NORTHERN VIRGINIA TRANSPORTATION AUTHORITY

Technical Advisory Committee Meeting

Wednesday, February 18, 2026
7:00 p.m. EST
2600 Park Tower Drive, Suite 601
Vienna, VA 22180

This meeting will be held in person and livestreamed via YouTube.

AGENDA

1. **Call to Order** — Chair Boice

Action Items

2. **Summary Notes of the October 15, 2025, Meeting** — Chair Boice

   Recommended Action: Approve Meeting Notes

3. **2026 Meeting Calendar** — Chair Boice

   Recommended Action: Approve Meeting Calendar

Discussion / Information Items

4. **FY2026-2031 Six Year Program Update: The Process** — Dr. Nampoothiri, Senior Manager

5. **NVTA Update** — Ms. Backmon, CEO

6. **Adjournment** — Chair Boice

Next Meeting:

Wednesday, March 18, 2026
7:00 p.m. EST
2600 Park Tower Drive, Suite 601
Vienna, VA 22180

TECHNICAL ADVISORY COMMITTEE

Wednesday, October 15, 2025
7:00 p.m. EDT
2600 Park Tower Drive, Suite 601
Vienna, VA 22180
This meeting was held in person and virtually via Zoom and livestreamed via YouTube.

MEETING SUMMARY

1. **Call to Order/Welcome**
   - ✓ The meeting was held in person and virtually via Zoom. Chair Boice called the meeting to order at 7:03 p.m.
   - ✓ **Attendees**:
     - ✓ **Technical Advisory Committee (TAC) Members:** Chair Randy Boice, Michelle Cavucci; Armand Ciccarelli (virtual); Amy Morris; Frank Spielberg; Shanjiang Zhu.
     - ✓ **Northern Virginia Transportation Authority (NVTA) Staff:** Monica Backmon, CEO (virtual); Keith Jasper, Principal, Transportation Planning and Programming; Sree Nampoothiri, Senior Manager, Transportation Planning & Programming; Starla Couso, Transportation Planning & Program Manager; Alyssa Beyer, Regional Transportation Planner
     - ✓ **Others:** Kate Widness, Transportation and Community Resilience Planner, Kimley Horn; Ian Newman, Principal Planner/Program Manager - Travel Monitoring and Planning Assistance, Metropolitan Washington Council of Governments
2. **Summary Notes of September 17, 2025, Meeting**
   - ✓ A motion to approve the summary notes of the September 17, 2025, meeting was made by Mr. Spielberg and seconded by Ms. Morris. The motion passed unanimously.
3. **Regional Approach to Funding Northern Virginia's Bicycle and Pedestrian Infrastructure**
   - ✓ Ms. Couso and Ms. Widness reminded the Committee of the request by the Chairs of the Transportation House and Senate Committees in March 2025 to review the findings of the 2024 Virginia Department of Transportation (VDOT) Northern Virginia Bicycle and Pedestrian Network Study and make recommendations on regional funding options for the infrastructure identified in VDOT's study. They also reminded members of the methodology used to develop the report. Ms. Widness reviewed the recommendations within the report, including the 14 funding strategies that scored highly on revenue estimation and/or which have pathways to exist regionally, and highlighted next steps in evaluating these promising funding strategies. She also mentioned strategies not likely to move forward regionally due to not

having a pathway to regional implementation or because it is hard to dedicate them to bicycle and pedestrian infrastructure.

- ✓ Mr. Spielberg noted that all proposed future funding strategies were state or local level and did not include assumptions about federal funding availability. Ms. Widness stated that this was to help identify strategies which could be implemented within the region.
- ✓ Chair Boice asked if Prince William County had been included, and Ms. Widness confirmed that Prince William County had been very involved.
- ✓ Ms. Cavucci referenced the report, highlighting that operations and maintenance were indicated as often being the hardest for which to pursue and secure funding. She also noted that both Fairfax and Loudoun Counties have indicated that these project types are the hardest projects to implement. She asked if next steps included determining ways to streamline the process of funding and implementing bike/ped projects. Ms. Widness responded that, while beyond the scope of this report, such consideration would be one of many future evaluations. Ms. Cavucci expressed support for the study and report.
- ✓ Mr. Ciccarelli recognized the difficulty of providing all the funding needed to complete the bike/ped infrastructure improvements.
- ✓ Dr. Zhu mentioned the I-66 concessionaire funding, which could be used for bike/ped infrastructure on the corridor. Ms. Couso indicated that this was noted in the existing funding sources, instead of future funding strategies.
- ✓ A motion to endorse the Regional Approach to Funding Northern Virginia's Bicycle and Pedestrian Infrastructure Report was made by Ms. Morris and seconded by Mr. Spielberg. The motion passed unanimously.

4. NVTA Update

- ✓ Ms. Backmon joined virtually due to travelling for the Governor's Transportation Conference.
- ✓ She shared that NVTA staff have released the Request for Proposal for the next TransAction update and noted the closing date next week.
- ✓ NVTA has closed the call for projects for FY2026-2031 Six Year Program, receiving applications for 27 projects with a total request amount of $1.3 billion. The requested total is beyond what NVTA will be able to provide this cycle. Resolutions of support are due by 5:00 p.m. on Friday October 31.
- ✓ She reminded the Committee of NVTA's second annual State of the Region's Transportation event on October 22, 2025.

5. Adjourn

- ✓ The meeting was adjourned at 7:17 p.m.
- ✓ The next meeting is scheduled for November 19, 2025, at 7:00 p.m. in person at the NVTA Offices.

2026

Technical Advisory Committee
Proposed Meeting Schedule

January

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	**21**	22	23	24
25	26	27	28	29	30	31

February

S	M	T	W	T	F	S
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March

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29	30	31				

April

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12	13	14	**15**	16	17	18
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26	27	28	29	30		

May

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24	25	26	**27**	28	29	30
31						

June

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14	15	16	**17**	18	19	20
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28	29	30				

July

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12	13	14	**15**	16	17	18
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26	27	28	29	30	31	

August

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23	24	25	26	27	28	29
30	31					

September

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27	28	29	30			

October

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25	26	27	28	29	30	31

November

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29	30					

December

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13	14	15	**16**	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

NORTHERN VIRGINIA TRANSPORTATION AUTHORITY

FY2026-2031 Six Year Program

Sree Nampoothiri, Senior Manager, NVTA

Technical Advisory Committee

February 18, 2026

Agenda

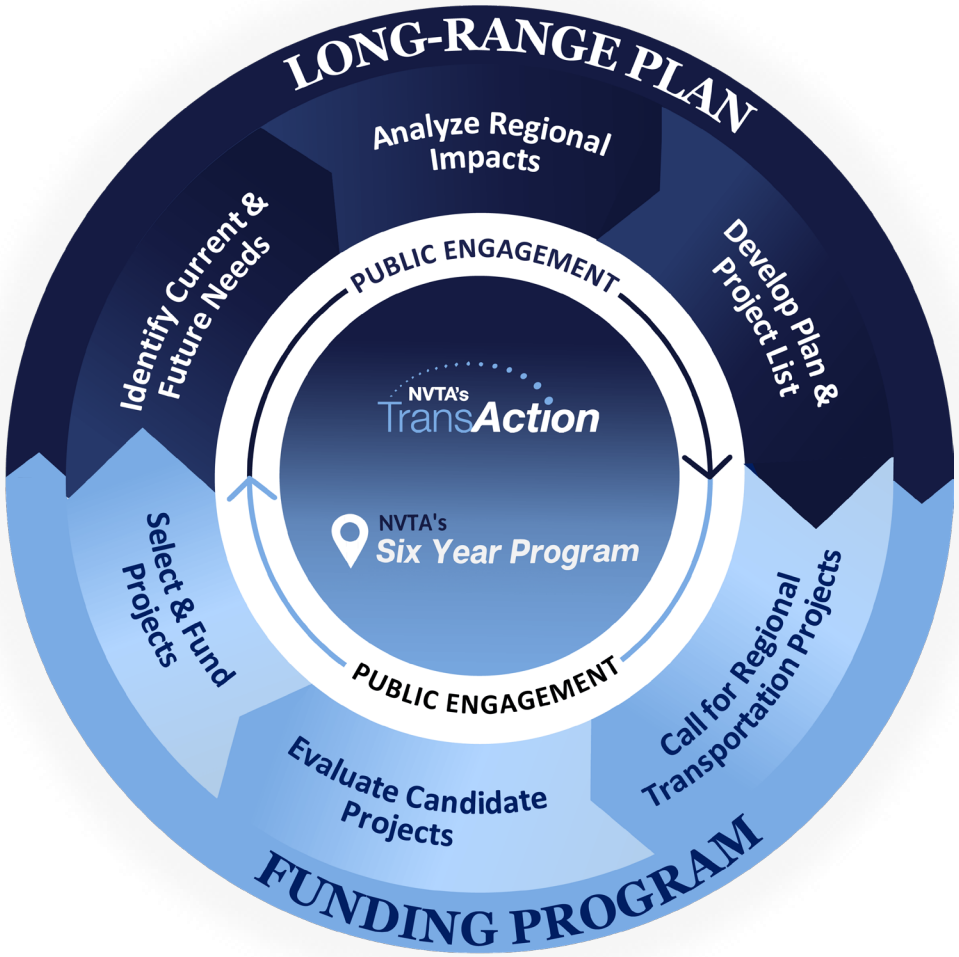
- Introduction
- Project Selection Process
- Summary of Applications

Primary Responsibilities

NVTA's TransAction
NORTHERN VIRGINIA'S TRANSPORTATION PLAN

Long-Range Plan

- Updated Every Five Years
- Fiscally and Geographically Unconstrained
- Identify Current and Future Transportation Needs & Priorities
- Analyze Regional Impacts
- Develop Plan and Project List
- Most Recent Update approved in December 2022
- Next update underway



NVTA'S Six Year Program

Funding Program

- Allocates NVTA's Regional Revenues to Regional, Multimodal, Congestion Reducing Transportation Projects
- Updated Every Two Years
- Most Recent SYP Adopted in July 2024
- Currently working on the next SYP (FY2026-2031)

TransAction Vision, Goals, Core Values

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.

Approved by NVTA on December 17, 2020

Goals, Objectives, Measures

Goal	Objective	Performance Measure	Weight	Alignment with Core Values
Mobility: Enhance quality of life of Northern Virginians by improving performance of the multimodal transportation system	A. Reduce congestion and delay*	A1. Total Person-Hours of Delay in autos	10	
		A2. Total Person-Hours of Delay on Transit	10	
	B. Improve travel time reliability*	B1. Duration of Severe Congestion	10	
		B2. Transit person-miles in dedicated/priority ROW	10	
Accessibility: Strengthen the region's economy by increasing access to jobs, employees, markets, and destinations for all communities	C. Improve access to jobs*	C1. Access to jobs by car, transit, and bike	10	
		C2. Access to jobs by car, transit, and bike for EEA populations	10	
	D. Reduce dependence on driving alone by improving conditions for people accessing transit and using other modes	D1. Quality of access to transit and the walk/bike network	15	
Resiliency: Improve the transportation system's ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.	E. Improve safety and security of the multimodal transportation system	E1. Potential for safety and security improvements	10	
	F. Reduce transportation related emissions	F1. Vehicle Emissions	10	
	G. Maintain operations of the regional transportation system during extreme conditions*	G1. Transportation System Redundancy	5	

Equity Safety Sustainability

Core Values – How NVTA Accomplishes Goals

Equity

An equitable transportation system ensures fairness in mobility and accessibility, to meet the needs of the region and all travelers, particularly underserved populations. (e.g., low-income, minority, elderly, children, women, people with Limited English Proficiency (LEP), people with disabilities.) It facilitates social and economic opportunities through reliable and affordable transportation options. It recognizes past inequities, commits to addressing them when possible, and actively avoids further injustices.

Safety

A safe transportation system minimizes fatalities and severe injuries, while increasing safe, healthy, and equitable mobility for all. It also addresses community perceptions of safety.

Sustainability

A sustainable transportation system meets the needs of the present, without compromising the ability of future generations to meet their needs. It considers sustainability to be comprised of three pillars, that focus on economic, environmental, and social impacts, and also addresses the interactions between these.

Project Selection Process

Multiple Components

1. **Eligibility**
   - TransAction ID; project descriptions will be verified
   - Project location
   - Governing Body resolution(s)
2. **Quantitative Analyses**
   - Congestion Reduction Relative to Cost (CRRC) – initial ranking uses this measure
   - TransAction Project Ratings, formerly HB 599 (2012)
   - Long Term Benefit (LTB)
3. **Qualitative Considerations**
   - Past performance
   - Previous NVTA allocation
   - Funding gaps
   - External funding (committed sources only)
   - Alignment with Core Values
   - Geographic/modal balance
4. **Public Comment**

Congestion Reduction Relative to Cost (CRRC)

VA Code requires NVTA to give priority to projects that achieve the greatest congestion reduction relative to cost (CRRC).

- Derive person hours of delay (PHD) reduced from individual project model runs for years 2030 and 2045 by comparing no-build and build networks.
- PHD reduction values for 2030 and 2045 are extrapolated from the year of expected project completion to 2045, and summed for each year.
- The cumulative PHD reduction is divided by total project cost.

TransAction Rating

- All eligible candidate projects will be coded into the TransAction ‘No Build’ network for 2045, and ratings calculated for individual projects using a single model run for 2045.
- Values for the 10 measures are calculated and are normalized with scores 0 (lowest) to 100 (highest).
- A weighted score is calculated for each project.

Goal	Objective	Performance Measure	Weight	Alignment with Core Values
Mobility: Enhance quality of life of Northern Virginians by improving performance of the multimodal transportation system	A. Reduce congestion and delay*	A1. Total Person-Hours of Delay in autos	10	Sustainability
		A2. Total Person-Hours of Delay on Transit	10	Equity
	B. Improve travel time reliability*	B1. Duration of Severe Congestion	10	Sustainability, Safety
		B2. Transit person-miles in dedicated/priority ROW	10	Equity, Sustainability
Accessibility: Strengthen the region’s economy by increasing access to jobs, employees, markets, and destinations for all communities	C. Improve access to jobs*	C1. Access to jobs by car, transit, and bike	10	Sustainability
		C2. Access to jobs by car, transit, and bike for EEA populations	10	Equity
	D. Reduce dependence on driving alone by improving conditions for people accessing transit and using other modes	D1. Quality of access to transit and the walk/bike network	15	Equity, Sustainability, Safety
Resiliency: Improve the transportation system’s ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.	E. Improve safety and security of the multimodal transportation system	E1. Potential for safety and security improvements	10	Safety
	F. Reduce transportation related emissions	F1. Vehicle Emissions	10	Equity, Sustainability
	G. Maintain operations of the regional transportation system during extreme conditions*	G1. Transportation System Redundancy	5	Equity, Safety

Equity Safety Sustainability

Long Term Benefit

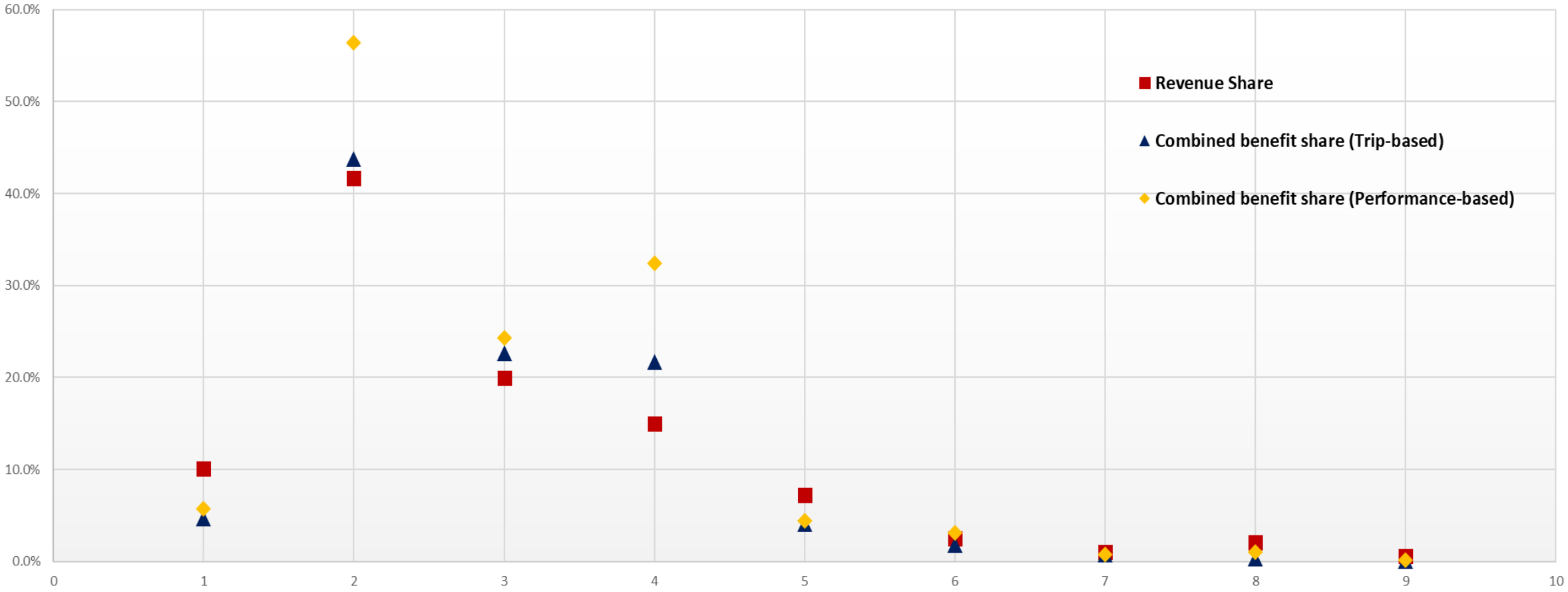
VA Code requires that, over the long term, the allocation of benefit to member jurisdictions must be approximately equal to the share of the revenues attributed to each of the nine member jurisdictions. The Authority approved a set of LTB Principles in December 2014.

- Historic share of revenues (since FY2014) is known, and can be reliably projected through FY2029.
- 'Benefit' is subdivided into two components (includes projects thru FY2024-2029 SYP):
  - Physical location of each funded project (making some allowances for projects that cross jurisdictional boundaries or are considered 'system' level projects).
  - Geographic distribution of each funded project's transportation impact, using reduction in person-hours of delay as the performance measure. Congestion reduction will be calculated by comparing the 'total person-hours of delay' measure for 2045, with and without the funded projects in the TransAction 'No Build' network for 2045. This will be calculated for 'within jurisdictional boundaries' and 'experienced by jurisdictional residents' to provide a range.
- Note: Town projects will be combined with County projects for the purposes of LTB calculation.
- There is no guarantee that LTB imbalances (surpluses/deficits) will be fully eliminated in any single SYP update cycle.

Long Term Benefit

Allocated Regional Revenue 50%	+	Transportation benefit: within jurisdictional boundaries 50%	=	Share of Performance-based Transportation benefit
Allocated Regional Revenue 50%	+	Transportation benefit: Experienced by residents 50%	=	Share of Trip-based Transportation benefit
				Share of Regional Revenues from Member Localities

Long Term Benefit



For illustrative purposes only

Qualitative Considerations

Funding Gap	Phases for which there is still a funding gap	Local priority	External funds	Past performance (% of expected funds reimbursed by FY2024 Q2)		Past performance (% of allocated funds reimbursed by FY2024 Q2)		Policy 29 non-compliance: # of projects - 18-month substantive progress	Policy 29 non-compliance: # of projects - SPA within three meetings of fund appropriation	SPA with no invoices for 12+ months	First fiscal year of expected drawdown	Year of opening	Alignment with Core Values		
				Continuation Projects	Jurisdiction /Agency	Continuation Projects	Jurisdiction /Agency						Equity	Safety	Sustainability
See definition below*			See definition below#	% drawn down of expected drawdown	% drawn down of expected drawdown	% drawn down of total allocation	% drawn down of total allocation								
None		Top 3	Very high	> 100%	> 100%	> 100%	> 100%	0	0	0	FY28	FY28			
Very low		Next 3	High	>80-100%	>80-100%	>80-100%	>80-100%	1	1	1	FY29	FY29			
Low		All others	Medium	>60-80%	>60-80%	>60-80%	>60-80%	2	2	2	FY30	FY30	Low alignment		
Medium			Low	>40-60%	>40-60%	>40-60%	>40-60%	3	3	3		FY31	Medium alignment		
High			Very low	>20-40%	>20-40%	>20-40%	>20-40%	4	4	4		FY32	High alignment		
Very high			None	0-20%	0-20%	0-20%	0-20%	5 or more	5 or more	5 or more		FY33			
				N/A	N/A	N/A	N/A								

	* Funding Gap	# External Funds
	Higher of % or $	Higher of % or $
Very high	Gap> 80% or >100M	Non-NVTA> 80% or >100M
High	Gap= >60-80% or >50-100M	Non-NVTA= >60-80% or >10-100M
Medium	Gap= >40-60% or >10-50M	Non-NVTA= >40-60% or >1-10M
Low	Gap= >20-40% or >1-10M	Non-NVTA= >20-40% or >100K-1M
Very low	Gap= >0-20% or upto 1M	Non-NVTA= >0-20% or upto 100,000
None	No gap	No external funds

This template is provided in the Committee packet

Project Description Forms

NVTA
Northern Virginia Transportation Authority

Eisenhower Avenue and South Van Dorn Street Corridor Improvements

Date Submitted: 07/31/2025

APPLICATION #: ALX-039

Project Description

This project will address current safety needs, advance multimodal transportation for upcoming redevelopment, and support NVTA's and the City's transit investments in BRT (the West End Transitway) by designing and implementing corridor improvements on Eisenhower Avenue between South Van Dorn Street and Cameron Run Park. This project aligns NVTA's TransAction and the City of Alexandria's Vision Zero Action Plan, Alexandria Mobility Plan, and Eisenhower West Small Area Plan. Improvements include installing a missing sidewalk to connect to the Van Dorn Street Metrorail Station (with West End Transitway and numerous local bus connections), installing a new two-way cycle track to connect to the existing shared-use path on the eastern end of Eisenhower Avenue, improving bus reliability by providing bus boarding platforms, adding new and improving existing crossings throughout the corridor to better access transit, and encouraging safer vehicle speeds. Additionally, this project will modify operations at the intersection of Eisenhower Avenue and South Van Dorn Street by rerouting left-turn movements to Metro Road, which will significantly improve congestion on both Eisenhower Avenue and South Van Dorn Street. Collectively, these changes will improve mobility, access, safety, and comfort for all roadway users on Eisenhower Avenue.

Primary Mode(s)	Secondary Mode(s)
Application Number	ALX-039
Primary TransAction ID Number	197
Submitting Jurisdiction/Agency	City of Alexandria
Location	Eisenhower Avenue (from South Van Dorn Street to Cameron Run Park), and South Van Dorn Street (from Eisenhower Avenue to Metro Road).
Requested NVTA Funds	$21,856,219.00
NVTA Funds Approved	N/A
Previous NVTA Funds Received	$0.00
Total Cost to Complete Project	$21,856,219.00

Project Location

Project Milestones

	Study	Design / Engineering / Environmental	ROW and Utilities	Construction	Asset Acquisition
Earlier					
FY29					
FY30					
FY31					
Beyond	X	X	X	X	

Year of expected project completion: FY2034

Project Funding

Source	Study	Design / Engineering / Environmental	ROW and Utilities	Construction	Asset Acquisition	Total
Total Cost	$0	$2,132,946	$2,077,688	$17,645,585	$0	$21,856,219
NVTA Funds Applied	$0	$2,132,946	$2,077,688	$17,645,585	$0	$21,856,219
Total Other	$0	$0	$0	$0	$0	$0
Gap	$0	$0	$0	$0	$0	$0

Project Analysis Highlights

Congestion Reduction Relative to Cost (CRRC) Rating	N/A
Congestion Reduction Relative to Cost (CRRC) Rank	N/A
TransAction Project Rating	N/A
TransAction Project Rank	N/A
Project's Past Performance (Percentage of expected funds that was reimbursed by 12/31/2025)	N/A
Jurisdiction/Agency's Past Performance on All Projects (Percentage of expected funds that was reimbursed by 12/31/2025)	82.02%
Percentage of Total Project Cost Covered by Funds from Sources Other than NVTA	0.00%
Local Priority	2
Number of Supporting Resolutions (does not include resolution from applicant's own Board/Council)	0
Number of NVTA-Funded Project(s) Nearby	3
Regional Funds allocated to NVTA-Funded Project(s) Nearby	$106,600,000

For illustrative purposes only

Summary of Applications

Northern Virginia Transportation Authority **11/20/2025**

Summary of FY2026-2031 Six Year Program Candidate Projects

Sr No.	Application #	Jurisdiction	Project Title	Total Project Cost	Requested NVTA Funds	Phases for Which Funds are Requested	Primary and Supporting Modal Components
1	ARL-024	Arlington County	Arlington Memorial Trail: Memorial Avenue to Columbia Pike	$ 29,338,000	$ 5,000,000	PE	
2	ARL-026	Arlington County	South George Mason Drive Multimodal Improvements: Columbia Pike to South Dinwiddie Street	$ 36,000,000	$ 36,000,000	PE, ROW, CN	
3	ARL-027	Arlington County	South George Mason Drive and South Four Mile Run Drive Intersection Safety Improvements	$ 64,375,000	$ 8,500,000	PE	
4	ARL-028	Arlington County	North Glebe Rd at I-66 WB Off-Ramp Intersection Improvements	$ 17,500,000	$ 10,000,000	PE, ROW	
5	ARL-029	Arlington County	South Glebe Road and West Glebe Road Intersection Improvements	$ 10,000,000	$ 10,000,000	PE, ROW, CN	
6	ARL-030	Arlington County	Court House Metro Station Access Improvements	$ 67,127,000	$ 11,655,000	PE	
7	ARL-031	Arlington County	Next Generation Bus Rider Info	$ 2,500,000	$ 2,500,000	CN, Asset Acq	
8	ARL-032	Arlington County	Arlington Boulevard Trail: North Side from North Granada Street to North Jackson Street	$ 15,000,000	$ 15,000,000	PE, ROW, CN	
9	ARL-033	Arlington County	South Glebe Road and 7th Street South Intersection Improvements	$ 10,000,000	$ 3,000,000	PE, ROW	
10	ARL-034	Arlington County	North Glebe Road at Quincy Street / Henderson Road Intersection Improvements	$ 15,000,000	$ 5,000,000	PE, ROW	
11	ARL-035	Arlington County	Performance Parking Initiative Phases 2 and 3	$ 4,587,747	$ 4,587,747	CN, Asset Acq	
12	ARL-036	Arlington County	Custis Trail Widening and Modernization	$ 29,900,000	$ 2,400,000	PE	
13	ARL-037	Arlington County	Eads Street Multimodal Improvements: 15th Street South to 23rd Street South	$ 18,300,000	$ 2,000,000	PE	
14	FFX-141	Fairfax County	Richmond Highway Bus Rapid Transit - Phases I & II*	$ 987,290,200	$ 463,000,000	PE, ROW, CN, Asset Acq	
15	LDN-040	Loudoun County	Route 50 North Collector Road - Tall Cedars Parkway to Route 28	$ 400,716,000	$ 200,000,000	PE, ROW, CN	
16	LDN-041	Loudoun County	Colonial Highway Pedestrian Safety Improvements Project	$ 8,488,000	$ 8,488,000	PE, ROW, CN	
17	PWC-046	Prince William County	Van Buren Road North Extension: Route 234 to Cardinal Drive*	$ 191,005,800	$ 179,005,800	ROW, CN	
18	PWC-047	Prince William County	Old Bridge/Gordon Boulevard Intersection Improvements	$ 94,456,481	$ 56,000,000	ROW, CN	
19	PWC-048	Prince William County	Route 15 Railroad Overpass and Improvements Project	$ 80,000,000	$ 65,000,000	PE, ROW, CN	
20	PWC-049	Prince William County	Route 234 Trail at Innovation Park	$ 45,000,000	$ 45,000,000	PE, ROW, CN	
21	PWC-050	Prince William County	Dale City Transit Priority Project	$ 50,080,000	$ 6,000,000	PE	
22	ALX-039	City of Alexandria	Eisenhower Avenue and South Van Dorn Street Corridor Improvements	$ 21,856,219	$ 21,856,219	PE, ROW, CN	
23	ALX-040	City of Alexandria	Duke Street Transitway Phase 2: Van Dorn Street and Duke Street Interchange Improvements*	$ 102,555,000	$ 15,000,000	ROW, CN	
24	CFC-012	City of Falls Church	Haycock Road Shared Use Path	$ 15,000,000	$ 15,000,000	CN	
25	CFC-013	City of Falls Church	Annandale Road Multimodal Improvements	$ 30,000,000	$ 30,000,000	PE, ROW, CN	
26	MAN-004	City of Manassas	Manassas VRE Line Rail-with-Trail: Downtown Manassas to Bull Run Trail (Phase 1)	$ 30,534,594	$ 30,265,994	PE, ROW, CN	
27	HND-016	Town of Herndon	South Elden Street Corridor Improvements	$ 31,572,514	$ 15,572,514	CN	
		TOTAL		**$ 2,408,182,555**	**$ 1,265,831,274**		

Modal Components

- New or improved roadway capacity and/or alignment
- New or improved intersection/interchange
- Improvement/access to Metrorail/VRE commuter rail
- New or improved bus/BRT facility
- New or improved bicycle facility
- New or improved pedestrian facility
- Transportation Technology
- Parking

First symbol reflects the primary modal component, other symbols denote supporting modal components

Phases

PE	Design/Engineering/Environmental
ROW	Right of Way/Utilities
CN	Construction
Asset Acq	Asset Acquisition

This summary is provided in the Committee packet

Summary of Applications

By Jurisdiction

Jurisdiction	No. of Applications	% of Total	Total Project Cost	Requested NVTA Funds	% of Total Request
Arlington County	13	48%	$ 319,627,747	$ 115,642,747	9%
Fairfax County	1	4%	$ 987,290,200	$ 463,000,000	37%
Loudoun County	2	7%	$ 409,204,000	$ 208,488,000	16%
Prince William County	5	19%	$ 460,542,281	$ 351,005,800	28%
City of Alexandria	2	7%	$ 124,411,219	$ 36,856,219	3%
City of Falls Church	2	7%	$ 45,000,000	$ 45,000,000	4%
City of Manassas	1	4%	$ 30,534,594	$ 30,265,994	2%
Town of Herndon	1	4%	$ 31,572,514	$ 15,572,514	1%
TOTAL	**27**	**100%**	**$ 2,408,182,555**	**$ 1,265,831,274**	**100%**

By Mode

Mode	No. of Applications	% of Total	Total Project Cost	Requested NVTA Funds	% of Total Request
Roadway	5	19%	$ 713,294,314	$ 462,578,314	37%
Interchange/Intersection	4	15%	$ 183,831,481	$ 79,500,000	6%
Rail	1	4%	$ 67,127,000	$ 11,655,000	1%
Bus/BRT	3	11%	$ 1,139,925,200	$ 484,000,000	38%
Bike-ped	12	44%	$ 296,916,813	$ 221,010,213	17%
Technology	2	7%	$ 7,087,747	$ 7,087,747	1%
TOTAL	**27**	**100%**	**$ 2,408,182,555**	**$ 1,265,831,274**	**100%**

Modal Components

- New or improved roadway capacity and/or alignment
- New or improved intersection/interchange
- Improvement/access to Metrorail/VRE commuter rail
- New or improved bus/BRT facility
- New or improved bicycle facility
- New or improved pedestrian facility
- Transportation Technology
- Parking

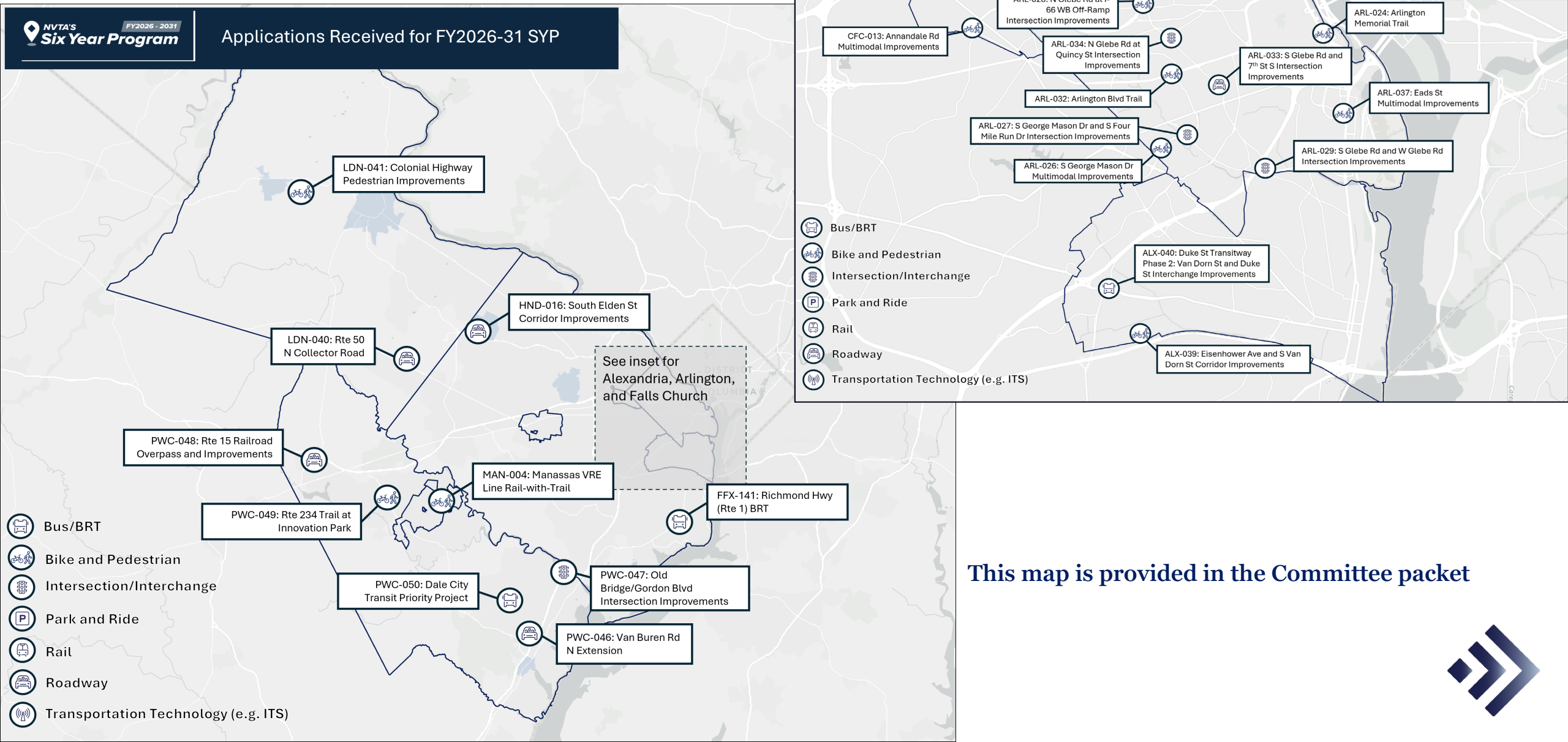
First symbol reflects the primary modal component, other symbols denote supporting modal components

Phases

PE	Design/Engineering/Environmental
ROW	Right of Way/Utilities
CN	Construction
Asset Acq	Asset Acquisition

This summary is provided in the Committee packet

Summary of Applications



This map is provided in the Committee packet

FY2026-2031 SYP Schedule

- May 1, 2025: Call for regional Transportation Projects issued
- August 1, 2025: Application deadline
- October 31, 2025: Governing body resolution deadline
- Summer/Fall 2025: Eligibility review; one-on-one applicant meetings; coding
- Fall/Winter 2025: Evaluations and review with applicants
- **March 2026: Review evaluations with TAC, PCAC, PPC**
- **March 2026: NVTA approves date for Public Hearing**
- **April 2026: NVTA releases candidate project list and evaluations for public comment**
- **April / May 2026: Public comment period**
- **May 2026: NVTA hosts Public Hearing**
- **June 2026: NVTA gets briefed on public comments**
- **June 2026: NVTA staff releases project recommendations for review and endorsement by TAC, PCAC, and PPC**
- **July 2026: NVTA adopts FY2026-2031 SYP**

NVTA

NORTHERN VIRGINIA TRANSPORTATION AUTHORITY

Thank You!

Northern Virginia Transportation Authority

Summary of FY2026-2031 Six Year Program Candidate Projects

Application #	Jurisdiction	Project Title	Primary and Supporting Modal Components	Total Project Cost	Requested NVTA Funds	Phases for Which Funds are Requested	Previously Approved NVTA Regional Funds	Other Committed Funds	Funding Gap	Phases for which there is still a funding gap	Local priority	External funds	Past performance (% of expected funds reimbursed by FY2026 Q2) Continuation Projects	Past performance (% of expected funds reimbursed by FY2026 Q2) Jurisdiction /Agency	Past performance (% of allocated funds reimbursed by FY2026 Q2) Continuation Projects	Past performance (% of allocated funds reimbursed by FY2026 Q2) Jurisdiction /Agency	Policy 29 non-compliance: # of projects - 18-month substantive progress	Policy 29 non-compliance: # of projects - SPA within three meetings of fund appropriation	SPA with no invoices for 12+ months	First fiscal year of expected drawdown	Year of opening	Alignment with Core Values Equity	Alignment with Core Values Safety	Alignment with Core Values Sustainability	Long Term Benefit	Other	TransAction Project Rating (incl. HB 599)	TransAction Project Rating Rank (incl. HB	CRRC (Reduction in annual person hours of delay / Total project cost in $1000's)	CRRC Rank
ARL-024	Arlington County	Arlington Memorial Trail: Memorial Avenue to Columbia Pike		$ 29,338,000	$ 5,000,000	PE																								
ARL-026	Arlington County	South George Mason Drive Multimodal Improvements: Columbia Pike to South Dinwiddie St		$ 36,000,000	$ 36,000,000	PE, ROW, CN																								
ARL-027	Arlington County	South George Mason Drive and South Four Mile Run Drive Intersection Safety Improvements		$ 64,375,000	$ 8,500,000	PE																								
ARL-028	Arlington County	North Glebe Rd at I-66 WB Off-Ramp Intersection Improvements		$ 17,500,000	$ 10,000,000	PE, ROW																								
ARL-029	Arlington County	South Glebe Road and West Glebe Road Intersection Improvements		$ 10,000,000	$ 10,000,000	PE, ROW, CN																								
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ARL-031	Arlington County	Next Generation Bus Rider Info		$ 2,500,000	$ 2,500,000	CN, Asset Acq																								
ARL-032	Arlington County	Arlington Boulevard Trail: North Side from North Granada Street to North Jackson Street		$ 15,000,000	$ 15,000,000	PE, ROW, CN																								
ARL-033	Arlington County	South Glebe Road and 7th Street South Intersection Improvements		$ 10,000,000	$ 3,000,000	PE, ROW																								
ARL-034	Arlington County	North Glebe Road at Quincy Street / Henderson Road Intersection Improvements		$ 15,000,000	$ 5,000,000	PE, ROW																								
ARL-035	Arlington County	Performance Parking Initiative Phases 2 and 3		$ 4,587,747	$ 4,587,747	CN, Asset Acq																								
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PWC-048	Prince William County	Route 15 Railroad Overpass and Improvements Project		$ 80,000,000	$ 65,000,000	PE, ROW, CN																								
PWC-049	Prince William County	Route 234 Trail at Innovation Park		$ 45,000,000	$ 45,000,000	PE, ROW, CN																								
PWC-050	Prince William County	Dale City Transit Priority Project		$ 50,080,000	$ 6,000,000	PE																								
ALX-039	City of Alexandria	Eisenhower Avenue and South Van Dorn Street Corridor Improvements		$ 21,856,219	$ 21,856,219	PE, ROW, CN																								
ALX-040	City of Alexandria	Duke Street Transitway Phase 2: Van Dorn Street and Duke Street Interchange Improvements*		$ 102,555,000	$ 15,000,000	ROW, CN																								
CFC-012	City of Falls Church	Haycock Road Shared Use Path		$ 15,000,000	$ 15,000,000	CN																								
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** Continuation project (previously received NVTA regional revenue funds)*

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ROW	Right of Way/Utilities
CN	Construction
SPA	Standard Project Agreement for NVTA regional funding
CRRC	Congestion reduction relative to cost
Acq	Asset Acquisition

Notes:

A Project proposed to add dedicated ROW for future Bus Rapid Transit services

B All or some phases of the project were considered fully funded with the previous NVTA allocation

See definition below*
None
Very low
Low
Medium
High
Very high

*** Funding Gap**

	Higher of % or $
Very high	Gap> 80% or >100M
High	Gap= >60-80% or >50-100M
Medium	Gap= >40-60% or >10-50M
Low	Gap= >20-40% or >1-10M
Very low	Gap= >0-20% or upto 1M
None	No gap

See definition below#	% drawn down of expected drawdown	% drawn down of expected drawdown	% drawn down of total allocation	% drawn down of total allocation						
Top 3	Very high	> 100%	> 100%	> 100%	> 100%	0	0	0	FY28	FY28
Next 3	High	>80-100%	>80-100%	>80-100%	>80-100%	1	1	1	FY29	FY29
All others	Medium	>60-80%	>60-80%	>60-80%	>60-80%	2	2	2	FY30	FY30
Low	>40-60%	>40-60%	>40-60%	>40-60%	3	3	3	FY31	Medium alignment
Very low	>20-40%	>20-40%	>20-40%	>20-40%	4	4	4	FY32	High alignment
None	0-20%	0-20%	0-20%	0-20%	5 or more	5 or more	5 or more	FY33	
	N/A	N/A	N/A	N/A					

 # External Funds

	Higher of % or $
Non-NVTA> 80% or >100M	
Non-NVTA= >60-80% or >10-100M	
Non-NVTA= >40-60% or >1-10M	
Non-NVTA= >20-40% or >100K-1M	
Non-NVTA= >0-20% or upto 100,000	
No external funds	

Low alignment	
	Less than % share of revenue
	Approx. equal to % share of revenue
	More than % share of revenue

Anticipated next three SYP updates

	Adopt in
	CY 2028
	CY 2030
	CY 2032

Northern Virginia Transportation Authority

Eisenhower Avenue and South Van Dorn Street Corridor Improvements

Date Submitted:
07/31/2025

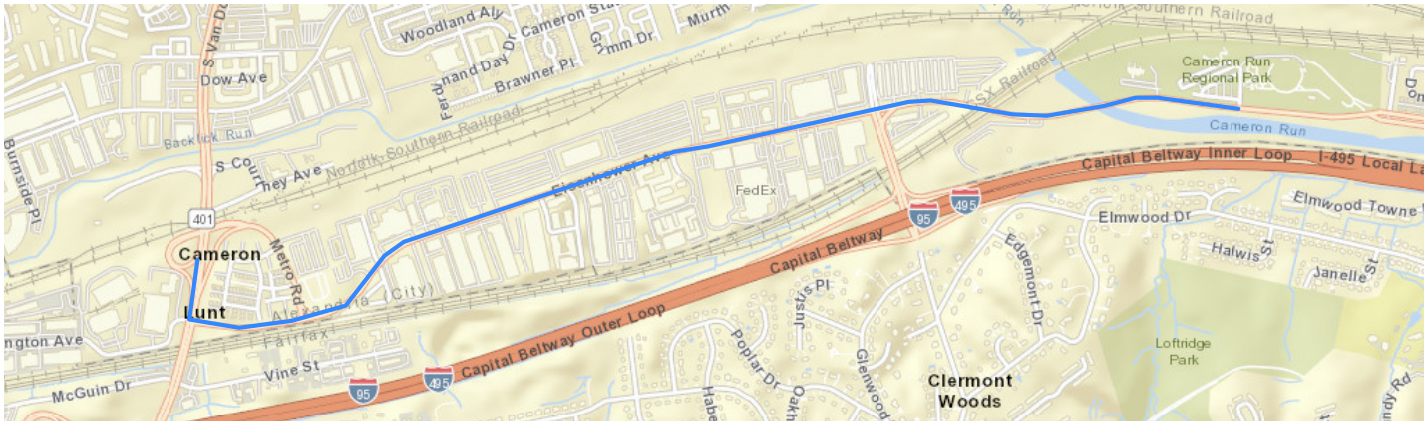
APPLICATION #: ALX-039

Project Description

This project will address current safety needs, advance multimodal transportation for upcoming redevelopment, and support NVTA's and the City's transit investments in BRT (the West End Transitway) by designing and implementing corridor improvements on Eisenhower Avenue between South Van Dorn Street and Cameron Run Park. This project aligns NVTA's TransAction and the City of Alexandria's Vision Zero Action Plan, Alexandria Mobility Plan, and Eisenhower West Small Area Plan. Improvements include installing a missing sidewalk to connect to the Van Dorn Street Metrorail Station (with West End Transitway and numerous local bus connections), installing a new two-way cycle track to connect to the existing shared-use path on the eastern end of Eisenhower Avenue, improving bus reliability by providing bus boarding platforms, adding new and improving existing crossings throughout the corridor to better access transit, and encouraging safer vehicle speeds. Additionally, this project will modify operations at the intersection of Eisenhower Avenue and South Van Dorn Street by rerouting left-turn movements to Metro Road, which will significantly improve congestion on both Eisenhower Avenue and South Van Dorn Street. Collectively, these changes will improve mobility, access, safety, and comfort for all roadway users on Eisenhower Avenue.

Primary Mode(s)	Secondary Mode(s)
Application Number	ALX-039
Primary TransAction ID Number	197
Submitting Jurisdiction/Agency	City of Alexandria
Location	Eisenhower Avenue (from South Van Dorn Street to Cameron Run Park), and South Van Dorn Street (from Eisenhower Avenue to Metro Road).
Requested NVTA Funds	$21,856,219.00
NVTA Funds Approved	N/A
Previous NVTA Funds Received	$0.00
Total Cost to Complete Project	$21,856,219.00

Project Location



Project Milestones

	Study	Design / Engineering / Environmental	ROW and Utilities	Construction	Asset Acquisition
Earlier					
FY29					
FY30					
FY31					
Beyond	X	X	X	X	

Year of expected project completion: FY2034

Project Funding

Source	Study	Design / Engineering / Environmental	ROW and Utilities	Construction	Asset Acquisition	Total
Total Cost	$0	$2,132,946	$2,077,688	$17,645,585	$0	$21,856,219
NVTA Funds Applied	$0	$2,132,946	$2,077,688	$17,645,585	$0	$21,856,219
Total Other	$0	$0	$0	$0	$0	$0
Gap	$0	$0	$0	$0	$0	$0

Project Analysis Highlights

Congestion Reduction Relative to Cost (CRRC) Rating	N/A
Congestion Reduction Relative to Cost (CRRC) Rank	N/A
TransAction Project Rating	N/A
TransAction Project Rank	N/A
Project's Past Performance (Percentage of expected funds that was reimbursed by 12/31/2025)	N/A
Jurisdiction/Agency's Past Performance on All Projects (Percentage of expected funds that was reimbursed by 12/31/2025)	82.02%
Percentage of Total Project Cost Covered by Funds from Sources Other than NVTA	0.00%
Local Priority	2
Number of Supporting Resolutions (does not include resolution from applicant's own Board/Council)	0
Number of NVTA-Funded Project(s) Nearby	3
Regional Funds allocated to NVTA-Funded Project(s) Nearby	$106,600,000

Northern Virginia Transportation Authority

11/20/2025

Summary of FY2026-2031 Six Year Program Candidate Projects

Sr No.	Application #	Jurisdiction	Project Title	Total Project Cost	Requested NVTA Funds	Phases for Which Funds are Requested	Primary and Supporting Modal Components
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		TOTAL		**$ 2,408,182,555**	**$ 1,265,831,274**		

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Northern Virginia Transportation Authority **11/20/2025**

Summary of FY2026-2031 Six Year Program Candidate Projects

By Jurisdiction

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Prince William County	5	19%	$ 460,542,281	$ 351,005,800	28%
City of Alexandria	2	7%	$ 124,411,219	$ 36,856,219	3%
City of Falls Church	2	7%	$ 45,000,000	$ 45,000,000	4%
City of Manassas	1	4%	$ 30,534,594	$ 30,265,994	2%
Town of Herndon	1	4%	$ 31,572,514	$ 15,572,514	1%
TOTAL	**27**	**100%**	**$ 2,408,182,555**	**$ 1,265,831,274**	**100%**

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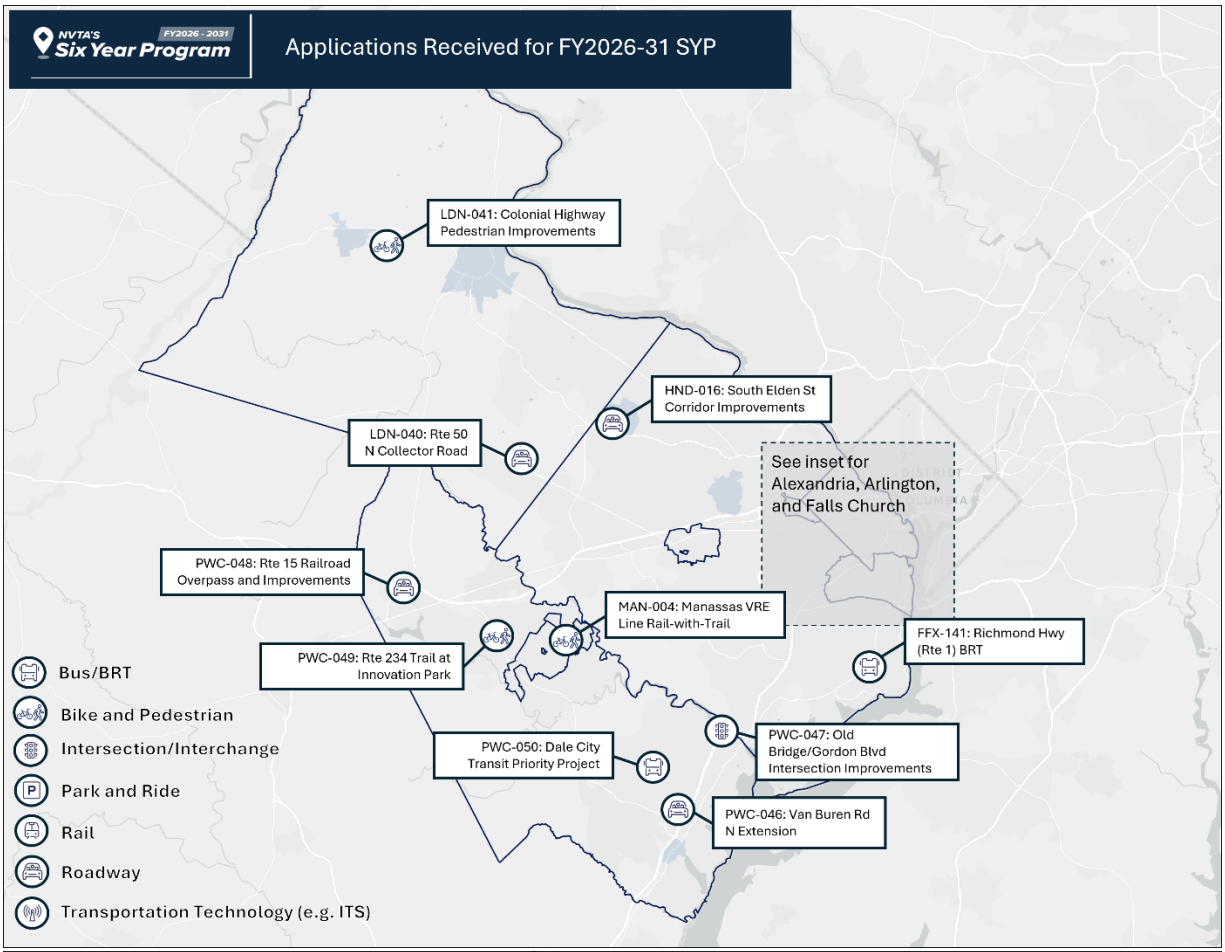
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Bike and Pedestrian
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Park and Ride
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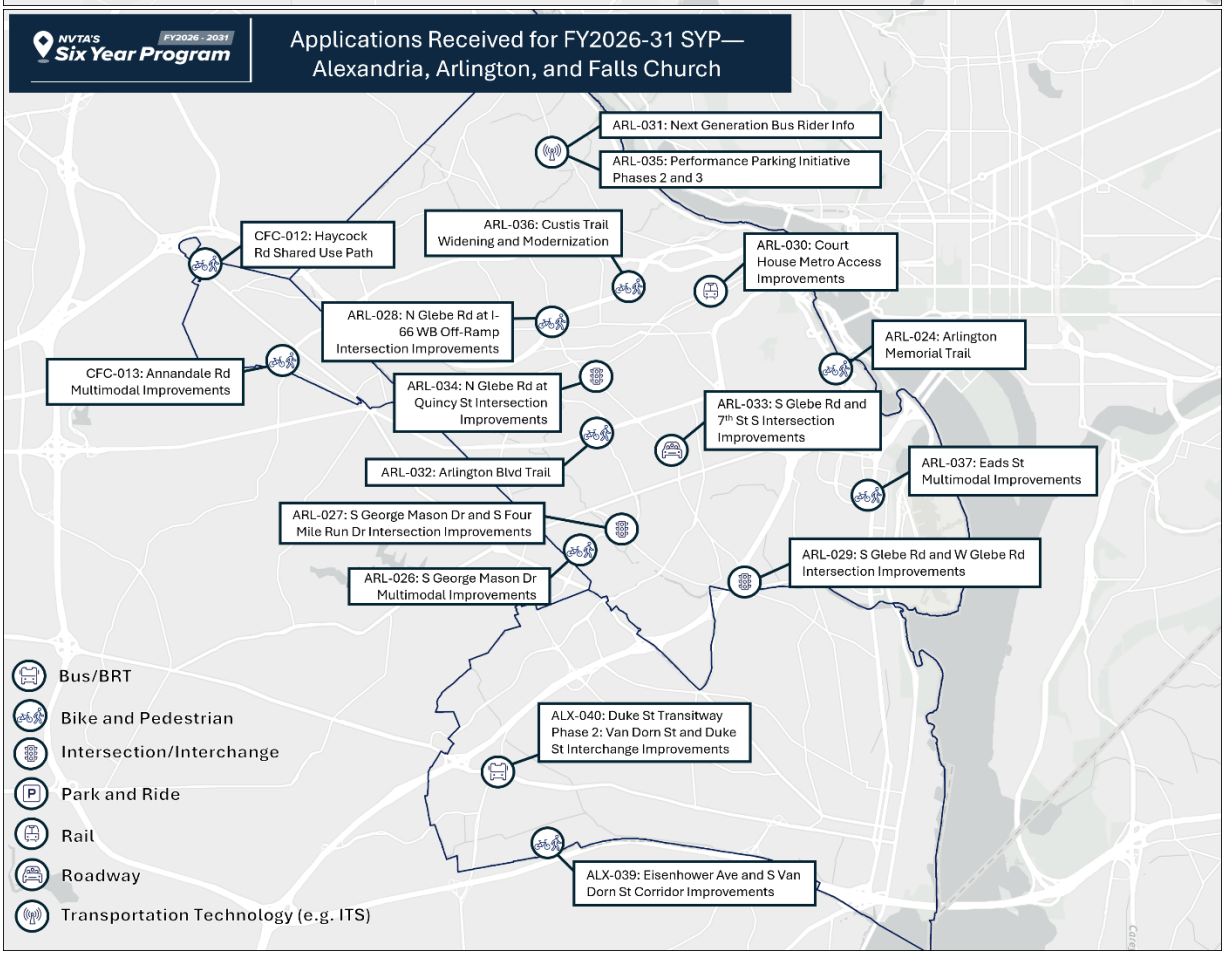
Transportation Technology (e.g. ITS)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Bus/BRT
Bike and Pedestrian
Intersection/Interchange
Park and Ride
Rail
Roadway
Transportation Technology (e.g. ITS)

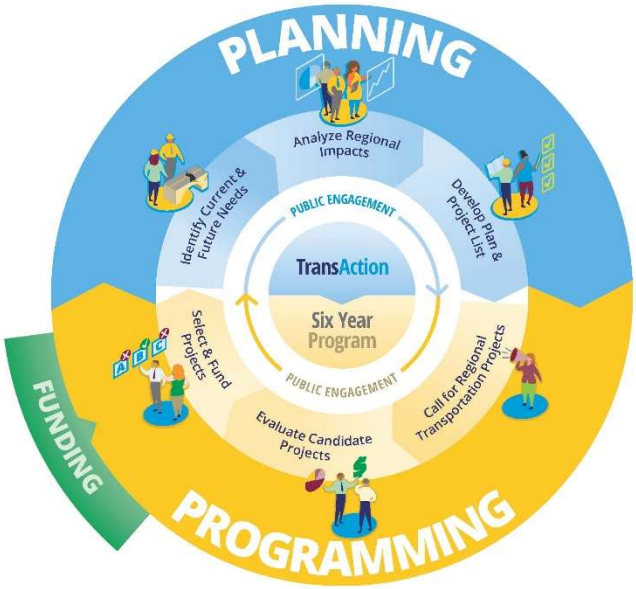
Task 1.5 Technical Memorandum

Performance Measures Methodology

February 2022

The Northern Virginia Transportation Authority (NVTA) is a regional body that is focused on delivering transportation solutions and value for Northern Virginia's transportation dollars by bringing NoVA jurisdictions and agencies together to plan and program regional multimodal transportation projects focused on relieving congestion. As shown in Figure 1, NVTA has two main functions in the planning and programming of the multimodal transportation network in Northern Virginia. TransAction is Northern Virginia's long range multimodal transportation plan, which is a financially and geographically unconstrained plan, that is updated every five years. As part of TransAction, NVTA analyzes the regional impacts of a slate of multimodal transportation projects using a set of performance measures designed to capture the range of potential benefits of all types of improvements.

Figure 1: NVTA's Planning and Programming Process



NVTA also is responsible for allocating regional transportation funds to specific projects as part of the programming process. Every two years, NVTA updates their Six Year Program to include projects selected to receive funding. These programming decisions are also based, in part, on an evaluation of candidate projects based on the same set of performance measures used in TransAction.

TransAction is currently being updated, which includes revisions to the TransAction Vision, Goals, Objectives, and Performance Measures. These new performance measures will be used to analyze the impacts of transportation projects as part of TransAction, and for at least the next three Six Year Program evaluations beginning with the FY2022-2027 Six Year Program. This memo outlines the methodology that is being used to calculate each of the ten performance measures based on results of the modeling process and/or other inputs, and how they will be combined in order to develop a combined TransAction rating.

Performance Measures

On November 18, 2021, NVTA approved the goals, objectives, and ten performance measures as shown in Table 1.

Table 1: Approved Goals, Objectives and Performance Measures

Goal	Objective	Performance Measure
Mobility: Enhance quality of life of Northern Virginians by improving performance of the multimodal transportation system	A. Reduce congestion and delay*	A1. Total Person-Hours of Delay in autos
		A2. Total Person-Hours of Delay on Transit
	B. Improve travel time reliability*	B1. Duration of Severe Congestion
		B2. Transit person-miles in dedicated/priority ROW
Accessibility: Strengthen the region's economy by increasing access to jobs, employees, markets, and destinations for all communities	C. Improve access to jobs*	C1. Access to jobs by car, transit, and bike
		C2. Access to jobs by car, transit, and bike for EEA populations
	D. Reduce dependence on driving alone by improving conditions for people accessing transit and using other modes	D1. Quality of access to transit and the walk/bike network
Resiliency: Improve the transportation system's ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.	E. Improve safety and security of the multimodal transportation system	E1. Potential for safety and security improvements
	F. Reduce transportation related emissions	F1. Vehicle Emissions
	G. Maintain operations of the regional transportation system during extreme conditions*	G1. Transportation System Redundancy

*Objectives align with HB599 requirements Transit may include High Occupancy Vehicles (HOV)

Proposed Calculation Methodology

Each measure will need to be calculated on its own scale based on the methodology set out in the following sections. Regardless of the methodology used, the results of each measure will be normalized and reported on a scale of 1 to 100. The normalization process will assign the highest performance in each measure a score of 100; all other projects will be assigned a score based on how close they are to this highest performance. For example, if Project A reduces delay by the most of any project, it will be assigned 100 points as shown in Table 2 below. The other projects will be assigned a score relative to Project A. While projects will receive scores across all ten performance measures, the same project may not be the highest scoring project across each of the performance measures.

Table 2: Sample of Score Normalization

Project	Person-Hours of Delay in Autos Reduced	% Relative to Highest Performing Project	Performance Measure A1 Score
Project A	10,000	100%	100
Project B	1,018	10.18%	10.18
Project C	8,101	81.01%	81.01

A1. Total Person-Hours of Delay in Autos

Calculated for each link, as the difference between the number of person-hours spent traveling and the hypothetical person-hours that would be spent traveling if all roads were able to operate at free-flow speed. This is summed over the whole day.

$$\sum_{j=1}^{j} (TravelTime_j - TravelTime_{FreeFlow}) * AutoVolume * AutoOccupancy$$

Where *j*=number of time periods in the day.

Only people in autos (drivers and passengers) are included in this calculation. Projects of all modes are considered for their impact on congestion, including pedestrian and bike projects. Transit and highway projects can be easily represented within the confines of the mode choice model and the dynamic traffic assignment[1]. However, bike and pedestrian projects will also have some impact on congestion levels, by encouraging more people to switch to non-motorized modes.

To account for these impacts, after the mode choice model has created modal trip tables, some additional trips will be shifted from motorized to non-motorized modes. Since most non-motorized trips are short (pedestrian trips tend to be less than a mile and bicycle trips tend to be less than two miles long[2]) shorter trips will be more likely to be shifted than longer trips. These non-motorized trips (along with the other non-motorized trip productions developed by the model as part of the Trip Generation step) will not be assigned to the network. The number of trips that will be shifted into non-motorized modes will vary by the type/scale of project, and the location of the proposed improvements. There is limited data available on how many trips are shifted to non-motorized modes when improvements to the bike/walk infrastructure are made, but the most complete example comes from California. As shown in Table 3, the number of trips shifted is dependent on the length of the proposed enhancement and the amount of travel occurring on the adjacent/ parallel facilities.

[1] See the Modeling Strategy Memo for a more complete description of how the dynamic traffic assignment will be connected to other modeling steps.

[2] National Survey of Bicyclist and Pedestrian Behavior and Attitudes, National Highway Traffic Safety Administration (NHTSA), 2008. https://rosap.ntl.bts.gov/view/dot/1845.

Table 3: Active Transportation Adjustment Factors

Average Daily Traffic (ADT)	Project Length (one- direction)	Adjustment Factors
ADT ≤12,000 vehicles per day	≤1 mile	.0019
	>1 mile & ≤2 miles	.0029
	>2 miles	.0038
12,000<ADT ≤24,000 vehicles per day	≤1 mile	.0014
	>1 mile & ≤2 miles	.0020
	>2 miles	.0027
24,000<ADT vehicles per day	≤1 mile	.0010
	>1 mile & ≤2 miles	.0014
	>2 miles	.0019

Source: California Air Resources Board (2020) Quantification Methodology for the CARB STEP Pilot.

The CARB methodology also includes bonus adjustments for improvements located near "key destinations" – although no definition is provided. In a similar spirit, the adjustment factors will be scaled up by 0.003 if the improvement is located within a Regional Activity Center or a Transit Access Focus Area as defined by TPB. The total number of trips shifted from motorized to non-motorized travel will therefore be calculated as:

$$Trips\ Shifted = ADT * (AdjFactor + RACFactor)$$

A2. Total Person-Hours of Delay on Transit

This measure calculates congestion's impact on delaying transit passengers. It is not meant to account for delay caused by incidents on the transit system, nor as a measure of on-time performance for transit. Because this measure is tied to congestion, it only needs to be calculated on roadway links where bus transit operates in mixed traffic, or for HOVs in dedicated HOV/HOT facilities. Similar to the formulation of A1, it is calculated as the difference in travel times traveling at free-flow speed as compared to actual conditions.

$$\sum_{j=1}^{j} (TravelTime_j - TravelTime_{FreeFlow}) * TransitPassengerVolume$$

Where *j*=number of time periods in the day.

Delay for HOVs traveling in dedicated HOV lanes will be included in this measure. Delay incurred by SOVs using HOT facilities will not be included as transit delay, and will instead be included in the auto delay (Performance Measure A1). Travel on rail transit, including Metrorail, are not included in the measure. Projects of all modes are considered for their impact on congestion, including pedestrian and bike projects. The same process outlined for Performance Measure A1 will be conducted to account for the impacts of increased use of non-motorized modes on congestion.

B1. Duration of Severe Congestion

Duration of severe congestion is being used as a proxy for locations on the highway system with major reliability issues. As such, the measure calculates the portion of the day (number of hours) that each link experiences severe congestion – defined as a travel time ratio of 2.0 or higher.

$$Congestion\ Duration = \sum Hours_{SC} * FacilityMiles$$

Where $Hours_{sc}$=number of hours with a travel time ratio ≥ 2.0.

Projects of all modes should be considered for their impact on congestion, including pedestrian and bike projects. The same process outlined for Measure A1 will be conducted to account for the impacts of increased use of non-motorized modes on congestion.

B2. Transit Person-Miles in Dedicated/Prioritized ROW

To measure improvements in transit reliability, this measure quantifies the person-miles of travel occurring on transit in dedicated and prioritized right of way. This will essentially sum the person-miles dedicated/prioritized transitway across the network, including HOVs traveling in dedicated HOV lanes. Links on the network will need to be identified in advance using an attribute that categorizes their level of prioritization. Transit person-miles will then be calculated and summed as shown in Table 4. As shown in the table, travel on fully dedicated running-way is counted as 100 percent of the passenger miles traveled in the calculation. Other treatments, in which prioritization is provided for transit vehicles use a factor to discount the person-miles calculation to account for the fact that prioritized transit must still interact with congestion and other vehicles between intersections (in the case of TSP and queue jumps) or at intersections (in the case of BAT lanes). The factors in Table 4 have been developed based on a literature review of the relative travel time benefits of different types of bus priority treatments.

Table 4: Calculating Person-Miles on Dedicated/Prioritized ROW

Type of Treatment	Person-Miles Calculation
Separate Right-of-Way (e.g. Metrorail, VRE)	Passengers * distance traveled
Dedicated Bus Lanes	Passengers * distance traveled
Dedicated HOV/HOT Lanes	HOV Passengers * distance traveled
Business Access and Transit (BAT) Lanes[3]	Passengers * distance traveled *0.8
Transit Signal Priority	Passengers * distance traveled * 0.5
Queue Jump Lanes	Passengers * distance traveled *0.25

[3] BAT Lanes are curb-side lanes used exclusively by buses and right-turning vehicles, primarily to access businesses and driveways along a corridor.

C1. Access to jobs by car, transit, and bike

For each Traffic Analysis Zone (TAZ[4]) in Northern Virginia, this measure will calculate the number of jobs accessible by:

- Auto in 45 minutes
- Transit (including bus, rail, and on-demand transit) in 60 minutes
- Bike in 30 minutes

These numbers will be summed together for each TAZ to calculate the accessibility to jobs for each TAZ.

$$Accessibility_{TAZ} = Jobs_A + Jobs_T + Jobs_B$$

Where:

$Jobs_A$=number of jobs accessible within 45 minutes by auto

$Jobs_T$=number of jobs accessible within 60 minutes by transit

$Jobs_B$=number of jobs accessible within 30 minutes by bike

Jobs accessible by Auto and Transit will be calculated directly in the model. Jobs accessible by bike will be calculated using ArcGIS Network Analyzer, and will only include jobs accessible on facilities categorized as having a "Bicycle Level of Traffic Stress" of 2 or better. The bicycle network used for analysis includes both on-road and off-road facilities.

A regional value for this measure will be calculated by taking the average of all TAZ values weighted by their total population:

$$\frac{\sum_{TAZ=1}^{3722} Accessibility_{TAZ} * Pop_{TAZ}}{Regional\ Population}$$

It should be noted that this measure will double and triple count access to jobs that are accessible by multiple modes. This is intentional, and helps account for the benefits of having multiple modal options to complete the same trip.

Figure 2: Equity Emphasis Area Definitions

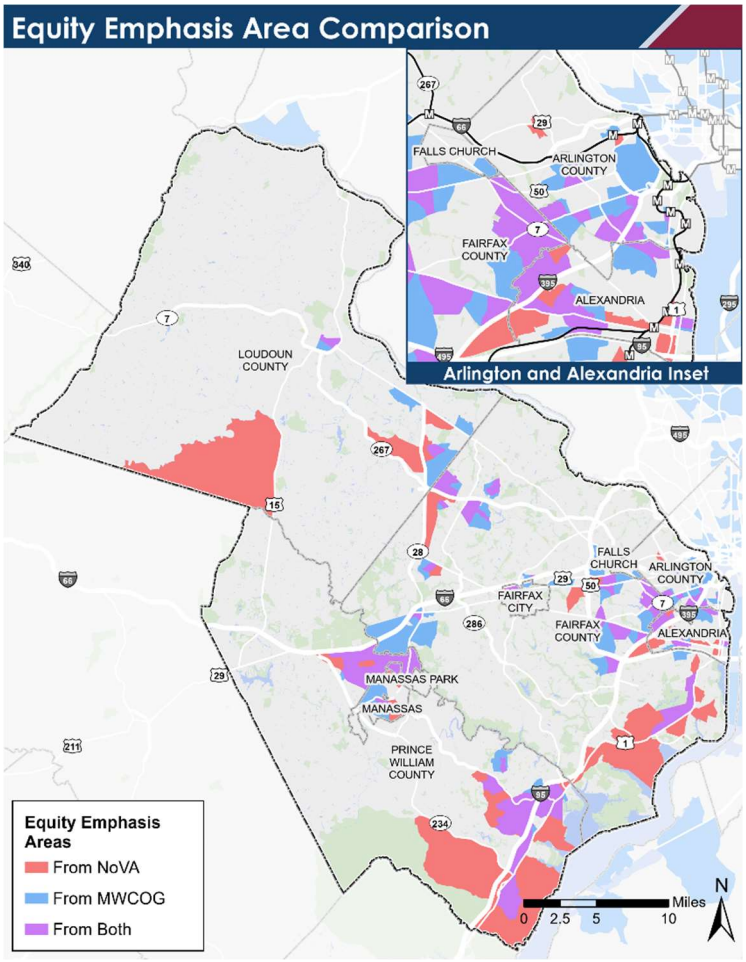
[4] For modeling purposes, the region is divided into a series of Traffic Analysis Zones (TAZs) that represent a specific geographic area.

C2. Access to jobs by car, transit, and bike by EEA Populations

This measure will be calculated in exactly the same way as Measure C1, except it will only be calculated for TAZs identified as being part of an Equity Emphasis Areas (EEA). As such, the regional measure will be calculated as the population-weighted average of the TAZ accessibility values only for EEA TAZs.

$$\frac{\sum Accessibility_{TAZ} * Population_{TAZ}}{Regional\ EEA\ Population}$$

EEAs will be defined as any TAZ that is defined as either an MWCOG regional EEA[5] or as a Northern Virginia Equity Area, as highlighted in Figure 2. Both were defined using similar methodologies with two significant differences:



1. 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.

2. The MWCOG EEAs were defined at the TAZ level, while the Northern Virginia EEAs were defined at the census tract level.

As shown in Figure 2, the results show that some locations were identified as an EEA in both definitions, while some areas were included only one or the other. To be inclusive of both definitions, while maintaining a focus on those areas with the most acute equity needs, TransAction will define EEAs as any TAZ that was defined as an MWCOG EEA or any TAZ for which 50 percent or more of the constituent census tracts were defined as a Northern Virginia EEA. The resulting areas that will be considered as part of this measure are shaded in Figure 3. This EEA definition covers approximately 32% of Northern Virginia's total current population, but more than 41 percent of the region's non-white population and more than 55 percent of the region's population living in poverty, as shown in Table 5Table 5: Percent of Regional Populations Covered by NVTA Equity Emphasis Areas.

[5] Equity Emphasis Areas (EEAs) are defined by MWCOG. https://www.mwcog.org/maps/map-listing/equity-emphasis-areas-eeas/

Figure 3: NVTA Equity Emphasis Areas for TransAction

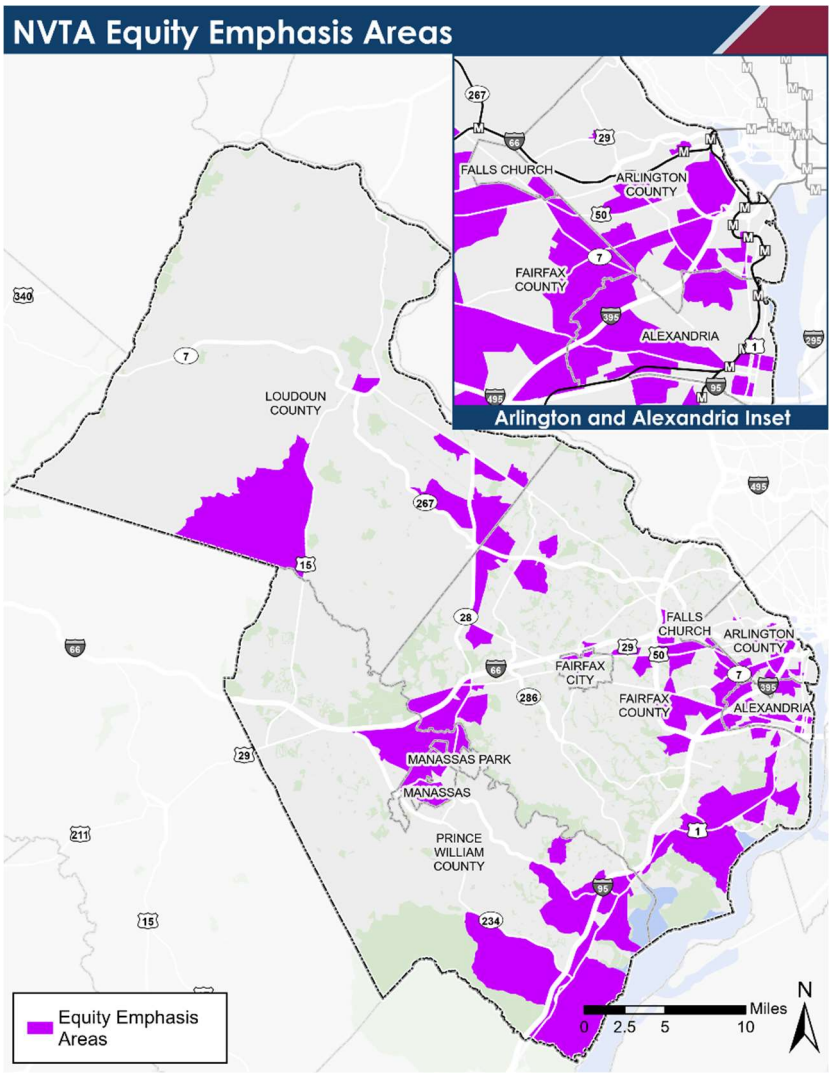


Table 5: Percent of Regional Populations Covered by NVTA Equity Emphasis Areas

Northern Virginia Regional Statistics	NVTA Equity Emphasis Areas
Total Population (2020)	31.7%
Total Population (2045)	32.6%
Non-White Population	41.9%
Population in Poverty	55.9%

D1. Quality of Access to Transit and the Walk/Bike Network

This measure will be qualitative, based on a definition of idealized conditions. Points (ranging from 0 to 4) will be allocated based on what percentage of these idealized amenities would be added as compared to the existing conditions. The idealized conditions envisioned by a score of four include:

Dense grid of arterial streets with wide sidewalks, crosswalks, pedestrian signals; bike lanes on most major arterials and bike sharing stations at frequent intervals; pick-up/drop-off locations for ridesharing/taxis; availability of shared micromobility (e.g. electric scooters); and transit circulator or shuttle bus routes connecting most activity locations and regional transit services, including park-and-ride lots; easy access to major transit stations.

The score will be awarded points ranging from 0 to 4, based on the approximate percentage of the listed features that are being added. For example, the installation of bike lanes, sidewalks and a circulator bus or microtransit service might be awarded a score of two points. The additional inclusion of grade-separated bike lanes and dedicated pick-up/drop-off locations could increase the score to three points. The points will then be weighted by the activity density (population and employment) within a half mile of the proposed improvements to calculate the score for this performance measure.

E1. Potential for Safety and Security Improvements

This measure will be based on the SmartScale safety analysis, which considers the potential for crash reduction in association with the number of current crashes to quantify the number of crashes that will be avoided. Because we do not have the data on the number of crashes at every location, this measure will look only at the potential for crash reduction through the lens of Crash Modification Factors (CMF). For this measure, each type of safety and security improvement will be assigned to a category based on the CMF identified by VDOT. A sample of the CMF factors is shown in Table 6 the full CMF list is incorporated as an appendix. Some additional project types have been added to the list below to incorporate the broader definition of safety being used in TransAction.

Table 6: Sample Categorization of Safety/Security Project Scores

High (3 points) CMF ≤ 0.33	Medium (2 points) 0.33 < CMF < 0.67	Low (1 point) CMF ≥ 0.67
Add new sidewalk	Add median	Addition of turn lanes
Convert stop/yield control to roundabout	Implement ramp metering	ITS for incident management, variable speed limits, ATM
Install pedestrian countdown timer	Adaptive signal control	Roadway widening
	Add bicycle lane	High Visibility Crosswalks
	Major transit projects that will significantly decrease VMT	Intersection lighting
		Transit projects that will have a smaller impact on VMT
		Improved lighting at transit stops

Where projects include multiple types of safety improvement, the points will be added together to calculate the project score. (CMFs should not be added, because lower CMFs are better.) For example, projects that add high-visibility crosswalks at three intersections would receive three points. Similarly, a project that added two miles of sidewalk would receive six points. This table can be revised if additional project types need to be included.

F1. Vehicle Emissions

Vehicle emissions will be approximated using Vehicle Miles Traveled (VMT) as a proxy. Total VMT by speed class will be calculated directly from the model. In the No-Build scenario, electrification assumptions will mirror the fleet mix on the ground today to a large extent. The following assumptions will be used:

- 4 percent of light-duty vehicles will be ZEV[6]
- 1 percent of buses will be ZEV[7]
- No heavy trucks will be ZEV

In the future Build network analyses, projects will be included that increase these electrification rates significantly.

Table 7 shows the CO_2 emissions rates for 16 different speed classes and two types of vehicles. For the purpose of calculating this metric, the change in CO2 emissions will be multiplying the VMT by the appropriate factor.

Table 7: Running CO_2 Emissions Rates (g/mile) by Speed

Speed (mph)	Light-Duty Vehicles	Buses	Trucks[8]
< 2.5	1,193.27	7,325.32	8,160.82
2.5 – 5	650.44	4,011.37	4,312.85
5 – 10	380.17	2,590.43	2,586.80
10- 15	297.07	2,142.19	2,163.03
15 – 20	248.23	1,885.14	1,874.54
20 - 25	220.00	1,727.80	1,708.10
25 – 30	203.51	1,681.17	1,660.44
30 – 35	198.06	1,434.48	1,430.85
35 – 40	193.92	1,390.28	1,379.48
40 – 45	190.17	1,354.12	1,336.62
45 - 50	184.58	1,325.92	1,273.75
50 – 55	179.37	1,302.15	1,214.71
55 - 60	175.76	1,286.11	1,195.29
60 – 65	176.88	1,355.77	1,245.24
65 – 70	181.83	1,421.19	1,290.19
> 70	189.88	1,500.28	1,362.54

Source: MWCOG/TPB Emissions Analysis for Fairfax County

[6] https://cleanairpartners.net/sites/default/files/SemaConnect%20-%20EVs%20in%20the%20DMV%20Region%20Final.pdf. Vehicle electrification rates vary by jurisdiction, but are higher closest to DC.

[7] Current bus fleet in Northern Virginia is approximately 58% diesel, 17% CNG, 1% Battery Electric, and 25% Diesel Hybrid.

[8] Assumes a truck fleet that is evenly split between single unit and combination trucks.

The total value of the performance measure will be the weighted sum of the non-ZEV VMT as shown below:

$$Emissions = \sum(VMT * Weight)$$

G1. Transportation System Redundancy

This measure is calculated from the model, by calculating the change in person-hours of travel resulting from a 10 percent increase in PM peak hour trip making. The PM peak hour is defined as the hour with the most trips being made in Northern Virginia, and equate to the 5-6 pm hour. This measure is essentially identifying if there is excess capacity in the transportation system by adding additional travel to the busiest hour on the network. In a network with more excess/redundant capacity, the amount of person-hours of travel will be lower than on a network with less redundancy.

TransAction Score Calculation Methodology

The final performance measures will be combined into a single TransAction Score by combining the scores for each individual measure with its assigned weight as follows:

$$TransAction\ Score = \sum PerformanceMeasure * Weight$$

The weights approved by the Authority in December 2021 are shown in Table 8.

Table 8: Performance Measures and Final Weights

Performance Measure	Weight
A1. Total Person-Hours of Delay in autos	10%
A2. Total Person-Hours of Delay on Transit	10%
B1. Duration of Severe Congestion	10%
B2. Transit person-miles in dedicated/priority ROW	10%
C1. Access to jobs by car, transit, and bike	10%
C2. Access to jobs by car, transit, and bike for EEA populations	10%
D1. Quality of access to transit and the walk/bike network	15%
E1. Potential for safety and security improvements	10%
F1. Vehicle Emissions	10%
G1. Transportation System Redundancy	5%

Appendix: Crash Mitigation Factors

Based on the following Crash Mitigation Factors used by SMARTSCALE, the following CMF categories will be applied to Measure E1. Should additional project types be proposed that are not explicitly included in this list, appropriate categories will be added that are consistent with the potential safety benefits.

Project Extent	Improvement Type/Features	Crash Mitigation Category
Intersection	Convert stop control to yield control (when warranted)	Med
	Convert stop/yield control to signal	Med
	Convert stop/yield control to roundabout	High
	Convert signal to roundabout	Med
	Convert two-way stop control to unsignalized RCUT	Med
	Convert signal control to signalized RCUT	Med
	Convert signal control to continuous green T signal	Low
	Displaced left turn intersection	Low
	Median U-turn intersection	Low
	Convert pedestal to mast arm	Med
	Enhanced signal conspicuity	Low
	Convert unsignalized intersection warning beacons from static to dynamic	Low
	Install conflict warning system – 4-lane at 2-lane intersection	Low
	Install conflict warning system – 2-lane at 2-lane intersection	Low
	New turn lane (none present)	Low
	Add turn lane (to existing)	Low
	Extend turn lane	Low
	Median acceleration lane	Low
	Add median or close median opening (convert to right-in/right-out)	Med
	Increase intersection radii	Low
Interchange	At-grade to new interchange	Med
	Convert stop-control diamond interchange to DDI	High
	Convert signalized diamond interchange to DDI	Med
	Convert diamond interchange to SPUI	Med
	Change loop ramp to flyover ramp	Volume-based
	Non-freeway: replace arterial turns with loops or directional ramps	Med
	Add freeway collector-distributor roads	Low
	Add freeway independent loop or directional ramp entrances	Low
	Extend ramp acceleration lane length	Function

	Add entrance ramp lane (1 to 2 lanes)	Low
	Add exit ramp lane (1 to 2 lanes)	Low
	Extend ramp deceleration lane length 250-500 ft up to 700 ft in total length	Low
	Implement ramp metering	Med
Bridge	Widen shoulders	Low
Freeway Segment	ITS for incident management	Low
	ITS for ATM	Low
	ITS for variable speed limits	Low
	Add auxiliary lanes between ramps	Low
	Directional widening 2 to 3 lanes – Rural	Low
	Directional widening 2 to 3 lanes – Urban	Low
	Directional widening 2 to 4+ lanes – Urban	Low
	Directional widening 3 to 4+ lanes – Urban	Low
Non-Freeway Segment	Adaptive signal control – Urban Intersection – 3-leg intersection	Med
	Adaptive signal control – Urban Intersection – 4-leg intersection	Med
	Adaptive signal control – Suburban Intersection	Low
	Signal retiming/optimization	Low
	ITS for Advanced Traffic Management (ATM)	Low
	Close driveway	Low
	Widen shoulder	function
	Provide median (right-in/right-out only)	Med
	Alignment reconstruction	Low
	Convert two-way road to one-way road	Med
	Addition of two-way left turn lane (four to five lane conversion)	Med
	Addition of two-way left turn lane (two to three lane conversion)	Low
	Pavement re-utilization (road diet)	Med
	Widen 2-lane to multilane divided – Rural	Low
	Widen 2-lane to 4-lane divided – Urban	Low
	Widen 2-lane to 6-lane divided – Urban	Low
	Widen 4-lane to 6+-lane divided – Urban	Low
	Widen travel lanes – Rural	Function
	Widen travel lanes – Urban	Function
	Add or widen shoulder	Function
Roadway Segmen	Install centerline rumble strips	Med
	Install edge rumble strips	Med
	Install truck climbing lane	Med

	Improve Roadside Hazard Rating (RHR)	function
Ped & Pike	Add new sidewalk (does not apply to sidewalk upgrades or widening)	High
	Add bicycle lane	Med
	Add shared-use path of mixed-use trail	High
	Add high-visibility crosswalk (new crosswalk or crosswalk upgrade)	Low
	Install countdown pedestrian timer	High
	Install leading pedestrian interval (LPI)	Med
	Install HAWK	Med
	Install RRFB	Med
Lighting	Install lighting at intersection	Low
	Install lighting at interchange	Low
	Install lighting on segment	Low
Transit	Install lighting at transit stops	Low
	Major transit projects that will significantly decrease VMT	Med
	Smaller transit projects that will have a smaller impact on VMT	Low