



Northern Virginia Transportation Authority
The Authority for Transportation in Northern Virginia

PLANNING AND PROGRAMMING COMMITTEE

Monday, March 1, 2021, 5:00pm

ELECTRONIC MEETING ONLY

Meeting link will be sent to the members prior to the meeting
All others will be able to view proceedings live on [NVTA's YouTube Channel](#)

AGENDA

- I. Call to Order/Welcome** Chair

Action

- II. Resolution finding need to conduct meeting electronically**
Recommended action: Adopt resolution
- III. Summary Notes of November 2, 2020 Meeting**
Recommended action: Approve meeting notes

Discussion/Information

- I. Transportation Technology Strategic Plan** Mr. Jasper, Principal,
Transportation Planning and Programming
- II. TransAction Update** Mr. Jasper, Principal,
Transportation Planning and Programming
- III. NVTA Update** Ms. Backmon, Executive Director

Adjournment

- IV. Adjourn**

Next Meeting (subject to PPC approval): March 25, 2021
Location: Electronic meeting

NORTHERN VIRGINIA TRANSPORTATION AUTHORITY
PLANNING AND PROGRAMMING COMMITTEE
RESOLUTION FINDING NEED TO CONDUCT
MARCH 1, 2020 MEETING ELECTRONICALLY

March 1, 2021

WHEREAS, on March 12, 2020, the Governor of Virginia declared a state of emergency in Virginia in response to the spread of novel coronavirus, or COVID-19, a communicable disease of public health threat as so declared by the State Health Commissioner on February 7, 2020 (“COVID-19”); and

WHEREAS, in subsequent Executive Orders, particularly Executive Order Nos. 53 and 55, as amended, the Governor of Virginia, among other measures designed to ensure safe physical distancing between individuals, prohibited public and private in person gatherings of 10 or more individuals and ordered all individuals in Virginia to remain at their place of residence, with limited exceptions, to mitigate the impacts of COVID-19 and prevent its spread; and

WHEREAS, the Northern Virginia Transportation Authority (Authority) – Planning and Programming Committee (Committee) finds that it has a responsibility to demonstrate to the public, through the Authority’s conduct, the importance of maintaining proper physical distance from others and to avoid gathering in public where the risks of infection are highest, and to take measures that promote physical distancing in order to protect the public health and mitigate the impacts and spread of COVID-19, including, among others, conducting meetings electronically whenever possible; and

WHEREAS, on April 22, 2020, the Virginia General Assembly adopted, and the Governor signed, budget bill amendments to HB 29 that expressly authorize “any public body, including any state, local, [or] regional body” to “meet by electronic communication means without a quorum of the public body . . . physically assembled at one location when the Governor has declared a state of emergency . . . , provided that (i) the nature of the declared emergency makes it impracticable or unsafe for the public body . . . to assemble in a single location; (ii) the purpose of the meeting is to discuss or transact the business statutorily required or necessary to continue operations of the public body . . . and the discharge of its lawful purposes, duties, and responsibilities” among other provisions; and

WHEREAS, member jurisdictions of the Northern Virginia Transportation Authority have adopted continuity of government ordinances pursuant to Va. Code Ann. § 15.2-1413 which ordinances, among other provisions, contemplate regional bodies of which the locality is a member meeting electronically to transact business to assure the continuity of government; and

NOW, THEREFORE, BE IT RESOLVED, that the Northern Virginia Transportation Authority Planning and Programming Committee hereby finds that meeting by electronic means is authorized because the nature of the declared emergency makes it both impracticable and unsafe for the Committee to assemble in a single location on March 1, 2021, to discuss and transact the business of the Authority listed on the March 1, 2021 Committee Meeting Agenda; and

BE IT FURTHER RESOLVED, that the Committee hereby finds that meeting by electronic means is authorized because the items on the March 1, 2021 Committee Meeting Agenda are statutorily required or necessary to continue operations of the Authority and the discharge of the Authority's lawful purposes, duties, and responsibilities; and

BE IT FURTHER RESOLVED, that the items on the March 1, 2021 Committee Meeting Agenda are encompassed within the continuity of operations ordinances adopted by member localities of the Northern Virginia Transportation Authority to assure the continued operation of the government during the disaster posed by the public health emergency resulting from COVID-19.

Adopted the 1st day of March, 2021.



Northern Virginia Transportation Authority

The Authority for Transportation in Northern Virginia

PLANNING AND PROGRAMMING COMMITTEE

Monday, November 2, 2020, 5:00 pm

Northern Virginia Transportation Authority

ELECTRONIC MEETING

with livestreaming on YouTube

SUMMARY NOTES

I. Call to Order/Welcome

- Chairman Wilson called the meeting to order at 5:05 pm.
- Attendees:
 - **PPC Members:** Mayor Wilson (City of Alexandria); Council Member Snyder (City of Falls Church); Mayor Rishell (City of Manassas Park); Chair Wheeler (Prince William County); Mayor Meyer (City of Fairfax).
 - **Other NVTA Members:** Ms. Hynes (Governor's Appointee/CTB Member); Delegate Roem (Virginia House of Delegates).
 - **NVTA Staff:** Monica Backmon (Executive Director); Keith Jasper (Principal); Sree Nampoothiri (Senior Transportation Planner).
 - **Jurisdiction/Agency Staff:** Several staff members followed the proceedings on livestreaming on YouTube Live.

Action

II. Resolution finding need to conduct meeting electronically

- Chairman Wilson noted that as a result of the COVID-19 pandemic and Governor Northam's declaration of a State of Emergency, the Authority's Planning and Programming Committee Meeting was being held electronically. He noted that the passage of the amendments to HB 29 (the FOIA Bill) allowed regional bodies such as the Authority, and their committees to conduct business meetings electronically. He added that the meeting by electronic means is authorized because the items on the Committee Meeting Agenda are statutorily required or necessary to continue operations of the Authority. The resolution was approved unanimously.

III. Summary Notes of September 29, 2020 Meeting

- The September 29, 2020 Planning and Programming Committee meeting summary was approved unanimously.

Discussion/Information

IV. TransAction Update

- Mr. Jasper presented an overview of TransAction update vision, goals, objectives, and performance measures and presented a framework for updating the vision and goals.
 - The proposed Vision statement has three new elements – equity, sustainability, and resiliency.
 - Equity, to integrate fairness in mobility and accessibility, at the regional, sub regional or community levels. The element of equity facilitates social and economic opportunities by providing equitable levels of access to transportation options that serve the needs of all, particularly, the underserved populations.
 - Sustainability, focusing on meeting the needs of the present without compromising the ability of future generations to meet their needs under the three pillars of economy, environment, and society.
 - Resiliency, which is a concept on maintaining the mobility functions and quickly recovering from incidents such as major crashes, terrorism, weather, or planned events.
 - Mr. Jasper added that “safety” is also explicitly incorporated in the vision statement though safety was already considered in the objectives and measures previously.
 - Mr. Jasper presented draft potential goals and how they can be tracked to objectives and measures.
- In response to Chair Wheeler’s question on the rationale for removal of the second paragraph of the current vision statement, Mr. Jasper noted that the second paragraph sounds more like a “how” statement than a vision statement and, therefore, is recommended to be removed. Following up on Chair Wheeler’s comment on potential qualitative measures for the additional elements, Mr. Jasper agreed that there will be a mix of quantitative and qualitative measures.
- Ms. Hynes encouraged staff to review the work on equity as part of the VTrans Update, being undertaken by the Office of Intermodal Planning and Investment (OIPi). Mr. Jasper noted that staff is looking at all partner agencies and jurisdictions on their activities.
- Ms. Hynes highlighted that ‘equitable access’ may be very specific while ‘equity’ is a broader concept and urged staff to be clear on how specific it should be. Mayor Wilson and Mayor Rishell echoed the same notion. Mr. Jasper noted that staff will define these better based on the feedback from the Committees, the Authority, and others.
- Mayor Rishell noted that the technology in transportation can become exclusionary and need to be addressed.
- In response to Mayor Rishell’s inquiry of safety during crises being included in resiliency, Mr. Jasper noted that evacuation is considered part of resiliency and is required by the language on homeland security in the HB599 legislation while general traffic safety is already considered as a separate measure. He also added that currently, there are too many performance measures, which dilutes the weights to a

level where they lose their meaning. He noted that performance measures will be discussed at a later stage.

- Mayor Meyer observed that jurisdictions have different takes on priorities for measures based on jurisdictions' location and development patterns, which may be different from the funding legislation called for in 2013. He urged to consider equity not only for scoring individual projects but in totality as well.
- Mayor Wilson urged to directly address and reduce equity in terms of transportation rather than simply safeguarding against exacerbation of equity impacts.
- Ms. Hynes encouraged developing a shared definition of equity by discussion among Authority members and jurisdiction/agency staff and visualizing equity, similar to Transportation Planning Board (TPB)'s equity emphasis areas.
- Delegate Roem noted that multimodal and mass transit facilities are important equity issues across the region as the majority of socio-economic and racial minority depends on transit.
- Council Member Snyder noted that sustainability and resilience are also equally important as equity and require same level of effort to be incorporated in TransAction.
- Mr. Jasper presented the two complementary approaches for use in TransAction process – 'performance-based' (model-based and off-model analyses) and 'core value' (overarching qualitative review of the Plan) approaches.
- Mr. Jasper asked for opinions on the most urgent equity issues pertinent to the region that should be considered in TransAction.
- Mayor Rishell noted that one of the major issues her constituents face is lack of transit facilities, particularly buses, to reach basic destinations such as grocery stores and medical offices.
- Chair Wheeler noted the lack of local transit services, even micro transit, in certain locations in Prince William County as an important issue.
- Ms. Hynes indicated transit and dedicated lanes for transit and carpools as priority. She added that the Authority should think about potentially making NVTA funds available for local transit operations.
- Mayor Wilson emphasized the need to improve transit and remove investment disparities across modes. He added that the pandemic has highlighted the need for flexible transit infrastructure and operations.
- Council Member Snyder noted that better transit infrastructure such as bus shelters is important aspect of equity. He added that making transportation infrastructure and services resilient in the midst of increasing climate risks is also important issue to be addressed. He paraphrased Abraham Lincoln to say that 'as the case changes, so our thinking must change' in the context of changing social, economic, and political circumstances that require changing responses.
- *A motion, moved by Council Member Snyder and seconded by Chair Wheeler, to approve the recommendation of the proposed Vision Statement to the Authority, was approved unanimously.*

V. NVTA Update

- Ms. Backmon noted that the Authority, at its November 12th meeting, will receive presentations from the Auditors on NVTA's annual financial audit, Virginia Department of Transportation (VDOT) on 495 Next, Virginia Department of Rail and Public Transportation (DRPT) on I-495 Transit/TDM Study, and Office of Intermodal Planning and Investment (OIPI) on VTrans Update.

Adjournment

VI. Adjourn

- The meeting adjourned at 6:20 pm.

Draft Transportation Technology Strategic Plan - Overview



March 1, 2021



The Fourth Industrial Revolution

1. Water and Steam – mechanized production
2. Electricity – mass production
3. Electronics and Information Technology – automated production
4. Digital Revolution – transforming production, management, and governance
 - Exponential increases in computing power
 - Big Data
 - Artificial Intelligence
 - Global Connectivity
 - Speed of Innovation and Disruption

“There has never been a time of greater promise, or one of greater potential peril.”

Klaus Schwab, World Economic Forum (January 2016)/Foreign Affairs (December 2015)



Timeline

2004/5 – Apple begins product development on a computer that uses a touch screen instead of a physical keyboard/mouse or stylus

January 2007 – Launch of iPhone 2G

January 2017 – 2.2M apps in App Store

October 2020 – Launch of iPhone 12

July 2002 – NVTA created by General Assembly

September 2006 – TransAction 2030 adopted

November 2012 – TransAction 2040 adopted

July 2013 – NVTA revenue stream begins

October 2017 – TransAction update adopted



What's In This Overview?

- Introduction, including some sample Q&A
- Summary of TTSP Strategies and NVTA Roles
- Technologies mapped to TTSP Strategies
- Guidance on desired feedback and how to respond



Introduction

This presentation provides a high level overview of NVTA's draft Transportation Technology Strategic Plan (TTSP) and some guidelines for Planning and Programming Committee (PPC) members to review and provide comments.

The draft TTSP identifies eight strategies that are intended to leverage transportation technologies in support of NVTA's vision and goals for the regional transportation system in Northern Virginia. These strategies focus on mobility, accessibility, and resilience, while embracing core values of safety, equity, and sustainability.

Among other things, each strategy identifies up to nine possible NVTA roles.



Introductory Q&A

Q: How does the TTSP fit within NVTA's current primary responsibilities of planning and programming/funding?

A: In the big picture, NVTA's approach to the TTSP is driven by TransAction, NVTA's long-range transportation plan for Northern Virginia. NVTA is required by the Code of Virginia to develop and maintain TransAction, and is in the early stages of the next update. NVTA's approach to evaluating project funding requests has always embraced multi-modal solutions, including new Metrorail stations, BRT systems, road widening/intersection improvements, pedestrian/bicycle trails, first/last mile solutions, and technology deployments. Since the TTSP is complementary to, and integrated with, TransAction, both reflect the NVTA's multi-modal approach to the regional transportation system. TransAction continues to be the first eligibility filter for funding approvals since the Code of Virginia requires funded projects to be included in TransAction.



Introductory Q&A

Q: Have things permanently changed as a result of the pandemic? If so, what does this mean for the region's transportation system and how do we define success under these new conditions?

A: As we undertake the next TransAction update, we will apply the findings from our own COVID-19 analysis conducted in early summer 2020, together with subsequent research findings by others in the region and nationally. While it is most certainly appropriate to question whether the pandemic has changed travel behaviors, it remains unclear as to what the 'new normal' will actually look like. Our approach is to be open-minded but cautious, to avoid 'over-correcting' until we have greater certainty. By summer 2021, the new normal should be clearer and still within the overall TransAction update schedule.



Introductory Q&A

Q: In this changed environment, what has also changed with regard to the role of technology going forward? For example, how do we enable/support the new transportation patterns when increasing numbers of people are working from home?

A: There are significant examples of different ways in which technology has enabled new transportation patterns. Our region is one of the best in the nation in its ability to increase the level of work from home activity, which speaks highly of the preparedness among employers and employees with respect to IT/communications infrastructure, hardware/software, and HR practices. The adaptability of businesses to move to online shopping/delivery and curbside pickups is driven by technology and innovative business process re-engineering, all in a relatively short timeframe. As we are learning, there are silver linings in the form of reduced congestion and VMT, but negative consequences on transit ridership. As we noted in our COVID-19 presentation to NVTA in July 2020, transit ridership reduction may be challenging to the financial stability of some transit agencies. Finding a path forward that locks in the silver linings while mitigating the negative outcomes will be important considerations for TransAction and the TTSP.



Introductory Q&A

Q: With the political/social emergence of equity and environmental concerns as top priorities, what can technology applied to transportation do to further them?

A: The TTSP will include a discussion of core values – equity, safety, and sustainability – for each strategy. This discussion will highlight how each of the eight strategies will address each of the core values.



Introductory Q&A

Q: Considering the four pandemic recovery scenarios in NVTA's July 2020 COVID-19 analysis, what is the greatest role of technology to enhance recovery in each of them?

A: This is a difficult question to answer. Recognizing that we started work on the TTSP before the pandemic hit, it was never originally intended to address such a situation. That said, technologies that support the resilience of the transportation system while communicating decision-grade travel information to Northern Virginians will likely rise to the top. Any strategy that supports a willingness to travel in shared modes (carpools, vanpools, transit, rail, together with shared mobility devices such as bikeshare and scooters) will have an important role. More broadly, all the technologies rely on high quality data, without which much of the technology will be sub-optimal or ineffective. To that end, the data component of most strategies will be really important as we move beyond the pandemic to the new normal.



Introductory Q&A

Q: Here are some examples of possible priorities for technology in the new normal — more demand responsive, attractive and reliable bus service — what can technology do to make that happen? Electrification of the entire vehicle fleet — commercial, private, trucks and cars — what can technology do to speed that and make it more cost/effective?

A: Multiple strategies will address a new normal bus service, including Strategy #1, #4, #5, and #7. Strategy #8 will address electrification infrastructure. However, note that the strategies alone will not necessarily achieve the desired outcomes. This will require a broad regional coalition of support among jurisdictions, transit agencies, other regional partners and stakeholders. The key point is that NVTA's TTSP is the first-of-a-kind initiative to take such a comprehensive position on how technology can be leveraged to support NVTA's vision for the NoVA transportation system.



Transportation Technology Strategic Plan (TTSP) Proposed Structure

- Purpose and Scope
- Overarching Core Values
 - *Safety, Equity and Sustainability*
- Vision and Goals
- NVTA Toles
- Related Initiatives by Other Regional Partners and Coordination
- Transportation Technology Trends
 - *Overview*
 - *Automation, Sharing and Electrification*
 - *Emerging Business Models*
 - *Technologies*
 - *Opportunities and Challenges*
- Strategies for NVTA
- Data Needs
- Caveats and Assumptions
 - *Impacts of Covid-19*
- Monitoring Progress and Update Cycle
- Action Plan
 - *Introduction*
 - *Strategy-Specific Summaries*
 - *Consolidated Actions Table*
 - *Next Steps*
- Glossary



TTSP Strategies Summary Structure

Strategy:

Description

NVTA Goal
Choose an item.

NVTA Roles			
Authority Roles	Choose an item.	Click or tap here to enter text.	Choose an item.
	Choose an item.	Click or tap here to enter text.	Choose an item.
	Choose an item.	Click or tap here to enter text.	Choose an item.
Shared Roles	Choose an item.	Click or tap here to enter text.	Choose an item.
	Choose an item.	Click or tap here to enter text.	Choose an item.
	Choose an item.	Click or tap here to enter text.	Choose an item.
Staff Roles	Choose an item.	Click or tap here to enter text.	Choose an item.
	Choose an item.	Click or tap here to enter text.	Choose an item.
	Choose an item.	Click or tap here to enter text.	Choose an item.

Strategy:

Application of Core Values

Safety Click or tap here to enter text.

Equity Click or tap here to enter text.

Sustainability Click or tap here to enter text.

Potentially Applicable Technologies

Click or tap here to enter text.



TTSP Strategies and NVTA Roles

Strategy		NVTA Roles								
		Authority Roles			Shared Roles			Staff Roles		
Number	Name	Funding	Policy	Advocate	Champion	Facilitate	Stakeholder	Planning	Outreach/ Education	Observer
1	Reduce congestion	✓		✓	✓	✓		✓	✓	
2	Maximize access to jobs, employees and housing	✓			✓	✓		✓	✓	
3	Maximize cybersecurity and maximize privacy for members of the public	✓					✓			✓
4	Minimize potential for Zero Occupancy Vehicles		✓	✓	✓	✓		✓	✓	
5	Develop pricing mechanisms that manage travel demand and provide sustainable travel options		✓	✓			✓	✓	✓	
6	Maximize the potential of physical and communication infrastructure to serve existing and emerging modes	✓			✓	✓		✓	✓	
7	Enhance regional coordination and encourage interoperability in all systems	✓			✓	✓		✓	✓	
8	Create a network of charging infrastructure, for use by private and fleet vehicles	✓	✓	✓	✓	✓		✓	✓	



Technologies Mapped to TTSP Strategies

Strategies		Technologies										
Number	Name	Automated/ Autonomous vehicles	Shared Mobility Devices (SMDs)	Signal technologies	Apps	System optimization	Drones	Changes to delivery and freight systems	Surveillance/ monitoring (including telematics)	Data generation/ collection/ sharing	Improvements to mass transit (including BRT)	Smart technologies/ cities and IoT
1	Reduce congestion	●	●	●	●	●	●	●	●	●	●	●
2	Maximize access to jobs, employees and housing		●	●	●	●	●	●	●	●	●	●
3	Maximize cybersecurity and maximize privacy for members of the public	●	●	●	●	●			●	●		●
4	Minimize potential for Zero Occupancy Vehicles	●	●	●	●	●	●	●	●	●	●	●
5	Develop pricing mechanisms that manage travel demand and provide sustainable travel options	●	●		●	●	●	●	●	●	●	●
6	Maximize the potential of physical and communication infrastructure to serve existing and emerging modes	●	●	●		●	●	●			●	●
7	Enhance regional coordination and encourage interoperability in all systems	●	●	●	●	●	●	●	●	●	●	●
8	Create a network of charging infrastructure, for use by private and fleet vehicles	●	●			●						

Key	
Will definitely be helpful	●
Potential to be helpful	●
Equal potential to be helpful or detrimental	●
Potential to be detrimental	●
Likely to be detrimental	○
Not applicable or Insufficient Information Available	



Feedback Requested from PPC Members

- Thoughts on what you have heard today?
- 8 strategies/9 NVTA roles – anything we need to change/add?
- Beyond NVTA Committees, who should we seek feedback from?
- Are there any related initiatives we should be aware of?
- What level of detail is required for the public-facing versions of the TTSP/Action Plan?
- Suggestions on low-cost visualizations? Examples?
- We request that you review the draft TTSP and provide any feedback, via email, by **COB on Monday, March 15th**.
- We will share draft TTSP Action Plan prior to PPC meeting on March 25th.



THANK YOU!