

# Northern Virginia Transportation Authority

The Authority for Transportation in Northern Virginia

# TECHNICAL ADVISORY COMMITTEE

Wednesday, November 16, 2022, 7:00pm 3040 Williams Drive, Suite 200 Fairfax, Virginia 22031

This meeting will be conducted virtually over Zoom and live streamed via YouTube<sup>1</sup>

# **AGENDA**

I. Call to Order/Welcome

Chair Boice

# **Action**

II. Summary Notes of October 19th, 2022, Meeting

Chair Boice

Recommended action: Approve meeting notes

III. Approve the Recommendation to Adopt the TransAction Update

Chair Boice

Recommended Action: Approval of recommendation to the Authority to adopt the TransAction Plan and associated Project List

# **Discussion/Information**

IV. NVTA Updates

Ms. Monica Backmon, Chief Executive Officer

# **Adjournment**

V. Adjourn

# **Next Meeting**

December 21st, 2022

<sup>&</sup>lt;sup>1</sup> If technical difficulties arise, the meeting may be audio or video recorded. Any recordings will be made available on the <u>Technical Advisory Committee meetings'</u> webpage.

#### TECHNICAL ADVISORY COMMITTEE

Wednesday, October 19<sup>th</sup>, 2022, 7:00 pm Northern Virginia Transportation Authority In-person meeting at NVTA offices Live-streamed on YouTube

# **MEETING SUMMARY**

### I. Call to Order/Welcome

Chairman Boice called the meeting to order at 7:00 PM in-person at the NVTA offices.

#### Attendees:

- TAC Members: Randy Boice, Karen Campblin, Michelle Cavucci, Armand Ciccarelli, Kerianne Masters, Amy Morris, Frank Spielberg, and Shangjiang Zhu.
- NVTA Staff: Monica Backmon, CEO; Keith Jasper, Principal, Transportation Planning and Programming; Dr. Sree Nampoothiri, Senior Transportation Planner; and Ian Newman, Regional Transportation Planner.
- Others: Tom Harrington (Cambridge Systematics), Meeting was also live streamed on YouTube.

# II. Summary Notes of September 21st, 2022, Meeting

 Motion to approve the summary notes of the September 21<sup>st</sup> meeting was made by Ms. Cavucci. Seconded by Ms. Masters. The motion passed unanimously.

# III. Status of the TransAction Plan Update

• Mr. Jasper gave a short refresher on what TransAction is and what TransAction is not. The purpose of this is to ensure that these items are reflected in the final draft. He stated that TransAction is a 2045 horizon year multimodal transportation plan of 429 candidate projects whose performance related to congestion reduction and other factors are evaluated using ten weighted performance measures. It is intentionally both fiscally and geographically unconstrained and is compliant with the Code of Virginia. There are mandates for NVTA to produce this Plan, a prerequisite that projects must be in the Plan to receive funding, and legislation from 2012, HB 599, sets out parameters for how NVTA can evaluate projects.

- Mr. Jasper emphasized that TransAction is not a land-use plan as land use is the responsibilities of local jurisdictions. Additionally, it is not a road-building plan, funding document project/modal prioritization or ranking tool, but TransAction does provide information that could subsequently be used for project evaluation.
- Mr. Jasper discussed the key takeaways of TransAction. TransAction provides
  jurisdictions and agencies a diverse range of multimodal project options not
  commitments for future potential funding requests. He mentioned that
  TransAction supports NVTA's vision and goals as well as Core Values. He then
  shared the estimated capital costs by mode for all projects included in
  TransAction to highlight its multimodal nature and emphasized the regional Bus
  Rapid Transit (BRT) system and transportation technology initiatives provided in
  TransAction.
- The Plan evaluates two external scenarios beyond NVTA's control: the New Normal scenario and the Technology scenario. The third scenario, Incentives/Pricing scenario, would be complex and require a high degree of multilevel government coordination. Mr. Jasper noted that TransAction acknowledges the diversity of Northern Virginia jurisdictions and inter-relationship between land use and transportation by using the Metropolitan Washington Council of Governments' (MWCOG) planning forecasts. If endorsed, TransAction will provide a range of multimodal transportation options for NVTA member jurisdictions and agencies, provide initial funding eligibility for the projects located in Northern Virginia, and provide analytical information to support the evaluation of candidate projects for subsequent Six Year Program cycles.
- Mr. Jasper then discussed the Committee comments from the previous cycle of review of the draft TransAction plan. He also reviewed the comments from the TAC, PCAC, and PPC, as well as the Authority during the Authority October 13<sup>th</sup> Authority meeting and discussed how the proposed enhancements addressed these comments.
- Mr. Jasper continued to discuss the proposed enhancements to the draft Plan. He mentioned that in Section 6, Plan Impacts, the F1: Emissions Reduction is presented with Electric Vehicle (EV) Improvements as well as with Current EV Rates providing a range of impacts from EV improvements. He noted that this could be explained better. Chairman Boice asked if the call-out box could be a separate section, to which Mr. Jasper replied that it could look more like a scenario analysis, which is not the intention. Mr. Jasper continued by emphasizing that NVTA does not have control over several aspects of EV improvements/adoption that is dependent on Federal money, manufacturer decisions, and consumer decisions.
- Mr. Spielberg asked if the assumption on the fleet is considered a base scenario, or if this was a variant scenario. Mr. Harrington responded that the 1.7% increase

in emissions reduction is based on current electrification rates and the 54% reduction in emissions is when you have today's EV adoption in the No-Build but full adoption of EVs in the Build scenario. Mr. Spielberg then asked if the 1.7% ought to be reported only in a scenario analysis and Dr. Nampoothiri emphasized that this is the range that is being shown. He mentioned that the 54% reduction reflects many external factors plus three EV infrastructure projects in the Plan as how the three projects alone effect emissions reductions is too difficult to predict. Mr. Spielberg asked for clarification in that he inferred staff made assumptions on the Vehicle Miles Traveled (VHT) contributed by EVs. Mr. Jasper mentioned that these are considered assumptions based on research that was being conducted at the time. Dr. Nampoothiri mentioned that the 1.7% increase also does not include the impacts of the three NVTA projects concerning EV infrastructure.

- Mr. Jasper mentioned that in scenario analysis, which is a technique used to address uncertainty in long-range transportation planning, staff make assumptions and then use proxy measures to determine future impacts of each of scenarios. He mentioned that whether it deserves its own section in the plan document is under further consideration and that perhaps it should be a sub-section in TransAction. Chairman Boice mentioned it could be placed at the end, to which Mr. Jasper responded that it already is at the end but that the section should make the content clearer and dedicate more time to explain what the scenario analysis results reveal as opposed to the mechanics of scenario analysis.
- Mr. Jasper discussed Section 8 (Regional Benefits). The proposed enhancements would emphasize the major takeaways, limitations and external factors, and address what success looks like as it relates to the Plan. General points include, what TransAction is and what it is not, the decision to not use the new term "Carbon pollution" as opposed to "emissions," to continue comparing/contrasting with MWCOG's environmental goals (though these have been created under a different legislative framework than NVTA), the beautification of the Plan document, and the need to address technical jargon. Mr. Jasper mentioned that there were duplicates in the project list, which will be removed. He noted that two projects need a change in the project sponsor, three projects need a change in project location, and two projects are under construction or are in the Transportation Improvement Program (TIP) of the TPB.
- Mr. Spielberg mentioned that if these are the extent of the comments received by staff, then staff have performed an exemplary job. Chairman Boice then asked if a final draft can be viewed in advance of the final meeting. Mr. Jasper mentioned that the final draft will be sent at least one week prior to the next TAC meeting. Dr. Zhu reiterated that it will be very helpful to focus on findings and assumptions as opposed to mechanics in the document. He added that another item to help make the results more transparent and understandable is to comment on the

implications of scenario measures. He gave the example of implications from two extremes in EV adoption and mentioned that it would be helpful to know the EV market penetration, based on current trends, by 2045. Dr. Zhu also suggested to expand on the details of the Incentives/Pricing scenario so it can be further evaluated in terms of its likelihood to occur. He also added that it would be good to show what the number of new charging stations and what Kilowatt Hours per charging station are.

• Ms. Campblin suggested that the scenario planning needs more credence, that project effects need to be more prominent, and that we have great historical data that should be considered, taking information heard from community and incorporate it into the next five years. She added that we need to better define funding gaps, and that this information is not lost as we move into the next update. Mr. Jasper mentioned the changes that we have done in the last five years for this update and that TransAction should not end when adopted. However, we should not lose the knowledge, and re-emphasized the regional BRT program and what this program would look like. Ms. Campblin discussed her concern that NVTA's legislation is outdated and should be revisited. Ms. Backmon answered that NVTA is the only funding entity adding that TransAction is not the funding document and is purposefully unconstrained. She reminded the Committee that NVTA funds all modes of transportation.

# IV. NVTA Updates

Ms. Backmon thanked the Committee for their efforts in t during the TransAction
update process, especially since committee members have full-time employment
outside of being committee members. She added staff is working on NVTA's
draft legislative program for 2023 noting a balance of \$38.5 million to fully
restore the amount \$102 million diverted from the Authority for WMATA's State
of Good Repair needs.

# V. Adjournment

• The meeting adjourned at 8:05 pm. The next meeting is scheduled for November 16<sup>th</sup> at 7:00 PM over Zoom.

# TRANSACTION PLAN

2022 UPDATE





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| 7. How will TransAction Benefit the Region?       |

# **TransAction Vision Statement**

(Adopted December 2020)

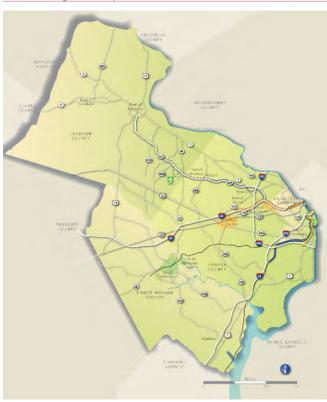
"Northern Virginia will plan for, and invest in, a safe, equitable, sustainable, and integrated multimodal transportation system that enhances quality of life, strengthens the economy, and builds resilience."



# What is TransAction?

TransAction is the long-range multimodal transportation plan for Northern Virginia addressing regional transportation needs through 2045. TransAction ("the Plan") includes this plan document as well as an associated list of multimodal transportation projects identified to improve travel throughout the region. The results of TransAction are used to inform the NVTA's Six Year Program for regional revenue funding. TransAction is not fiscally or geographically constrained – meaning the plan addresses all transportation needs and includes more projects than can realistically be funded – and does not recommend or prioritize any projects or modes of transportation.

# **NVTA Region Map**



What has changed since the last update to TransAction?

- » The COVID-19 pandemic has had significant effects on travel in the region, as teleworking has dramatically increased and traditional peak-period commuting has declined. The longrange implications of this "new normal" are still uncertain, as of the update to TransAction in 2022.
- » NVTA formalized its commitment to three Core Values of Equity, Sustainability and Safety. This action comes as there is a heightened awareness and desire within the region to address climate change and promote sustainability and resiliency, and to integrate equity and safety considerations into all phases of transportation planning.
- » NVTA adopted its inaugural <u>Transportation</u> <u>Technology Strategic Plan (TTSP)</u>, as a tool for establishing a proactive approach to innovation, which continues to keep congestion reduction top of mind.

# What is NVTA?

The Northern Virginia Transportation Authority (NVTA), established through the Code of Virginia, is a regional body that is focused on delivering transportation solutions and value for Northern Virginia's transportation dollars by bringing Northern Virginia jurisdictions and agencies together to plan and program regional multimodal transportation projects focused on relieving congestion.

# 2 What Does NVTA Do?

The Northern Virginia Transportation Authority was created in 2002 by the Virginia General Assembly to set regional transportation policies and priorities with the primary objective of reducing traffic congestion. NVTA's member jurisdictions include the counties of Arlington, Fairfax, Loudoun and Prince William, and the cities of Alexandria, Fairfax, Falls Church, Manassas and Manassas Park. NVTA has two primary and interlinked responsibilities—Planning and Programming:

- » Every five years: Update TransAction, which identifies the region's transportation needs and evaluates multimodal projects that will support NVTA's vision.
- » Every two years: Program—and invest in—regional multimodal transportation projects through NVTA's Six Year Program.

# **TransAction**

- » Long-Range Transportation Plan for NoVA
- » Updated every five years
- » Plan last updated and adopted in October 2017

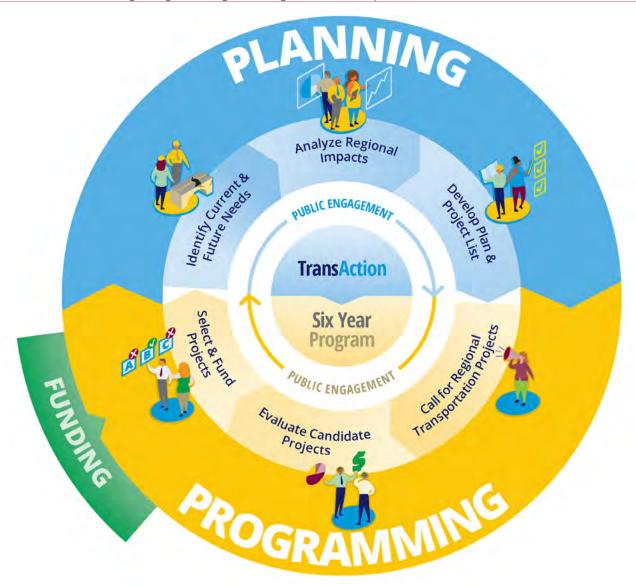
# **Six Year Program (SYP)**

- » Allocates NVTA's Regional Revenues to regional transportation projects
- » Updated every two years
- » FY2022–2027 SYP adopted in July 2022

To be eligible for funding consideration, SYP candidate projects must be included in the current TransAction Plan and located in Northern Virginia. As of July 2022, through six funding cycles, NVTA has made investments totaling \$3.12 Billion across 122 regional multimodal transportation projects, which were included in the previous version of TransAction (adopted in October 2017) or TransAction 2040 (adopted in December 2012). Throughout all phases of planning and programming, NVTA embraces and seeks equitable participation and outcomes in all aspects of planning and programming. See what goes into the Planning and Programming process, in the chart below.







# RELEVANT FACTORS IN THE DEVELOPMENT OF TRANSACTION

- » TransAction is evaluated using the ten weighted performance measures approved by NVTA in November and December 2021.
- » TransAction is fully compliant with the Code of Virginia.
- » As NVTA looks ahead to 2045, the TransAction plan update is relying on the latest approved long-range Cooperative Forecasts of population, employment and household growth prepared by the Metropolitan Washington Council of Governments (MWCOG). TransAction also acknowledges the bi-directional relationship between land use and transportation. However, TransAction is not a land use planning document. Land use planning is the sole responsibility of NVTA's member jurisdictions.
- » Inclusion of projects in TransAction does not represent a funding commitment but does provide an initial eligibility filter for projects located in NoVA that may eventually be considered for NVTA's regional revenues as part of NVTA's separate Six Year Program process.

# B How Is Performance Evaluated?

TransAction uses a performance-based planning approach that allows policies and goals to be expressed in quantifiable terms and applies an analytical framework to determine the degree to which different transportation projects, policies and strategies meet the goals.

To achieve NVTA's vision for the future of transportation in the region, NVTA adopted the goals of improving **mobility, accessibility and resiliency** across all modes, including roads, transit, walking, bicycling and more.

There are many ways to achieve the TransAction goals, while aligning with NVTA's Core Values to ensure that they will be achieved **equitably, sustainably and safely**. The goals express what the region wants to achieve, and the Core Values indicate how the region will achieve the goals.

Potential transportation improvement projects are evaluated based on their ability to improve the region's transportation system across the three TransAction goals, which are further defined by a more specific set of seven objectives and ten performance measures. In December 2021, NVTA adopted the set of performance measures and corresponding weights, as shown in the table on the next page, that are combined into a single evaluation method that helps to ensure that the projects included in TransAction together achieve the region's goals. Ultimately, NVTA is pursuing a set of projects that have broad benefits and are modally balanced, in addition to helping achieve the regional transportation vision.





| Goal   | Objective  | Performance Measure   | Weight | Alignment with<br>Core Values |
|--|--|---|--------|-------------------------------|
| Mobility: Enhance quality of life of Northern Virginians   | A. Reduce congestion and delay   | A1. Total person-hours of delay in autos  A2. Total person-hours of                                 | 10     | <b>*</b>                      |
| by improving perfor-<br>mance of the multi-<br>modal transportation<br>system  | B. Improve travel time   | delay on transit  B1. Duration of severe congestion   | 10     |                               |
|  | reliability  | B2. Transit person-miles in dedicated/priority ROW  | 10     | 华 🚜                           |
| increasing access to jobs, employees, markets and destina- tions for all commu- nities   |  | C1. Access to jobs by car, transit and bike   | 10     | Ž                             |
|  | C. Improve access to jobs  | C2. Access to jobs by car, transit and bike for Equity Emphasis Area (EEA) <sup>1</sup> populations | 10     | ব্ৰ                           |
|  | D. Reduce dependence on<br>driving alone by improving<br>conditions for people<br>accessing transit and<br>using other modes | D1. Quality of access to transit and the walk/bike network  | 15     | ቀ ≈ 2                         |
| Resiliency: Improve<br>the transportation<br>system's ability to   | E. Improve safety and security of the multimodal transportation system   | E1. Potential for safety and security improvements  | 10     | <b>.</b>                      |
| anticipate, prepare<br>for and adapt to<br>changing conditions<br>and withstand,<br>respond to and<br>recover rapidly from<br>disruptions. | F. Reduce transportation related emissions   | F1. Vehicle emissions   | 10     | ₫ 🚜                           |
|  | G. Maintain operations of<br>the regional transportation<br>system during extreme<br>conditions                              | G1. Transportation system redundancy  | 5      | ₫ <b>,±</b>                   |

Note: Transit may include HOV.

<sup>1</sup> For TransAction, an Equity Emphasis Area (EEA) is defined as any Traffic Analysis Zone (TAZ) that is defined as either a MWCOG EEA or as a Northern Virginia EEA. The MWCOG EEAs were defined using average low-income and minority concentrations for the whole metropolitan region, while the Northern Virginia EEAs were identified using Northern Virginia specific averages.

# What Are the Region's Transportation Needs?

In the initial phase of updating TransAction, an assessment was conducted to identify current and future transportation needs to be addressed by the Plan. The assessment reviewed socioeconomic conditions and travel patterns, interpreted public input received through a multifaceted outreach program (including digital survey and focus groups), and analyzed existing and future transportation performance to inform multimodal needs across the three goals—mobility, accessibility, and resiliency.

# CONTINUING GROWTH

Over the last decade (2010 to 2020), Northern Virginia grew by 14.3% to a population of 2.55 million people while Virginia's statewide population grew by 7.9%. One factor contributing to this growth is that Northern Virginia continues to be a very attractive place to live, given the growing and diverse job market in the region.

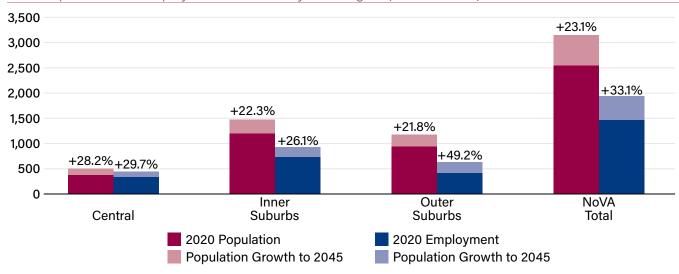
As NVTA looks ahead to 2045, the TransAction plan update relies on the latest approved long-range Cooperative Forecasts of population, employment and household growth that are prepared by the Metropolitan Washington Council of Governments (MWCOG). The Cooperative Forecasts are based on the land use plans and growth forecasts of the local jurisdictions, reflecting the latest planning assumptions, and are the best forecasts available of what growth

in the region will look like. Because land use impacts transportation, and that transportation also impacts land use, NVTA recognizes that the implementation of the transportation projects in TransAction could have impacts on land use plans in the region. This further emphasizes the need to regularly update TransAction and continually re-evaluate potential projects.

The population of Northern Virginia is projected to grow by 23%, from 2.55 million people in 2020 to 3.14 million people by 2045. Total employment in Northern Virginia is projected to grow by 33%, from 1.46 million jobs in 2020 to 1.94 million jobs by 2045. NVTA is looking at how to accommodate this growth through multimodal transportation infrastructure and other complementary means.

Not all areas of Northern Virginia are projected to grow in the same way between 2020 and 2045. Population forecasts show that the central jurisdictions (Arlington County/City of Alexandria) are expected to have the highest percentage growth, but the inner suburban jurisdictions (Fairfax County/City of Falls Church/City of Fairfax) are expected to have the highest increase in absolute terms. Employment forecasts show that the outer suburbs (Loudoun County/Prince William County/City of Manassas/City of Manassas Park) are expected to have the highest percentage growth, but roughly the same job increase as the inner suburbs in absolute terms.







# CHANGING TRAVEL PATTERNS

Recent population and employment growth and future growth patterns impact where and how people and goods travel. Travel forecasts for 2045 were compared against 2017 conditions, assuming the pre-pandemic trend and travel behavior will continue in the future while the impacts of travel behavior changes will be discussed later as part of the scenario analyses. Total person trips that start or end in the region during the weekday, for all travel modes, are expected to increase by 27% between 2017 and 2045. Total commuting to and from Northern Virginia will increase by 470,000 daily trips, or 31%, from 2017 to 2045.

Non-commute trips are anticipated to grow by 27% through 2045. Commercial vehicle trips are projected to grow by 38%, consistent with increased online shopping volumes and home delivery of goods. Long-term uncertainty of travel patterns, including changes to commuting associated with a continued commitment to remote work post-pandemic, is considered in the scenario analysis section of the TransAction plan.



Source: MWCOG/Transportation Planning Board (TPB) Regional Travel Model.

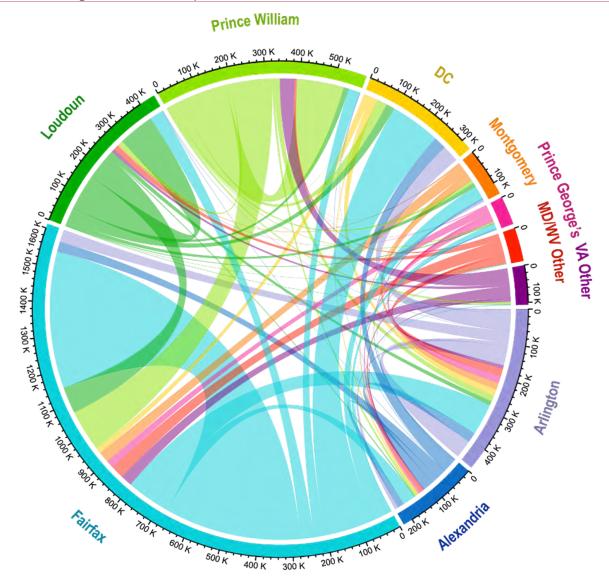


### TRANSACTION PLAN | 2022 UPDATE

Commute trips represent only about 18% of daily trips in Northern Virginia, but have a disproportionate impact on traffic congestion since they tend to be longer trips and occur during the peak periods. The chart below shows the 2045 forecasts of commute trips that begin or end in Northern Virginia. Of 1.7 million total commute trips that start in Northern Virginia, the jurisdiction of residence includes Fairfax County/City of Falls Church/City of Fairfax (48%), Prince William County/City of Manassas/City of Manassas Park (20%), Loudoun County (15%), Arlington (10%), and Alexandria (7%).

The majority of these commute trips remain in Northern Virginia, totaling 73% in 2017 and 76% (or 1.3 million trips) of commute trips in 2045. For those Northern Virginia commute trips that are expected to leave the region, 17% have a destination in D.C., 6% have a destination in Maryland, and 1% have a destination in other parts of Virginia. The presence of the federal government in Washington, D.C. has shaped commuting in the region for decades, posing unique challenges and opportunities for the Northern Virginia transportation system. As some federal job locations have shifted to the suburbs in areas not served by Metrorail, such as the shift in Department of Defense jobs to Mark Center and Fort Belvoir, this can make these jobs harder to serve with public transportation.

2045 Northern Virginia Commute Trip Patterns



Source: MWCOG/TPB Regional Travel Model.



# FUTURE BASELINE CONDITIONS AND NEEDS

**≻** |Person Hours of Delay—The growth in total travel is projected to increase total daily vehicle miles traveled (VMT) by 27% from 2017 to 2045 within Northern Virginia. This increase impacts hours of delay.

From 2017 to 2045, person-hours of delay in the peak periods are forecasted to approximately double (or more) on four corridors: VA 267/VA 7/VA 9 (despite the Silver Line extension to Ashburn), I 95/I 395/U.S. 1, I 495
Beltway, and Loudoun County Parkway/VA 234.

Delay remains a significant and growing challenge on key corridors.

Transit Ridership—Public transit is also expected to see growth in ridership through 2045, outpacing growth in VMT.

Within Northern Virginia, total weekday boardings in 2017 were 293,000 riders. Total daily ridership is projected to increase by 57% through 2045, totaling nearly 460,000 daily transit boardings.

Transit ridership increases faster than VMT, indicating that regional growth patterns, increased congestion levels, and expanded transit service are resulting in a greater share of trips made by transit instead of by auto.

INCREASE CCESSIBILITY Accessibility to Jobs—A goal of the TransAction update is improving accessibility, or how well residents of Northern Virginia can reach their destinations by multiple modes.

Based on a population-weighted average, residents of Northern Virginia have access in 45 minutes to approximately four times more jobs by car than by transit. This is in part due to only 27% of Northern Virginia's population living within a ¼ mile of frequent or all-day transit.

Significant disparities for access to jobs by driving versus transit will continue through 2045. New transit projects will help access between key destinations, however growing suburban areas of the region will continue to see disparities.

Safety—NoVA motor vehicle fatality and serious injury rates are 40 to 50% lower than the statewide average from 2017 through 2020. However, the nation has seen an increase during and post-COVID.

Emissions—VMT and congestion will continue to increase in the region even as vehicle technologies continue to help reduce criteria pollutant and Greenhouse Gas (GHG) emissions.

Infrastructure Resiliency—About 5% (43 miles) of TransAction corridors intersect with 500-year flood zones.

Crashes are a major source of delay in Northern Virginia. Growth in total travel will lead to more interactions between vehicles, pedestrians and cyclists.

While technology will help mitigate or reduce emissions, the true reduction potential is somewhat limited by the growth-driven VMT and congestion increases. Of particular concern is the continued faster growth of commercial vehicle VMT within the region.

Priority corridors with substandard assets, sections in proximity to 500-year flood risk zones and sections experiencing recurring delays during daily peak periods, represent particular concerns.

Northern Virginia's fatality and serious injury rates for motor vehicle crashes have increased over the past four years and may continue to increase as overall travel increases. Resiliency of the transportation system could be threatened by extreme weather events.

# PUBLIC INPUT ON TRANSPORTATION NEEDS

Between July and October 2021, NVTA conducted an extensive public outreach program, including focus groups, community pop-up events, and an online survey (with more than 2,300 responses), to build awareness of TransAction and gather input on regional needs and priorities. The survey results emphasized the diverse aspirations of the region depending on the respondent. The top priorities across the region were "more transit, walking, biking options," "reduce traffic congestion" and "improve travel time predictability", but the order varied by geographic area:

- » Residents of central jurisdictions, including Arlington County and City of Alexandria, selected "more transit, walking, biking options" as the top priority.
- » Residents of outer suburban jurisdictions, including Prince William County, Loudoun County, and cities of Manassas and Manassas Park, selected "reduce traffic congestion" as top priority.
- » Other objectives showed less variability between different geographic areas "improve travel time predictability" and "improve safety" were generally supported by all geographic areas.

The public input was incorporated into a number of steps in the plan development process. Feedback was used to finalize the structure and wording of the TransAction goals, objectives, and performance measures. The priorities that survey respondents placed on different performance factors were tabulated and shared with the Authority prior to adoption of the performance measure weights. Public input on the transportation needs and potential improvement strategies was documented in the needs assessment phase of the study, and helped identify additional types of projects for inclusion in the TransAction project list.

2021 TransAction Online Survey and Community Pop-Up Events



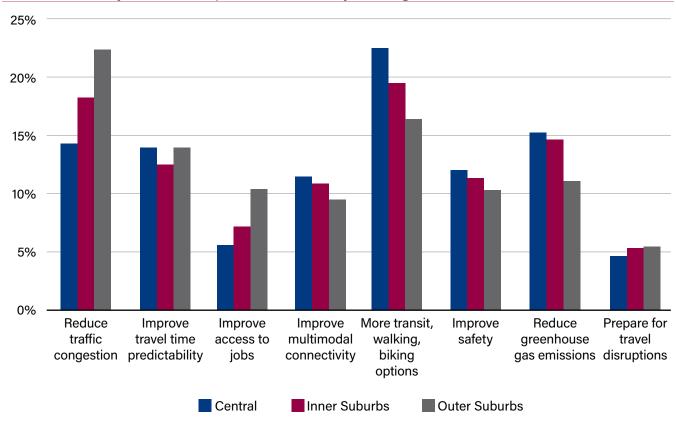








# TransAction Survey Results: Transportation Priorities by Sub-Region





# What is Included in the Plan?

# OVERVIEW OF THE PROJECT LIST

A variety of projects and programs are required to meet the complex transportation needs of Northern Virginia. With 109 new projects and a net increase of 72 projects since the 2017 TransAction Plan, this TransAction Plan update includes 424 regionally significant projects and programs. These projects do not include regional projects that are already fully funded, which are included in the No-Build assumptions for 2045, including the Silver Line Metrorail extension to Loudoun County, the opening of the Potomac Yard Metrorail Station, and extensions to the I-495 Express Lanes from Route 267 into Maryland. These 424 projects and programs would cost an estimated \$74.9 billion (in \$2021). Approximately \$29 billion of this cost estimate is attributed to 25 projects that extend beyond Northern Virginia, requiring funding and implementation in partnership with external jurisdictions and agencies.

TransAction Project Primary Mode Types Inner circle is number of projects. Outer circle is cost of projects. 2% 1% 9% 1% 12% 13% 59% 27% 4% 45% Bike/Ped Technology TDM Roadway Parking HOV/HOT Interchange/Intersection Transit

Note acronyms: High-occupancy vehicle (HOV), high-occupancy toll (HOT), and Transportation Demand Management (TDM).

The chart shows the percentage of

TransAction projects based on the primary mode type, by both the number and cost of projects. The 189 roadway projects are 45% of the number of projects but 27% (\$20.3B) of the total cost. The 104 transit projects are 25% of the number of projects but 59% (\$44.5B) of the total cost. Many projects encompass elements from more than one mode type. For example, 39% of the 424 projects include a roadway element and 22% of projects include a transit element. The 424 projects included in this plan range from the construction of new multi-use trails, new interchanges, transit expansions and enhancements, and programs to encourage alternative modes of transportation, representing the diversity of transportation priorities across the region. Projects range from smaller facility improvements to large infrastructure investments and system-wide programs. This variety is also reflected in the range of estimated project costs, with 19 projects costing under \$1 million and ten projects costing more than \$1 billion, and the average project cost between \$25 to \$50 million. As intended for an unconstrained needs-based plan, the \$75-billion cost of all the projects in the plan is well beyond NVTA's available funding.

The following pages of this section provide an overview of the different project types included in the Plan. Two new plan elements have also been highlighted in greater detail – building a regional bus rapid transit (BRT) system, and leveraging technology to address regional transportation needs.

# AT A GLANCE \$75B In total estimated costs for all projects 424 projects



# PLAN FLEMENTS

# Non-Motorized

Includes bicycle and pedestrian improvements that provide connectivity in the region. Some projects also include technology elements.



50 non-motorized projects

### **Example Projects:**

- Connect multi-use trail along Route 29 from Merrifield to Haymarket via Centreville
- Connect Landmark and Manassas with trail segments along the VRE Manassas Line
- Construct trail along Route 7 from Leesburg to Alexandria
- Improve bicycle and pedestrian infrastructure in and around the Columbia Pike corridor
- Multimodal access improvements for the East Falls Church and West Falls Church Metrorail Stations

# **Intersections & Interchanges**

Includes grade-separated interchanges as well as at-grade intersection improvements that are intended to reduce traffic delay; many of these projects include pedestrian improvements and/or technology enhancements.

\$6.9B



# **Example Projects:**

- Construct grade-separated interchange at Loudoun County Parkway and Arcola Boulevard
- New and modified interchanges on Fairfax County Parkway
- Improve Interchange at Route 28 and Old Ox Road (Route 606)
- Construct Interchange on Route 234 at Sudley Manor Drive and Wellington Road

# **Technology**

Includes a range of technologies, such as Intelligent Transportation Systems (ITS), transit signal priority, real-time traveler information, electric vehicle charging infrastructure, and Connected and Automated Vehicle (CAV) enabling technologies. Technology projects can serve travelers using all modes.





### **Example Projects:**

- Provide charging/fueling infrastructure for low or zero emission cars and trucks
- ITS, adaptive traffic control, and hard shoulder lanes on I-95
- Implement ITS and integrated corridor management strategies on key regional corridors and parallel facilities

# **Parking**

Includes parking improvement projects that can add capacity or technology-based enhancements to parking facilities, including park-and-ride lots.





#### **Example Project:**

• City of Falls Church "Park Once and Walk" garage network

# **Roadways**

Includes the construction of new roads, capacity improvements on existing roads, and/or reconfiguration of existing roads; often includes multimodal elements such as pedestrian and bicycle improvements, intersection improvements, and technology.

\$20.3B

189 roadway projects

1040 new lane miles

# **Example Projects:**

- Construct Route 28 bypass to improve regional connectivity
- Route 50 widening and interchanges
- Widen southbound I-95 to four lanes between the Occoquan River Bridge and Dumfries Road
- Loudoun County Parkway widening from Route 50 to Braddock Road

# **Transit**

Includes a range of projects necessary to improve transit service in Northern Virginia, including Metrorail extensions, capacity and service enhancements for VRE, new High-Capacity Transit services that could be Bus Rapid Transit (BRT) lines, and improvements to bus services. Transit facilities, new transit vehicles, and station access improvements are also included.

\$44.5B

104 transit projects

370 miles of prioritized transit right-of-way

# **Example Projects:**

- Implement regional bus rapid transit (BRT) system on multiple corridors including Route 7, Richmond Highway, and Duke Street and West End Transitway in Alexandria
- Metrorail core capacity and Blue/Orange/Silver core realignment
- VRE rail capacity and service enhancements
- Station access improvements (multiple stations)
- Enhanced bus service and facilities

# Transportation Demand Management (TDM)

A set of services designed to provide commuters with alternative options to driving alone by providing information, programs, and incentives to encourage a change in traveler mode.

\$63.9M



#### **Example Projects:**

- Implement and expand TDM initiatives and programs in major employment centers within Northern Virginia
- Improve and expand the commuter assistance and other programs provided by Arlington County Commuter Services
- Implement and expand TDM initiatives and programs in the City of Falls Church

# High-Occupancy Vehicle/Toll (HOV/HOT)

Travel lanes designated for a minimum number of passengers (HOV) or lanes that allow a toll to be paid in lieu of meeting the minimum number or passengers (HOT).

\$920M



### **Example Project:**

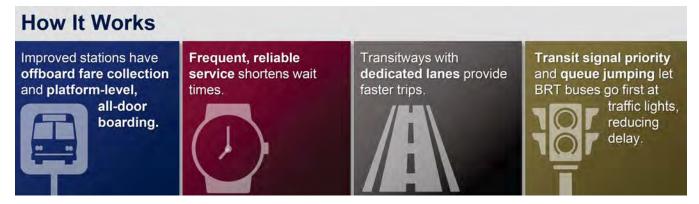
- Implement reversible HOV lanes on Route 28 between I-66 and the Dulles Toll Road during AM and PM peak periods
- Widen, upgrade, or convert Fairfax County Parkway (Route 286) to include HOV lanes from Dulles Toll Road (Route 267) to I-66
- Add HOV lanes to Franconia-Springfield Parkway (Route 289)



# BUILDING A REGIONAL BUS RAPID TRANSIT SYSTEM

TransAction includes two types of transit projects that will bridge the gap between the region's backbone rail network (Metrorail and VRE) and the many local and commuter bus services provided throughout Northern Virginia, BRT and High-Capacity Transit (HCT). BRT is a high-quality and high-capacity bus-based transit system that delivers fast, comfortable, reliable, and cost-effective transit service. HCT could be similar to BRT, but is used in TransAction to signify that a preferred modal technology (BRT, light-rail transit, heavy rail transit) has not yet been selected. This potential network of BRT and HCT will provide new transportation options that offer vital alternatives to personal and single occupancy vehicles. While BRT and HCT projects have been included in prior versions of TransAction, this update has highlighted the importance of a regional BRT system to provide high-quality transit connections across the region.

BRT provides an experience similar to a rail system through fast and frequent operations in dedicated transit lanes, branded stations and buses, off-board fare collection, and real time information. BRT is designed to provide bus service that is fast, frequent and reliable by minimizing typical causes of delay such as traffic congestion, intersection delay and boarding delay. BRT is often more flexible and less costly than a fixed-guideway heavy/light rail system.



# Why a Regional Bus Rapid Transit Network Is Important for Northern Virginia:

- » Improves resiliency, can provide equitable travel options and is economically, environmentally and socially sustainable.
- » Reduces travel times and leverages the network effect of integrating multiple corridors to make transfers easier, improving access to jobs and destinations.
- » Leverages existing infrastructure and investments (roads, rail, transit centers, toll facilities).
- » Has a proven positive impact on economic development.

NVTA has convened a BRT Planning Working Group consisting of planners and project sponsors from



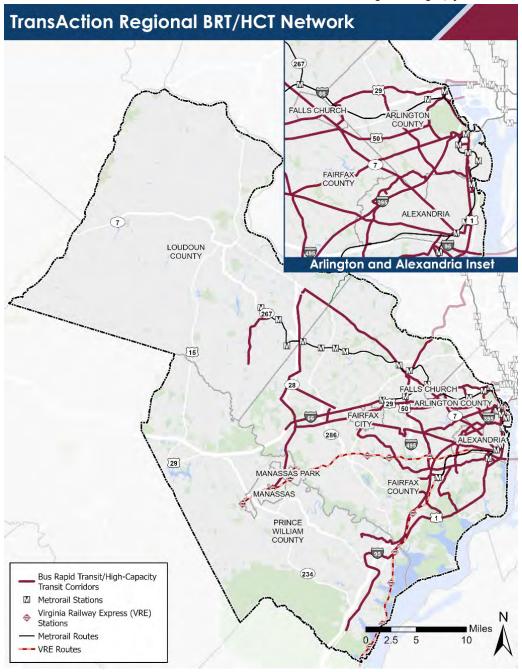
Northern Virginia, as well as Montgomery and Prince George's Counties in Maryland, and the District of Columbia, to review the current plans and implementation status of BRT projects in the region. Five BRT projects, each of which are partly funded by NVTA, are in the project development process or under construction: Metroway/Crystal City Transitway (in operation), Richmond Highway BRT, Envision Route 7, West End Transitway, and Duke Street Transitway. TransAction has identified additional corridors that will address gaps and provide regional connections.

# Planned BRT or HCT Corridors Included in TransAction:

TransAction includes 90 miles of BRT and 280 miles of HCT, including:

- » Columbia Pike (Annandale to Crystal City)
- » Route 7 (Tysons to Mark Center and Sterling to Tysons)
- » Richmond Highway / Route 1 (Huntington to Ft. Belvoir; Extension to Potomac Mills/Triangle)
- » Duke Street Transitway and West End Transitway (City of Alexandria)

- U.S. 50 (DC to Chantilly)
- » U.S. 29 (DC to Centreville)
- » I-66 Corridor (Vienna to Centreville)
- » Glebe Road (US 29 to Potomac Yards)
- » Annandale to Merrifield-Tysons
- » City of Fairfax to Springfield/Huntington
- » Route 28 Corridor (Manassas to Dulles Town Center)
- » Ashburn Station to US 50 via Brambleton
- » Wilson Bridge (Franconia-Springfield to Branch Avenue)
- » American Legion Bridge (Tysons to North Bethesda)





# LEVERAGING TECHNOLOGY TO ADDRESS REGIONAL TRANSPORTATION NEEDS

TransAction recognizes that technology and innovation offer a wide range of ways to address transportation needs by improving the efficiency of our existing infrastructure and providing new and better travel choices to the region's residents. It is informed by <a href="NVTA's own Transportation Technology Strategic Plan (TTSP)">NVTA's own Transportation Technology Strategic Plan (TTSP)</a>, which is a living document that was developed as a tool for establishing a proactive approach to innovation, while keeping congestion reduction top of mind.

TransAction includes 17 projects that are primarily focused on implementing various types of technologies across Northern Virginia, and dozens more that include a technology element. Some types of technology projects include:

- » Intelligent Transportation Systems (ITS), which can help improve operations in a number of ways:
  - Directly improve the operations of roadways and transit through coordination of traffic signals, or metering freeway ramps.
  - Dynamic and real-real time monitoring and response technologies, allowing for better and faster responses to crashes and other emergencies.
  - Improving the information available to travelers regarding all transportation modes, such as real-time
    parking availability for park-and-ride lots, next bus arrivals, implementing ramp metering, and improving
    emergency responses.
- » Low/Zero-Emissions Vehicles (ZEV) charging/fueling infrastructure, which will support the transition of the region's vehicle fleet to electric or other low/ZEV emissions vehicle technologies.
- » Improvements that enable use of Connected and Automated Vehicle (CAV) technologies, which can reduce crashes, increase the carrying capacity of roads, and provide first mile/last mile connections to transit and activity centers.
- » Transit Signal Priority (TSP) which helps transit vehicles move faster and spend less time delayed at traffic signals.



Many of these technologies are most effective when they are applied on a wide scale – along entire corridors or even across the whole region. To make the most of these technologies, it will be necessary to coordinate their implementation and ensure interoperability. When applied in an intentional way, these technologies can have major impacts on all aspects of the transportation system, including congestion, equity, sustainability and safety. NVTA's Transportation Technology Strategy Plan (TTSP) identifies strategies and related actions to maximize the potential benefits and minimize any negatives of innovation in a manner that is highly consistent with NVTA's Core Values.

# What are the Impacts of the Plan?

# PLAN PERFORMANCE

Between 2017 and 2045, total person trips are expected to increase by 27%, vehicle miles traveled (VMT) to increase by 26% and transit trips to increase by 47% under the No-Build (if none of the TransAction projects were built) conditions. Thus, the 2045 No-Build scenario has significantly more travel on roadways and transit than current conditions, resulting in the transportation needs highlighted in Section 4. This section considers the impacts of the TransAction projects at addressing these needs by using a model-based analysis that compares a Build network (if all projects proposed in TransAction were built) with that No-Build condition. As noted in section 5, the No-Build network does include a number of significant projects that will be completed before 2045 that are fully funded and are therefore not included in the project list.

# Regional Results

Performance of the regional transportation system in 2045 with the Build network improvements, measured across key travel indicators and the TransAction performance measures, shows significant improvement across most of Northern Virginia:

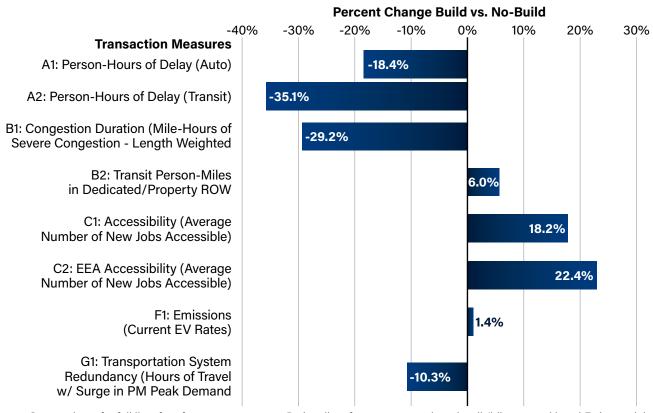
- » Total person trips remain essentially the same between the 2045 No-Build and 2045 Build conditions, but the number of transit trips increases by 12.4% due to the significant investment in proposed in transit projects.
- » Vehicle miles traveled (VMT) increase by 3.4% between the 2045 No-Build and 2045 -Build conditions, as highway capacity improvements and reduced travel delay lead to some increases in the length of auto trips.
- » The 2045 Build analysis significantly improves the performance of the transportation system, relative to the No-Build analysis:
  - Person hours of delay decrease by 18.4% for auto trips and by 35.1% for transit trips representing significant improvements in congestion across the region.
  - Hours of severe congestion decrease by 29.2%.
  - Accessibility to jobs improves 18.2% for Northern Virginians overall, and slightly more (22.4%) for EEA residents.
- » The impacts of the full TransAction project list on emissions depend on the effectiveness of the three TransAction projects focused on fleet electrification. If those projects are very effective at transitioning to ZEVs, emissions could be reduced by as much as 54% (assuming that the composition of the energy sources utilized in the Commonwealth is maintained). If they have no impact on encouraging ZEV adoption, then the TransAction project list could increase emissions by as much as 1.4%. The likely outcome will be somewhere between these two values.

Weekday Travel Forecasts—Northern Virginia Regional Totals

|                              | 2017    | 2045     | 2045    | % Change 2017 to | % Change 2045 Build |
|------------------------------|---------|----------|---------|------------------|---------------------|
| Daily Travel                 | Base    | No-Build | Build   | 2045 No-Build    | vs. 2045 No-Build   |
| Auto Person Trips            | 6.74 M  | 8.22 M   | 8.15 M  | 22.0%            | -0.8%               |
| Transit Person Trips         | 0.26 M  | 0.39 M   | 0.43 M  | 47.1%            | 12.4%               |
| Non-Motorized Person Trips   | 0.85 M  | 1.36 M   | 1.35 M  | 59.3%            | -0.2%               |
| Total Person Trips           | 7.86 M  | 9.97 M   | 9.94 M  | 26.9%            | -0.2%               |
| Person Miles Traveled (PMT)  | 70.69 M | 91.34 M  | 94.70 M | 29.2%            | 3.7%                |
| Vehicle Miles Traveled (VMT) | 52.42 M | 66.25 M  | 68.53 M | 26.4%            | 3.4%                |

Note: M indicates values in millions.





Notes: See section 3 for full list of performance measures. D1 (quality of access to transit and walk/bike network) and E1 (potential for safety and security improvements) measures are evaluated at the project-level only. The value shown for F1 represents only the worst case scenario – results could fall in a wide range as discussed above.

# Sub-Regional Results

The benefits of TransAction look different across the region, as the projects included in the Plan have different impacts by Northern Virginia sub-region¹:

- » Transit trips show the largest percentage increase (23%) in the Outer Suburbs as transit options expand.
- » VMT changes vary considerably by sub-region, with a decrease (-2.5%) in the Central jurisdictions; a modest increase (+0.5%) for the Inner Suburbs; and a larger increase (+9.5%) in the Outer Suburbs.
- » Reductions in total person hours of delay (the combined total of A1 and A2 measures as listed in the graph above) are distributed more evenly throughout Northern Virginia, as each of the sub-regions decreases congestion through different means.

### **Electrification and Emissions**

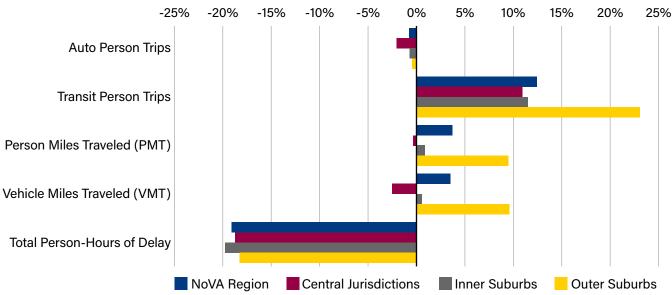
The impact of the TransAction projects on emissions will depend heavily on how much electrification can be achieved and how much electrification is helped by the proposed projects as opposed to other external factors.

TransAction includes three projects specifically designed to increase access to charging/fueling infrastructure for low/Zero emissions vehicles of all types and helping them become more widespread on Northern Virginia's roads.

If these projects are effective at helping to electrify trucks, buses and private cars, emissions could be reduced by up to 54%. However, if electrification rates in 2045 remain similar to current levels, TransAction may actually result in a slight increase in emissions (about 1.4%).

<sup>1</sup> Central: Arlington, Alexandria; Inner: Fairfax, Falls Church, Fairfax City; Outer: Loudoun, Prince William, Manassas, Manassas Park.

Percent Change in 2045 Build Relative to No-Build, Regional and Subregional Results



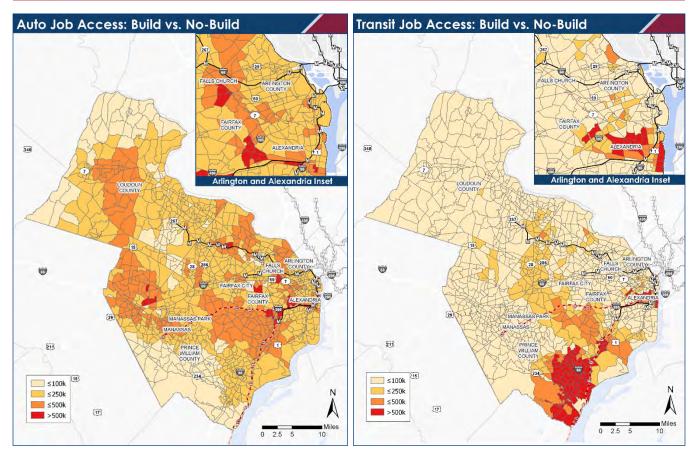
# Improved Access to Jobs

Accessibility is measured by calculating the increase in the average number of regional jobs accessible from households in Northern Virginia within a 45-minute drive, a 60-minute transit ride, and a 30-minute bike ride. The plan results in widespread improvements in auto accessibility to jobs throughout the region by decreasing congestion and making it possible to travel further in the same amount of time. Overall, accessibility to jobs by all modes is expected to increase by 18.2% with the TransAction plan (Build network) projects, when compared with No-Build conditions. When only the residents of Equity Emphasis Areas (EEAs) are considered, the average gain is 22.4%, indicating that the Plan improves accessibility for EEA residents more than the region as a whole. This would represent an improvement in the equity of the transportation network as a significant portion of the people that live in EEAs are included in NVTA's definition of under-served populations.

The maps on the next page show the areas where accessibility improves (increase in jobs that are accessible) with the TransAction projects. Improvements in auto accessibility are widespread throughout the region reflecting the geographic distribution of the projects, with larger improvements along I-495, Dulles Toll Road, Fairfax County Parkway, and Route 28 corridors. Improvements in transit accessibility to jobs are more prevalent in eastern parts of the region including Alexandria, the Richmond Highway corridor of Fairfax County, and eastern Prince William County. Accessibility improvements are also shown in the Route 28 and Fairfax County Parkway corridors where the Plan fills major gaps in the regional transit network. Bike accessibility gains (not shown on the maps) are more focused on areas inside the Beltway where densities and a more complete bike network allow for more jobs to be reached within a 30-minute bike ride.



Change in Number of Jobs Accessible to Northern Virginia Residents by Auto and Transit



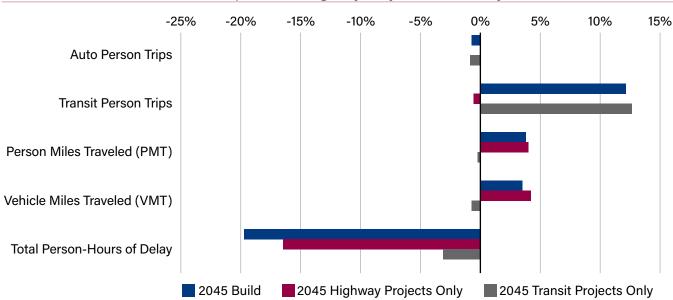


# Mode-Specific Results

To understand the different impacts of different types of projects, highway and transit projects were also tested separately. The results for these Highway-Only (includes roadway, interchanges and intersections, HOV/HOT, and ITS) and Transit-Only tests are shown below in comparison with the Build results:

- » Transit projects and highway projects appear to be serving very different markets, and are only in competition with one another in very limited cases. For example, the analysis of the Transit-Only network shows only a small percentage increase in transit trips relative to the Build network (12.9% vs. 12.4%) that shift from driving when the highway projects are removed from the Build network, reducing VMT in the region by less than 1%.
- » Roadway projects have a bigger impact on reducing congestion in the region than other modes. The roadway projects alone reduce delay by 17%, while the addition of the remaining projects further reduces congestion to a total of 19%.
- » The planned BRT and HCT corridors described earlier account for a 6.3% increase in the number of new transit trips, or nearly half of the 12.9% increase in transit trips. The BRT/HCT corridors would account for roughly half of other benefits shown for the Transit-Only network including delay reduction.

# 2045 Build Relative to No-Build, Compared with Highway-Only and Transit-Only Results



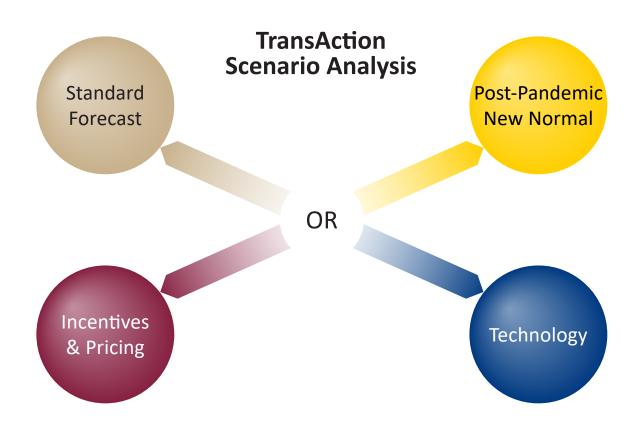


# WHAT HAPPENS IF THE FUTURE IS DIFFERENT THAN EXPECTED?

The TransAction analysis discussed so far is based on forecasts that assume that travel behaviors in the future are similar to travel behaviors in the recent past. This includes growth assumptions for the region along with some changes to the transportation network, but does not fully consider the many ways life and travel could change between now and 2045. What if the future is significantly different in some important ways? To test TransAction's robustness and adaptability to an uncertain future, sensitivity tests looked at three alternative scenarios, each analyzing TransAction's performance under different potential futures.

NVTA developed three scenarios, in addition to the standard travel forecasts for the No-Build and Build conditions, to answer some of the "what if" questions and understand the future of transportation in Northern Virginia if major changes in technology, travel behavior, and/or policy across multiple levels of government were to occur. Each scenario is a plausible future, but not necessarily preferred visions; they are also not the only potential futures. The three scenarios tested are shown in the figure below.

The scenarios and the resulting analysis are described in more detail in the table on the next page. These three scenarios are based on assumptions about ways that the future could be different from today, some of which the region has more control over than others. For example, post-pandemic hybrid work schedules may be a permanent change in commuting that is the choice of thousands of individual employers (including the Federal government) and millions of individual workers. Meanwhile, government policy can play an important role in regulating and managing the impacts of emerging technologies, but the proliferation of electric and automated vehicles will be a market-driven process. On the other hand, the types of policies and strategies included in the Incentives/Pricing scenario can only be implemented through proactive action by governments at the local, regional, state, and federal levels.



| Scenario                             | Description   | Assumptions  | Impacts   | Robustness of<br>TransAction Projects  |
|--------------------------------------|---|--|---|--|
| Post-<br>Pandemic<br>'New<br>Normal' | Illustrates a future in which many of the behavioral changes observed during the COVID-19 pandemic continue into the long-term future.  NVTA has minimal influence over this scenario.  | <ul> <li>» Reduction of work-related trips</li> <li>» Reduction of shopping trips</li> <li>» Increase in delivery trips</li> <li>» Increase in non-motorized trips</li> </ul>  | <ul> <li>» Less travel by all modes decreases VMT, congestion, and emissions</li> <li>» More congestion reduction in the peak period due to fewer commute trips</li> </ul>  | <ul> <li>Congestion will continue to be an issue in NoVA, even with less commuting and overall trip-making</li> <li>The TransAction projects are still effective at achieving the region's transportation goals</li> </ul>   |
| Technology                           | Focuses on adoption of connected, automated, shared, and electric (CASE) vehicles. The scenario evaluates how travel behavior and the operations of the transportation system might change with the adoption and integration of these emerging technologies. NVTA has minimal influence over this scenario. | 'New Normal' trip assumptions plus:  » Increased market penetration of CASE vehicles  » Changes in operating costs for automated vehicles (shared and privately owned)  » Increases in effective roadway capacity  » Automated transit shuttles at rail stations | » Increased carrying capacity of the roadway network improves operations and reduces congestion all day  » Transit trips decrease as CASE options become more attractive  » Electrification helps reduce vehicle emissions  | <ul> <li>Congestion will continue to be an issue in NoVA, even with increased capacity of roads</li> <li>Even with new CASE-enabled travel options, TransAction projects encourage more use of transit</li> <li>The TransAction projects are still effective at achieving the region's transportation goals</li> </ul> |
| Incentives/<br>Pricing               | Centers on policy strategies to change travel behavior to mitigate congestion and its negative impacts. The scenario incorporates a number of monetary inducements designed to encourage a reduction/reversal in driving alone.   | 'New Normal' trip<br>assumptions plus:  » VMT pricing on<br>all roads with<br>discounts for lower-<br>income households  » Increase in parking<br>costs across the<br>region  » Free transit (no<br>fares)  » Less travel in peak<br>hours                       | <ul> <li>Policies and pricing strategies show ability to change travel behavior as more people choose transit and other non-SOV modes</li> <li>Fewer cars on the road result in less congestion and emissions</li> <li>Significant increase in transit ridership</li> </ul> | <ul> <li>Incentives/Pricing policies amplify the impacts of adding new transit services by making those options more attractive</li> <li>Congestion will continue to be an issue in NoVA, even with VMT pricing and free transit</li> </ul>  |



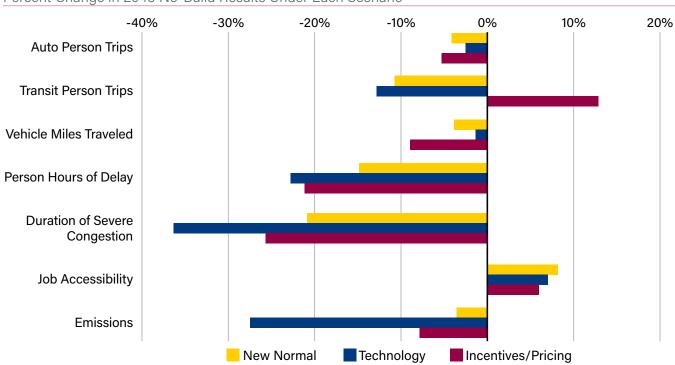
#### Scenario Results

Each of these scenarios was analyzed using the TransAction model to understand how transportation needs in the region might change if these futures came to pass. The chart below shows the results when the three scenarios were tested with the No-Build network (i.e., without the TransAction projects). Some of the impacts observed based on the scenario assumptions are highlighted in the summary table on the previous page. All three of the scenarios improve conditions for some of the key performance metrics as compared to the standard forecasts for 2045. The scenarios all reduce congestion and improve accessibility to jobs, although they achieve these improvements in different ways. The assumptions underlying the Technology scenario were found to have the biggest potential impact on hours of delay, severe congestion, and vehicle emissions. The Incentives/ Pricing scenario has the biggest impact on mode choice, encouraging behavioral change that results in a 13% increase in transit trips and a 9% decrease in VMT.

None of the tested scenarios would be able to solve Northern Virginia's transportation issues, and congestion and delay will continue to be challenges no matter which scenario (or combination of scenarios) is realized in the future. Because of this, the set of projects identified in the TransAction Project List will still be able to provide benefits to the region regardless of how the future evolves. In all of the scenarios, the TransAction projects provide tangible benefits to the region, helping to decrease congestion, improve accessibility and reduce emissions. However, this may not be true for each individual project, and NVTA will continue to monitor and evaluate changes in travel patterns and performance to ensure that each project selected for funding as part of the Six Year Program will be beneficial for the region in the long-term.

Note that land use changes were not assumed in any of the three scenarios for the TransAction analysis, but it is acknowledged that land use changes may in fact be influenced by the same trends and factors shaping these scenarios. Previous versions of TransAction have analyzed the impacts of land use changes on the transportation network. These analyses have indicated that while a more concentrated pattern of land use development will not eliminate congestion in the region, it does encourage transit usage and shorter trip lengths to decrease VMT.

Percent Change in 2045 No-Build Results Under Each Scenario



# How will TransAction Benefit the Region?

TransAction outlines a range of projects that represent options for how Northern Virginia can achieve its transportation vision and the goals of enhancing mobility, increasing accessibility, and improving resiliency. TransAction is not a prescriptive plan that dictates how these goals must be realized, but instead provides a menu of options that the region can consider to meet its priorities. When combined, the projects included in TransAction help realize significant improvements across the region. Any project seeking NVTA regional funding will be further evaluated as part of NVTA's biannual Six Year Program process.

Northern Virginia will face continued growth, adding to the travel demand and delay experienced today. Without significant investment in transportation, congestion, delay and accessibility will continue to worsen through 2045, reducing quality of life in Northern Virginia. The TransAction Plan provides improvements that help to meet the needs of the growing population and job market in Northern Virginia.

# TRANSACTION ENHANCES MOBILITY

- » Reduces travel delay—The combined effects of the multimodal investments in TransAction are projected to decrease person-hours of delay by 19% and reduce the duration of severe congestion by 29%. The Plan includes 1,040 new lane miles of roadway, numerous interchanges and intersection improvements, significant improvements to the transit network to attract people away from driving, HOV/HOT lanes and ITS improvements that reduce bottlenecks on the road system and move people more efficiently. A reduction in delay also benefits transit riders as well, with a 35% decrease in delay on transit.
- » Builds regional connections—The Plan addresses gaps in the current transportation system for roads, transit and trails. In particular, the Plan highlights a regional Bus Rapid Transit (BRT) network and includes 90 miles of BRT and 280 miles of High-Capacity Transit routes to create a truly regional system that expands the reach of the current transit system and provides

- critical suburban-to-suburban connections. The Plan also includes improvements to fill gaps in the network of regional trails and making connections to activity centers and to multimodal hubs at transit stations.
- » Provides transportation choices—The Plan provides alternatives to driving through meaningful multimodal travel choices. Transit ridership increases by 12% with the TransAction projects. The Plan includes 50 nonmotorized projects intended to support biking and walking around the region.

# TRANSACTION INCREASES ACCESSIBILITY

- » Connects people to jobs and opportunities— The Plan creates a multimodal transportation network that is more accessible, providing a 18% increase in the jobs that can be reached within a reasonable commute across all modes, whether via transit, roadway or bike.
- » Provides equitable access—Accessibility gains are even greater (22%) for communities that fall within the region's Equity Emphasis Areas (EEA). These neighborhoods can benefit significantly from having additional travel choices.

#### TRANSACTION IMPROVES RESILIENCY

- » Improves transportation safety—Provides continued investment in multimodal projects that put safety first, reducing conflicts on roadways and pedestrian/bike facilities in the region and reducing risk for the most vulnerable users, i.e., pedestrians and bicyclists.
- » Support reduction of vehicle emissions— TransAction includes significant alternatives to driving in single-occupancy vehicles. The two most common ways to reduce transportation greenhouse gas (GHG) emissions are less driving and use of low/Zero Emission Vehicles. TransAction supports both. The analysis shows that supporting widespread electrification leads to the largest decreases in transportation emissions.



# **KEY TAKEAWAYS**

- » Forecasted population and employment growth through 2045 necessitates continued investments in transportation, but no single project, program, policy, or mode will address all the region's transportation needs.
- » TransAction includes 424 multimodal transportation projects that support the region's vision and goals, and address the transportation needs of Northern Virginians. However, there are more projects in TransAction than can be reasonably funded by

# It takes a region.

The 424 candidate regional projects identified in the Plan exceed the NVTA's expected funding available through 2045. Other funding sources, including federal, state, local, and private dollars, may be available to help close the gap. Regional collaboration and the ability to work beyond jurisdictional lines is key to keeping the D.C. metropolitan area moving.

- the region. Some projects are intentionally included despite being located beyond Northern Virginia, as they address regional transportation needs of Northern Virginians and the region's businesses.
- » TransAction is well-aligned with NVTA's core values of equity, sustainability, and safety.
- » TransAction does not make project or modal recommendations but does highlight a potential role for a regional Bus Rapid Transit (BRT) system and the opportunity to leverage transportation technologies at a regional scale. Each of these opportunities is worthy of further evaluation after TransAction is adopted, the latter under the auspices of NVTA's Transportation Technology Strategic Plan.
- » Long-range transportation planning always involves a degree of uncertainty, particularly with respect to the potential for unanticipated changes in future travel behavior and other external factors beyond the control of the region. TransAction addresses uncertainty through a technique known as scenario analysis, in which three scenarios, or alternative futures, were explored in addition to the standard forecast. Each scenario demonstrated that the TransAction projects are still effective at achieving the region's transportation vision and goals, but congestion and delay will continue to be challenges. The extent to which individual projects support the vision and goals is worthy of further evaluation, including as part of NVTA's Six Year Program process.
- » Of the three scenarios analyzed, Incentives/Pricing lends itself to government action while the region will primarily need to be reactive in the New Normal and Technology scenarios. While TransAction does not recommend advancing this or any scenario, NVTA will continue to monitor travel behaviors and other trends after TransAction is adopted to ensure project evaluations as part of NVTA's Six Year Program process are as accurate as possible.

# TRANSACTION IS NOT THE END OF THE PLANNING PROCESS.

TransAction is a starting point for transportation planning in Northern Virginia, and is one input to identifying how NVTA regional revenues are invested. As part of the Six Year Program, which gets updated every two years, jurisdictions will be able to apply to use NVTA regional revenues to advance projects from the TransAction Plan that match their local priorities. NVTA will evaluate each application based on the TransAction performance measures to fund a portfolio of projects that equitably, sustainably and safely meet the region's goals of enhancing mobility, increasing accessibility and improving resiliency.



For more information about the TransAction Plan, including the TransAction Project List:

nvtatransaction.org



Follow and Engage with Us











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# TransAction Plan—2022 Update

**Project List** 

**November 2022** 

# **TransAction Project List**

TransAction is the long-range multimodal transportation plan for Northern Virginia addressing regional transportation needs through 2045. TransAction ("the Plan") includes a plan document as well as this associated list of transportation projects identified to reduce congestion and improve travel throughout the region. TransAction identifies how the projects included in the plan would help make progress towards achieving NVTA's vision for transportation in Northern Virginia. NVTA's vision is "Northern Virginia will plan for, and invest in, a safe, equitable, sustainable, and integrated multimodal transportation system that enhances quality of life, strengthens the economy, and builds resilience." Decisions about which projects to fund are made as part of the Six Year Programming process.

Identifying transportation needs in Northern Virginia and beyond, the following project list includes a brief description of the 424 candidate regional transportation projects in the TransAction Plan. These projects cover all modes of transportation and cost roughly \$75 billion (in 2021 dollars) through the year 2045.

Recognizing there is no-one-size-fits-all solution to tackling traffic congestion in the region, the transportation projects included in TransAction cover a variety of modes, such as a range of technologies, including progress towards vehicle electrification, programs to encourage alternative modes of transportation, and a proposed regional Bus Rapid Transit (BRT) network, to name a few. A brief description of the types of projects in TransAction is included below. Note that many projects have more than one modal component.

#### **Transportation Modes At-a-Glance:**

- Transit: Includes a range of projects necessary to improve transit service in Northern Virginia, including Metrorail
  extensions, capacity and service enhancements for Virginia Railway Express (VRE), Bus Rapid Transit (BRT) lines and
  improvements to local bus services. Transit facilities, new transit vehicles, bus storage/maintenance facilities and
  pedestrian/bicycle station access improvements are also included. Within the transit mode type, there are a few
  different types of transit improvements included:
  - » High-Capacity Transit (HCT): Rapid transit where a preferred modal technology (BRT, light-rail transit, heavy rail transit) has not yet been selected.
  - » Bus Rapid Transit (BRT): A type of High-Capacity Transit that uses buses to deliver fast and efficient service that may include bus-only dedicated lanes, traffic signal priority to allow for a better traffic flow, off-board fare collection, elevated platforms and enhanced stations.
  - Express Bus: Fixed-route bus service providing longer-distance, limited-stop service. These services often serve commute markets and may operate between suburban park-and-ride lots and central urban locations during peak periods.





- Roadway: Includes the construction of new roads, capacity improvements on existing roads, and/or reconfiguration of existing roads; often includes multimodal elements such as pedestrian and bicycle improvements, intersection improvements and technology.
- Intersections & Interchanges: Includes grade-separated interchanges (involving overpasses/underpasses) as well as atgrade intersection improvements that are intended to reduce traffic delay; many of these projects include pedestrian improvements and/or technology enhancements.
- Transportation Demand Management (TDM): A set of services designed to provide commuters with alternative options to driving alone by providing information, programs and incentives to encourage a change in travel mode to keep people moving.
- Pedestrian/Bicycle (Non-motorized): Includes bicycle and pedestrian facility/infrastructure improvements that provide connectivity in the region. Some projects also include technology elements.
- **Technology/ITS**: Includes a range of technologies, such as Intelligent Transportation Systems (ITS), transit signal priority, real-time traveler information, electric vehicle charging infrastructure and Connected and Automated Vehicle (CAV) enabling technologies. Technology projects can serve travelers using all modes.
- Parking: Includes parking improvement projects to add capacity or technology-based enhancements to parking facilities, including park-and-ride lots.
- High Occupancy Vehicle/Toll (HOV/HOT): Travel lanes designated for a minimum number of passengers (HOV) or lanes that allow a toll to be paid in lieu of meeting the minimum number or passengers (HOT).

Each of the projects included in TransAction are listed, beginning on page 3. For each project, a unique project ID, name and a short description are included. Each project is assigned a primary mode from the options listed above. Since the previous TransAction adoption in 2017, all projects with a project ID number higher than 352 are new additions to the TransAction project list.

Note: Some project ID numbers have no current projects associated with them; these projects are no longer part of TransAction primarily because they have been funded, are under construction, or have been removed from consideration by the jurisdiction or agency that originally proposed the project.

### **Interactive Mapping Tool**

An interactive mapping tool can be used to view the location of each project and can be filtered based on the transportation mode, location, or TransAction ID of each project. Click here to view the interactive TransAction project map.

On the interactive map, go to the upper right-hand corner of the mapping tool to select the desired filter.



Filter project list by transportation mode, location, or ID.



Select map layers (site-specific, corridor, or region-wide projects).



### **TransAction Project List**

| TransAction<br>Project ID | Project Name   | Project Description   | Primary<br>Mode Type         | Secondary<br>Mode Type       | Physical<br>Location     |
|---------------------------|--|---|------------------------------|------------------------------|--------------------------|
| 1                         | Route 7 Widening:<br>Chain Bridge Road<br>(Route 123) to I-495   | Widen Route 7 from six to eight lanes from Chain Bridge Road (Route 123) to I-495.  | Roadway                      | Interchange/<br>Intersection | Fairfax<br>County        |
| 2                         | Route 7 Widening:<br>I-495 to I-66                               | Widen Route 7 from four to six lanes from I-495 to I-66.  | Roadway                      | Interchange/<br>Intersection | Fairfax<br>County        |
| 3                         | Route 7 Widening:<br>Seven Corners to<br>Bailey's Crossroads     | Widen Route 7 from four to six lanes between Seven Corners and Bailey's Crossroads.   | Roadway                      | Interchange/<br>Intersection | Fairfax<br>County        |
| 4                         | Construct<br>Interchange at<br>Route 267 and<br>Greensboro Drive | Construct partial grade-separated interchange at Route 267 and Greensboro Drive / Tyco Drive.   | Interchange/<br>Intersection |                              | Fairfax<br>County        |
| 5                         | Construct<br>Interchange at<br>Route 267 and<br>Boone Boulevard  | Construct partial grade-separated interchange at Route 267 and Boone Boulevard.   | Interchange/<br>Intersection |                              | Fairfax<br>County        |
| 7                         | Soapstone Drive Extension  | Extend Soapstone Drive over Route 267 (Dulles Toll Road) to Sunset Hills Road.  | Roadway                      |                              | Fairfax<br>County        |
| 8                         | Tysons Circulator  | Implement Tysons Circulator system. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities. | Transit                      |                              | Fairfax<br>County        |
| 10                        | West Loudoun<br>"Gateway" Park-<br>and-Ride                      | Construct new park-and-ride lots in western Loudoun County.   | Transit                      | Parking                      | Loudoun<br>County        |
| 11                        | Leesburg-Alexandria<br>Route 7 Trail                             | Construct trail along Route 7 from Leesburg to Alexandria.  | Bike-ped                     |                              | Multi-<br>jurisdictional |



| TransAction Project ID | Project Name   | Project Description  | Primary<br>Mode Type | Secondary<br>Mode Type       | Physical<br>Location     |
|------------------------|--|--|----------------------|------------------------------|--------------------------|
| 12                     | Herndon Metrorail<br>Multimodal<br>Improvements  | Implement roadway, bicycle and pedestrian improvements to improve access to the Herndon Metrorail Station, including:  a. Construct an extension to the Folly Lick Trail from Van Buren Street to future Herndon Metrorail Station;  b. Continue improvements of the W&OD Trail on select sections within Herndon town limits;  c. Construct extension of Sugarland Run Trail from existing terminus to pedestrian access pavilion at future Herndon Metrorail Station;  d. Construct missing regional links in Folly Lick Regional Trail between Wiehle Avenue and connection with W&OD Trail and Herndon Metrorail Station;  e. Reconstruct Herndon Parkway with 'Complete Street' improvements to include new intersection signalization, cycle tracks, wide sidewalks and bus stop enhancements (between Van Buren Street and W&OD Regional Trail) to connect with Herndon Metrorail Station;  f. Reconstruct Van Buren Street between New Spring Street and Herndon town limits with 'Complete Streets' improvements to include new intersection signalization, expand and enhance on- and off-street bicycle / pedestrian facilities from the downtown area to access Herndon Metrorail Station. | Bike-Ped             | Transit                      | Town of<br>Herndon       |
| 13                     | Transit Connections<br>to Silver Line Phase<br>II Stations   | Expand bus service and connections to Silver Line Phase II stations. Provide feeder bus service between Metrorail and park-and-ride lots. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.  | Transit              |                              | Multi-<br>jurisdictional |
| 14                     | Chain Bridge Road<br>(Route 123)<br>Widening: Leesburg<br>Pike (Route 7) to Old<br>Courthouse Road | Widen Chain Bridge Road (Route 123) from four to six lanes between Leesburg Pike (Route 7) to Old Courthouse Road.   | Roadway              |                              | Fairfax<br>County        |
| 17                     | Dulles Toll Road -<br>Town Center<br>Parkway Underpass   | Construct four-lane divided roadway under the Dulles<br>Toll Road from Sunrise Valley Drive to Sunset Hills Road.  | Roadway              |                              | Fairfax<br>County        |
| 18                     | Seven Corners Ring<br>Road Improvements  | Construct a ring road and improve interchange at Seven Corners to reduce congestion on Route 7, improve access between Seven Corners, Falls Church, and Bailey's Crossroads, and facilitate redevelopment of the area. Improve safety, navigation of vehicles and cyclists/pedestrians in and throughout the area.   | Roadway              | Interchange/<br>Intersection | Fairfax<br>County        |
| 19                     | Davis Drive<br>Extension and Dulles<br>Toll Road-Rock Hill<br>Overpass                             | Extend Davis Drive (Route 868) from Glenn Drive (Route 864) to Fairfax County line at the future bridge over Dulles Toll Road (Route 267). Realign Rock Hill Road with Davis Drive. Construct a four-lane roadway over the Dulles Toll Road from Sunrise Valley Drive on the south side to Davis Drive extension in Loudoun County on the north side. The project would include pedestrian and bicycle facilities.   | Roadway              | Interchange/<br>Intersection | Multi-<br>jurisdictional |



| TransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location        |
|---------------------------|--|--|------------------------------|------------------------|-----------------------------|
| 20                        | Hunter Mill Road<br>and Sunset Hills<br>Road Improvements          | Widen Hunter Mill Road to four lanes between Crowell<br>Road and Route 267 (Dulles Toll Road). Widen Sunset<br>Hills Road to four lanes between Wiehle Avenue and<br>Hunter Mill Road, realigned with Crowell Road.  | Roadway                      |                        | Fairfax<br>County           |
| 21                        | Bike Lanes on Route<br>7: Alexandria to<br>Seven Corners           | Construct protected bike lanes on both sides of Route 7 between Alexandria and Seven Corners. Connect with City of Falls Church's bicycle network.   | Bike-Ped                     |                        | Fairfax<br>County           |
| 22                        | Herndon Bikesharing<br>Services                                    | Introduce and expand bikesharing services in Herndon in coordination with County regional system.  | Bike-Ped                     |                        | Town of<br>Herndon          |
| 23                        | Outer Potomac River<br>Crossing                                    | Construct a roadway crossing the Potomac River from<br>the VA Route 7 corridor into the state of Maryland, east<br>of Goose Creek in Loudoun County.   | Roadway                      |                        | Multi-<br>jurisdictional    |
| 25                        | Route 234 Arterial<br>Operations<br>Improvements                   | Deployment of intelligent signal monitoring/control technology to improve travel on Route 234.   | ITS                          |                        | Prince<br>William<br>County |
| 26                        | Route 28 Widening:<br>I-66 to Loudoun<br>County line               | Widen Route 28 to ten lanes between I-66 and Loudoun County (eight general purpose lanes and two HOV lanes).   | Roadway                      |                        | Fairfax<br>County           |
| 27                        | Construct<br>Interchange at<br>Route 28 and New<br>Braddock Road   | Construct an interchange at Route 28 and New Braddock Road.  | Interchange/<br>Intersection |                        | Fairfax<br>County           |
| 28                        | Centreville Road<br>Widening: Herndon<br>Parkway to Walney<br>Road | Widen Route 657 (Centreville Road) to six lanes between Herndon Parkway and Walney Road.   | Roadway                      |                        | Fairfax<br>County           |
| 29                        | Route 28 Widening:<br>Conner Drive to Old<br>Centreville Road      | Widen Route 28 to six lanes between Conner Drive and Old Centreville Road.   | Roadway                      |                        | Fairfax<br>County           |
| 31                        | Route 7 Transit:<br>Tysons to Mark<br>Center                       | Construct Bus Rapid Transit line along Route 7 between Tysons and Mark Center with a connection to East Falls Church Metrorail Station. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.  | Transit                      | ITS                    | Fairfax<br>County           |
| 32                        | Route 28 Corridor<br>High-Capacity<br>Transit                      | Construct High-Capacity Transit along Route 28 corridor and on parallel roadways and implement service between Dulles Town Center and the City of Manassas. Alternative modes for further study include BRT and LRT. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities. | Transit                      | ITS                    | Multi-<br>jurisdictional    |



| TransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location     |
|---------------------------|--|--|----------------------|------------------------|--------------------------|
| 33                        | High-Capacity<br>Transit Extension<br>from Vienna<br>Metrorail station to<br>Centreville | Extend High-Capacity Transit from Vienna to Centreville. Potential modes include Metrorail, LRT, BRT, or improved bus service on corridor between stations. Construction of stations and park-and-ride lots at Centreville, Stringfellow, and Government Center / Fair Oaks, and a station serving the City of Fairfax. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, enhanced stops/stations and access facilities, and enforcement of bus lanes.                 | Transit              |                        | Fairfax<br>County        |
| 34                        | Metrorail Blue/Silver<br>Line Core<br>Realignment  | Construct a new alignment for the Metrorail Blue Line or Silver Line between Rosslyn in Northern Virginia and Union Station in the District of Columbia via Georgetown and M Street. Includes construction of a second rail tunnel beneath the Potomac River and a second Rosslyn Metrorail Station with an underground passageway to transfer to the Orange and Silver Lines.   | Transit              |                        | Multi-<br>jurisdictional |
| 35                        | Wilson Bridge High-<br>Capacity Transit  | Construct High-Capacity Transit service along I-495 from the Metrorail Blue Line at Franconia-Springfield via the Metrorail Yellow Line in the City of Alexandria and Branch Avenue on the Metrorail Green Line in Prince George's County, Maryland. Alternative High-Capacity Transit modes include LRT, BRT and Enhanced Bus service. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, enhanced stops/stations and access facilities, and enforcement of bus lanes. | Transit              | ITS                    | City of<br>Alexandria    |
| 36                        | American Legion<br>Bridge High-Capacity<br>Transit                                       | Construct High-Capacity Transit service between Tysons in Fairfax County and White Flint Metrorail Station in Montgomery County, Maryland via I-495 and the American Legion Bridge. Alternative High-Capacity Transit modes include LRT, BRT, and Enhanced Bus service. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, enhanced stops/stations and access facilities, and enforcement of bus lanes.   | Transit              | ITS                    | Fairfax<br>County        |



| TransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location        |
|---------------------------|--|--|----------------------|------------------------|-----------------------------|
| 37                        | Merrifield-Tysons<br>High-Capacity<br>Transit                      | Implement High-Capacity Transit service on Gallows Road and Annandale Road between Tysons and Annandale via Fairfax Hospital in Merrifield. Includes widening of Gallows Road to six lanes with two lanes dedicated for transit. Alternative High-Capacity Transit modes for this corridor include LRT, BRT, or Enhanced Bus service. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.                          | Transit              | Roadway                | Fairfax<br>County           |
| 38                        | High-Capacity<br>Transit Extension to<br>Potomac<br>Mills/Triangle | Extend High-Capacity Transit from Franconia/Springfield Metrorail Station to Potomac Mills, with a potential extension south to Triangle/Quantico. Construct parkand-ride lots along extension to provide commuter parking. High-Capacity Transit modes for this corridor include Metrorail, LRT, BRT, or Enhanced Bus service. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, enhanced stops/stations and access facilities, and enforcement of bus lanes. | Transit              |                        | Prince<br>William<br>County |
| 39                        | Route 1 BRT  | Implement BRT service on Route 1 between Woodbridge and Huntington Metrorail Station, with additional branch service to Pentagon City Metrorail Station via Metroway alignment. Includes widening of portions of Route 1 between Route 235 (Mt. Vernon Highway) and I-495. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.   | Transit              | Roadway                | Fairfax<br>County           |
| 40                        | Columbia Pike<br>Express Transit<br>Network (PrTN)                 | Provide enhanced bus transit service from Annandale to Crystal City via Pentagon City, including but not limited to: limited-stop bus service, improved headways, required vehicles and/or maintenance facilities, bus priority treatments, and transit stations and access facilities.  | Transit              | Bike-Ped               | Arlington<br>County         |
| 41                        | Alexandria Duke<br>Street Transitway                               | Construct a four-mile segment of the high-capacity transitway on Duke Street within City of Alexandria. Reconstruct Duke Street from Wheeler Avenue to Jordan Street with a center left-turn lane. Construct bicycle and pedestrian improvements along corridor. The first phase would create dedicated transit lanes in existing six-lane sections of Duke Street between Landmark Mall and Jordan Street and between Roth Street and Diagonal Road. Between Jordan Street and Roth Street, transit would operate in mixed flow.  | Transit              | Roadway                | City of<br>Alexandria       |



| TransAction<br>Project ID | Project Name   | Project Description   | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location     |
|---------------------------|--|---|----------------------|------------------------|--------------------------|
| 42                        | West End<br>Transitway   | Implement BRT service between the Pentagon and Kingstowne via Mark Center and Van Dorn Metrorail Station. Includes construction of a four-mile segment of dedicated bus lanes between Van Dorn Metrorail Station and King Street. The project also provides pedestrian and bicycle facilities within the corridor.  | Transit              | Roadway                | City of<br>Alexandria    |
| 43                        | Route 236 Enhanced<br>Bus Service in<br>Fairfax County                           | Implement enhanced bus service on Route 236 between Fair Oaks and Landmark Mall. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.  | Transit              | Bike-Ped               | Fairfax<br>County        |
| 44                        | Route 50 BRT   | Implement BRT Service on Route 50 in dedicated lanes from Fair Oaks Mall to Washington, DC. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.   | Transit              | Bike-Ped               | Fairfax<br>County        |
| 45                        | Route 29 BRT   | Implement BRT service on Route 29 in a dedicated lane where practical from Fairfax Towne Center/Fair Oaks Mall to Washington DC via Rosslyn and the K Street Bus Lanes. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities. | Transit              | Bike-Ped               | Multi-<br>jurisdictional |
| 46                        | Route 29 and Route<br>50 Enhanced Bus  | Implement Route 29 and Route 50 Express Bus and Enhanced Bus improvements. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.  | Transit              | Bike-Ped               | Fairfax<br>County        |
| 47                        | Route 28 Trail   | Construct a shared used path on both sides of Route 28 from Prince William County line to Dulles Toll Road.   | Bike-Ped             |                        | Fairfax<br>County        |
| 48                        | Godwin Drive<br>Widening: Sudley<br>Road to Route 28                             | Widen Godwin Drive from four to six lanes between Sudley Road and Route 28.   | Roadway              |                        | City of<br>Manassas      |
| 51                        | Fairfax County<br>Parkway Widening:<br>Dulles Toll Road to<br>Route 7            | Widen Fairfax County Parkway to six lanes from Dulles<br>Toll Road to Route 7. New lanes could potentially be<br>designated as HOV lanes.   | Roadway              |                        | Fairfax<br>County        |
| 52                        | Fairfax County<br>Parkway Widening:<br>Franconia-Springfiel<br>d Parkway to I-66 | Widen Fairfax County Parkway to six lanes from Franconia-Springfield Parkway to I-66. New lanes could potentially be designated as HOV lanes.   | Roadway              |                        | Fairfax<br>County        |



| TransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type       | Physical<br>Location |
|---------------------------|--|--|------------------------------|------------------------------|----------------------|
| 53                        | Construct<br>Interchange at<br>Fairfax County<br>Parkway and Route<br>1        | Construct interchange at Fairfax County Parkway and Route 1.   | Interchange/<br>Intersection |                              | Fairfax<br>County    |
| 54                        | Rolling Road<br>Widening: Hunter<br>Village Drive to Old<br>Keene Mill Road    | Widen Rolling Road to four lanes between Hunter Village Drive and Old Keene Mill Road.   | Roadway                      |                              | Fairfax<br>County    |
| 56                        | Fairfax County<br>Parkway Priority<br>Express Bus Service                      | Implement enhanced bus service on Fairfax County Parkway between Herndon Metrorail Station and Fort Belvoir. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities. | Transit                      |                              | Fairfax<br>County    |
| 57                        | Fairfax County Parkway Widening: Ox Road (Route 123) to Lee Highway (Route 29) | Widen Fairfax County Parkway from Ox Road (Route 123) to Lee Highway (Route 29) from four lanes to six lanes. Construct a grade-separated interchange at the intersection of Fairfax County Parkway and Popes Head Road, with shared used paths on both sides.                                   | Roadway                      | Interchange/<br>Intersection | Fairfax<br>County    |
| 58                        | Shirley Gate Road<br>Extension: Braddock<br>Road to Fairfax<br>County Parkway  | Extend Shirley Gate Road from Braddock Road to Fairfax County Parkway.   | Roadway                      |                              | Fairfax<br>County    |
| 59                        | Vienna Metrorail<br>Station Feeder Bus<br>Service Expansion                    | Add new routes and improve service levels on existing routes that serve the Vienna Metrorail Station. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.        | Transit                      |                              | Fairfax<br>County    |
| 60                        | Route 50 Widening:<br>City of Fairfax to<br>Arlington County                   | Widen Arlington Boulevard (Route 50) to six lanes between the City of Fairfax and Arlington County. The project would include intersection improvements, including signalization improvements, and pedestrian and bicycle facilities.  | Roadway                      | Interchange/<br>Intersection | Fairfax<br>County    |
| 62                        | East Falls Church<br>Metrorail Station<br>Second Entrance                      | Planning, design and construction of a full second entrance to East Falls Church Metrorail Station, including new bus bays, a western mezzanine, and bicycle and pedestrian connections.   | Transit                      | Bike-Ped                     | Arlington<br>County  |
| 63                        | Ballston-MU<br>Additional Entrance   | Construct new entrance and pedestrian access on the western side of the Ballston-MU Metrorail Station. Project includes expanded bus bays and passenger facilities.  | Transit                      | Bike-Ped                     | Arlington<br>County  |
| 64                        | Stone Road<br>Overpass over I-66:<br>Route 29 to Route<br>28                   | Construct four-lane divided road between Stone Road at Route 29 and New Braddock Road at Route 28, including bridges over I-66 and Big Rocky Run and a shared use path.  | Roadway                      | Bike-Ped                     | Fairfax<br>County    |
| 65                        | Courthouse<br>Metrorail Station<br>Access                                      | Improve vertical access (elevators/escalators/increased capacity between different levels) to Courthouse Metrorail station.  | Transit                      | Bike-Ped                     | Arlington<br>County  |



| TransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location    |
|---------------------------|--|--|------------------------------|------------------------|-------------------------|
| 66                        | Falls Church<br>Multimodal<br>Improvements                           | Multimodal improvements in Falls Church revitalization areas: West Broad Street, Washington Street Corridor, and East End. Improvements will include improved intersection geometry and signalization, improved pedestrian connectivity and accessibility, improved transit stops, and improved bicycle access.  | Interchange/<br>Intersection | Bike-Ped               | City of Falls<br>Church |
| 67                        | Route 29 Trail   | Construct a trail along Route 29 from Dixie Hill Road to East Falls Church Metrorail Station.  | Bike-Ped                     |                        | Fairfax<br>County       |
| 68                        | Route 123<br>Widening: City of<br>Fairfax to Town of<br>Vienna       | Widen Chain Bridge Road (Route 123) to six lanes between City of Fairfax and Town of Vienna.   | Roadway                      |                        | Fairfax<br>County       |
| 70                        | East Falls Church<br>Metrorail Station<br>Multimodal<br>Improvements | Construct multimodal improvements, including new or restructured bus bays at the current station, bicycle and pedestrian connections, improve access and signalization on North Sycamore Street and Washington Boulevard, and install bikesharing stations.  Improvements per the East Falls Church Vision Plan.   | Transit                      | Bike-Ped               | Arlington<br>County     |
| 71                        | Route 29 Bus<br>Improvements   | Improved local ART bus service on Route 29 between Rosslyn and East Falls Church. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.  | Transit                      |                        | Arlington<br>County     |
| 72                        | Arlington Regional<br>Trail Network                                  | Provide dedicated bicycle facilities, bikesharing and key sidewalk improvements on multiple corridors in Arlington. Example corridors includes Carlin Springs Road, Walter Reed Drive/ Fillmore Street, Harrison Street, Washington Boulevard, Route 110, and others. Network also includes:  a. Trail parallel to Washington Boulevard between Arlington Boulevard and Columbia Pike;  b. Rehab of Custis Trail to current VDOT shared used path design and construction specifications in Rosslyn;  c. Extension of Custis Trail north of I-66 between North Kennebec Street and North Quantico Street;  d. Long Bridge Park Esplanade extension to Mount Vernon Trail;  e. Arlington Boulevard trail;  f. Theodore Roosevelt Bridge connection to Mount Vernon Trail and Marine Corps War Memorial;  g. Dedicated cycling facility along the Route 50 service road (southside), between North Rhodes Street and North Meade Street;  h. Expansion of Arlington bicycle commuter routes:  Bluemont Junction Trail, Custis Trail, Four Mile Run Trail, Mount Vernon Trail, W&OD Trail;  i. Improve connections between the County trail network and activity centers, as well as interjurisdictional connections. | Bike-ped                     |                        | Arlington<br>County     |



| TransAction<br>Project ID | Project Name  | Project Description   | Primary<br>Mode Type         | Secondary<br>Mode Type       | Physical<br>Location        |
|---------------------------|---|---|------------------------------|------------------------------|-----------------------------|
| 73                        | East-West ICM<br>Program: Parallel<br>Arterial Operations<br>Improvements               | Deployment of intelligent signal monitoring/control technology to improve travel on parallel routes in the I-66 corridor, including the deployment of intelligent signal monitoring/control technology to improve travel on east-west arterial facilities, including: Route 29, Route 50, Route 7, and Route 236. | ITS                          |                              | Multi-<br>jurisdictional    |
| 74                        | Connected<br>Vehicle/Traffic<br>Signal Integration<br>Deployment                        | Traffic signal software integration to support future connected vehicle applications on multiple corridors including: I-66, I-495, Route 29, Route 50, and Route 7.   | ITS                          |                              | Multi-<br>jurisdictional    |
| 75                        | Construct<br>Interchange at Van<br>Dorn Street and<br>Franconia Road                    | Construct interchange at Van Dorn Street (Route 613) and Franconia Road (Route 644).  | Interchange/<br>Intersection |                              | Fairfax<br>County           |
| 76                        | Little River Turnpike<br>Widening: City of<br>Fairfax to I-395                          | Widen Little River Turnpike (Route 236) from four to six lanes between City of Fairfax and I-395.   | Roadway                      |                              | Fairfax<br>County           |
| 78                        | I-95/I-495 Managed<br>Lanes from I-395<br>into Maryland via<br>Woodrow Wilson<br>Bridge | Construct and implement Managed Lanes, including HOV or HOT lanes, on I-95/I-495 between I-395 near Springfield and a location east of I-295 near Indian Head Highway in Maryland.  | HOV/HOT                      | Roadway                      | Fairfax<br>County           |
| 79                        | Route 1 Widening:<br>Joplin Road to<br>Russell Road                                     | Widen Route 1 from four to six lanes from Joplin Road to Russell Road.  | Roadway                      |                              | Prince<br>William<br>County |
| 80                        | I-95 Improvements<br>at Franconia-<br>Springfield Parkway                               | Build an entrance to the I-95 general purpose lanes at Franconia-Springfield Parkway.   | Interchange/<br>Intersection |                              | Fairfax<br>County           |
| 81                        | I-95 Flyover Ramp at<br>Fairfax County<br>Parkway                                       | Construct a flyover ramp from northbound I-95 to northbound Fairfax County Parkway and make other interchange improvements.   | Roadway                      | Interchange/<br>Intersection | Fairfax<br>County           |
| 82                        | Construct<br>Interchange at<br>Route 1 and<br>Telegraph Road                            | Construct interchange at Route 1 and Telegraph Road (Route 611).  | Interchange/<br>Intersection |                              | Fairfax<br>County           |
| 83                        | Crystal City,<br>Pentagon City, and<br>Potomac Yard Street<br>Grid Improvements         | Construct an improved grid network of streets in Crystal City, Pentagon City, and Potomac Yard.   | Roadway                      |                              | Arlington<br>County         |
| 84                        | Frontier Drive<br>Extension and<br>Intersection<br>Improvements                         | Construct Frontier Drive extension from Franconia-Springfield Parkway to Loisdale Road, included access to Franconia-Springfield Metrorail Station and braided ramps to and from the Parkway.   | Roadway                      |                              | Fairfax<br>County           |



| TransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location  |
|---------------------------|--|--|----------------------|------------------------|-----------------------|
| 85                        | DASH Transit Service<br>Enhancements and<br>Expansion                          | DASH Transit Service Enhancements including:  a. New cross-town services and funding for additional buses to expand service on existing and new routes per the Alexandria Vision Plan.  b. Expand bus storage and maintenance facilities; c. Transit stop improvements (bus shelters, real time information signs, bus stop benches, pads for ADA); d. Upgrade to new and/or upgraded regional fare system including new fare collection technology; e. Transit speed enhancements. f. Expand and improve transit centers at Mark Center and Southern Towers.  | Transit              | ITS                    | City of<br>Alexandria |
| 86                        | I-395 Bus Lanes  | Construct bus lanes between Pentagon Transit Center and 14th Street in DC using inside shoulders of the Rochambeau Bridge (I-395).   | Transit              | Roadway                | Arlington<br>County   |
| 87                        | King Street Metrorail<br>Improvements  | Implement multimodal improvements at the King Street Metrorail station including improved access to parking lot and bus facilities, construction of new shelters, and construction of additional bus bays, and a planned transit store. Construction of a new pedestrian tunnel between Alexandria Union Station and the King Street Metrorail Station to include elevators and elimination of existing at-grade crossing. Pedestrian tunnel project also includes improvements to the east platform including lengthening the platform, ADA improvements, a new canopy, and a stairway and elevator connection to the pedestrian tunnel. Improvements to the east platform will increase freight, commuter, and passenger rail operations within and through the City of Alexandria and allow for VRE to utilize the east platform for revenue service. Project also includes other improvements at Alexandria Union Station and modifications to existing tracks, modification to or additional signals, bridges, structures to support access to and operations at the station. | Transit              | Bike-Ped               | City of<br>Alexandria |
| 89                        | Crystal City<br>Metrorail Station<br>Second Entrance                           | Construct a second entrance to the Crystal City<br>Metrorail Station (near Crystal Drive and 18th Street<br>South) and provide connections to Crystal City VRE<br>Station and Ronald Reagan Washington National Airport<br>(DCA).  | Transit              | Bike-Ped               | Arlington<br>County   |
| 90                        | Alexandria Bike and<br>Pedestrian Trails<br>Construction and<br>Reconstruction | a. Reconstruct Holmes Run Trail from North Ripley Street to I-395; b. Construct trails along local streets in the Beauregard Street and Van Dorn Street corridor. This facility will provide a north-south connection to the City's Holmes Run Trail, running east-west, and connecting bicycle users to Mark Center corridor; c. Construct pedestrian and bicycle bridge over Holmes Run at Morgan Street; d. Implement and construct projects in the City's Pedestrian/Bicycle Plan; and e. Construct trail and linear park along Norfolk Southern Rail Spur in Old Town North.  | Bike-ped             |                        | City of<br>Alexandria |



| TransAction<br>Project ID | Project Name  | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location        |
|---------------------------|---|--|------------------------------|------------------------|-----------------------------|
| 91                        | East Potomac River<br>Crossing  | Construct Eastern Potomac River Crossing from I-95 to Route 301 in Maryland.   | Roadway                      |                        | Multi-<br>jurisdictional    |
| 93                        | Fredericksburg Line<br>Rail Capacity<br>Improvements                      | Add a third and/or fourth track between AF (near the junction of the VRE Fredericksburg and Manassas Lines in Alexandria) and the VRE Crossroads Yard south of Fredericksburg. Related improvements include modifications to existing tracks, modification to or additional signals, bridges, structures.  | Transit                      |                        | Multi-<br>jurisdictional    |
| 94                        | I-95/I-395 ICM<br>Program   | I-95/I-395 ICM Program:  a. Multimodal Traveler Information: Integration of roadway, transit, and parking information;  b. Dynamic Ramp Metering: Upgrade of existing ramp metering system;  c. Parallel Arterial Operations Improvements: Deployment of intelligent signal monitoring/control technology to improve travel on parallel routes in the I-95 corridor (including Route 1 and Telegraph Road);  d. Parking Management: Expansion of pilot program for additional park-and-ride lots; and  e. Decision Support System: Software system to support corridor management activities across multiple facilities and modes. | ITS                          |                        | Multi-<br>jurisdictional    |
| 95                        | Route 15 Widening:<br>Route 234 to<br>Loudoun County line                 | Widen Route 15 from two to four lanes between Route 234 and the Loudoun County line.   | Roadway                      |                        | Prince<br>William<br>County |
| 96                        | Construct<br>Interchange at<br>Route 15 Bypass and<br>Battlefield Parkway | Construct grade-separated interchange at Route 15<br>Leesburg Bypass and<br>Battlefield Parkway. (IAR)   | Interchange/<br>Intersection |                        | Town of<br>Leesburg         |
| 97                        | Construct<br>Interchange at<br>Route 123 and<br>Braddock Road             | Construct an interchange at Route 123 and Braddock Road.   | Interchange/<br>Intersection |                        | Fairfax<br>County           |
| 98                        | Route 123<br>Widening: Braddock<br>Road to City of<br>Fairfax             | Widen Route 123 to six lanes between City of Fairfax and Braddock Road.  | Roadway                      |                        | Fairfax<br>County           |
| 99                        | Braddock Road<br>Widening: Ox Road<br>to Fairfax County<br>Parkway        | Widen Braddock Road to six lanes from Ox Road to Fairfax County Parkway (Route 286).   | Roadway                      |                        | Fairfax<br>County           |
| 100                       | Route 123 Enhanced<br>Bus Service   | Implement enhanced bus service on Route 123 between Tysons and George Mason University in Fairfax. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.   | Transit                      |                        | Fairfax<br>County           |



| ansAction<br>oject ID | Project Name   | Project Description  | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location    |
|-----------------------|--|--|----------------------|------------------------|-------------------------|
| 101                   | Metrorail Fleet<br>Expansion                                     | Expand Metrorail fleet to enable operations of 100 percent eight-car trains during peak period. Expansion, upgrades, and replacements of the rail car fleet, traction power substations, power cabling, third rail, train control systems, and storage facilities.   | Transit              |                        | Multi-<br>jurisdictiona |
| 102                   | Columbia Pike<br>Corridor Urban<br>Bicycle/Pedestrian<br>Network | Improve bicycle and pedestrian infrastructure in and around the Columbia Pike corridor, including bikeways, bikesharing, and key sidewalk improvements, to convert SOV trips to, within, and between activity center areas from car to bicycle/pedestrian. Includes parallel bike routes along 9th Street, 11th Street, and 12th Street in the vicinity of Columbia Pike.  | Bike-Ped             |                        | Arlington<br>County     |
| 103                   | Arlington TDM<br>Package   | Improve and expand the commuter assistance and other programs provided by Arlington County Commuter Services. Includes new commuter stores and next generation IT services, implementation of transportation system management and communication upgrade throughout the County, and improvements to traveler information via creation or expansion of informational, wayfinding, alert, or real-time signs providing information on multimodal transportation options. Develop a system of coordinated mobility hubs along major corridors to fully integrate transit, bikesharing, carsharing, ridesharing, pedestrians, bicycling, ride hailing, and other shared use services. Develop, coordinate, implement, and/or expand ridesharing and ride-hailing services for first-mile/last-mile connections to transit and mobility hubs, as well as to activity centers, parking, and pick-up hotspots. Includes support for autonomous vehicles, casual carpooling, on-demand services. | TDM                  |                        | Arlington<br>County     |
| 104                   | Arlington ITS<br>Projects  | Implement intelligent transportation systems and adaptive traffic control system on regional corridors within Arlington County, including:  a. Enhancement of Traffic System and Technology to a Smart Traffic Signal system;  b. Installation of Intelligent Transportation System (ITS) and corresponding Adaptive Traffic Control System program on Route 29 (Lee Highway) to better manage traffic flow. Includes additional Bluetooth devices, count stations, CCTV cameras, and FLIR detectors and upgraded signals for better-timed connection with I-66; and  c. Reconstruction of traffic signals to meet current standards, including upgrade from span wire to mast arm.  | ITS                  |                        | Arlington<br>County     |
| 105                   | Metrorail Station<br>Access and Capacity<br>Improvements         | Construction of station access and capacity improvements at Rosslyn, Pentagon, Vienna, Foggy Bottom, Farragut West, Farragut North, Gallery Place, McPherson Square, Metro Center, L'Enfant Plaza, and Union Station. Improvements include new/expanded mezzanine, bridges above tracks, platform widening, elevators/escalators/stairs, internal transfer points, new entrances, pedestrian passageways between stations, station area lighting and customer amenities.   | Transit              |                        | Multi-<br>jurisdictiona |



| TransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location     |
|---------------------------|--|--|----------------------|------------------------|--------------------------|
| 107                       | Expansion of<br>Metrobus and<br>Fairfax Connector<br>Bus Services          | Increase bus frequency and service during off-peak periods and weekends; add new routes. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.   | Transit              |                        | Fairfax<br>County        |
| 108                       | Metrorail Real-Time<br>Parking Information                                 | Deployment of real-time parking information signage at WMATA Metrorail stations.   | ITS                  | Transit                | Multi-<br>jurisdictional |
| 110                       | South Fairfax County<br>Feeder Bus Service                                 | Improve service levels on bus routes serving Richmond Highway, Kingstowne, and Springfield. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.  | Transit              |                        | Fairfax<br>County        |
| 111                       | Rosslyn-Ballston<br>Corridor Urban<br>Pedestrian/Bicycle<br>Network        | Improve bicycle and pedestrian infrastructure in and around the Rosslyn-Ballston Corridor, including bikeways, bikesharing, and key sidewalk improvements, to convert SOV trips to, within, and between Metrorail station areas from car to bicycle/pedestrian, and to enable access to/from Metrorail stations to highdensity housing and job centers. Includes a designated bicycle lane along North Lynn Street and along Fort Myer Drive between Lee Highway at Rosslyn Circle and Fairfax Drive south of Arlington Boulevard. | Bike-ped             |                        | Arlington<br>County      |
| 112                       | Crystal City Corridor<br>Urban<br>Pedestrian/Bicycle<br>Network            | Improve bicycle and pedestrian infrastructure in and around Arlington's Blue/ Yellow Metrorail corridor, including bikeways, bikesharing, and key sidewalk improvements, to convert SOV trips to, within, and between Metrorail station areas from car to bicycle/pedestrian, and to enable access to/from Metrorail stations to high-density housing and job centers.   | Bike-ped             |                        | Arlington<br>County      |
| 113                       | Alexandria ITS<br>Projects   | Funding for transportation technologies to improve system efficiencies in the City of Alexandria, Real-Time Adaptive Control and Data Management System. Build out and improve Traffic Signal System with fiber-optics; transit signal priority.   | ITS                  |                        | City of<br>Alexandria    |
| 114                       | Metrorail Pocket<br>Track Improvements                                     | Construct new Orange and Silver Line junction infrastructure and pocket track at East Falls Church or West Falls Church. Improve or add pocket tracks to provide enhanced reliability, incident management/response, and operational flexibility for short-lining, maintenance and crossovers.   | Transit              |                        | Multi-<br>jurisdictional |
| 116                       | Implement Integrated Regional Rail Service: VRE- MARC Run- through Service | Implement run-through service by integrating intercity rail service with MARC and AMTRAK. Additional rolling stock or infrastructure improvements including modifications to tracks, signals, bridges, structures, and stations may also be needed to support run-through service.   | Transit              |                        | Multi-<br>jurisdictional |



| TransAction<br>Project ID | Project Name  | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type       | Physical<br>Location     |
|---------------------------|---|--|------------------------------|------------------------------|--------------------------|
| 117                       | Metroway: Pentagon City Extension and Southern Extension to the City of Alexandria      | Construct extension of Metroway to Pentagon City, which includes transit stations, reconfiguration of 12th Street South between South Hayes Street and South Clark Street for exclusive transit lanes, and repurposing existing northbound parking lane on Crystal Drive between 15th Street to Long Bridge drive for an exclusive transit lane. Associated work includes removal of obsolete section of Clark Street and realignment of Clark Street with Bell Street to improve street network. Intersection improvements around 23rd Street South and Route 1. Implement 'Complete Street' improvements to Army Navy Drive. Construct Southern Extension to the City of Alexandria, which included exclusive transit lanes along Potomac Ave between S Glebe and the Arlington/Alexandria boundary. | Transit                      | Roadway                      | Arlington<br>County      |
| 118                       | East Falls Church<br>Bikeshare<br>Connections   | Install up to 24 bikesharing stations along Route 29,<br>Route 7, Sycamore Street, Roosevelt Street, and W&OD<br>Trail in the City of Falls Church.  | Bike-Ped                     |                              | City of Falls<br>Church  |
| 119                       | Construct Northstar<br>Boulevard:<br>Shreveport Drive to<br>Route 50                    | Construct four-lane Northstar Boulevard facility from Shreveport Drive to Route 50.  | Roadway                      |                              | Loudoun<br>County        |
| 120                       | Intersection<br>Improvements at<br>Waxpool Road and<br>Loudoun County<br>Parkway        | Improve intersection at Waxpool Road and Loudoun County Parkway to include three westbound left-turn lanes on Waxpool Road and a new free-flow right turn lane on Loudoun County Parkway.  | Interchange/<br>Intersection |                              | Loudoun<br>County        |
| 121                       | Westwind Drive<br>Extension   | Construct Westwind Drive / Ladbrook Drive (Route 645) to be four lanes across Broad Run between Loudoun County Parkway (Route 607) and Old Ox Road (Route 606). Construct a new grade-separated interchange at Old Ox Road (Route 606).  | Roadway                      | Interchange/<br>Intersection | Loudoun<br>County        |
| 122                       | ART Service<br>Expansion  | Purchase of buses in support of Arlington Transit (ART) service restructuring and expansion. Includes implementation of Enhanced Bus service on Glebe Road between Marymount University and Potomac Yard Metrorail Station via Ballston.   | Transit                      |                              | Arlington<br>County      |
| 123                       | ART Service<br>Improvements and<br>Bus Maintenance<br>Facilities                        | Increase Arlington Transit (ART) service on corridors in Arlington County, supported by necessary enhanced heavy maintenance and/or bus parking facilities.  | Transit                      |                              | Arlington<br>County      |
| 124                       | Interchange<br>Improvements at<br>Fairfax County<br>Parkway and Sunrise<br>Valley Drive | Construct a grade-separated interchange at Fairfax<br>County Parkway and Sunrise Valley Drive.   | Interchange/<br>Intersection |                              | Fairfax<br>County        |
| 127                       | I-66 / Orange Line<br>Bus Facility<br>Improvements                                      | Expand and improve bus bays, passenger facilities, and bus circulation and access paths at all Orange Line stations and bus centers in the I-66 corridor.  | Transit                      | Bike-Ped                     | Multi-<br>jurisdictional |



| TransAction<br>Project ID | Project Name  | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location     |
|---------------------------|---|--|------------------------------|------------------------|--------------------------|
| 128                       | Metrorail Blue and<br>Yellow Line Bus<br>Facility<br>Improvements                       | Expand and improve bus bays, passenger facilities, and bus circulation and access paths at all Yellow and Blue Line stations and transit centers in the I-395/ Route 1 corridor.   | Transit                      | Bike-Ped               | Multi-<br>jurisdictional |
| 130                       | Route 7 Widening:<br>Battlefield Parkway<br>to Leesburg Eastern<br>Town Limit           | Widen Route 7 from six to eight lanes between Battlefield Parkway and Leesburg eastern town limits.  | Roadway                      |                        | Town of<br>Leesburg      |
| 131                       | Interchange<br>Improvements at<br>Route 15 Leesburg<br>Bypass and Edwards<br>Ferry Road | Construct a grade-separated interchange at Route 15<br>Leesburg Bypass and Edwards Ferry Road in Leesburg.<br>Includes grade-separated interchange at Fort Evans<br>Road intersection.   | Interchange/<br>Intersection |                        | Town of<br>Leesburg      |
| 133                       | Falls Church<br>Enhanced Bus<br>Service   | Enhance bus service along Route 29 and Route 7 in the City of Falls Church, including all day service, 15-minute frequency, bus shelters with real-time information, additional vehicles required to operate the service, maintenance/storage facilities, mobility hubs, bus stops and access facilities.  | Transit                      |                        | City of Falls<br>Church  |
| 134                       | Falls Church<br>Enhanced Regional<br>Bike Routes (W&OD)                                 | Enhance regional bike routes (W&OD), including separate trails for walking and bicycling, updated crossings to increase safety, and lighting to keep trail open all year.  | Bike-Ped                     |                        | City of Falls<br>Church  |
| 135                       | Fairfax Boulevard<br>Multimodal<br>Improvements   | Implement multimodal improvements and improve local connections along Fairfax Boulevard. Enhance transit, pedestrian/bicycle, and roadway facilities and infrastructure.   | Bike-ped                     | Roadway                | City of Fairfax          |
| 136                       | Jermantown Road<br>Multimodal<br>Improvements   | Implement multimodal improvements and improve local connections along Jermantown Road. Enhance transit, pedestrian/bicycle, and roadway facilities and infrastructure. Includes widening of Jermantown Road to four lanes south of the I-66 bridge as well as extension of Government Center Parkway. May include participation with Fairfax County on widening of bridge over I-66. | Roadway                      | Bike-Ped               | City of Fairfax          |
| 137                       | Route 123<br>Multimodal<br>Improvements   | Implement multimodal improvements, improve intersections and local connections, and improve transit service along Route 123. Enhance transit, pedestrian/bicycle, and roadway facilities and infrastructure including customer information, bus stop amenities, and pedestrian access. This includes intersection improvements at Eaton Pl and RT123.                                | Interchange/<br>Intersection | Transit                | City of Fairfax          |
| 138                       | Old Lee Highway<br>Multimodal<br>Improvements   | Implement multimodal improvements along Old Lee<br>Highway. Enhance transit, pedestrian/bicycle, and<br>roadway facilities and infrastructure.   | Bike-Ped                     | Roadway                | City of Fairfax          |
| 139                       | Fairfax Citywide<br>Pedestrian/ Bicycle<br>Access                                       | Improve on- and off-road bicycle and pedestrian facilities, routes, and infrastructure along and adjacent to City of Fairfax corridors to provide better access to Metrorail and regional trails. Expand bikesharing, bike storage, and signage. Includes the extension/construction of the George Snyder Trail and other trails.  | Bike-ped                     |                        | City of Fairfax          |



| nsAction<br>oject ID | Project Name  | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type       | Physical<br>Location |
|----------------------|---|--|------------------------------|------------------------------|----------------------|
| 140                  | Northfax Network<br>Improvements  | Improved connections and circulation for all modes near the Northfax intersection. Improvements to and along Fairfax Boulevard in the vicinity of the Northfax intersection including pedestrian/bicycle safety, local access, upgraded infrastructure and new routes. Improve vehicular circulation, access and movements in proximity to the Northfax intersection (Route 29, Route 50, and Route 123). Includes extension of University Drive and improvements to Eaton PI. | Roadway                      | Interchange/<br>Intersection | City of Fairfax      |
| 141                  | Fairfax Circle<br>Intersection<br>Improvements  | Intersection improvements at Fairfax Circle to improve vehicular and pedestrian/ bicycle mobility and safety.  | Interchange/<br>Intersection | Bike-Ped                     | City of Fairfax      |
| 142                  | Northfax<br>Intersection<br>Improvements  | Geometric improvements to intersection including extension of a third northbound lane on Route 123 from Route 29/Route 50 to Eaton Place, the addition of a dual left-turn from southbound Route 123 to eastbound Route 29/ Route 50, the correction of substandard existing lane shifts within the project limits, the extension of turn lanes, and access management improvements, where feasible. Also includes a new drainage system, including a major culvert.           | Interchange/<br>Intersection |                              | City of Fairfax      |
| 143                  | City of Fairfax<br>Transit<br>Enhancements  | Upgrade and construct transit stops and shelters on CUE routes with improved facilities, design, technology, transit signal priority, and/or pedestrian/bicycle access. Expand transit service and purchase additional buses.  | Transit                      |                              | City of Fairfax      |
| 144                  | Ryan Road<br>Widening: Northstar<br>Boulevard (Route<br>659) to Evergreen<br>Mills Road (Route<br>621)    | Widen Ryan Road (Route 772) from two to four lanes<br>from Northstar Boulevard (Route 659) to Evergreen<br>Mills Road (Route 621).   | Roadway                      |                              | Loudoun<br>County    |
| 145                  | Lockridge Road<br>Widening and<br>Extension: Old Ox<br>Road (Route 606) to<br>Waxpool Road<br>(Route 640) | Widen Lockridge Road (Route 789) to four lanes from Old Ox Road (Route 606) to Prentice Drive (Route 1071). Provides access for Loudoun Gateway Metrorail Station. Extend Lockridge Road (Route 789) by constructing four lanes from Prentice Drive (Route 1071) to Waxpool Road (Route 640).  | Roadway                      |                              | Loudoun<br>County    |
| 146                  | Sterling Boulevard<br>Widening: Sully<br>Road (Route 28) to<br>Davis Drive (Route<br>868)                 | Widen Sterling Boulevard (Route 846) from Sully Road (Route 28) to Davis Drive (Route 868) from four to six lanes.   | Roadway                      |                              | Loudoun<br>County    |
| 147                  | Sterling Boulevard<br>Extension: Randolph<br>Drive (Route 1072)<br>to Pacific Boulevard<br>(Route 1036)   | Extend Sterling Boulevard (Route 846) by constructing four lanes from Randolph Drive (Route 1072) to Pacific Boulevard (Route 1036).   | Roadway                      |                              | Loudoun<br>County    |
| 148                  | Pacific Boulevard<br>Extension: Old Ox<br>Road (Route 606) to<br>Innovation Avenue<br>(Route 209)         | Extend Pacific Boulevard (Route 28 West Collector Road) from Old Ox Road (Route 606) to Innovation Avenue (Route 209). Widen and construct six-lane roadway. Potential modification to existing interchange Route 28 and Innovation Avenue.  | Roadway                      | Interchange/<br>Intersection | Loudoun<br>County    |



| TransAction<br>Project ID | Project Name  | Project Description  | Primary<br>Mode Type | Secondary<br>Mode Type       | Physical<br>Location                |
|---------------------------|---|--|----------------------|------------------------------|-------------------------------------|
| 149                       | Russell Branch<br>Parkway Widening:<br>Pacific Boulevard<br>(Route 1036) to<br>Claiborne Parkway<br>(Route 901)               | Widen Russell Branch Parkway (Route 7 South Collector<br>Road) between Pacific Boulevard (Route 1036) and<br>Claiborne Parkway (Route 901). Widen and construct a<br>six-lane roadway.   | Roadway              |                              | Loudoun<br>County                   |
| 150                       | Prentice Drive:<br>Loudoun County<br>Parkway to<br>Lockridge Road<br>(Route 789)  | Extend Prentice Drive west by constructing four lanes from Lockridge Road (Route 789) to Loudoun County Parkway. This project provides for the planning, design, right-of-way acquisition, and construction of Prentice Drive (Route 1071) from Loudoun County Parkway (Route 607) to Lockridge Road (Route 789).    | Roadway              |                              | Loudoun<br>County                   |
| 151                       | •   | This project provides for the planning, design, right-of-way acquisition, and construction of Prentice Drive (Route 1071) from Loudoun County Parkway (Route 607) to Shellhorn Road (Route 643) at its intersection with Metro Center Drive and a new road, Lockridge West, between Prentice Drive and Waxpool Road. | Roadway              |                              | Loudoun<br>County                   |
| 153                       | Gloucester Parkway<br>Widening: Sully<br>Road (Route 28) to<br>Loudoun County<br>Parkway (Route 607)                          | Widen Gloucester Parkway (Route 2150) from four to six<br>lanes between Sully Road (Route 28) and Loudoun<br>County Parkway (Route 607).   | Roadway              |                              | Loudoun<br>County                   |
| 154                       | Riverside Parkway<br>Widening/<br>Extension: Loudoun<br>County Parkway<br>(Route 607) to<br>Belmont Ridge Road<br>(Route 659) | Widen and complete Riverside Parkway (Route 2401) from four to six lanes between Loudoun County Parkway (Route 607) and Belmont Ridge Road (Route 659).  | Roadway              |                              | Loudoun<br>County                   |
| 155                       | Route 28 Widening:<br>Fairfax County line<br>to Old Ox Road<br>(Route 606)  | Widen Route 28 from six to ten lanes between Fairfax County line and Old Ox Road (Route 606). Study of alternative uses, such as HOV or bus lanes, to be considered.   | Roadway              |                              | Loudoun<br>County                   |
| 156                       | Construct Compass<br>Creek Parkway:<br>Dulles Greenway<br>Exit 2B to Crosstrail<br>Boulevard (Route<br>653)                   | Construct four-lane (Compass Creek Parkway) between<br>Battlefield Parkway and Crosstrail Boulevard (Route<br>653) just east of Route 267.   | Roadway              |                              | Multi-<br>jurisdictional            |
| 157                       | Construct Arcola<br>Boulevard: Loudoun<br>County Parkway<br>(Route 607) to<br>Route 50  | Construct Arcola Boulevard between Loudoun County Parkway (Route 607) (near intersection of Arcola Road and Old Ox Road) and Route 50. Construct six lanes. Construct grade-separated interchanges at Loudoun County Parkway and Route 50.   | Roadway              | Interchange/<br>Intersection | Loudoun<br>County                   |
| 158                       | Battlefield Parkway<br>Widening/<br>Extension: Edwards<br>Ferry Road to Route<br>15   | Widen Battlefield Parkway to six lanes from Edwards<br>Ferry Road to Route 15<br>(South King Street opposite Meade Drive).   | Roadway              |                              | VDOT/Town<br>of Leesburg<br>Project |



| TransAction<br>Project ID | Project Name  | Project Description   | Primary<br>Mode Type | Secondary<br>Mode Type       | Physical<br>Location     |
|---------------------------|---|---|----------------------|------------------------------|--------------------------|
| 159                       | Route 28 Widening:<br>Route 7 to Old Ox<br>Road (Route 606)   | Widen Route 28 (Sully Road) from six to eight lanes<br>between Old Ox Road (Route 606) and Route 7<br>(Leesburg Pike). Study of alternative uses, such as HOV<br>or bus lanes, to be considered.  | Roadway              |                              | Loudoun<br>County        |
| 160                       | Dulles West<br>Boulevard –<br>Northstar Boulevard<br>to Arcola Boulevard  | Widen Dulles West Boulevard from four to six lanes between Northstar Blvd and Arcola Boulevard.   | Roadway              |                              | Loudoun<br>County        |
| 161                       | Dulles West<br>Boulevard<br>Extension: Northstar<br>Boulevard (Route<br>659) to Lenah Loop<br>Road  | Construct Dulles West Boulevard (formerly Glascock<br>Boulevard) between Northstar Boulevard (Route 659<br>relocated) and Lenah Loop Road. Construct a two-lane<br>roadway.   | Roadway              |                              | Loudoun<br>County        |
| 163                       | Route 7 Widening:<br>Route 15 (Leesburg<br>Bypass) to Atlantic<br>Boulevard (Route<br>1902)   | Widen Route 7 (Leesburg Pike) to eight lanes between Route 15 (Leesburg Bypass) and Atlantic Boulevard (Route 1902). Study of alternative uses (bus lanes, HOV) to be considered for segment between Route 28 and Leesburg Bypass.  | Roadway              |                              | Loudoun<br>County        |
| 165                       | Construct Purcellville Route 7 North Collector Road: Eastern Purcellville JLMA Boundary (East of Route 287/Berlin Turnpike) to Hillsboro Road (Route 690) | Construct Purcellville Route 7 North Collector Road between the eastern Purcellville JLMA boundary (east of Route 287/Berlin Turnpike) and Hillsboro Road (Route 690). Construct a four-lane roadway.   | Roadway              |                              | Loudoun<br>County        |
| 166                       | Route 50 Widening:<br>Northstar Boulevard<br>(Route 659) to<br>Lenah Loop Road  | Widen Route 50 (Little River Turnpike) to four lanes<br>between Northstar Boulevard (Route 659 relocated) and<br>Lenah Loop Road. Construct a new interchange at<br>relocated Route 659 (Northstar Boulevard).  | Roadway              | Interchange/<br>Intersection | Loudoun<br>County        |
| 167                       | Innovation Avenue<br>Widening: Route 28<br>(Sully Road) to<br>Fairfax County Line   | Widen Innovation Avenue (Route 209) between Route 28 (Sully Road) and Fairfax County line from four to six lanes. Road to be realigned along northern boundary of Dulles World Center site. Includes connection to Rock Hill Road (Route 605). Potential future modification to existing interchange at Route 28 and Innovation Avenue. | Roadway              |                              | Loudoun<br>County        |
| 168                       | Route 7 Widening:<br>West Market Street<br>(Route 7 Business)<br>to Charles Town Pike<br>(Route 9)  | Widen Route 7 (Leesburg Pike) from six to eight lanes<br>between West Market Street (Route 7 Business) and<br>Charles Town Pike (Route 9). Construct grade-separated<br>interchange at White Gate Place and remove all<br>remaining at- grade access.   | Roadway              | Interchange/<br>Intersection | Multi-<br>jurisdictional |
| 169                       | Loudoun County<br>Parkway Widening:<br>Old Ox Road (Route<br>606) to Route 50   | Widen Loudoun County Parkway to eight lanes between Old Ox Road (Route 606) and Route 50 (Little River Turnpike). Construct grade-separated interchanges at Old Ox Road and Route 50 and explore other grade-separated interchanges. Study alternative uses (bus lanes, HOV) along the corridor.  | Roadway              | Interchange/<br>Intersection | Loudoun<br>County        |



| TransAction<br>Project ID | Project Name   | Project Description   | Primary<br>Mode Type | Secondary<br>Mode Type       | Physical<br>Location |
|---------------------------|--|---|----------------------|------------------------------|----------------------|
| 170                       | Loudoun County<br>Parkway Widening:<br>Route 50 to<br>Braddock Road<br>(Route 620)                                   | Widen Loudoun County Parkway from four to six lanes<br>between Route 50 (Little River Turnpike) and Braddock<br>Road (Route 620) and construct grade- separated<br>interchange at Route 50.   | Roadway              | Interchange/<br>Intersection | Loudoun<br>County    |
| 171                       | Construct Loudoun<br>County Parkway:<br>Braddock Road<br>(Route 620) to<br>Fairfax County Line                       | Construct Loudoun County Parkway to six lanes between Braddock Road (Route 620) and Fairfax County line.  | Roadway              |                              | Loudoun<br>County    |
| 172                       | Old Ox Road<br>Widening: Route 28<br>to Fairfax County<br>Line   | Widen Old Ox Road (Route 606) to six lanes between Route 28 (Sully Road) and Fairfax County line / Herndon town limits.   | Roadway              |                              | Loudoun<br>County    |
| 173                       | Route 7 Bypass<br>Widening: Route 9<br>(Charles Town Pike)<br>to Route 7 Business<br>(West Loudoun<br>Street)        | Widen Route 7 Bypass (Leesburg Pike) from four to six lanes between Route 9 (Charles Town Pike) and Route 7 Business (West Loudoun Street). Construct gradeseparated interchanges at Hillsboro Road (Route 690) and west of Round Hill at Route 7 Business (West Loudoun Street). | Roadway              | Interchange/<br>Intersection | Loudoun<br>County    |
| 174                       | Old Ox Road<br>Widening: Route 28<br>to Dulles Greenway<br>(Route 267)   | Widen Old Ox Road (Route 606) to six lanes between Route 28 (Sully Road) and Dulles Greenway (Route 267).   | Roadway              |                              | Loudoun<br>County    |
| 175                       | Loudoun County<br>Parkway Widening:<br>George Washington<br>Boulevard (Route<br>1050) to Waxpool<br>Road (Route 625) | Widen Loudoun County Parkway (Route 607) to six lanes from George Washington Boulevard (Route 1050) to Waxpool Road (Route 625).  | Roadway              |                              | Loudoun<br>County    |
| 176                       | Loudoun County Parkway Widening: Waxpool Road (Route 625) to Dulles Greenway (Route 267)                             | Widen Loudoun County Parkway (Route 607) to six lanes from Waxpool Road (Route 625) to Dulles Greenway (Route 267).   | Roadway              |                              | Loudoun<br>County    |
| 177                       | Loudoun County<br>Parkway Widening:<br>Old Ox Road (Route<br>606) to Dulles<br>Greenway (Route<br>267)               | Widen Loudoun County Parkway from four to six lanes<br>between Dulles Greenway (Route 267) and Old Ox Road<br>(Route 606), near existing Arcola Boulevard.  | Roadway              |                              | Loudoun<br>County    |
| 178                       | Braddock Road<br>Widening: Northstar<br>Boulevard to Fairfax<br>County Line  | Widen Braddock Road (Route 620) from two to four lanes between Northstar Boulevard and Fairfax County line.   | Roadway              |                              | Loudoun<br>County    |
| 179                       | Arcola Mills Drive<br>Widening: Loudoun<br>County Parkway<br>(Route 606) to<br>Northstar Boulevard<br>(Route 659)    | Widen Arcola Mills Drive (Route 621) from two to four lanes between Loudoun County Parkway (Route 606) and Northstar Boulevard (Route 659).   | Roadway              |                              | Loudoun<br>County    |



| TransAction<br>Project ID | Project Name   | Project Description   | Primary<br>Mode Type | Secondary<br>Mode Type       | Physical<br>Location |
|---------------------------|--|---|----------------------|------------------------------|----------------------|
| 180                       | Evergreen Mills<br>Road Widening:<br>Northstar Blvd to<br>Battlefield Parkway                              | Widen Evergreen Mills Road (Route 621) from two to<br>four lanes between Shreveport Drive (Relocated Route<br>621) Northstar Blvd and Battlefield Parkway.  | Roadway              |                              | Loudoun<br>County    |
| 181                       | Evergreen Mills<br>Road Widening: Old<br>English Yew Place to<br>Route 15                                  | Widen Evergreen Mills Road (Route 621) from two to<br>four lanes between Old English Yew Place and Route 15<br>(South King Street)  | Roadway              |                              | Loudoun<br>County    |
| 182                       | Waxpool Road<br>Widening: Church<br>Road to Ashburn<br>Road (Route 641)                                    | Widen Waxpool Road (Route 625) to six lanes between Church Road and Ashburn Road (Route 641).   | Roadway              |                              | Loudoun<br>County    |
| 183                       | Sycolin Road<br>Widening: Belmont<br>Ridge Road (Route<br>659) to Southern<br>Leesburg Corporate<br>Limits | Widen Sycolin Road (Route 625) to four lanes between<br>Belmont Ridge Road (Route 659) and Southern Leesburg<br>Corporate Limits. Realign Sycolin Road to accommodate<br>expansion of Leesburg Airport.                                 | Roadway              |                              | Loudoun<br>County    |
| 184                       | Shellhorn Road:<br>Loudoun County<br>Parkway (Route 607)<br>to Randolph Drive<br>(Route 1072)              | This project provides for the planning, design, right-of-<br>way acquisition, and construction of Shellhorn Road<br>(Route 643) between Loudoun County Parkway (Route<br>607) and Randolph Drive (Route 1072). Construct four<br>lanes. | Roadway              |                              | Loudoun<br>County    |
| 185                       | Construct Crosstrail<br>Boulevard (Route<br>653): Route 7 to<br>Dulles Greenway<br>(Route 267)             | Construct missing segments and widen Crosstrail Boulevard (Route 653) to six lanes between East Market Street (Route 7) and the Dulles Greenway (Route 267), and extend Crosstrail Boulevard from the Greenway to Evergreen Mills Road. | Roadway              |                              | Loudoun<br>County    |
| 186                       | Belmont Ridge Road<br>Widening: Riverside<br>Parkway (Route<br>2401) to Route 7                            | Widen Belmont Ridge Road (Route 659) from four lanes to six lanes between Riverside Parkway (Route 2401) and Route 7 (Leesburg Pike).   | Roadway              |                              | Loudoun<br>County    |
| 187                       | Belmont Ridge Road<br>Widening: Croson<br>Lane (Route 645) to<br>Northstar Boulevard<br>(Route 659)        | Widen Belmont Ridge Road (Route 659) from four to six lanes between Croson Lane (Route 645) and Northstar Boulevard / Route 659 split.  | Roadway              |                              | Loudoun<br>County    |
| 188                       | Northstar Boulevard<br>Widening: Tall<br>Cedars Parkway to<br>Braddock Road<br>(Route 620)                 | Widen/Construct Northstar Boulevard (Route 659) to six<br>lanes from Tall Cedars Parkway to Braddock Road<br>(Route 620). Construct grade- separated interchange at<br>Route 50. Potential grade separation at Evergreen Mills<br>Road. | Roadway              | Interchange/<br>Intersection | Loudoun<br>County    |
| 189                       | Relocation Drive<br>Widening: Old Ox<br>Road (Route 606) to<br>Pacific Boulevard<br>(Route 1036)           | Widen Relocation Drive (Route 775) from two to four lanes between Old Ox Road (Route 606) and Pacific Boulevard (Route 1036).   | Roadway              |                              | Loudoun<br>County    |



| TransAction<br>Project ID | Project Name  | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type       | Physical<br>Location                               |
|---------------------------|---|--|------------------------------|------------------------------|--|
| 190                       | Construct<br>Interchange at<br>Loudoun County<br>Parkway and Arcola<br>Boulevard                    | Construct grade-separated interchange at Loudoun County Parkway and Arcola Boulevard.  | Interchange/<br>Intersection |                              | Loudoun<br>County                                  |
| 191                       | Route 15 Bypass<br>Widening:<br>Battlefield Parkway<br>to Montresor Road.                           | Widen Route 15 Bypass to four lanes from Battlefield Parkway interchange to Montresor Road.  | Roadway                      |                              | Multi-<br>jurisdictional-<br>Catoctin,<br>Leesburg |
| 192                       | Improve Interchange<br>at Route 28 and Old<br>Ox Road (Route 606)                                   | Improve grade-separated interchange at Route 28 and Old Ox Road (Route 606).   | Interchange/<br>Intersection |                              | Loudoun<br>County                                  |
| 195                       | Landmark Transit<br>Station<br>Improvements   | Construct a transit center on the Landmark Mall site. Construct transit commuter hub or kiosk at the future West End Transit Center. Improve pedestrian and bicycle connectivity to the transit center.  | Transit                      | Bike-Ped                     | City of<br>Alexandria                              |
| 196                       | Arlandria/Del<br>Ray/Lynhaven/<br>Potomac Yard<br>Roadway and<br>Bicycle/Pedestrian<br>Improvements | Traffic improvements for the intersection of Mount Vernon Avenue and Glebe Road, including signalization, accommodation for pedestrians, and turn lane channelization. Construct improvements at Mount Vernon Avenue and Four Mile Road intersection, including pedestrian/bicycle improvements. Construct pedestrian/bicycle bridge over Four Mile Run between Commonwealth Avenue and Eads Street. Construct Mount Vernon Avenue and Russell Road intersection safety improvements to accommodate pedestrian and bicyclists, which may entail intersection and parking configuration redesign. Construct other safety and accessibility improvements north of Glebe Road. Construct a pedestrian/ bicycle link from the Potomac Yard Trail to connect to the Four Mile Run Trail on the south side of Four Mile Run, and to the Mount Vernon Trail. Construct Oakville Triangle improvement projects. Construct a green street on Commonwealth Avenue. | Bike-ped                     | Interchange/<br>Intersection | City of<br>Alexandria                              |
| 197                       | West End Alexandria<br>Roadway<br>Improvements  | Extend Library Lane north to connect Van Dorn Street. Construct ellipse at Beauregard Street and Seminary Road. Replace shared left/thru-turn lanes along Van Dorn Street with separate left-turn lanes. Add protected, permissive left-turn lane along Van Dorn Street. Widen Van Dorn Street Bridge over Duke Street to accommodate pedestrians. Replace shared left/thru-turn lanes along Van Dorn Street with separate left-turn lanes. Construct new roadway along Fairfax County line to connect Edsall Road, South Pickett Street, Farrington Avenue. Intersection improvements along Van Dorn Street at Eisenhower Avenue, Edsall Road, and Pickett Street. Straighten Eisenhower Avenue. Construct new High Street addition as part of Alexandria's Landmark Van Dorn Area Plan. Redesign Duke Street and North Van Dorn Street including a shared use path.  | Roadway                      | Interchange/<br>Intersection | City of<br>Alexandria                              |
| 198                       | Vienna Regional<br>Bikesharing  | Implement bike rental stations in Town of Vienna in coordination with wider County and regional system.  | Bike-Ped                     |                              | Town of<br>Vienna                                  |



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|---------------------------|---|---|----------------------|------------------------|--------------------------|
| 199                       | Vienna Metrorail<br>Access<br>Improvements  | Improve access to Metrorail and encourage mass transit use by completing all sidewalks within a half-mile of Vienna and Tysons Metrorail Stations. Also, provide a trolley or circulator bus along Maple Avenue (Route 123) to connect with Vienna Metrorail Station and Metrorail Silver Line in Tysons. A parking garage would be provided along the route. Includes "Walk to Metro" and "Commercial Transit, Metro Access, and Parking" projects.                            | Transit              | Bike-Ped               | Town of<br>Vienna        |
| 200                       | New Central and<br>East Prince William<br>County to Pentagon<br>and DC OmniRide           | Implement new transit route between Central and East Prince William County, Pentagon, and downtown DC via the I-95 HOV lanes. Requires four additional buses. Include central/eastern PWC commuter bus destinations of Alexandria/Eisenhower Ave., NoMA, DHS-St. Elizabeth's Facility/JBAB. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities. | Transit              |                        | Multi-<br>jurisdictional |
| 201                       | New Manassas to<br>Dulles OmniRide  | Implement new transit service from Manassas to Dulles Airport via Route 28. Requires additional four buses. Route 28 commuter services serving Cities of Manassas and Manassas Park to Dulles Corridor. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.   | Transit              |                        | Multi-<br>jurisdictional |
| 202                       | New Gainesville and<br>Haymarket to Dulles<br>OmniRide                                    | Implement new transit service from Gainesville and Haymarket to Dulles Airport via I-66 HOV lanes and Route 28. Requires two additional buses. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.  | Transit              |                        | Multi-<br>jurisdictional |
| 203                       | Metrorail Station<br>Improvements<br>within the City of<br>Alexandria                     | Redesign kiss-and-ride at Van Dorn is completed. Accommodation of West End Transitway at the Van Dorn Metrorail Station needs further consideration. Improvements to the Eisenhower Avenue Metrorail Station to accommodate East Eisenhower development, including renovation of existing bus loop, new pedestrian plaza, new bus shelter canopies, and real-time bus arrival info displays, as needed to accommodate overflow from nearby stations.                            | Transit              | Bike-Ped               | City of<br>Alexandria    |
| 204                       | I-66 Spot<br>Improvements -<br>Spot 3 (Lee Highway<br>to off-ramp on<br>North Glebe Road) | Construct an auxiliary lane connecting on-ramp from Lee Highway to off-ramp on North Glebe Road on westbound I-66.  | Roadway              |                        | Fairfax<br>County        |
| 205                       | Greensboro Drive<br>Extension: Spring<br>Hill Road to Tyco<br>Road                        | Extend Greensboro Drive from Spring Hill Road to Tyco<br>Road.  | Roadway              |                        | Fairfax<br>County        |



| TransAction<br>Project ID | Project Name  | Project Description   | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location        |
|---------------------------|---|---|------------------------------|------------------------|-----------------------------|
| 206                       | I-495 Overpass at<br>Tysons Corner<br>Center  | Construct new bridge crossing over Capital Beltway between Tysons Corner Center ring road and Old Meadow Road to facilitate travel within Tysons.   | Roadway                      |                        | Fairfax<br>County           |
| 207                       | Interchange<br>Improvements at<br>Route 267 and<br>Route 123                                    | Reconstruct interchange at Route 267 and Route 123 to provide connections to a new street grid.   | Interchange/<br>Intersection |                        | Fairfax<br>County           |
| 208                       | Underpass at<br>Intersection of<br>Route 123,<br>Lewinsville Road,<br>and Great Falls<br>Street | Construct a grade-separated underpass at the intersection of Route 123, Lewinsville Road, and Great Falls Street.   | Interchange/<br>Intersection |                        | Fairfax<br>County           |
| 209                       | Interchange<br>Improvements at<br>Route 123 and<br>Route 7                                      | Reconstruct interchange between Route 7 and Route 123 in Tysons.  | Interchange/<br>Intersection |                        | Fairfax<br>County           |
| 210                       | Modified<br>Intersections on<br>Route 123:<br>International Drive<br>to Dulles Toll Road        | Modify intersections and construct displaced left turns on Route 123 from International Drive to Dulles Toll Road.  | Interchange/<br>Intersection |                        | Fairfax<br>County           |
| 211                       | Widen Auxiliary<br>Lanes on I-495:<br>Heming Avenue to<br>Georgetown Pike                       | Widen auxiliary lanes along various segments of I-495 from north of Heming Avenue underpass to Georgetown Pike. Reconstruct the I-495 auxiliary lane from Route 7 to I-66.  | Roadway                      |                        | Fairfax<br>County           |
| 212                       | Reconstruct<br>Interchange at I-495<br>and Route 267  | Relocate Interchange Flyover Ramp at I-495 and Route 267, connecting eastbound Dulles Airport Access Highway to northbound general-purpose lanes. Provide southbound HOT to eastbound HOV and eastbound Dulles Toll Road to northbound HOT movements. Widen eastbound Dulles Toll Road ramp to two lanes. Construct interchange ramp at I-495 and Route 267 from southbound I-495 to westbound Dulles Airport Access Highway. | Interchange/<br>Intersection |                        | Fairfax<br>County           |
| 213                       | Dulles Airport<br>Access Road<br>Widening: Dulles<br>Airport to Route 123                       | Widen Dulles Airport Access Road from Dulles Airport to Route 123.  | Roadway                      |                        | Fairfax<br>County           |
| 214                       | Route 1 Widening:<br>Route 235 North to<br>Route 235 South                                      | Widen Route 1 from four to six lanes from Route 235<br>North/ Sherwood Hall Lane to Route 235 South.  | Roadway                      |                        | Fairfax<br>County           |
| 215                       | Add Northbound<br>Lane on Route 29: I-<br>66 to Conway<br>Robinson Memorial<br>State Forest     | Add northbound lane to Route 29 from I-66 to the entrance to Conway Robinson Memorial State Forest.   | Roadway                      | -                      | Prince<br>William<br>County |
| 216                       | Route 29 Widening:<br>City of Fairfax to I-<br>495  | Widen Route 29 from four to six lanes from the City of Fairfax eastern limit to I-495.  | Roadway                      |                        | Fairfax<br>County           |



| ransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location        |
|--------------------------|--|--|------------------------------|------------------------|-----------------------------|
| 217                      | Route 29 Widening:<br>Waples Mill Road<br>(Route 665) to<br>Pickwick Road  | Widen Route 29 from four to six lanes from Waples Mill<br>Road (Route 665) to Pickwick Road.   | Roadway                      |                        | Fairfax<br>County           |
| 218                      | Route 123/ Route 1<br>Interchange  | Widen Route 123 from four to six lanes from Route 1 to Annapolis Way. Construct interchange/innovative intersection at Route 1 and Route 123. This will include widening of Rt 123. Construct extension of Belmont Bay Drive from Route 1 to Heron's View Way. | Roadway                      |                        | Prince<br>William<br>County |
| 219                      | Route 123<br>Widening: Hooes<br>Road to Braddock<br>Road   | Widen Route 123 from four to six lanes between Hooes Road and Braddock Road.   | Roadway                      |                        | Fairfax<br>County           |
| 220                      | Chain Bridge Road<br>Widening: Route 7<br>to I-495   | Widen Chain Bridge Road (Route 123) from six to eight lanes from Route 7 to I-495.   | Roadway                      |                        | Fairfax<br>County           |
| 222                      | Construct<br>Interchange on<br>Route 234 at Sudley<br>Manor Drive and<br>Wellington Road                             | Construct interchange at Route 234 and Sudley Manor Drive. Includes Improvements/Overpass at Wellington Road.  | Interchange/<br>Intersection |                        | Prince<br>William<br>County |
| 223                      | Widen/Upgrade/Con<br>vert Fairfax County<br>Parkway to Include<br>HOV Lanes: Dulles<br>Toll Road to I-66             | Widen, upgrade, or convert Fairfax County Parkway (Route 286) to include HOV lanes from Dulles Toll Road (Route 267) to I-66.  | HOV/HOT                      | Roadway                | Fairfax<br>County           |
| 224                      | Construct HOV<br>interchange at<br>Franconia-Springfiel<br>d Parkway and<br>Neuman Street                            | Construct HOV interchange at Franconia-Springfield Parkway (Route 289) and Neuman Street.  | Interchange/<br>Intersection | HOV/HOT                | Fairfax<br>County           |
| 225                      | Upgrade<br>Franconia-Springfiel<br>d Parkway to Include<br>HOV lanes: Rolling<br>Road to Backlick<br>Road            | Upgrade Franconia-Springfield Parkway (Route 289) to include HOV lanes from Rolling Road to Backlick Road.   | ноv/нот                      | Roadway                | Fairfax<br>County           |
| 226                      | Construct Collector-<br>Distributor Road<br>Parallel to Dulles Toll<br>Road: Wiehle<br>Avenue to Spring Hill<br>Road | Construct Collector-Distributor Road that parallels<br>Dulles Toll Road from Wiehle Avenue to Spring Hill<br>Road.   | Roadway                      |                        | Fairfax<br>County           |
| 227                      | Construct Route 234<br>Bypass North: I-66<br>to Route 50   | Construct Route 234 Bypass North from I-66 to Route 50.  | Roadway                      |                        | Multi-<br>jurisdictiona     |
| 228                      | Reston Parkway<br>Widening: South<br>Lakes Drive to Dulles<br>Toll Road (Route<br>267)                               | Widen Reston Parkway from four to six lanes between South Lakes Drive and Dulles Toll Road (Route 267).  | Roadway                      |                        | Fairfax<br>County           |



| TransAction<br>Project ID | Project Name   | Project Description   | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location        |
|---------------------------|--|---|------------------------------|------------------------|-----------------------------|
| 229                       | Telegraph Road<br>Widening: Beulah<br>Street to Franconia<br>Road  | Widen Telegraph Road from two lanes to three and four lanes at various segments between Beulah Street and Franconia Road. | Roadway                      |                        | Fairfax<br>County           |
| 231                       | Boone Boulevard<br>Extension: Chain<br>Bridge Road (Route<br>123) to Ashgrove<br>Lane                        | Construct Boone Boulevard Extension as four lanes from Chain Bridge Road (Route 123) to Ashgrove Lane.                    | Roadway                      |                        | Fairfax<br>County           |
| 232                       | Magarity Road<br>Widening: Route 7<br>to Great Falls Street  | Widen Magarity Road from two to four lanes from Route 7 to Great Falls Street.  | Roadway                      |                        | Fairfax<br>County           |
| 233                       | Construct Eastbound<br>Route 606 Ramp  | Construct Route 606 ramp from Route 606 Eastbound to Lockridge Road northbound.   | Roadway                      |                        | Loudoun<br>County           |
| 234                       | Construct Western<br>Segment of Russell<br>Branch Parkway:<br>Belmont Ridge Road<br>to Tournament<br>Parkway | Construct four lanes of western segment of Russell<br>Branch Parkway from Belmont Ridge Road to<br>Tournament Parkway.    | Roadway                      |                        | Loudoun<br>County           |
| 235                       | Construct University<br>Boulevard:<br>Wellington Road to<br>Sudley Manor Drive                               | Construct four-lane University Boulevard from Wellington Road to Sudley Manor Drive.                                      | Roadway                      |                        | Prince<br>William<br>County |
| 236                       | Reconstruct<br>Interchange at I-95<br>and Van Dorn Street<br>(Route 613)                                     | Reconstruct interchange at I-95 and Van Dorn Street (Route 613).  | Interchange/<br>Intersection |                        | Fairfax<br>County           |
| 237                       | Eastbound Joplin<br>Road Widening: I-95<br>to Route 1  | Widen eastbound Joplin Road (Route 619) from two to four lanes from the I-95 ramp to Route 1.                             | Roadway                      |                        | Prince<br>William<br>County |
| 238                       | Balls Ford Road<br>Widening: Sudley<br>Road to Coppermine<br>Drive   | Widen Balls Ford Road to four lanes from Sudley Road to Coppermine Drive.   | Roadway                      |                        | Prince<br>William<br>County |
| 239                       | Catharpin Road<br>Widening:<br>Heathcote<br>Boulevard to John<br>Marshall Highway                            | Widen Catharpin Road to four lanes from Heathcote<br>Boulevard to John Marshall Highway.                                  | Roadway                      |                        | Prince<br>William<br>County |
| 240                       | Cushing Road<br>Widening: Balls Ford<br>Road to I-66   | Widen Cushing Road to four lanes from Balls Ford Road to I-66.  | Roadway                      |                        | Prince<br>William<br>County |
| 241                       | Dale Boulevard<br>Widening: Route 1<br>to Benita Fitzgerald<br>Drive   | Widen Dale Boulevard to six lanes from Route 1 to Benita Fitzgerald Drive.  | Roadway                      |                        | Prince<br>William<br>County |



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|---------------------------|--|--|----------------------|------------------------|-----------------------------|
| 242                       | Devlin Road<br>Widening:<br>Wellington Road to<br>Linton Hall Road                               | Widen Devlin Road to four lanes from Wellington Road to Linton Hall Road.  | Roadway              |                        | Prince<br>William<br>County |
| 243                       | Dumfries Road<br>Widening:<br>Brentsville Road to<br>Country Club Drive                          | Widen Dumfries Road to six lanes from Brentsville Road to Country Club Drive.  | Roadway              |                        | Prince<br>William<br>County |
| 244                       | Gordon Boulevard<br>Widening: Fairfax<br>County Line to<br>Express<br>Drive/Belmont Bay<br>Drive | Widen Gordon Boulevard to six lanes from Fairfax County line to Express Drive/ Belmont Bay Drive.  | Roadway              |                        | Prince<br>William<br>County |
| 245                       | Gum Spring Road<br>Widening: Loudoun<br>County Line to<br>Sudley Road                            | Widen Gum Spring Road to four lanes from Loudoun County line to Sudley Road.   | Roadway              |                        | Prince<br>William<br>County |
| 246                       | Extend Potomac<br>Shores Parkway:<br>Route 1 to Cherry<br>Hill Road                              | Construct six lane road between Route 1 and River<br>Heritage Boulevard. Extend Potomac Shores Parkway as<br>a four-lane facility from Dunnington Place to Cherry Hill<br>Road.                        | Roadway              |                        | Prince<br>William<br>County |
| 248                       | Hornbaker Road<br>Widening:<br>Wellington Road to<br>Nokesville Road                             | Widen Hornbaker Road to four lanes from Wellington<br>Road to Nokesville Road.   | Roadway              |                        | Prince<br>William<br>County |
| 249                       | I-66 Widening:<br>Fauquier County<br>Line to Antioch<br>Bridge Road                              | Widen I-66 to eight lanes between Fauquier County line and Antioch Bridge Road.  | Roadway              |                        | Prince<br>William<br>County |
| 250                       | Route 15 Widening:<br>Haymarket Town<br>Limits to Route 29                                       | Widen Route 15 to four lanes from Haymarket town limit at John Marshall Highway to Route 29. Project improvements include railroad overpass.   | Roadway              |                        | Prince<br>William<br>County |
| 251                       | Route 1 Widening:<br>Dumfries Road<br>(Route 234) to<br>Cardinal Drive                           | Widen Route 1 to six lanes between Dumfries Road (Route 234) and Cardinal Drive / Neabsco Road.  | Roadway              |                        | Prince<br>William<br>County |
| 252                       | John Marshall<br>Highway Widening:<br>Thoroughfare Road<br>to Route 29                           | Widen John Marshall Highway from two to four lanes<br>between Thoroughfare Road (excluding Town of<br>Haymarket) and Catharpin Road and from four to six<br>lanes between Catharpin Road and Route 29. | Roadway              |                        | Prince<br>William<br>County |
| 253                       | Route 29 Widening:<br>Route 15 to Virginia<br>Oaks Drive   | Widen Route 29 to six lanes between Route 15 and Virginia Oaks Drive.  | Roadway              |                        | Prince<br>William<br>County |
| 254                       | Construct Manassas<br>Battlefield Bypass   | Construct a bypass around Manassas Battlefield<br>National Park in Prince William County between Rt. 234<br>and Fairfax County line.   | Roadway              |                        | Prince<br>William<br>County |



| TransAction<br>Project ID | Project Name  | Project Description   | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location        |
|---------------------------|---|---|----------------------|------------------------|-----------------------------|
| 256                       | Neabsco Road<br>Widening: Route 1<br>to Daniel Ludwig<br>Drive                | Widen Neabsco Road to four lanes between Route 1 and Daniel Ludwig Drive.                             | Roadway              |                        | Prince<br>William<br>County |
| 258                       | Construct North<br>South Road:<br>University Boulevard<br>to Wellington Road  | Construct four-lane North South Road from University Boulevard to Wellington Road.                    | Roadway              |                        | Prince<br>William<br>County |
| 259                       | Old Bridge Road<br>Widening: Colby<br>Drive to Minnieville<br>Road            | Widen Old Bridge Road to six lanes from Colby Drive to Minnieville Road.                              | Roadway              |                        | Prince<br>William<br>County |
| 260                       | Old Carolina Road<br>Widening:<br>Heathcote<br>Boulevard to Route<br>29       | Widen Old Carolina Road to four lanes from Heathcote<br>Boulevard to Route 29.                        | Roadway              |                        | Prince<br>William<br>County |
| 261                       | Old Centreville Road<br>Widening: Fairfax<br>County Line to<br>Route 28       | Widen Old Centreville Road to four lanes between Fairfax County line and Centreville Road (Route 28). | Roadway              |                        | Prince<br>William<br>County |
| 262                       | Opitz Boulevard<br>Widening: Gideon<br>Drive to Route 1                       | Widen Opitz Boulevard to six lanes from Gideon Drive to Route 1.                                      | Roadway              |                        | Prince<br>William<br>County |
| 263                       | Prince William<br>Parkway Widening:<br>I-66 to Brentsville<br>Road            | Widen Prince William Parkway to six lanes from I-66 to Brentsville Road.                              | Roadway              |                        | Prince<br>William<br>County |
| 264                       | Prince William<br>Parkway Widening:<br>Liberia Avenue to<br>Hoadly Road       | Widen Prince William Parkway to six lanes from Liberia<br>Avenue to Hoadly Road.                      | Roadway              |                        | Prince<br>William<br>County |
| 265                       | Construct River<br>Heritage Boulevard:<br>Potomac Shores to<br>Patriot Circle | Construct four-lane River Heritage Boulevard from Potomac Shores to Patriot Circle.                   | Roadway              |                        | Prince<br>William<br>County |
| 266                       | Complete Rollins<br>Ford Road: Linton<br>Hall to Wellington<br>Road           | Complete four-lane Rollins Ford Road from Linton Hall Road to Wellington Road.                        | Roadway              |                        | Prince<br>William<br>County |
| 267                       | Construct Station<br>Road: University<br>Boulevard to Balls<br>Ford Road      | Construct four-lane Station Road from University Boulevard to Balls Ford Road.                        | Roadway              |                        | Prince<br>William<br>County |
| 268                       | Sudley Road<br>Widening: Route 15<br>to Route 29                              | Widen Sudley Road to four lanes from Route 15 to Route 29.  | Roadway              |                        | Prince<br>William<br>County |



| TransAction<br>Project ID | Project Name  | Project Description   | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location        |
|---------------------------|---|---|------------------------------|------------------------|-----------------------------|
| 269                       | Sudley Manor Drive<br>Widening: Prince<br>William Parkway to<br>Sudley Road   | Widen Sudley Manor Drive to six lanes from Prince<br>William Parkway to Sudley Road.  | Roadway                      |                        | Prince<br>William<br>County |
| 270                       | Summit School Road<br>Extension and<br>Widening:<br>Minnieville Road to<br>Telegraph Road                                 | Extend Summit School Road from Minnieville Road to Telegraph Road as a six- lane road.  | Roadway                      |                        | Prince<br>William<br>County |
| 271                       | Telegraph Road<br>Widening: Summit<br>School Road<br>Extension to Prince<br>William Parkway                               | Widen Telegraph Road to six lanes between Summit<br>School Road and Caton Hill Road. Widen Telegraph Road<br>to four lanes between Caton Hill Road and Prince<br>William Parkway (Route 294). | Roadway                      |                        | Prince<br>William<br>County |
| 272                       | Thoroughfare Road<br>Widening: Route 15<br>to McGraws Corner<br>Drive   | Widen Thoroughfare Road to four lanes from Route 15 to McGraws Corner Drive.  | Roadway                      |                        | Prince<br>William<br>County |
| 273                       | Construct Van Buren<br>North Road:<br>Cardinal Drive to<br>Dumfries Road  | Construct four-lane Van Buren North Road from Cardinal Drive to Dumfries Road.  | Roadway                      |                        | Prince<br>William<br>County |
| 274                       | Construct Van Buren<br>South Road:<br>Dumfries Road to<br>Mine Road   | Construct four-lane Van Buren South Road from Dumfries Road to Mine Road.   | Roadway                      |                        | Prince<br>William<br>County |
| 275                       | Vint Hill Road<br>Widening: Fauquier<br>County Line to<br>Schaeffer Lane  | Widen Vint Hill Road to four lanes from the Fauquier<br>County line to Schaeffer Lane.  | Roadway                      |                        | Prince<br>William<br>County |
| 276                       | Wellington Road<br>Widening:<br>Limestone Drive to<br>Godwin Drive  | Widen Wellington Road from two to four lanes between<br>Godwin Drive and Prince William Parkway and widen<br>from two to six lanes between Prince William Parkway<br>and Limestone Drive.     | Roadway                      |                        | Prince<br>William<br>County |
| 277                       | Liberia Avenue<br>Widening: Quarry<br>Road to Route 28  | Widen Liberia Avenue to six lanes from Quarry Road to Centreville Road (Route 28).  | Roadway                      |                        | Multi-<br>jurisdictional    |
| 279                       | Construct Innovative<br>Intersection<br>Improvements/Inter<br>change at Prince<br>William Parkway and<br>Minnieville Road | Construct intersection improvements/interchange at Prince William Parkway and Minnieville Road.   | Interchange/<br>Intersection |                        | Prince<br>William<br>County |
| 280                       | Construct<br>Interchange at<br>Prince William<br>Parkway and<br>Smoketown Road  | Construct interchange at Prince William Parkway and Smoketown Road. Includes innovative intersection/interchange improvements.  | Interchange/<br>Intersection |                        | Prince<br>William<br>County |



| TransAction<br>Project ID | Project Name  | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type       | Physical<br>Location        |
|---------------------------|---|--|------------------------------|------------------------------|-----------------------------|
| 282                       | Route 1 Widening:<br>Occoquan River<br>Bridge to Telegraph<br>Road (Route 235<br>North) | Widen Route 1 to six lanes from Occoquan River Bridge/Fairfax County line to Telegraph Road (Route 235 North).   | Roadway                      |                              | Fairfax<br>County           |
| 283                       | Construct<br>Interchange at<br>Route 234 and<br>Brentsville Road                        | Construct interchange at Route 234 and Brentsville Road.   | Interchange/<br>Intersection |                              | Prince<br>William<br>County |
| 284                       | Construct<br>Interchange at<br>Prince William<br>Parkway and Clover<br>Hill Road        | Construct an interchange at Prince William Parkway (Route 234) and Clover Hill Road. Includes intersection/innovative improvements.  | Interchange/<br>Intersection |                              | Prince<br>William<br>County |
| 285                       | Route 15 Congestion<br>Mitigation<br>Improvements                                       | Implement congestion mitigation improvements, including roundabouts and reduction of left turning movements, on Route 15 north of Leesburg.  | Roadway                      | Interchange/<br>Intersection | Loudoun<br>County           |
| 286                       | Construct Intersection/ Interchange Improvements at Route 1 and Dale Boulevard          | Construct an interchange at Route 1 and Dale Boulevard. Includes intersection/innovative improvements.   | Interchange/<br>Intersection |                              | Prince<br>William<br>County |
| 287                       | Construct<br>interchange at<br>Route 1 and Joplin<br>Road/Fuller Road                   | Construct an interchange at Route 1 and Joplin Road/Fuller Road.   | Interchange/<br>Intersection |                              | Prince<br>William<br>County |
| 288                       | Loudoun Metrorail<br>Station Pedestrian<br>Improvements                                 | Construct sidewalks, crosswalks, shared-use trails, and intersection improvements to improve pedestrian access to Silver Line Metrorail stations (Ashburn and Loudoun Gateway) in Loudoun County.  | Bike-ped                     | Transit                      | Loudoun<br>County           |
| 289                       | Dunn Loring to<br>Ballston Enhanced<br>Bus  | Provide frequent service on Lee Highway and Washington Boulevard from Dunn Loring Metrorail Station in Fairfax County through the City of Falls Church, East Falls Church Metrorail Station, and Washington Boulevard to Ballston Metrorail Station. Includes enhancements on Metrobus 2A route. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, enhanced stops/stations and access facilities, and enforcement of bus lanes. | Transit                      |                              | Multi-<br>jurisdictional    |
| 290                       | Arlington Mobility<br>Hubs  | Develop a system of coordinated mobility hubs along major corridors to fully integrate transit, bikesharing, carsharing, ridesharing, pedestrians, bicycling, ride hailing, and other shared use services.   | Transit                      |                              | Arlington<br>County         |
| 291                       | Off-vehicle Fare<br>Collection  | Develop a system of off-board fare collection for ART and WMATA buses.   | Transit                      | ITS                          | Arlington<br>County         |



| TransAction<br>Project ID | Project Name  | Project Description   | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location        |
|---------------------------|---|---|----------------------|------------------------|-----------------------------|
| 292                       | Route 29<br>Multimodal<br>Improvements                    | Expand multimodal transportation capacity and safety in the Route 29 corridor, providing viable options to move more people without increasing the volume of single-occupant vehicles. Includes addition of bicycle facilities along Route 29 corridor and reconstruction of Route 29 from North Quincy Street to North Kenmore Street.   | Bike-ped             | Roadway                | Arlington<br>County         |
| 293                       | Theodore Roosevelt<br>Bridge HOT lanes                    | District of Columbia project to implement HOT lanes on Theodore Roosevelt Bridge.   | HOV/HOT              | Roadway                | DC                          |
| 294                       | 14th Street Bridge<br>HOT lanes                           | District of Columbia project to implement HOT lanes on 14th Street Bridge.  | HOV/HOT              | Roadway                | DC                          |
| 295                       | Increase Off-peak<br>Transit Service on I-<br>95 Corridor | Add bus trips to the existing service: Lake Ridge-DC, Lake Ridge-Pentagon/ Crystal City; Dale City/Potomac Mills-Pentagon/Crystal City; Dale City/Potomac-Mills/Rosslyn/Ballston; Montclair/Dumfries-Pentagon/DC; Montclair/Dumfries-Pentagon; Dale City/Potomac Mills-Mark Center. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.   | Transit              |                        | Multi-<br>jurisdictional    |
| 296                       | Implement New<br>OmniLink Service                         | Implement new OmniLink routes: Innovation-to-Gainesville/Haymarket; Innovation-to-Manassas; Montclair local. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.  | Transit              |                        | Prince<br>William<br>County |
| 297                       | Widen Long Bridge   | Widen the Long Bridge to four tracks to accommodate additional rail capacity for commuter (VRE), intercity (Amtrak, DC2RVA), and freight (CSXT) services. From LE interlocking to RO interlocking. Related improvements include modifications to existing tracks, modification to or additional signals, bridges, structures.   | Transit              |                        | Multi-<br>jurisdictional    |
| 298                       | VRE Alexandria-DC<br>Rail Capacity<br>Improvements        | a. Construct fourth track LE (L'Enfant) to VA (Virginia interlocking in DC); b. Construct fourth track RO (Rosslyn interlocking) to AF (Alexandria interlocking); c. Alexandria track 1 access/ Slater's Lane crossover;(this sub project is complete) d. Construct Washington Union Station station/access improvements; e. Construct VRE L'Enfant station/access improvements. f. Construct VRE Crystal City station/access improvements; and g. Improvements relating to above including modifications to existing tracks, modification to or additional signals, bridges, structures. | Transit              |                        | Multi-<br>jurisdictional    |



| TransAction<br>Project ID | Project Name  | Project Description  | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location     |
|---------------------------|---|--|----------------------|------------------------|--------------------------|
| 300                       | VRE Manassas Line<br>Rail Capacity<br>Enhancements      | Phase 1: Increase frequencies to 20 min in peak period. In support of this improvement:  a. Construct track capacity enhancements (including modification or expansion of track, signals, bridges, structures, etc.) from Alexandria/AF to Manassas Line terminus, including existing Broad Run VRE station;  b. Purchase additional rolling stock in support of eight-car trains and peak service improvements (TIP reflects purchases for eight-car trains in peak hour, additional needed beyond CLRP commitment);  c. Construct/expand VRE equipment storage and maintenance facilities in Manassas and midday storage in Washington, DC;  d. Construct station/platform, parking and multimodal access improvements at VRE Manassas Line stations, including expansion of existing Broad Run VRE station/parking/multimodal access;  e. Improve information sharing through ITS/TSM enhancements for improved communications. | Transit              |                        | Multi-<br>jurisdictional |
| 301                       | Fredericksburg Line<br>Service Expansion                | Implement VRE service improvements on the Fredericksburg line to reduce headways to 20 minutes in peak period. In support of this improvement: a. Purchase additional rolling stock in support of eightcar trains and peak service improvements; b. Construct/expand VRE equipment storage and maintenance facilities in Fredericksburg and midday storage in Washington, DC; c. Construct station/platform, parking, and access improvements at VRE Fredericksburg Line stations; and d. Improve information sharing through ITS/TSM enhancements for improved communications.  | Transit              | ITS                    | Multi-<br>jurisdictional |
| 302                       | Fredericksburg Line<br>Peak Period Service<br>Expansion | Improve frequencies to 15-minute peak period and new reverse peak period service. In support of this improvement: a. Purchase additional rolling stock; b. Construct/expand VRE equipment storage and maintenance facilities; c. Rail line capacity improvements (including modification or expansion of track, signals, bridges, structures, etc.); d. Station/parking access improvements; and e. ITS/TSM improvements.  | Transit              |                        | Multi-<br>jurisdictional |
| 303                       | Manassas Line Peak<br>Period Service<br>Expansion       | Improve frequencies to 15-minute peak period and new reverse peak period service. In support of this improvement: a. Purchase additional rolling stock; b. Construct/expand VRE equipment storage and maintenance facilities; c. Rail line capacity improvements (including modification or expansion of track, signals, bridges, structures, etc.); d. Station/parking access improvements; and e. ITS/TSM improvements.  | Transit              |                        | Multi-<br>jurisdictional |



| TransAction<br>Project ID | Project Name  | Project Description   | Primary<br>Mode Type | Secondary<br>Mode Type       | Physical<br>Location     |
|---------------------------|---|---|----------------------|------------------------------|--------------------------|
| 304                       | VRE Express Service<br>- Fredericksburg Line  | Implement peak period express service on VRE Fredericksburg Line: a. One express train and three local trains per hour during AM and PM peak periods; and b. Stops at Spotsylvania, Leeland Road, Woodbridge, Alexandria, Crystal City, L'Enfant, and Union Station. c. Additional rolling stock and/or infrastructure improvements including modifications to tracks, signals, bridges, structures, and stations may also be needed to support express service | Transit              |                              | Multi-<br>jurisdictional |
| 305                       | VRE Express Service<br>- Manassas Line  | Implement peak period express service on VRE Manassas Line: a. One express train and three local trains per hour during AM and PM peak periods; and b. Stops at Broad Run, Manassas Park, Burke Centre, Alexandria, Crystal City, L'Enfant, and Union Station. c. Additional rolling stock and/or infrastructure improvements including modifications to tracks, signals, bridges, structures, and stations may also be needed to support express service.      | Transit              |                              | Multi-<br>jurisdictional |
| 306                       | Leesburg Bypass<br>Widening: Route 15<br>to West Market<br>Street   | Widen Route 7 to a six-lane limited access facility from Route 15 to West Market Street interchange.  | Roadway              |                              | Loudoun<br>County        |
| 307                       | Leesburg Bypass<br>Widening: East<br>Market Street to<br>Route 15   | Widen Route 7 / Route 15 to a six-lane limited access facility from the East Market Street interchange to the Route 15 interchange. Includes 715 Bypass/ Rt 15 Business Interchange.  | Roadway              | Interchange/<br>Intersection | Town of<br>Leesburg      |
| 308                       | Route 7 Hot Spot<br>and Safety<br>Improvements:<br>Fairfax County Line<br>to Clark County Line              | Hot spot and safety improvements on Route 7 from the Fairfax County line to the Clarke County line.   | Roadway              |                              | Loudoun<br>County        |
| 309                       | Route 7 Business<br>Hot Spot and Safety<br>Improvements:<br>Route 9 to Round<br>Hill                        | Hot spot and safety improvements on Route 7 Business from Route 9 at Clark's Gap to Route 7 west of Round Hill.   | Roadway              |                              | Loudoun<br>County        |
| 310                       | Route 9 Hot Spot<br>and Safety<br>Improvements:<br>West Virginia State<br>Line to Route 7                   | Hot spot and safety improvements on Route 9 from the West Virginia state line to Route 7.   | Roadway              |                              | Loudoun<br>County        |
| 311                       | Route 15 Hot Spot<br>and Safety<br>Improvements:<br>Prince William<br>County Line to<br>Maryland State Line | Hot spot and safety improvements on Route 15 from the Prince William County line to the Maryland state line.  | Roadway              |                              | Multi-<br>jurisdictional |



| TransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type | Secondary<br>Mode Type       | Physical<br>Location        |
|---------------------------|--|--|----------------------|------------------------------|-----------------------------|
| 312                       | Route 287 Hot Spot<br>and Safety<br>Improvements:<br>Route 7 Business to<br>Maryland State Line                    | Hot spot and safety improvements on Route 287 from Route 7 Business to the Maryland state line.  | Roadway              |                              | Loudoun<br>County           |
| 313                       | Extend Russell<br>Branch Parkway:<br>From Tuscarora<br>Creek/Leesburg<br>Corporate Limits to<br>Belmont Ridge Road | Extend Russell Branch Parkway from Tuscarora<br>Creek/Leesburg Corporate Limits to Belmont Ridge Road<br>as a four-lane road.  | Roadway              |                              | Loudoun<br>County           |
| 314                       | Route 50 Widening<br>and Interchanges:<br>Poland Road to<br>Northstar Boulevard                                    | Widen Route 50 (Little River Turnpike) to six lanes from Poland Road to Northstar Boulevard. Construct new interchanges at/near Tall Cedars Parkway (Route 2200), Route South Riding Boulevard (Route 2201), Loudoun County Parkway (Route 606), Arcola Boulevard/West Spine Road (Route 606 Extended), and Northstar Boulevard (relocated Route 659). Potential grade separation (interchange or overpass) at Pleasant Valley Road (Route 609). | Roadway              | Interchange/<br>Intersection | Loudoun<br>County           |
| 315                       | Belmont Ridge Road<br>Widening:<br>Shreveport Drive to<br>Arcola Mills Drive                                       | Widen Belmont Ridge Road (Route 659) to four lanes from Shreveport Drive to Arcola Mills Drive.  | Roadway              |                              | Loudoun<br>County           |
| 316                       | Gum Spring Road<br>Widening: Dawsons<br>Corner Boulevard to<br>Prince William<br>County Line                       | Widen Gum Spring Road (Route 606 Extended/West<br>Spine Road) to four lanes from Dawsons Corner<br>Boulevard (Route 3326) to the Prince William County<br>line.  | Roadway              |                              | Loudoun<br>County           |
| 317                       | Purchase Loudoun<br>County Transit Buses   | Purchase of buses in support of new Loudoun County express transit service between a new park-and-ride lot at Rt7/Rt 690 and Tysons.   | Transit              |                              | Loudoun<br>County           |
| 318                       | Route 50<br>Improvements:<br>Fairfax County Line<br>to Fauquier County<br>Line                                     | Improvements along Route 50 from the Fairfax County<br>Line to the Fauquier County Line.   | Roadway              |                              | Loudoun<br>County           |
| 319                       | I-66 Corridor Park-<br>and-Ride in Prince<br>William County  | Construct new park-and-ride lots along the I-66 corridor in Prince William County at Innovation, James Madison Arrowleaf, Linton Hall School, and Yorkshire in countyowned lots and Dominion in a privately-owned lot. Expand existing park-and-ride capacity at Limestone Drive and Manassas Mall/Sears in privately- owned lots.   | Transit              | Parking                      | Prince<br>William<br>County |
| 320                       | I-95 Corridor Park-<br>and-Ride in Prince<br>William County  | Expand park-and-ride capacity at Brittany Park, Hillendale, Montclair, Old Bridge/ Minnieville Road in VDOT-owned lots; Old Bridge Festival, Potomac Mills, Prince William Square, Tacketts Mill Shopping Center in privately-owned lots; Old Bridge/Route 1, PRTC Transit Center, Route 234/ Route 1, in county-owned lots. Construct a new park-and-ride lot at Cherry Hill and a new park-and-ride garage at Potomac Center.                  | Transit              | Parking                      | Prince<br>William<br>County |



| TransAction<br>Project ID | Project Name  | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location        |
|---------------------------|---|--|------------------------------|------------------------|-----------------------------|
| 321                       | Pentagon City<br>Metrorail Second<br>Entrance   | Construct second elevator entrance adjacent to Pentagon City Fashion Center Mall.  | Transit                      |                        | Arlington<br>County         |
| 322                       | Shirlington Bus<br>Station Expansion  | Addition of new bus bays at the Shirlington bus station.   | Transit                      |                        | Arlington<br>County         |
| 323                       | Crystal City Bus<br>Improvements  | Improving bus circulation, operations, and safety in the Crystal City area.  | Transit                      |                        | Arlington<br>County         |
| 324                       | Construct Innovative<br>Improvements/<br>Interchange at<br>Prince William<br>Parkway and<br>University Boulevard                | Construct an interchange at Prince William Parkway (Route 234) and University Boulevard. Includes intersection/innovative improvements.  | Interchange/<br>Intersection |                        | Prince<br>William<br>County |
| 325                       | Construct<br>Interchange at<br>Route 1, Dumfries<br>Road (Route 234),<br>and Potomac Shores<br>Parkway                          | Construct a "quadrant at-grade" intersection at Route 1, Dumfries Road (Route 234) and Potomac Shores Parkway.   | Interchange/<br>Intersection |                        | Prince<br>William<br>County |
| 326                       | Construct<br>Intersection<br>Improvements and<br>Interchange at<br>Prince William<br>Parkway (Route 294)<br>and Old Bridge Road | Construct an interchange at Prince William Parkway (Route 294) and Old Bridge Road. Includes intersection/innovative improvements.   | Interchange/<br>Intersection |                        | Prince<br>William<br>County |
| 328                       | I-95 General<br>Purpose Lanes<br>Widening: Occoquan<br>River Bridge to<br>Dumfries Road<br>(Route 234)                          | Widen southbound I-95 to four lanes between the Occoquan River Bridge and Dumfries Road (Route 234) at Exit 152.   | Roadway                      |                        | Prince<br>William<br>County |
| 331                       | Tysons Express Bus  | Implement express bus service between Tysons and Huntington Metrorail Station, and between Tysons and Franconia Springfield Metrorail Station. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities. | Transit                      |                        | Fairfax<br>County           |
| 332                       | Construct Lanes on<br>Reston Parkway:<br>Sunrise Valley Drive<br>to Baron Cameron<br>Avenue                                     | Construct lanes on Reston Parkway from Sunrise Valley<br>Drive to Baron Cameron Avenue.  | Roadway                      |                        | Fairfax<br>County           |
| 333                       | Transit Boulevard<br>along Sycamore<br>Street and Roosevelt<br>Street: East Falls<br>Church Metrorail to<br>Seven Corners       | Transit and pedestrian/bicycle connections along Sycamore Street and Roosevelt Street with a bridge overpass connecting to planned redevelopment in Seven Corners.   | Transit                      | Bike-Ped               | City of Falls<br>Church     |



| TransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location     |
|---------------------------|--|--|------------------------------|------------------------|--------------------------|
| 334                       | Falls Church Metro<br>Station Access   | Multimodal access improvements for the East Falls<br>Church and West Falls Church Metrorail Stations,<br>including pedestrian access, bicycle access and<br>bikesharing stations, and bus access.  | Bike-Ped                     | Transit                | City of Falls<br>Church  |
| 335                       | Falls Church<br>Regional Bicycle<br>Connections                                      | On-street bicycle facilities to connect Falls Church's bicycle network to the W&OD, Arlington County's network and Fairfax County's network.   | Bike-Ped                     |                        | City of Falls<br>Church  |
| 336                       | Braddock Road<br>Intersection<br>Improvements:<br>Guinea Road to<br>Ravensworth Road | Improvements include access management, intersection improvements, signalization, and pedestrian improvements from Guinea Road to Ravensworth Road.  | Interchange/<br>Intersection | Bike-Ped               | Fairfax<br>County        |
| 338                       | I-95 ITS/ICM<br>Improvements   | Implement intelligent transportation systems, adaptive traffic control, and hard shoulder lanes on I-95.   | ITS                          |                        | Multi-<br>jurisdictional |
| 339                       | Northern Virginia<br>ITS/ICM<br>Improvements   | Implement ITS and integrated corridor management strategies on key regional corridors and parallel facilities in Northern Virginia.  | ITS                          |                        | Multi-<br>jurisdictional |
| 340                       | Northern Virginia<br>TDM Strategies  | Implement and expand TDM initiatives and programs in major employment centers within Northern Virginia.  | TDM                          |                        | Multi-<br>jurisdictional |
| 342                       | Route 7 Reversible<br>Lanes: Dulles Toll<br>Road to Route 9                          | Construct reversible lanes on Route 7 between Dulles Toll Road and Route 9.  | Roadway                      |                        | Multi-<br>jurisdictional |
| 343                       | Dulles Greenway<br>Merge Lanes   | Construct additional capacity on Dulles Greenway at merges, particularly at the connections with the Dulles Toll Road, to allow for better operation and weave movements   | Roadway                      |                        | Multi-<br>jurisdictional |
| 344                       | Route 28 Reversible<br>HOV Lanes: I-66 to<br>Dulles Toll Road                        | Implement reversible HOV lanes on Route 28 between I-<br>66 and the Dulles Toll Road during AM and PM peak<br>periods.   | ноv/нот                      | Roadway                | Fairfax<br>County        |
| 345                       | Reston Town Center<br>Express Bus  | Implement Express bus service between Reston Town Center and Fairfax Center via Reston Parkway and West Ox Road. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities. | Transit                      |                        | Fairfax<br>County        |
| 346                       | Rosslyn-Ballston<br>Corridor Priority Bus  | Implement enhanced bus service on Fairfax Drive and Wilson Boulevard between Ballston and Rosslyn. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.               | Transit                      |                        | Arlington<br>County      |
| 347                       | Van Dorn<br>Intermodal Facility  | Construct intermodal facility in the vicinity of Van Dorn<br>Metrorail Station to facilitate transfers between<br>Metrorail, West End Transitway, and local transit<br>service.  | Transit                      |                        | Multi-<br>jurisdictional |
| 348                       | I-495 / I-395 Lane<br>Restrictions   | Implement lane restrictions for commercial trucks on I-495 and I-395 in Virginia.  | Roadway                      |                        | Multi-<br>jurisdictional |
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| ransAction<br>roject ID | Project Name   | Project Description   | Primary<br>Mode Type         | Secondary<br>Mode Type       | Physical<br>Location        |
|-------------------------|--|---|------------------------------|------------------------------|-----------------------------|
| 349                     | Braddock Road<br>Widening: Route 28<br>to Fairfax County<br>Line | Widen Braddock Road to four lanes between Route 28 and the Fairfax County line.   | Roadway                      |                              | Multi-<br>jurisdictional    |
| 350                     | Construct Route 28<br>Bypass                                     | Construct four-lane Route 28 corridor roadway improvements connecting Prince William County, City of Manassas, City of Manassas Park, and Fairfax County.   | Roadway                      |                              | Prince<br>William<br>County |
| 351                     | South Elden St<br>Reconstruction                                 | Reconstruct South Elden Street between Herndon Parkway and Sterling Road. Project includes signalization and capacity improvements at each intersection as well as streetscape, bike, pedestrian and transit access improvements with connections to Centerville Road in Fairfax County.  | Roadway                      | Interchange/<br>Intersection | Town of<br>Herndon          |
| 352                     | Sterling Road<br>Reconstruction                                  | Reconstruct Sterling Road between Elden Street and Rock Hill Road. Project includes signalization and capacity improvements at each intersection as well as streetscape, bike, pedestrian and transit access improvements with connection to Old Ox Road in Loudoun County.   | Roadway                      | Interchange/<br>Intersection | Town of<br>Herndon          |
|                         |  | NEW PROJECTS ADDED TO TRANSACTION (Beginning wit  | h ID # 353)                  |                              |                             |
| 353                     | Roundabout at<br>Route 28 and Sudley<br>Rd                       | Build a roundabout at the intersection of Route 28 and Sudley Road  | Interchange/<br>Intersection | Roadway                      | City of<br>Manassas         |
| 354                     | Route 28-Centreville<br>Road Corridor<br>Improvements            | Innovative intersections along Route 28: restricted crossing U-Turn at Brown Lane, Maplewood Dr, Leeland Road, and Orchard Bridge Drive; Median U-Turn at Yorkshire Lane / Falls Grove Dr. signal modifications; installation of continuous raised median for access control; turn lanes; 5-6 ft sidewalk on east or west side of Route 28 depending on constraints; extension of box culvert north of Leeland; Right-of-way and easement acquisition; associated utility reconfigurations. | Interchange/<br>Intersection | Roadway                      | Multi-<br>jurisdictional    |
| 355                     | Mathis Avenue<br>Extension                                       | Extend Mathis Avenue Northbound from Manassas<br>Drive to Old Centreville Road.   | Roadway                      |                              | Manassas<br>Park            |
| 356                     | City of Falls Church<br>Greenway and<br>Parkway Network          | Provide greenways and parkways through and between City parks, open spaces, and Great Streets through the installation of trails, dedicated bicycle facilities, bikesharing, key sidewalk improvements, and lighting. Provide connectivity to and within the City of Falls Church activity center, connect to the regional transportation network, and reduce auto congestion by reducing auto dependence. Provide first and last mile connection to regional transit.                      | Bike-ped                     |                              | City of Falls<br>Church     |
| 357                     | Bicycle Facility Route<br>7 - City of Falls<br>Church            | Construct a separated bikeway along Route 7 in the City of Falls Church.  | Bike-ped                     |                              | City of Falls<br>Church     |



| TransAction<br>Project ID | Project Name   | Project Description   | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location                          |
|---------------------------|--|---|------------------------------|------------------------|---|
| 358                       | City of Falls Church<br>ITS Projects                                       | Implement ITS - example TSP and others; to better manage traffic flow by including close-circuit TV (CCTV) cameras, improved vehicle and cyclist detection, and other devices to better manage traffic flow and emergency response times. Update and upgrade traffic signal software, server hardware, and various signals throughout the City to meet current standards. | ITS                          |                        | City of Falls<br>Church                       |
| 359                       | City of Falls Church<br>"Park Once and<br>Walk" Garage<br>Network          | City of Falls Church "Park Once and Walk" Garage Network.   | Parking                      |                        | City of Falls<br>Church                       |
| 360                       | City of Falls Church<br>Safe Routes to<br>School                           | Implement infrastructure to support a Safe Routes to School program in the City of Falls Church, to reduce congestion caused by driving children to and from school. Manage travel demand during peak travel times. Implement new or improved bicycle and pedestrian facilities within 1 mile of school campus. Includes crossing of major thoroughfares.                 | Bike-ped                     |                        | City of Falls<br>Church                       |
| 361                       | City of Falls Church<br>TDM Program  | Implement and expand TDM initiatives and programs in the City of Falls Church.  | TDM                          |                        | City of Falls<br>Church                       |
| 362                       | City of Falls Church<br>Access to Transit                                  | Construct new bus shelters in the City of Falls Church.<br>Project also includes improved pedestrian and bicycle<br>connections to bus stops and shelters.  | Transit                      | Bike-Ped               | City of Falls<br>Church                       |
| 363                       | Eisenhower East<br>Improvements  | Improve bicycle and pedestrian access to Eisenhower East Metro. Construct Telegraph Road Bicycle & Pedestrian Tunnel.   | Bike-ped                     | Roadway                | City of<br>Alexandria                         |
| 364                       | Upper King Street<br>Multimodal<br>Redesign (Quaker<br>Lane to N. Hampton) | Redesign the streetscape, while adding new sidewalks along the north and south sides of King Street, including over I-395, where missing. This project improves important pedestrian safety and connectivity along a street with higher volumes and speeds, and a history of pedestrian fatalities.   | Bike-Ped                     | Roadway                | City of<br>Alexandria                         |
| 365                       | South Patrick Street<br>Pedestrian<br>Improvements                         | Extending S. Patrick Street median south of Franklin Street/other traffic calming.  | Bike-Ped                     | Roadway                | City of<br>Alexandria                         |
| 366                       | Duke Street at West<br>Taylor Run<br>Intersection<br>Improvements          | Redesign of the West Taylor Run Parkway intersection to reduce congestion and improve pedestrian, bike and transit access / safety, as well as additional access to Telegraph Road interchange.   | Interchange/<br>Intersection | Bike-Ped               | City of<br>Alexandria                         |
| 367                       | Improvements to<br>Expand Ferry<br>Capacity                                | Includes improvements at the existing ferry terminal as well as a new ferry terminal in Old Town North.   | Transit                      |                        | City of<br>Alexandria                         |
| 368                       | West Glebe Road<br>Bridge<br>Improvements                                  | Improvement of West Glebe Road Bridge over Four Mile Run to include new bicycle lanes and improved pedestrian improvements. This will include improvements to the S Glebe and W Glebe intersection and the approaches to the bridge.  | Roadway                      |                        | City of<br>Alexandria/Ar<br>lington<br>County |



| TransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type         | Secondary<br>Mode Type       | Physical<br>Location  |
|---------------------------|--|--|------------------------------|------------------------------|-----------------------|
| 369                       | I-395 Interchange<br>Improvements at<br>Shirlington  | Improvement that meets the following objectives and parameters:  - Addresses locations with high crash frequency or severity.  - Addresses locations with existing or forecasted future traffic congestion or operational issues.  - Identify substandard or missing pedestrian and bicycle facilities.  - Identify improvement projects that maintain existing roadway access locations.  - Can be implemented in the near term—with no (or limited) right-of-way required and minimal utility impacts.  - Identify projects with low construction costs. | Interchange/<br>Intersection |                              | City of<br>Alexandria |
| 370                       | Mobility Hub<br>Program<br>(Alexandria)  | Design and construct mobility hubs in strategic locations that include wayfinding and placemaking elements, while bringing together transit, bikeshare, scooters, carshare, and other modes into single locations to address the first/last mile problem. Examples of sites include all Metrorail stations and Landmark Mall Transit Center.   | Bike-Ped                     | Transit                      | City of<br>Alexandria |
| 371                       | King St-Old Town<br>Metro Station<br>Tunnel to Union<br>Station                                | Design and construct a pedestrian tunnel to connect between the King St-Old Town Metrorail Station and the Union Station. Consider an extension of the tunnel being constructed at Union Station to access platforms, to King St-Old Town Metro Station. This project could be coordinated with construction of the DC2RVA (Atlantic Gateway) project.   | Transit                      | Bike-Ped                     | City of<br>Alexandria |
| 372                       | Sidewalk and Trail<br>Additions to Provide<br>Multimodal<br>Connections to<br>Activity Centers | Sidewalk and trail additions to provide multimodal connections to activity centers including One Loudoun, Dulles Town Center, Kincora, Ashburn Station, Loudoun Gateway Station, Dulles 28, Innovation Station, and Arcola.  | Bike-ped                     |                              | Loudoun<br>County     |
| 373                       | Route 236 (Main<br>Street) Multimodal<br>Improvements  | Implement multimodal improvements, improve intersections and local connections, and improve transit service along Route 236. Enhance transit, pedestrian/bicycle, and roadway facilities and infrastructure.   | Interchange/<br>Intersection | Bike-Ped                     | City of Fairfax       |
| 374                       | Old Town<br>Multimodal<br>Improvements   | Implement multimodal improvements, improve intersections and local connections, and improve transit service in the Old Town. Enhance transit, pedestrian/bicycle, and roadway facilities and infrastructure.   | Roadway                      | Interchange/<br>Intersection | City of Fairfax       |
| 375                       | Blake Lane/Pickett<br>Lane Multimodal<br>Improvements  | Implement multimodal improvements, improve intersections and local connections, and improve transit service along Blake Lane/Pickett Lane. Enhance transit, pedestrian/bicycle, and roadway facilities and infrastructure. Includes intersections with Route 50 and Route 29.  Still need to complete is better pedestrian/bike accommodations between this intersection and Metro, and in particular at the actual Pickett/50 intersection.   | Bike-Ped                     | Interchange/<br>Intersection | City of Fairfax       |



| TransAction<br>Project ID | Project Name                               | Project Description   | Primary<br>Mode Type | Secondary<br>Mode Type       | Physical<br>Location        |
|---------------------------|--|---|----------------------|------------------------------|-----------------------------|
| 376                       | Widening Route 28                          | Widen Route 28 from 4 to 6 lanes from City of Manassas to Fairfax County. Includes Innovative Intersection Improvements.  | Roadway              | Interchange/<br>Intersection | Prince<br>William<br>County |
| 377                       | North Woodbridge<br>Improvements           | Construct multimodal network to connect three core areas of North Woodbridge to Route 1, Interstate 95, Park and Ride lots and the Woodbridge VRE Station. Includes construction of urban roads at the planned town center to facilitates a balance of mode share, construction of a spine road extending Marina Way (from Annapolis Way to Route 123/Gordon Blvd) to create a parallel facility to Route 1 and I-95, and widening/improvements to roadways connecting North Woodbridge to larger network.  | Roadway              |                              | Prince<br>William<br>County |
| 378                       | Dale City                                  | Construct a multimodal network that expands and connects mobility hubs. Planned improvements include the construction of multimodal transit hubs, enhancing transit service and first/last mile connections to transit and improvements along Dale Blvd and other major roadways connecting Dale City to Route 1 and I-95. This includes the extension of Ridgefield Road south of Dale Blvd for approximately 0.1 mile and construction of a new road connecting the Ridgefield extension to Mapledale Avenue approximately 0.3 miles to the West. | Roadway              | Bike-Ped                     | Prince<br>William<br>County |
| 379                       | The Landing in<br>Prince William<br>County | Construct a multimodal network to enhance connectivity between The Landing and the regional transit and roadway network. Includes construction of a Transit Center to serve existing VDOT commuter lots, transit service expansion and first/last mile connections, extension of Omisol Road and construction of Longpointe Blvd from Minnieville Road to connect to the Horner Road Commuter Lot, and improvements to Caton Hill, Telegraph/Summit School Rd and other roadways connecting The Landing to Prince William Parkway and I-95.         | Roadway              | Transit                      | Prince<br>William<br>County |
| 380                       | Innovation Small<br>Area Plan              | Construct a multimodal network to enhance connectivity between the three districts and Route 234 and I-66. Improvements include construction of a grid network, enhancing transit service and improvements for first/last mile transit connections. Includes construction of roadway parallel to Prince William Parkway (Wellington Rd to University Blvd) and construction of two perpendicular roads connecting the new roadway to Wellington Road.   | Roadway              | Transit                      | Prince<br>William<br>County |
| 381                       | Dale City Dedicated<br>HOV/Bus Lanes       | Convert shoulder lanes or modify existing travel lanes on Dale Blvd (Hoadly Rd to I-95), Prince William Parkway (Hoadly Road to I-95), and Minnieville Road (Cardinal Drive to Caton Hill Road) to dedicated HOV/Bus Lanes to improve travel time reliability during peak period travel between commuter lots and I-95 and transit hubs.  | Roadway              | Transit                      | Prince<br>William<br>County |



| TransAction<br>Project ID | Project Name   | Project Description   | Primary<br>Mode Type         | Secondary<br>Mode Type       | Physical<br>Location        |
|---------------------------|--|---|------------------------------|------------------------------|-----------------------------|
| 382                       | Mosby Street Transit<br>Hub  | Widening of Mosby Street approximately 655' from the entrance to the Manassas Senior Center to just north of West Courthouse Road, and additional improvements to accommodate enhanced service at the OmniRide Manassas hub connecting riders to the Manassas VRE and Tysons Corner.  | Transit                      | Roadway                      | Prince<br>William<br>County |
| 383                       | Construct Innovative<br>Intersection at<br>Route 123 and Old<br>Bridge Road                                | Construct improvements/interchange at the intersection of Route 123 and Old Bridge Road to improve operations and reduce congestion along Route 123 and I-95  | Interchange/<br>Intersection |                              | Prince<br>William<br>County |
| 384                       | Autonomous Vehicle<br>Network on<br>Quantico Marine<br>Corps Base  | Implement Autonomous Vehicle shuttle to provide first/last mile transit between the Quantico VRE Station and major employment centers on the Quantico Marine Base primarily located along Barrett Ave and Russell Rd. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities. | Transit                      | ITS                          | Prince<br>William<br>County |
| 385                       | Horner Road Park<br>and Ride Lot<br>Expansion  | Construction of additional parking spaces at Horner Road Park & Ride including surface and structured parking facilities.   | Transit                      | Parking                      | Prince<br>William<br>County |
| 386                       | I-95 Auxiliary Lane -<br>Northbound<br>Between Route 294<br>and Fairfax County<br>Line                     | Construction of an additional auxiliary lane, northbound<br>from Prince William Parkway Route 294 to the Fairfax<br>County Line   | Roadway                      |                              | Prince<br>William<br>County |
| 387                       | Fairfax County<br>Parkway Widening:<br>Barta Road to John J<br>Kingman<br>Road/Route 1                     | Widen Fairfax County Parkway to 6 lanes from Barta<br>Road to John J Kingman Road, and possibly to Route 1  | Roadway                      | Interchange/<br>Intersection | Fairfax<br>County           |
| 388                       | Fairfax County Parkway/Spring Street and Fairfax County Parkway/Dulles Toll Road Interchange Modifications | Fairfax County Parkway/Spring Street and Fairfax County<br>Parkway/Dulles Toll Road interchange modifications   | Interchange/<br>Intersection |                              | Fairfax<br>County           |
| 389                       | Fairfax County<br>Parkway/Franklin<br>Farm Road<br>Interchange   | New interchange at Fairfax County Parkway/Franklin Farm Road.   | Interchange/<br>Intersection |                              | Fairfax<br>County           |
| 390                       | Fairfax County<br>Parkway/Burke<br>Centre Parkway<br>Interchange   | New partial interchange (flyover) at Fairfax County<br>Parkway/Burke Centre Parkway.  | Interchange/<br>Intersection |                              | Fairfax<br>County           |
| 391                       | Fairfax County<br>Parkway/123<br>Interchange<br>Modifications  | Fairfax County Parkway/123 interchange modifications.   | Interchange/<br>Intersection |                              | Fairfax<br>County           |



| TransAction<br>Project ID | Project Name  | Project Description   | Primary<br>Mode Type         | Secondary<br>Mode Type       | Physical<br>Location  |
|---------------------------|---|---|------------------------------|------------------------------|-----------------------|
| 392                       | Fairfax County Parkway/Franconia- Springfield Parkway Interchange Modifications | Fairfax County Parkway/Franconia-Springfield Parkway interchange modifications.   | Interchange/<br>Intersection |                              | Fairfax<br>County     |
| 393                       | Fairfax County<br>Parkway/Telegraph<br>Interchange<br>Modifications             | Fairfax County Parkway/Telegraph interchange modifications.   | Interchange/<br>Intersection |                              | Fairfax<br>County     |
| 394                       | Fairfax County<br>Parkway/John J<br>Kingman Road<br>Interchange                 | Fairfax County Parkway/John J Kingman Road interchange construction.  | Interchange/<br>Intersection |                              | Fairfax<br>County     |
| 395                       | Fairfax County<br>Parkway/Beulah<br>Street Interchange                          | Fairfax County Parkway/Beulah Street interchange construction.  | Interchange/<br>Intersection |                              | Fairfax<br>County     |
| 396                       | South Lakes Drive<br>Extension (DTR<br>Overpass)                                | Extension of South Lakes Drive and construction of roadway and bridge over Dulles Toll Road.  | Roadway                      |                              | Fairfax<br>County     |
| 397                       | Route 7 and Baron<br>Cameron<br>Interchange                                     | Route 7 and Baron Cameron interchange construction.   | Interchange/<br>Intersection |                              | Fairfax<br>County     |
| 398                       | Worldgate Dr<br>Extension   | World Gate Dr Extension from Van Buren St to Herndon<br>Parkway with two lanes each direction. Includes<br>signalized intersection at Herndon Pkwy.   | Roadway                      | Interchange/<br>Intersection | Town of<br>Herndon    |
| 399                       | Bus Transfer and<br>Layover Station in<br>Tysons Area                           | Bus Transfer and Layover Station for Route 7 BRT, Fairfax Connector, Metrobus, and/or American Legion Bridge buses. Include customer waiting, employee areas, bike share, taxi stand, kiss and ride, for a full multi modal station.  | Transit                      |                              | Fairfax<br>County     |
| 400                       | Vienna Metrorail<br>Station North Side<br>Bus Improvements                      | Reconstruct the north side bus bay area to replace all paved surfaces, add new bus shelters and complete customer amenity package to complement the southside improvements.   | Transit                      |                              | Fairfax<br>County     |
| 401                       | Army Navy Drive<br>Transit Center at the<br>Pentagon                            | To more safely and efficiently serve Pentagon tour bus demand and service Washington Metro Area Transit Authority (WMATA) Buses, the Hayes Street Lot is proposed to be redeveloped to incorporate a total of eight bus bays. The majority of the reconfigured portion of the parking facility encompasses the western portion of the parking area. | Transit                      |                              | Arlington<br>County   |
| 402                       | Braddock Road<br>Metrorail Station<br>Pedestrian<br>Connection                  | Construct a new pedestrian connection (bridge or tunnel) to provide improved access from west side of tracks to station entry.  | Bike-Ped                     | Transit                      | City of<br>Alexandria |
| 403                       | Huntington Metro<br>Station ADA<br>Accessibility<br>Improvements                | Design and construction of ADA access route via the south entrance of Huntington Station as well as other ADA and pedestrian improvements that improve access to Huntington Station, including a new elevator, sidewalk extensions, and enhanced signage.   | Transit                      | Bike-Ped                     | Fairfax<br>County     |



| TransAction<br>Project ID | Project Name   | Project Description   | Primary<br>Mode Type | Secondary<br>Mode Type       | Physical<br>Location  |
|---------------------------|--|---|----------------------|------------------------------|---|
| 404                       | Metrorail Double<br>Crossover and<br>Sidings<br>Infrastructure               | Design and construct sidings and double crossovers to enhance service reliability and incident management/response, and to improve service during planned service outages. Siding and double crossovers near: Rosslyn(siding), Potomac Yard (new crossover), King Street(double crossover), and Arlington Cemetery(sidings).  | Transit              |                              | Arlington<br>County   |
| 405                       | Downtown Dumfries<br>Small Area Plan<br>Improvements                         | Bike racks, bike-ped improvements, and bus<br>stop/station development/improvement on Route 1<br>"Main Street" in the town of Dumfries  | Bike-Ped             | Transit                      | Town of<br>Dumfries   |
| 406                       | W&OD Regional<br>Trail Capacity and<br>Connectivity<br>Enhancements          | This multi-jurisdiction project will improve trail capacity at multiple sites along the Washington & Old Dominion (W&OD) Railroad Regional Park. It will build on the models established in Falls Church and Arlington with previous NVTA funding. Treatments will include parallel trails for multiple modes of transportation, wider trails to accommodate increased use, grade separation, crossing/intersection improvements, last-mile connectivity to transit, and/or enhanced connectivity to other regional trails, as appropriate to each site. Potential sites include but are not limited to locations within Town of Vienna, Arlington County, Fairfax County, Reston, Herndon, Loudoun County, and Town of Leesburg. | Bike-Ped             | Interchange/<br>Intersection | Arlington,<br>Fairfax and<br>Loudoun<br>Counties and<br>towns within. |
| 407                       | Update and Add<br>Capacity to PRTC<br>Eastern Transit<br>Center              | Update and add capacity to PRTC Eastern transit center. Improve capacity and add bus bays for maintenance. Improve lifts and enhance yard for safety and environment.   | Transit              |                              | Prince<br>William<br>County   |
| 408                       | Update and Refit<br>PRTC Eastern and<br>Western Facilities                   | Update and refit both PRTC eastern and western facilities with infrastructure for electric buses.   | Transit              |                              | Prince<br>William<br>County   |
| 409                       | Transit Signal<br>Priority for Local and<br>Commuter Bus                     | Transit Signal Priority for local and commuter bus on Dale Boulevard, Old Bridge Road, Minnieville Road, Smoketown Road, and Route 1 corridors in Prince William County.  | Transit              |                              | Multi-<br>jurisdictional  |
| 410                       | VRE Weekend<br>Service   | Implement VRE weekend service on Fredericksburg and/or Manassas Lines   | Transit              |                              | Multi-<br>jurisdictional  |
| 411                       | Nokesville to<br>Calverton Double<br>Track                                   | Construct over 7 miles of double track on the NS line between Nokesville and Calverton.   | Transit              |                              | Prince<br>William<br>County   |
| 412                       | Multimodal Bridge<br>from Van Dorn<br>Metrorail Station to<br>Pickett Street | Construct a multimodal bridge from Van Dorn Metrorail Station to Pickett Street.  | Roadway              | Bike-Ped                     | City of<br>Alexandria   |
| 413                       | I-395 Pedestrian and<br>Bicycle Bridge                                       | Construct I-395 pedestrian and bicycle bridge near the Landmark Mall development.   | Bike-ped             |                              | City of<br>Alexandria   |
| 414                       | Ramp Connection<br>from I-395 to<br>Landmark/Van Dorn                        | Add a vehicular ramp connection from I-395 to the development at Landmark/Van Dorn.   | Roadway              |                              | City of<br>Alexandria   |



| TransAction<br>Project ID | Project Name   | Project Description   | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location |
|---------------------------|--|---|------------------------------|------------------------|----------------------|
| 415                       | Realtime<br>Information at<br>Loudoun Park and<br>Ride Lots and Bus<br>Stops                     | Electronic information signs at bus stops, with a priority on those with bus shelters, and park and ride lots would provide real transportation solutions to transit customers and reduce uncertainties about whether a bus has come through or when it will arrive. This project also includes any software necessary to operate the real-time information system and display as well as the design and construction of infrastructure improvements to support the necessary equipment (e.g., electricity, wifi transmitters, etc.).   | Transit                      | ITS                    | Loudoun<br>County    |
| 416                       | Route 28 Corridor<br>ITS   | Proposed deployment of close-circuit TV (CCTV) cameras, dynamic message signs (DMS), traffic sensors and weather stations for monitoring and operating traffic along this critical corridor. The key elements are as follows: 10 DMS signs; 16 CCTV cameras for Route 28 and major arterial interchange approaches; 13 traffic sensors; 2 weather stations; preliminary engineering; utilities including new electrical services, power distribution to all equipment sites, communication to each device by connecting to existing fiber, adding cable for missing links and establishing fiber network link to Traffic Operations Center.                     | ITS                          |                        | Fairfax<br>County    |
| 417                       | Route 7 Corridor ITS   | Proposed deployment of close-circuit TV (CCTV) cameras, dynamic message signs (DMS), traffic sensors and a couple of weather stations for monitoring and operating traffic along this critical corridor. The key elements are as follows: 8 DMS signs; 12 CCTV cameras for Route 7 and major arterial interchange approaches; 7 traffic sensors; 2 weather stations; preliminary engineering; Utilities including new electrical services, power distribution to all equipment sites, communication to each device by connecting to existing fiber, adding cable for missing links and establishing fiber network link to Traffic Operations Center.            | ITS                          |                        | Loudoun<br>County    |
| 418                       | Fairbrook Drive<br>Extension (Herndon<br>Parkway to East<br>Spring Street)                       | New roadway capacity and signalization improvements linking a new Herndon Parkway / Fairbrook Drive Ext. signalized intersection to a new East Spring Street / Fairbrook Drive Ext. signalized intersection. May include ADA sidewalk/trail and bicycle facility improvements   | Roadway                      |                        | Town of<br>Herndon   |
| 419                       | East Spring Street<br>(Herndon Parkway<br>to Rt.286 / Fairfax<br>County Parkway)<br>Improvements | To include construction of a new signalized E. Spring Street / Fairbrook Drive intersection with a reconstructed, southbound on-ramp from E. Spring Street to the center of southbound Fairfax County Parkway and coordinated with Fairfax County in removing the traffic signal on Fairfax County Parkway along with closing the median. The project also includes, at the northeast quadrant, construction of a new on-ramp onto northbound Fairfax County Parkway. And, sidewalk/trail improvements, at each interchange quadrant, for pedestrians and bicyclists to connect to/from Spring Street and Sunset Hills Road existing and/or proposed sidewalks. | Interchange/<br>Intersection | Roadway                | Town of<br>Herndon   |



| TransAction<br>Project ID | Project Name   | Project Description  | Primary<br>Mode Type | Secondary<br>Mode Type       | Physical<br>Location     |
|---------------------------|--|--|----------------------|------------------------------|--------------------------|
| 420                       | East Elden Street<br>(Herndon Parkway<br>to Fairfax County<br>Parkway)<br>Improvements | East Elden Street roadway widening (Herndon Parkway to town limits) Fairfax County interchange ramp improvements are needed at East Elden Street and Baron Cameron Avenue. At the northeast quadrant, widening of the on-ramp onto northbound Fairfax County Parkway to receive proposed dual-left turn traffic from E. Elden Street onto the on-ramps and northbound Fairfax County Parkway. May include ADA sidewalk/trail/bicycle facility improvements, at each interchange quadrant, for pedestrians and bicyclists to connect to/from E. Elden Street and Baron Cameron Avenue existing and/or proposed sidewalks.   | Roadway              | Interchange/<br>Intersection | Town of<br>Herndon       |
| 421                       | Conner Drive<br>Extension and<br>Roundabout  | Extend Conner Drive east of Euclid Avenue southbound and connect to the Manassas Drive and Railroad Drive Intersection east of Norfolk Southern Rail Line. Construct a two-lane roadway extension and a roundabout at Manassas/Railroad Drive to promote the safe and efficient flow of traffic through the City.  | Roadway              | Interchange/<br>Intersection | Manassas<br>Park         |
| 422                       | Alexandria<br>Metroway   | This project will complete the planning, design, and construction of the Metroway transitway from the Braddock Metrorail station to the Alexandria/Arlington line at Four Mile Run and Potomac Avenue. Tasks of this project include, but are not limited to: Extension of the dedicated transit lanes and stations on US Route 1 (Richmond Highway) from East Glebe Road to Evans Lane; Construction of the new access road through Phase 2 of the North Potomac Yard redevelopment project, providing the Metroway connection between Route 1 and Potomac Avenue; Construction of new dedicated transit lanes on Potomac Avenue between Evans Lane and the City/County line; Pedestrian and bicycle access improvements throughout the Metroway route between Braddock Metrorail and the City/County line; Environmental/stormwater/resiliency improvements throughout the Metroway route between Braddock Metrorail and the City/County line. | Transit              | Bike-Ped                     | City of<br>Alexandria    |
| 423                       | Euclid Avenue<br>Northern Extension  | Creates a roadway that passes through Prince William County and the City of Manassas Park. Extend Euclid Avenue to the north from near Manassas Park High School along the west bank of Bull Run until joining with existing Route 28. Route 28 would be widened from this point north to tie into the improvements planned by Fairfax County. The existing Route 28 bridge over Bull Run would be replaced with a wider and longer bridge across the floodway. This project provides additional options for greater local connectivity and additional routes along the Route 28 corridor.   | Roadway              |                              | Multi-<br>jurisdictional |



| TransAction<br>Project ID | Project Name                         | Project Description   | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location                     |
|---------------------------|--------------------------------------|---|----------------------|------------------------|--|
| 424                       | Moseby Court<br>Extension            | Would address a need for an emergency connection where interconnections were not provided with an initial development (Moseby Ridge I). The approximate 200 linear feet extension would connect (running east to west) Moseby Court in the City of Manassas Park to Stonewall Road in the City of Manassas. This subdivision was constructed with a single point of ingress/egress, that passes over a tributary of Flat Branch. As such, flooding and culvert failure continually represent risks for access to the communities. Providing emergency connections will ensure that if a catastrophic failure of the culvert structures did occur there would still be viable routes in and out of the subdivision.  | Roadway              |                        | City of<br>Manassas/<br>Manassas<br>Park |
| 425                       | Kirby Street<br>Extension            | Would address a need for an emergency connection where interconnections were not provided with an initial development (Moseby Ridge II). The approximate 600 linear feet of new roadway construction would connect (running north to south) the terminus of Kirby Street (north) in the City of Manassas Park to Kirby Street (south) in the City of Manassas. This subdivision was constructed with a single point of ingress/egress, that passes over a tributary of Flat Branch. As such, flooding and culvert failure continually represent risks for access to the communities. Providing emergency connections will ensure that if a catastrophic failure of the culvert structures did occur there would still be viable routes in and out of the subdivision. | Roadway              |                        | City of<br>Manassas/<br>Manassas<br>Park |
| 426                       | Polk Drive Extension                 | Would address a need for an emergency connection where interconnections were not provided with an initial development by extending Polk Drive westward to connect with an extension off Moseby Drive and Kirby Street. The Moseby Ridge I and Moseby Ridge II subdivisions were constructed with a single point of ingress/egress, that passes over a tributary of Flat Branch. As such, flooding and culvert failure continually represent risks for access to the communities. Providing emergency connections will ensure that if a catastrophic failure of the culvert structures did occur there would still be viable routes in and out of the subdivisions.  | Roadway              |                        | City of<br>Manassas/<br>Manassas<br>Park |
| 427                       | Manassas Park Trails<br>Construction | Construct trail segments and recommendations from an assessment to carry out improvements to the existing trail network, enhance connectivity, and realize broader cross-jurisdictional links. The City of Manassas Park will work with MWCOG, Prince William County, the City of Manassas, and Fairfax County to achieve a goal of interconnected bicycle trails between the jurisdictions, and expanding the National Capital Trail system to include more areas in the Washington Metropolitan region. In addition to this specific interconnection, the City has discussed multiple opportunities to connect bicycle paths throughout the Manassas/Manassas Park/Prince William area, to create a more robust pedestrian bike path network.                       | Bike-Ped             |                        | Multi-<br>jurisdictional                 |



| TransAction<br>Project ID | Project Name  | Project Description   | Primary<br>Mode Type         | Secondary<br>Mode Type | Physical<br>Location     |
|---------------------------|---|---|------------------------------|------------------------|--------------------------|
| 428                       | Blooms Park Access<br>Construction  | Provide alternate and/or enhanced access to Blooms Park for recreational and/or economic development expansion. This project would provide a road extension of the existing Railroad Drive and/or Manassas Drive into Blooms Park. It would address vehicular access but also address a need for pedestrian and bicycle access to the park.   | Roadway                      | Bike-Ped               | Manassas<br>Park         |
| 429                       | City Emergency<br>Evacuation<br>Interconnections                                      | Emergency interconnection between the Blooms Crossing subdivision and Birmingham Drive in Prince William County. In the event of a major incident involving the railroad, it is known that travel along Manassas Drive and Signal Hill Drive would cease to be viable options. Providing an emergency interconnection to Birmingham Drive would provide emergency access and an evacuation route if a major incident were to close Manassas Drive. This would consist of approximately 800 linear feet of new roadway construction connection from west to east Brandon Street to Birmingham Drive in the City of Manassas Park. Interconnection between Manassas Drive to the south and Owens Drive to the north in the City Center Redevelopment District. This will alleviate both vehicular and pedestrian traffic in the new City Center redevelopment project and allow for an alternate route in the event of an emergency. This segment would consist of approximately 1370 linear feet of new roadway construction in the City of Manassas Park. | Roadway                      |                        | Manassas<br>Park         |
| 430                       | Mathis Avenue<br>Extension to Old<br>Centreville Road                                 | Construction of approximately 920 linear feet of new roadway connecting the intersection of Manassas Drive/Mathis Avenue to Old Centreville Road. Addresses Route 28 congestion relief. Potential partnership with Prince William County with Old Centreville Road widening.  | Roadway                      |                        | Manassas<br>Park         |
| 431                       | Route 7 Traffic<br>Improvements:<br>Route 28 to the<br>Loudoun/Fairfax<br>County Line | Implement a Hybrid Arterial: a combination of grade separations west of Cascades Parkway, at-grade intersection improvements, "Green T" intersections, and selected grade separated movements would be employed to convey traffic. Includes shared Use Paths parallel to both eastbound and westbound Route 7 in addition to new/improved ped-bike crossings of Route 7.  | Interchange/<br>Intersection | Bike-Ped               | Loudoun<br>County        |
| 432                       | Route 123 - Fairfax<br>to Mclean via Tysons<br>Multi-Use Path                         | Develop a multi-use path along Route 123 connecting Fairfax and McLean via Tysons; create a connection between this trail and the Gallows Road side path.   | Bike-Ped                     |                        | Multi-<br>jurisdictional |
| 433                       | Route 1: Alexandria<br>to Woodbridge<br>Multi-Use Trail                               | Develop a multi-use trail along Route 1 connecting Alexandria to Woodbridge via Fort Belvoir.   | Bike-Ped                     |                        | Multi-<br>jurisdictional |
| 434                       | Army Navy Drive;<br>South Joyce Street<br>to Crystal Drive Bike<br>Connections        | Create a low-stress bike-ped connection between the Washington Boulevard side path and Mount Vernon Trail. This may include protected bikeway.  | Bike-Ped                     |                        | Multi-<br>jurisdictional |



| TransAction<br>Project ID | Project Name  | Project Description  | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location        |
|---------------------------|---|--|----------------------|------------------------|-----------------------------|
| 435                       | Springfield to<br>Landmark via<br>Franconia Bike<br>Connections   | Create a low-stress connection between Springfield and<br>the Franconia Springfield Parkway Trail along Route 617;<br>fill in gap between the Beulah Street side path and the<br>multi-use path planned for the West End Transitway.   | Bike-Ped             |                        | Multi-<br>jurisdictional    |
| 436                       | Route 29: W&OD<br>Trail to Haymarket<br>via Centreville   | Develop a multi-use path along Route 29 from Fairfax to Haymarket and create a low-stress connection with the W&OD along Shreve Road.  | Bike-Ped             |                        | Fairfax<br>County           |
| 437                       | Reston Parkway<br>Sidepath  | Fill gap in paths along Reston Parkway between South Lakes Drive and Lawyer's Road.  | Bike-Ped             |                        | Fairfax<br>County           |
| 438                       | Route 1:<br>Woodbridge to<br>Dumfries Sidepath  | Extend the Ox Road side path to Woodbridge; develop a multi-use path from Woodbridge to Dumfries along Route 1.  | Bike-Ped             |                        | Prince<br>William<br>County |
| 439                       | VRE Manassas Line<br>Trail: Landmark to<br>City of Manassas   | Leverage numerous existing and planned trail segments following the VRE Manassas Line to connect Landmark and City of Manassas   | Bike-Ped             |                        | Multi-<br>jurisdictional    |
| 440                       | Columbia Pike:<br>South Carlin Springs<br>Road to Cross<br>County Trail<br>Bike/Ped Network                           | Extend proposed Columbia Pike Corridor Urban<br>Bicycle/Pedestrian Network to the Cross County Trail via<br>Annandale.   | Bike-Ped             |                        | Multi-<br>jurisdictional    |
| 441                       | Route 234: Route<br>294 to I-66 Sidepath  | Extend the Route 234 side path to the active transportation infrastructure proposed along I-66 to mitigate gap 5.  | Bike-Ped             |                        | Multi-<br>jurisdictional    |
| 442                       | Route 28:<br>Centreville to<br>Bristow Multi-Use<br>Path  | Develop a multi-use path along Route 28 with connections to the proposed active transportation infrastructure along Route 29 in Centreville, Manassas, Manassas Park, and Bristow.   | Bike-Ped             |                        | Multi-<br>jurisdictional    |
| 443                       | Route 309/Glebe<br>Road: McLean to<br>Ballston Bike<br>Connections  | Develop low-stress bicycling infrastructure along Route 309 and Glebe Road, connecting McLean to the Custis trail in Ballston.   | Bike-Ped             |                        | Multi-<br>jurisdictional    |
| 444                       | South Van Dorn<br>Street: West End<br>Transitway to Route<br>1 via Huntley<br>Meadows Park<br>Bike/Ped<br>Connections | Develop a connection between Route 1 and the West<br>End Transitway through Huntley Meadows Park and<br>along South Van Dorn Street.   | Bike-Ped             |                        | Multi-<br>jurisdictional    |
| 445                       | Route 234: Anne<br>Moncure Wall Park<br>to Route 1 Sidepath   | Extend the Route 234 side path to the active transportation infrastructure proposed along Route 1 to mitigate gap 7.   | Bike-Ped             |                        | Prince<br>William<br>County |
| 446                       | US 29: Rosslyn to<br>Golden Triangle BRT  | Extend the US 29 bus rapid transit (BRT) to the K Street Transitway via Key Bridge and Whitehurst Freeway. BRT will stop in Rosslyn. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities. | Transit              |                        | Multi-<br>jurisdictional    |



| ransAction<br>Project ID | Project Name   | Project Description   | Primary<br>Mode Type | Secondary<br>Mode Type | Physical<br>Location     |
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| 447                      | Glebe Road: US 29<br>to Potomac Yard<br>High-Capacity<br>Transit and<br>Multimodal<br>Improvements | Implement a high-capacity transit connection between Marymount University and Potomac Yard and expand multimodal transportation capacity and safety in the Glebe Road corridor. Improvements may include "complete street" improvements, transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities. | Transit              | Roadway                | Arlington<br>County      |
| 448                      | Annandale to Fort<br>Belvoir via<br>Springfield High-<br>Capacity Transit                          | Extend high-capacity transit from Annandale to Fort Belvoir. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.  | Transit              |                        | Fairfax<br>County        |
| 449                      | Route 7: Dulles<br>Town Center to<br>Tysons High-<br>Capacity Transit                              | Implement a high-capacity transit service between Dulles Town Center and Tysons. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.  | Transit              |                        | Multi-<br>jurisdictional |
| 450                      | Loudoun Gateway<br>Station to Leesburg<br>via Sterling Express<br>Bus                              | Create an express service (30 minutes all day) one seat ride connecting Loudon Gateway Station with activity centers between Loudon Gateway Station, Dulles Town Center, and Leesburg. Improvements may include additional vehicles required to operate the service, maintenance/storage facilities, customer information, mobility hubs, bus stops and access facilities.  | Transit              |                        | Multi-<br>jurisdictional |
| 451                      | Ashburn Station to<br>US 50 via<br>Brambleton High-<br>Capacity Transit                            | Implement a high-capacity transit connection between US 50 and Ashburn station. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.   | Transit              |                        | Loudoun<br>County        |
| 452                      | City of Fairfax to<br>Springfield High-<br>Capacity Transit  | Extend high-capacity transit from City of Fairfax/GMU to Springfield. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.   | Transit              |                        | Multi-<br>jurisdictional |
| 453                      | US 50: Fairfax to<br>Chantilly High-<br>Capacity Transit   | Extend high-capacity transit to Chantilly. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.  | Transit              |                        | Fairfax<br>County        |



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|---------------------------|---|--|------------------------------|------------------------|--|
| 454                       | Route 29: West Ox<br>Road to Centreville<br>High-Capacity<br>Transit              | Extend high-capacity transit to Centreville. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.   | Transit                      |                        | Fairfax<br>County  |
| 455                       | Franconia Road:<br>Huntington Station<br>to Springfield High-<br>Capacity Transit | Implement high-capacity transit between Huntington Station and Springfield. Improvements may include transit priority treatments, increased frequency and span of service, any additional required vehicles, maintenance/storage facilities, improved customer information, expanded fare payment options, mobility hubs, and enhanced bus stops and access facilities.  | Transit                      |                        | Fairfax<br>County  |
| 456                       | Low or ZEV<br>Charging/ fueling<br>Infrastructure -<br>Trucks                     | Infrastructure for charging/fueling low or zero emission vehicle (ZEV) heavy duty trucks. Assumed that the charging/fueling infrastructure encourages adoption of low or ZEV trucks and makes it possible to get to the 2045 market penetration rate of 8.4%.  | ITS                          |                        | Multi-<br>jurisdictional                                     |
| 457                       | Low or ZEV<br>Charging/ fueling<br>Infrastructure –<br>Transit Buses              | Infrastructure for charging/fueling low or ZEV transit buses. Assumed that the charging/fueling infrastructure is necessary to achieve full adoption of low or ZEV buses that is the stated goal of almost all transit operators in the region.  | ITS                          | Transit                | Multi-<br>jurisdictional                                     |
| 458                       | Low or ZEV<br>Charging/ fueling<br>Infrastructure - Cars                          | Infrastructure for charging/fueling low or ZEV light duty vehicles. Assumed that the charging/fueling infrastructure encourages adoption of low or ZEV cars and makes it possible to get to the 2045 market penetration rate of 77%.   | ITS                          |                        | Multi-<br>jurisdictional                                     |
| 459                       | CAV Enabling<br>Technologies  | Technologies to enable the widespread adoption of connected and automated vehicles, and to realize their benefits. May include connected signals, roadside units, AV ready signage, etc. Assumes capacity improvements of 15% on freeways and 5% on major arterials.   | ITS                          |                        | Multi-<br>jurisdictional                                     |
| 460                       | RM3P  | Implementation of RM3P program, including improved Decision Support Systems, Commuter Parking Information, Dynamic Incentivization, and Data Support and Sharing Systems.  | ITS                          |                        | Multi-<br>jurisdictional                                     |
| 461                       | Development and<br>Implementation of<br>Microtransit                              | Develop microtransit facilities to improve access to high-capacity transit and around communities. This would provide on-demand transit services to high-capacity transit stations across the region, in and/or around activity centers/growth areas and Equity Emphasis Areas. The scope includes purchasing vehicles, software, and other supporting activities such as constructing pick-up/drop-off locations. | Transit                      |                        | Multi-<br>jurisdictional                                     |
| 462                       | Interchange<br>improvements at<br>Prince William<br>Parkway and<br>Hastings Drive | Implement interchange improvements at Prince William Parkway and Hastings Drive  | Interchange/<br>Intersection |                        | City of<br>Manassas/<br>Prince<br>William<br>County/<br>VDOT |



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|---------------------------|--|--|----------------------|------------------------|---|
| 463                       | Route 50 / North<br>Collector Road (Tall<br>Cedars Parkway to<br>Route 28) | This project provides funding for planning, design, right-<br>of- way acquisition, and construction of a roadway from<br>Route 50 at Tall Cedars Parkway to the Air and Space<br>Museum Parkway Interchange in Fairfax County at<br>Route 28. The project entails construction of a four-lane<br>median divided roadway to the north of Route 50 to<br>provide additional capacity to the Route 50 corridor. | Roadway              |                        | Fairfax<br>County/<br>Loudoun<br>County |