

**visualize**  
**2045** A long-range  
transportation plan  
for the National  
Capital Region

## APPENDIX C

### Air Quality Conformity Analysis

Draft as of April 1, 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

### **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**

Editor: Jane Posey

Contributing Editors: Kanathur Srikanth, Andrew Austin, William Bacon, Anant Choudhary, Joseph Davis, Nazneen Ferdous, Charlene Howard, Sunil Kumar, Mark Moran, Wanda Owens, Jinchul (JC) Park, Eric Randall, Ho Jun (Daniel) Son, Dusan Vuksan, Feng Xie, and Jian (Jim) Yin

### **ACKNOWLEDGEMENTS**

The preparation of this report was financially aided through grants from the District of Columbia Department of Transportation, the Maryland Department of Transportation, the Virginia Department of Rail & Public Transportation, the Virginia Department of Transportation, the U.S. Department of Transportation, the Federal Highway Administration, and the Federal Transit Administration.

### **ACCOMMODATIONS POLICY**

Alternative formats of this document are available upon request. Visit [www.mwcog.org/accommodations](http://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](http://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](http://www.mwcog.org/nondiscrimination) o llame al (202) 962-3300.

# TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>1</b>
<b>OZONE STANDARD &amp; MOBILE Emissions Budgets</b>	<b>1</b>
2008 Ozone Standard Maintenance Plan Budgets	1
Ozone Standard	3
Budget Setting vs. Conformity	3
<b>WORK ACTIVITIES &amp; TECHNICAL INPUTS</b>	<b>4</b>
Cooperative Forecasts	6
Vehicle Registration Data	6
Transportation Project Inputs	8
Metrorail Capacity Constraint	8
Travel Modeling	8
<b>EMISSIONS</b>	<b>10</b>
Mobile Emissions Inventories & Tier 1 and Tier 2 Mobile Budgets	10
VIN Data Sensitivity Test	11
TERMs	11
<b>COMMENTS / RESPONSE TO COMMENTS</b>	<b>12</b>
<b>SUMMARY</b>	<b>12</b>
<b>ATTACHMENT A – AIR QUALITY CONFORMITY SCOPE OF WORK</b>	<b>13</b>
<b>ATTACHMENT B - PROJECT INPUTS FOR THE FY2023-2026 TIP &amp; 2022 UPDATE TO THE VISUALIZE 2045 PLAN</b>	<b>21</b>

## FIGURES AND TABLES

Figure 1 TPB Model Area, TPB Planning Area, and 8-hour Ozone Non-attainment Area	5
Figure 2 Round 9.2 Cooperative Forecasts, Households and Employment, in the Non-attainment Area	6
Figure 3 Historical growth in vehicles by type	7
Figure 4 Vehicle and transit trips in the non-attainment area	9
Figure 5 Vehicle miles traveled in the non-attainment area (thousands)	9
Figure 6 Mobile source emissions, ozone season VOC	10
Figure 7 Mobile source emissions, ozone season NO <sub>x</sub>	11
Table 1 Tier 1 Mobile Emissions Budgets (see note #1 in next table)	2
Table 2 Tier 2 Mobile Emissions Budgets (see note #1 below the table)	2
Table 3 Input Assumptions	4
Table 4 Average age of regional vehicle fleet by year	8
Table 5 Transportation Emission Reduction Measures	12

## 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<sub>x</sub>). 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<sub>x</sub>. 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<sub>x</sub>. 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<sub>x</sub> 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 NOx in 2025 and 2030. Tier 1 and Tier 2 mobile emissions budgets for VOC and NOx 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”.<sup>1</sup>

**Table 1 Tier 1 Mobile Emissions Budgets (see note #1 in next table)**

Year	NO <sub>x</sub> On-Road Emissions (tpd)	VOC On-Road Emissions (tpd)
<b>Attainment Year 2014 Emission &amp; Budget</b>	136.8	61.3
<b>Intermediate Year 2025 Emission &amp; Budget</b>	40.7	33.2
<b>Final Year 2030 Emission &amp; Budget</b>	27.4	24.1

**Table 2 Tier 2 Mobile Emissions Budgets (see note #1 below the table)**

Year	NO <sub>x</sub> On-Road Emissions (tpd)	VOC On-Road Emissions (tpd)
<b>Attainment Year 2014 Emission &amp; Budget</b>	<b>136.8</b>	<b>61.3</b>
Predicted 2025 Emission	40.7	33.2
Transportation Buffer	8.1	6.6
<b>Intermediate Year 2025 Budget</b>	<b>48.8</b>	<b>39.8</b>
Predicted 2030 Emission	27.4	24.1
Transportation Buffer	5.5	4.8
<b>Final Year 2030 Budget</b>	<b>32.9</b>	<b>28.9</b>
Note: <sup>1</sup> 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.		

<sup>1</sup>Maintenance 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,<sup>2</sup> 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.

<sup>2</sup> 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 <sup>3</sup>	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)<sup>4</sup> 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

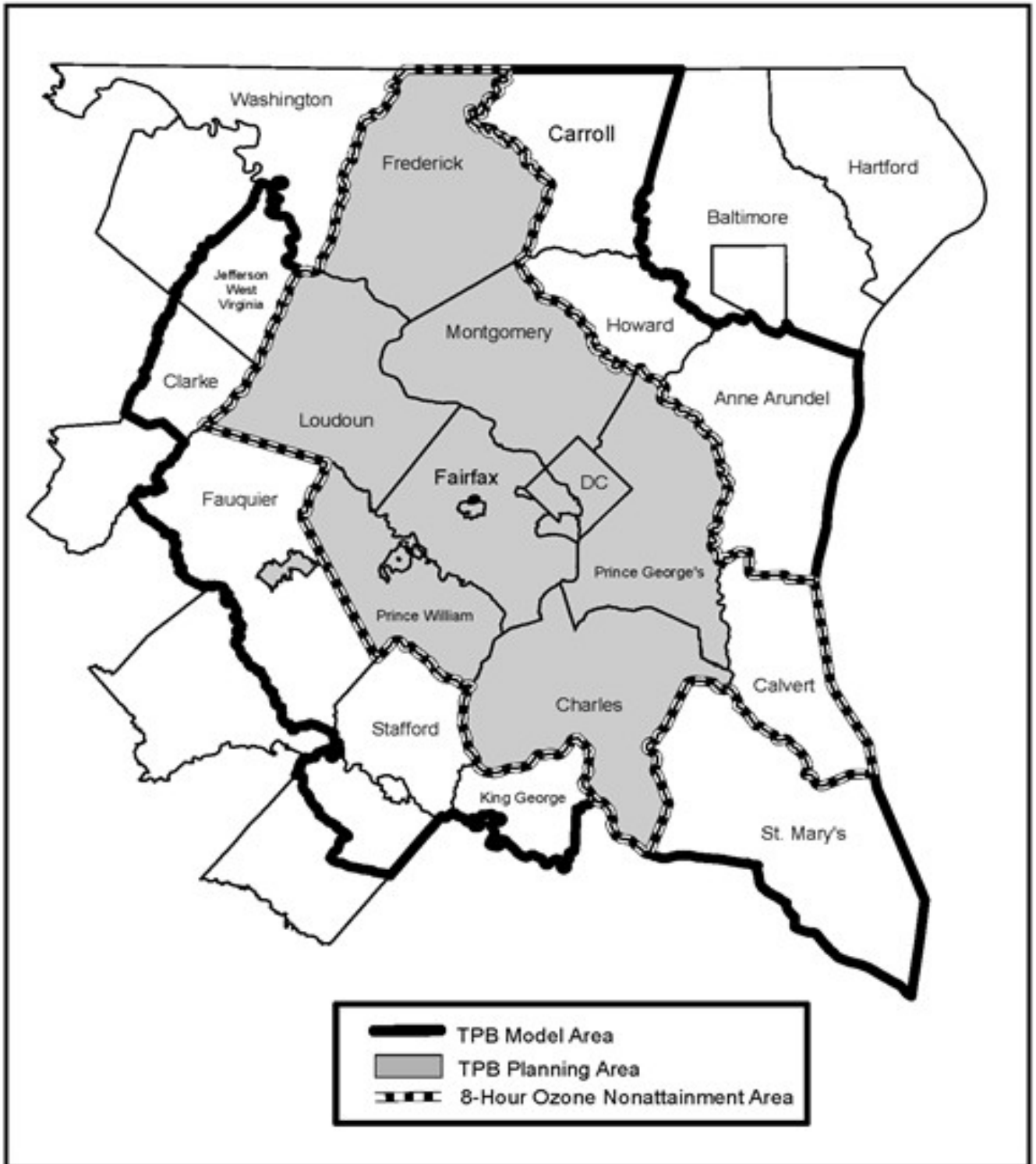
Mobile emissions inventories were developed for ozone season VOC and NO<sub>x</sub> for six forecast years (2021, 2023, 2025, 2030, 2040 and 2045). These inventories address a primary conformity requirement to demonstrate that emissions associated with the plan and TIP do not exceed the EPA-approved mobile emissions budgets. Figure 1 depicts the geographic areas for travel demand modeling and for emissions reporting.

<sup>3</sup> 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.

<sup>4</sup> 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.



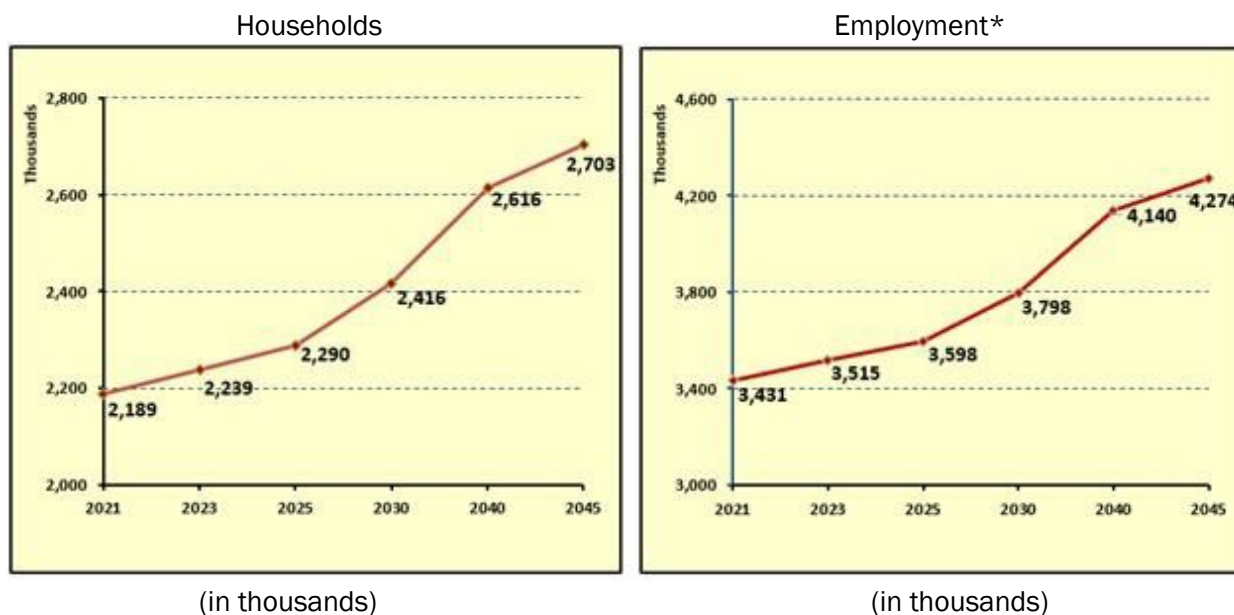
Figure 1 TPB Model Area, TPB Planning Area, and 8-hour Ozone Non-attainment Area



## 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.<sup>5</sup> 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

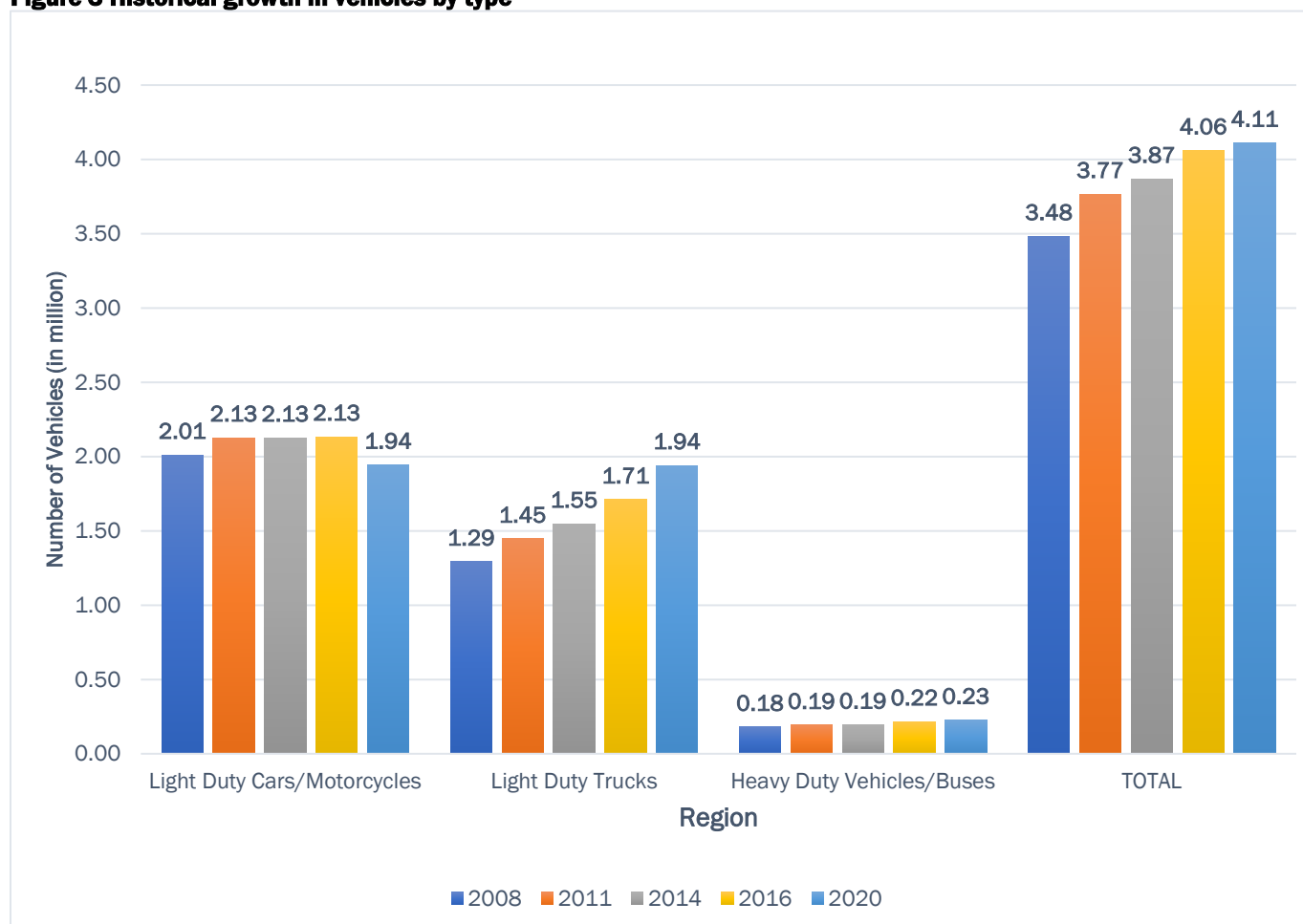
TPB staff have analyzed motor vehicle fleet inventory information on a regular basis since 2005. This information is used to understand the vehicle type composition and vehicle age distributions, which are important determinants of mobile emissions. Periodic inventory reviews enable staff to refresh mobile emissions modeling inputs with the latest available information.

<sup>5</sup> 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.<sup>6</sup> 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**



<sup>6</sup> 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:

<https://www.mwcog.org/maps/map-listing/visualize-2045-project-map/>

## 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**

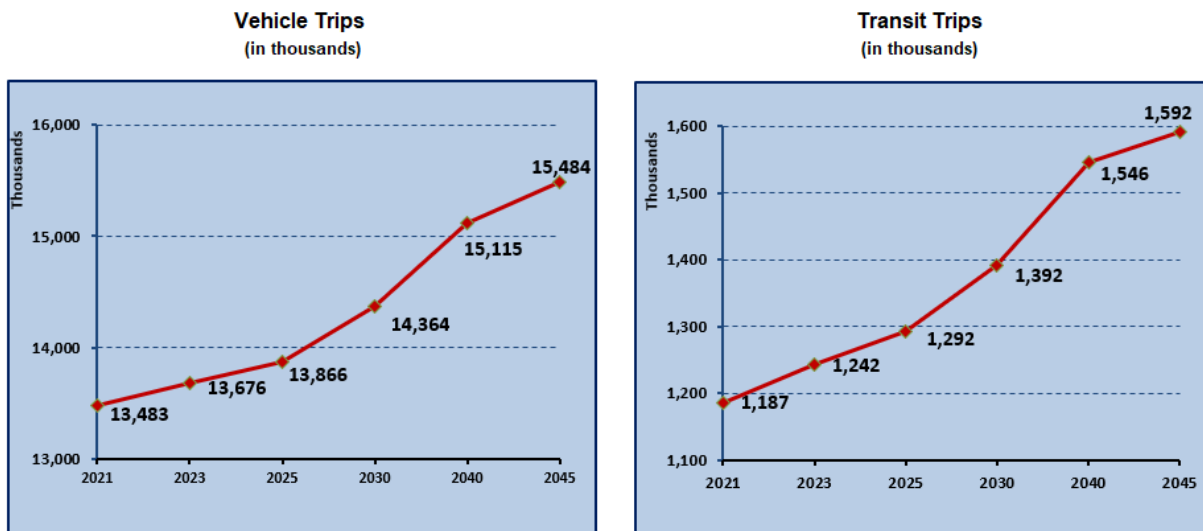
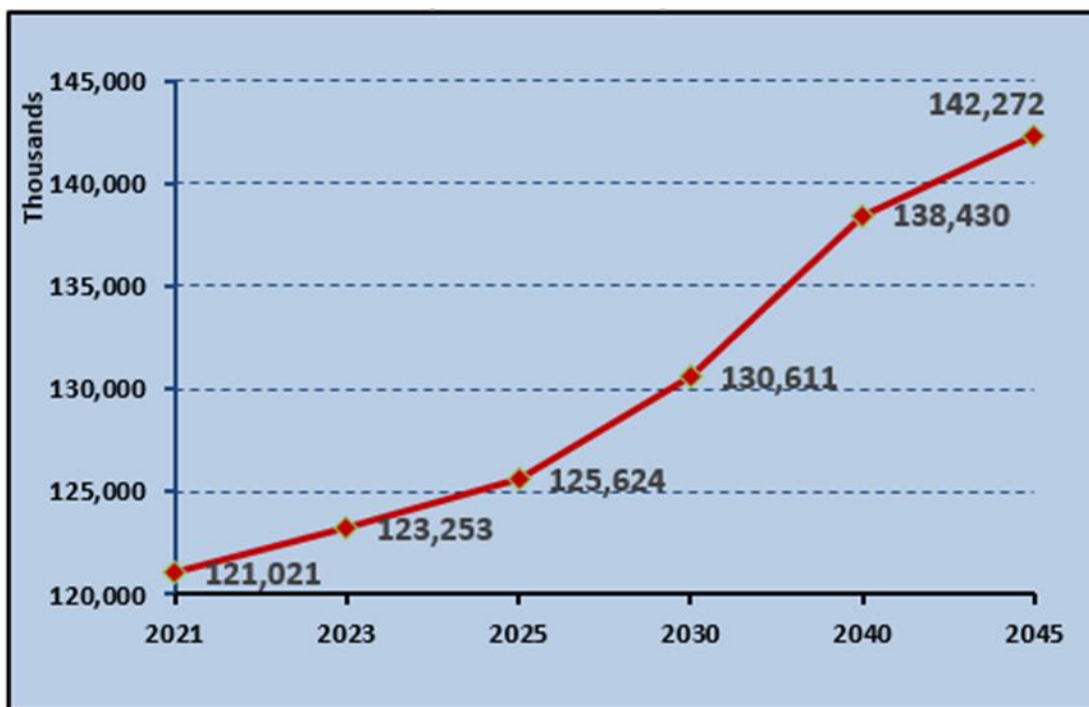


Figure 5 shows Vehicle Miles Traveled (VMT) results through time for each conformity analysis year for the non-attainment area.

**Figure 5 Vehicle miles traveled in the non-attainment area (thousands)**



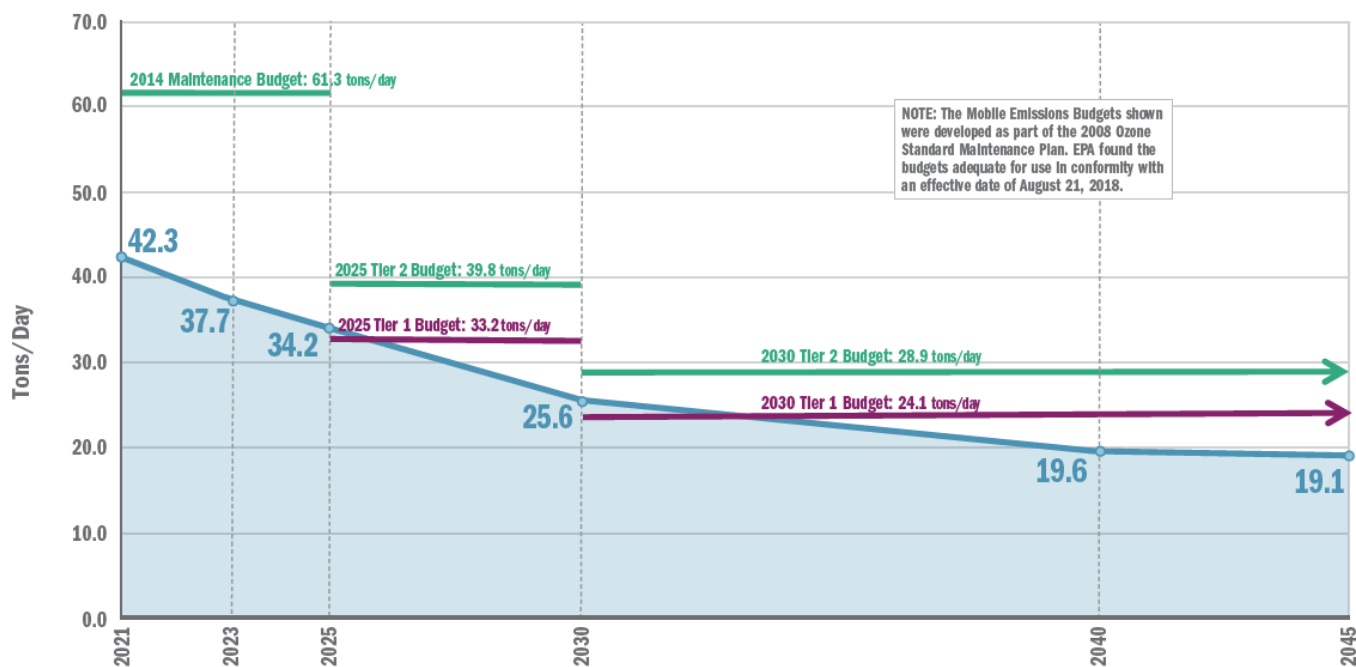
# EMISSIONS

## MOBILE EMISSIONS INVENTORIES & TIER 1 AND TIER 2 MOBILE BUDGETS

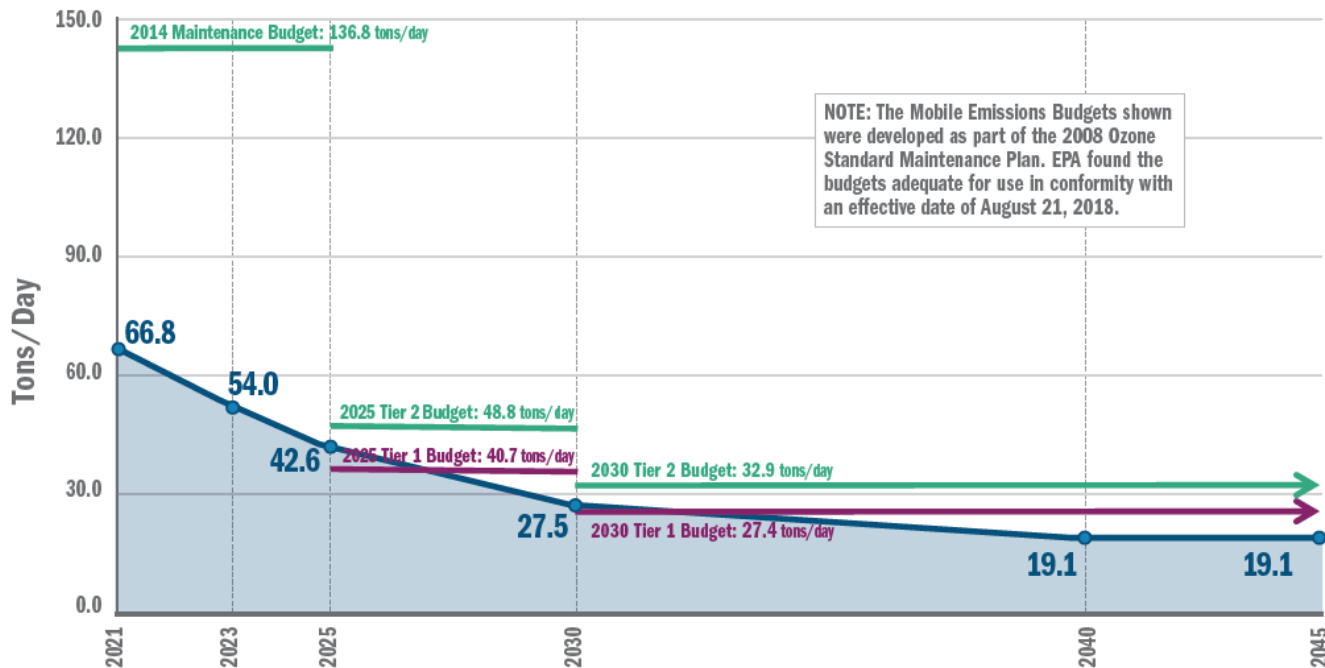
Estimated ozone season emissions totals are illustrated in Figure 6 and Figure 7. The estimated emissions are shown in relation to the Tier 1 and Tier 2 mobile emissions budgets for each pollutant. Estimated emissions levels for VOC and NOx are slightly above the Tier 1 mobile budgets for the 2025 and 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 NOx 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 NOx 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 NOx. Emissions levels for VOC and NOx 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 NOx**



## 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 (tons/day)	Ozone - NOx (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 PM2.5 control measures -The FHWA/FTA project must comply with PM10 and PM2.5 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 NAAQS<sup>7</sup> 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.

---

<sup>7</sup> 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) <sup>8</sup> 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 <sup>9</sup> , 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

<sup>8</sup> 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.

<sup>9</sup> 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.
	3/11/22	Transportation Improvement Program (TIP) inputs due for the FY 2023-2026 TIP
2022	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

1/10/2022

	PIT Project ID	ConID	Scenario	Improvement	Facility	From	To	Projected Completion Date
<b>DDOT</b>								
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

1/10/2022

	PIT Project ID	ConID	Scenario	Improvement	Facility	From	To	Projected Completion Date
<b>MDOT/MTA</b>								
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
<b>Montgomery County</b>								
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>VDOT</b>								
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
<b>DDOT</b>												
<b>70</b>	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						<del>2020-2022</del>
<b>71</b>	3232	663	DS45	Reduce Capacity	Adams Mill Rd. NW	Kenyon	Klinge			3	2	2016 Complete
<b>72</b>	3232	832	in base	Reduce Capacity - bike lanes	Blair Road NW	Peabody St. NW	Aspen St. NW			3	2	2021
<b>73</b>	3232	705	DS12	Reduce Capacity	Brentwood Parkway NE	6th Street/Penn Street	9th Street			2	1	2016 Complete
<b>74</b>	3232	1008	DS28	Reduce Capacity - bike lanes	Dalecarlia Pkwy NW	Loughboro Road	Westmoreland Circle			4	2	<del>2020-2040</del>
<b>75</b>	6315	567	DP16	Reduce Capacity	East Capitol Street	40th Street	Southern Ave			6	4	2021
<b>76</b>	6195	710		Reduce Capacity	Florida Avenue NE	2nd Street	3rd Street			6	5	<del>2019</del> 2023
<b>77</b>	6195	717	DS13	Reduce Capacity	Florida Avenue NE	3rd Street	West Virginia Avenue			6	4	<del>2019</del> 2023
<b>78</b>	3232	1004	DP41	Reduce Capacity - bike lanes	Florida Ave NE	West Virginia Ave	14th St			3	2	2019 Complete

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**



## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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	Louisiana 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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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	<del>2030</del> -2040
89	3232	707	NRS	Reduce Capacity	New Jersey Avenue NW	H Street	Louisiana Ave			4	2	<del>2020</del> -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	<del>2021</del> -2025
92	CE3447	713	DS14	Reduce Capacity	Pennsylvania Avenue NW	18th Street	20th Street			5	4	<del>2020</del> -2025
93	CE3447	714	DS18	Reduce Capacity	Pennsylvania Avenue NW	20th Street	26th Street			6	4	<del>2021</del> -2040
94	CE3447	715	DS16	Reduce Capacity	Pennsylvania Avenue NW	26th Street	28th Street			5	4	<del>2021</del> -2040
95	CE3447	716	DS17	Reduce Capacity	Pennsylvania Avenue NW	28th Street	29th Street			4	2	<del>2021</del> -2040
96	CE3654	947	DP35	Reduce Capacity - bike lanes	Pennsylvania Ave SE	2nd Street SE	14th Street SE	2	2	6	4	<del>2020</del> -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	<del>2020</del> -2024

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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	<del>3rd Street NW</del> 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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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	Massachusettes 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	<del>1013</del> 831	NRS	Reduce Capacity - bike lanes	9th St NW	Massachusetts Ave	Florida Ave			4	2 3	2019-2030

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
<b>MDOT</b>												
<b>Interstate</b>												
<b>144</b>		126	MI2Q	Construct	I 270 Interchange	at Watkins Mill Road		1	1	8	8	2020
<b>145</b>	6432 CE1186	125	MI2U1	Construct/Widen	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
<b>146</b>	6432 CE1186	892	MI2U2	Construct/Widen	I 270 Toll Lanes	I 270Y	I 370	1	1	10 + 2 HOV	10 + 4 HOT +2 HOV +4 ETL	2025
<b>147</b>	6432 CE1186	893	MI2U3	Construct/Widen	I 270 Northbound Toll Lanes	I 370	Middlebrook Road	1	1	3 + 1 HOV NB	3 + 2 HOT NB ETL	2025-2030
<b>148</b>	6432 CE1186	893	MI2U4	Construct/Widen	I 270 Southbound Toll Lanes	Middlebrook Road	I-370	1	1	4 SB	4 + 2 HOT SB +2 ETL	2025-2030
<b>149</b>	6432 CE1186	894	MI2U5	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**



## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
<b>150</b>	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
<b>151</b>	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
<b>152</b>	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
<b>153</b>	6444	953	MI2TSB7	Construct	I270 southbound auxiliary lane (innovative congestion management)	Md 28 on-ramp	MD 189 off-ramp	1	1			2019 2021
<b>154</b>	6444	954	MI2TSB8	Construct	I270 southbound (innovative congestion management)	MD 189 on-ramp	Montrose Road off-ramp	1	1			2019 complete
<b>155</b>	6444	955	MI2TSB1 2	Construct	I270 southbound (innovative congestion management)	North of Montrose Road	Democracy Boulevard	1	1			2019 complete
<b>156</b>	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>Primary</b>												
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
<b>184</b>	CE1196 3469	440	NRS	Construct	MD 5	at Earnshaw/Burch Hill Roads		2	5	4	6	<del>2030</del> -2035
<b>185</b>	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
<b>186</b>		354	NRS	Construct	MD 5	at MD 373 and Brandywine Road		2	5	4	6	2019
<b>187</b>	3469 CE1196	441	NRS	Construct	MD 5 Branch Avenue	at Surratts Road		2	5	4	6	2030 2035
<b>188</b>	CE3567	914	MP15B	Construct/Widen	US 15	MD 26	North of Biggs Ford Road	5	5	4	6	2045 2040
<b>189</b>	CE3566	915	MP15A	Construct/Widen	US 15	US 340 / South Jefferson Street	MD 26	5	5	4	6	2030
<b>190</b>	CE913	358	MP15	Construct	US 15 Interchange	at Monocacy Blvd./Christophers Crossing		3	3	4	4	2019 2018 complete
<b>191</b>	3641 CE1197	211	NRS	Construct	US 29 Columbia Pike	at Musgrove/Fairland Road				6	6	2035
<b>192</b>	CE1197	551		Construct	US 29 Columbia Pike	at Tech Road / Industrial Road		5	5	6	6	2030
<b>193</b>	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
<b>194</b>		647	<del>MP5e</del> NRS	Study	US 29 Columbia Pike	North of MD 650 New Hampshire Avenue	Howard County Line	5	5	6	6	2045
<b>195</b>	CE3425	941	NRS	Reconstruct	US 50	District of Columbia line	I 95 / I 495	2	2	4	4	2035

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>Secondary</b>												
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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	<del>Widen</del> Reconstruct	MD 97	MD 390	MD 192 / Forest Glen Road	2	2	6/7	<del>7/8</del> 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	<del>Widen</del> Reconstruct	MD 117 Clopper Road	I270	Metropolitan Grove Road	<del>2</del> 3	<del>2</del> 3	<del>2/4</del> 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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>Frederick County</b>												
<b>Secondary</b>												

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**



## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>Urban</b>												
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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	<del>Old Chapel Road</del> Clearfield Road	4	4	2	4	2025 2024
260	CE1272	389	PGS9b	Widen	<del>Bowie Race Track Road</del>	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	134	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>Anne Arundel County</b>												
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**



## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>Carroll County</b>												
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
<b>337 Howard County</b>												
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>Calvert-St. Mary's MPO</b>												
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
<b>356 VDOT</b>												
<b>Federal Lands</b>												
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
<b>Interstate</b>												

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
358	CE1759	399	<del>VI1AJ</del>	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

**2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK  
INPUTS**

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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)	<del>2021</del> –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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**



## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								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	Opitz 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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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	<del>2030</del> —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	<del>2030</del> —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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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	<del>Interstate Ramp I-495 SB GP-Express Lanes at Dulles Toll Road</del>	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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**



## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								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
<b>Primary</b>												
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								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	<del>310</del> 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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>Urban</b>												
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**



## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>Secondary</b>												
<b>Arlington County</b>												
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>Fairfax County</b>												
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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	<del>VA 286 Fairfax County Parkway—Viola St.</del>	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	<del>Fullerton Drive—Virginia Dr.</del>	3	3	2	4	2022–2035
570	CE2645	377	VSF10c	Widen	VA 638 Pohick Road	VA 1	I 95	3	3	2	<del>4</del> —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 McLearen 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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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
<b>Loudoun County</b>												
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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)	<del>VA 607 Loudoun County Parkway</del> Northstar Boulevard	<del>VA 659 Belmont Ridge Road</del> 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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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)	<del>VA 659 Belmont Ridge Road</del> 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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								Fr	To	Fr	To	
<b>613</b>		577	VSL56	Construct	Crosstrail Boulevard	VA 625 Sycolin Road	Kincaid Boulevard	0	4	0	4	2019 Complete
<b>614</b>	CE3735	2491	VSL56A	Construct	Crosstrail Boulevard	VA 625 Sycolin Road	Dulles Greenway	0	4	4	4	2026
<b>615</b>		662	NRS	Construct	VA 868 Davis Drive	VA 606 Old Ox Road	VA 846 Sterling Boulevard	0	4	0	4	2025
<b>616</b>	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	<b>2022</b>
<b>617</b>	CE2582	1031	VSL67B	Construct	Dulles West Blvd. Phase III	Arcola Blvd	Northstar Dr.	0	4	0	4	<b>2025</b>
<b>618</b>		888	NRS	Reconstruct	Elk Lick Rd Intersections	US 50	Tall CedarsPkwY	4	4	2	2	2020
<b>619</b>	CE3602	886	NRS	Construct	Moorefield Boulevard	Mooreview Parkway	Moorefield Station	0	4	0	3	2020
<b>620</b>	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
<b>621</b>	CE3318	570	VP12R	Construct	VA 3171 Northstar Boulevard (Missing Link #79)	Shreveport Drive	US 50	0	3	0	4	2022
<b>622</b>	CE3737	2495	VP12S	Construct	VA 3171 Northstar Boulevard	Tall Cedars Parkway	Braddock Road	0	3	0	4	2028

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	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	<del>2019</del> –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	<del>2019</del> –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	<del>2018</del> –2022
626	CE3324	559	VSL49B	Construct	VA 1061 Russell Branch Parkway (Western Segment)	VA 659 Belmont Ridge Road	Tournament Parkway	0	4	0	4	<del>2017</del> –2024
627	CE3326	563	VSL55A	Construct	<del>Shreveport Drive (Western Segment)</del> Evergreen Mills Road	VA 621 Evergreen Mills Road	VA 659 Belmont Ridge Road	0	4	0	4	<del>2025</del> –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
<b>Prince William County</b>												
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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**



## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

## 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

	PIT Project ID	Con ID	Project ID	Improvement	Facility	From	To	Facility		Lanes		Completion Date
								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

**NOTE: Shaded areas represent changes from the 2020 Amendment to Visualize 2045.**

# 2022 Update to VISUALIZE 2045 AIR QUALITY CONFORMITY NETWORK INPUTS

1/10/2022

Project ID	Improvement	Facility	From	To	Fr	To	Fr	To	Completion Date	
<b>FAMPO</b>										
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	FA11F	Widen	I-95 northbound	Exit 126 (US 1/VA17)	Exit 130 (VA 3 Plank Rd.)	1	1	3	4	2035
668	FA11G	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	FA11H	Widen	I-95 northbound	Exit 133 (VA 17 Warrenton Rd.)	Exit 136 (Centerport Parkway)	1	1	3	4	2045
670	FA11HA	Construct	I-95 4th auxiliary lane	Exit 133 (VA 17 Warrenton Rd.)	Exit 136 (Centerport Parkway)	1	1	X	X+1	2045
671	FA11J	Widen	I-95 southbound	Exit 130	Exit 126 (US 1/VA17)	1	1	3	4	2035
672	FA11K	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
<b>Fredericksburg</b>										
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
<b>Stafford County Secondary</b>										
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
<b>Spotsylvania County Secondary</b>										
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.**