the nation's almost 30 percent), the Climate Plan's major set of actions is counting heavily on just three components for most of its progress: clean energy supply, zero energy buildings, and zero emission vehicles. Recent studies emphasize, however, that it is highly unlikely that the nation (or in our case, the region) can achieve the turnover of its vehicle fleet necessary to achieve the level of electrification for reducing GHG's by the amount needed from this source by 2030. Driving must also be reduced – not by the 2045 Plan's three percent, but by almost an order of magnitude more. Second, the Climate Plan accords mode shift and travel behavior a very thin slice of the plan, carbon sequestration an even smaller proportion, and nothing at all is noted concerning a

change in the region's sprawling development patterns over the next ten years – the latter of which relates directly to travel patterns, reduced driving, and the future ability of the land to sequester carbon.

Unfortunately, the TPB's 2045 Plan reinforces these limits of the Climate Plan, ignoring its own December 2020 mandate. It is essentially a replay of the previous long-range transportation plan and set of transportation projects, which was prepared what seems like eons ago (in 2018) -- before our travel and work experiences during the pandemic demonstrated the utility and efficiency of an alternative, flexible working environment, and before COG studied and reported on the consequences of the potential failure of the region's, the nation's, and the world's attempts to reduce GHGs in a timely manner. Indeed, the 2045 Plan will be unable to achieve the described objectives even of the extraordinarily modest mode-shift/travel behavior rubric contained in the Climate Plan. The questions the 2045 Plan suggests should be asked concerning proposed projects' promotion of alternative, non-automobile modes, relationship to equity, and the *Region Forward's* vision of interconnected Activity Centers, for example, are clear, while some of the answers one obtains from the 2045 Plan (that specific highway expansions can serve such purposes) verge on the nonsensical.

Telework and commuting data used to develop the 2045 transportation plan came from 2014, two U.S. Presidents ago, while recent data that could better inform this plan seems unavailable to do so – although it will be by the time this Plan is finalized. Like the last plan, 2045 proposes that the region continue to spend far more to build and expand new roads and highways than build and expand transit systems. As we know from past experience and extensive academic study, this would not only accommodate but induce ever more vehicular traffic.

In the meantime, while several previously committed transit projects would proceed or be completed, there is nothing in the 2045 Plan proposing new transit starts, links, or systems. While highways are to be widened, as usual (e.g., MD Route 4 into Southern Maryland), long-contemplated transit connections along similar corridors (Route 4 or MD Route 5) are ignored or eschewed. (Indeed, Maryland's complement to a widening of US 301, studied at length more than 20 years ago, was to be just such a system. These evidently have disappeared in favor of the ineffective approaches the states and the Board continue to promote.)

The customary excuse to contemplating and promoting effective, coordinated, walkable land use with new transportation (i.e. transit, pedestrian, bicycle, and personal electric modes of) infrastructure – that the TPB has no authority over land use – underlies such

failings. The TPB has federally mandated transportation planning authority, which it could use toward such ends, and MWCOC has a broad and meaningful bully pulpit which it could bring to bear. Unfortunately, without significant changes along the lines noted above, the result of the 2045 Plan will be more vehicular traffic producing more GHGs (at least in the ten year short-term), more loss of carbon-absorbing open and forested land, and fewer solutions to the transportation sector's malign influence on climate change in our region.

Thank you for the opportunity to comment on *Visualize 2045*.

Sincerely,

Lee R. Epstein
Silver Spring, Maryland



PUBLIC COMMENTS RECEIVED: APRIL 2 - May 3, 2021 on the technical inputs to the Air Quality Conformity Analysis of Visualize 2045 and Transportation Improvement Program.

TOTAL COUNT	206
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COMMENTS FROM THE GENERAL PUBLIC

We must fight climate change. Transportation is the largest source of climate pollution in the region (42%), and you have the power to support projects and plans that reduce emissions and oppose those that do not.

Therefore, I urge you to act now to fix the draft list of projects submitted to the Transportation Planning Board (TPB) for the Visualize2045 update to the regional long range transportation plan.

The draft list is almost identical to that of the previous (2018) plan, which was shown to fall far short of meeting the region's adopted greenhouse gas reduction targets. Just last month, the TPB director, Kanti Srikanth, admitted that the currently proposed list of projects would not achieve those targets either.

It is inexcusable for this region to propose a transportation plan that fails to implement the COG climate plan and do our part to reduce emissions.

I ask you and each jurisdiction's representative at the TPB to fight for these options:

1) Model a smart growth/climate-friendly plan in addition to their business-as-usual plan, ideally adopting the climate-friendly plan in the coming year

2) Fix the current draft plan now, deleting the road projects that will increase emissions and adding in more transit and local street projects that create more walkable, transit-oriented communities.

A smart growth/climate-friendly network would focus on increasing accessibility to jobs, housing, and services in the region in ways that make our region more equitable, livable, and sustainable. This means reducing the need to drive by creating walkable, mixed-use, transit-oriented communities and addressing the east-west jobs divide, affordable housing, and investments in walking, biking, and transit. These strategies are already being successfully implemented in some parts of our region, and they provide many benefits (equity, safety, health, livability, economic) in addition to significantly reducing GHG emissions.

Please be a leader in fighting climate change via all means, including transportation plans that offer major reductions in emissions.

Thank you for your consideration. Sent by 118 people.

Elizabeth Ende, Mc Lean, VA
Molly Hauck, Kensington MD

Patricia Tice, Rockville, MD
Robin Galbraith, Bethesda, MD
Johanna Wermers, Rockville, MD
Katherine Paterson, Bethesda, MD
Donna Sawyer, Silver Spring, MD
Carol Amburgey, Rockville, MD
Terrie Barr, Potomac, MD
Arlene Montemarano, Silver Spring, MD
Karen Onthank, Silver Spring, MD
Carolyn Williams, Bethesda, MD
Bruce Tinker, Alexandria, VA
Nanci Wilkinson, Bethesda, MD
Nancy Wallace, Bethesda, MD
Evelyn Jacob, Potomac, MD
Molly Hauck, Kensington, MD
Walter Weiss, Bethesda, MD
Marsha White, Fairfax Station, VA
Mia French, Oakton, VA
Elizabeth Zolper, Vienna, VA
Chris French, Oakton VA
John Cartmill, Herndon, VA
Rebecca Spring, Washington DC
Brian Luteneegger, Washington DC
Jennifer Cook, Silver Spring, MD
Ankit Jain, Vienna, VA
Natalie Rosser, Silver Spring, MD
Sirina Suckal, Savage, MD
Linda Hertz, Reston VA
Allen Munchink, Manassas, VA
Jay Rosin, Clarksburg, MD
Cheryl Cort, Washington DC
Madeline Amalphy, Gaithersburg, MD
Peter Harnik, Arlington, VA
Andrew Kalukin, Arlington, VA
Zachary Weinstein, Silver Spring, MD
Daniel Marcin, Silver Spring, MD
Douglas Sedon, Jefferson, MD

Richard Tortorella, Centreville, VA
David Maclean, Springfield, VA
Donna Sawyer, Silver Spring, MD
Amanda Hungerford, Takoma Park, MD
Dr. Laurie Ryan, Silver Spring, MD
Rachael Neill, Baltimore, MD
Joseph Reinhard, Silver Spring, MD
Allen Irvin, Alexandria, VA
William Maynard, Bowie, MD
Shawn Wozniak, Alexandria, VA
Steve Warner, Silver Spring, MD
Thomas Zeller, Greenbelt, MD
Charlotte Nugent, Washington DC
Cynthia Howell, Sterling VA
Steve Ashurst, Burtonsville, MD
Molly Hauck, Kensington MD
Sister Denise Curry, Philadelphia, PA
Garret Hennigan, Washington DC
Steven Vogel, Falls Church, VA
Gavin Baker, Washington DC
David Seldin, Laurel, MD
Hannah Follweiler, MD
Gerry Baill, Silver Spring, MD
Elizabeth Barbehenn, Bowie, MD
Jennifer Brown, Springfield, VA
Christopher Farrell, Wheaton, MD
Tim Hampton, Washington DC
James Reid, Reston, VA
Tom Hoffman, Pearisburg, VA
John Fay, Wheaton, MD
Laurence Fogelson, Baltimore, MD
Paulette Hammond, Baltimore, MD
Connie Dresser, Gaithersburg, MD
Debra Butler, Mc Lean, VA
Marco Sanchez, Arlington VA
Stu Simon, Chevy Chase, MD
Deborah Backman, Washington DC
James Mather, Lorton, VA
Charles Coleman, Alexandria, VA
Bernard Holloway, Mitchelville, MD
Dr. Jean Westler, Silver Spring, MD
Rhys Tucker, Washington DC
Dan Leggett, Clarksburg, MD
Donald Cuming, Bethesda, MD

MiYoung Park, North Bethesda, MD
Mr. Donald Paine, Washington DC
Michael Whelan, Washington DC
Clara Irazabal, College Park, MD
Ana Karimi, Washington DC
Nanci Wilkinson, Bethesda, MD
Kristina Borrer, Silver Spring, MD
Paul Bickmore, Reston, VA
Anita Morrison, Silver Spring, MD
Brent Showalter, Columbia, MD
Melissa Bondi, Arlington, VA
Andrea Cimino, Kesington, MD
Steven Thai, Chantilly, VA
Ted Sheils, Crownsville, MD
Katherine White, Rockville, MD
Kripa Patwardhan, Herndon, VA
Steven Segerlin, Washington DC
Eyal Li, MD
Dieter Brill, Hyattsville, MD
Barry Greenhill, Reston, VA
Niels Pemberton, Reston, VA
James Fremont, Silver Spring, MD
Jose de Arteaga, Washington DC
Tina Schneider, Takoma Park, MD
Mary Ann Maikish, New York, NY
Professor Don Bronkema, Washington DC
Charlotte Cook, Silver Spring, MD
Jane Lyons, Silver Spring, MD
Lois Lommel, North Chesterfield, VA
Alayna Smith, Bethesda, MD
Stephen Hudson, Washington DC
Sarah Meadsday-ralls, Hagerstown, MD
Bill Gallagher, Washington DC
Barry Greenhill, Reston VA
Krishna Patnam
Nikia Popow, Bethesda MD

The project list under consideration at this stage of the Visualize 2045 process, in the aggregate, is a disappointing failure. Implemented as planned, the region would fall dramatically short of its goals for air quality improvements, for addressing the climate crisis, and for improving the quality of life of the region's residents.

Widening roads, if *successful* in reducing congestion, simply lead to induced demand and sprawl, and to higher traffic speeds leading to more deaths for all road users. More likely, many of these projects would have no long-term impact on congestion, and simply be a waste of resources that could have been invested in transportation systems that actually work.

New bridges that are on the project list lack dedicated space for cyclists and transit, designs that will be regretted and even cursed for decades to come.

The analysis assumptions include relying on 2014 telecommuting data. Given our collective experience during the pandemic, this is ludicrous. The assumptions also ignore the member jurisdictions' plans for housing growth closer to job centers.

Many of the highway plans were approved before this year, they are not new additions – but they should be re-evaluated, and in many cases either cancelled or radically re-structured. The current plan should not be approved as is just because of inertia. Adding new lanes to suburban streets is particularly insane, given how much effort needs to go into road *diets* instead. Instead of adding new lanes, Marland BRT plans should incorporate dedicated transit lanes for every portion of their route, removing travel lanes for single-occupancy vehicles wherever necessary. Egregious road-widening examples in Maryland include Buckeystown Pike, Annapolis Road, Georgia Ave, and Montrose Parkway. During the review of such projects, no matter what funding has already been approved and what designs have already been completed, regional bodies should pressure local authorities to stop them in their tracks. They are not just unnecessary, but dangerous and counter-productive.

Sincerely,
Shalom Flank, Ph.D.

Dear Chair Charles Allen,

About: draft Regional Transportation plan:

To make plan climate-friendly you would need to:

- Model a smart growth/climate friendly plan.
- Delete projects that increase emissions.
- Add more transit and local street projects that create more walkable, transit-oriented communities.

Carl Shoolman

This plan does not pursue the region's goal of reducing climate emissions, shamefully reverting to the status quo of driver-oriented projects that will not in the long term reduce traffic and, worse, will lead to increased emissions. The Council of Governments adopted a climate plan in 2020, and the TPB should reflect those goal by focusing on public transit and active transportation, not spending billions to build and widen roadways serving single-occupancy vehicles.

Alexander Goyette, Alexandria, VA

This document does nowhere near the amount of emissions reduction that we need as a region. Sick of the laziness, the cowardice, the complacency. Get it together and reduce VMT with real transit investments. The fact that there are **any** road widenings in this document exposes this process as a farce and the planners as fraudsters.

Karthik Balasubramanian, Washington, DC

It is wrong for COG to adopt a regional climate action plan and then turn around and draft a transportation plan that does not implement the climate plan. In the plan TPB should delete unnecessary road projects that will increase emissions and add in more local street and transit projects that create more walkable, transit-oriented communities. TPB must start reshaping our thinking about this with actions. Further, the region's transportation patterns have been changed by the pandemic and TPB should not assume that we will go back to business as usual now and in the future.

Donna Gold, Alexandria, VA

As a Gaithersburg resident who is extremely concerned about the climate crisis, I strongly urge the TPB to: Model a smart growth/climate-friendly plan in addition to their business-as-usual plan, adopting the climate-friendly plan in the coming year. Fix the current draft plan now, deleting the road projects that will increase emissions and adding in more transit and local street projects that create more walkable, transit-oriented communities. A smart growth/climate-friendly network must increase accessibility to jobs, housing, and services to make our region more equitable, livable, and sustainable. This means reducing the need to drive by creating walkable, mixed-use, transit-oriented communities and addressing the east-west jobs divide, affordable housing, and investments in walking, biking, transit, and renewable energy. Unlike in the 2018 plan, our region must implement these strategies to meet or exceed its adopted greenhouse gas reduction targets of 60% by 2030.

Madeline Amalphy – Gaithersburg, MD

This plan is very concerning. We are at a critical juncture when we must be supporting projects that REDUCE vehicle miles traveled and decrease greenhouse emissions. Instead, this plan proposes many sprawl-inducing routes that would accomplish exactly the opposite, including the widening of Route 15, a Manassas Battlefield Bypass, US-29, VA-28 and VA-123. It's abundantly obvious, that new and wider roads and highways fill up several years after they are built. The plan is a blueprint to pave the paradise that makes Virginia so special. This plan takes us in the wrong direction on the urgent issue of climate. Our focus must be on investments that REDUCE vehicle miles traveled such as projects that make commuting more accessible as well as investments in bike lanes and walking trails. I urge you to reexamine this plan with an eye towards doing what is right for future generations. -

Rachel Hammes - Vienna VA

Please prioritize the transit projects listed in the TRB Projects Proposed for Inclusion in the Air Quality Conformity Analysis of the Constrained Element of Visualize 2045. I believe that creating enhanced transit options can improve air quality compared to adding travel lanes on highways. For me, the most important of the transit projects is 24. Additional Long Bridge railroad crossing with two-tracks and pedestrian/bike access. Completion of new RR tracks and bike/ped access will overcome current regional freight gridlock, increase regional passenger train services, and provide a much-needed new bike-ped connection between Northern Virginia and DC. 13. The Crystal City Transitway BRT is also a key connector for our area. These projects will create easier, cleaner, more convenient commuting than driving SOVs! BTW – please also prioritize completing the Capital Trail Network, even though it's not part of this group of projects. Thank you.

Pamela Van Hine – Arlington ,VA

See attached.

Tina Slater - Silver Spring, MD

The Managed Lanes Project is moving to the predevelopment phase before a Environmental Impact Statement is completed. The additional lanes will increase traffic, resulting in more greenhouse gas emissions released into the atmosphere ,exasperating climate change. An environmental review completed after solicitation of a private company is useless. Traffic is already reduced with the implemented of the telework policy due to the pandemic. Telework will likely continue after people are immunized at least part time. The need for highway expansion at least needs to be reevaluated in a few months after workers return to their

work site.

-Gail Landy - Gaithersburg, MD

Transportation is the region's largest source of greenhouse gas emissions (not to mention a significant source of particulate pollutants), but this update to Visualize 2045 perpetuates the expansion of vehicle traffic. Instead it should work to decrease vehicle miles traveled and put more emphasis on transportation options other than single occupancy vehicles. It is unacceptable for the regional Council of Governments to adopt a regional climate action plan and then the regional TPB to draft a transportation plan that does not follow the climate plan. The TPB also needs to anticipate higher teleworking rates and less need for expensive, massive road expansions - rather than modeling its plan based on 2014 telework patterns. A more climate-friendly plan would remove road projects that will increase driving and emissions and add in local street and transit projects that create more walkable, bikeable, and transit-oriented communities that support regional climate/housing goals.

-Steve Banashek - Alexandria, VA

See Attached.

Lee Epstein - Silver Spring, MD

Expanding roadways through conservation areas or farmland. Thirty-three years ago I moved to Virginia (from California). I thought then, and, still do now, that Fauquier County is one of the most beautiful places in the US. Having lived in Southern California where every scrap of dirt is built upon, or, a highway put through areas that were previously vineyards or orchards, I have seen first-hand what unbridled development can do to an area's beauty. It's not pretty, in fact it's pretty ugly. Farmland lost is farmland lost forever; the same goes for green spaces. Please consider NOT paving over large areas of green spaces just to allow more commuters to be able to drive faster to their locations. Please consider NOT allowing urban sprawl in our beautiful county. Please consider alternative transportation means that do not include destroying the natural beauty of our area and that will adversely impact the wildlife, too. Please consider carefully and do not be influenced by BIG DEVELOPERS. Thank you.

Lauren Mora- Rectortown, VA

See Attached.

Bill Gallagher

This plan is in conflict of our need to deal with Climate Change. We do need to deal with the existing roads, bridges and other existing infrastructure.

Claude Bradshaw - Catharpin, VA

I am very concerned about some of the contents of visualize 2045. I support the investment in transit, rail, trail, complete streets and maintenance for existing infrastructure...BUT, I believe widening of highways, roads, numerous arterial road changes etc , will only add to pollution and create more urban sprawl and development. This will negatively affect regional climate targets, not improve them. I grew up on Long Island, NY and I saw this type of development destroy a once beautiful and thriving environment now lost forever to pavement, asphalt and strip development. I have lived in Northern Virginia for over 35 years and have watch this type of infrastructure grow, fueled by greedy developers. Please consider restructuring this plan to reduce the strain on our climate and environment. Our basic survival depends on it.

Sue Attisani – Baltimore, MD

You all must be aware of the principle of triple convergence. It is counterintuitive, but widening a road actually increases congestion, it doesn't solve it. The focus should be on improving and creating public transit, creating more walkable areas, and increasing bike lanes. Regional tolls for local roads to help offset carbon output, and decrease cut through of neighborhoods should put in place. Transportation is the greatest contributor to green house gases in our area. Improvement in this area is absolutely necessary.

Barbara Morrow - Alexandria VA

Thank you for providing this form and for asking for comments. I am very much opposed to the environmentally destructive boondoggle of expanding I 270 and the Beltway. That is the wrong project at the wrong time. We are rushing towards a climate crisis, and we should be working at this moment to turn things towards a more sustainable way of life. Widening the area interstate highways, taking down trees, pouring concrete on green space, and facilitating the burning of fossil fuel, all to enable people with the means to drive faster on toll lanes, is the wrong project at the wrong time. Lets invest in public transit, in creating a grid of electric vehicle charging stations, in encouraging community gardens so we can eat

locally grown food. Let's change our metropolitan area into one that has a beneficial impact on the environment. If we do this now, our children and future generations will thank you. If we don't make bold changes now, we are robbing the future.

Rick Goodman - Silver Spring , MD

See attached.
Brian Ditzler

i am disappointed that the draft document reflects old school thinking that has generated sprawl all over the country and this region. Build more highways, add more lanes , chew up cheaper land farther out and in a few years you just have more traffic jams. the plan doesn't at all take account of the country's urgent need to reduce carbon emissions or of the changes in commuting patterns as a result of the pandemic. Needs more investment in non-auto transportation means and less in roads!

Jessica Matthews - Marshall, VA

New and wider highways and arterial roads fuel sprawl development, more driving, and more air pollution at a time when transportation is already our #1 source affecting climate change. Instead, we need more transit for our essential workers.

Leona Patrick -Gainesville, VA

The plan for widening RT 15 is another patch for the currently overused Rt. 15. In a few years the road will again reach a new crisis level which will demand further piecemeal plans to allow more traffic to pass through Loudoun County. Instead of looking for ways to reduce traffic, this plan simply allows for spreading more traffic into more lanes. The current traffic flow has made for congestion and unbearable noise for the communities along this corridor. It is a speedway through existing neighborhoods and outlying homes. It will destroy existing open green spaces by encouraging new subdivisions, the consequent growth of nonessential businesses and continued destruction farming. It is another boon to developers and commuters with little thought for those of us who call Loudoun County home. Instead of imposing this plan that has little regard for climate or land use, find a long term solution that protects Loudoun County rather than destroying its pastoral heritage.

Karen Wallace - Leesburg, VA

I strongly SUPPORT the the widening of Route 15 in Loudoun County north of Leesburg to the MD line and a Manassas area Battlefield Bypass. These projects are much needed to prevent wasted time and fuel losses from excessive traffic resulting from population increases that have been experienced and are projected to continue through 2045. I also strongly SUPPORT the inclusion of bicycle lanes along major commuter roads.

Gregory Prelewicz, Sterling, VA

Do not widen this historic route. Expect reduction in auto travel due to remote work. Expect increase in electric vehicles.

Susan Planck, Purcellville, VA

Hello. My name is Natalie Pien, a retired public school teacher living in Leesburg, Loudoun County, VA. I am an environmentalist and a climate activist. I am concerned that the 2018 IPCC report stated that there are only 10 years to make rapid reductions in greenhouse gas emissions to avoid the worst consequences of climate change. Regrettably, not enough has been done to reduce GHG emissions in the Metropolitan Washington Region.

Natalie Pien, Leesburg, VA

In our region, transportation is a major source of emissions and we are an air quality non-attainment zone. Urban and suburban areas can promote transit over personal vehicles, while in rural areas transit is not as easy to implement. Transit takes vehicles off the road, reducing vehicle miles travelled as well as reducing air pollution. Regrettably, the long range planning and programs, Visualize 2045 proposes \$40 Billion in highway expansion compared to only \$24 B in Transit expansion. This allocation of funds is opposite to what is needed in order to meet the region's GHG reduction goals as articulated in the Metropolitan Washington 2030 Climate and Energy Action Plan, adopted in November 2020. Expanding highways will put more vehicles on the road that will emit more GHG pollution in contradiction to the adopted plan.

Projects like land reductions/reconfigurations for bicycle lanes will get vehicles off the road, the vast majority of projects in Visualize 2045 are for road widening. Past experience throughout the nation has shown that road widening does not relieve congestion in the long term; it leads to more development, more pollution, and traffic congestion is a few short years.

I am dismayed to note that #51 widening Route 15 in Loudoun County is included. This is not advisable. Other solutions have been proposed by residents and are better alternatives. I also see that an entirely new road is proposed, # 56, in Loudoun. New roads are not a good alternative, either. The goal for any and all projects in Visualize 2045 should be to reduce the time spent in cars by promoting walkable, bikeable communities built around transit centers.

It is your responsibility to fund projects that reduce greenhouse gas emissions, not increase emissions. Projects included in Visualize 2045 fail to do this. Please reconsider Visualize 2045 in terms of regional greenhouse gas reduction, agreed upon goals.

Natalie Pien

In reviewing the 2022 Update to the VISUALIZE 2045/CLRP(See Below), I noticed for "Project CE3180/VP1AG US1 Richmond Highway Widening between Lorton Road and Annapolis Way" the terminuses are being changed to Pohick Road and Occoquan River. Note: US1 between Pohick Road and Lorton Road is already six lanes.

Can you explain this change? In researching the project, it appears this project was added back into the CLRP in **2013**. Also, It also appears this project was conveniently removed from the CLRP 2011 to align with the I-95 Express Lanes Comprehensive Agreement for compensation events for additional lanes over the Occoquan River on U.S. Route One.

I-95 Express Lanes Comprehensive Agreement: "Occoquan Bridge Improvements. **The Occoquan Bridge Improvements will be treated as a Compensation Event** unless the IRR Threshold has been reached as of the Commencement of Use of the Occoquan Bridge Improvements"

"Occoquan Bridge Improvements means the addition of any **additional lanes on the bridge over the Occoquan River on U.S. Route One** in Virginia, the plans for which have not been included in the **CLRP or the SYIP as of November 30, 2011.**"

So, with this change, is VDOT not planning to add any additional vehicle capacity over the Occoquan for at least the next 20 years? or 65+ years? at the location of the biggest traffic bottleneck in the Commonwealth of Virginia by a large margin?

Based on this, could a **new VRE/Amtrak rail bridge over the Occoquan** or a **dedicated bus transit bridge with bike/ped over the Occoquan** be explicitly added to the CLRP as a replacement project in the 2030-2040 timeframe? There are a significant amount of highway projects in the 2030-2040 timeframe, but very few transit projects during this timeframe. **This does not seem to align with the guidance to prioritize future projects that reduce VMT/GHG emissions.** Hopefully, the Springfield to Quantico Enhanced Public Transportation Feasibility Study will help bring more transit projects to light in this corridor.

Mark Scheufler, Prince William County

Please consider the following comment to the update to Visualize 2045:

In reviewing the 2022 Update to the VISUALIZE 2045/CLRP(See Below), I noticed for "Project CE3180/VP1AG US1 Richmond Highway Widening between Lorton Road and Annapolis Way" the terminuses are being changed to Pohick Road and Occoquan River. Note: US1 between Pohick Road and Lorton Road is already six lanes.

In researching the project, it appears this project was added back into the CLRP in 2013. Also, It also appears this project was conveniently removed from the CLRP 2011 to align with the I-95 Express Lanes Comprehensive Agreement for compensation events for additional lanes over the Occoquan River on U.S. Route One. I-95 Express Lanes Comprehensive Agreement: "Occoquan Bridge Improvements. The Occoquan Bridge Improvements will be treated as a Compensation Event unless the IRR Threshold has been reached as of the Commencement of Use of the Occoquan Bridge Improvements" "Occoquan Bridge Improvements means the addition of any additional lanes on the bridge over the Occoquan River on U.S. Route One in Virginia, the plans for which have not been included in the CLRP or the SYIP as of November 30, 2011."

So, with this change, is VDOT not planning to add any additional vehicle capacity over the Occoquan for at least the next 20 years at the location of the biggest traffic bottleneck in the Commonwealth of Virginia by a large margin?

If the intent is to remove this road segment expansion from the CLRP, please explicitly add a new VRE/Amtrak rail bridge over the Occoquan and/or a dedicated bus transit bridge with bike/ped over the Occoquan to the CLRP as a replacement project in the 2030-2040 timeframe.

There are a significant amount of highway projects in the 2030-2040 timeframe, but very few transit projects during this timeframe. This does not seem to align with the guidance to prioritize future projects that reduce VMT/GHG emissions.

Mark Scheufler, Prince William County

See Attached.

Nancy Abeles, Bethesda, MD

The Visualize 2045 plan supposedly encourages a reduction in vehicle miles traveled but the proposed list of projects include several sprawl inducing routes that would do just the opposite, such as widening Route 15 in Loudoun as well as a Manassas Battlefield bypass. Concentrating future growth in areas with access to the metro would reduce vehicle miles traveled and help reduce greenhouse emissions. Thank you for your consideration.

Katherine Mcleod, Marshall, VA

With the urgency of the climate crisis, it is unacceptable for TPB to draft a transportation plan that fails to commit to the regional climate plan or that postpones this to the next plan update. The projects and other conformity inputs need to be consistent with TPB's own directive that: "...the TPB requires its member agencies to prioritize investments on projects, programs, and policies to reduce greenhouse gas emissions, prioritize the aspirational strategies, and achieve COG's land use and equity goals..." and that meeting greenhouse gas emissions targets "...will require a reduction in vehicle miles traveled and associated emissions in Visualize 2045." Public input for Visualize 2045 showed that 84% of the region's residents agree that "elected officials need to consider the impacts of climate change when planning transportation in the future." The survey results also showed that the region's residents want to walk and bike more, drive less, and support transit.

Wyatt Gordon, Richmond, VA

The plan for widening RT 15 is another patch for the currently overused Rt. 15. In a few years the road will again reach a new crisis level which will demand further piecemeal plans to allow more traffic to pass through Loudoun County. Instead of looking for ways to reduce traffic, this plan simply allows for spreading more traffic into more lanes. The current traffic flow has made for congestion and unbearable noise for the communities along this corridor. It is a speedway through existing neighborhoods and outlying homes. It will destroy existing open green spaces by encouraging new subdivisions, the consequent growth of nonessential businesses and continued destruction farming. It is another boon to developers and commuters with little thought for those of us who call Loudoun County home. Instead of imposing this plan that has little regard for climate or land use, find a long term solution that protects Loudoun County rather than destroying its pastoral heritage.

Karen Wallace, Leesburg VA

Do not widen this historic route. Expect reduction in auto travel due to remote work. Expect increase in electric vehicles.

Susan Pianck, Purcellville, VA

I strongly SUPPORT the the widening of Route 15 in Loudoun County north of Leesburg to the MD line and a Manassas area Battlefield Bypass. These projects are much needed to prevent wasted time and fuel losses from excessive traffic resulting from population increases that have been experienced and are projected to continue through 2045. I also strongly SUPPORT the inclusion of bicycle lanes along major commuter roads.

Gregory Prelewicz - Sterling, VA

Whose great ideas are these? The highway paving association? How much misery and expense do we have to bear? The way to take cars off the road is to expand Metro and other forms of public transportation. Most of this is horrendous and nothing short of criminal. But that's what we like these days, right? Criminals?

Anne Ziegler- Broad Run, VA

Rural residents are struggling to maintain the health and ambiance of their communities. Automobile exhaust is the major source of green house gasses which diminish air quality., and which many feel has contributed significantly to climate change in the form of rising temperature, more ferocious storms and flooding, long stretches of drought, and forest fires. As Loudoun continues to grow, mountain forests and quality soils are lost to concrete, traffic, housing (another producer of GHGs) and thus is losing the most natural ability to cleanse air and recharge groundwater. Loudoun is set to develop Rivana - a multi-use development on the border with Fairfax County, which keeps housing and development in the urban area....as it should. Please re-focus your efforts on plans which make use of existing public transportation lines and proximity to existing employers.

Margit Royal- Paris, VA

DON T WIDEN ROADS. Please find a greener plan So roads don t get wider and Loudoun co remains without too much development!

Julia Tayloe -Middleburg, VA

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Transportation Planning Board
Metropolitan Washington Council of Governments

Subject: Proposed Visualize 2045 Plan Update

The proposed Visualize 2045 update is totally unacceptable. It is essentially a repeat of TPB's 2018 plan and does not reflect the conclusions of the regional climate plan that COG adopted in 2020. With transportation the largest source of greenhouse gases and induced demand now an accepted reality, there must be a change of focus away from highway/road widening and perpetuating auto-dependent land use. Instead, investment and focus needs to be towards transit, biking and pedestrian improvements, and encouraging transit-oriented development around Metro and Purple Line stations. Also, TPB traffic growth modeling needs to reflect higher teleworking rates and not continue to use outdated 2014 patterns.

Proposed transportation projects that would be seriously damaging to the environment and people's health from increased pollution, that would perpetuate auto-dependent land use and sprawl, and therefore should not proceed include the following:

- adding lanes to the Capital Beltway & I-270 (CE3281, CE1182 and CE6432)
- widening Georgia Avenue to 8 lanes (CE2618)
- building the MD 83 Mid-County Highway extension (CE1245), and
- building the Montrose Expressway East (CE3703).

The replacement of the Governor Harry Nice Bridge on US 301 should proceed but it needs to be modified so that it includes the promised pedestrian and bicycle lane.

Two particularly valuable projects being planned that I hope will proceed are:

- BRT on MD 355 (CE3424), and
- BRT on US-29 so that it extends from Montgomery into Howard County, and is modified so that virtually the entire length of the BRT line runs on a dedicated lane.

In summary, TPB's draft plan needs to move away from its outdated auto-dependency model that has contributed to the high greenhouse gases and pollution problems the region is now facing. Instead, TPB needs to draft a climate-friendly plan that deletes highway and road widening projects and relies on more use of TDM, investment in transit, bicycle and pedestrian improvements, and creation of more walkable and bikeable transit-oriented communities around Metro and Purple Line stops.

Brian Ditzler

Living among highways in an urban area is like being constricted and separated by wide fast moving rivers of heavy vehicles whooshing by us: a constant threat to our peace of mind. And death to community life. You want to see MORE not less of this?? Ok, first we have to face the fact that auto traffic in any settled urban area will always be congested. To an extent. Some of the time. That is a fact of city life and a constant of urban living. Open roads are for open areas. In congested areas, the traffic will fill up whatever roads you build, no matter how often and how ridiculously, and painfully, they are expanded. To keep the congestion at a tolerable level, we have to draw cars off by offering alternatives which must be the best we can come up with. Stick with what we already have in the way of roads, and put all our money, energy, ingenuity and moxie into making those alternatives attractive to people. It is time right now for some 'better mousetrap' thinking.

Arlene Montemarano -Silver Spring, MD

Greetings! As you prepare the Visualize the 2045 plan and goals, please do have it be consistent with 2045 goals for reducing GHGs that are part of the COG plan. Siloing and having inconsistencies or outright differences in the overall plan will not be helpful, workable or address 2045 projected realities. Please do integrate the various goals with projected realities. Thank you, Rev. Dr. Jean Wright

Jean Wright - Fairfax VA

We can't wait another four years for another TPB plan update to address climate change and racial equity and I want my kids to grow up in a world that's different from the present.

Jennifer Whitlock- Alexandria, VA

Hello, I just read through the lists of projects in the proposed Constrained Element, and there seems to be a disconnect. There seems to be so much emphasis on equity, environment, and dense, strategic urban growth throughout the broader document, but the funding priorities put a dramatically higher emphasis on supporting personal vehicles over other forms of mass transit. If this is to be a visionary, aspirational plan for what movement around the DMV looks like in the next 25 years, there needs to be a rebalancing of priorities away from expanding freeways (which is factually and demonstrably ineffective at reducing traffic congestion) and toward modes of transportation that make added capacities on freeways unnecessary. Thank you.

Alex Freedman -Washington, DC

Once again you have brought forth a sick joke, especially if any part of it comes to fruition. We are in the midst of a climate crisis yet you come up with the same old shop worn "add driving lanes" solution. My solution is for you to get rid of your highway engineers, who know nothing but asphalt and concrete and hire some rapid transit folks.

John Fay – Wheaton, MD

The long-range transportation plan doesn't do enough to address climate change concerns, nor does it sufficiently adhere to the climate action plan COG recently adopted. We need real money to be thrown behind practical solutions that reduce VMT from mostly single-occupancy vehicles. Please try again.
Guilherme Vendemiatti – Washington, DC

I believe bicycle lanes are needed for the American Legion Bridge as, prefer to rebuild it with a flatter grade, stacked between 355 and 29 for 495 Teleworking needs to be made permanent is in climate change without unnecessarily endorsing any green new deal Federal workers on covid leave since March 2020 be given retirement automatically without having to travel to HR offices as they can be t add piped for local volunteer works in our parks system . Any widening of 495 in Montgomery county over Northwest Branch needs to have a connecting trail bridge as that trail can bypass rocks

Steve Warner - Silver Spring, MD

I wish to strongly protest the TPB Long-Range constrained plan's continued focus on new and wider highways. What happened to the TBP call to address climate change? This plan assumes nothing will change as we lurch over the climate precipice—and in fact speeds our descent. For example: in 2030 it widens Ga. Ave. to 6 lanes. In 2045 it builds M-83 and adds lanes to Mid-County Highway. And it endorses the highly destructive Hogan plan to pave over parks, homes, and businesses for tolled lanes on the beltway and I-270, the opposite of what is needed to reduce GHG emissions. The plan seems to exist in a time-warped, last century. Traffic reduction, not traffic promotion, should be our goal. Yes, I saw the page on transit projects, but the way to move ride share to transit and biking/walking is to produce rapid, reliable transit, bike lanes, and walkable communities. And REFRAIN from more road construction. When the roads are there, people will use them, and we all lose.

Anne Amble - Silver Spring, MD

I am concerned that Vision 2045 will fuel further sprawl in Maryland instead of shaping our communities around sustainable transportation that will prepare us better for climate change. Highway widening just leads to induced demand. I know my own tendency to hop in a car to get somewhere 10 minutes earlier than public transportation will get me there. I actually prefer to take transit, but to make transit and active transportation work better for me and other Maryland residents, our budgets need to reflect these priorities. Instead of making it easier to drive, we need to make it easier to use every other form of transportation, and our land use planning needs to follow suit. Please don't create more sprawl by temporarily making it easier to drive on highways! The gains for car commutes will disappear within a few years, but we'll be stuck with the sprawl for decades.

Moir McCauley - Mount Rainier, MD

Dear Council, Please do not build new roads. Please do not widen existing roads. You may spend funds to maintain the existing road network as it is. Building new roads unnecessarily urbanizes our rural treasures and promotes sprawl. Please be aware that I will not vote for or support any public officials who promote such policies. Thank You

David Berish - Hillsboro, VA

This plan flatly rejects not only the TPB Dec 2020 vote to “prioritize investments on projects, programs, and policies to reduce greenhouse gas emissions, prioritize the aspirational strategies, and achieve COG’s land use and equity goals” but also fails our region's goal of reducing climate emissions. It completely ignores the 84% of the region’s residents agreed with the statement that “elected officials need to consider the impacts of climate change when planning transportation in the future.” Like MoCo and DC, the TPB should reflect the region's climate change goals through focusing on public transit and active transportation, not prioritizing driver-oriented projects that will not in the long term reduce traffic and, worse, will lead to increased emissions. Montgomery County's doing it. DC's doing it. Come on, TPB. You can do it, too.

Evelyn Fraser – Washington, DC

Dear Chariman Allen, Transportation is the largest source of greenhouse gas emissions in the DC region (42%). So far TPB’s Visualize 2045 project list and planning assumptions do not commit to the transportation strategies in the COG's climate plan. Demand and adopt a better long-range transportation plan that addresses climate change! Move beyond the status quo! 84% of our region’s residents agreed that “elected officials need to consider the impacts of climate change when planning transportation in the future.” Good land use planning, affordable housing, and investments in walking, biking and transit are all successfully implemented strategies from Montgomery County’s bus rapid transit projects

to the moveDC plan update, transit-oriented development around the region, and many of TPB's own programs like Transportation-Land Use Connections. We know what to do to address climate change. Do it now!! We can't afford to wait another four years!

Evelyn Fraser

To Whom it may concern, The road widening elements of the draft plan are a travesty. They are will not achieve the traffic reduction goals they aim to achieve, and will make it much harder to travel by any other mode. A century of evidence has shown that road widening lead to increased car use and decreases in every other mode. By forcing all trips onto cars you are making travel more expensive for everyone in the region. These projects will exacerbate the current climate emergency. They will lead to more traffic deaths. They will make the region poorer as a result. If you plan for cars and traffic, you'll get cars and traffic. If you plan for people and places, you'll get people and places. These projects are for cars and traffic, and every time we've done this, it's exactly what we've got. I strongly urge you to remove these incredibly misguided road widenings & redirect the massive amount of money to truly effective transportation projects.

Jacob Mason – Washington, DC

Please concentrate the plan on rail and bus travel, not more roads for car travel. The roads are just going to fill up again in a handful of years anyway. We need to take increased telecommuting into consideration and encourage affordable housing near centers of activity. Urban sprawl forever is not sustainable and ruins quality of life.

Richard Johnson -Washington, DC

I kindly ask you to stop supporting new free roads. Let people pay tolls and see how much they really value all that pavement. Toll the existing roads and you'll see people decide to start carpooling and change the time of their trips to uncongested times (if the tolls vary with congestion as they do on I-66).

Daniel Marcin - Silver Spring, MD

As a cyclist who has survived one very serious crash with a vehicle several years ago, transforming our roads to reduce speeds and reduce the width of roads is very important for me among other safety measures. We can't wait another 4 years to act on climate change

and reduce our emissions. Transportation is the largest source of greenhouse gas emissions in the region (42%). The new and wider highways and arterial roads the proposed plan will fill up in as little as five years. They will fuel sprawl development, more driving, and more air pollution. The proposed plan takes us in the wrong direction on climate and fails to adapt to a changed region post-COVID that will see an expansion of telecommuting. We must take this opportunity post-COVID to re-imagine another transportation reality we need more transit for our essential workers, to redesign our streets to be safe for pedestrians and cyclists, and to recognize that increased telecommuting will reduce peak hour traffic

Jenn Pierson – Washington, DC

Please remove all road widening projects from the plan. Widening roads just induces demand and makes traffic worse. Road widening will also prevent our region from reaching its climate goals. Instead, please focus on public transport, biking, walking, and micromobility.

Zachary Weinstein - Silver Spring, MD

The recent pandemic has proven the limitations of spoke and hub public transit. Teleworking have given people the freedom to live wherever they most desire, and being forced to endure a crowded, noisy, unpleasant urban core is not a desirable option for most. Thanks to international pressure, electric vehicles are coming rapidly – the popularity of Tesla proves their potential, and the worldwide commitment to their use will soon make them economically practical and desirable. The "building roads creates congestion" assertion no longer applies, because the travel patterns of daily life will change radically. Please keep the critical funding for the critical highway funding in the plan. Please not yield the the obsolete "smart growth" proponents who only want funding for the areas where only they can afford to live. Don't force the rest of us to live in dense, unpleasant "activity centers." Your plan has balance, which is critical given recent priority shifts. Please keep it so.

Ronald Molinas - Vienna, VA

We desperately need a regional transportation plan that will start meeting our climate goals and this isn't it. The days where TPB can sit idly by stapling together highway expansion projects from the state DOTs has passed. TPB must exercise its approval powers and require plans from the DOTs that cut Vehicle Miles Traveled, enable low-carbon transportation modes like walking, biking & transit. New and wider highways and arterial roads fill up in as little as five years. They fuel sprawl development, more driving, and more air pollution. They take us in the wrong direction on climate, increasing emissions at a time

when transportation is already our #1 source. At the same time, we need more transit for our essential workers, to redesign our streets to be safe for pedestrians and cyclists, and to recognize that increased telecommuting will reduce peak hour traffic. We can, and must, do better.

Chris Slatt, Sustainable Mobility for Arlington -Arlington VA

I support projects that improve access for mass transit, pedestrians and bicyclists. I support more efficient use of existing roadway space – more throughput of PERSONS per road-mile, not more vehicle throughput. I support restriping of existing roadways for bicycles and pedestrians. I strongly oppose any road widenings for the increased throughput of single-occupant automobiles. I am against wider roads unless the new lane is designated solely for bus, trolley or high-occupancy vehicles. I am strongly opposed to the widening of the Beltway, I-270 and I-66. All of those roads are already wide enough and merely need to be better managed and regulated. I am opposed to any transportation projects that are not planned in close conformity with other land-use decisions such as housing, office space, retail, churches and parks. Thank you.

Peter Harnik – Arlington, VA

There are too many destructive unnecessary highway/road widening projects. The draft plan fails to commit to regional climate targets, to account for increased telecommuting, or consider adopted goals to focus 75% of jobs & housing in activity centers. New & wider highways & roads just fuel sprawl development, more driving, & more air pollution. They take us backwards on climate, & increase emissions when it's already our #1 source. We need more transit for essential workers; to redesign our streets to be safe for pedestrians & cyclists, & to recognize that increased telecommuting will reduce peak hour traffic. And, funding for toll lanes adjacent to non-toll highways, does NOTHING to help reduce the carbon footprint; it only helps those who can afford to drive on toll lanes. And these toll lanes are WAY underutilized, making their construction a waste of taxpayer money. Use tax revenue to fund energy SAVINGS, NOT for welfare for the rich & environmental destruction!

Douglas Sedon -Jefferson, MD

The transportation sector emits more GHGs than any other economic sector, which the Visualize 2045 plan itself acknowledges as an area of concern. Unfortunately, the plan only adds to the problems with American transportation infrastructure that have led to unsustainable GHG emissions. The plan calls for funding numerous highway projects, which will only fuel sprawl development and increase pollution while failing to reduce traffic long-term. It's also disappointing that the plan failed to commit to regional climate targets,

account for increased telecommuting, or consider adopted goals to focus jobs and housing in activity centers. I hope that the plan will instead invest more into bike lanes, sidewalks, and transit projects that can both address long-term traffic concerns and help us reduce transportation emissions. As someone in my early 20s, I will live with the disastrous consequences of climate change unless we act now. Please change the plan to address this reality.

Faaq Zarger - College Park MD

I feel that the proposed transportation funding for the region falls far short of reaching the climate goals outlined by both COG and member jurisdictions. Visualize 2045 should have much more funding priority set on much more ambitious and sustainable projects. Not the usual road widening which exasperates sprawl, car dependency and green house gas emissions. COG should put its money where its mouth is and actually set the region up to achieve its carbon targets.

Kevin O'Halloran – Washington, DC

For the last quarter century or so this area has lagged far behind in the need to build additional roads and increase the capacity of existing ones to match the increase in population over those years. We need not only the roads being proposed in this plan but more. Thanks for helping make this happen.

Lance Salonia – Washington, DC

This plan is set up to fail future generations and the region with a lack of response to climate change impacts. Expanding roadways only will bring more single occupant internal combustion engines to our roadways, increasing the heat emergency effects of summer (and starting to impact spring and fall already) and further contributing to the emissions of our area. Only conversion of existing lanes to HOV should be utilized in this plan, with a greater focus on smart access to multimodal options. The addition of toll roads once again increases the inequity in our country allowing the rich to throw some money at a problem, since their time is viewed as more valuable. How does this support vulnerable and low income communities that often have the longest commute times to minimum wage jobs? The federal government is getting serious about emission reduction targets by 2030, it is past time that this plan be reevaluated and course corrected.

Linda Toth – Washington, DC

Dear planning board, I'm concerned that the draft plan includes \$40 billion on road projects, which will further contribute to car culture, climate change, pollution and habitat destruction. A higher portion of the budget should be spent on public transportation and on making our communities more walkable and bike-able. Walking and biking are the most eco-friendly, affordable and healthiest ways to get around our area but we spend the least amount of money on them. I am a bike commuter (from Montgomery Co. to DC) and I see everyday how much more money needs to be spent in our area to ensure safety for walkers and bikers. Sincerely, Andrea Cimino

Andrea Cimiino – Kensington, MD

That's it. That's all I've got. We cannot widen our way out of traffic, and besides incentives for biking, walking, and bussing, there need to be disincentives against driving as well.

Kripa Parwardhan – Herndon, Virginia

It is wrong for COG to adopt a regional climate action plan and then turn around and draft a transportation plan that does not implement the climate plan. In the plan TPB should delete unnecessary road projects that will increase emissions and add in more local street and transit projects that create more walkable, transit-oriented communities. TPB must start reshaping our thinking about this with actions. Further, the region's transportation patterns have been changed by the pandemic and TPB should not assume that we will go back to business as usual now and in the future.

Donna Gold Alexandria Virginia

[Attached]
Nancy Abele Bethesda MD

This plan does not pursue the region's goal of reducing climate emissions, shamefully reverting to the status quo of driver-oriented projects that will not in the long term reduce traffic and, worse, will lead to increased emissions. The Council of Governments adopted a climate plan in 2020, and the TPB should reflect those goals by focusing on public transit and

active transportation, not spending billions to build and widen roadways serving single-occupancy vehicles.

Alexander Goyette – Alexandria, VA

As an individual member of Elders Climate Action DMV chapter living in Virginia , I say no to the long range transportation plan Visualize 2045. The proposed plan does not adequately address climate change, public transportation, bike and pedestrian lanes or racial inequality. It would destroy habitats of flora, fauna, and humans and add significantly to noise pollution. Thank you for providing this opportunity for individuals to comment,

Jan Greenberg - Arlington, VA

The current draft of Visualize 2045 deserves an F!

It misses the mark completely!

Please re-write it as follows --

1. Eliminate all highway and road/bridge projects (except maintenance).
2. Support investments in non-automobile options -- transit, pedestrian and bicycle infrastructure.

Perhaps you have not heard about the Climate Crisis. We need to reduce VMT per capita -- we can do so by emphasizing investments that will enable more folks to safely and conveniently get where they need/want to go without hopping in the car.

Perhaps you have not heard about the need to address social and economic inequities. Transportation investments can help move the needle here -- many lower-income persons do not have access to cars; and currently have to endure long frustrating commutes to jobs and other destinations. Upgrading transit will be especially important to the bottom half of the income pyramid.

I look forward to seeing the vastly improved revised Visualize 2045!

Sincerely,

David W Sears, PhD -Bethesda, MD

Hi there,

On behalf of JBG SMITH I'd like to "second" the input submitted by the Greater Washington Partnership (attached here for reference) regarding regional "run through" rail service. Converting our existing commuter rail systems into an effective regional rail network is hugely important to places like National Landing, as it will allow more people from the region to access jobs there by transit. We encourage you to include run through service in your Visualize 2045 update.

Thank you,

Jay Corbalis

Visualize 2045 is far too focused on prioritizing personal vehicles over transit, bikeways, and other low-impact, environmentally responsible travel modes. Repeating \$40 billion in highway and road widening projects from the last plan is a wasteful public investment. There is not one destination in the DMV that is challenging to drive to or park at. People who want to drive for their transportation are the most subsidized and have the most space while causing the most harm to other people and the environment.

If the plan was truly climate-focused, it would include strategies to reduce VMT. It would invest big in true networks of bicycle trails, cycleways, and regional transit. No more roads in the DMV should be widened.

Alexis Glenn -Alexandria, VA

I just wanted to write a quick comment pleading for walkable neighborhoods and energy efficient transportation planning. In addition to all the benefits of this, and all the ills of vehicle-focused planning, I'd like to point out how hard it is to transition to walkable neighborhoods once vehicle infrastructure is overwhelmed.

The Silver Line to Tyson's was supposed to be an effort to make the area walkable. It has been several years, and there is still such a long way to go. Last week I had to go to the Kaiser in Tyson's for the vaccine. I had no choice for an alternate site. I'd like for the planners to try walking that, just once. A long wait to cross a six lane road, to other intersections without a crosswalk at all. I'm just lucky it was decent weather. I have to go back for a second round.

Anyways, please plan for a sustainable future.

[Attached]

Eyal Li – Takoma, Park

Hello, this is Carol Milbord from Hamilton virginia, I'm calling to comment on just a couple of aspects of Visualize 2045. All the road extensions that you are planning for the outer suburbs are very bad for the climate. They are only going to increase the sprawl. I'm particularly talking about the manassas battle field bypass, route 15, and other road projects like that. We need to stop building all these roads. It only increases sprawl, increases the pollution, and increases the commute time. You need to put our money into Metro, bike paths, and things like that. But you gotta stop the sprawl at the outer suburbs.

Carol Milbord – Hamilton, VA

Comments from agencies/jurisdictions

TPB Comments I-270 and I-495 Managed Lanes Study Attached PDF – City of Rockville.

Attached PDF - Danielle Glaros, Prince George's County

Attached PDF - Arlington Chamber Of Commerce

Comments from non-profit organizations

Attached.

Sierra Club

Attached.

WABA

The Maryland Conservation Council, established in 1967 to conserve and protect our natural resources (www.mdconservationcouncil.org) calls on the TPB to fix the draft plan to address regional climate, equity and livability goals via one of two routes: 1. Model in the conformity process a climate-friendly plan in addition to modeling the business-as-usual project list. A climate-friendly plan would include travel demand management and land use strategies (including the regional housing targets), enhanced transit, pedestrian and bicycle improvements, and removal of many highway and arterial expansion projects, OR 2. Fix the current draft plan now, deleting the road widening projects

that will increase driving and emissions and adding in more transit and local street projects that create more walkable, transit-oriented communities. The pandemic and increasing work from home protocols need to be addressed, not 2014 practices. Thank you.

Maryland Conservation Council

Business" as usual will not bend the curve and start reducing greenhouse gas emissions. We need to plan for sustainable development. We need to prioritize transportation infrastructure that minimizes Vehicle Miles Traveled (VMT) and associated greenhouse gas emissions (GHG). Sadly, Prince William County continues to propose paving more lanemiles as the solution to traffic congestion. Experience since 1950 has proven that approach is futile. Widening VA-28 (Nokesville Rd) and VA-294 (Prince William Pkwy), and constructing the Route 28 Bypass/Godwin Drive Extended, would increase VMT and GHG emissions. They would subsidize continued sprawl, rather than focus growth in Activity Centers where we can build affordable housing together with affordable transportation. Remove those projects from the Visualize 2045 plan.

Prince William Conservation Alliance

Attached. –Citizens Against Beltway Extension

In the Soviet Union, workers often joked “they pretend to pay us, and we pretend to work.” The first half of that saying surely does not apply to the staff of the National Capital Region Transportation Planning Board (TPB), but I’m very worried that the second half does.

I’m referring to the proposed update to the “Visualize 2045” plan. When there’s a mandate to create a report, there are two possible staff strategies. One is working to produce a good-faith report that meaningfully advances the underlying goals at stake. The other is producing something that can be called a report, whether or not it advances or impedes the underlying goals.

The proposed revision of “Visualize 2045” seems to fall into the second category. While the Metropolitan Washington Council of Governments (COG) has set forth ambitious climate goals that it encourages all member jurisdictions to implement in all of their activities, its own agency, the TPB, is working at cross purposes to these goals in its “Visualize 2045” proposal.

This in spite of the fact that increased ambition was needed, since the previous iteration of the “Visualize 2045” plan, from 2018, did not adequately address the greenhouse gas (GHG) reduction targets of the member governments. While member governments set goals of 80% to 100% reduction of GHG emissions from 2005 levels by 2050, the 2018 TPB plan aimed to reduce them by just 23% by 2045.

And yet, the current iteration of the plan is almost identical to the 2018 plan, and TPB director Kanti Srikanth admitted in March that the currently proposed project list, like that of the 2018 plan, would not achieve the member governments' GHG reduction targets. Also like the 2018 version, the current "Visualize 2045" plan is heavy on road-building, and does not meaningfully reduce dependence on automobiles. In fact, new roadbuilding on the proposed project list is even promoted as being a way to reduce GHG emissions!

We are told that the TPB can consider only those projects that "can be implemented using revenue sources that are already committed, available, or reasonably expected to be available in the future." And yet, even though the new federal Administration is clearly bringing a government-wide focus on solving the climate crisis, the TPB apparently doesn't consider funding for much other than roadbuilding to be "reasonably expected to be available." This is dangerously shortsighted.

It is especially striking to compare the climate ambitions of the COG with the lack of climate ambition shown in the TPB proposal. As noted in COG's November 2020 "Metropolitan Washington 2030 Climate and Energy Action Plan" (see <https://www.mwcog.org/documents/2020/11/18/metropolitan-washington-2030-climate-and-energy-action-plan/>), the 2030 GHG reduction goals adopted by the COG Board of Directors on October 14, 2020 align with the level of effort called for by the Intergovernmental Panel on Climate Change (IPCC). Those interim climate goals, as set out in COG Board Resolution R45-2020, include:

- A climate mitigation goal of 50 percent greenhouse gas emission reductions below 2005 levels by 2030; and
- A climate resilience goal of becoming a "Climate Ready Region" by 2030, which means that "all local governments must assess current and future climate risks, and be actively integrating climate planning across government plans, operations, and communications."

In light of this commitment, it is particularly distressing that COG's own agency, the TPB, is apparently not "actively integrating climate planning" across its own "plans, operations, and communications."

In fact, the list of projects that are touted as promoting a reduction of GHG emissions include major projects to add two lanes in each direction to the Capital Beltway in Maryland, and to add two lanes in each direction to I-270. This in spite of the well-known fact that widening roads brings increased traffic.

In similar fashion, many of the other projects that involve constructing new roads or widening existing roads assert (at Question 32 of the Project Description Form), that the roadbuilding project will promote non-auto travel or reduce vehicle miles traveled (VMT), contrary to common sense and lived experience.

Question 32 also asks for the identification of "all travel mode options that this project promotes, enhances, or supports" (emphasis added), and yet many roadbuilding projects claim not to promote the "single driver" travel mode, but only things that might sound better. For example, we are told by Question 32 responses that:

- Widening Braddock Road from 2 to 4 lanes supports bus travel and walking, *but not single driver transportation*;
- Widening Loudoun County Parkway from 4 to 6 lanes supports bicycling, metrorail, and walking, *but not single driver transportation*;
- Widening Croson Lane supports bicycling and metrorail, *but not single driver transportation*;
- Widening VA 659 supports walking, *but not single driver transportation*;
- Building a new 4-lane road (Crosstrail Blvd.) supports bus travel and bicycling, *but not single driver transportation*;
- Widening Northstar Blvd. supports bicycling and walking, *but not single driver transportation*;
- Building a new 4-lane road (Marina Way) supports bus travel, walking, bicycling, and carpooling, *but not single driver transportation*;
- Building a new 4-lane road (Williamson Blvd.) supports bus travel, bicycling, and walking, *but not single driver transportation*; and
- Building a new 4-lane road (Observation Drive Extended) supports bus travel and walking, *but not single driver transportation*.

Not every roadbuilding project refuses to admit that it supports single driver transportation, but the extent to which this patently obvious selection is avoided suggests a deliberate pattern of obfuscation.

Obviously, something is seriously out of joint with the TPB process. As you know, among the roads that “business as usual” will build is the road to climate catastrophe. We all, at every level, need to be doing all we can to head off the worst effects of the climate crisis. This includes the TPB.

And that is clearly not happening with the TPB process, which seems biased toward business as usual, and endless roadbuilding.

The public expects better than this. According to TPB’s own survey of public sentiment, some 84% of the region’s residents want the plan to address climate change – significantly higher than the 69% who said that traffic congestion was a concern.

It is clear that the “Visualize 2045” process needs an immediate reset – unless the 2045 we are visualizing is one of climate disaster. There is no time left for relying on excuses and phony answers to continue business as usual. If we are to take action to address the climate crisis, we must actually take action, not just kick the can down the latest newly-built road.

“Visualize 2045” should help member jurisdictions, and all of us, to imagine a sustainable, equitable, healthy transportation future, not limit our vision to more and more roads.

To help bring forth a brighter, more optimistic vision, among the options I urge the Board to consider are:

- directing the staff to develop a “climate friendly” plan that can be considered as an alternative to the “business as usual” plan, and
- directing the staff to seriously revise the current plan (deleting road projects that will increase GHG emissions, and focusing more on transit and street projects that will make communities more walkable, with more transit options).

Thank you for the opportunity to comment on this important subject. I hope that you, and all the members of the Board, will act with the wisdom and courage needed to protect the interests of our great grandchildren, and of theirs.

Sincerely,

John Clewett
Co-lead, Lewinsville Faith in Action

Comments on the Transportation planning Board’s long range transportation plan Visualize 2045

The local chapter of Elders for Climate Action stand with other environmental groups, specifically the Coalition for Smarter Growth and the Sierra Club, as well as an overwhelming majority of Maryland residents in opposing the current long range transportation plan for failing to address the urgency of the climate crisis.

In spite of its own directive to prioritize equity, reduce vehicle miles, emissions and land use it’s proposed projects continue using outdated models to put its resources into highway widening projects that are at odds with regional and local policy goals on climate.

We support a plan that uses best climate friendly practices in land use and greater accessibility for pedestrian, bicycle and public transportation, and limits highway work to the essential.

Thank you,
Cathie Nelsen, member Elders for Climate Action DMV chapter

Attached.

Thank you for considering our concerns.

Barbara Coufal, Co-Chair
Citizens Against Beltway Expansion

Appendix B

**Information to support board action
on Visualize 2045:**

**TPB April Work Session Summary
with attachment from the Commonwealth of Virginia**



National Capital Region
Transportation Planning Board

MEMORANDUM

TO: Transportation Planning Board
FROM: Stacy Cook, TPB Transportation Planner
SUBJECT: Summary: TPB Work Session: Facilitated Review of Technical Inputs (April 21, 2021)
DATE: May 13, 2021

This memorandum summarizes the comments made by the members of the National Capital Region Transportation Planning Board (TPB) on the technical inputs for the update to Visualize 2045 and the Transportation Improvement Program (TIP) during the TPB's April 21, 2021 work session. This memorandum also summarizes the responses provided by TPB member agency technical staff and TPB staffs. The memorandum is organized into two sections, general comments, and project-specific comments.

INTRODUCTORY REMARKS

Welcoming members to the work session, board Chair Mr. Charles Allen noted the purpose of the session as additional time and an opportunity for members of the board to share, with board colleagues or staff, any comments they may have and to pose any questions that members may have on the new and existing projects in the plan to the transportation agencies. He noted that this review by the board members was happening concurrently with the review by the public.

He then asked TPB staff director, Kanti Srikanth, for an overview of the plan update process.

Responding to Mr. Allen's request, Kanti Srikanth explained the plan update process that the TPB is currently engaged in. Mr. Srikanth noted the following three points:

1. Timeline, Air Quality Conformity requirements and next steps: Per federal requirements, all elements of the long-range transportation plan must be updated at least once every four years. The last plan update was in 2018, the plan was then amended in 2020. The TPB must complete the next update in 2022. Since our region has not attained the federal ozone standards, we are required to complete a technical analysis, the air quality conformity analysis, before we can adopt an updated plan; the projects that are being reviewed now are those proposed to be included in the air quality conformity analysis; the TPB will be asked at its June 2021 meeting, to approve the inputs to the air quality conformity analysis.
2. Scope of changes during review period: During the session, board member discussion can include comments or questions not just on new projects OR the major changes proposed to projects already in the plan; board members can comment and question any and all projects that are in the plan even those with no proposed changes in this update. Members can provide their own perspectives on how the projects support the goals and policy priorities, noting that the board has a comprehensive set of social, economic and environmental policy priorities. While the board could act to remove projects from the list that goes into the analysis, the board will not be

able to make changes to a project or add projects without the agreement of the agency responsible to build, operate, maintain and fund the project.

3. Opportunities for continued plan updates: While the federal requirement is for an update every four years, it does not preclude more frequent updates to the plan. Should the TPB desire to do so either through amendment OR an update; such a decision to amend or update the plan could be triggered by substantive changes in funding, the project mix, demographic data or other factors affecting the region's long-range transportation plan and programs.

Stacy Cook, Transportation Planner provided a background with key considerations as to the process requirements and established policy priorities of the board. The presentation materials and comment period packet discussed by the board during the work session can be found on the April TPB meeting page: <https://www.mwcog.org/events/2021/4/21/transportation-planning-board/>

GENERAL COMMENTS

During the April 21 work session, members of the board provided advice to staff as well as comments and observations about the technical inputs:

Advice to and questions for staff:

- Members of the board noted that in their review of the comment period materials, some of the responses to the regional policy questions (as documented in the final December 2020 Technical Inputs Solicitation) appeared incomplete. They asked for more complete responses to these questions. For example, some board members noted some of the narrative responses requested in the solicitations (34b, 40b, 44a and 44b), which they considered as required, were not complete. They advised staff to work with the technical members to complete these questions. Some members noted that it was their responsibility to execute the process, diligently follow their own procedures, and that if they were to vote, they needed complete information.
 - **Response:** *TPB staff have been working this spring to update responses for all capital projects in the plan, including existing projects. They will work with technical staff in the region to address the board member comments on the completeness of the responses for both proposed and existing projects.*
- A board member noted that activity centers are out of date, and inquired as to how we get new designations for activity centers?
 - **Response:** *TPB Director Srikanth noted that the activity centers noted in the solicitation process are regional activity centers that was developed by COG. He said that the process to develop the criteria and establish the existing 141 regional activity centers took about two years, and indicated that there are not plans at COG or TPB to update those at this time, but when they are updated, criteria could be revisited. He noted, however, adopting a set of regional activity centers by COG does not preclude local jurisdictions identifying their own activity centers that serve the local community and economy.*
- In response to a question to Director Srikanth about the policy questions in the Technical Inputs Solicitation, he asked board members to clarify if they were looking for quantitative or qualitative information, members clarified that they were looking for completeness in the responses the questions (32-45).

General observations and comments

Topic: land use:

- Board members noted that places have different needs based on land use and local context. For example, outer jurisdictions do not have mass transit available nor the land use densities to support making a major investment in it. They noted that the outer jurisdictions have different needs, context, and issues to consider than those of the core and inner suburbs and noted that transit demand in these areas is generally for commuters. Members pointed out that when considering TPB policy priorities as well as local needs, there is not a one-size-fits-all approach.
- Some board members noted the relationship between land use, equity, and transportation options, commenting that housing is expensive near transit stations and that many people in the workforce rely on other modes of transportation in addition to transit.
- Other board members noticed that while land use has implications for transportation needs, transportation projects also impact land use form and development, and therefore impact future transportation demand.

Topic: Climate change mitigation, greenhouse gas and VMT reductions:

- Some board members noted a need for an aggressive approach to reduce greenhouse gasses and mitigate climate change. Others noted an interest in the quantitative VMT impacts of projects and the related GHG impacts. Some members suggested we need to look at the individual projects.
 - **Response:** *Some technical staff from the region responded by saying that most projects are typically developed based on best practices in the industry and the benefits that can be expected by project type.*
- A board member asked about how projects were evaluated as a whole for Virginia. Another board member (from VDOT) noted that quantitative VMT and GHG reduction assessments are not conducted for many projects, especially when in the early planning phases, adding that these may be done for larger and more developed projects as part of the National Environmental Policy Act (NEPA) review process (please see supplemental information provided by the Commonwealth of Virginia staff that follows this memorandum). Noting that the update to the VTrans long-range plan was underway, a member noted that VDOT staff can see if those conducting VTrans have done that type of analysis. Noting that for the evaluation of projects as a whole, VDOT looks to TPB to conduct the regional analysis, Director Srikanth was asked about the regional/systemwide analysis on greenhouse gas reductions for the updates of the long-range transportation plan:
 - **Response:** *Director Srikanth noted that for many years, for each update and amendment to the long-range transportation plan and Transportation Improvement Program (TIP), the greenhouse gasses analysis of all projects as a set has been conducted by staff and reported to the board.*
- Some members sought a complete response beyond a yes/no answer (question 40a) regarding the greenhouse gas (GHG) impacts of individual projects, preferably quantitative analysis but at least complete responses (question 40b asks for an explanation).
- A number of other board members commented that while there is an effort to reduce or limit road projects, major transit investments are not an option everywhere, and that allowing additional congestion to cause delay by not completing road projects to reduce congestion will likely result in more harmful emissions, not less. In regard to the merits of having roadway projects, some board members noted that having the traffic moving, rather than idling, is important to minimize emissions. Supporting this comment, some members noted that there will be a continuing need for roadways based on the demand for use of personal vehicles, which are increasingly 'greener' and less reliant on petroleum products.

- Some board member commented that in some locations in the region, there may be a need for roads and roadway projects as areas urbanize. Others reflected that if a project does not reduce greenhouse gas emissions, it may still provide benefits, acknowledging that there may be instances where a project that does increase the VMT and greenhouse gas emissions may also be necessary to address other priorities. One project discussed in this discussion was the Loudoun County, US-50 North Collector, which is a new road that would project connectivity, not only for vehicles but also for transit, and bicycles and pedestrians. Members of the board noted that it needed information about VMT and GHG reductions. Representatives from the county noted that while this information has not been studied, the project has been assessed by a consultant and is expected to significantly alleviate congestion, which can help to reduce emissions from idling in congestion.
- Some board members referenced concerns about induced demand from roadway widening projects. Others noted that it would be helpful to have information about what types of demand-management strategies are considered before widening a roadway.

Topic: Balanced Transportation Network

- Several board members noted that the region has faced considerable congestion, and that many board priorities and discussions have focused on addressing that issue. They noted that some transportation system improvements are needed for that reason and that the discussion doesn't need to be a choice between transit and roads. Some members noted that the focus should be on looking at the transportation system as a dynamic multimodal network, with travel demand management continuing to be an important and important goal to grow.
- Some board members reflected that today, most the projects are multimodal. The large projects have various strategies to reduce the VMT such as travel demand management or transportation management plans.

QUESTIONS RECEIVED BY EMAIL REVIEWED DURING THE MEETING

Questions provided by email from TPB Board Member, Ms. Kelly Russell; responses provided by TPB Staff.

1. **There are some very large road projects in here. Will there be any indication as to whether road projects are on net harmful to our pollution, climate, and safety goals?**
 - **TPB Staff Response:** *The TPB's regional air quality conformity analysis will provide an estimate of ozone related emissions and greenhouse gases (GHGs) in future years that the region can expect with all of the proposed roadway and transit improvements projects in the constrained element of the plan and the assumed future land use. This estimate, however, cannot be conducted for each individual project in the plan. Rather it will be one estimate of the collective effect of all 500-plus roadway and transit projects that are reflected in the analysis, along with the projected growth in the 23 member jurisdictions covering the TPB's Planning Area (more than 3,500 sq. miles).*

Typically, large projects are required (by state or federal processes) to conduct a project-level planning analysis. The TPB member agencies conduct such studies and they would be able to provide information on the net impact on pollution or safety. We know, for example, that the

Commonwealth of Virginia has a process where projects requesting state or regional funds have to show how the project performs across a set of metrics.

(The tools we have are good at large regional level and often times impacts of individual projects are not clearly seen with these tools. There are other tools available and used to evaluate individual projects at a closer level, we do not have these ready or the staffing resources to do this).

2. **Are projects that improve walking and bicycling access to transit subject to any additional quality check? A new unprotected bike lane on a 45 mph, widened road does not improve access.**
- **TPB Staff Response:** *At the TPB as part of its process there are two checks that are done for all projects, not just for walk/bike projects – these are at a high level and not an engineering and design level. The first check we do is funding: before we add the project to the Transportation Improvement Program, we work with the agencies to determine that funding is available and commitment or reasonably expected to be provided. The second check we do is ask would this project change the roadway capacity – by taking away a lane for example, and if so then we will have to include the project in our air quality conformity analysis.*

Any checks about the engineering design of facilities or safety features are not typically reviewed by the TPB. If a member brings a project that is either in the TIP or proposed to be added to the TIP which perhaps is not supportive of the TPB's policy priorities, then the TPB would write to the agency and could even withhold adding the project to the TIP (which is needed for the project to access any federal funds). The TPB has said that protected bike lanes provide the most safety, especially on major roadways and encourages member jurisdictions to pursue this.

PROJECT-SPECIFIC COMMENTS

Comment: TPB Chair Allen asked about the the H and I Street bus lanes, looking for information as to how or in what ways DDOT has estimated or produced evidence that shows the impact of the project on VMT and greenhouse gas emissions.

- **DDOT Response:** *Megan Kanagy, the Bus Priority Program Manager for DDOT, responded that DDOT is not doing any technical analysis to estimate the greenhouse gas emissions or VMT reduction as a result of bus priority projects, specifically. She noted that that is beyond the scope of what the agency typically does. DDOT knows from best practices that projects such as these are part of kind of overall effort to shift people to taking transit by making transit faster and more reliable.*

Mr. Allen followed up to clarify that for bus priority lanes, there is a foundational theory behind it, as to being able to move more people on bus transit. He then asked to confirm that there has not been an analysis of mode shift resulting from DDOT making transit more efficient and a better experience, thereby reducing VMT compared to if people had chosen to drive solo occupancy vehicles or carpooling.

- **DDOT response:** *Ms. Kanagy confirmed that DDOT has not conducted that specific analysis for this project. She noted that H and I Street has existing lanes from the pilot study and that this project is an upgrade to that design based on what was learned during the pilot period to help*

make it work better, such as reducing the lanes from right-turning vehicles, and providing a second bus lane in a couple locations where buses had been laying over in the curb lane. She further responded as to the data availability that for H and I Street: the analysis that DDOT has (pre-Covid) was showing travel time benefits about 10 percent across different times of day, with low investment cost – mostly paint. She noted that DDOT will be working with WMATA to analyze how this new design is working and could possibly provide some estimates. While that detailed modeling for D.C.-specific projects has not been done, DDOT certainly look into future monitoring as similar types of improvements are implemented.

- **DDOT Post-Meeting Follow-up Response:** in the DDOT Regional Policy Response summary tables, DDOT provided additional follow up to this question regarding H and I street bus lanes estimated impacts on GHG (question 40b): This project will improve transit speeds and reliability and reduce SOV emissions through increased bus ridership. WMATA's analysis of the pilot lanes on these roads found that travel times fell an average of 10% and DDOT anticipates further time reductions with the improved designs. DDOT also references the [findings of New York City](#), which found ridership gains of 10% - 20% in instituting its Select Bus Service program.

Comment: Mayor Newton of Rockville, Maryland, provided the following comment on the I-495 / I-270 Express Lanes project. This project was included in the 2018 update of Visualize 2045 and MDOT has proposed additional changes for the current update of Visualize 2045: The City of Rockville has unanimously voted against this project even with the modifications and requests the TB do the same. The City, along with the County Council, will be sending a letter shortly regarding that. The project, even with the modifications puts additional burdens on the city of Rockville, noting the 3 bridges the City owns over I-270, the taking of one general purpose lane, the high tolls, including perhaps 7 dollars a mile for trucks, and the impact on local streets especially from those trying to get around a blockage on the managed lanes. The City does not believe the project responds to COG's goals of quality, air quality, greenhouse gasses, or social justice noting that the project creates inequity with only have one free lane from I-370 South. Additionally, the project doesn't provide transit option from Blacksburg I-370 north to I-70.

- **MDOT Response:** Regarding transit and the TRP: We are working with all stakeholders, including Frederick, Montgomery, and Prince George's County on incorporating transit. Our transit working group, was started in May of 2019. To inform the discussions of this working group, MDOT is including an analysis of what I-270 could potentially look like with community bus service, connecting Frederick County all the way to Tyson's, Virginia. Those are ongoing discussions that we're currently having with representatives as part of this project. If it does move forward with the build alternative, we would dedicate a portion of the total revenue to transit service improvements. Those will be finalized and P3 section agreement. That's currently scheduled for 2022.



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

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May 11, 2021

Overview of VDOT Environmental Stewardship Initiatives

This summary is in response to a request at the April 21 TPB work session on Visualize 2045 for a summary of VDOT's efforts to address climate change and mitigate greenhouse gas production. Environmental stewardship is a focus across the Commonwealth of Virginia, and VDOT and DRPT are playing a major role. Throughout the state, environmental stewardship is integral to what we do.

Virginia's Commitment to Environmental Stewardship

Climate change and air quality are prominent in the Commonwealth's plans and policies. The Commonwealth's commitment to air quality is illustrated by the recently enacted Executive Order 43 and SB 851. Executive Order 43 is intended to ensure that the modernization of Virginia's electric grid is done in a way that prioritizes carbon free sources of electricity to reduce our environmental impact and mitigate the impacts of climate change.

(<https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-43-Expanding-Access-to-Clean-Energy-and-Growing-the-Clean-Energy-Jobs-of-the-Future.pdf>).

Similarly, The goal of SB 851 (<https://lis.virginia.gov/cgi-bin/legp604.exe?201+ful+SB851>) is 100 percent carbon-free electric energy generation by 2050 at least cost for ratepayers. VDOT's top transportation leaders discussed environmental stewardship, including greenhouse gas mitigation and resiliency in the face of climate change, at the April 20, 2021 Commonwealth Transportation Board Meeting. This discussion begins 39 minutes into this video:

https://www.youtube.com/watch?v=ETjpTT26su0&list=PLw3yV1Midq46Z8a_MUzfEigR15h9L4CCy&index=1

Transportation Agency Efforts to Protect and Improve Air Quality

On the transportation front, VDOT and DRPT are involved in a wide range of environmental stewardship initiatives ranging from littering abatement to groundbreaking planning and research involving climate change mitigation and resiliency. We are also preparing for a clean energy transportation fleet and automated/connected vehicles.

Greenhouse Gas Mitigation Planning and Projects

Greenhouse gas mitigation is one of the environmental areas the Commonwealth is focusing on. VDOT is a national leader among state DOTs in developing assessment techniques for air quality and greenhouse gases. VDOT is preparing a Statewide Planning Level Greenhouse Gas Analysis that includes a mobile source inventory of highway, transit, and rail emissions for a base year and

the 2040 build and no-build scenarios. This will include operational (tailpipe), construction and maintenance, and fuel cycle emissions. VDOT is currently scoping a GHG Pilot Project that will include a quantitative GHG analysis of the I-95 Corridor between the Springfield Interchange and Fredericksburg. The Southern Environmental Law Center is assisting with scoping. Both of the above studies will help inform ways that VDOT can better address GHG and climate change in project development and funding.

This focus is not limited to policies and planning, as VDOT and DRPT fund or implement a number of transportation initiatives designed to improve air quality and mitigate climate change. These include bicycle and pedestrian projects, travel demand management (TDM) programs that seek to reduce the amount of commuting in single-occupancy vehicles, and investment in electric vehicles and charging infrastructure. Additionally, DRPT distributes funding to transit agencies and the Commonwealth, along with Maryland and DC, provides substantial funding to WMATA. This funding was increased significantly two years ago. Virginia localities also provide funding to WMATA.

Multi-Modal Projects

It is important to note that VDOT and DRPT, along with our local government partners, prioritize multi-modal projects, intelligent transportation systems and operational improvements in the Virginia planning and funding process. This multi-modal approach, coupled with coordination of transportation and land use planning and far-sighted advance preparation for advanced transportation technologies.

“Mega Projects”, such as I-66 Inside and Outside the Beltway, exemplify this approach. . The Demand for travel in the I-66 corridor will only continue to grow, but the two mega-projects are accommodating this demand through a multi-modal approach that dis-incentivize single occupant vehicles and provides transit, bicycle and ridesharing alternatives. These projects are using variable congestion pricing, technology, travel-demand management programs and new transit services to focus on moving more people rather than more cars. Some of the tolls from these projects will fund new transit services administered through the Northern Virginia Transportation Commission. I-66 outside the Beltway was designed to not preclude future Metrorail extensions, and a network of park-and-ride lots are being provided. A new separated bike and pedestrian trail are being funded along I-66 Outside the Beltway, and new bike/pedestrian improvements are being provided as part of the I-66 Inside the Beltway project.

VDOT and DRPT oversee hundreds of smaller projects, and these projects are subject to official state policies requiring provision of pedestrian and bicycle accommodations. Virginia’s performance based project selection program, Smart Scale, heavily incentivizes projects which provide bicycle/pedestrian accommodations, transit connections, operational improvements rather than capital intensive road widening, and careful consideration of land use impacts of transportation projects.

Under state law, comprehensive plan amendments and major rezoning cases must be submitted to VDOT’s Land Development staff for review by VDOT and DRPT so that land development and transportation are planned in a coordinated manner. DRPT has developed Multimodal System

Design Guidelines (http://www.drpt.virginia.gov/media/1055/drpt_mmsdg_final_full.pdf) which encourage provision of transit, bicycle and pedestrian accommodations as central features of new walkable, transit oriented neighborhoods, districts and corridors. VDOT is authorized to waive certain dimensional standards for roadways in areas covered by these plans so that the limited rights of way can accommodate alternative transportation modes.

Planning for Resiliency

VDOT, along with regional and local agency partners in the state, have already engaged in efforts to plan for resiliency. As part of the development of VTrans, Virginia's Long Range Transportation Plan, the Office of Intermodal Planning and Investment undertook a vulnerability assessment. Initial work for this assessment conducted in 2019 established a definition of climate change vulnerability and resilience for the agency; created a draft vulnerability assessment methodology to score the state's transportation assets based on exposure, sensitivity to climate change, and adaptive capacity; and performed a review of Virginia's transportation vulnerability assessments. The Office is working to refine the indicators and weighting approach as needed, finalize remaining data collection, and produce a vulnerability rating for each segment of the National Highway System and for each bridge under the state's jurisdiction.

Appendix C

**Information to support board action
on Visualize 2045:**

**Conformity Input Tables
updated based on Inter-agency review**

Draft, March 2022 **2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS**
(transit)

DRAFT 5/12/2021

ConID	Scenario	Improvement	Facility	From	To	Projected	
						Complete	PIT Project ID
DDOT							
613	DCSTHST2	Construct	Benning Road Streetcar Extension	Oklahoma Avenue NE	45th Street/Benning Road Metro	2023 2026	5754
793	WATEREXT	Implement	DC Circulator Expansion	Navy Yard Route Realignment	36th St.	2018 Complete	6103
794	UHOWEXT	Implement	DC Circulator Expansion	Rosslyn to Dupont Circle Route	Extension to U St./Howard University	2018 2026	6103
		Implement	DC Circulator Realignment	Potomac Ave.	Skyland	2018 Complete	6103
822	HIBUS	Implement	H St. NW Peak Period Bus-Only Lanes Pilot Project	19th St NW	14th St NW	2019 Complete	CE3196
823	HIBUS	Implement	I St. NW Peak Period Bus Only Lanes Pilot Project	13th St. NW	Pennsylvania Ave. NW	2019 Complete	CE3196
		Construct	K St. NW Transitway	9th St. NW	21st St. NW	2024 2025	CE3081
610	DCSTGTWN	Construct Implement	Union Station/Georgetown Streetcar	K Street/34th Street NW	3rd Street/H Street NE	2030 2040	CE3081
989		Implement	16th St. Bus Priority Improvements	H St. NW	Arkansas Ave NW	2020 2022	6638
		Implement	H St. and I St Bus lanes Phase 2	13th St. NW	Pennsylvania Ave NW	2021	3212
7823		Study	7th St. NW Bus Improvements	Massachusetts Avenue	Pennsylvania Ave.	Not Coded	3212
7835		Study	H St. NW Bus Improvements	14th St. NW	North Capitol St.	Not Coded	3212
7834		Study	Minnesota Avenue SE Bus Improvements	Pennsylvania Avenue SE	East Capitol Street	Not Coded	3212
10614		Study	MLK Ave SE Bus Improvements	Good Hope Road	Redwood Street	Not Coded	3212
MDOT/MTA							
617	MARCFRQ	Implement	Brunswick Line Service Improvements			2029	CE3427
618	MARCFRQ	Implement	Camden Line Service Improvements			2029	CE3427
481	CCTBRT	Construct	Corridor Cities BRT	Shady Grove	Comsat	2028 2035	CE1649

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DRAFT 5/12/2021

ConID	Scenario	Improvement	Facility	From	To	Projected	PIT Project ID
						Complete	
619	MARCFRQ	Implement	Penn Line Service Improvements			2029	CE3427
479	PURPLE	Construct	Purple Line Transitway	Bethesda	New Carrollton	2020 2023	2795
480	SSTCTR	Construct	Silver Spring Transit Center	Phase II		2017 complete	
Montgomery County							
669		Study	Countywide BRT	various corridors		Not Coded	
	RANDBRT	Implement	Randolph Road BRT	US 29	MD 355	2040	CE3662
5062	NBETHBRT	Implement	North Bethesda Transitway BRT	Montgomery Mall Transit Center	White Flint	2035 2030	CE3663
	MD355BRT	Implement	MD 355 BRT	MD 410 East-West Highway	Clarksburg Rd.	2045 2030	CE3424
	VEIRSBRT	Implement	Veirs Mill Road BRT	MD 355 Rockville Pike	MD 97 Georgia Ave.	2030 2025	CE3103
982	NHBRT	Implement	New Hampshire Ave. BRT	Colesville Park and Ride	Takoma Metro Station	2045	CE3672
	29BRT	Implement	US 29 BRT	Burtonsville	Silver Spring Transit Center	2020 Complete	CE3423
483	MCT7	Construct	Olney Transit Center	adjacent to or north of MD 108		2045	CE1249
487	TIGERVEIR	Construct	Veirs Mill Road Bus Enhancement	Rockville	Wheaton	2020 2021	CE1253
VDOT							
1028		Construct	Long Bridge	Control Point RO (Arlington) Rosslyn (RO) Interlocking near Long Bridge Park in Arlington, Virginia	L'Enfant (LE) Interlocking near 10th Street SW in the District of Columbia	Not Coded 2030	
3680		Construct	VRE 4th Track Project	L'Enfant Interlocking	Virginia Interlocking	2028	CE3758
1029		Construct	Alexandria 4th Track Project	Control Point Rosslyn (CFP RO) near milepost 110.1 south of the George Washington Parkway	Control Point Alexandria (CFP AF) near milepost 104.3 south of Telegraph Road	2025 2028	

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ConID	Scenario	Improvement	Facility	From	To	Projected	PIT Project ID
						Complete	
1030		Construct	Franconia to Occoquan 3rd Track Project	One mile north of the Franconia-Springfield VRE station (CFP 98.8)	Approximately 400 feet north of Furnace Road, just north of the Occoquan River (CFP 90.08)	2028	
		Construct	Broad Run Expansion- 3rd Track Project	Broad Run	Manassas (Wellington Road)	2025	CE2420
504	VREFREQ	Implement	VRE Service Improvements (Reduce Headways) - associated with 3rd and 4th Track Projects	Fredericksburg and Manassas lines		2028 2035	CE2832
795	US1VABUS	Widen	US 1 (bus/right-turn lanes)	VA 235 North	SCL Alexandria (I-95 Capital Beltway)	2035	CE1942
861		Construct	Crystal City Transitway: Northern Extension - complete dedicated lanes	Crystal City Metro Station	Army Navy Drive Transit Station (Army Navy Dr halfway between Hayes St and Joyce St)	2022	CE3521
	MWAYEXT2	Construct	Crystal City Transitway: Southern Extension - complete dedicated lanes	South Glebe Road	Alexandria city line	2025	
	MWAYROW	Construct	Crystal City/Potomac Yard Transitway-realign with dedicated right-of-way	East Glebe Road	Evans Lane	2030	
677		Study	US 1 Corridor Streetcar Conversion	Four Mile Run	Braddock Road	Not Coded	CE2685
489	POTYDS	Construct	Metro Station	Potomac Yard		2024 2022	CE3013
493		Construct	Park-and-Ride Lot-Garage	Springfield CBD	vic. I-95 & Old Keene Mill Road	2022 2023	CE2188
670		Construct	Park-and-Ride Lot	Dulles Town Center	300 Spaces	2014 2019 complete	CE2871
499		Construct	Park and Ride Lot	Arcola Center 300 spaces		2015 2024	
503	SILVER 2	Construct	Dulles Corridor Metrorail	Wiehle-Reston East Station	Ashburn Station	2020 2022	CE1981

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ConID	Scenario	Improvement	Facility	From	To	Projected	PIT Project ID
						Complete	
1018	SILVER 2	Construct	Park-and-Ride Garage	Herndon-Monroe Station		2020	CE3700
1019	SILVER 2	Construct	Park-and-Ride Garage	Innovation Station	2000+ parking spaces	2020	CE3700
629	POTSHRS	Construct	VRE - Potomac Shores Commuter Rail Station	Potomac Shores	Prince William County	2020 2022	CE2831
505	VANDBRT	Construct	West End Transitway (City Funded)	Van Dorn Street Metro	Pentagon & Landmark	2026 & 2035	CE2930
1034	VANDBRT2	Construct	West End Transitway Phase II (Southern Segment)	Van Dorn Street Metro	Landmark Mall	2026	CE2930
507	NRS	Construct	Landmark Transit Center	Duke Street and Van Dorn Street		2023	CE3071
508	ALEXBUS	Implement	DASH Service Expansion	citywide		2020 2030	CE2933
820	BELTHOT	Implement	Beltway HOT lanes transit service			2020	
821	BELTHOT	Implement	Beltway HOT lanes transit service			2030	
509	DUKEBUS	Construct	Duke Street Transitway	King Street Metro	Fairfax County Line	2024 2027	CE2932
672		Construct	Leesburg Park and Ride Lot (new location)	Crosstrails Blvd (approx)	300 Spaces	2018	CE2695
673		Construct	Sterling Park and Ride Lot		200 Spaces	2014 2019 complete	CE3357
674		Construct	One Loudoun Park and Ride Lot	VA 7 & Loudoun County Parkway	200 Spaces	2019	
675		Study	Western Loudoun Park and Ride Lot		250 Spaces	Not Coded	CE3359
797	I66HOTI	Implement	I-66 Corridor Enhanced Bus Service (details shown with project description sheet)	Inside the beltway		2025	CE3484
798	I66HOTI	Implement	I-66 Corridor Enhanced Bus Service (details shown with project description sheet)	Inside the beltway		2030 2040	CE3484
799	I66HOTO	Implement	I-66 Corridor Enhanced Bus Service (details shown with project description sheet)	Outside the beltway		2024 2022	CE3448
800	I66HOTO	Implement	I-66 Corridor Enhanced Bus Service (details shown with project description sheet)	Outside the beltway		2025 2030 & 2040	CE3448

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(transit)

DRAFT 5/12/2021

ConID	Scenario	Improvement	Facility	From	To	Projected	PIT Project ID
						Complete	
801		Construct	I-66 Corridor Park and Ride lot	Haymarket		2021	CE3448
802		Construct	I-66 Corridor Park and Ride lot	University Blvd. in Gainesville		2021	CE3448
803		Construct	I-66 Corridor Park and Ride lot	Balls Ford Road in Manassas		2021	CE3448
804		Expand	I-66 Corridor Park and Ride lot	Prince William Pkwy (Cushing Rd)		2021 2040	CE3448
806	NRS	Construct	I-66 Corridor Park and Ride garage	Monument Drive	garage replaces surface lot	2021 2023	CE3448
808	US1BRT	Construct	Bus Rapid Transit (BRT)	US 1 Richmond Highway	Huntington Metro to Hybla Valley to Ft. Belvoir to Woodbridge VRE	2030	CE3496

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS (highway)

PIT Project ID	Con ID	Project ID	Agency ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
CE2860	605	DI9		Reconstruct	I 295 Interchange at Malcolm X Blvd.	Add above grade ramp connection from NB I-295 off ramp to new St. Elizabeth's Access Road						2020 2022
CE2813	604			Construct	F Street NW	2nd Street NW	3rd Street NW			0	2	2018 2019 Complete
3423	541	DP9A	AW011, AW024 A, AW001 A, AW025 A, CKTB6	Widen	South Capitol Street Corridor: Frederick Douglas Bridge	Independence Avenue (East)	Martin Luther King, Jr. Blvd. (west)	2	2	5	6	2021 2025
5803	542	DP9C		Construct	South Capitol Street Intersection	at Potomac Avenue						2021 2022
6038	543	DP9D		Construct	Suitland Parkway interchange	at Martin Luther King, Jr. Boulevard to complete movements						2021
CE3196	582	DS27		Reduce Capacity	H St. NW Peak Period Bus-Only Lanes Pilot Project	19th St NW	14th St NW	3	3	5	4	2019 Complete
CE3196	583	DP38		Reduce Capacity	I St. NW Peak Period Bus Only Lanes Pilot Project	13th St. NW	Pennsylvania Ave. NW	2	2	4	3	2019 Complete
3212	11116			Reduce Capacity Bus Lanes	H Street NW	Pennsylvania Ave	Connecticut Ave	2	2	4	3	2021
3212	11117			Reduce Capacity Bus Lanes	H Street NW	Connecticut Ave	Vermont Ave	2	2	4	2	2021
3212	11118			Reduce Capacity Bus Lanes	H Street NW	Vermont Ave	15th Street	2	2	4	3	2021
3212	11119			Reduce Capacity Bus Lanes	H Street NW	15th Street	14th Street	2	2	3	2	2021
3212	11120			Reduce Capacity Bus Lanes	I Street NW	13th Street	14th Street	2	2	3	2	2021
3212	11121			Reduce Capacity Bus Lanes	I Street NW	16th Street	Connecticut Ave	2	2	3	2	2021
3212	11122			Reduce Capacity Bus Lanes	I Street NW	17th Street	18th Street	2	2	3	2	2021

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS (highway)

PIT Project ID	Con ID	Project ID	Agency ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
3212	11123			Reduce Capacity Bus Lanes	I Street NW	19th Street	20th Street	2	2	3	2	2021
CE3077	558	DP42	ED0C2A	Reduce Capacity	C Street/N. Carolina Avenue	Oklahoma Avenue	14th Street NE			5	3	2020 2022
6315	567	DP16		Reduce Capacity	East Capitol Street	40th Street	Southern Ave			6	4	2021
CE3075 6014	585	DS6		Reduce Capacity	Maryland Ave. NE	6th St. NE	15 St. NE			4	2	2019 2021
CE3399	608			Reconstruct	New Jersey Avenue NW 1-way to 2-way	H Street NW	N Street NW					2020 2021
6114	609			Reduce Capacity	South Capitol Street	Firth Sterling Ave.	Southern Ave Maryland state line			5	4 5	2015 2022
3232	663			Reduce Capacity	Adams Mill Rd. NW	Kenyon	Klinge			3	2	2016 Complete
3232	701	DS8		Reduce Capacity	6th Street NE	Florida Avenue	K Street			2	1	2016 Complete
3232	702	DS9		Reduce Capacity	7th Street NW	New York Avenue	N Street			4	2	2016 2021
3232	704	DS11		Reduce Capacity	14th Street NW	Florida Avenue	Columbia Road			4	2	2016 Complete
3232	705	DS12		Reduce Capacity	Brentwood Parkway NE	6th Street/Penn Street	9th Street			2	1	2016 Complete
6195	717	DS13		Reduce Capacity	Florida Avenue NE	3rd Street	West Virginia Avenue			6	4	2019 2023
6195	710			Reduce Capacity	Florida Avenue NE	2nd Street	3rd Street			6	5	2019 2023
3232	707	NRS		Reduce Capacity	New Jersey Avenue NW	H Street	Louisiana Ave			4	2	2020 2021
CE3447	713	DS14		Reduce Capacity	Pennsylvania Avenue NW	18th Street	20th Street			5	4	2020 2025
CE3447	712	DS15		Reduce Capacity	Pennsylvania Avenue NW	17th Street	18th Street			6	4	2021 2025
CE3447	715	DS16		Reduce Capacity	Pennsylvania Avenue NW	26th Street	28th Street			5	4	2021 2040
CE3447	716	DS17		Reduce Capacity	Pennsylvania Avenue NW	28th Street	29th Street			4	2	2021 2040
CE3447	714	DS18		Reduce Capacity	Pennsylvania Avenue NW	20th Street	26th Street			6	4	2021 2040
3232	709	DS19		Reduce Capacity	Wheeler Road SE	Alabama Avenue	Southern Avenue			4	2	2020 2021
3232	829	DS21		Reduce Capacity - bike lanes	6th Street NW	Constitution Avenue	Massachusetts Avenue			6 peak- 4 offpeak	4 peak - 2 offpeak	2019 2030

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PIT Project ID	Con ID	Project ID	Agency ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
3232	830	DS22		Reduce Capacity - bike lanes	6th Street NW	Massachusetts Avenue	Florida Ave NW			4	2 3	2019 2030
3232	832	in base		Reduce Capacity - bike lanes	Blair Road NW	Peabody St. NW	Aspen St. NW			3	2	2021
3232	860	DS23		Reduce Capacity - bike lanes	Harewood Road NW	Rock Creek Church Road NW	North Capitol Street			2	1	2020 2022
3232	835	DP22		Reduce Capacity - bike lanes	Louisiana Avenue NW	Columbus Circle NE/ Mass Ave NE	Constitution Avenue NW			4	3	2020 2040
CE3651	944	DP32		Reduce Capacity - bike lanes	17th Street NW	New Hampshire Avenue	Massachusetts Avenue NW	3	3	2	1	2020 2021
CE3652	946	DP34		Reduce Capacity - bike lanes	K Street NW	3rd Street NW 7th St NW	1st Street NE			6 4	4 2	2020 2021
CE3654	947	DP35		Reduce Capacity - bike lanes	Pennsylvania Ave	2nd Street SE	14th Street SE	2	2	6	4	2020 2023
CE3654	948	DP36		Reduce Capacity - bike lanes	Pennsylvania Ave SE	14th Street SE	Barney Circle			8	6	2020 2024
CE3653	949	DP37		Reduce Capacity - bike lanes	Irving Street NE/NW	Michigan Avenue NE	Warder Street NW			6	4	2020 Completed
3232	1013			Reduce Capacity - bike lanes	9th St NW	New York Avenue NW	H Street NW			3	2	2030
3232	1013 831	NRS		Reduce Capacity - bike lanes	9th St NW	Massachusetts Ave	Florida Ave			4	2 3	2019 2030
3232	1012	DP39		Reduce Capacity - bike lanes	9th St NW	Constitution Ave	Massachusetts Ave			6/4	4/2	2019 2030
3232	1010	DP40		Reduce Capacity - bike lanes	Nebraska Ave NW	New Mexico Ave	Loughboro Road			4	3	2020 2022
3232	1009			Reduce Capacity - bike lanes	Pennsylvania Ave SE	2nd St	17th St.			8	6	2021
3232	1008	DS28		Reduce Capacity - bike lanes	Dalecarlia Pkwy NW	Loughboro Road	Westmoreland Circle			4	2	2020 2040
3232	1007	DS29		Reduce Capacity - bike lanes	K St NE	1st St	8th St			3	2	2019 Complete
3232	1006	DS30		Reduce Capacity - bike lanes	Mount Olivet Rd NE	Brentwood	West Virginia Ave			4	3	2020 2022
3232	1005	DS31		Reduce Capacity - bike lanes	M St SE	Half St	11th St			6	5	2020 2022

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								Fr	To	Fr	To	
3232	1004	DP41		Reduce Capacity - bike lanes	Florida Ave NE	West Virginia Ave	14th St			3	2	2019 Complete
3212	7820			Reduce Capacity - bike lanes	15th Street Cycletrack	Pennsylvania Ave NW	East Basin Dr. SW	3	3	4	3	2021
3212	7838			Reduce Capacity - bike lanes	17th St. Bike Lanes	New Hampshire Avenue NW	K St. NW	3	3	4	2	2021
3212	7821			Reduce Capacity - bike lanes	20th St. NW Bike Lanes	G St.	Massachusetts Ave.	4	4	4	2	2022
3212	7827			Reduce Capacity - bike lanes	21st St. NW	Constitution Ave NW	Massachusetts Ave NW	3	3	3	2	2021
3212	7839			Reduce Capacity - bike lanes	Kenyon St NW, Irving, St NW and Michigan St NE Protected Bike Lanes	Warder St NW	4th St NE	3	3	8	6	2020 Completed
3212	10675			Reduce Capacity - Bus Lanes	M Street SE	10th Street	Half Street	3	3	6	4	2020 Completed
3212	7824			Reduce Capacity - Bus Lanes	Martin Luther King Jr. Ave SE	W Street	Redwood Street	3	3	4	2	2020 Completed
3212	7836			Reduce Capacity -	Park Place/5th Street NW	Grant Circle	Kenyon St NW	3	3	2	1	2022
3212	7825			Reduce Capacity -	Virginia Ave NW	Rock Creek and Potomac Pkwy NW	18th St NW	3	3	6	5	2021
3212	7837			Reduce Capacity - bike lanes	Warder Street/7th Street NW	Kenyon St NW	New Hampshire Ave NW	4	4	2	1	2022
6638	839	DP23		Reduce Capacity - Bus Priority	16th Street NW	Arkansas Avenue NW	Columbia Road NW			6	4	2020 2022
6638	840	DP24		Reduce Capacity - Bus Priority	16th Street NW	Columbia Road NW	W Street NW			5	4	2020 2022
6638	838	NRS		Reconstruct	16th Street NW	W Street NW	H Street NW			4	4	2022
CE3081	841	DP25		Reduce Capacity - Streetcar	H Street NE/NW	3rd Street NE	New Jersey Ave NW			6	4	2030 2040
CE3081	842	DS26		Reduce Capacity - Streetcar	New Jersey Avenue NW	H St NW	K Street NW			3 lanes 1-way	1 lane each 2-way	2030 2040
CE3081	844	DP26		Reduce Capacity - Streetcar	K Street NW	New Jersey Avenue NW	7th Street NW			3	2	2030 2040
CE3081	845	DP27		Reduce Capacity - Transitway	K Street NW	9th Street NW	12th St NW			4	2	2021 2025
CE3081	846	DP28		Reduce Capacity - Transitway	K Street NW	12th St NW	21st St NW			6	4	2021 2025

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								Fr	To	Fr	To	
CE3081	847	DP29		Reduce Capacity - Streetcar	K Street NW	21st St NW	25th Street NW			4	2	2030 2040
CE3081	848	DP30		Reduce Capacity - Streetcar	K Street NW	25th Street NW	29th Street NW			6/4	4	2030 2040
CE3081	849	DP31		Reduce Capacity - Streetcar	K Street NW	29th Street NW	Wisconsin Avenue NW			4	2	2030 2040
MDOT												
	Interstate											
	126	MI2Q	MO8391	Construct	I 270 Interchange	at Watkins Mill Road		1	1	8	8	2020
6432 CE1186	125	MI2U1	AW0731	Construct/Widen	I 270 Toll Lanes	I 495	I 270Y	1	1	4 + 2 HOV	4 + 4 HOT +2 HOV +4 ETL	2025
6432 CE1186	892	MI2U2	AW0731	Construct/Widen	I 270 Toll Lanes	I 270Y	I 370	1	1	10 + 2 HOV	10 + 4 HOT +2 HOV +4 ETL	2025
6432 CE1186	893	MI2U3	AW0731	Construct/Widen	I 270 Northbound Toll Lanes	I 370	Middlebrook Road	1	1	3 + 1 HOV NB	3 + 2 HOT NB ETL	2025 2030
6432 CE1186	893	MI2U4	AW0731	Construct/Widen	I 270 Southbound Toll Lanes	Middlebrook Road	I-370	1	1	4 SB	4 + 2 HOT SB +2 ETL	2025 2030
6432 CE1186	894	MI2U5	AW0731	Construct/Widen	I 270 Northbound Toll Lanes	Middlebrook Road	MD 121	1	1	2 + 1 HOV NB	2 + 2 HOT NB +1 HOV NB +2 ETL	2025 2030
6432 CE1186	894	MI2U6	AW0731	Construct/Widen	I 270 Southbound Toll Lanes	MD 121	Middlebrook Road	1	1	3 SB	3 + 2 HOT SB +2 ETL	2025 2030
6432 CE1186	895	MI2U7	AW0731	Construct/Widen	I 270 Toll Lanes	MD 121	I 70 / US 40	1	1	4	4 + 4 HOT +4 ETL	2025 2030

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								Fr	To	Fr	To	
6444	952	MI2TSB6		Construct	I270 southbound auxiliary lane (innovative congestion management)	South of Shady Grove Rd local slip ramp	South of Shady Grove Rd express lanes slip ramp	1	1			2019 complete
6444	953	MI2TSB7		Construct	I270 southbound auxiliary lane (innovative congestion management)	Md 28 on-ramp	MD 189 off-ramp	1	1			2019 2021
6444	954	MI2TSB8		Construct	I270 southbound (innovative congestion management)	MD 189 on-ramp	Montrose Road off-ramp	1	1			2019 complete
6444	955	MI2TSB12		Construct	I270 southbound (innovative congestion management)	North of Montrose Road	Democracy Boulevard	1	1			2019 complete
6444	956	MI2TNB1		Construct	I270 northbound (innovative congestion management)	Democracy Boulevard on-ramp	North of Montrose Road slip ramp to local lanes	1	1			2019 complete
6444	957	MI2TNB2		Construct	I270 northbound auxiliary lane (innovative congestion management)	MD 189 on-ramp	MD 28 off-ramp	1	1			2019 2021
6444	958	MI2TNB2		Construct	I270 northbound auxiliary lane (innovative congestion management)	South of MD 28 slip ramp to express lanes	North of MD 28 slip ramp to local lanes	1	1			2019 2021
		MI2TNB3		Construct	I270 northbound (innovative congestion management)	Shady Grove Road	I-370 off-ramp	1	1			2019
		MI2TNB4		Construct	I270 northbound (innovative congestion management)	MD 124 on-ramp	Watkins Mill Road off-ramp	1	1			2019
		MI2TNB4		Construct	I270 northbound auxiliary lane (innovative congestion management)	Watkins Mill Road on-ramp	Middlebrook Road westbound off-ramp	1	1			2019
6444	962	MI2TNB5		Construct	I270 northbound (innovative congestion management)	MD 121	Comus Road Bridge	1	1			2019 2021 complete
	210	MI4		Widen	I 70	Mt. Phillip Road	West of I 270	1	1	4	6	2035
CE2250	151	MI4a	FR5801	Reconstruct	I 70	at MD 144FA, Meadow Road, and Old National Pike		1	1	6	6	2025 2022
				Study	I-295 Toll Lanes- planning study	US 50	I-95 (in Baltimore)					Not Coded
CE1479	108	MI1P MI1PR	PG3331	Construct	I-95/I-495	at Greenbelt Metro Station		1	1	8	8	2030
6432 CE3281	696	MI1Q	AW0731	Construct/Widen	I 495 Toll Lanes	Virginia State line/Potomac River (including American Legion Bridge)	I 270Y	1	1	8/10	8/10 + 4 ETL HOT	2025
6432 CE3281	856	MI1R	AW0731	Construct/Widen	I 495 Toll Lanes	I 270Y	MD 355	1	1	6	6 + 4 ETL HOT	2025

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								Fr	To	Fr	To	
6432 CE3281	905	MI1S	AW0731	Construct/Widen	I 495 Toll Lanes	MD 355	I 95	1	1	8	8 + 4 ETL HOT	2025 2030
6432 CE3281	906	MI1T	AW0731	Construct/Widen	I 95 / I 495 Toll Lanes	I 95	Baltimore Washington Parkway	1	1	8	8 + 4 ETL HOT	2025 2030
CE1182	907	MI1U	AW0731	Construct/Widen	I 95 / I 495 Toll Lanes	Baltimore Washington Parkway	Glenarden Parkway	1	1	8	8 + 4 ETL HOT	2025 2030
CE1182	908	MI1V	AW0731	Construct/Widen	I 95 / I 495 Toll Lanes	Glenarden Parkway	MD 202F	1	1	10	10 + 4 ETL HOT	2025 2030
CE1182	909	MI1W	AW0731	Construct/Widen	I 95 / I 495 Toll Lanes	MD 202F	Potomac River (not including Wilson Bridge)	1	1	8	8 + 4 ETL HOT	2025 2030
Primary												
3108	139	MP10A	PG2531	Reconstruct	US 1	College Avenue	MD 193	2	2	4	4	2023
CE1202	935 936	NRS	PG2531	Reconstruct	US 1	MD 193	I 95 / I 495	2	2	4	4	2030 2035
CE1200	370	MP9	CA4131	Widen	MD 2/4 Solomons Island Road	North of Stoakley Road/Hospital Drive	South of MD 765A (south junction) just south of Parkers Creek	2	2	4	6	2040— 2045
CE1200	913	NRS	CA4131	Construct	MD 2 / MD 4 Interchange	at Stoakley Road/Hospital Drive and at MD 765A (south junction)		2	5	4	6	2040 2045
CE2246	645	NRS		Reconstruct	MD 4 Interchange	at MD 235		2	2	2	2 4	2031
	127	MP2C	AT1981	Widen	MD 3 Robert Crain Highway	I595/US 50/US 301	Anne Arundel County Line	2	2	4	6	2035
CE1194	355	NRS	PG9171	Construct	MD 4	at Westphalia Road		2	5	4	6	2040
3547	393	NRS	PG6181	Construct	MD 4 Pennsylvania Avenue	at Suitland Parkway		5	5	4	4	2020
CE1194	933	NRS	PG9171	Construct	MD 4 Interchange	at Dower House Road		5	5	4	6	2040
CE1194	212	MP3A	PG9171	Widen	MD 4 Pennsylvania Avenue	I-95/I-495	MD 223	5	5	4	6	2040
CE1196 3469	440	NRS		Construct	MD 5	at Earnshaw/Burch Hill Roads		2	5	4	6	2030- 2035

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								Fr	To	Fr	To	
3469 CE1196	205	MP4F	PG3916	Widen/Upgrade	MD 5 Branch Avenue	US 301 at T.B.	North of I95 /I 495	2	5	4	6	2030 2035
	354	NRS	PG1751	Construct	MD 5	at MD 373 and Brandywine Road		2	5	4	6	2019
3469 CE1196	441	NRS		Construct	MD 5 Branch Avenue	at Surratts Road		2	5	4	6	2030 2035
CE3567	914	MP15B	FR1881	Construct/Widen	US 15	MD 26	North of Biggs Ford Road	5	5	4	6	2045 2040
CE3566	915	MP15A	FR1881	Construct/Widen	US 15	US 340 / South Jefferson Street	MD 26	5	5	4	6	2030
CE913	358	MP15	FR5711	Construct	US 15 Interchange	at Monocacy Blvd./Christophers Crossing		3	3	4	4	2019 2018 complete
3641 CE1197	211	NRS	MO891 1	Construct	US 29 Columbia Pike	at Musgrove/Fairland Road				6	6	2035
CE1197	551			Construct	US 29 Columbia Pike	at Tech Road / Industrial Road		5	5	6	6	2030
CE1197	552, 919, 918	MP19A MP19B MP19C		Construct	US 29 Columbia Pike Interchange	at Stewart Lane, Greencastle Road, & Blackburn Road		5	5	6	6	2045
	647	MP5E-NRS		Study	US 29 Columbia Pike	North of MD 650 New Hampshire Avenue	Howard County Line	5	5	6	6	2045
CE3425	941	NRS	PG0641	Reconstruct	US 50	District of Columbia line	I 95 / I 495	2	2	4	4	2035
CE1210	858	FP2B		Widen	MD 85	South of English Muffin Way	Crestwood Drive/Shockley Drive	2	2	2/4	4	2035
6483	391	FP2A	FR3881	Construct/Widen	MD 85 Buckeystown Pike	Crestwood Drive/Shockley Drive	Spectrum Drive	2	2	4	6	2022
CE1210	859	FP2C	FR3881	Construct/Widen	MD 85 Buckeystown Pike	Spectrum Drive	North of Grove Road	2	2	4	6	2035
CE1190	387	MP14	PG6191	Reconstruct	MD 202	at Brightseat Road		2	2	6	6	2045
	353	NRS	PG7001	Upgrade	MD 210	at Kerby Hill Road/Livingston Road		5	5	6	6	2021
4879	124	MP6D	PG2211	Upgrade	MD 210 Indian Head Highway	I-95/495	MD 228	2	5	6	6	2040
5527	384	MP18		Construct	US 301 Gov. Nice Bridge	Charles County, MD	King George County, VA	2	2	2	4	2023
CE1004	940	MP8E		Widen	US 301	Harry Nice Bridge	I-595 / US 50	2	5	4/6	6	2045
CE2239	939	NRS	CH2031	Reconstruct	US 301 Interchange	at MD 5 Business/MD 228		2	5	6	6	2030 2040
CF2239	938	NRS	CH2031	Reconstruct	US 301	at MD 5 (south junction)		2	5	6	6	2030 2035
CE1619	937	NRS		Construct	US 301 Interchange	at MD 197		5	5	6	6	2030 2035
Secondary												

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								Fr	To	Fr	To	
3476 CE1462	206	MS2F	MO8861	Widen	MD 28 Norbeck Road	MD 97	MD 182	2	2	2	2-4	2045
3476 CE1462	925	NRS	MO8861	Reconstruct	MD 28 Norbeck Road	MD 182	Norwood Road	2	2	4	4	2045
3476 CE1462	926	NRS	MO8861	Reconstruct	MD 198	Norwood Road	MD 650	2	2	2	2	2045
3476 CE1462	927	NRS	MO8861	Reconstruct	MD 198	MD 650	Old Columbia Pike	2	2	2	2	2045
3476 CE1462	928	NRS	MO8861	Reconstruct	MD 198	Old Columbia Pike	US 29A	2	2	4	4	2045
3476 CE1462	929	NRS	MO8861	Reconstruct	MD 198	US 29A	I 95	2	2	4	4	2045
3106	137	MP12C	MO7461	Construct	MD 97 Brookeville Bypass	Gold Mine Road	North of Brookville	0	2	0	2	2021
CE2618	931	NRS	MO2241	Widen-Reconstruct	MD 97	MD 390	MD 192 / Forest Glen Road	2	2	6/7	7/8 6/7	2025 2030
CE1211	392	NRS	MO8521	Upgrade	MD 97 Georgia Avenue Interchange	at MD 28 Norbeck Road		2	2	6	6	2035
	135	NRS	MO8541	Upgrade	MD 97 Georgia Avenue Interchange	at Randolph Road		2	2	6	6	2018
CE1203	115	MS32		Widen-Reconstruct	MD 117 Clopper Road	I270	Metropolitan Grove Road	2 3	2 3	2/4 4	4	2030
CE1203	921	NRS		Reconstruct	MD 117 Clopper Road	Metropolitan Grove Road	West of Game Preserve Road	3	3	2/4 2	2/4 3	2030 2035
3057 CE1206	118	MS6B	MO632	Widen	MD 124 Woodfield Road	Midcounty Highway	South of Airpark Drive	3	3	2	6	2035
3057 CE1206	1	MS6D	MO6323	Widen	MD 124 Woodfield Road	North of Fieldcrest Road	Warfield Road	3	3	2	6	2035
CE2253	356	MS35	PG6911	Widen	MD 197 Collington Road	MD 450	Kenhill Drive	2	2	2	4	2025 2030

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								Fr	To	Fr	To	
CE2261	924	MS36A	FR5491	Construct/Widen	MD 180	Greenfield Drive	I 70 (west junction)	4	4	2	4	2030 2035
	857	MS36B	FR6781	Construct/Widen	MD 180	I 70 (west junction)	Ballenger Center Drive	4	4	2/4	4	2021
CE1204	359	MS10B	PG9491	Widen	MD 201 Edmonston Rd. / Old Baltimore Pike	Cherrywood Lane	Ammendale Way	3	3	2/3	4	2045
CE1204	965	MS10E	PG9491	Construct/Widen	MD 201 Extended (Cedarhurst Dr.)	Muirkirk Road	US 1	3	3	2	4	2045
CE2248	942	NRS	PG5811	Reconstruct	MD 223	MD 4	Steed Road	3	3	2	2	2045
CE1207	175	MS18D	PG6541	Widen	MD 450 Annapolis Road	Stonybrook Drive	west of MD 3	2	2	2	4	2020 2030
	516	same as MC15B	MO344 1	Construct	Montrose Parkway	Randolph Road	East of Parklawn Drive	0	2	0	4	2020
6384	152	BRAC nrs	MO593 1	Reconstruct	BRAC Intersection Improvements near the National Naval Medical Center, Bethesda			2	2			2020 complete
Frederick County												
	Secondary											
	648	MS36C	FR5491	Widen/Upgrade	MD 180 Ballenger Creek Pike	Ballenger Center Drive	Corporate Drive	3	2	2	4	2020
	993	in FS3		Widen/Upgrade	Christopher's Crossing	Whittier Drive	Poole Jones Road	3	3	2	4	2024
	880	FS3		Expansion	Christopher's Crossing	Walter Martz Road	Thomas Johnson Drive	3	3	0 to 2	4	2020
	879	NRS		Construct	Christopher's Crossing	Shookstown Road	Rocky Springs Road	3	3	0	4	2026
	651	FS2a		Widen	Monocacy Boulevard	Schifferstadt Boulevard	Gas House Pike	3	3	2	4	2019
	691	NRS	F3	Construct	Spectrum Drive	Technology Way	MD 85 Buckeystown Pike	0	4	0	2	2030
Montgomery County												
	Secondary											
3498	208	NRS		Construct	Burtonsville Access Road	MD 198 Spencerville Road	School Access Road in Burtonsville	0	4	0	2	2025
5944	597	NRS		Construct	Century Boulevard	Current terminus south of Oxbridge Tract	Intersection with future Dorsey Mill Road	0	3	0	4	2020 2013 Completed
CE1577	199	MC43		Construct	Dorsey Mill Road Bridge over I-270	Century Blvd.	Milestone Center Dr.	0	3	0	4	2020 2030
3049	112	MC7A		Widen	Goshen Road South	South of Girard Street	1000 feet north of Warfield Road	3	3	2	4	2025 2030
				Widen	Little Seneca Parkway	MD355	Observation Drive	3	3	2	4	2035

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								Fr	To	Fr	To	
CE1245	172	MC11A		Construct	M 83 MidCounty Highway Extended	MD 27 Ridge Road	Middlebrook Road	0	2	0	4-6	2025-2045
CE1245	204	MC11D	509337-1	Construct	M 83 Midcounty Highway Extended	Middlebrook Road	Montgomery Village Avenue	0	2	0	4-6	2025-2045
	113	MC12F		Widen	MD 118 Germantown Road Extended	MD 355	M 83 at Watkins Mill Road	2	2	3	4	2020
CE1229	161	MC14G		Widen	Middlebrook Road Ext.	MD 355	M 83	2	2	3	4	2025-2045
3703	214	MC15B		Construct	Montrose Parkway East	Eastern Limit of MD 355/Montrose Interchange	Veirs Mill Road/Parkland Road Intersection	0	2	0	4	2022-2045
				Construct	Extend Observation Drive	Waters Discovery Lane	West Old Baltimore Road	0	3	0	4	2035
				Construct	Extend Observation Drive	Little Seneca Parkway	Existing Observation Drive near Stringtown Road	0	3	0	2	2045
CE2912	428	NRS		Construct	Platt Ridge Drive Extended	Jones Bridge Road	Montrose Driveway			0	2	2018 Completed
CE1236	119	MC34		Widen	Snouffer School Road	MD 124 Woodfield Road	Centerway Road	3	3	2	4	2019-2021
Urban												
5985	421		501204-1	Construct	Executive Blvd Extended East	MD 355 Rockville Pike	New Nebel Street Extended			0	4	2020-2026
5985	422			Construct	Executive Blvd Extended West	MD 187 Old Georgetown Road	Marinelli Road			0	4	2020-2026
5986	424		501116-6	Construct	Hoya Street	Executive Blvd	Montrose Parkway			0	4	2020-2030
5986	425		501116-1	Construct	Main Street / Market Street	MD 187 Old Georgetown Road	MD 355 Rockville Pike			0	2	2020-2030
5986	423		501116-5	Construct	MD 187 Old Georgetown Road	MD 187 Old Georgetown Road	Nicholson Lane/Tilden Lane			0	6	2020-2030
Prince George's County												
Secondary												
6367	361	PGS3a		Widen	Addison Road	Walker Mill Road	MD 214 Central Avenue	3	3	2	4	2023-2026
6367	362	NRS		Reconstruct	Addison Road	Sherieff Road	MD 704	4	4	2	2	2025-2028
CE1270	386	PGS5		Construct	Allentown Road Relocated	MD 210 Indian Head Highway	Brinkley Road		3		4	2025-2028
CE1320	365	PGS73	PGS73	Widen	Ardwick-Ardmore Road	MD 704	91st Ave.	4	4	2	4	2025-2030
CE1272	388	PGS9a		Widen	Bowie Race Track Road	MD 450 Annapolis Road	Old Chapel Road Clearfield Road	4	4	2	4	2025-2024

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CE1272	389	PGS9b		Widen	Bowie Race Track Road	MD 197 Laurel-Bowie Road	Old Chapel Road	4	4	2	4	2025
CE1273	390	PGS10		Widen	Brandywine Road	Piscataway Road (north of)	Thrift Road	4	4	2	4	2020
CE1274	418	PGS12		Widen	Brinkley Road	MD 414 St. Barnabas Road	MD 337 Allentown Road	3	3	4	6	2020
CE1275	134	PGS13		Construct	Brooks Drive Extended	Marlboro Pike	Rollins Avenue	0	3	0	4	2020
CE1277	140	PGS16a		Construct	Campus Way North	Lake Arbor Way	south of Lottsford Road	0	4	0	4	2023
CE1277	138	PGS16b		Construct	Campus Way North Extended	south of Lottsford Road	Evarts Drive	0	4	0	4	2020
CE1278	141	PGS17		Widen	Cherry Hill Road	Powder Mill Road	Selman Road	3	3	2	4	2019 Complete
CE1279	142	PGS18		Widen	Church Road	Woodmore Road	Central Ave. (MD 214)	4	4	2	4	2021 2028
CE1280	144	PGS20b		Widen	Columbia Park Road	US 50	Cabin Branch Road	4	4	2	4	2020 2014 Complete
CE1280	143	PGS20a		Widen	Columbia Park Road	Cabin Branch Road	Columbia Terrace	4	4	2	4	2020
CE1281	145	PGS21a		Widen	Contee Road	US 1	MD 201 Virginia Manor Road	4	4	2	4	2018 Complete
CE1282	146	PGS22		Widen	Dangerfield Road	Cheltenham Avenue	MD 223 Woodyard Road	4	4	2	4	2020
CE1283	147	PGS24b		Widen	Dower House Road	Foxley Road	MD 4 Pennsylvania Avenue	4	4	2	6	2025
CE1283	155	PGS24a		Widen	Dower House Road	MD 223 Woodyard Road	Foxley Road	4	4	2	4	2025
CE1284	156	PGS25		Widen	Fisher Road	Brinkley Road	Holton Lane	4	4	2	4	2025
CE1285	157	NRS		Construct	Forbes Boulevard Extended	south of Amtrak	MD 193 Greenbelt Road	0	4	0	4	2020
CE1287	159	PGS29		Widen	Fort Washington Road	Riverview Road	MD 210 Indian Head Highway	4	4	2	4	2025
CE1288	160	PGS30b		Widen	Good Luck Road	Cipriano Road	MD 193 Greenbelt Road	4	4	2	4	2025

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PIT Project ID	Con ID	Project ID	Agency ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
CE1288	162	PGS30a		Widen	Good Luck Road	MD 201 Kenliworth Avenue (east of)	Cipriano Road	4	4	2	4	2025
3132	164	PGS34a		Widen	Hill Road	MD 214 Central Avenue	MD 704 ML King Jr Highway	4	4	2	4	2018 complete
3132	163	PGS34B		Widen	Hill Road	Consideration Lane	MD 214 Central Avenue	4	4	2	4	2018 2028
CE1015	416	NRS		Construct	Iverson Street Extended	Wheeler Road	19th Avenue	0	4	0	4	2018
CE3438	666	PGS35		Widen	Karen Boulevard	Walker Mill Road	MD 214 Central Avenue	4	4	2	4	2020
5806	165	PGS38b		Widen	Livingston Road	Piscataway Creek	Farmington Road	4	4	2	4	2020 2025
CE1291	417	PGS38a		Widen	Livingston Road	MD 210 Indian Head Highway at Eastover	Kerby Hill Rd.	4	3	2	4	2025 2028
	213	PGS40a		Widen	Lottsford Road	Archer Lane	MD 193 Enterprise Road	3	3	2	4	2021
		PGS40b		Reduce Capacity - bike lanes	Lottsford Road	MD 202 (Landover Rd.)	Largo Dr. West	3	3	6	4	2020
CE1292	166	PGS39b		Widen	Lottsford Vista Road	MD 704 ML King Jr Highway	Ardwick-Ardmore Road/Relocated	4	4	2	4	2020
CE1295	360	PGP4a		Construct	MD 193 Greenbelt Road	Baltimore-Washington Parkway (ramp to)		0	5	0	4	2025
CE1294	167	PGS42		Widen	MD 223 Woodyard Road	Rosaryville Road	Dower House Road	2	2	2	4	2020 2017 Complete
CE1294	2	PGS42C		Widen	MD 223 Woodyard Road Relocated	Piscataway Creek/Floral Park Road	MD 4 /Livingston Road	3	3	2	4	2017
CE1295	169	PGS44b		Widen	Metzerott Road	Adelphi Road	MD 193 University Boulevard	4	4	2	4	2020
CE1295	168	PGS44a		Widen	Metzerott Road	MD 650 New Hampshire Avenue	Adelphi Road	4	4	2	4	2020
CE1296	171	PGS46		Widen	Murkirk Road	US 1 Baltimore Avenue (west of)	Odell Road	4	4	2	4	2020

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								Fr	To	Fr	To	
CE1297	173	PGS47		Widen	Oak Grove and Leeland Roads	MD 193 Watkins Park Road	US 301 Robert Crain Highway	4	4	2	4	2020 2028
CE1298	174	PGS48		Widen	Old Alexandria Ferry Road	MD 223 Woodyard Road	MD 5 Branch Avenue	4	4	2	4	2025
CE1299	649	PGS50		Widen	Old Branch Avenue	MD 223 Piscataway Road (north of)	MD 337 Allentown Road	4	4	2	4	2020 2028
CE1533	395	PGS90		Construct	Old Fort Road Extended	MD 223 Piscataway Road	Old Fort Road	4	4	0	4	2020
	369	PGS51a		Widen	Old Gunpowder Road	Powder Mill Road	Greencastle Road	3	3	2	4	2018
CE1324	193	PGS81		Construct	Presidential Parkway	Suitland Parkway	Melwood Road	0	3	0	6	2025 2020 Complete
CE1301	150	NRS		Reconstruct	Rhode Island Avenue	MD 193	US Route 1	4	4	2	2	2025
CE1302	176	PGS56a		Widen	Ritchie Road/Forestville Road	Alberta Drive	MD 4 Pennsylvania Avenue	3	3	2	4	2020
CE2623	153	PGS55b		Widen	Ritchie-Marlboro Road	White House Road	Old Marlboro Pike	2	2	2	4	2020 2028
CE1303	177	PGS57		CE1197	Rollins Avenue	MD 214 Central Avenue	Walker Mill Road	4	4	2	4	2020
CE1304	178	PGS58		Widen	Rosaryville Road	US 301	MD 223 Woodyard Road	3	3	2	4	2020
CE1305	179	PGS60B		Widen	Spine Road	MD 5 Branch Avenue / US 301	MD 381 Brandywine Road	3	3	2	4	2025 2020 Complete
CE1306	109	PGS61		Widen	Springfield Road	Lanham-Severn Road	Good Luck Road	4	4	2	4	2020
CE1307	122	PGP2		Construct	Suitland Parkway Interchange at	Rena/Forestville Roads		5	5			2025 2021 Complete
CE1309	181	PGPS63		Widen	Sunnyside Avenue	US 1	MD 201 Kenilworth Avenue	4	4	2	4	2022
CE1313	185	PGP5a		Construct	US 50 Columbia Park Road Ramp	wb ramp to Columbia Park Rd						2025 2014 Complete
CE1314	187	PGS67a		Widen	Van Dusen Road	Contee Road	MD 198 Sandy Springs Road	3	3	2	4	2020
CE1314	186	PGS67b		Construct	Van Dusen Road Interchange at	Contee Road						2025
	188	PGS68		Widen	Virginia Manor Road	Muirkirk Road	Old Gunpowder Road	4	4	2	4	2014
CE1316	429	PGS69a		Widen	Walker Mill Road	Silver Hill Road	I 95	3	3	2	4	2020 2028
CE2624	154	PGS91		Widen	Westphalia Road	MD 4 Pennsylvania Avenue	Ritchie-Marlboro Road	2	2	2	4	2020 2028
3166	189	PGS70		Widen	Wheeler Road	DC Limits	St. Barnabas Road	3	3	2	4	2018 complete
CE1318	437	PGS71		Widen	White House Road	Ritchie-Marlboro Road	MD 202 Largo Landover Road	3	3	2	6	2020
CE1319	190	PGS72		Widen	Whitfield Chapel Road	CE1319	Ardwick-Ardmore Road	4	4	2	4	2020

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								Fr	To	Fr	To	
	436	PGS40b		Construct	Woodmore Road	MD 193 Enterprise Road	Church Road	3	3	2	4	2025
Anne Arundel County												
		AA14C		Widen	US 50 EB only	MD 70	MD 2 NB	1	1	6	7	2019
		AA14D		Widen	US 50	I-97	MD 2	1	1	6	8	2045
		AA15a		Widen	I-295	I-195	MD 100	1	1	4	6	2035
		AA3E		Widen	MD 2	US 50	I-695			4	6	2035
		AA4e		Widen	MD 3	MD 32	St. Stephen's Church Rd.	2	2	4	6	2025
		AA6e		Widen	MD 100	Howard Co. Line	I-97		5/1	4	6	2035
		AA8b		Widen	MD 175	MD 170	National Business Parkway		2	4	6	2025
		AA35		Widen	MD 177	MD 2	Lake Shore Dr.			2	4	2045
		AA30		Widen	MD 198	MD 32	BW Parkway	2	2	2	4	2030
				Widen	MD 214	MD 424	Shoreham Beach Dr.			2	4	2045
		AA34a		Widen	MD 713	MD 175	Stoney Run Dr.		2	2	4	2040
Carroll County												
		CA1B		Widen	MD 140	Sullivan Road	Market St.		1	4/6	8	2035
		NRS		reconstruct	MD 140 (w/ intchg @ MD-191)	Baltimore County Line	Kays Mill Rd.			4	4	2035
		CA2a		Widen	MD 26	MD 32	Liberty Reservoir			4	6	2035
		CA4A		widen	MD 32	MD 26	Howard County Line		2	2	4	2040
		CA5		Widen	MD 97	MD 140	Bachmans Valley Rd.		2	2	4	2035
Howard County												
		HW1b		Widen	I-70	US 29	MD 32	1	1	4	6	2035
		HW19		Widen	I-95 Peak period shoulder use	MD 32	MD 100	1	1	4	4+1	2035
		HW20		Widen	US 1	Howard/PG line	Howard/Balt. Co. line			4	6	2045
		HW10b		Widen	US 29 NB	Middle Patuxent River	Seneca Dr.		5	4	6	2030
		HW10F		Widen	US 29 NB	Seneca Dr.	MD 100	5	5	5	6	2017
		HW3c		Widen	MD 32	Cedar Lane	Anne Arundel County Line Brock Bridge Rd.		1	4/6	8	2045
		HW3B		Widen	MD 32	MD 108	I-70		2	2	4	2021
		HW3D		Widen	MD 32	I-70	Howard/ Carroll County Line River Rd			2	4	2045
		HW5F		Widen	MD 100	I-95	AA/Howard Line	1	1	4	6	2035
		HW6c		Widen	MD 108	Trotter Rd.	Guilford Rd.	2	2	2	4	2035
		HW7C		Widen	MD 175	Oceano Ave	Howard/AA Col Line			2	4	2045
		HW8b		Widen	MD 216	High School Access Rd.	Maple Lawn Blvd.		3	2	4	2015
		HW14c		Widen	Snowden River Parkway	Oakland Mills Road	Broken Land Parkway		3	4	6	2023
		NRS		Widen	Dorsey Run Rd.	MD 175	CSX RR spur			2	4	2021
		nrs		Widen	Guilford Rd.	US 1	Dorsey Run Road			2	4	2020

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								Fr	To	Fr	To	
Calvert-St. Mary's MPO												
CE2246	644	MP9B	C-SMMPO	Construct	Thomas Johnson Bridge replacement	over the Patuxent River		2	2	2	4	2031
		MP9C	C-SMMPO	Widen	MD 4 (in St. Mary's County)	Thomas Johnson Bridge	MD 235	2	2	2	4	2031
		nrs	C-SMMPO	Construct	MD 4/ MD 235 Interchange	in Lexington Park		2	2	--	--	2028
		MP9D	C-SMMPO	Widen	MD 4 (in Calvert County)	Thomas Johnson Bridge	Patuxent Point Parkway	2	2	2	4	2031
VDOT												
	Federal Lands											
CE3061	433	FED3a		Construct	Manassas Battlefield Bypass	US 29 West of Centreville	East of Gainesville, via 234	0	1	0	4	2035 2040
CE3061	434	FED3b		Remove/Close	US 29 Lee Highway	Pageland Lane	Bridge over Bull Run	2	2	2/4	0	2035 2040
CE3061	435	FED3c		Remove/Close	VA 234 Sudley Road	Southern Park Boundary	Sudley Springs (north of park)			2	0	2030
	Interstate											
CE1759	399	VI1AJ	81009	Construct	I 66 Vienna Metro Station bus ramp (duplicate project with ConID 759, below)	Transit Ramps- from EB & to WB	Saintsbury Dr.-' @Vaden Dr.	1	1	0	2	2021 2022
CE2096	271	VI1AF	78828	Reconstruct	I 66 WB Operational/Spot Improvements	Westmoreland Dr. / Washington Blvd Exit	Haycock Rd /Dulles Access Highway	1	1	3	4	2020 2016 complete

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								Fr	To	Fr	To	
CE2096	350	VI1AG	78827	Reconstruct	I 66 WB Operational/Spot Improvements	Lee Highway/Spout Run On-Ramp	Glebe Road Off-Ramp	1	1	2	3	2020 2022
CE3448	718	VI1Y	105500	Widen / Revise Operations	I-66		US 50	1	1	3 general purpose in each direction + 1 HOV in peak direction during peak period	3 general purpose + 1 Auxiliary + 2 HOT each direction	2021
CE3448	851	VI1Z	105500	Widen / Revise Operations	I-66	US 50	US 29 Centreville	1	1	4 general purpose in each direction off-peak, 3 general purpose + 1 HOV in peak direction during peak period	3 general purpose + 1 Auxiliary + 2 HOT in each direction (2 Aux per direction btwn VA 286 & VA 28 only)	2021

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								Fr	To	Fr	To	
CE3448	852	VI1ZA	105500	Widen / Revise Operations	I-66	US 29 Centreville	University Boulevard Ramps (new interchange for HOT only)	1	1	4 general purpose in each direction off-peak, 3 general purpose + 1 HOV in peak direction	3 general purpose + 2 HOT in each direction	2021
CE3448	852	VI1ZA1	105500	Widen / Revise Operations	I-66	VA 234 Bypass	University Blvd.	1	1	4 general purpose in each direction off-peak, 3 general purpose + 1 HOV in peak direction	3 general purpose+ 2 HOT in each direction (+1 Auxiliary each direction between	2021
CE3448	853	VI1ZB	105500	Widen / Revise Operations	I-66	University Boulevard Ramps (new interchange for HOT only)	US 15 (1.2 miles west of)	1	1	4 general purpose in each direction off-peak, 3 general purpose +	3 general purpose+ 2 HOT in each direction (+1 Auxiliary	2040
CE3484	740	VI1X	97586	Revise Operations	I-66	I-495	US 29 near Rosslyn	1	1	HOV 2 in peak direction during peak period	HOT 2 in peak direction during peak period	2017 complete
CE3484	862	VI1X1		Revise Operations	I-66	I-495	US 29 near Rosslyn	1	1	HOT 2 in peak direction during peak period	HOT 3 in peak direction during peak period	2021 2022

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								Fr	To	Fr	To	
CE3484	863	VI1X2		Revise Operations	I-66	I-495	US 29 near Rosslyn	1	1	HOT 3 in peak direction during peak period	HOT 3 in both directions during peak period	2040
CE3448	7221			Study	I-66 Revise Operations by 2024	I-495	US 29 near Rosslyn			HOT 3 in peak direction during peak period	HOT 3 in both directions during peak period	not coded
CE3484	788	VI1XB		Construct/Widen	I 66 Eastbound	VA 267 DTR	Washington Blvd. Off-Ramp	1	1	3	4	2020
CE3484	789	VI1XC		Construct/Widen	I 66 Eastbound	Washington Blvd. Off-Ramp	North Fairfax Drive	1	1	2	3	2020
CE3484	786	VI1XD		Construct/Widen	I 66 Westbound	Sycamore Street	Washington Blvd. On-Ramp	1	1	2	3	2040
CE3448	752	I66R31 I66R32 I66R34		Construct	I-66 Express Lanes Interchange Ramps	EB Expr to SB GP NB GP to WB Expr SB Expr to WB Expr EB Expr to NB GP SB GP to WB Expr	I-495 Interchange (Capital Beltway GP and Express Lanes)	0	1	0	1	2022
CE3448	753	I66R37		Construct	I-66 General Purpose Lanes Interchange Ramp	NB Expr to WB GP (modification of existing loop ramp)	I-495 Interchange (Capital Beltway GP and Express Lanes)	0	1	0	1	2022
CE3448	754			Relocate / Reconstruct	I-66 Interchange	Dual-lane loop ramp from NB I-495 GP to I-66 GP relocated to dual-lane flyover & existing ramp modified to NB I-495 GP to I-66 WB HOT	@ I-495	1	1	2	2	2022
CE3448	755			Reconstruct	I-66 Interchange	EB GP to SB GP WB GP to SB GP WB GP to SB Expr NB GP to EB GP SB GP to WB GP	@ I-495	1	1	—	—	2022
CE3448	756	I66R29		Construct	I-66 flyover ramp	EB general purpose to EB express lanes	.5 mile east of VA 243	0	1	0	1	2022
CE3448	757	NRS		Reconstruct	I-66 Interchange	Cloverleaf interchange converted to diverging diamond interchange	@ Nutley Street (VA 243)	1	1	—	—	2022
CE3448	759	I66R27 I66R28		Construct	I-66 Express Lanes Interchange Ramps (duplicate project with ConID 399, above)	EB off-ramp, WB on-ramp to/from I-66 Express lanes		1	1		Bus / HOV-3 / HOT from proposed Express Lanes	2022
CE3448	983	I66R43		Remove	I-66 ramp	remove existing EB on-ramp from Saintsbury Dr. at Vaden Dr.						2022

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CE3448	762	VI1YA		Reconstruct	I-66 Interchange	Reconfigured interchange to eliminate C-D roads & replacemodify EB to NB loop ramp with flyover& WB to SB flyover	@ Chain Bridge Road (VA 123)	1	1	—	—	2022
CE3448	763	I66R25 I66R26		Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp, EB off-ramp, WB on-ramp, WB off-ramp to/from I-66 Express Lanes	@ Chain Bridge Road (VA 123)	0	1	0	1	2022
CE3448	765	I66R23 I66R24		Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp, WB off-ramp to/from I-66 Express lanes	@ Lee Jackson Mem Highway (US 50)	0	1	0	1	2022
CE3448	766	I66R62		Construct	I-66 Express Lanes Interchange ramps	EB Express Lanes on-ramp from NB US 50	@ Lee Jackson Mem Highway (US 50)	0	1	0	1	2040
CE3448	767	I66R19A I66R20A I66R21A I66R22A		Relocate / Reconstruct	I-66 Interchange	Reconfigure interchange with Express lanes ramps shifted to the north of I-66; ; Construct new EB off-ramp, WB on-ramp to/from I-66 Express lanes	@ Monument Drive (US 50)	1	1	Bus / HOV-2 Reversible by time of day	Bus / HOV-3 / HOT Movement s in both directions 24 hrs/day	2040
CE3448	768	I66R19 I66R20 I66R21 I66R22		Reconstruct / Revise Operations / Construct	I-66 Interchange	Conversion of existing HOV ramps to HOT; Construct new EB off-ramp, WB on-ramp to/from I-66 Express lanes	@ Monument Drive (US 50)	1	1	Bus / HOV-2 Reversible by time of day	Bus / HOV-3 / HOT Movement s in both directions 24 hrs/day	2022
CE3448	769	I66R17 I66R18		Revise Operations	I-66 Express Lanes Interchange Ramps	Existing reversible HOV ramp converted to HOT EB on ramp only, 24 hrs/day; Construct new flyover ramp for HOT WB off ramp from I-66 Express Lanes, operating 24 hrs/day The existing reversible HOV ramp at Stringfellow Road will be expanded and converted to Express Lanes ramps providing access to and from the east using the Express Lanes. The new ramps will allow two-way traffic to and from the Express Lanes toward the Beltway 24 hours a day.	@ Stringfellow Road	1	1	Bus / HOV-2 Reversible by time of day	Bus / HOV-3 / HOT both directions 24 hrs / day	2022
CE3448	771	I66R16		Construct	I-66 flyover ramp	EB express lanes to EB general purpose	1.5 miles west of VA 286	0	1	0	1	2022

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CE3448	772	I66R41		Construct	I-66 slip ramp	EB general purpose to EB express lanes	2.5 miles west of VA 286	0	1	0	1	2022
CE3448	773	I66R15		Construct	I-66 flyover ramp	WB express lanes to WB general purpose	1 mile west of VA 286	0	1	0	1	2022
CE3448	774	I66R42		Construct	I-66 slip ramp	WB general purpose to WB express lanes	2.0 miles west of VA 286	0	1	0	1	2022
CE3448	776	I66R11 I66R12 I66R13 I66R14 I66R40		Construct	I-66 Express Lanes Interchange Ramps	EB Expr to NB GP WB Expr to NB GP SB GP to EB Expr SB GP to WB Expr NB GP to EB Expr	Route 28 Interchange	0	1	0	1	2022
CE3448	781?	I66R61		Construct	I-66 Express Lanes Interchange ramps	SB HOV to WB Expr	Route 28 Interchange	0	1	0	1	2040
CE3448	917			Construct	I-66 flyover ramp	EB general purpose to EB Express Lanes	.65 miles east of VA Bus 234	0	1	0	1	2022
CE3448	920			Construct	I-66 flyover ramp	WB Express Lanes to WB general purpose	.65 miles east of VA Bus 235	0	1	0	1	2022
CE3448	778	I66R9 I66R10		Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp, WB off-ramp to/from I-66 Express lanes	@ Balls Ford Road / Ashton Avenue Connector 1.25 mile west of VA Bus 234	0	1	0	1	2022
CE3448	779	I66R7 I66R8		Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp, WB off-ramp to/from I-66 Express lanes	@ Cushing Road Park-Ride Lot .5 mile east of VA 234 Bypass	0	1	0	1	2040
CE3448	855	I66R38 I66R39		Construct	I-66 Express Lanes Interchange Ramps	EB off-ramp, WB on-ramp to/from I-66 Express lanes	@ VA 234 Bypass to/from south of I-66	0	1	0	1	2040
CE3448	781	I66R5 I66R6		Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp, WB off-ramp to/from I-66 Express lanes	@ University Boulevard .75 mile east of US 29	0	1	0	1	2022
CE3448	784	I66R1 I66R1A I66R2 I66R2A		Construct	I-66 Express Lanes Interchange Ramps	EB on-ramp & off-ramp, WB on-ramp & off-ramp to/from I-66 Express lanes	@ New connector road between Heathcote Boulevard and VA 55 approx .5 mile west of US 15	0	1	0	1	2040
CE3448	785	VSP49C		Construct	I-66 Express Lanes Access Connector Road	Heathcote Boulevard Extension	John Marshall Highway (VA 55)	0	1	0	1	2040
CE3179	444	VI2T		Widen	I 395 southbound	VA 236 Duke Street (north of)	VA 648 Edsall Road (south of)	1	1	3	4	2018 Complete
	854	VI2V		Widen/Revise Operations	I-395 reversible HOV lanes	Turkeycock Run	vicinity of Eads Street	1	1	2 reversible HOV 3+ lanes during peak periods	3 reversible HOT-3+ lanes operating nb in am and sb in pm	2019 complete

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								Fr	To	Fr	To	
				Revise Operations	I-395 Flyover Ramp South of Duke Street (NB)	I-395 NB GP lanes	I-395 HOV lanes	1	1	HOV-3+ in am peak period	HOT-3+ in morning hours	2019 complete
				Revise Operations	I-395 HOV nb on-ramp at Seminary	Seminary Road	I-395 HOV lanes	1	1	HOV-3+ in am peak period	HOT-3+ in morning hours	2019 complete
				Revise Operations	I-395 HOV sb off-ramp at Seminary	I-395 HOV lanes	Seminary Road	1	1	HOV-3+ in pm peak period	HOT-3+ in evening hours	2019 complete
				Revise Operations	I-395 HOV nb on-ramp at Shirlington Circle	Shirlington Circle	I-395 HOV lanes	1	1	HOV-3+ in am peak period	HOT-3+ in morning hours	2019 complete
				Revise Operations	I-395 HOV sb off-ramp at Shirlington Circle	I-395 HOV lanes	Shirlington Circle	1	1	HOV-3+ in pm peak period	HOT-3+ in evening hours	2019 complete
				Revise Operations	I-395 HOV sb off-ramp near Edsall Rd.	I-395 HOV lanes	I-395 SB GP lanes	1	1	HOV-3+ in pm peak period	HOT-3+ in evening hours	2019 complete
				Revise Operations	I-395 NB HOV Ramp to Washington Blvd.	I-395 NB HOV lanes	Washington Blvd. NB	1	1	HOV-3+ in am peak period	HOT-3+ in morning hours	2019 complete
				Revise Operations	I-395 SB HOV Ramp from Washington Blvd.	Washington Blvd. SB	I-395 SB HOV lanes	1	1	HOV-3+ in pm peak period	HOT-3+ in evening hours	2019 complete
				Revise Operations	I-395 HOV nb off ramp at Eads Street			1	1	HOV-3+ in am peak period	HOT-3+ in morning hours	2019 complete
				Revise Operations	I-395 sb HOV on-ramp at Eads Street			1	1	HOV-3+ in pm peak period	HOT3+ in evening hours	2019 complete
		VI2R47		Remove	I-395 HOV/HOT SB Slip Ramp to I-395 main lanes	Just south of Eads St		1	0	1	0	2019 complete
CE2147	270	VI2AC		Reconstruct	I 95 Interchange	VA 613 Van Dorn Street		1	1			2030
CE3556				Construct	I-95 HOT lanes ramp	.25 miles south of Russell Road (Exit 148)	Russell Road	0	1	0	1	2022

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS (highway)

PIT Project ID	Con ID	Project ID	Agency ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
CE3093		6 NRS		Reconstruct	Boundary Chanel Drive	Old Jefferson Davis Highway (off of I-395 Boundary Chanel Interchange)						2020 2022
CE2667	378	BRAC	BRAC0005	Construct	I 95 NB Off Ramp at Newington	I-95 NB	Fairfax County Parkway NB	1	1	0	1	2020
CE2668	8	BRAC0004 / VI2ra		Construct	I 95 Reversible Ramp (Colocated w/ existing slip ramp from HOV to GP lanes)	I 95 HOV/BUS/HOT Lanes (Located N of Rte. 7100/I 95 I/C Phase II DAR)	EPG Southern Loop Road AM Only	0	1	0	1	2025
	16	VI2r43a		Construct	I 95 HOV/Bus/HOT Ramp SB Gen Purpose Lanes to SB HOV/Bus/HOT lanes	Between Dumfries Rd. and Joplin Rd.		0	1	0	1	2018
	18	VI2r45a		Construct	I 95 HOV/Bus/HOT Ramp NB HOV/Bus/HOT lanes to NB Gen Purpose Lanes	Between Joplin Rd. and Russell Rd.		0	1	0	1	2018
	969	VI2X		Construct	I-95 Auxiliary Lane SB	VA 123	VA 294	1	1	0	1	2022
CE3697	1011	VI2R48		Construct	I-95 Opitz Drive Reversible Ramp	I-95 Express Lanes at Opitz Drive	Opitz Drive	1	1	0	1	2022
CE3763				Study	I 95/I 495 Gap Study - Study HOT lanes, including potential ramp access at Van Dorn St. and US 1	East Side of Springfield Interchange	East of Wilson Bridge	1	1			not coded
CE3272	20	VI4Iaux1		Widen	I 495 Capital Beltway NB Auxiliary Lane	North of Hemming Ave. Underpass	Braddock Road Off Ramp	1	1	4+2	5+2	2030
CE3272	21	VI4Iaux2		Widen	I 495 Capital Beltway SB Auxiliary Lane	Braddock Road On Ramp	North of Hemming Ave. Underpass	1	1	4+2	5+2	2030
CE3272	22	VI4Iaux3		Widen	I 495 Capital Beltway NB Auxiliary Lane	Braddock Road On Ramp	VA 236 Off Ramp	1	1	4+2	5+2	2030
CE3272	24	VI4Iaux5		Widen	I 495 Capital Beltway NB Auxiliary Lane	VA 236 On Ramp	Gallows Road Off Ramp	1	1	4+2	5+2	2030
CE3272	25	VI4Iaux6		Widen	I 495 Capital Beltway SB Auxiliary Lane	Gallows Road On Ramp	VA 236 Off Ramp	1	1	4+2	5+2	2030
CE3272	29	VI4Iaux10		Widen	I 495 Capital Beltway NB Auxiliary Lane	US 50 On Ramp	I 66 Off Ramp	1	1	5+2	6+2	2030
CE3272	32	VI4Iaux13		Widen	I 495 Capital Beltway SB Auxiliary Lane	VA 7 On Ramp	I 66 Off Ramp to WB	1	1	4+2	5+2	2030
CE3272	35	VI4Iaux16		Widen	I 495 Capital Beltway SB Auxiliary Lane	VA 123 On Ramp	VA 7 Off Ramp	1	1	5+2	6+2	2030
CE3272	38	VI4Iaux19		Widen	I 495 Capital Beltway NB Auxiliary Lane	VA 267 On Ramp	VA 193 Off Ramp	1	1	4+2	5+2	2030 2025
CE3272	39	VI4Iaux20		Widen	I 495 Capital Beltway SB Auxiliary Lane	VA 193 On Ramp	VA 267 Off Ramp	1	1	4+2	5+2	2030 2035

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								Fr	To	Fr	To	
CE2069	999	VI4IRMP1		Construct	I-495 Express Lanes On-Ramp	Dulles Connector Road WB	I-495 Express Lanes NB	0	1	0	1	2025
CE2069	1000	part of VI4KA		Construct	I-495 Express Lanes (Shoulder Lane) - NB DIRECTION PEAK PERIODS ONLY	Dulles Connector WB On Ramp	GW Parkway Off Ramp	0	1	0	1	2025
CE2069	1001	VI4IRMP2		Construct	I-495 NB Exchange Ramp	Interstate Ramp - I-495 NB GP Lanes at Dulles Toll Road	I-495 NB GP Express Lanes at Dulles Toll Road	0	1	0	1	2045
CE2069	1002	VI4IRMP3		Construct	I-495 SB Exchange Ramp	Interstate Ramp - I-495 SB GP Express Lanes at Dulles Toll Road	I-495 SB Express GP Lanes at Dulles Toll Road	0	1	0	1	2045
CE2069	40	VI4K		Construct	I 495 Capital Beltway HOT Lanes	American Legion Bridge	George Washington Parkway (south of) with access ramps	1	1	8	8+4	2025
CE2069	41	VI4KA		Construct	I 495 Capital Beltway HOT Lanes	George Washington Parkway (south of)	Old Dominion Drive (south of)	1	1	8	8+4	2025
CE3186	49	Part VI4IHOTa		Relocate	I 495 Capital Beltway Interchange Flyover Ramp (Phase 4)	EB Dulles Airport Access Highway to NB General Purpose	at VA 267 Dulles Toll Road	1	1	1	1	2030 2045
CE3186	519	Part VI4IHOTa		Construct	I 495 Capital Beltway Interchange (Phase IV)	Provide SB HOT to EB HOV	at VA 267 Dulles Toll Road	1	1			2030 2035
CE3186	519	Part VI4IHOTa		Construct	I 495 Capital Beltway Interchange (Phase IV)	Provide EB DTR to NB HOT	at VA 267 Dulles Toll Road	1	1			2030 2025
CE3186	517	Part VI4IHOTa		Widen	I 495 Capital Beltway Interchange Ramp (Phase III DTR)	Widen EB DTR ramp to 2 NB lanes	NB GP Lanes	1	1	1	2	2030 2045
CE3186	520	VI4lrmp1		Construct	I 495 Capital Beltway Interchange Flyover Ramp (Phase 4)	I 495 Capital Beltway NB GP lanes	Dulles Airport Access Highway (DAAH) WB	0	1	0	1	2030 2045
CE3208	50	VI4IHOTb		Construct	I 495 Capital Beltway Interchange Ramp (Phase II, Ramp 3 DAAH)	I 495 Capital Beltway SB	Dulles Airport Access Highway WB	0	1	0	1	2020- 2035
CE3680	991	VP21G		Widen	Dulles Greenway - eastbound only	Toll Plaza	Dulles Toll Road	1	1	2	3	2019
				Widen	VA 267 Dulles Toll Road - eastbound only	Dulles Greenway	Centreville Rd. off-ramp	1	1	4	5	2019
CE3152	534	VP15E		Construct	VA 267 Dulles Toll Road Ramp	New Boone Boulevard Extension at Ashgrove		0	1	0	2	2037
CE3153	535	VP15B		Construct	VA 267 Dulles Toll Road Ramp	Greensboro Drive @ Tyco Road		0	1	0	2	2036
CE1965	236	MW1	MW1	Widen	Dulles Airport Access Road	Dulles Airport	VA 123	1	1	4	6	2030
Primary												
CE3291	549	VP1AH	90339	Widen	US 1 Richmond Highway	Fuller Road	Stafford County Line	2	2	4	6	2040
CE2594	631	VP1AD	90339	Widen	US 1 Fraley Blvd. (Town of Dumfries)	Brady's Hill Road	VA 234 Dumfries Road	2	2	4	6	2025
CE2594	632	VP1ADA		Widen	US 1 Richmond Highway	VA 234 Dumfries Road	Cardinal Drive/Neabsco Road	2	2	4	6	2030
CE3173	84	VP1AF	104303	Widen	US 1 Richmond Highway	Featherstone Road	Mary's Way	2	2	4	6	2022

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								Fr	To	Fr	To	
CE2161	239	VP1P	94102	Widen	US 1 Richmond Highway	Mary's Way	Annapolis Way	2	2	4	6	2019
CE2161	633	NRS	100938	Reconstruct	US 1 Richmond Highway	at VA 123 Gordon Boulevard (Interchange)						2028
CE2161	634	VSP63	100938	Construct	Belmont Bay Drive Extension	US 1 Jefferson Davis Highway	Heron's View Way			0	4	2025
CE3180	85	VP1AG		Widen	US 1 Richmond Highway	Annapolis Way	Lorton Road Pohick Road	2	2	4	6	2035
CE1942	322	VP1U		Widen	US 1 Richmond Highway	VA 235 North Mt. Vernon Memorial Highway	VA 235 South VA 626 Sherwood Hall Ln	2	2	4	6	2025 2028
CE3331	653	VP2P		Construct	VA 7 Interchange	At VA 690		2	2	0	4	2025
CE1870	86	VP2JA	16006	Widen	VA 7 Bypass	VA 7 West	US 15 South King Street South	5	1	4	6	2040
CE1870	299	VP2J	16006	Widen	VA 7 Bypass	US 15 South King Street	VA7/US 15 East	5	1	4	6	2040
CE2105	221	VP2M		Widen	VA 7	Reston Avenue	West Approach to Bridge over Dulles Toll Road Jarrett Valley Dr.	2	2	4	6	2025 2024
CE2105	628	VP2Lb		Widen	VA 7 Leesburg Pike	VA 123 Chain Bridge Road	I 495 Capital Beltway	2	2	6	8	2030
CE3161	87	VP2N		Widen	VA 7 Leesburg Pike	I 495	I 66	2	2	4	6	2030
CE2175	347	VP2B	TBD	Widen	VA 7	Seven Corners	Bailey's Crossroads	2	2	4	6	2030
CE3701	1022	NRS		Study	VA 7 Interchange	VA 123 Dolly Madison Road						2030
CE3327	682	NRS	105584	Construct	VA 7 Overpass at	George Washington Boulevard		0	4	0	4	2022 2024
CE2664	621	nrs	99481	Construct	VA 7 Interchange	at VA 659 Belmont Ridge Road		2	2	6	6	2017 2020 complete
CE3523	1023	NRS		Construct	US 15 Bypass / Battlefield Parkway Interchange			2	2	4	4	2035
CE3162	253	VP4EA		Widen	US 15 James Madison Highway	US 29 Lee Highway	Haymarket Drive	3	3	2	4	2040
CE3162		VP4EC		Widen	US 15 James Madison Highway Overpass	1200' S of RR tracks	1000' N. of RR tracks	3	3	2	4	2030
CE3738	881	VP4G		Widen	US 15	Battlefield Parkway	Montesor Road	2	2	2	4	2022 2026

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								Fr	To	Fr	To	
CE2045	88	VP6H		Widen	VA 28	Fauquier County Line	VA 652 Fitzwater Drive	3	3	2	4	2040
CE2045	309	VP6kA	105198	Widen	VA 28	VA 652 Fitzwater Drive	VA 215 Vint Hill Road	3	3	2	4	2019
CE2045	326	VP6MA	96721	Widen	VA 28	Godwin Drive	Manassas City limits	3	2	4	6	2019
CE2045	89	VP6K	105428	Widen	VA 28 Nokesville Road	Manassas City Limits	VA 619 Linton Hall Road	3	3	4	6	2022
CE1734	1037	VP6EDD		Convert	VA 28 PPTA Phase II- HOV	I-66	Westfields Blvd	5	5	8+ 2 aux	6 + 2aux + 2 HOV	2040
CE1734	873	VP6EDE		Convert	VA 28 PPTA Phase II- HOV	Westfields Blvd	Dulles Toll Road	5	5	8	6 + 2 HOV	2040
CE1734	310- 791	VP6EAA		Widen	VA 28 PPTA Phase II	I 66	Westfields Blvd	5	5	6	8+ 2 aux	2021
CE1734		VP6EAB		Widen	VA 28 PPTA Phase II	Westfields	US 50	5	5	6	8	2025
CE1734		VP6EBB		Widen	VA 28 PPTA Phase II	US 50	Sterling Blvd.	5	5	6	8	2016
CE1734	310	VP6ECC	106651	Widen	VA 28 PPTA Phase II	Sterling Blvd.	VA 7	5	5	6	8	2025
CE3181	656			Study	VA 28 Manassas Bypass /VA 411	VA 234 Godwin Drive/Route 234 on the western edge of the City of Manassas	I66 proposed interchange btwn Rt234 Business & Rt28 on I-66 Proposed Interchange					Not Coded
CE3479	737	VP6N	108720	Widen	VA 28 Centreville Road	US 29	Prince William County Line	2	2	4	6	2023
CE1865	995	VP6O		Construct	VA 28 Manassas Bypass	VA 234 Sudley Road	VA 28 Centreville Road	0	5	0	4	2025
CE3383	730		105482	Study	VA 28	US 29	Liberia Avenue					Not Coded
	620	VP7s		Widen	US 29 (add NB lane)	I 66	Entrance to Conway Robinson MSF	3	2	4	5	2030
CE1933	620	VP7s		Widen	US 29 (add NB lane)	Legato Raod	Shirley Gate/Waples Mill Rd.	3	2	4	5	2017- 2019 complete
CE1933	349	VP7AA		Widen	US 29	ECL City of Fairfax (vic. Nutley St.)	Espana Court	2	2	4	6	2025 2040
CE1933	625	VP7AB		Widen	US 29	Espana Court	I 495 Capital Beltway	2	2	4	6	2025 2040

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								Fr	To	Fr	To	
CE3474	731	VP7T		Widen	US 29 Lee Highway	VA 659 Union Mill Road	Buckleys Gate Drive	2	2	4	6	2024
CE2182	319	VP8H		Widen	US 50	ECL City of Fairfax	Arlington County Line	2	2	4	6	2025 2035
CE3739	2500			Construct	US50 North Collector Road	Tall Cedars Parkway	VA 28/ Air and Space Museum	2	2	2	4	2029
	94	NRS		Construct	US 50 Interchange	VA 606 Loudoun County Parkway		2	2	6	6	2025
	657	NRS		Construct	US 50 Interchange	West Spine/Gum Springs Road		2	2	6	6	2035
	658	NRS		Construct	US 50 Interchange	South Riding Boulevard		2	2	6	6	2035
	659	NRS		Construct	US 50 Interchange	Tall Cedars Parkway		2	2	6	6	2035
CE3603	885	NRS		Upgrade/ Intersection	Route 50 & Everfield Drive			2	2	2	2	2022 2026
CE3694	997	VP16		Widen	VA 55	Route 29	Town of Haymarket - Fayette St.			2	4	2028
CE1723	245	VP10G	100938	Widen	VA 123	US 1	Annapolis Way	2	2	4	6	2025
CE1784	235	VP10H		Widen	VA 123 Ox Road	Hooes Rd.	Fairfax Co. Parkway	2	2	4	6	2030
CE1784	337	VP10F	1784	Widen	VA 123 Ox Road	Fairfax Co. Parkway	Burke Center Parkway	2	2	4	6	2030
CE1856	300	VP10R		Widen	VA 123	Burke Center Parkway	Braddock Road	2	2	4	6	2030
	95	VP10S		Widen	VA 123	VA 677 Old Courthouse Road	VA 7 Leesburg Pike			4	6	2030
CE3376	595	VP10T		Widen	VA 123 Chain Bridge Road	VA 7 Leesburg Pike	I 495 Capital Beltway	2	2	6	8	2030
CE3698	1016	NRS		Upgrade	VA 123	I-495 Capital Beltway	VA 267 Dulles Access Road	2	2	6	6	2030
CE3698	1015	VP10U		Widen	VA 123	VA 267 Dulles Access Road	VA 634 Great Falls Street	2	2	4	6	2030
CE3371	590	VP24B		Widen	VA 215 Vint Hill Road	Kettle Run Drive	VA 1566 Sudley Manor Drive	4	4	2	4	2020
CE3641				Widen	VA 234 Sudley Road	Grant Road	Godwin Drive	2	2	2	3	2021
CE1897	286	VP12O	99482	Construct	VA 234 Bypass Extension North	VA 234 Bypass@I-66 (Prince Wm. Co.)	US 50 (Loudoun Co.)		5		4	2040
CE3177	678		105420/ T143	Construct	VA 234 Bypass Interchange	Balls Ford Road Relocated						2022
CE3178	660		T5665	Construct	VA 234 Bypass Interchange	Dumfries Road/Brentsville Road						2025 2024

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								Fr	To	Fr	To	
	739			Construct	VA 234 Byp-Prince William Parkway Interchange at	VA 840 University Boulevard						2030
CE3703		NRS		Construct	VA 234 Bypass Interchange	Clover Hill Road						2026
CE3467	727	NRS		Construct	VA 234 Prince William Parkway Interchange at	VA 1566 Sudley Manor Dr.						2030
CE1760	311	VP13A		Widen	VA 236	Pickett Road	I 395	2	2	4	6	2025 2035
CE2106	264	VSF25aa	57167	Convert	VA 286 Fairfax County Parkway HOV	VA 267 Dulles Toll Road	Sunrise Valley Drive	5	5	6	4+2	2035
CE2106	96	VSF25ea	57167	Widen	VA 286 Fairfax County Parkway	Sunrise Valley	West Ox Road Rugby Road	5	5	4	6	2035
CE2106	97	VSF25e	57167	Convert	VA 286 Fairfax County Parkway HOV	West Ox Road	US 50	5	5	6	4+2	2035
CE3702	1024	NRS	111725	Widen/Construct	VA 286 Fairfax County Parkway Interchange	VA 654 Pope's Head Road		2	2	4	6	2025 2024
CE2106	98	VSF25y		Upgrade	VA 286 Fairfax County Parkway HOV	US 50	VA 7735 Fair Lakes Parkway	2	5	6	4+2	2035
CE2106	101	VSF25z		Widen/Upgrade	VA 286 Fairfax County Parkway HOV	VA 7735 Fair Lakes Parkway	I 66	2	5	6	6+2	2035
CE2106	320	VSF25g		Widen	VA 286 Fairfax County Parkway	US 29	Rolling Rd. VA 123 Ox Road	5	5	4	6	2030
				Widen	VA 286 Fairfax County Parkway	VA 123	Sydenstricker Road	5	5	4	6	2030 2040
CE1833	304	VSF26		Construct	VA 289 Franconia-Springfield Parkway HOV	VA 286 Fairfax County Parkway	VA 2677 Frontier Drive	5	5	6	6+2	2025
CE1833	104	NRS		Construct	VA 289 Franconia-Springfield Parkway Interchange	Neuman Street		1	1			2035
CE1833	105	VSF26b		Upgrade	VA 289 Franconia-Springfield Parkway HOV	VA 638 Rolling Road	VA 617 Backlick Road	5	5	6	6+2	2025
	408	VSP23d		Widen	VA 294 Prince William County Parkway	VA 776 Liberia Avenue	VA 642 Hoadly Road	2	2	4	6	2040
CE3704	1028	NRS		Construct	VA 294 Prince William Parkway Intersection Improvements	VA 641 Old Bridge Road						2028
CE3705	1027	NRS		Construct	VA 294 Prince William Parkway Interchange	VA 640 Minnieville Road						2028

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								Fr	To	Fr	To	
CE3151	106	VP15CD		Construct	Collector-Distributor Rd Westbound (parallels Dulles Toll Rd.)	Route 7 Leesburg Pike	VA 828 Wiehle Avenue	0		0	+1	2035 2037
CE3154	107	VP15CDE		Construct	Collector-Distributor Rd Eastbound (parallels Dulles Toll Rd.)	VA 828 Wiehle Avenue	Route 7 Leesburg Pike	0		0	+1	2035 2036
CE3154	1033	VP15CD2		Construct	Collector-Distributor Rd Westbound (parallels Dulles Toll Rd.)	Route 7 Leesburg Pike	Spring Hill Rd.			0	+2	2035
CE3151		VP15CDE2		Construct	Collector-Distributor Rd Eastbound (parallels Dulles Toll Rd.)	Spring Hill Rd.	Route 7 Leesburg Pike			0	+2	2035
Urban												
CE2139	313	VU28B	100518	Construct	Battlefield Parkway	US 15 south of Leesburg	Dulles Greenway	0	2	0	4	2020
CE3222	52	VU30F	50100	Widen/Reconstruct	East Elden Street	Monroe Street	Fairfax County Parkway	3	2	4	6	2020 2026
CE1783	328	VU52	77378	Widen	Eisenhower Avenue	Mill Road	Holland Lane	3	3	4	6	2019 2023
CE3300	553	VU55	106976	Widen	Evergreen Mills Road	US 15 S. King Street	South City Limits of Leesburg	4	4	2	4	2022 2021 Complete
CE3286	681	VU56		Construct	Farrington Avenue	Van Dorn Street at Eisenhower Avenue	Edsall Road	0	4	0	2	2035 2034
CE1952	267	VU10B	105521	Widen/Reconstruct	Spring Street	Herndon Parkway (East)/Spring Street	Fairfax County Parkway Interchange	3	2	4	6	2021 2024
CE2073	232	VU33	102895	Widen	Sycolin Road	VA7/US 15 Bypass	SCL of Leesburg	4	4	2	4	2020 2027
CE2671	382	NRS	89890/L EES0001	Construct	US 15 Bypass Interchange	At Fort Evans Road and Edwards Ferry Road		5	2	4	4	2025
CE2020	290	VU45	15960 (PE & RW Only)	Widen	VA 234 Dumfries Road Business	South Corporate Limits	Hastings Drive	3	3	2	4	2040
CE3375	594	NRS		Reconstruct	VA 234 Grant Avenue	Lee Avenue	Wellington Road	3	3	4	2	2020
CE3174	53	nrs	8645	Construct	Intersection Improvement	King Street	Beauregard Street					2018 2025
CE3175	54	nrs		Construct	Ellipse	Seminary Road	Beauregard Street					2020 2028
CE3166	56	NRS	104328 and 106986	Reconstruct	Herndon Parkway (East): Transit Drop-off/Pick-Up Access to Herndon Metrorail Station	East of Rte 666/Van Buren Street (at 593 Herndon Parkway)	West of Rte 675 / Spring Street (at 575 Herndon Parkway)	2	2	4	4	2018 2023
	725	NRS	89889	Reconstruct	Herndon Parkway/Van Buren Street (south) intersection	Herndon Parkway/Van Buren Street (south)	Worldgate Drive/Van Buren Street (south)	2	2	4	4	2019 2022
CE3441	687	NRS	76408	Reconstruct	VA 17 Intersection Improvements in Warrenton	South of Frost Ave.	South of Winchester St.					2021
Secondary												
Arlington County												
CE2830	411	AR17a		Widen	Washington Boulevard	Wilson	Kirkwood	3	3	3	4	2019 2022

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								Fr	To	Fr	To	
CE3657	951	NRS		Construct	12th Street South	VA-120 (South Glebe Rd.)	South Monroe St	4	4	0	2	2019 2024
CE3677	987	AR30		Convert to 2-way	27th Street South	US-1	Crystal Drive	4	4	4	4	2019
CE3678	988	AR31		Demolish	South Clark Street	12th Street South	20th Street South	4	0	2	0	2019
Fairfax County												
CE1849	336	FFX2a		Widen	VA 602 Reston Pkwy.	VA 5320 Sunrise Valley Dr.	VA 606 Baron Cameron Avenue Sunset Hills Road	3	3	4	6	2020 2040
		FFX2c		Widen	VA 602 Reston Pkwy.	Sunset Hills Road	New Dominion Parkway	3	3	4	6	Complete
CE1849	4041	FFX2b		Widen	VA 602 Reston Pkwy.	New Dominion Parkway	VA 606 Baron Cameron Avenue	3	3	4	6	2040
CE3475	732	VSF44		Widen	VA 608 Frying Pan Road	VA 28 Sulley Road	VA 657 Centreville Road	3	3	2	4	2025 2030
CE2186	218	VSF4ca		Widen	VA 611 Telegraph Road	Leaf Road North	VA 635 Hayfield Road	3	3	2	4	2025 2040
CE2186	298	VSF4i		Widen	VA 611 Telegraph Road	VA 635 Hayfield Road	VA 613 (Van Dorn St.)	3	3	2	4	2025 2040
CE2186	62	VSF4h	11012	Widen	VA 611 Telegraph Road	VA 613 S. Van Dorn	VA 644 Franconia Road	3	3	2	3	2025 2040
CE3275	63	VSF15b		Construct	VA 613 Van Dorn Interchange	VA 644 Franconia Road		0	0	0	0	2025 2035
CE2158	301	VSF8g		Widen	VA 620 Braddock Road	VA 286 Fairfax County Parkway	VA 123 Ox Road	3	3	4	6	2025 2040
CE3731	2484	VSF8K		Widen	VA 620 Braddock Road	Paul VI Eastern Entrance	Loudoun County Parkway	3	3	2	4	2028
CE2206	334	VSF8j		Construct/Widen	VA 620 New Braddock Rd.	VA 28	US 29 @ VA 662 (Stone Rd.)	0/4	3	0/2	4	2025
CE3478	736	VSF45		Widen	VA 636 Hooes Road	VA 286 Fairfax County Parkway	VA 600 Silverbrook Road	3	3	2	4	2025
CE1936	302	VSF10a		Widen	VA 638 Rolling Road	VA 286 Fairfax County Parkway - Viola St.	VA 644 Old Keene Mill Road	3	3	2	4	2025 2026
CE3301	586	VSF10E	102905	Widen	VA 638 Rolling Road	Rt 5297 DeLong Drive	Fullerton Drive - Virginia Dr.	3	3	2	4	2022 2035
CE2645	377	VSF10c	16505	Widen	VA 638 Pohick Road	VA 1	I 95	3	3	2	4	2025

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2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS (highway)

PIT Project ID	Con ID	Project ID	Agency ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
CE1859	217	FFX11a		Widen	VA 645 Stringfellow Road	US 50	VA 286 Fairfax County Parkway	3	3	2	4	2030 2040
	64	VSF37a		Widen	VA 650 Gallows Road	VA 7 Leesburg Pike	VA 699 Prosperity Ave.	2	2	4	6	2038
CE2833	65	VSF33a		Widen	VA 651 Guinea Road	VA 6197 Roberts Parkway	VA 4807 Pommeroy Drive	3	3	2	4	2025 2040
CE1748	255	FFX12a		Construct	VA 651 New Guinea Road	VA 123 Ox Road	Roberts Road	0	3	0	4	2025 2040
CE3442	688	VSF17b		Construct	VA 655 Shirley Gate Road	VA 286 Fairfax County Parkway	VA 620 Braddock Road	0	3	0	4	2030
	346	VSF18C	74749	Widen	VA 657 Centreville Road	VA 8390 Metrotech Dr.	VA 668 McLearn Road	3	3	4	6	2040
CE3150	66	NRS		Construct	Boone Boulevard Extension	VA 123 Chain Bridge Road	Ashgrove Lane			0	4	2036
CE3460	724	VSF46		Construct	VA 2677 Frontier Drive	Franconia-Springfield Transportation Center	VA 789 Loisdale Road	0	4	0	4	2024 2030
CE3155	69	NRS		Construct	Greensboro Drive WB	Spring Hill Road	Tyco Road	0	4	0	2	2034
CE3158	68	VSF43		Widen	Magarity Road	VA 7 Leesburg Pike	VA 694 Great Falls Street			2	4	2037
CE3157	67	NRS		Construct	New Bridge/Road Crossing- bike ped only	Tysons Corner Center Ring Road	Old Meadow Road			0	0	2036 2022
CE3609	882	VSF48		Construct	Rock Hill Road Overpass Davis Dr. Bridge	VA 5320 (Sunrise Valley Dr.)	VA 209 (Innovation Avenue)	0	4	0	4	2030
CE3450	722	VSF49		Construct	Soapstone Drive 4-Lane Overpass	Sunrise Valley Drive	Sunset Hills Road	0	4	0	4	2027
CE3699	1017	VSF50		Construct	Town Center Parkway Underpass of Dulles Toll Road	VA 5320 Sunrise Valley Dr.	VA 675 Sunset Hills Road	0	4	0	4	2030
CE3060	442	VSF41	103907	Construct/Widen	VA 8102 Scotts Crossing Rd	VA 123 Dolly Madison Blvd	Jones Branch Dr			0/2	4	2018
CE3759	4080			Construct	Worldgate Drive Extension	Van Buren Street	Herndon Parkway	0	3	0	4	2030
Loudoun County												
CE3355	661	NRS		Construct	VA 606 Ramp	VA 606 Eastbound	VA 789 Lockridge Road Northbound			0	2	2020
	330	VSL1B	97529, 105064	Widen/Upgrade	VA 606/607 Old Ox Rd/Loudoun County Parkway	VA 634 Moran Rd	VA 621 Evergreen Mills Rd	4	3	2	4	2018
CE3315	566	VSL10E		Widen	VA 607 Loudoun County Parkway	US 50	VA 606 at new Arcola Blvd.	3	3	4	6	2030

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								Fr	To	Fr	To	
	275	VSL10bb		Widen/Upgrade	VA 607 Loudoun County Parkway	W&OD Trail	Redskin Park Drive	4	3	4	6	2025
CE3736	2493	VSL10F		Widen	VA 607 Loudoun County Parkway	Shellhorn Road	Ryan Road	3	3	4	6	2022
CE3604	890	VSL2C		Widen	VA 620 Braddock Rd	VA 659	Fairfax County Line	3	3	2	4	2025
CE3605	889	VSL2D		Widen	VA 620 Braddock Rd	VA 659	Royal Hunter Drive	4	4	2	4	2025
CE3606	884	NRS		Reconstruct	VA 620 Braddock Road	Braddock Road	Summerall/Supreme	4	4	2	2	2020- 2022
CE3601	887	NRS		ReAlign Intersections	VA 621 Evergreen Mills Rd	Watson Road	Reservoir Road	3	3	2	2	2020 2024
CE3311	578 580	VSL62		Widen	VA 621 Evergreen Mills Road (Eastern Segment)	VA 607 Loudoun County Parkway—Northstar Boulevard	VA 659 Belmont Ridge Road—Stone Springs Boulevard	4	4	2	4	2025
CE3312	578 580			Construct	VA 621 Evergreen Mills Road (Western Segment)	VA 842 Arcola Boulevard	VA 659 Belmont Ridge Road	4	4	2	4	2025
CE3333	683	NRS		Construct	VA 625 Waxpool Road/ VA 607 Loudoun County Parkway Interchange Improvements	Loudoun County Parkway	Waxpool Road	3	3	4	4	2019 2024
CE3443	689	VSL54	106996	Widen	VA 640 Farmwell Road	VA 1950 Smith Switch Road	VA 641 Ashburn Road	4	4	4	6	2020- 2022
CE2209	335	VSL45	VSL45	Widen Study	VA 643	Leesburg Town Limits	Crosstrails Boulevard	3	3	2	4	2035— not coded
CE3502	827	VSL65		Construct	VA 643 Shellhorn Extended	VA 606 Loudoun County Parkway	VA 634 Moran Road	0	4	0	4	2020 2023
CE3499	825	VSL64		Construct	VA 645 Westwind Blvd Drive Extended	VA 607 Loudoun County Parkway	VA 606 Old Ox Rd.	0	4	0	4	2020 2026
CE3734	2489	VSL68		Widen	VA 645 Croson Ln.	Clairborn Parkway	Old Ryan Road			2	4	2027
CE1897	72	VSL4ac	76244 & 99481	Widen	VA 659 Belmont Ridge Road	VA 7 Leesburg Pike	VA 267 Dulles Greenway	4	3	2	4	2018
CE1897	746	VSL4AD		Widen/Upgrade	VA 659 Belmont Ridge Road	VA 645 Croson Lane	VA 267 Dulles Greenway	4	3	2	4	2025- 2023
CE1897	2523	VSL4G		Widen	VA 659 Belmont Ridge Road	Arcola Mills Drive	Shreveport Drive			2	4	2028
CE1818	297	VSL4f		Widen	VA 659 Gum Spring Rd.	Prince William County Line	VA 620 Braddock Road	4	4	2	4	2035

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								Fr	To	Fr	To	
CE3306 CE3307	573 574 575	VSL61		Construct	VA 842 Arcola Boulevard (Southern Segment)	US 50	VA 607 Loudoun County Parkway	0	4	0	4	2022
CE3067	76	VSL40F	102858	Construct	VA 901 Clairborne Parkway	VA 645 Croson Lane	VA 772 Ryan Road	0	4	0	4	2019
CE3309	576	VSL63		Construct	VA 774 Creighton Road (completion of eastern end)	VA 659 Belmont Ridge Road - Northstar Boulevard	VA 621 Evergreen Mills Road	0	4	0	4	2025 2020
CE3323	641	VSL58		Construct	Ashburn Silver Line Station Connector Bridge	VA 267 Dulles Greenway	Ashburn Silver Line Station	4	4	0	4	2019 Complete
CE3734	883	VSL66		Widen	Croson Ln	Clairborn	Mooreview Pkwy	4	4	2	4	2025
	577	VSL56		Construct	Crosstrail Boulevard	VA 625 Sycolin Road	Kincaid Boulevard	0	4	0	4	2019 Complete
CE3735	2491	VSL56A		Construct	Crosstrail Boulevard	VA 625 Sycolin Road	Dulles Greenway	0	4	0	4	2026
	662	NRS	69870	Construct	VA 868 Davis Drive	VA 606 Old Ox Road	VA 846 Sterling Boulevard	0	4	0	4	2025
CE3313 & CE3314	564 & 565	VSL67A		Construct	Dulles West Blvd. Phase I & Phase II	Dulles Landing Drive - VA 607 Loudoun County Parkway	Arcola Blvd	0	4	0	4	2022
CE2582	1031	VSL67B		Construct	Dulles West Blvd. Phase III	Arcola Blvd	Northstar Dr.	0	4	0	4	2025
	888	NRS		Reconstruct	Elk Lick Rd Intersections	US 50	Tall Cedars Pkwy	4	4	2	2	2020
CE3602	886	NRS		Construct	Moorefield Boulevard	Mooreview Parkway	Moorefield Station	0	4	0	3	2020
CE3316	568	VSL57		Construct	VA 2298 Mooreview Parkway (Missing Link)	VA 2773 Amberleigh Farm Drive	VA 772 Old Ryan Road	0	4	0	4	2019
CE3318	570	VP12R	106994	Construct	VA 3171 Northstar Boulevard (Missing Link #79)	Shreveport Drive	US 50	0	3	0	4	2022
CE3737	2495	VP12S		Construct	VA 3171 Northstar Boulevard	Tall Cedars Parkway	Braddock Road	0	3	0	4	2028

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								Fr	To	Fr	To	
CE3320	572	VSL59		Construct	VA 1071 Prentice Drive (Western Segment)	VA 607 Loudoun County Parkway	Loudoun Station Drive	0	4	0	4	2019 2026
CE3321	556	VSL59		Construct	VA 1071 Prentice Drive Eastern Segment	VA 789 Lockridge Road	VA 607 Loudoun County Parkway	0	4	0	4	2019 2026
CE3501	826	VSL48B		Construct	VA 2401 Riverside Parkway	VA 607 Loudoun County Parkway	VA 2020 Ashburn Village Boulevard Extension	0	4	0	4	2018 2022
CE3324	559	VSL49B		Construct	VA 1061 Russell Branch Parkway (Western Segment)	VA 659 Belmont Ridge Road	Tournament Parkway	0	4	0	4	2017 2024
CE3326	563	VSL55A		Construct	Shreveport Drive (Western Segment) – Evergreen Mills Road	VA 621 Evergreen Mills Road	VA 659 Belmont Ridge Road	0	4	0	4	2025 2021 Completed
CE3329	562	VSL60	105783	Construct	VA 846 Sterling Boulevard Extension	VA 1036 Pacific Boulevard	VA 634 Moran Road	0	4	0	4	2025
CE3332	555		87106	Widen	VA 2119 Waxpool Road	VA 2070 Demott Road	VA 2020 Ashburn Village Boulevard	4	4	2	4	2018
Prince William County												
CE3187	82	VSP2i	92999	Widen	VA 619 Fuller Road	US 1	VA 619 Fuller Heights Road Relocated			2	4	2025
CE3693	996	VSP3D		Widen	VA 621 Devlin Road	Linton Hall Road	Wellington Road			2	4	2028
CE2357	79	VSP3b	80347	Widen/Upgrade	VA 621 Balls Ford Road	Sudley Rd	Doane Drive	4	3	2	4	2022
CE2357	690	VSP64			VA 621 Balls Ford Road Relocated	Doane Drive	Devlin Road	0	3	0	4	2022
CE3372	591	VSP66		Construct	VA 627 Van Buren Road	VA 234 Dumfries Road	VA 610 Cardinal Drive	0	4	0	4	2040
CE3374	593	VSP65		Widen	VA 638 Neabsco Mills Road	US 1 Jefferson Davis Highway	Smoke Ct.			2	4	2023
	376	VSP5e	103484	Widen	VA 640 Minnieville Road	VA 643 Spriggs Road	VA 234 Dumfries Road	3	3	2	4	2018
CE3695	998	VSP17C		Widen	VA 674 Wellington Road	University Boulevard	VA 621 Devlin Road/Balls Ford Road	3	3	2	4	2028
CE2145	646 581	VSP17ba		Widen	VA 674 Wellington Road	VA 621 Devlin Road/Balls Ford Road	VA 234 Prince William Parkway Bypass	3	3	2	4	2025
CE2145	338 589	VSP17b		Widen	VA 674 Wellington Road	VA 234 Bypass Prince William Parkway	VA 668 Rixlew Lane	3	3	2	4	2035
CE1754	308	VSP18	VSP18	Widen	VA 676 Catharpin Rd.	VA 55 John Marshall Highway	Heathcote Blvd.	3	3	2	4	2040 2020
CE3753	4600			Construct	Annapolis Way Extension	VA 123 Commuter Lot Entrance	Current termini west of Marina Way			0	2	2028

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								Fr	To	Fr	To	
CE3754	3520			Study	HOV lanes on Dale Blvd/PW Pkwy/Minnieville Rd	Dale Blvd / PW Pkwy / Minnieville Rd						not coded
CE3756	3580			Construct	Horner Road	VA 123 Gordon Blvd	Annapolis Way	0	4	0	2	2030
CE2876	4123			Widen	Liberia Avenue	VA 28	Richmond Avenue			4	6	2025
CE1985	401	NRS		Construct	McGraws Corner Dr. / Thoroughfare Rd.	US 29 Lee Highway @ Virginia Oaks Dr.	US 15 @ Thoroughfare Dr.	0	4	0	4	2040
CE1921	219	VSP25b	104802	Widen	VA 1781 New Telegraph Road/Summit School Road	Horner Road/Park'n Ride Lot Access	VA 2190 Summit School Road Extension	4	4	2	4	2025
CE3480	745	NRS		Construct	VA 234 Potomac Shores Parkway	US 1 Jefferson Davis Highway	VA 4700 River Heritage Boulevard	0	4	0	4	2020
CE2008	325	VSP20C	VSP20c	Widen/Upgrade	VA 1392 Rippon Boulevard Extension	West of Wigeon Way	Rippon VRE Station	4	3	2	4	2040 2030
CE3482	743	NRS		Widen	VA 4700 River Heritage Boulevard	VA 234 Potomac Shores Parkway	Dominica Drive	4	4	2	4	2020
CE3481	744	NRS		Construct	VA 4700 River Heritage Boulevard	Dominica Drive	VA 234 Potomac Shores Parkway	0	4	0	2	2020
CE3293	642	VSP62a		Construct	Rollins Ford Road	Wellington Road	Linton Hall Road	0	3	0	4	2040
	643	VSP67	104802	Construct	VA 2190 Summit School Road Extension	Telegraph Road	VA 2190 Summit School Road (south end of existing)	4	4	2	4	2025
CE1837	257	VSP25c		Widen	VA 1781 Telegraph Rd.	VA 294 (Prince William Pkwy)	VA 849 (Caton Hill Rd.) - Horner Road Park-n-Ride Lot Access	4	4	2	4	2025
CE3755	3560			Construct	Thorough Blvd.	VA 640 Minnieville Road	Elm Farm Road			0	2	2030
	83	VSP47e		Construct	University Boulevard	Sudley Manor Drive	Wellington Rd/Progress Ct.	0	3	0	4	2035
CE2176	904			Construct	Williamson Blvd	Sudley Manor Drive	Portsmouth Road			0	4	2030
FAMPO												
		VI2RFA		Construct/revise operations	I-95 :HOV/Bus/HOT Lanes- single reversible lane	north of Garrisonville Road (south of Aquia Creek) at flyover	south of Garrisonville Road	1	1	0	1	2018
		VI2RFB		Construct	I 95 : HOV / Bus / HOT Lanes: Southbound Ramp	South of Garrisonville Road	SB HOT Lanes to SB GP Lanes	1	1	0	1	2018
		VI2RFC		Construct	I 95 : HOV / Bus / HOT Lanes: Northbound Ramp	South of Garrisonville Road	NB GP Lanes to NB HOT Lanes	1	1	0	1	2018
		VI2rf		Construct	I 95 : HOV / Bus / HOT Lanes	Rte. 610 (Garrisonville Rd.) in Stafford County	VA 17 Warrenton Rd. (exit 133)	1	1	0	2	2022
				Study	I 95 : HOV / Bus / HOT Lanes	VA 17 Warrenton Road (exit 133)	VA 17 in Spotsylvania County (exit 126)	1	1	0	2	not coded
				Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	South of Telegraph Road (North of Aquia Creek)	SB GP Lanes to SB HOT Lanes	1	1	0	1	2022
				Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	South of Telegraph Road (North of Aquia Creek)	NB HOT Lanes to NB GP Lanes	1	1	0	1	2022
				Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	North of Garrisonville Road (south of Aquia Creek)	NB GP Lanes to NB HOT Lanes	1	1	0	1	2022
		VI2RFD		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	At Courthouse Rd.	NB AM on-ramp	1	1	0	1	2022
		VI2RFE		Construct	I 95 : HOV / Bus / HOT Lanes: Ramp	at Courthouse Rd.	SB PM off-ramp	1	1	0	1	2022

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								Fr	To	Fr	To	
		FAI1F		Widen	I-95 northbound	Exit 126 (US 1/VA17)	Exit 130 (VA 3 Plank Rd.)	1	1	3	4	2035
		FAI1G		Construct	I-95 northbound 3 lane collector distributor road	Exit 130 (VA 3 Plank Rd.)	Exit 133 (VA 17 Warrenton Rd.)	1	1	3	6	2025
		FAI1H		Widen	I-95 northbound	Exit 133 (VA 17 Warrenton Rd.)	Exit 136 (Centerport Parkway)	1	1	3	4	2045
		FAI1HA		Construct	I-95 4th auxiliary lane	Exit 133 (VA 17 Warrenton Rd.)	Exit 136 (Centerport Parkway)	1	1	X	X+1	2045
		FAI1J		Widen	I-95 southbound	Exit 130	Exit 126 (US 1/VA17)	1	1	3	4	2035
		FAI1K		Construct	I-95 southbound	1.3 miles south of Exit 130	.3 miles north of Truslow Rd	1	1	x	x+3cd	2025
		FAS22A		Widen	VA-3 (William St)	Gateway Blvd.	William St./Blue Gray Parkway			4	6	2030
		FAS22		Widen	VA 3 (Spotsylvania)	Chewing Lane	VA 627 (Gordon Rd.)	2	2	4	6	2013
		FAP6E		Widen	Tidewater Trail 17 Business/VA 2	US Beulah Salisburty Dr.	US 17 Bypass (Mills Dr.)	2	2	2	4	2035
		FAP6		Widen	US 17	US 1	Hospital Blvd.	2	2		4	2025
		FAP6C		Widen	US 17 (Warrenton Rd.)	McLane Drive	Stafford Lakes Parkway	2	2	4	6	2020
		FAP7A		Widen	VA 218 (Butler Rd.)	Carter St.	Castle Rock Dr.	4	4	2	4	2045
Fredericksburg												
				Construct	Carl D. Silver Pkwy Ext.	current terminus	Gordon Shelton Blvd.			0	4	2035
		FAU1			Fall Hill Ave./ Mary Washington Blvd. Extension	Mary Wash. Blvd.	Gordon Shelton Blvd.			2	4	2020
					Lafayette Blvd.	City Limit	VA-3 (Blue & Gray Parkway)				4	2045
		FAU2			Gateway Blvd. Extended	William St. (PR-3)	Fall Hill Ave (UR-3965)			0	4	2035
Stafford County Secondary												
		NRS			VA 610	Shenandoah Ln	Orville Rd				6	2021
		FAS5b			VA 630 (Courthouse Rd)	Austin Ridge Dr.	VA 648 (Shelton Shop Rd)	4	4	2	4	2035
		FAS13			VA 648 (Shelton Shop Rd.)	VA 610 (Garrisonville Rd)	VA 627 (Mountainview Rd)	4	4	2	4	2035
		FAS3E		Widen	Garrisonville Rd.	Eustace Rd.	Shelton Shop Rd.			4	6	2045
Spotsylvania County Secondary												
		FAS26A			VA 606	US 1	I-95				4	2025
		FAS18B			VA-620 (Harrison Rd.)	US-1 BUS (Lafayette Blvd.)	VA-639 (Salem Church Rd.)			2	4	2035
		FAS19			VA 636 (Mine Rd./ Hood Dr.)	VA 208 (Courthouse Rd.)	US 1	4	4	2	4	2025
		FAS19B			VA 636 (Mine Rd./ Hood Dr.)	Falcon Dr. / Spotsylvania Ave	Landsdowne Rd	4	4		4	2035

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MEMORANDUM

TO: Transportation Planning Board
FROM: Stacy Cook, TPB Transportation Planner
SUBJECT: Summary: TPB Work Session: Facilitated Review of Technical Inputs (May 19, 2021)
DATE: June 10, 2021

This memorandum summarizes the comments made by the members of the National Capital Region Transportation Planning Board (TPB) on the technical inputs for the update to Visualize 2045 and the Transportation Improvement Program (TIP) during the TPB's May 19, 2021 work session. This memorandum also summarizes the information and responses provided by TPB member agency technical staff and TPB staffs. The memorandum is organized into two sections, general comments, and project-specific comments.

INTRODUCTORY REMARKS

Welcoming members to the work session, board Vice-Chair Ms. Pamela Sebesky noted that the work session was a follow-up to the April work session. She noted the purpose of the session as a review of proposed inputs to be included in the Air Quality Conformity Analysis. The work session began where the April meeting left off, reviewing projects proposed by the state and local jurisdictions. The review order was noted as Maryland projects, followed by Virginia and the District of Columbia, and ending with other regional projects.

Director Srikanth reviewed a slide deck that summarized the regional policy documentation provided to the board for all projects in the constrained element of the plan and thanked the more than fifty technical staff members across the region for providing the information that is included in this documentation. The presentation was posted on the meeting page:

<https://www.mwcog.org/events/2021/5/19/transportation-planning-board/>

Ms. Cook then began facilitating the review.

MARYLAND PROJECTS

Mr. Earl Lewis and Ms. Caryn Brookman of the Maryland Department of Transportation began by briefing the members on the changes to the I-495/I-270 Express (HOT) Lanes project that had recently been announced by the Governor of Maryland. The most significant change was the proposed construction of HOT lanes on I-495 from I-270 to Woodrow Wilson Bridge was being changed to a study. This meant that the project would no longer be included in the regional air quality conformity analysis. The presentation can be found at the end of this memorandum.

Mr. Marc Korman, Maryland House of Delegates, asked a question about Table 2 of the Appendix E of the regional policy documentation. He questioned why none of the Maryland projects denotes “expand bus rapid transit and transitways regionwide” and “move more people on Metrorail.” He

commented that the Purple Line would move more people on Metrorail and the HOT lanes project and that is not noted in the project's description. He also said that the HOT lanes project has been presented to provide busses access to the rapid lanes and also expansion of bus capacity at Shady Grove Metro station yet did not see any of these in the description here. Mr. Lewis agreed that both projects would benefit transit and transit ridership and said he would look into the project descriptions. He said that Maryland invests a significant amount of funding on transit and will continue to do so given that transit is a critical element of the transportation system..

Mr. Korman followed up asking if MDOT is required to investment in transit by law. Mr. Lewis responded noting its more than the law and that they are working not only for compliance but also to meet expectations of the constituency by investing to increase transit usage and to make it successful.

Mr. Victor Weissberg, Prince George's County, added to the comments that the inclusion of transit to the American Legion Bridge I-270 to I-70 Traffic Relief Plan is essential to the regional balance and connectivity especially considering the connection to Northern Virginia across the Woodrow Wilson Bridge.

Ms. Kacy Kostiuk, Takoma Park, asked about what changes occurred in the project submission for the American Legion Bridge in regard to the I-495 section, particularly with regard to conformity analysis. Ms. Cook noted that the comment period packet includes an updated conformity analysis table that shows the changes to the HOT lanes project made during the comment period. Mr. Lewis noted the project between American Legion Bridge and I-270 will proceed with construction while remainder on I-495 will remain under study. MDOT is planning to work with local jurisdictions and stakeholders on how to address congestion across the Maryland component of I-495.

Ms. Cook asked Ms. Jane Posey, TPB, if she would like to speak on the study being done for the I-495 project in relation to the air quality conformity analysis inputs. Ms. Jane Posey noted that portion of the beltway that is under study would not be able to move forward into construction until it comes back through a conformity analysis and approved as part of project inputs for the TPB. Mr. Weissberg asked if that includes the transit component as well. Ms. Posey confirmed it does.

Ms. Bridget Newton noted that the City of Rockville submitted a letter to TPB with concerns about the proposal for HOT lanes on I-270. She mentioned taking I-495 off the table does not help the entire situation and another analysis is needed to see if the southern portion of I-270 will have positive impacts. Ms. Newtown also noted that significant costs will be incurred along the project that have yet to be accounted for and commented that MDOT-SHA has not responded to the City's requests for information from November 2020. She ended her comments noting that the problem isn't in the lower portion of the project but is rather located at the bottleneck where the 6-lane portion becomes 2-lane. The City of Rockville would be severely impacted.

Ms. Kostiuk asked about the assumptions on the vehicle miles traveled (VMT) for the expansion project. She wanted to know to what extent VMT analysis looks at the potential for increased congestion on other streets. Mr. Lewis noted MDOT's goal at managing VMT, as Maryland continues to reduce VMT per capita, they will continue to monitor the impact that COVID and post-pandemic life will have on VMT per capita. He mentioned the importance to continue of transit to help relieve congestion and help reduce emissions.

In response to Ms. Newton, Mr. Lewis added that congestion in that corridor is from the bridge and up to I-270. He noted that previous studies identified the congestion and recognize it as an important issue that needs to be addressed.

Mr. Mark Phillips, WMATA, noted that he found discrepancies in Tables 1 and 2 for multiple projects in different jurisdictions. Mr. Phillips asked Ms. Cook, between the project text and tables, which are likely to be more accurate or if staff needs more time to review and make corrections. Ms. Cook acknowledged the discrepancies and noted that most of the available information is correct but to defer to text, in the case of discrepancies. Due to the technical nature of the questions, she also noted that there is the possibility for different interpretations of the checkboxes in the tables. She ended by noting that staff will review the documentation. Mr. Phillips asked if Mr. Lewis had any comments on how the I-270/I-495 project would address greenhouse gasses and VMT. Mr. Lewis replied noting that the data in the tables and text will be reviewed. He mentioned that there is a long-term trend towards the electrification of vehicles which will drive emissions down and reduce congestion and greenhouse gasses from idling vehicles. He said that more research will be done to see how to meet MDOT's GHG objectives.

Mr. Lewis noted MDOT's participation with the Maryland Commission on Climate Change and gave some insight on the work being done to address climate change and greenhouse gas emissions. He ended his statements mentioning no concern that the I-270/I-495 project will impact MDOT's ability to meet their GHG objectives.

Mr. Shyam Kannan, WMATA, stated that the responsibility of the Board is to make sure that the project submissions are fully completed. He stressed the importance of completeness when considering approval of investments. He noted difficulties in the ability to approve of projects that contain discrepancies or lack information to support data. Mr. Lewis noted that the manage lane study is part of the Traffic Relief Plan and the project is a private-public partnership which does not use state funds to build the project. He noted that it's a critical infrastructure project that will help relieve congestion.

Ms. Cook noted that the technical transportation staff across the region have taken the time to provide narrative and binary responses to the project submissions. She noted the binary responses for the 400+ projects and the narrative responses are complete, except for a few projects for which questions may not apply. Ms. Cook asked the board members to reach out to her if there is specific information needed on a particular project.

VIRGINIA PROJECTS

Ms. Maria Sinner, of the Virginia Department of Transportation, began by speaking about VDOT's work to complete all the project regional policy documentation packages and descriptions and thanked all of the sister agencies who contributed to gather all of the data. She noted that VDOT is very focused on reducing greenhouse gasses and VMT per capita through projects, policies, and strategies. She also noted that VDOT was questioned about their efforts in helping to mitigate climate change issues during the April Work Session. To address those questions, VDOT prepared a presentation during which Mr. Norman Whitaker briefed the participants about VDOT's environmental activities. He went over the Statewide Vision and discussed efforts VDOT is participating in to mitigate greenhouse gas emissions. He also provided examples of efforts in place

and strategies being encouraged that would help reduce greenhouse gas emissions and address VMT, specifically looking at the multi-modal express lane system, Performance-Based Planning, and emerging clean technologies. Mr. Whitaker noted the Regional Multi-Modal Mobility Program (RM3P) for which VDOT is partnered with NVTA. It was described as a technology that combines travel demand management with intelligent transportation systems using artificial intelligence. The presentation can be found at the end of the memorandum.

Ms. Jeanette Rishell, Manassas Park, noted that individuals or groups can misrepresent facts and thanked Mr. Whitaker for his presentation and hopes it clears up any misinformation.

DISTRICT OF COLUMBIA PROJECTS

Ms. Lezlie Rupert of the District Department of Transportation commented that the DDOT program reflects and is committed to the District's goals, federal requirements, and the region's goals and aspirations. DDOT is working to utilize their right of way to create a safe and connected network for all modes of transportation. Ms. Rupert noted that none of DDOT's projects increase capacity and are not anticipated to increase VMT or have any adverse impact to the regional climate. No questions were received by DDOT since the April Work Session where there was discussion on H & I Street.

No questions or comments were asked by the participants.

OTHER PROJECTS/TECHNICAL INPUTS

No questions or comments were asked by the participants.

Mr. Srikanth ended the meeting by inviting Board members to reach out to the TPB if there are any questions or comments in the next 10 days.



American Legion Bridge I-270 to I-70 Relief Plan

Transportation Planning Board

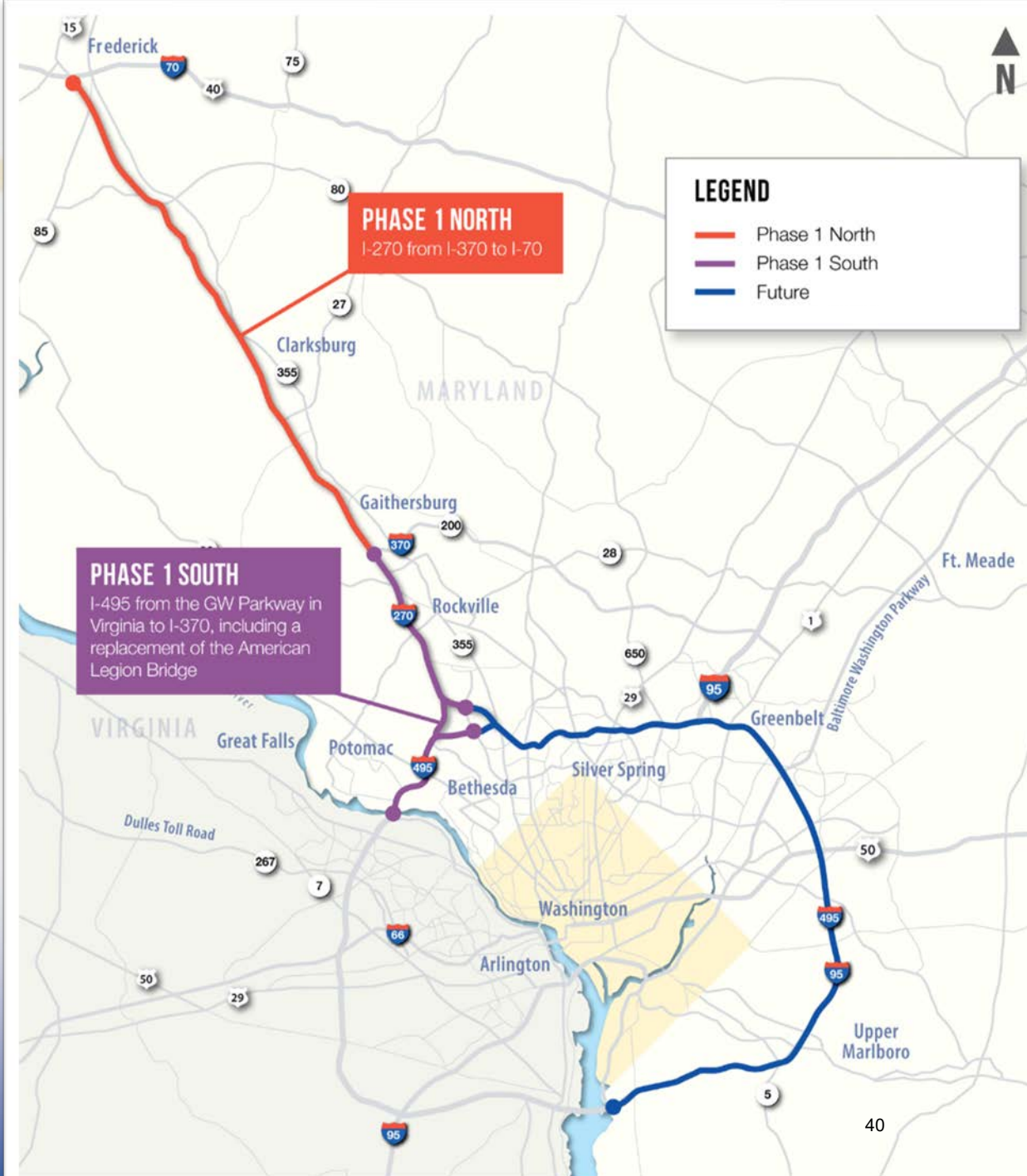
Work Session #2

May 19, 2021



American Legion Bridge I-270 to I-70 Relief Plan

- **Phase 1 South** is I-495 from George Washington Parkway to MD 187 and then I-270 from I-495 to I-370 including the I-270 east spur from MD 187 to I-270 – part of the I-495 & I-270 Managed Lanes Study (MLS)
- **Phase 1 North** is I-270 from I-370 to I-70 and is a separate study that is in Pre-NEPA





MLS Project Update

Continuous Collaboration

Since the January IAWG, MDOT SHA has continued to address DEIS comments and has been meeting with individual agencies and stakeholders to hear concerns and work towards a resolution of critical study topics.

- ☐ Held over 20 office and field agency coordination meetings with various agencies and stakeholders, including but not limited to:
 - FHWA, EPA, NCPC, NPS, USACE, US Navy
 - DNR, MDE
 - M-NCPPC, Montgomery County DOT, Prince George's County DPW&T
 - City of Rockville
 - Washington Biologists' Field Club
- ☐ Held Section 106 Consulting Parties Meeting
- ☐ Established Executive Steering Committee
- ☐ Continued Economic Working Group efforts
- ☐ Established Environmental Justice Working Group
- ☐ Re- initiated Community Meetings



Recommended Preferred Alternative (RPA)

- Announced in January, ***Alternative 9 was identified as the RPA*** based on results of traffic, engineering, financial and environmental analyses and public comment
- After several months of further coordination with and listening to our agencies and stakeholders on Alternative 9 as the RPA, MDOT is ***now aligning the MLS to be consistent with the phased delivery and permitting approach***
- MDOT and FHWA have identified a ***new RPA***, **Alternative 9 – Phase 1 South** to include the same two new HOT managed lanes in each direction as described in Alternative 9 included within the Phase 1 South limits only.
- No action at this time on I-495, east of the I-270 east spur.



Alternative 9 – Phase 1 South

Two HOT Lanes: I-495 from George Washington Memorial Parkway (GWMP) to MD 187 and then I-270 from I-495 to I-370 including I-270 east spur from MD 187 to I-270

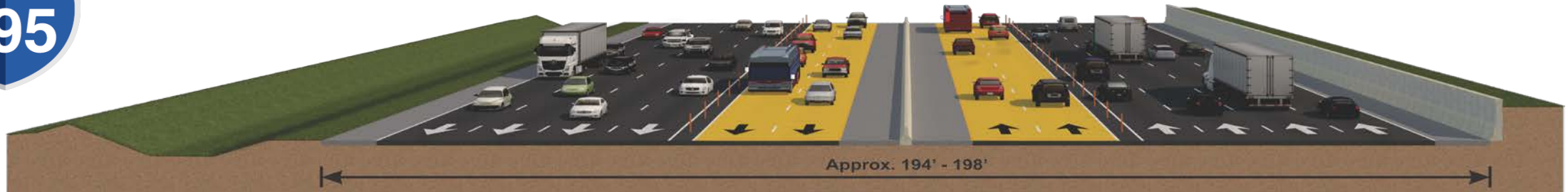
No Action: On I-495 From MD 187 to West of MD 5





New Recommended Preferred Alternative

Add two HOT managed lanes in each direction on I-495 from the GWMP to MD 187



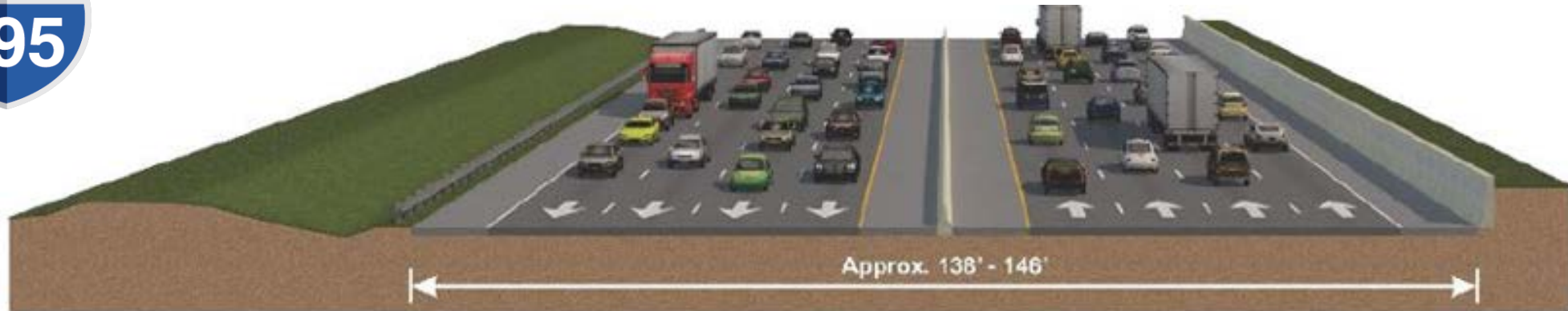
Convert existing HOV lane to HOT managed lane and add one HOT managed lane in each direction on I-270 between I-495 and I-370 and the I-270 East Spur from MD 187 to I-270





New Recommended Preferred Alternative

No Action on I-495 from MD 187 to West of MD 5





New Recommended Preferred Alternative- Key Points

- Further aligned with the ***phased delivery and permitting approach***
- Focuses the improvements on Phase 1 South including the ALB which is the ***biggest traffic chokepoint in the region and the area that has broad regional support***
- ***Does not include improvements to the remaining parts of the interstate system*** within the scope of the MLS area. This does not mean improvements will not be needed on these remaining parts of the system. Only that if the new RPA is selected at the conclusion of the study, then consideration of improvements to those remaining parts would have to ***advance separately, subject to additional environmental studies, analysis and collaboration*** with the public, stakeholders and agencies.
- ***Avoids ALL residential and commercial property displacements, avoids significant NPS resources and avoids approximately 22 acres of M-NCPPC parkland*** including Rock Creek Park, Sligo Creek Park and Northwest Branch Stream Valley Park
- New RPA is ***responsive to and addresses comments*** heard from the public and some partner agencies and gives the ability to ***continue to work through issues*** raised outside of Phase 1 South ***through further collaboration*** with agencies and the public in future environmental studies.



New Recommended Preferred Alternative- Key Points

- Includes replacing the ALB which is part of a **bi-state effort to improve mobility** and would **provide a seamless regional system of managed lanes** by connecting to Virginia over the ALB
- **Waiting to replace the American Legion Bridge is not an option.** There are no State funds available for this work and MDOT must address the **need for a new deck by 2030.**
- **Transit, bicycle/pedestrian and environmental commitments and enhancements, above and beyond mitigation,** that have been previously coordinated within Phase 1 South **will remain** and will be developed further.
- Continues to provide **options for travel** and **reduces reliance on single occupancy vehicles** by keeping all **existing general-purpose lanes free** and permitting **buses, carpool, vanpool and personal vehicles with three or more** people to **travel faster and more reliability** in the new HOT lanes **free of charge any time of the day.**
- A **Supplemental Draft Environmental Impact Statement (SDEIS)** is being completed and will be of limited scope to focus on new information relative to the **new RPA, Alternative 9 – Phase 1 South.**



Updated Air Quality Conformity Determination

- February 2021 revisions to the project submissions for inclusion in the Air Quality Conformity Analysis ***remain unchanged***- changing Express Toll Lanes (ETL) to High Occupancy Toll (HOT) lanes
- ***Additional changes now proposed*** based on new RPA:
 - Changing the phases on I-495 East of MD 187 to the Woodrow Wilson Bridge and I-270 east spur from east of MD 187 to I-495 ***from construction to study status***- These areas ***will not*** be included in the modeling effort
 - Remaining phase on I-495 from American Legion Bridge to east of MD 187 and I-270 from I-495, including the I-270 west spur to I-70 will ***remain as construction***. This area ***will*** be included in the modeling effort.
 - The new estimated cost is \$6.0 billion.



Questions?



COMMONWEALTH OF VIRGINIA: ENVIRONMENTAL STEWARDSHIP AND TRANSPORTATION

S

Norman Whitaker AICP, VDOT NoVA District Transportation Planning Director

5/19/21

Commonwealth of Virginia Environmental Stewardship

- **Statewide Vision:**
 - Legislation and Executive Orders
 - Wide range of initiatives from litter pickup to clean electric grid legislation
- **Greenhouse Gas Mitigation**
 - Studies – statewide analysis and corridor specific pilot
 - Environmental Mitigation Trust (VW Trust)
 - Regional Greenhouse Gas Initiative and Transportation Climate Initiative
 - Multi-modal approach to major projects
 - Complete Streets policy
 - DRPT multimodal transportation and land use planning guidelines
 - Expanding commuter rail system
 - Regional transit funding from Commonwealth and local governments

- **Multi-modal Express Lane System**
 - Tolls as a funding stream for transit
 - Intelligent Transportation Systems (ITS), Travel Demand Management (TDM)
 - Discourage SOVs. HOVs and buses ride free
 - System of park-and-ride lots
- **Performance Based Planning : VTRANS and Smart Scale**
 - Emphasis on cost effective solutions, multi-modalism, operational improvements, connectivity and continuity, congestion abatement
 - NVTA uses similar performance based metrics
- **Emerging Clean Technologies**
 - Electric vehicles, automated and connected vehicles
 - Bus Rapid Transit (BRT)
 - Regional Multi-Modal Mobility Program ([RM3P](#)) partnership with NVTA

visualize 2045

A long-range
transportation plan
for the National
Capital Region

APPENDIX J

Summary of Transit Development Plans

Draft, March 2022



National Capital Region
Transportation Planning Board

TRANSIT DEVELOPMENT PLANS FOR THE VISUALIZE 2045 UPDATE (2022)
LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION
Draft, March 2022

ABOUT VISUALIZE 2045 & THE TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future. The plan is updated at least every four years, the Visualize 2045 update is scheduled for 2022.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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INTRODUCTION AND SUMMARY

INTRODUCTION

This appendix of the Visualize 2045 update is a supplement to the new Transit planning section in Chapter 6 of the plan. It summarizes some of the key transit planning documents prepared by providers of public transportation or their parent jurisdictions in the National Capital Region. These documents reflect local planning activities that support regional goals and priorities, and inform that projects that are eventually included in the region's long-range transportation plan. In particular, the preparation of Transit Development Plans, or TDPs, has long been a standard activity in the public transportation industry. A typical TDP will provide an overview of the transit service, report on performance, assess customer needs, and then provide operating service plans and capital funding requirements to provide current service and to expand service. Public outreach and demographic analysis are also key elements of a TDP.

SUMMARY

Public transportation, or transit, planning is conducted by multiple organizations in the National Capital Region, including state agencies, sub-regional agencies, transit providers, and local jurisdictions. Transit planning ranges from narrowly-focused route and line changes to service frequencies and local bus stops to wide-ranging, long-term plans for capital investment and major projects over the next decade or longer. One common mechanism for transit planning is preparation of Transit Development Plans, or TDPs, which lay out service and capital investment plans for the next three to ten years. Most transit providers and some other organizations prepare TDPs. As the TDPs capture near-term transit plans, this appendix reviews the status and key elements of TDPs in the region to provide an overall picture of regional transit planning.

In the National Capital Region (NCR), both Virginia and Maryland require the preparation of a TDP by local transit systems (in Virginia's case, now known as a Transit Strategic Plan or TSP). These TDPs are also used by the states in developing and programming funding for the transit providers in the region. TDPs often have a fiscally constrained short-range element and a longer-range unfunded element. The short-range element can be used to inform the regional travel model and assist in the development of the region's Visualize 2045 long-range transportation plan. A record of unfunded needs is useful to identify these needs regionwide and present the case for additional transit investment.

Beyond TDPs, jurisdictions and transit agencies conduct other planning efforts in support of transit, particularly for major transit projects such as the Purple Line light rail project in Maryland and the proposed Embark Richmond Highway Bus Rapid Transit (BRT) project in Fairfax County, Virginia. The region's primary transit provider, the Washington Metropolitan Area Transit Authority (WMATA) regularly assesses the needs of the Metrorail, Metrobus, and MetroAccess systems, and identifies new service and projects. WMATA places a priority on keeping the transit systems in a state of good performance, including replacement of rail cars and buses, escalator and elevator repair, and track maintenance. WMATA also studies and identifies system enhancements, such as bus service improvements and station access improvements. The District Department of Transportation (DDOT), the Maryland Department of Transportation's Transit Administration (MDOT MTA), and the Virginia

Department of Rail and Public Transportation (DRPT) also perform their own large-scale transit studies in addition to working with WMATA.

TRANSIT IN THE NATIONAL CAPITAL REGION

Public transportation is an important component of the national capital region's transportation network. In the 2019 annual data reported to the National Transit Database (NTD) of the Federal Transit Administration (FTA), there were over 420 million unlinked passenger trips across the region, with approximately 1.4 million trips by public transportation taken every weekday in the NCR.

Three primary modes of public transportation operate in the region:

Rail – offers high-capacity, high quality transit along major corridors. The region's major public transportation provider, the Washington Metropolitan Area Transit Authority (WMATA) operates Metrorail, which is the backbone of the region's transit system carrying over half of all daily public transportation trips. Commuter rail in the NCR is operated by MARC and VRE for Maryland and Virginia respectively, and brings travelers from the more distant communities to the employment centers in the downtown core. The region's rail network will continue to expand with the future completion of Phase 2 of the Metrorail Silver Line in Virginia and the Purple Line light rail in Maryland. In addition, there is a short segment of streetcar in the District of Columbia.

Bus – provides access across the region and carry over 40 percent of all transit trips in the region. Thirteen bus transit operators form a network for the region, serving as the primary means of public transportation for most travelers as well as carrying many passengers to rail stations to continue their trips by rail. WMATA Metrobus is the region's largest operator, providing 70 percent of all bus trips in the region. The region's transportation network is supplemented by local bus providers in many local jurisdictions and longer-distance commuter buses, which offer a variety of services like bus to rail connections, bus rapid transit.

Paratransit – supplements bus and rail fixed-route service by offering on-demand or shuttle services for customers with disabilities or otherwise mobility-impaired. MetroAccess is the largest paratransit operator and provides most service in DC and Maryland, while several Virginia jurisdictions operate their own local services. Paratransit providers must meet certain operating requirements under the Americans with Disabilities Act (ADA).

Other modes and providers of public transportation – beyond the services operated by government agencies include private coach operators, taxicabs, private shuttle services, Transportation Networking Companies (TNCs) and other public transportation providers that operate into the Metropolitan Washington region.

A list of the primary fixed-route transit services in the region includes:

- WMATA Metrorail
- WMATA Metrobus
- Alexandria Transit Company (DASH)
- ART Arlington Transit
- DC Circulator
- DC Streetcar
- City of Fairfax CUE
- Fairfax Connector

- Loudoun County Transit
- Frederick Transit
- Charles County Transit Services - VanGO
- Montgomery County Ride On
- Prince George's County The Bus
- Potomac & Rappahannock Transportation Commission Omniride
- Virginia Railway Express

Annually, TPB staff prepare a State of Public Transportation report to review accomplishments and provide summary data on public transit in the region. The 2020 *State of Public Transportation* report was completed in summer 2021.

TRANSIT DEVELOPMENT PLANS IN THE REGION

This section of the report provides a snapshot of the Transit Development Plans (TDPs) or similar transit planning documents as prepared by transit providers or local jurisdictions. The TDPs for providers or jurisdictions in Northern Virginia are summarized first, followed by those of jurisdictions in suburban Maryland and then the District of Columbia. A separate section with other transit planning efforts follows.

Northern Virginia

In 2018, the Virginia General Assembly passed legislation that requires transit agencies operating fleets greater than twenty buses in large, urbanized areas to develop a Transit Strategic Plan (TSP) “to ensure that transit services are planned in a way that better meets the mobility needs of their communities”¹. Most transit systems in Northern Virginia are required to prepare TSPs and submit them to the Virginia Department of Rail and Public Transportation (DRPT)². TSPs are to cover a ten-year period, with annual updates for any changes to organization, service, fares, and finances as well as a status report on projects.

Table 1: Agencies in Northern Virginia that Require a TSP and Implementation Date

Transit Agency	Next TSP Due
Alexandria DASH	Fiscal Year (FY) 22/23
Arlington Transit (ART)	FY22/23
Fairfax Connector	FY22/23
Loudoun Transit	FY22/23
Potomac and Rappahannock Transportation Commission (PRTC)	FY21/22

ALEXANDRIA TRANSIT COMPANY’S TRANSIT DEVELOPMENT PLAN

Local bus service in the City of Alexandria is provided by the Alexandria Transit Company (ATC), which is responsible for the management, operation and maintenance of the DASH bus system. The TDP is updated each year by DASH staff, with the *FY 2022-2027 TDP* adopted in May 2021. The TDP evaluates current DASH system performance, outlines projected service levels for FY 2022 based on the draft budget, and provides fiscally unconstrained guidance on future service changes and capital improvements for the remaining five years of the six-year plan cycle (FY 2023-2027).

¹ “2018 Transit Strategic Plan Guidelines” Page 1, http://www.drpt.virginia.gov/media/3116/transit-strategic-plan-guidelines-final_111418-2.pdf

² <http://www.drpt.virginia.gov/3721.aspx>.

The ATC's TDP includes an executive summary and chapters on background of the TDP, a system summary, an assessment of performance, fare and service changes, the capital budget plan, and public outreach.

Much of the FY 2022-2027 TDP focused on the impacts of the COVID-19 pandemic on ridership and revenues, along with service reductions. The other main focus of the TDP was the completion of the Alexandria Transit Vision Plan, a multiyear process to gather community input on a planned restructuring of DASH bus service across the city. The ATC implemented the "New DASH Network" on September 5, 2021, as the first phase of the Alexandria Transit Vision Plan with new bus routes, new route names, and changes to most existing DASH route alignments. It is the most significant service change in DASH history.

In addition to launching the New DASH Network, DASH also went fare free, with all fare collection activities discontinued. With approval from the Alexandria City Council and the DASH Board of Directors, passenger fares were eliminated on all buses on September 5, 2021, to coincide with the launch of the new network to encourage use and promote economic recovery for city residents and workers. This policy change was due in part to a recent TPB Transportation Land Use Connections (TLC) program study for DASH and the City of Alexandria which analyzed potential free or reduced fare programs for low income residents.

CITY OF ALEXANDRIA'S TRANSIT DEVELOPMENT PLAN

While the Alexandria Transit Company prepares a TDP for its DASH bus service, the City of Alexandria also prepares a TDP that examines DASH as well as WMATA Metrobus, Metrorail, and other transit services in the city. The city's most recent TDP was completed in 2016 for FY 2017-2022.

The City of Alexandria TDP includes an executive summary, eight chapters, and additional information in appendices. A focus of the TDP is on the city's Transit Concept Plan, which has identified three main corridors for transit service in the city.

- Corridor A – Route 1/North-South - runs between the Braddock Road Metro Station north along Route 1 and through Potomac Yards. This corridor then extends into the Potomac Yard and Crystal City areas of Arlington and is served by the Metroway bus service.
- Corridor B – Duke Street/Eisenhower Avenue - connects Alexandria and Fairfax County west to east, including the Landmark Mall area, Foxchase, Alexandria Commons, and the King Street Metrorail Station.
- Corridor C – West End - starts in the south at the Van Dorn Metrorail station and continues north via Van Dorn Street.

Capital and operational improvements to these three corridors are an important part of the city's overall Master Transportation Plan.

City staff plan to begin work on a new TDP in calendar year 2022.

ARLINGTON COUNTY'S TRANSIT DEVELOPMENT PLAN

The current Arlington County TDP was approved in July 2016, to "provide a comprehensive vision for transit operations and capital improvements for the ten-year period of FY 2017 through FY 2026"³ The TDP evaluated and assessed the performance, connectivity, efficiency and effectiveness of both the Arlington Transit (ART) bus service and operations of the WMATA Metrobus service in the county.

³ <https://projects.arlingtonva.us/plans-studies/transportation/transit-development-plan/>

Arlington's next plan will be a Transit Strategic Plan as required by Virginia DRPT, scheduled for completion in fiscal year 2023.

The Arlington TDP includes an executive summary, eight chapters, and additional information in appendices. The TDP identified key origin - destination trips in the county and reviewed transit ridership trends and service levels for ART and Metrobus. The TDP also identified service needs and gaps. The development of the TSP is also discussed, especially the role of public involvement.

The primary recommendation of the TDP was for the implementation of a Premium Transit Network along Columbia Pike and through Crystal City and Pentagon City. The proposal restructured bus service around three components: ART, local Metrobus service, and express, limited-stop Metrobus. Some capital improvements would be necessary. In addition, the TDP projected that the ART vehicle fleet would grow by twenty vehicles and new maintenance facilities were to be built. Finally, the TDP also includes an On-demand Service Proposal for service in four areas of the county, beginning in 2023.

FAIRFAX COUNTY'S TRANSIT DEVELOPMENT PLAN

Fairfax County most recently adopted a TDP in March 2016. The *FY 2016-FY 2022 TDP* was a six-year, financially constrained plan for transit service in the county. As part of the TDP process, staff established a set of goals, objectives, and strategies to guide the future provision of Fairfax Connector service.

Chapters of the TDP include an overview of transit service in the county; goals, objectives, and standards; a service and system evaluation, service expansion projects, an operations plan, a capital improvement program, a financial plan, and TDP monitoring and evaluation. Appendices with maps and Title VI information among other items, are included as well.

In addition to the TDP, the county also completed a Comprehensive Transit Plan (CTP), a ten-year aspirational plan for Fairfax Connector and Metrobus service within the county. The CTP consists of eight technical memoranda recording the state of bus service within the county, the results of market research conducted with bus riders and with county residents (both users and non-users of bus service), and the recommendations for new bus routes, changes to existing routes, and cancellation of existing routes.

Fairfax County is working on a ten-year Transit Strategic Plan in accordance with Virginia DRPT guidance, planned for completion in calendar year 2022. Public hearings were held in January 2021. Components of the TSP include a system overview and strategic vision, system performance and operations analysis, planned improvements and modifications, an implementation plan, and a financial plan.

A focus of the new TSP is service plans for the areas of Franconia-Springfield, Reston-Herndon, and Centreville-Chantilly-Vienna Tysons (CCVT), and Huntington. The plans review service and propose restructurings to improve travel time and meet new travel needs.

LOUDOUN COUNTY'S TRANSIT DEVELOPMENT PLAN

Loudoun County approved a ten-year TDP in 2018. The *FY 2018-2028 TDP* reviews transit service in the county. Uniquely in the region, Loudoun County's transit service focuses heavily on commuter bus operations, connecting the County's residents to employment centers in Arlington and the District of Columbia. There is also express service to the Metrorail stations at Wiehle Reston East

(Silver Line) and West Falls Church (Orange Line). Finally, Loudoun County also provides local bus service in the eastern portion of the county. Outside the scope of the TDP, additional local bus service is operated by Virginia Regional Transit (VRT), a multi-county provider that operates in the western portion of Loudoun County.

Chapters of the Loudoun County TDP include an overview of transit service in the county; goals, objectives, and standards; a service and system evaluation, service expansion and improvement projects, an operations plan, a capital improvement program, a financial plan, and TDP monitoring and evaluation. The appendix includes proposed route plans. A significant focus of the TDP is on planning for the anticipated opening of the Silver Line Phase II through Dulles Airport to Loudoun Gateway and Ashburn.

Loudoun County has begun work on a new Transit Strategic Plan, which is expected to be completed in calendar year 2023.

POTOMAC AND RAPPAHANNOCK TRANSPORTATION COMMISSION'S TRANSIT STRATEGIC PLAN

Omniride is the transit brand of the Potomac and Rappahannock Transportation Commission (PRTC), a multimodal, multijurisdictional agency providing transit and transportation demand management (TDM) services in Prince William County and the Cities of Manassas and Manassas Park. Omniride completed a new TSP in March 2020 for FY 2020-2029.

Chapters of the TSP include a system overview and strategic vision, a system performance and operations analysis, planned improvements, an implementation plan, and a financial plan. The appendix includes proposed route plans. A focus of the TDP is on the construction of a Western Maintenance Facility (opened in August 2021) with a restructuring of bus service for the western portion of Omniride's service area. Other parts of the TDP look at updating the bus fleet and adding service to stop at new park-and-ride lots.

VIRGINIA RAILWAY EXPRESS'S TRANSIT DEVELOPMENT PLAN

The Virginia Railway Express (VRE) provides commuter rail service from provides commuter rail service from the Northern Virginia suburbs to Alexandria, Crystal City and downtown Washington, D.C., on the Manassas and Fredericksburg lines. The FY 2020-2025 TDP was adopted by the VRE Operations Board in February 2019.

The Transit Development Plan (TDP) provides an overview of all major VRE projects and initiatives, with short-term priorities as well as aspirations and constraints for the longer term. The TDP includes a six-year (FY 2020-2025) fiscally constrained plan that documents the funded projects and programmed initiatives; and a fiscally unconstrained plan (FY 2026-2029) identifying proposed projects as well as current and longer-term unmet capital and operating needs. The fiscally unconstrained plan affords an opportunity to connect ongoing and planned improvements to the aspirations outlined in VRE's long-range System Plan 2040.

The TDP outlines four types of ongoing service needs: expanded train capacity, adjusted train times, more frequent service and attracting new riders in accordance with the long-range vision for the system. These needs are being addressed to the extent possible by lengthening trains in the near term, while funding is being sought for capital projects and operations to allow VRE to add new trains in the future.

VRE is working on a successor TSP that will focus on implementation of the service expansion enabled by the Commonwealth of Virginia's Transforming Rail in Virginia Initiative.

In 2020 the Virginia state legislature authorized the creation of the Virginia Rail Passenger Authority (VPRA). The authority is assuming administrative and fiduciary responsibilities for Virginia's state supported passenger rail services, including the Amtrak services originating in Virginia. The VPRA will also provide funding to Virginia Railway Express (VRE). In the future, the VPRA is expected to produce planning documents for rail in the state.

Suburban Maryland

The Maryland Department of Transportation/Maryland Transit Administration (MDOT MTA) requires the Locally Operated Transit Systems (LOTS) in Maryland to conduct a TDP every five years. The LOTS use their TDPs as a basis for preparing their Annual Transportation Plans that serve as their annual grant applications for transit funding from the State.

CHARLES COUNTY'S TRANSIT DEVELOPMENT PLAN

Charles County completed its *VanGO Transit Development Plan* in January 2019. The TDP process builds upon and formulates Charles County's goals and objectives for transit, reviews and assesses current transit services, identifies unmet transit needs, and develops an appropriate course of action to address the objectives for a five-year horizon.

Chapters of the plan include a background introduction, a review of existing conditions, a transit needs assessment and demographic analysis, service and organizational alternatives, and a conceptual plan. The TDP also notes MDOT MTA commuter bus service operated in the county and the transportation services provided by non-profits and human services groups.

Work on a new TDP is expected to start in FY 2024, with a focus on service improvements.

FREDERICK COUNTY'S TRANSIT DEVELOPMENT PLAN

The Frederick County TDP dates from 2015. The purpose of the TDP is to improve the efficiency and effectiveness of Transit Services of Frederick County (TransIT). The approved final TDP includes the history and current state of the transit system, the identification of transportation needs and issues, and recommended improvements over the five-year planning horizon.

Work on a new TDP began in Fall 2020, with a focus on planning for on-demand service for rural areas.

District of Columbia

DC CIRCULATOR TRANSIT DEVELOPMENT PLAN

The District Department of Transportation (DDOT) completed a triennial update to the *DC Circulator TDP* in Fall 2021. Chapters include the purpose of the TDP, a system overview, a performance evaluation, system and service recommendations, system expansion, public engagement, and implementation of recommendations. A major focus of the update was developing options for a new, seventh Circulator route in Ward 7 of the District, which would address significant transportation needs and achieve equity goals.

OTHER TRANSIT PLANNING ACTIVITIES

This section of the report provides a snapshot of other transit planning activities by transit providers or local jurisdictions which may not prepare a TDP. This includes two jurisdictions in suburban Maryland, the MDOT MTA, WMATA and the TPB.

MONTGOMERY COUNTY TRANSIT PLANNING

Montgomery County conducts transit planning as part of its overall transportation planning, for the county's Ride On bus service as well as interfacing with the WMATA service operated in the county. Resources include interactive maps available online. The county has a planned network of transitways to serve a variation of trip types and land use. These include two existing transitways (the WMATA Red Line and the MARC Brunswick Line) and 12 planned transitways (the Purple Line, the Corridor Cities Transitway, and 10 additional rapid transit corridors).

PRINCE GEORGE'S COUNTY'S TRANSIT VISION PLAN

Prince George's County developed a five-year plan for improving and expanding transit within the County, for the period 2018-2022. The *Transit Vision Plan* (TVP) evaluated potential methods for improving public transportation in the county, including the county's TheBus system and interfaces with the WMATA service operated in the county. The TVP reviewed local bus services, private providers and other best practices for improving access to public transportation services, with a goal of developing a first-class public transportation system.

The TVP provides the county with a map for implementing service, facility, and operational enhancements to improve the county's transit system for the benefit of all county residents. A primary focus of the plan is evaluating ways to improve the county's TheBus fixed route system. Throughout the transit vision planning process, the county conducted an extensive public outreach program that provided input into the plan development.

MARC CORNERSTONE PLAN

The Maryland Area Regional Commuter (MARC) commuter rail service is part of the MDOT Maryland Transit Administration (MDOT MTA). The MDOT MTA has prepared cornerstone plans for each of its major modes that lay out strategic plans for service improvements and capital investments. The MDOT MTA completed the *MARC Cornerstone Plan* in 2019. The plan lays out priorities through 2045, categorized as short-term (through 2025), medium-term (2025-2035), long-term (2035-2045), and ongoing (throughout). The plan discusses six investment areas: vehicles, stations, guideways, facilities, systems, and service with several strategic priorities laid out within each area. The service area includes providing midday and weekend service on the two rail lines that currently only have peak-period service as well as potential run-through service into Virginia. The plan notes that the medium- and long-term priorities are not currently funded, and a rough order of magnitude of the investment needed to accomplish the priorities is provided. Several of the investment priorities are mutually dependent; for instance, more trains cannot be added without procuring more vehicles, expanding maintenance facilities, and improving track infrastructure. The key dependencies or interactions among investment areas are laid out in the plan.

MDOT MTA BUS CORNERSTONE PLAN

Similar to the MARC Cornerstone Plan, the MDOT MTA prepared a cornerstone plan for bus service in 2018. The plan's emphasis is on the state-run local bus service in the Baltimore metropolitan area. The plan also discussed commuter bus services, which the plan notes are split into three main service areas: Baltimore, Central Maryland, and the District of Columbia. With commuter bus vehicles provided by the private operators under contract, the plan focuses on improvements for operations and customer benefits. Priority areas include identifying locations for commuter parking options and promoting bicycle and pedestrian accessibility to commuter bus service.

In addition to the cornerstone plans above, the MDOT MTA began work on a Statewide Transit Plan in Summer 2020 with inputs from all levels of government, public and private providers, businesses, NGOs and the public. The 50-year vision for coordinated transit across the state will help define public transportation goals and strategies with a vision towards increasingly coordinated, equitable and innovative mobility.

WMATA's CAPITAL PROGRAM

WMATA, or Metro, does not produce a TDP, but does publish numerous other planning documents. WMATA's Capital Program includes long-term plans for investment in the rail, bus, and paratransit fleet and facilities, with a focus on state of good repair while also covering needed expansion, safety, and customer improvements.

Capital Program documents include approved annual budgets, the 6-Year Capital Improvement Program, and the 10-Year Capital Improvement Plan, as well as supporting Capital improvement program progress reports and financial reports.

The Capital Needs Forecast (CNF), most recently completed in 2019, provides a 10-year outlook for WMATA's current and forecast costs to achieve and maintain assets in a State of Good Repair, improve safety, and meet compliance requirements. The 2019 CNF succeeded and built on the 10-year Capital Needs Inventory (CNI) completed in 2016. The CNI was the first effort to list and quantify WMATA's capital needs to fully rehabilitate the transit system and meet priority needs.

NORTHERN VIRGINIA TRANSPORTATION COMMISSION (NVTC)

The NVTC supports transit planning in Northern Virginia, funding WMATA's operating and capital budgets as well as supporting local planning efforts and investments. It produces routine reports on WMATA's performance and on transit throughout Northern Virginia. It is also planning the VA-7 bus rapid transit line and has drafted a regional fare collection plan for Northern Virginia among other accomplishments.

NORTHERN VIRGINIA TRANSPORTATION AUTHORITY (NVTA)

The Northern Virginia Transportation Authority (NVTA) prepares a long-range transportation plan (*TransAction*) for Northern Virginia in coordination with local jurisdictions and agencies. The plan has both highway and public transportation projects. Over the past few years, the NVTA has helped fund the construction of Metrorail stations, the development of bus rapid transit lines, procurement of commuter rail and bus vehicles, and other transit service improvements. The plan is financially constrained and is an important step in prioritizing transit projects and programming them for funding.

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD (TPB)

The TPB is the federally designated metropolitan planning organization (MPO) for metropolitan Washington. The TPB has a number of committees and subcommittees, including the Regional Public Transportation Subcommittee (RPTS). The RPTS provides a process for the coordination of public transportation planning throughout the metropolitan Washington region and for incorporating regional public transportation plans into the long-range transportation plan (Visualize 2045) and Transportation Improvement Program (TIP). The RPTS oversees or advises on the development of transit-related reports and publications by the TPB. These include the annual State of Public Transportation reports, the federally-required Performance Based Planning and Programming (PBPP) reports for Transit Asset Management and Transit Safety target-setting, and other studies undertaken by the TPB, typically through the UPWP Technical Assistance program.

Table 2: Hyperlinks to the Region's TDPs and Other Planning Documents

Jurisdiction / Transit Agency	Hyperlink <i>Links are to Transit Development Plans or Transit Strategic Plans, unless otherwise noted.</i>
Virginia	
Alexandria Transit Company (DASH)	https://www.dashbus.com/sites/default/files/FY22%20ATC%20Transit%20Development%20Plan%20-%20FINAL%20with%20Appendices.pdf
City of Alexandria	https://www.alexandriava.gov/uploadedFiles/tes/info/City%20of%20Alexandria%20Transit%20Development%20Plan%20(TDP).pdf
Arlington County	https://projects.arlingtonva.us/plans-studies/transportation/transit-development-plan/
Fairfax County	https://www.fairfaxcounty.gov/transportation/sites/transportation/files/assets/documents/pdf/transportation_projects_studies_and_plans/transit_development_plan_fy16-22.pdf
Loudoun County	https://www.loudoun.gov/3444/Transit-Development-Plan
Potomac and Rappahannock Transportation Commission (PRTC)	https://omniride.com/omniride/assets/File/OR20_TSP_FullReport_2020-03-23_DRAFT.pdf
Virginia Railway Express	https://www.vre.org/about/studies-and-reports/transit-development-plan/
Maryland	
Charles County	https://www.charlescountymd.gov/home/showpublisheddocument/3485/637172953581570000
Frederick County	https://www.frederickcountymd.gov/DocumentCenter/View/271760/Frederick-County-Transit-Dev-Plan_2015?bidId=
Montgomery County Transit Planning	https://montgomeryplanning.org/planning/transportation/transit-planning/
Prince George's County's Transit Vision Plan	https://www.princegeorgescountymd.gov/3170/Transit-Vision-Plan
MARC Cornerstone Plan	https://s3.amazonaws.com/mta-website-staging/mta-website-staging/files/Transit%20Projects/Cornerstone/MCP_MARC.pdf
MDOT MTA Bus Cornerstone Plan	https://s3.amazonaws.com/mta-website-staging/mta-website-staging/files/Transit%20Projects/Cornerstone/BCP_Bus.pdf
DC, WMATA, and Others	
DC Circulator	https://www.dccirculator.com/wp-content/uploads/2021/04/2020-TDP-Update_04.12.21-Updated-Final.pdf
WMATA's Capital Program	https://www.wmata.com/initiatives/plans/
Northern Virginia Transportation Commission (NVTC) reports and studies	https://novatransit.org/resources/completed-studies-archive/
Northern Virginia Transportation Authority (NVTA)'s TransAction plan	https://nvtatransaction.org/
Transportation Planning Board's State of Public Transportation reports	https://www.mwcog.org/committees/regional-public-transportation-subcommittee/

visualize 2045

A long-range
transportation plan
for the National
Capital Region

APPENDIX K

Federal Requirements Checklist

Draft, March 2022



National Capital Region
Transportation Planning Board

FEDERAL REQUIREMENTS CHECKLIST FOR THE VISUALIZE 2045 UPDATE (2022)
LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION
March 2022

ABOUT VISUALIZE 2045 & THE TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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VISUALIZE 2045 2022 UPDATE - FEDERAL REQUIREMENTS CHECKLIST

This checklist includes applicable federal requirements to the TPB based on the USDOT's May 27, 2016, [final planning rule](#). The 21 items in this checklist are not an exhaustive list of requirements for the MPO process nor plan.

Table 1 – Federal Requirements Checklist

#	Regulatory citation (23 CFR)	Key content of requirement	Comments, including where in plan
1	450.324(a)	The long-range transportation plan (“plan”) has no less than a 20-year planning horizon.	Visualize 2045 has a 23- year planning horizon: 2023 to 2045.
2	450.324(b)	The plan includes both long-range and short-range strategies/actions that provide for the development of a safe and integrated multimodal transportation system to address current and future transportation demand.	<p>Visualize 2045 includes both long- and short-range strategies and actions that address this requirement, as demonstrated by projects in the constrained element (Chapter 7), the TPB policy framework (Chapter 3) and the Strategies for Brighter Future Chapter (6) which includes a description of the TPB’s endorsed Aspirational Initiatives</p> <p>In response to the TPB’s December 2020 Technical Inputs Solicitation, project sponsors answered questions about how projects advance the TPB’s goals, priority strategies, and the federal planning factors. Chapter 7 summarizes these responses in table 7.2-7.9 and full responses can be found online: https://www.mwcog.org/documents/2021/05/12/information-to-support-board-action-on-the-update-to-visualize-2045-regional-and-federal-policy-alignment-for-all-capital-projects-tpb-visualize-2045/</p>
3	450.324 (f)(11)(vi)	If the applicable State Implementation Plans (SIPs) include transportation control measures (TCMs), the MPO should coordinate the plan	The currently active SIPs do not include any transportation control measures. However, Appendix G of the Visualize 2045 Air Quality Conformity report documents the completion of all TCMs from all previous SIPs.

		development with process for developing the TCMs.	
4	450.324(e), 450.324(f)(1)	The MPO, the State(s), and the public transportation operator(s) shall validate data used in preparing other existing modal plans for providing input to the plan. The Plan shall use the latest available estimates and assumptions for population, land use, travel, employment, congestion, and economic activity. The Plan shall include current and projected transportation demand of persons and goods to the horizon year of the plan.	Visualize 2045 uses the latest available estimates and assumptions for population, households, and employment from The COG Board of Directors endorsed COG's Cooperative Forecast Round 9.2 at their February 9, 2021, meeting for use by TPB in the Conformity Analysis. The Cooperative Forecast is described in Chapter 2. The TPB's regional travel demand model forecasts demand on the region's transportation system by residents and workers in both the base year (2023) and the horizon year of the plan—2045 (Chapter 8). The travel demand model, which includes the Cooperative Forecasts as a significant assumption, is validated and used by transportation agencies and others in local planning efforts for future projects and inputs to the constrained element.
5	450.324(a), 450.306(b)(1) 450.306(b)(2), 450.306(b)(3), 450.306(b)(4), 450.306(b)(5), 450.306(b)(6), 450.306(b)(7), 450.306(b)(8), 450.306(b)(9), 450.306(b)(10)	<p>The MPO planning process shall provide for the implementation of projects and strategies that address the following planning factors:</p> <ul style="list-style-type: none"> • Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency; • Increase the safety of the transportation system for motorized and non-motorized users; 	<p>Prior to the plan development, the TPB staff conducted, with consultant support, a 'Strength, Weakness, Opportunities and Threats (SWOT)' analysis to review of its activities across many planning areas, including many of the federal planning factors. This study identified opportunities to enhance regional planning. The TPB implemented numerous study recommendations to inform the Visualize 2045 update, such as conducting the TPB Resiliency Study.</p> <p>These planning factors continue to help shape Visualize 2045 and appear in multiple ways throughout the plan. In several ways, but most specifically through reporting data on funding levels for the state of good repair of the transportation system (Chapter 7), system preservation is emphasized. As described in Chapter 7, Table 7.9 ("Consideration of the Federal Planning Factors"), the first step in plan development is the solicitation of projects for inclusion in the constrained element, and implementing agencies were asked which planning factors their project addressed. Throughout Chapter 6 of the Visualize 2045 document, text boxes appear which link plan elements to the planning factors. Also</p>

		<ul style="list-style-type: none"> • Increase the security of the transportation system for motorized and non-motorized users; • Increase accessibility and mobility of people and freight; • Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns; • Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight; • Promote efficient system management and operation; • Emphasize the preservation of the existing transportation system; • Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of 	<p>described in Chapter 3 is the TPB policy framework which reflects many of the planning factors. The sections on planning activities and strategies in Chapter 6 includes a section on planning for 'Future Factors' and the Federal Planning Factors. This section provides details on the TPB's work on planning factors such as travel and tourism, resiliency and reliability, transportation security and safety planning.</p> <p>Also, Appendix F of this plan provides additional information on regional roadway safety planning, and safety targets and progress are described in Chapter 8 - Performance Planning. The TPB also conducted a new study related to planning for resiliency and reliability of the transportation system, described in Appendix L of this plan and a study on strategies to mitigate climate change which is summarized in Appendix M.</p> <p>The region's Planning Directors are involved in numerous aspects of community planning, including economic development and tourism. The TPB leadership and technical staff regularly attend the COG Planning Directors meetings, often presenting information, such as information about the plan and the initiatives. TPB staff have also presented on the impacts of the COVID-19 pandemic in collaboration with COG staff.</p>
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		surface transportation; and <ul style="list-style-type: none"> Enhance travel and tourism. 	
6	450.324(f)(2)	The plan shall include existing and proposed transportation facilities that serve important national and regional transportation functions over the period of the transportation plan.	Existing transportation facilities are described in Chapter 2 and the proposed facilities are shown in Chapter 7 with additional details provided in Appendix B.
7	450.324(f)(4)	The plan shall include a description of the performance measures and performance targets used in assessing the performance of the transportation system, and a report on progress achieved in meeting the performance targets.	Chapter 8 of the plan, Planning for Performance, includes a description of the performance measures, targets and progress, where data is available at this time, that resulted from the cooperative process. Performance measures include the regional PBPP measures, Air Quality measures, and measures produced through the TPB regional transportation system performance analysis.
8	450.324(f)(5)	The plan shall include operational and management strategies to improve the performance of existing transportation facilities to relieve congestion and maximize the safety and mobility.	Operational and management strategies are found in Chapter 6, Strategies for a Brighter Future, which includes a discussion of TDM and the TPB's endorsed Aspirational Initiatives that represent many TDM strategies. Chapter 6 also includes a specific section on Operations and Management, and Emerging Technology that provide technology-based strategies to improve performance of the transportation system. Appendix F further discusses Safety Planning and highlights the TPB endorsed strategies and Safety Program that resulted from the TPB's regional study.
9	450.324(f)(6)	The plan shall include consideration of the results of the congestion management process, including the identification of SOV projects.	Chapter 8 describes how numerous TDM, multimodal and operational strategies in Chapter 6 are documented through the Congestion Management Process (CMP). Appendix E further discusses how the CMP is an integrated process informing the planning, strategies and ultimately the projects, programs and policies documented in Visualize 2045. It

			<p>clarifies this integration by reviewing the components of the CMP and how they inform and are integrated into Visualize 2045.</p> <p>When TPB member agencies submit new projects in response to the TPB Technical Inputs Solicitation, they are required to indicate if the project is an SOV project and respond to other questions regarding and confirming the consideration of congestion management strategies. Forms are required for SOV projects that add SOV capacity that do not meet exemption criteria. The lists of projects and maps on pages 37 and 38 in Chapter 7 identify all of the regionally significant projects in the Visualize 2045 update that will add capacity to the region's highways and arterial roadways. The projects symbolized on the map as "New Road" or "Widen/Improve Existing Road" will add capacity specifically for all roadway users, including single-occupant vehicles. The Air Quality Conformity Project Input Tables in Appendix B of the conformity report provide greater detail on all new capacity being added to regionally significant roadway segments as well as smaller secondary and urban roads.</p>
10	450.324(f)(7)	<p>The plan shall include an assessment of capital investment and other strategies to preserve the existing and future infrastructure, provide for multimodal capacity increases based on regional priorities and needs, and reduce the vulnerability of the existing transportation infrastructure to natural disasters.</p>	<p>Visualize 2045 accomplishes this requirement in a number of ways. Chapter 7, Funding the Transportation System demonstrates the focus on preservation (as 28 percent of the expenditures are slated for maintaining the system in a state-of-good-repair). Multimodal capacity increases account for 19 percent of the expenditures forecast in the financial plan – Appendix A, (also summarized in Chapter 7). Chapter 2 discusses existing conditions and highlights environmental and equity considerations in relation to the transportation system. Chapter 3 discusses the TPB's policy framework, and challenges and needs to address to achieve the TPB's goals. The Strategies Chapter, including the Aspirational Initiatives, (Chapter 6) speaks to regional priorities and needs and strategies to address those needs. Chapter 6 has a discussion 'Climate Change Mitigation and Resiliency' relating to TPB planning activities to mitigate climate change and prepare for resiliency and reliability of the transportation system - reducing the vulnerability of transportation infrastructure to natural disasters under "Planning for Resiliency." (climate mitigation and resiliency studies are summarized in Appendix M and L).</p>

11	450.324(f)(8)	The plan shall include transportation and transit enhancement activities, including consideration of the role that intercity buses may play in reducing congestion, pollution, and energy consumption.	The 'Transit' section of Chapter 6, Strategies for a Brighter Future, discusses the role of transit, including intercity buses and rail. The financially constrained element (Chapter 7) includes transportation and transit enhancement activities. Tables 7.2 and 7.7 summarize these activities and is based on project sponsor responses to questions asked in the December 2020 Technical Inputs Solicitation, project totals that support, enhance or promote transit, including intercity bus. Individual responses for each project are provided online at https://www.mwcog.org/documents/2021/05/12/information-to-support-board-action-on-the-update-to-visualize-2045-regional-and-federal-policy-alignment-for-all-capital-projects-tpb-visualize-2045/
12	450.324(f)(9)	The plan shall include a description of existing and proposed transportation facilities in sufficient detail and include cost estimates.	A description of existing and proposed transportation facilities is found in Chapter 2 and Chapter 7, respectively. The TPB's financial plan includes cost estimates for the existing and proposed transportation facilities which is summarized in Chapter 7 with details in Appendix A.
13	450.324(f)(10)	The plan shall include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities.	Chapter 6 has a discussion of potential environmental mitigation activities which are further described in Appendix G. Chapter 6 also includes a section "Climate Change Mitigation and Resiliency," with related studies further documented in Appendix L and M.
14	450.324(g)	The MPO shall consult, as appropriate, with State and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan. The consultation shall involve, as	Environmental consultation and mitigation are described Chapter 6 and an interactive on-line map allows for the comparison of transportation plans and environmental -related data. Environmental consultation and potential environmental mitigation activities are further described in Appendix G.

		appropriate, a comparison of transportation plans with State conservation plans or maps, if available.	
15	450.324 (f)(11)(i), 450.324 (f)(11)(ii), 450.324(f)(11)(iii)	<p>The plan shall include a financial plan that demonstrates how the plan can be implemented and includes:</p> <ul style="list-style-type: none"> • Cooperatively- developed estimates of costs and revenue sources reasonably expected to be available to adequately operate and maintain the highways and public transit (in “year of expenditure dollars”) • Recommendations on any additional financing strategies to fund projects and programs included in the plan. 	The financial plan includes cooperatively-developed costs and revenues in year of expenditure dollars that are reasonably expected to be available. The financial information is summarized in Chapter 7 and details are provided in Appendix A. Recommendations can also be found in Appendix A.
16	450.324(h)	The metropolitan transportation plan should integrate the priorities, goals and strategies in the State's Highway Safety plans and Improvement programs, and public transportation agency safety plans.	As documented in Chapter 8, the TPB’s planning process, including PBPP target setting, is closely coordinated with member state DOT’s and WMATA; these agencies’ safety plans and programs are reflected in discussions at the TPB’s Transportation Safety and Public Transportation Subcommittees. Chapter 6 includes information on safety planning. Appendix F describes the TPB Safety Study and the new TPB Safety Program.
17	450.316(a)	The plan shall demonstrate that stakeholders were given the opportunity to comment on the plan based on the	Stakeholders were given a number of opportunities to comment on the plan and be involved in plan development as outlined in Chapter 5, which was guided by the TPB’s Public Participation Plan. In addition to the two 30-day public comment periods on the plan (Appendix I), the TPB did

		<p>TPB's Public Participation Plan; (Including representatives of public transportation employees, public ports, freight shippers, providers of freight transportation services, private providers of transportation (including intercity bus operators, employer-based commuting programs, such as carpool program, vanpool program, transit benefit program, parking cash out program, shuttle program, or telework program), representatives of users of public transportation, representatives of users of pedestrian walkways and bicycle transportation facilities, representatives of the disabled).</p>	<p>extensive public outreach for Visualize 2045 in 2020 and 2021. Coined as 'Voices of the Region' the TPB conducted a statistically significant regionwide survey, a series of focus groups that targeted historically under-represented populations and conducted an open event to gather input using a signs with QR-codes approach to "meet people where they are". Two virtual forums to share information and answer questions about the 2022 update to Visualize 2045 are scheduled for April 2022.</p> <p>The TPB's comprehensive committee structure provides on-going comment opportunities and coordination with many of the stakeholders listed in this requirement. Committees provide key guidance on many of the planning areas and strategies for Visualize 2045 (Chapter 6). The TPB also conducts studies involving stakeholder interests such as intercity buses (described in Chapter 6 as well).</p>
	450.316(b)	<p>In developing metropolitan transportation plans and TIPs, the MPO should consult with agencies and officials responsible for other planning activities within the MPA that are affected by transportation (including State and local planned growth, economic development, tourism, natural disaster risk reduction, environmental protection,</p>	<p>The TPB's committee and meeting structure and planning process are organized to consult, coordinate and engage with planning for many planning areas including but not limited to those required under 450.316(b).</p>

		airport operations, or freight movements) or coordinate its planning process (to the maximum extent practicable) with such planning activities. In addition, the MPO shall develop the metropolitan transportation plans and TIPs with due consideration of other related planning activities within the metropolitan area, and the process shall provide for the design and delivery of transportation services within the area.	
18	450.324(a), 450.306(b)(9) 450.306(b)(10)	The plan shall demonstrate consultation with agencies involved in a) tourism; b) natural disaster risk reduction.	Agencies were given an opportunity to participate in the public comment periods, the QR-code event, regular TPB meetings, and virtual public forums (Phase 2). The TPB's work on travel and tourism is described in Chapter 6. As part of the TPB Resiliency study, TPB staff conducted outreach and held discussions with TPB member agency transportation and resiliency planning staff. TPB staff gave presentations to and held discussions with committees, including but not limited to the TPB's Technical Committee, Systems Performance, Operations, and Technology Subcommittee and the COG Transportation Emergency Preparedness Committee (RESF-1) to consult on planning for natural risk reduction.
19	450.324)(k)	The plan was made readily-available for public review in electronically accessible formats.	The plan is made electronically available in a variety of ways. The Visualize2045.org website provides key documents. A Visualize 2045 email list also provided periodic updates by email for stakeholders and members of the public. The TPB News website, bi-monthly TPB News email newsletter, and the use of social media helped keep the public informed of key steps in the process and provided website links for more details in electronically accessible formats.
20	450.316(a)(iii)	Visualization techniques were used to describe the plan.	Beginning in 2010, the TPB made available to the public in an online, searchable database of all the transportation projects and programs in

			the long-range transportation plan and TIP. The Visualize 2045 plan and website also includes a variety of other maps and visualizations to describe the plan, including new major projects in the financially constrained element of the plan, maintains an interactive “Story Map,” which describes the seven aspirational initiatives, a new Voices of the Region “Story Map” was developed to share and make publicly accessible in a unique way, much of the public input received during the Visualize 2045 outreach plan. The TPB worked with a consultant to produce a set of infographics and animated videos about the plan, the Aspirational Initiatives, and more. A recording of a presentation of the plan will be made available on the Visualize 2045 website in April 2022.
21	450.324(c) 450.324(m)	<p>The MPO shall review and update the transportation plan at least every 4 years in air quality nonattainment and maintenance areas and at least every 5 years in attainment areas to confirm the transportation plan's validity and consistency with current and forecasted transportation and land use conditions and trends and to extend the forecast period to at least a 20-year planning horizon.</p> <p>Air quality conformity determination on any updated or amended transportation plan in accordance with the Clean Air Act and EPA regulations.</p>	<p>Following the public comment period, in June 2022, the staff will recommend that the TPB approve the air quality conformity determination of the financially constrained element of Visualize 2045 and the FY 2013-2026 TIP. The plan and TIP conform to the requirements (Sections 174 and 176(c) and (d) of the Clean Air Act as amended (42 U.S.C. 7504, 7506(c) and (d)), and meet air quality conformity regulations: (1) as originally published by the Environmental Protection Agency (EPA) in the November 24, 1993, Federal Register, and (2) as subsequently amended, most recently in April 2012, and (3) as detailed in periodic FHWA / FTA and EPA guidance.</p>



APPENDIX L

Incorporation of the TPB Resiliency Study into the 2022 update to Visualize 2045

Draft, March 2022



National Capital Region
Transportation Planning Board

RESILIENCY STUDY FOR THE VISUALIZE 2045 UPDATE (2022)
LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION
March 2022

ABOUT VISUALIZE 2045 & THE TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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ACKNOWLEDGEMENTS

The TPB thanks the ICF team that provided consultant support to produce the TPB Resiliency Study.

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INCORPORATION OF THE TPB RESILIENCY INTO THE 2022 UPDATE TO VISUALIZE 2045

The TPB completed the Resiliency Study in 2021. The TPB considers the study a component of the 2022 update to Visualize 2045. The findings of this study can inform future TPB policy priorities. The findings can also inform TPB member agency actions, some of which that could be reflected in a future constrained element of the plan, as locally developed, regionally significant, projects, programs, and policies that members fund.

This Appendix provides a summary of the study. To view the complete study, please visit:

- the Visualize 2045 website climate, resiliency and environmental health page: <https://visualize2045.org/future-factor/climate-resiliency-and-environmental-health/>
- the study page: <https://www.mwcog.org/transportation/planning-areas/air-quality-and-environment/resiliency/>
- or access the full [TPB Resiliency White Paper](#) or [Memorandum](#) that documents the 2021 inventory of member resiliency planning actions directly online.

SUMMARY OF THE TPB RESILIENCY STUDY (2021)

This appendix summarizes the TPB Resiliency Study and its completed products, including a memorandum and whitepaper, now available online on the [Visualize 2045](#) and [COG websites](#). This memorandum documents the purpose of the research, background on related planning efforts, the approach to TPB Technical Committee member outreach, the federal resiliency planning requirements for MPOs, and summarizes the tasks of this research project.

OVERVIEW

The purpose of this study is to advance regional planning for one of the federal Planning Factors, transportation resiliency and reliability, which is also one of TPB's policy priorities.

The primary tasks, supported by a consultant team, included:

- conducting research to document planning and capital-programming activities that the TPB member agencies and select partners are undertaking to prepare for the transportation system to be resilient in the face of natural disasters;
- identifying primary vulnerabilities to natural hazards, strategies to address these, and opportunities for regional coordination on this topic; and
- identifying potential future resiliency planning opportunities consistent with the MPO role.

BACKGROUND

As context to this effort, it should be noted that the TPB and COG are conducting or have conducted numerous efforts regarding climate change and resiliency. For the purposes of clarification, these efforts are noted below. This list is not comprehensive of all COG and TPB activities but is provided for the purpose of clarity. For more information about the studies listed here, please view the January 2021 memorandum that can be accessed online at:

<https://www.mwcog.org/file.aspx?&A=Uq856Jo%2f9rWyw9gxFjO9%2fHGe%2b8yQ3Jm7zbuAC0jQjBM%3d>

- In 2010, the TPB joined MWCog's action to set greenhouse gas (GHG) reduction targets to mitigate the impact of climate change.
- Over the last decade the TPB completed two studies to evaluate strategies to address these targets, including the 2010 What Would It Take scenario analysis and the 2016 Multisector Working Group study that identified the various types of projects, programs and policies that have the greatest potential to reduce GHG in the transportation sector.
- In October 2020, the COG Board approved the 2030 Regional Climate and Energy Action Plan. TPB issued a resolution endorsing the climate goals in this plan.

In 2021 the TPB advanced the following two studies.

- TPB Climate Change Mitigation Study. staff plan to conduct additional climate planning work that would examine specific strategies to develop estimates of the levels of outcomes needed to help reduce the transportation sector's GHG emissions commensurate with the region's GHG reduction goals for 2030. (Please see link above for more information)
- TPB Resiliency Study, described in this memorandum.

OUTREACH TO MEMBERS

The TPB staff reached out to TPB Technical Committee members, primarily at the state and county level for this study to gather information about transportation resiliency planning activities. This information was collected through the completion of a research framework template and a series of virtual meetings. This input is summarized in the memorandum posted online and specific examples of activities are discussed in the whitepaper.

FEDERAL REQUIREMENTS

Fixing America's Surface Transportation (FAST) Act Transportation Planning Rule (May 2016) added:

- Metropolitan Transportation Plan must assess capital investment and other strategies that reduce the vulnerability of existing transportation infrastructure to natural disasters (23 CFR450.324(f)(7)).
- MPOs recommended to consult with agencies and officials responsible for natural disaster risk reduction when developing Plan and TIP (23 CFR 450.316(b)).
- New planning factor on improving the resiliency and reliability of transportation system (23 CFR 450.206(a) and 23 CFR450.306(b)), which is:
 - Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation

Meaning of ‘resilience’ for the purpose of this research: As defined by the Federal Highway Administration; resilience is ‘the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions’. ¹

PRIMARY STUDY TASKS

Develop a framework for documenting information

Develop a framework for documenting information about resiliency planning in the TPB planning region. This research focused on adaptation planning for natural disaster/extreme weather resiliency and stormwater mitigation activities.

The consultant collected information for each of the following TPB member transportation agencies:

- | | |
|---|---------|
| • Virginia: OIPI, DRPT, VDOT | • WMATA |
| • DC: DDOT, DCOP | • VRE |
| • MDOT including its transportation business units, MDOT MTA (MARC), MDTA and MDOT SHA. | • NPS |
| | • NCPC |

Selected local jurisdictions transportation departments:

- | | |
|------------------------|--------------------------|
| • Arlington County, VA | • City of Alexandria, VA |
|------------------------|--------------------------|

¹ PowerPoint Presentation (trb-adc60.org)

- Charles County, MD
- Fairfax County, VA
- Frederick County, MD
- Loudoun County, VA
- Montgomery County, MD
- Prince George's County, MD
- Prince William County, VA

Resiliency Planning Information Gathering and Documentation

The study team developed and implemented an approach and a schedule for conducting research and communicating with and gathering information from the jurisdictions. Document and summarize findings in a memorandum.

Develop Whitepaper

The study team developed a whitepaper that synthesizes the research findings, documents regional strategies for resilience, addresses equity in resiliency planning and the potential MPO role in future resilience planning efforts.



APPENDIX M

Incorporation of the Climate Change Mitigation Study
into the 2022 update to Visualize 2045

Draft, March 2022



National Capital Region
Transportation Planning Board

INCORPORATION OF THE CLIMATE CHANGE MITIGATION STUDY OF 2021 FOR THE VISUALIZE 2045 UPDATE (2022) LONG-RANGE TRANSPORTATION PLAN FOR THE NATIONAL CAPITAL REGION

March 2022

ABOUT VISUALIZE 2045 & THE TPB

Visualize 2045 is the federally required long-range transportation plan for the National Capital Region. It identifies and analyzes all regionally significant transportation investments planned through 2045 to help decision makers and the public “visualize” the region’s future.

Visualize 2045 is developed by the National Capital Region Transportation Planning Board (TPB), the federally designated metropolitan planning organization (MPO) for metropolitan Washington. It is responsible for developing and carrying out a continuing, cooperative, and comprehensive transportation planning process in the metropolitan area. Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia and the District of Columbia, 24 local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning at the Metropolitan Washington Council of Governments (COG).

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ACKNOWLEDGEMENTS

The TPB thanks the consultant team, composed of ICF, Fehr & Peers, and Gallop Corporation, that conducted significant portions of the Climate Change Mitigation Study.

Special thanks to the many other regional staff who provided input and comments for this analysis.

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INCORPORATION OF THE CLIMATE CHANGE MITIGATION STUDY OF 2021 INTO THE 2022 UPDATE TO VISUALIZE 2045

The TPB completed the Climate Change Mitigation Study of 2021 (CCMS), which examined potential strategies that TPB member jurisdictions and agencies could take to reduce on-road greenhouse gas (GHG) emissions. The TPB considers the study a component of the 2022 update to Visualize 2045. The findings of this study can inform future TPB policy priorities. The findings can also inform TPB member agency actions, that could be reflected in a future constrained element of the plan, as locally developed, regionally significant, projects, programs, and policies that members fund.

The TPB previously endorsed COG's regional climate change mitigation goals for all sectors combined and expressed interest in adopting goals specific to on-road transportation. In January of 2021, Chair Sebesky outlined a process for developing a majority consensus on climate change mitigation goals and strategies to inform future updates of the long-range transportation plan. Chapter 6 of the draft plan, published April 1, 2022, includes a section that summarizes of the CCMS. That section will be updated prior to presentation of the final plan to the board for approval in June 2022, if the board takes action and directs staff to document board-approved strategies in May 2022. Depending on the consideration of the board, some strategies examined in the CCMS could require additional analysis prior to endorsement by the board.

This Appendix provides the Executive Summary of the CCMS. To view the complete study, please visit:

- the Visualize 2045 website climate, resiliency and environmental health page: <https://visualize2045.org/future-factor/climate-resiliency-and-environmental-health/>
- the study page: <https://www.mwcog.org/tpb-climate-change-mitigation-study-of-2021/>
- or access the full report directly online.

ATTACHMENT: EXECUTIVE SUMMARY OF THE CLIMATE CHANGE MITIGATION STUDY OF 2021



→ TPB Climate Change Mitigation Study of 2021

Scenario Analysis Findings Executive Summary for the Final Report

January 7, 2022

Prepared by



with support from
Fehr & Peers and
Gallop Corporation

Prepared for



National Capital Region
Transportation Planning Board

Executive Summary

Introduction and Purpose

The Metropolitan Washington Council of Governments (COG) set ambitious goals for reducing regional greenhouse gas (GHG) emissions across all sectors:¹ 50% below the 2005 level by 2030 and 80% below the 2005 level by 2050. While these are non-sector-specific regional goals, it is recognized that transportation contributes a large share of regional GHG emissions, with on-road mobile sources contributing about 34% of total regional GHG emissions, based on a recent regional inventory.² Consequently, the National Capital Region Transportation Planning Board (TPB), which is the metropolitan planning organization (MPO) for the metropolitan Washington region, is seeking ways to achieve significant reductions of on-road, transportation-related GHG emissions, commensurate with the overall regional goals for GHG reduction.

The purpose of this study is to help answer the question, “What would it take to reduce on-road, transportation-sector GHG emissions by 50% by 2030 and by 80% by 2050, compared to the 2005 level?” This study sought to answer this question through a scenario analysis that involved exploring the estimated GHG impacts of different on-road transportation strategies and combinations of strategies. The study found that none of the simulated scenarios would meet the study’s 2030 goal of reducing GHG emissions to 50% below the 2005 level for on-road transportation sources. By contrast, the 2050 goal of reducing on-road transportation-sector GHG emissions to 80% below the 2005 level could be achieved in one scenario with the most aggressive combination of strategies under a reference electricity grid assumption (which accounts for implementation of existing “on the books” policies related to renewable fuels in the power sector). When assuming cleaner electricity grid emissions profiles, however, more scenarios can meet the study’s 2050 goal, as long as they incorporate substantial shifts to electric vehicles (EVs). Note that although none of the 10 scenarios meet the study goal of a 50% reduction in on-road transportation-sector GHG emissions by 2030, four of the 10 scenarios were estimated to achieve a large enough GHG reduction to meet the level of on-road transportation sector GHG reductions assumed in COG’s 2030 Climate and Energy Action Plan (CEAP).³ For these four cases, a 50% reduction in regional GHG emissions by 2030 across all sectors could be achieved if other sectors also meet levels of GHG reductions assumed in the 2030 CEAP.

Figure ES-1 illustrates the strategies and pathways for reducing on-road transportation GHG emissions and how they relate to each other. In this study, on-road transportation GHG emissions are defined as tailpipe emissions

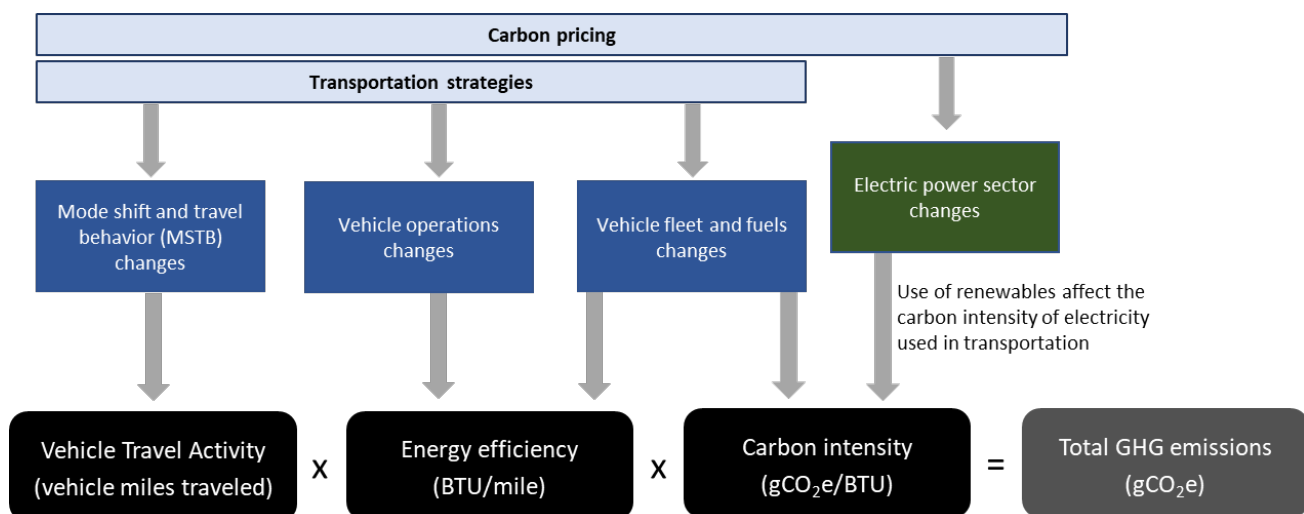
¹ This includes residential and commercial buildings, transportation and mobile emissions, wastewater treatment, agriculture, and solid waste treatment sectors.

² “Metropolitan Washington 2030 Climate and Energy Action Plan” (Washington, D.C.: Metropolitan Washington Council of Governments, November 18, 2020), page 50, referencing the Community-Wide Greenhouse Gas Inventory, <https://www.mwcog.org/documents/2020/11/18/metropolitan-washington-2030-climate-and-energy-action-plan/>

³ “Metropolitan Washington 2030 Climate and Energy Action Plan” (Washington, D.C.: Metropolitan Washington Council of Governments, November 18, 2020), <https://www.mwcog.org/documents/2020/11/18/metropolitan-washington-2030-climate-and-energy-action-plan/>

coming directly from combustion of fossil fuels in motor vehicles (called “on-road mobile sources” in most GHG inventories), plus GHG emissions from electricity associated with the operations of EVs. Note that while this study explored vehicle technology shifts to EVs charged through plugging into the electric grid, there are other forms of zero-emission vehicles (ZEVs) when considering only tailpipe emissions, such as hydrogen fuel cell electric vehicles.⁴

Figure ES–1. Strategies and Pathways for Reducing GHG Emissions from Transportation



As shown in Figure ES–1, on-road transportation GHG emissions are a function of vehicle travel, the energy efficiency of vehicles, and the carbon intensity of fuels used. The scenarios explored in this analysis included a broad array of strategies under **three primary pathways** for reducing GHGs from on-road transportation sources:

- 1) **Vehicle Technologies and Fuels:** Strategies to shift the fleet of motor vehicles to electric vehicles (EVs) and increase the share of lower carbon fuels (e.g., biofuels).
- 2) **Mode Shift and Travel Behavior (MSTB):** Strategies to reduce motor vehicle travel, typically measured as vehicle miles of travel (VMT), by shifting travel from driving alone to more efficient modes, such as transit, ridesharing, bicycling, and walking; reducing vehicle trip lengths, such as through land use strategies; or reducing trip-making entirely, such as through telework. These strategies primarily affect passenger travel, rather than freight.
- 3) **Transportation Systems Management and Operations (TSMO):** Strategies to optimize the efficiency of travel by reducing vehicle travel delay and/or encourage more eco-friendly driving patterns.

⁴ For simplicity, this study focused on EVs using the electric grid. Note that this analysis does not account for full fuel-cycle emissions, which would include the upstream emissions associated with the extraction, transport, and distribution of fuels used in transportation, and does not account for other emissions associated with transportation infrastructure development and maintenance, nor production of vehicles. It also does not account for emissions associated with non-road transportation sources, such as rail (e.g., Metrorail, commuter rail, freight rail) or aviation.

The use of renewable fuels in the electric power grid influences how much GHGs are emitted from EVs, and this study explored three different possible cases for future electric power GHG emissions factors, recognizing the movement toward a decarbonized power sector:

1. A Reference Case, which incorporates all “on-the-books” policies, including renewable portfolio standards (RPSs) in the District of Columbia, Maryland, and Virginia.
2. A Modified Reference Case, which is slightly more aggressive than the Reference Case, resulting in a near zero-carbon grid by 2040.
3. A Clean Grid Case, assuming a 100% carbon-free grid by 2035.

As transportation power sources move toward electricity, utility electricity grid emissions become increasingly important in decarbonization of the sector.

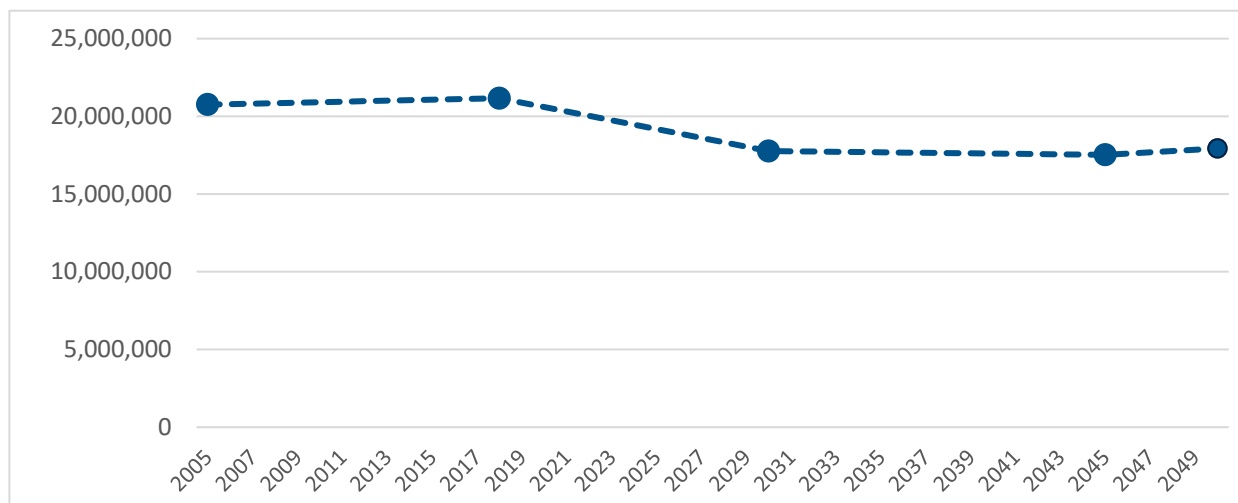
Carbon pricing – in the form of a fee on carbon emissions or market-based mechanisms such as cap-and-trade or cap-and-invest programs – has been identified as a potentially promising overarching strategy, but this study did not explicitly analyze carbon pricing. However, carbon pricing may be a mechanism that would help to support other strategies analyzed under this study, such as shifts toward EVs and less-carbon intensive modes of travel.

Study Baseline Forecast

The baseline scenario for this study is based on the VMT and tailpipe GHG emissions projections consistent with TPB’s Visualize 2045 Long-Range Transportation Plan (2018) and COG’s 2030 CEAP. To calculate 2050 VMT and emissions, the 2045 passenger VMT (also referred to as car and light duty truck VMT) projections were extrapolated to 2050 using estimated population growth rates and forecast reductions in VMT per capita estimated for the period 2030 to 2045, extended to 2050. VMT from light-duty commercial trucks, heavy-duty trucks, and combination trucks was assumed to continue increasing at the same annual rate as the period between 2030 and 2045. Using this approach, a total increase in VMT between 2045 and 2050 of 2.5% was calculated across all vehicle types.

The GHG emissions estimates developed for the performance analysis of past TPB’s long-range transportation plans, including Visualize 2045, include only tailpipe emissions, while this study also accounts for the emissions generated to charge EVs. The baseline estimates shown in Figure ES-2 are a sum of the tailpipe emissions plus electricity emissions, calculated based on the National Renewable Energy Lab (NREL) reference case penetration of EVs.⁵

⁵ NREL. (2018). Electrification Futures Study: Scenarios of Electric Technology Adoption and Power Consumption for the United States.

Figure ES-2. Baseline On-Road GHG Emissions (MTCO₂e)

The baseline GHG emissions totals show lower total emissions in 2030 and 2050 compared to 2005, approximately 14% lower in both cases. This is because the projected improvements in fuel economy, leading to decreased emissions per mile, are predicted to offset increases in VMT. Note that these reductions in on-road transportation GHG emissions are estimated to occur over a time when population in the region is projected to increase about 25% (to 6.25 million) by 2030 and about 43% by 2050 (to 7.15 million) compared to the 2005 level (4.76 million).

It is important to note that the baseline assumptions and subsequent scenario analyses are based on travel behavior and estimated behavioral responses to policy implementations that were observed prior to the COVID-19 global pandemic. With this consideration in mind, both the baseline forecast and the estimates of GHG impacts of scenarios in this study should be interpreted recognizing uncertainties about future travel behavior.

Scenario Approach

The study involved **two different types of analysis**:

- 1) Three “top-down” scenarios were developed and analyzed to identify what level of vehicle miles traveled (VMT) would need to be reduced, or what level of EV adoption would be needed, to meet the 50% and 80% reduction goals by 2030 and 2050, respectively; and
- 2) Ten “bottom-up” scenarios were developed to assess how much GHG reduction might be expected with implementation of different sets of strategies in order to determine which scenarios could meet the 2030 and 2050 GHG reduction goals.

The “**top-down**” analysis explored three key questions: 1) What level of VMT reduction would be needed to meet the regional 2030 and 2050 goals if VMT reduction were the sole focus of efforts? 2) What level of electric vehicle (EV) adoption would be needed to meet the regional 2030 and 2050 goals if vehicle technology were the sole focus of efforts? 3) What level of VMT reduction would be needed to meet the regional 2030 goal assuming vehicle technology assumptions in COG’s 2030 Climate and Energy Action Plan (2030 CEAP)?

The “**bottom-up**” analysis involved development and analysis of ten scenarios: six focused on individual pathways (e.g., vehicle technologies and fuels alone, MSTB alone, or TSMO alone), and four involving

combinations of the other scenarios. Table ES-1 lists the ten scenarios that were explored. Each scenario was defined to incorporate an aggressive set of strategies or assumptions about changes in the vehicle fleet, fuels, or travel behavior (e.g., levels of telework) corresponding with aggressive strategy implementation. While each scenario was defined to be potentially feasible, they were generally designed with high-end assumptions (both in the base scenarios and amplified scenarios), without regard to political feasibility, and some with very optimistic assumptions about shifts in technology.

Table ES-1. Ten Scenarios Studied in “Bottom-Up” Analysis

Pathway	Scenario	Key Components / Assumptions
Vehicle Technology (VT) and Fuels	VT.1: Vehicle Technology and Fuels Improvement Scenario	Shifts to EVs (50% of new light-duty [LD] vehicle sales are EVs in 2030, with 100% by 2040; 30% of new medium/heavy-duty [M/HD] truck sales are EVs in 2030, with 100% by 2050; 50% of buses on the road are EVs in 2030, 100% in 2050; biodiesel/renewable diesel makes up 10% of diesel fuel use in 2030 and 20% in 2050)
	VT.2: Amplified Vehicle Technology and Fuels Improvement Scenario	More aggressive shifts to EVs: 100% of new LD vehicle sales are EVs in 2030; 50% of new M/HD truck sales are EVs in 2030, with 100% by 2040; 100% of buses on the road are EVs by 2030; biodiesel/renewable diesel makes up 20% of diesel fuel use in 2030 and 30% in 2050
Mode Shift and Travel Behavior (MSBT)	MS.1: Mode Shift Scenario	Land use changes focused on redistribution of future growth to activity centers and areas better served by transit across jurisdictions and 77,000 new households in the region by 2030 and 126,000 new households in the region by 2050 to support jobs-housing balance; enhanced bike/pedestrian/micromobility environment; transit fares reduced 50% by 2030 and 75% in 2050; all workplace parking in activity centers priced by 2030; transit enhancements (10% reduction in transit travel time by 2030 and 20% by 2050); 25% telework
	MS.2: Mode Shift Scenario + Road Pricing	Same strategies as MS.1, plus DC cordon pricing of \$10 to enter downtown, and VMT-fees of \$0.05 per mile in 2030 and \$0.10 per mile in 2050
	MS.3: Amplified Mode Shift Scenario + Road Pricing	MS.2 with amplified strategies, including free transit; all workplace parking priced by 2050 (not just in activity centers), further transit enhancements (15% reduction in transit travel time by 2030 and 30% by 2050); 40% telework ⁶
Transportation Systems Management & Operations (TSMO)	TSMO: Operations Improvement Scenario	Optimized operations through intelligent transportation systems (ITS) including ramp metering, incident management, active signal control, and active transportation demand management; assumed operational benefits from connected/automated vehicles (CAVs) in 2050
Combined Pathways	COMBO.1: Combined Scenario	VT.1 + MS.1 + TSMO
	COMBO.2: Combined Scenario with More Aggressive Technology Emphasis	VT.2 + MS.1 + TSMO
	COMBO.3: Combined Scenario with More Aggressive Mode Shift Emphasis	VT.1 + MS.3 + TSMO
	COMBO.4: Combined Scenario with Aggressive Actions Across All Pathways and Shared CAV Future	VT.2 + MS.3 + TSMO + shared CAV assumptions

⁶ Since it is estimated that about 50% of jobs in the metropolitan Washington region are telework capable, 40% telework implies that 80% of employees who work in telework-capable jobs would be teleworking on a typical workday, which is a very aggressive assumption.

Scenario Analysis Results

Top-Down Analysis: What would it take to reach the GHG reduction goals solely through VMT reduction or EV adoption?

The “top-down” analysis of what it would take to reach the 2030 or 2050 goals highlights how challenging it would be to reach the goals within the on-road transportation sector, particularly for 2030, through either VMT reduction alone or shifts to EVs alone. The analysis also highlights the challenge of meeting the 2030 goal even with vehicle technology assumptions in the 2030 CEAP. To meet the 50% emissions reduction goal by 2030 through VMT reduction alone, passenger VMT would need to drop by an estimated 57% from the 2018 level. This is an unprecedented level of VMT reduction that would mean traffic volumes in the region would need to shrink to the level seen at the height of the COVID-19 stay-at-home orders during April 2020 and not rebound, despite a forecasted 12% increase in regional population between 2018 and 2030.

Similarly, meeting the 2030 goal is extremely ambitious with vehicle technology improvements alone. To achieve the 50% emissions reduction goal by 2030 using vehicle technology alone, approximately 75% of vehicles on the road would need to be EVs by 2030 using “reference grid case” electric power assumptions (which assumes increases in use of renewable fuels consistent with existing policies) and about 48% would need to be EVs assuming a “clean grid case.” These levels appear extremely difficult, given the length of time people generally hold onto vehicles, and would likely require immediate shifts to all new vehicles sold as EVs, combined with aggressive incentives to accelerate vehicle turnover and/or carbon or fuel pricing. The small number of years between today and 2030 means there is very limited time to achieve the large shifts in fleet technology that would be required to meet the goal for 2030.

Looking at combining technology enhancements with VMT reduction still provides an intense challenge for meeting the 2030 goal within the on-road transportation sector. Even with the 2030 CEAP technology assumptions,⁸ passenger VMT would need to drop by about 49% from the 2018 level, which is an unprecedented level of VMT reduction over a sustained time and would likely require that vehicles be subject to high levels of pricing (road, parking, and/or fuel), nearly complete telework, and restrictions on driving. There simply is too little time for the vehicle fleet to turn over with enough EVs to allow for a more moderate level of reduction in VMT, particularly given that medium- and heavy-duty commercial vehicles made up about one-quarter of on-road transportation GHG emissions in 2018, and that there is limited potential to reduce VMT by commercial/freight vehicles, due to the necessity of freight and goods movement, combined with relatively limited opportunities to shift these vehicles to EVs on a broad scale in the near-term.

Challenges remain for meeting the 2050 goal. Based on the ICF analysis, it would not be possible to attain the 80% reduction goal through passenger VMT reduction alone since estimated medium- and heavy-duty vehicle

⁷ See, for example, Brad Plumer, Nadja Popovich, and Blacki Migliozi, “Electric Cars Are Coming. How Long Until They Rule the Road?,” *The New York Times*, March 10, 2021, sec. Climate, <https://www.nytimes.com/interactive/2021/03/10/climate/electric-vehicle-fleet-turnover.html>

⁸ The 2030 CEAP assumed that in 2030, 34% of light duty passenger car VMT, 17% of light duty passenger truck VMT, 34% of transit bus VMT, 7% of medium-duty truck VMT, and 6% of heavy-duty truck VMT would be driven by EVs.

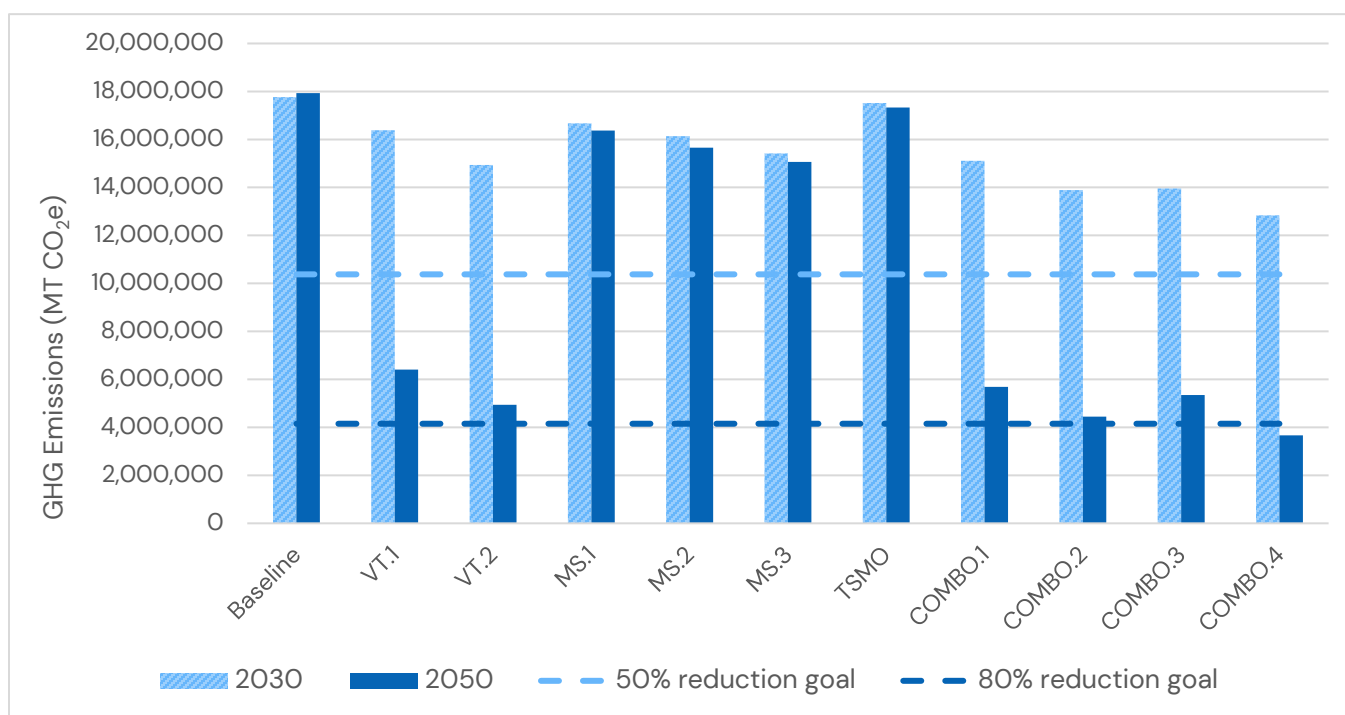
emissions exceed the goal level in 2050. Similarly, the 2050 goal cannot be achieved even if all vehicles were converted to EVs under “reference case” assumptions for electricity carbon intensity. However, the goal could be met with a completely carbon-free electric grid if about 79% of vehicles on the road were EVs in 2050. These findings highlight the importance of large-scale shifts to EVs (zero emissions from the tailpipe) combined with a clean electric power grid in order to decarbonize the on-road transportation sector.

Bottom-Up Analysis: Which scenarios achieve the goals?

In short, none of the simulated scenarios meet the study’s 2030 goal of reducing on-road transportation-sector GHG emissions to 50% below 2005 levels, and only one scenario provides enough emissions reductions to meet the study’s 2050 goal of 80% below 2005 levels under the “reference case” electric grid. When conducting the analysis with cleaner electricity grid emissions profiles, more scenarios were predicted to meet the 2050 goal of 80% below 2005 levels; however, still no scenarios were able to meet the study’s 2030 goal of 50% below 2005 levels. This finding is consistent with results of the “top-down” analysis, which showed the challenge of meeting the 2030 goal within the on-road transportation sector. However, as noted earlier, four of the 10 scenarios were estimated to achieve a large enough reduction in on-road transportation-sector GHG emissions to match the level assumed in the 2030 CEAP, suggesting that the region could meet its overall multisector goal for 2030 if other sectors also yield reductions in GHGs at levels assumed in the CEAP.

The results of the “bottom up” scenario analysis conducted under the “reference grid” case are shown in Figure ES-3. As expected, the scenarios that combine multiple types of strategies (COMBO scenarios) are more effective than those that simply focus on individual strategies.

Figure ES-3. On-Road Transportation GHG Emissions Estimated for the Reference Grid Case



Note: The Reference Grid Case is based on current “on-the-books” power sector policies in the District of Columbia, Maryland, and Virginia, and represents a reduction in carbon intensity compared to the current electric power grid.

Table ES-2 shows the full result of the analysis of each of the ten bottom-up scenarios (and the baseline scenario) performed under the different electric grid scenarios. In the case of a clean electric grid, which assumes 100% carbon free grid by 2035, the GHG emissions from the vehicle technology and fuels improvement scenarios are reduced further since there are no off-setting electricity emissions from EVs. Under these assumptions, both the VT scenarios meet the 80% reduction goal. Under the clean grid assumption, MSTB strategies have limited additional effects since most passenger vehicles are assumed to be 100% clean and TSMO enhancements generate small additional benefits for the remaining largely medium- and heavy-duty vehicles that are not EVs.

The on-road transportation GHG emission reductions across all scenarios range from 16% (TSMO) to 38% (COMBO.4) in 2030 (note that, in the baseline forecast for this study, on-road transportation GHG emissions are estimated to be 14% below the 2005 level in 2030). As mentioned above, COG's 50% reduction goal is a multisector goal for the region, with assumed contributions from residential and commercial buildings, waste, aviation, and other sectors. Several of the combination scenarios provide estimated on-road GHG emission reductions at levels assumed in COG's multisector 2030 CEAP, suggesting that the multisector goal could potentially be met with these levels of on-road transportation GHG reductions if other sectors also implement aggressive strategies. In Table ES-2, cells with values that meet the study's GHG reduction goals are shaded light green, and table cells with values that meet the level of on-road transportation sector GHG emissions reductions assumed in the 2030 CEAP are shaded in yellow.

In 2050, only the most aggressive scenario with a combination of the most aggressive strategies across each pathway – COMBO.4 – provides enough emission reductions to reach the 80% reduction goal, assuming the reference electric grid case. Among the individual scenarios, the amplified vehicle technology and fuels improvement scenario – VT.2 – gets the closest to the 2050 goals by providing a 76% GHG emission reduction, demonstrating the importance of vehicle technology improvements. Under the VT.2 scenario, by 2050, nearly all light-duty vehicles are estimated to be EVs, and over three-quarters of all medium- and heavy-duty vehicles are EVs, resulting in a dramatic (approximately 93%) reduction in on-road tailpipe and evaporative emissions. While the reference grid case assumes a substantial increase in renewable electricity consistent with existing “on-the-books” standards, the offsetting electricity-related emissions mean that even this level of conversion to EVs is not enough to meet the goal. While the emissions benefit for every VMT reduced is much lower in 2050 than today, the most aggressive scenario for VMT reduction is also needed in combination with the technology improvements to meet the goal.

Table ES-2. Summary of GHG Reductions Estimated for All Transportation Scenarios Under all Electric Grid Cases (% Reductions from 2005 Level)

Scenario	Key Components	2030			2050		
		Ref. Grid	Mod. Grid	Clean Grid	Ref. Grid	Mod. Grid	Clean Grid
Baseline	Projects, programs, and plans in the Visualize 2045 plan; base assumptions for vehicle technology; population growth through 2050	-14%	-15%	-15%	-14%	-14%	-15%
VT.1	50% of new LD vehicle sales are EVs in 2030, with 100% by 2040; 30% of new M/HD truck sales are EVs in 2030, with 100% by 2050; 50% of buses on the road are EVs in 2030, 100% in 2050; biofuels/renewable diesel make up 10% of diesel fuel use in 2030 and 20% in 2050	-21%	-21%	-24%	-69%	-75%	-84%
VT.2	100% of new LD vehicle sales are EVs in 2030; 50% of new M/HD truck sales are EVs in 2030, with 100% by 2040; 100% of buses on the road are EVs by 2030; biofuels/renewable diesel make up 20% of diesel fuel use in 2030 and 30% in 2050	-28%	-29%	-34%	-76%	-83%	-93%
MS.1	Land use changes, including new housing in the region; transit fares reduced 50% by 2030 and 75% in 2050; all workplace parking in activity centers priced by 2030; 10% reduction in transit travel time by 2030 and 20% by 2050; 25% telework; increased bike/ped/mobility	-20%	-20%	-20%	-21%	-21%	-22%
MS.2	MS.1 + DC core cordon pricing + VMT-fees of \$0.05 per mile in 2030 and \$0.10 per mile in 2050	-22%	-22%	-23%	-25%	-25%	-25%
MS.3	MS.2 with amplified strategies, including free transit; all workplace parking priced by 2050 (not just in activity centers), 15% reduction in transit travel time by 2030 and 30% by 2050; 40% telework	-26%	-26%	-26%	-27%	-28%	-28%
TSMO	Optimized ITS/TSMO, with benefits from connected/automated vehicles (CAVs) by 2050	-16%	-16%	-17%	-16%	-17%	-18%
COMBO.1	Combined scenario: VT.1+ MS.1 + TSMO	-27%	-28%	-30%	-73%	-78%	-86%
COMBO.2	Combined scenario with more aggressive technology emphasis: VT.2 + MS.1 + TSMO	-33%	-34%	-38%	-79%	-85%	-94%
COMBO.3	Combined scenario with more aggressive mode shift emphasis: VT.1 + MS.3 + TSMO	-33%	-33%	-36%	-74%	-79%	-87%
COMBO.4	Combined scenario with aggressive actions across all pathways and shared CAV future: VT.2+MS.3+TSMO+additional sharing	-38%	-39%	-43%	-82%	-87%	-95%

Note: Cells shaded in green highlight figures that meet the study's goal level of emissions reductions. Those shaded in yellow meet the level of on-road transportation GHG reductions assumed in the 2030 CEAP.

Implications and Policy Considerations

The scenario analysis results emphasize the difficulty of meeting the study's 2030 goal of reducing on-road, transportation-sector GHG emissions by 50%. The results, however, suggest that combining vehicle technology, MSTB, and TSMO strategies together results in the largest emissions benefits, and could achieve levels of emissions benefits that are consistent with assumptions in the 2030 CEAP at a level that would be needed to meet the overall regional goal, if other sectors contribute at levels consistent with the estimates in the 2030 CEAP. The study suggests that both rapid shifts toward lower emissions vehicles/fuels and vehicle travel reduction strategies are needed to achieve the near-term goal. **By 2050, shifts to EVs and a clean electric grid are expected to be the most important factors in meeting the 80% reduction goal**, and MSTB strategies will be less important in meeting the goals if the vehicle fleet becomes nearly carbon-free. That said, MSTB strategies likely will play a valuable role over the intervening years and would be helpful in case the vehicle fleet does not convert to zero-emissions as quickly; MSTB strategies could also help to reduce the potential that shifting to EVs and/or connected and automated vehicles (CAVs) might encourage more vehicle travel if the cost or burden of driving is decreased.

Many of the transportation strategies explored in the scenarios have co-benefits for the region, including improving air quality, providing more travel options, and improving the reliability and safety of the transportation system. In particular, many MSTB strategies, including land use efforts to bring jobs and housing closer together, transit enhancements, free or reduced-cost transit, and bicycle/pedestrian/micromobility enhancements also offer significant potential to enhance equity by supporting more equitable access to jobs and other opportunities across racial, ethnic, and income levels. At the same time, some potentially effective MSTB strategies such as road pricing may be regressive, unless designed appropriately to consider equity, by taking factors such as household income into account and using funds for transit and equity-focused services. Telework is not a viable option for workers in many lower-income service industries and may have adverse impacts on businesses with low-income workers, such as restaurants and some services, particularly in downtown areas.

In moving forward, it will be important for the region's policy makers to consider the roles of regional, state, and federal government policy, as well as the private sector. Intergovernmental cooperation and working together with the private sector will likely be critical to achieving the goals, as spurring adoption of EV technology and clean energy is so vital in this process, and land use and telework policies are dependent on decisions by the private sector and employers. Policy makers will need to consider the costs, revenue implications, benefits, and equity implications of policy actions, and consider how transportation investments can best move toward GHG reduction goals while supporting the region's accessibility, mobility, safety, economic, community, and other environmental goals.



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