



# Northern Virginia Transportation Authority

*The Authority for Transportation in Northern Virginia*

## TECHNICAL ADVISORY COMMITTEE

Wednesday, March 18, 2015, 7:00pm

NVTA Offices

3040 Williams Drive, Suite 200

Fairfax, Virginia 22031

### AGENDA

I. Call to Order/Welcome Chairman Boice

II. Meeting Summary of January 21, 2015, Meeting  
*Recommended action: Approval [with abstentions  
from those who were not present].*

### Discussion/Information

III. TransAction 2040 Update: Statement of Work Review Mr. Jasper

IV. NVTA Update Mr. Jasper

V. Draft Policy for Addressing Delayed NVTA-Funded Projects Mr. Jasper

VI. NVTA FY2015-16 Two Year Program Update Mr. Jasper

### Adjournment

VII. Adjourn

**Next Meeting: April 15, 2015**



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**Wednesday, January 21, 2015, 7:00pm**

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**Fairfax, Virginia 22031**

**SUMMARY NOTES**

**I. Call to Order/Welcome** Chairman Boice

- Chairman Boice called the meeting to order at 7:05pm.
- Attendees:
  - Members: Chairman Randy Boice; Pat Turner; Agnes Artemel; Meredith Judy; Shanjiang Zhu; Bob Dunphy; Armand Ciccarelli.
  - NVTA Staff: Monica Backmon (Executive Director); Denise Harris (Program Coordinator); Keith Jasper (Program Coordinator).
  - Other Staff: James Davenport (Prince William County); Brent Riddle (Fairfax County).
  - Other: Maria Sinner, Valerie Pardo (VDOT); David Roden (AECOM); Denise Nugent (Travesky and Associates).

**II. Meeting Summary of December 17, 2014, Meeting**

- Dr. Zhu moved to approve the minutes of December 17, 2014; seconded by Ms. Artemel. Motion carried unanimously (with an abstention from Mr. Boice who was not present at the December 17, 2014 meeting.)

**Discussion/Information**

**III. Presentation of HB599 Evaluation and Rating Study** VDOT

- Ms. Pardo introduced Mr. Roden, who gave the presentation on the HB599 Evaluation and Ratings study.
- Ms. Artemel asked whether project impact areas overlapped and, if so, had synergistic benefits been taken into account. Mr. Roden indicated that projects had been evaluated independently of each other, and that some projects could have been grouped for this analysis. He added that impact areas vary in size for each project.
- Mr. Dunphy asked if any impacts beyond the impact areas are taken into account. Mr. Roden stated such impacts are not counted.

- Dr. Zhu asked how the accessibility measure is calculated. Mr. Roden confirmed that, unlike other measures, accessibility is calculated across the entire region, not just the project impact area. Each zone has a path to other zones. Mr. Roden noted that accessibility is calculated separately for transit and auto modes.
- Mr. Roden noted that a primary assumption for the evaluation is that there are no changes in land use and the trip table is fixed.
- Mr. Dunphy asked whether reduced transit congestion resulted from traffic congestion relief. Mr. Roden confirmed that travel time savings for transit passengers were included in the measures. However, most transit crowding is on Metrorail, not buses.
- It was noted that, overall, the HB599 project ratings indicate the scale of each project's impact relative to the top performing project. Ratings can change for different assessment years, and if the mix of projects changes.

#### **IV. Presentation of NVTA FY2015-16 Two Year Program Initial Results**

- Mr. Jasper presented a summary of the initial NVTA staff recommendation for the FY15-16 Two Year Program. The purpose of the presentation is to get feedback from TAC members on the staff recommendation. The Project Implementation Working Group (PIWG) will ask the Authority to release the draft program for public hearing at its February meeting. It is anticipated that the public hearing will be held in March. The PIWG will seek the Authority's approval on the final draft program at the April NVTA meeting.
- The draft Two Year Program divides 52 projects into 27 recommended for funding, 9 not recommended for funding, and 16 which require further consideration. Projects will be taken to public hearing to solicit feedback on the draft Two Year Program. This feedback will provide additional inputs in order to create a comprehensive short list.
- HB599 ratings represent one criterion in the calculation of NVTA project scores, however it is the highest weighted in that it represents 35% of the total score. NVTA project scores only use the HB599 ratings for 2040 (instead of 2020) because the corresponding criterion for transit projects is based on TransAction 2040 which didn't include an analysis of 2020.
- HB599 ratings were calculated assuming each project was operational regardless of whether the project was a study or construction project. HB599 evaluates the congestion reduction impacts of a project. It does not consider other impacts, such as cost benefit, safety, and the environment. However, NVTA is taking such factors into account in its project selection process.
- Larger projects score better which is why congestion reduction relative to cost is important to consider.
- Some projects recommended for funding are previously approved FY2014 projects that are requesting continued funding, despite being lower on the ranked project list. Transit and highway projects are separated in the analysis because the congestion criterion was scored separately.

- Project selection recommendations are fluid, although some of the projects highlighted in red are ineligible for funding due to them not being in TransAction 2040 or the 2010 CLRP – a pass/fail criterion.
- In response to a question regarding why there is a narrow spread in the NVTA scores and a wide spread in HB 599 ratings, Mr. Jasper stated that rather than focus on individual project scores, it was more important to consider the relative scores across the projects. Selection of the recommended projects is based on a 20 point spread from the top scoring highway and transit projects respectively.
- Table 5 includes the actual dollars broken out by transit and highway by jurisdiction for the initial recommendations.
- Projects highlighted in green are assumed to be funded at the full amount requested. However some project sponsors sense it may be better to request smaller amounts over a multi-year period and are willing to take less if their project will get funding in subsequent years.
- Project readiness is addressed by two criteria. Appendix B of NVTA’s Standard Project Agreement (SPA) also lays out how and when NVTA funds will be spent.
- For future funding programs, it is anticipated that highway and transit project funding requests will be considered on a similar basis. This will entail applying the HB599 process to both types of project. To enable comparison of the congestion impacts of both highway and transit projects, a pilot test is planned in the coming months to assess how well TRANSIMS can model transit projects. NVTA will coordinate with VDOT and DRPT regarding this pilot test. If successful, this offers the potential to compare the congestion impact of highway and transit projects on a more consistent basis.
- The requirement to consider Long Term Benefit may eventually influence the evaluation and selection of projects. However, this will not occur until the first ten-year estimate of benefit distribution.
- Mr. Jasper requested two types of comments from TAC members:
  - Tier one comments may potentially affect project selection decisions.
  - Tier two comments relate to process issues that may affect future Calls for Projects. One such comment is that top rated projects are studies that do not yet have a fully defined project. This needs to be addressed as a study can out-score a project with a more defined scope. If a project is funded as a study it should have to go back through the process before future phases are funded.
- TAC members were invited to send comments to Chairman Boice by January 30, 2015.
- Chairman Boice asked if the Columbia Pike Improvements Project (NVTA 1) ranking was still valid after Arlington County removed the streetcar project from the corridor. Ms. Backmon and Mr. Jasper replied that the streetcar did not impact the project ranking.
- Chairman Boice raised the issue that the projects identified as “studies” were being ranked with established projects which may not provide a true picture for the rankings. The rankings assume that the improvements envisioned in the

studies will actually be done; however, “studies” are to ascertain what improvements, if any, are to be advanced to a true project. Theoretically, some or all of the improvements outlined in a study may be found to be unwarranted. Thus, the ranking of the study project higher than an established improvement project that has been studied and warranted can unfavorably skew the application of dollars away from projects that will achieve the goals of the NVTA funds, i.e. reducing congestion, enhancing safety, etc. Studies also tend to account for corridor areas where improvement projects are typically pieces of overall corridor improvements identified in past studies. For example the Fairfax County Parkway study will be assessing grade separating current at-grade intersections as well as widening the parkway over its length. It is likely that such improvements will be phased over time due to the nature and costs of the improvements. Ranking studies with actual projects appears to be an “apple to orange” comparison in the overall rankings. This is not to diminish the importance of studies in the region. However, through this process it should be noted that studies appear to garner points in a way that may not be the way that was intended.

**V. NVTA Update**

Ms. Backmon

- Ms. Backmon reported that VDOT is presenting the HB599 results at tomorrow’s NVTA meeting.
- The Authority will be electing a new chair and vice chair and appointing a new town representative. It will also make a recommendation on whether TransAction 2040 should be amended..
- March 25 is the tentative public hearing date for the FY2015-16 Two Year Program. It is important to have the benefit of the TAC comments in this process.

**Adjournment**

**VI. Adjourn**

- Meeting adjourned at 8:45pm.



**PROJECT IMPLEMENTATION WORKING GROUP**

**Policy Framework for Addressing NVTA-Funded Projects that are not Advancing (Updated for PIWG 2/13/2015 meeting)**

**I. Purpose of Policy**

- The Authority commits current and projected financial resources from the 70% Regional Revenues upon project approval. The purpose of this policy is to provide a mechanism for the Authority to remove financial (funding) commitments for approved projects that are not advancing per the approved scope of work. These funds would be returned to the 70% Regional Revenue Fund for assignment to future projects.

**II. Background**

- The Authority assigns funding to a project with the clear expectation of progress as outlined in the Project Description/Scope of Work. Project funding is obligated at the point that the Authority approves the project. The Standard Project Agreement (SPA – covered in another policy) provides details of expected utilization of the already obligated funds.
- Project progress may be delayed under a variety of circumstances. Funding of projects experiencing significant delays may not be in the best interests of the Authority, if such delays result in the obligation of Regional Revenue Fund resources that could be more immediately utilized by other projects.
- This draft policy framework identifies potential project delay scenarios and corresponding options for resolution, including the de-obligation of NVTA project funding. The de-obligation of project funding returns resources to the Regional Revenue Fund for future allocation by the Authority.
- On July 24, 2013, the Authority approved 33 projects for both pay-as-you-go and bond funding of nearly \$196 million. As of January 8, 2015:
  - NVTA has approved 26 SPAs;
  - 2 projects are slated for SPA approval action by the Authority at its meeting in February 2015;
  - 4 projects are slated for SPA approval action by the Authority at its meetings in March or April 2015; and
  - 1 project has been withdrawn.

- For the 26 projects with approved SPAs, one project is complete and has been fully reimbursed.

### III. Specific Provisions

- In all cases, agreement will be sought with the implementing jurisdiction or agency. If agreement is not forthcoming the Executive Director may take a de-obligation request to the Authority for action.
- It will be necessary for the Authority to amend SPA language.
- **Scenario 1: Inability to complete project activation** – if there is an inability of a project sponsor to pursue project completion due to either circumstances within or outside of their control, the best interest of the Authority may be served by cancelling the project and de-obligating the funds. Examples of factors contributing to a determination that a project is not able to be diligently completed include but are not limited to:
  - SPA not being approved by the governing body of the sponsoring entity within *X* months of project authorization by the Authority. (For FY2014 projects, the Authority authorization date was July 24, 2013 with the first SPA approved in April 2014. For FY2015-16 projects, authorization is currently scheduled for April 2015.) If the SPA is not approved within *X* months, the project shall be considered to be cancelled and the revenues shall be considered de-obligated. At the request of a sponsoring entity, NVTa may, at its sole discretion, extend the timeframe for SPA approval. *NVTa recommends X be no greater than 4 months, allowing sufficient time for jurisdictional review and approval cycles.*
  - Project delays after SPA approval by the Authority arising from procurement (or other) delays. Lack of progress may be evidenced by variance greater than *Y* months between actual and expected requests for reimbursements as documented in the relevant SPA.<sup>1</sup> *NVTa recommends Y be no greater than 6 months, allowing sufficient time for jurisdictional procurement cycles.*
  - Project delays after SPA approval by the Authority arising from changing priorities of the sponsoring entity. Lack of progress may be evidenced by variance greater than *Y* months between actual and expected requests for reimbursements as documented in the relevant SPA. *NVTa recommends Y be no greater 6 months.*

Sponsoring entities shall submit a draft project timetable and draft cash flow analysis (SPA Appendix B) *within ten business days* of project authorization by the Authority. The project timetable shall include key milestones, including schedule for SPA submittal, procurement, and interim landmarks, and phase/project completion.

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<sup>1</sup> It is not the intent of this policy to penalize sponsoring entities that are able to deliver projects for less than the approved NVTa funding budget, or are able to substitute NVTa funds with funds from other sources.

- **Scenario 2: Inability to complete project funding** – If the approved project anticipated the receipt of additional funding from non-NVTA sources, and such additional funding is either unlikely to ever occur, or will not occur until *Z* months<sup>2</sup> later than envisioned at the time of SPA approval, the sponsoring jurisdiction or agency may seek to withdraw the project. Such withdrawal must be approved by the Authority. Alternatively, the Authority may initiate a process to cancel the project and de-obligate the funds if the uncertainty associated with non-NVTA funding is unacceptable, e.g. *Z plus ZZ* months after SPA approval. Such an action would necessitate the development of a pre-determined mechanism, which would be developed by the Project Implementation Working Group (PIWG) for subsequent approval by the Authority. *NVTA recommends Z and ZZ each be no greater 6 months.* The Authority recognizes that sponsoring entities should be given the opportunity to find other funding sources.
- **Scenario 3: Voluntary project cancellation** – If the project sponsor wishes to cancel/withdraw a project either before work has commenced or after the start of work, a cancellation request must be made in writing to the Executive Director. The PIWG will develop a process, for subsequent approval by the Authority, to determine what proportion, if any, of NVTA regional funds already reimbursed to the project sponsor shall be returned to NVTA.

#### IV. Other Considerations

- The City of Falls Church has submitted comments on an earlier version of this document. Some comments have been addressed in this version. Two outstanding comments are:
  - Should consideration be given to whether an approved SPA could be suspended for a period of time (to repair deficiencies) while maintaining project authorization?
  - What is the optimal timing of future Calls for Projects taking into account factors such as Capital Improvement Program development cycles, application processes for non-NVTA funding, and jurisdictional resource constraints?

#### V. Schedule

- It is envisioned that this policy will be finalized and approved by the time the FY2015-16 Two Year Program is adopted, currently scheduled for April 2015. Some or all of the provisions of this policy will be applicable to the FY2014 approved projects.
- Prior to seeking Authority approval for this policy, PIWG will coordinate with the Council of Counsels, PCAC, TAC, and JACC.

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<sup>2</sup> To be determined at the time of SPA approval, and included as an addendum to the SPA.



# TransAction Update

## Statement of Work



Technical Advisory Committee

March 18, 2015

# Tentative Schedule

- TAC/PCAC/JACC review: March 2015
- RFP posted: April 24, 2015
- Kick-off: July 2015
- Adopted: July 2017
- Basis for selection of NVRTA-funded regional projects for FY2018-23 Six Year Program



# Tasks

1. Finalize Work Plan
2. Review NVRTA Vision and Goals, Define Regionalism (New)
3. Literature Review (New)
4. Analysis of What's New (New)
5. Identification of Regional Transportation Needs
6. Scenario Planning (New)
7. Analysis
8. Ranking of Improvements
9. Public Information and Participation
10. Preparation of the Update (New)
11. Project Coordination



# Roles and Responsibilities

- PCAC: inputs to SOW and receive periodic briefings;
- TAC: inputs to SOW and review of deliverables;
- JACC subcommittee: development of SOW and selection criteria/scoring, oversight of the project (with NVRTA staff);
- Selection Panel: review and score proposals, shortlist firms, participate in orals, and final ranking;
- Finance Committee: review award;
- NVRTA staff: contractual, administrative, and technical management of the project;
- NVRTA: approval of RFP, award contract, receive periodic briefings, and adoption of Update.



# Philosophical Approach

- Meet all legislative requirements;
- Invite bidders to propose the best approaches for achieving NVRTA's requirements for the TransAction Update;
- Provide guidelines for bidders on level of effort by task;
- Select the bidder providing the best value to NVRTA;
- Provide option for selected firm to undertake a mid-cycle amendment to the Update.



# Task 1: Finalize Work Plan

- Kick-off meeting;
- Refine and finalize SOW, project approach (emphasizing scenario planning and task inter-dependencies), communication plans and schedule;
- Highlight intermediate methodology review points, e.g. Literature Review (Task 3)
- Incorporate optional tasks as needed, e.g. mid-cycle amendment

## Deliverable:

- Work Plan including deliverables, milestones, and schedule
- Project management plan



# Task 2: Review NVTA Vision and Goals, Define Regionalism

- Review NVTA's vision and goals from previous plans, and confirm their ongoing relevance or propose revisions for consideration by NVTA if appropriate;
- Review NVTA's (and others') previous approaches to identifying regional (versus local) projects, and propose a methodology to define regionalism for the Update;
- Identify appropriate performance measures that support NVTA's vision and goals.



# Task 3: Literature Review

- Review of best practices and other recent experiences relevant to long range regional transportation planning;
- National and international in scope, including MPOs and other regional planning entities;
- Informs Tasks 4 thru 9.

## Deliverable:

- Literature Review





# Task 4: Analysis of What's New

- Review of relevant factors that may affect transportation system use and performance during the upcoming decades, including:
  - game-changing events, e.g. Panama Canal expansion
  - emerging technologies, e.g. self-driving vehicles
  - behavioral trends, e.g. VMT/capita
- Leverage other research, e.g. VTRANS

## Deliverables

- Technical memos for each factor considered



# Task 5: Identification of Regional Transportation Needs (1)

- Objective is to identify NoVA's transportation needs thru the horizon year of the plan
  - Review TransAction 2040
  - Incorporate regional projects (per Task 2 definition)
  - Identify Activity Centers/activity hubs
  - Identify regional factors influencing travel demand, and establish Task 7 framework
  - Incorporate Task 9 inputs, inputs from jurisdictions' and agencies' plans and programs, and TPB priorities



# Task 5: Inventory of Regional Transportation Needs (2)

- Sub-tasks include:
  - Review existing plans
  - Identify demographic data for analysis
  - Identify transportation plans and projects for analysis
  - Identify new projects for inclusion in plan (Bottom-up Approach)
  - Identify new projects for inclusion in plan (Top-down Approach)
    - Identify new projects that address NoVA's transportation needs that are not identified in the bottom-up approach
    - Identify new projects that will help connect activity centers in the member jurisdictions and facilitate the movement of people to and from these activity centers.
  - Identify land use plans for analysis (transition to Task 6)
  - Estimate project costs



# Task 6: Scenario Planning (1)

- Develop and model 5-10 regional scenarios that test potential regional infrastructure alternatives;
- Scenarios will not significantly modify land use, since NVTA has no authority over land use;
- Scenarios shall be developed in consultation with NVTA staff and the JACC subcommittee
- Consultant may opt to include follow-up scenarios building on or combining the initial scenarios. However, there shall be no fewer than three initial scenarios.
- Consultant will analyze and report on the overall regional effects of each scenario based on the same measures as the overall TransAction analysis, but individual projects within each scenario need not be analyzed separately.



# Task 6: Scenario Planning (2)

- Considerations for developing potential scenarios;
- ‘Internal’ factors:
  - What is the impact of varying the mix of large and small projects?
  - What is the impact of varying the modal mix of projects?
  - What happens if X% of all jurisdictional job/housing growth happens inside activity centers? (potentially including newly defined activity centers)
  - What happens if we prioritize connections between activity centers, versus access to downtown DC or suburb-to-suburb?
- ‘External’ factors:
  - What happens if automated cars increase the efficiency of the road network?
  - What happens if the price of gas increases to unprecedented levels?
- Note: scenarios generally represent possible outcomes against which projects can be evaluated, not preferred or predicted outcomes.



# Task 6: Scenario Planning (3)

- Some task integration issues to be addressed:
  - Task 5: To what extent, if any, does scenario planning complement or duplicate top-down project identification?
  - Task 7: Will the selected modeling tools be adequate to validly measure project impacts for each scenario?
  - Task 9: What level of public involvement, if any, is needed to develop scenarios?



# Task 7: Analysis (1)

- Objective is to evaluate the identified multimodal transportation improvements against performance measures that directly relate to the vision and goals of TransAction (Task 2) through a series of visualizations, including maps, charts and tables;
- Develop methodology to evaluate transportation improvements (informed by multiple tasks);
- To the maximum extent practical, methodology will be consistent previous versions of TransAction and with HB599, HB2, etc.



# Task 7: Analysis (2)

- Sub-tasks include:
  - Finalize analysis methodology. Bidders must justify their choice of methodology and modeling approach. Methodology must address quantitative and qualitative factors;
  - Travel demand model validation and runs. Includes aggregation of projects for analysis purposes. Bidders must address how project impacts will be evaluated for scenarios identified in Task 6;
  - Analysis of model output. May include finer level analysis as needed. Quantitative and qualitative measures must be integrated to provide a comprehensive set of benefits, costs, and other impacts;
  - Development of visualizations showing performance. Bidders may propose performance measures that support the NVRTA's vision and goals, and methods to communicate results;
  - Re-evaluation process. Incorporates stakeholder and public inputs.





# Task 8: Ranking of Improvements

- Uses outputs from other tasks to inform prioritization of projects, while meeting legislative requirements;
- Corridor-level analyses that compare highway and transit projects on an equivalent basis;
- CLRP projects will be evaluated as well as new projects;
- Sub-tasks include:
  - Develop prioritization approach for public input;
  - Apply prioritization approach incorporating quantitative, qualitative, and network performance criteria;
  - Conduct a cost/benefit analysis.



# Task 9: Public Information and Participation (1)

- Subject to meeting all legal requirements, bidders may propose a mix of state of the art and traditional approaches to maximize public involvement;
- Using the communications program finalized in Task 1, public involvement will include a mix of external and internal stakeholders:

## External to NVTA

- Relevant elected bodies, jurisdictional and agency professionals, community stakeholders, informed interests, and the public;

## Internal to NVTA

- The Authority, PCAC, TAC, and JACC.



# Task 9: Public Information and Participation (2)

- Public information activities will be ongoing throughout the development of the Update, from launch to adoption;
- Public participation will play a key role in the project prioritization process (Task 8);
- All internal and external stakeholders will be able to participate in the review of the draft Update.



# Task 9: Public Information and Participation (3)

- Sub-tasks include
  - Develop plan and schedule. The RFP identify the purpose, goals, and timing of each type of engagement activity;
  - Identify and implement appropriate online engagement tools, including social media and online forums, for continuous public education and involvement, including outputs from Task 7. The use each tool will depend in part on its cost-effectiveness;
  - Public information. Communication approaches will vary depending on the content and complexity of each message and the intended audience. A project website will be developed and maintained by the consultant as part of NVTAs website;
  - Public participation in workshops and hearings. The RFP will specify the purpose, goals, location, and timing of events.



# Task 9: Public Information and Participation (4)

- Specific Question: to what extent is statistically valid research still needed?

## Deliverables:

- Project website
- Social media
- Public engagement materials as needed, e.g. audio-visual materials
- In-person meetings



# Task 10: Preparation of the Update

- The structure of the Update will be developed by the consultant and approved three months after kick-off;
- The Update will include an executive summary and technical appendices;
- The Update will be subject to numerous rounds of review (NVRTA staff, JACC subcommittee, JACC, TAC, and PCAC).

## Deliverables:

- Draft Update (multiple drafts)
- Final Update (for approval by the Authority)
- Hard and soft copies, brochures, and a CD



# Task 11: Project Coordination (1)

- Ensures appropriate coordination occurs throughout the project, using a combination of communication media including development and maintenance of a project website;
- Consultant is responsible for organization of, and participation in, all coordination activities and development of supporting materials;
- Ongoing coordination includes JACC subcommittee, PCAC, and TAC;
- Occasional coordination includes public involvement, workshops, NVTA, TPB, and CTB.



# Task 11: Project Coordination (2)

- Interim deliverables will be subject to review twice (NVRTA staff and JACC subcommittee);

## Deliverables:

- Meeting agendas, presentations, and summaries (hard and soft copies)

