



# **Survey of Metropolitan Washington Area Transportation Professionals On Regional Transportation Priorities**



**Conducted by:  
Northern Virginia Transportation Alliance and  
Suburban Maryland Transportation Alliance**

**For The 2030 Group  
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## **Introduction and Context**

The greater Washington metropolitan area is both a national and international capital.

Between 1990 and 2010 the region added 1.3 million people, 540,000 households and 800,000 jobs. In the next 20 years (by 2030) the National Capital Region Transportation Planning Board (TPB) projects the region will add another 1.2 million people, 675,000 households and 940,000 jobs.

During that same time period the TPB also projects another 3.9 million daily vehicular trips, another 25 million miles of daily travel and another 250,000 daily transit trips. However, the number of lane miles and new transit capacity expansion will be limited by fiscal and possibly political constraints.

The region's and sub-regions' (Northern Virginia and Suburban Maryland) fiscally and non-fiscally constrained long range plans for 2030 and beyond include hundreds of highway and transit projects but no short-lists of performance-based, "game-changing" priorities, i.e. projects that would do the most to improve surface transportation mobility and reduce congestion over the next two decades.

The TPB is currently undertaking a three-year priority-setting exercise with input from local governments and the general public (the final report is scheduled for 2013). The Northern Virginia Transportation Authority is also starting to develop its 2040 regional plan. Experienced transportation professionals in the region, who are arguably in the best position to know which transportation investments will make the greatest difference in improving mobility in the next 20 years, can provide valuable input to both of these initiatives.

To contribute to this process in a positive way, the 2030 Group commissioned the Northern Virginia Transportation Alliance and Suburban Maryland Transportation Alliance to conduct a survey of leading public and private-sector transportation professionals in the metropolitan Washington region. We asked top experts in the field to provide their perspectives on how priorities are set; which highway, public transit and other projects are most critical to complete in the next two decades; and what are the most important selection criteria for such projects.

The details of the survey, its results and conclusions appear below.

## **Survey Sample and Methodology**

The survey involved telephone and focus group interviews conducted between late February and early June 2011.

A total of 45 transportation professionals participated in the combined telephone-focus group process. All participants were highly trained and experienced traffic engineers, transportation administrators, civil engineers, designers, or urban planners. Virtually all had a minimum of twenty years of hands-on transportation experience in the public sector, the private sector or both, and most have worked with both highway and transit projects. The sample was balanced to make sure those professionals with road, transit and land-use planning specialties, from a variety of disciplines and all parts of the region, were all represented. All participants understand the inter-relationship of each transportation mode as well as the contributions that transit-oriented development and intelligent land use planning make to improved surface transportation.

The geographical distribution/area of the 43 telephone survey participants' expertise was as follows:

- Northern Virginia – 37.2%
- Suburban Maryland – 32.5%
- District of Columbia – 9.3%
- Regional – 20.9%

Participants were asked a series of questions regarding regional and sub-regional priorities within their areas of expertise, as well as most important criterion upon which to base priority selection. Other questions involved the current planning process and how to improve upon it.

To ensure objectivity and guard against bias, questions were open ended and verbatim responses recorded. There were no multiple choice questions or pre-determined lists of projects from which to choose. Respondents were assured that their comments would be treated with confidentiality to allow them to speak their minds freely.

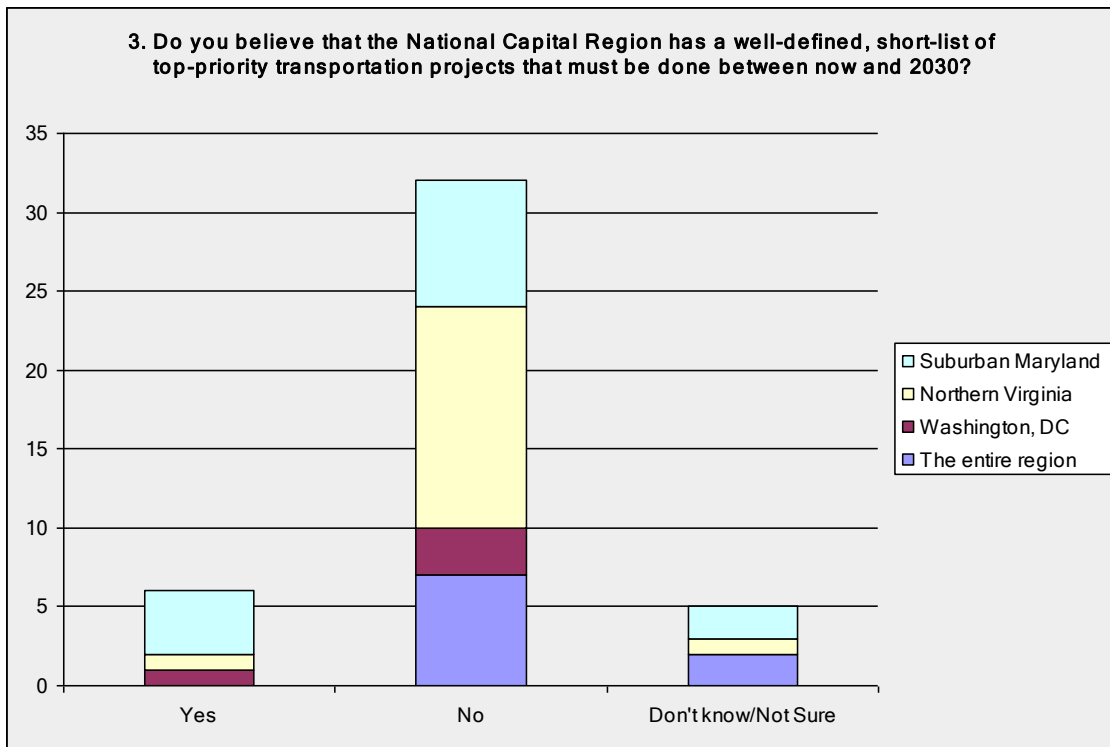
Upon completion of the telephone interviews survey participants and other transportation professionals with similar credentials were invited to follow-up focus group meetings to review and discuss the results. This was done in order to dig deeper into the issues and help ensure correct interpretation of responses and conclusions.

## **Survey Results & Key Findings**

### **1. Transportation Professionals Say the Region Lacks Priorities**

#### **a. At the Regional Level:**

Three of four expert respondents (74.4%) said they believe the National Capital Region does not have a well defined short-list of game-changing transportation priorities to complete by 2030, a small minority (14%) disagreed, and 11.6% percent said they didn't know or were uncertain.



When asked to identify those priorities, most of the 14% of respondents who did believe the region had a short-list of projects either could not name specific projects or referred to the fiscally Constrained Long Range Plan (CLRP), which contains more than 250 projects considered to be of “regional significance.” It is difficult to view the CLRP as any kind of “short-list” for focusing effort on top priority projects that have the most impact on the region.

**The most striking observation here is that the vast majority of the very people who should be most informed about regional transportation priorities agree that no such list for the Metropolitan Washington Region exists today.**

Among the handful of respondents who could identify what they thought were the top existing regional priorities, these were the most frequently cited projects:

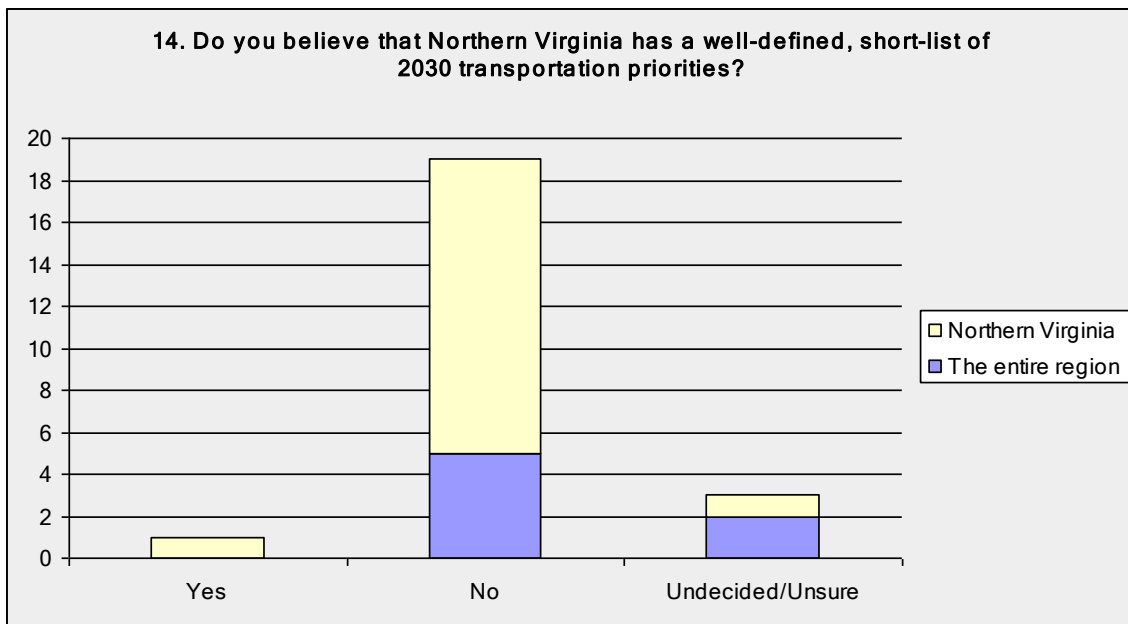
Ranking	Existing Regional Priorities:	(Minority view)
Ranking	Priorities	Location
1	Corridor Cities Transitway(CCT)	MD
2	Purple Line	MD
5	Bus-Rapid-Transit(BRT)/Express-Bus Networks	Region
3	I-270 Expansion/HOT Lanes	MD
4	I-495 Expansion/HOT Lanes	MD/VA
6	MARC/MTA Service Expansion	MD
7	WMATA Core Capacity Expansion	Region
8	WMATA System Preservation	Region
9	DC Street Car Network	DC
10	Dulles Rail/Silver Line	VA

**b. At the Sub-regional level**

**Northern Virginia:** Respondents with experience focused largely in Northern Virginia and those who are knowledgeable about Northern Virginia’s transportation needs as a result of their experience at the regional level were asked about existing priorities in that sub-region. Their responses were as follows.

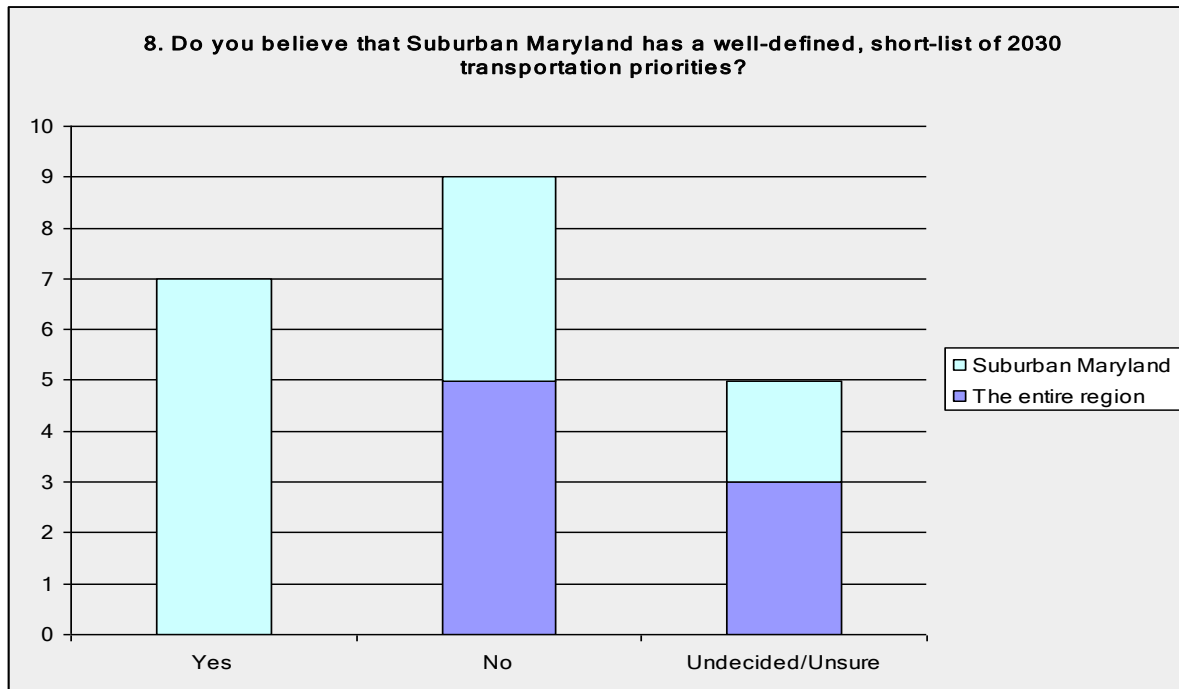
**Northern Virginia Lacks a Short-List of Game-changing Priorities**

- During the past two decades Northern Virginia’s population and job growth have far exceeded that which has occurred in Suburban Maryland and the District. This trend is projected to continue.
- During this same time period local governments have banded together first as a Transportation Coordinating Council and more recently as the Northern Virginia Transportation Authority to adopt (sub)-regional transportation plans.
- However, when asked whether they believe Northern Virginia has a well-defined short-list of game-changing transportation investments, 19 of the 23 (83%) of the Northern Virginia and regional respondents said “no.” Three others (13%) said they did not know or were uncertain. Only one said “yes.”



**Suburban Maryland:** There were some differences in transportation professionals’ perceptions in suburban Maryland and northern Virginia. More professionals could identify priorities in Suburban Maryland than Northern Virginia, for example, but significant majorities feel neither sub-region has a true priority list. Maryland and regional experts were somewhat more likely to believe suburban Maryland jurisdictions had identified top priorities, with several mentioning an

annual process in which Maryland counties provide a list of priorities each year to the Maryland Department of Transportation. Still, a plurality of Maryland and regional experts (43%) did not feel suburban Maryland jurisdictions have effectively prioritized their projects into a well-defined short-list. Just one third (33%) thought they did and a significant segment (24%) was undecided or unsure.



**District of Columbia:** A majority of the District of Columbia experts we surveyed (75%) said there was a short-list of transportation priorities in the District, but in the comments section of this question some indicated that they thought the list was either not well-defined, not based on performance, or constantly changing.

**2. Among Transportation Professionals, Consensus Exists on Short-List of Top-priority “Game-changing” Projects at the Regional Level**

**The Region’s “Top-10” Game-changing Transportation Investments Mentioned Most Frequently by Transportation Experts:** To begin to refine the focus from existing plans that contain hundreds of projects and studies, participants were asked to put funding and political considerations aside and identify the three (3) transportation investments they believe would make the greatest difference in the next 20 years. Again, this was an open-ended question. No lists of suggested projects were provided. The top-ten most frequently mentioned responses appear below (bracketed numbers indicate the number of responses for that specific category):

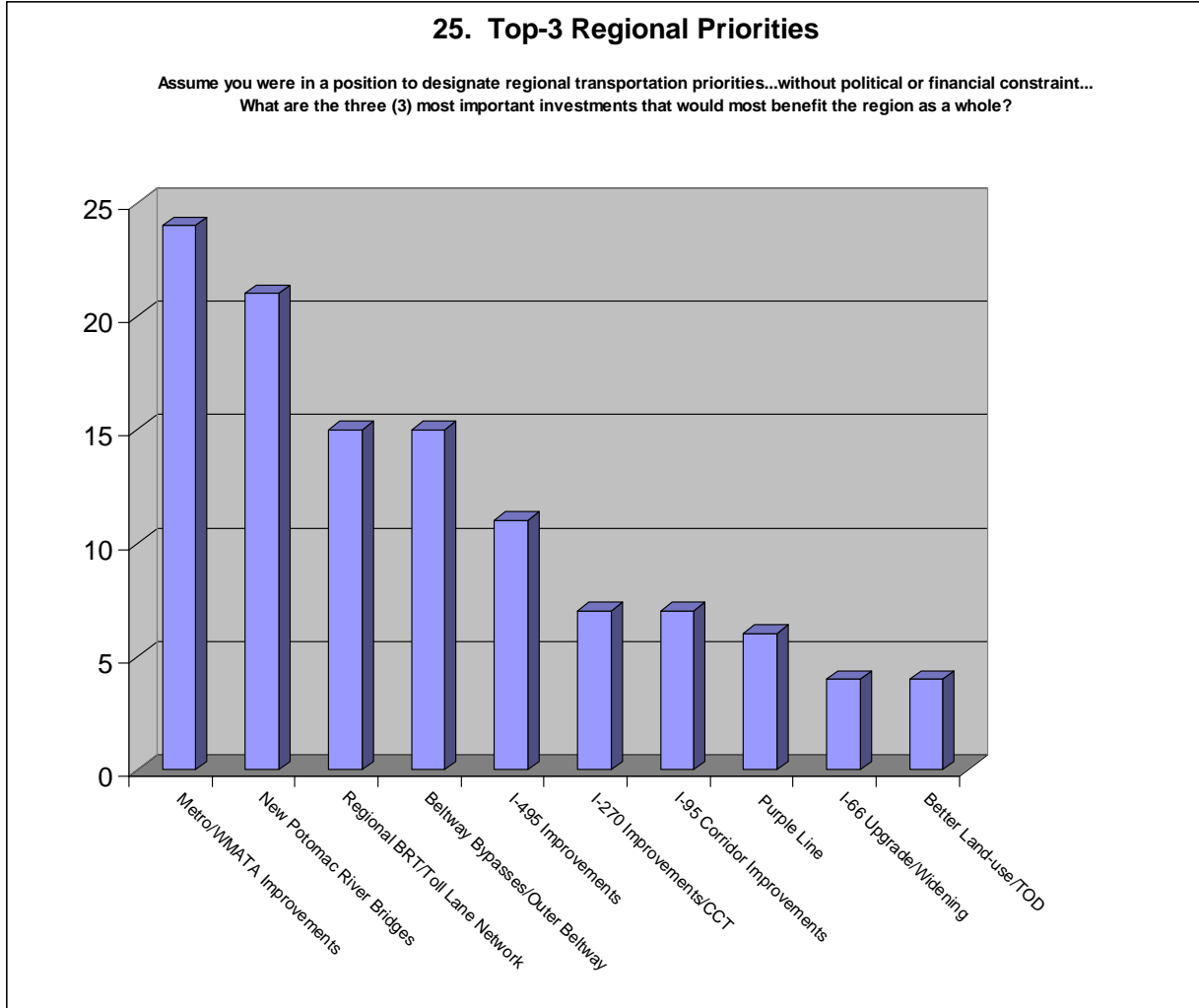
**Table 2. Top-10 Most Frequently Mentioned Projects:**

Ranking	Priorities	Location
1	Metro/WMATA Improvements (24) <ul style="list-style-type: none"> <li>• Maintenance and Operations (12)</li> <li>• Add New Lines (4)</li> <li>• Expand Core Capacity (4)</li> <li>• General/Funding/Mgmt (4)</li> </ul>	Region
2	New Potomac River Bridges (21)	Region
3	Regional Bus-Rapid-Transit(BRT)/Toll Lane Network (15)	Region
4	Beltway Bypasses/Outer Beltway Segments (15) <ul style="list-style-type: none"> <li>• Outer Beltway/both (6)</li> <li>• Eastern Bypass (5)</li> <li>• Western Bypass (4)</li> </ul>	Region
5	I-495 Improvements/High-Occupancy-Toll (HOT) Lanes (11)	MD
6	I-270 Improvements/Corridor Cities Transitway(CCT) (7)	MD
7	I-95/I-395 Corridor Improvements (7)	VA
8	Purple Line (6)	MD
9	I-66 Upgrade/Widening (4)	VA
10	Better Land-use/Transit-Oriented-Development (TOD) (4)	Region

Several major points emerged here from our survey:

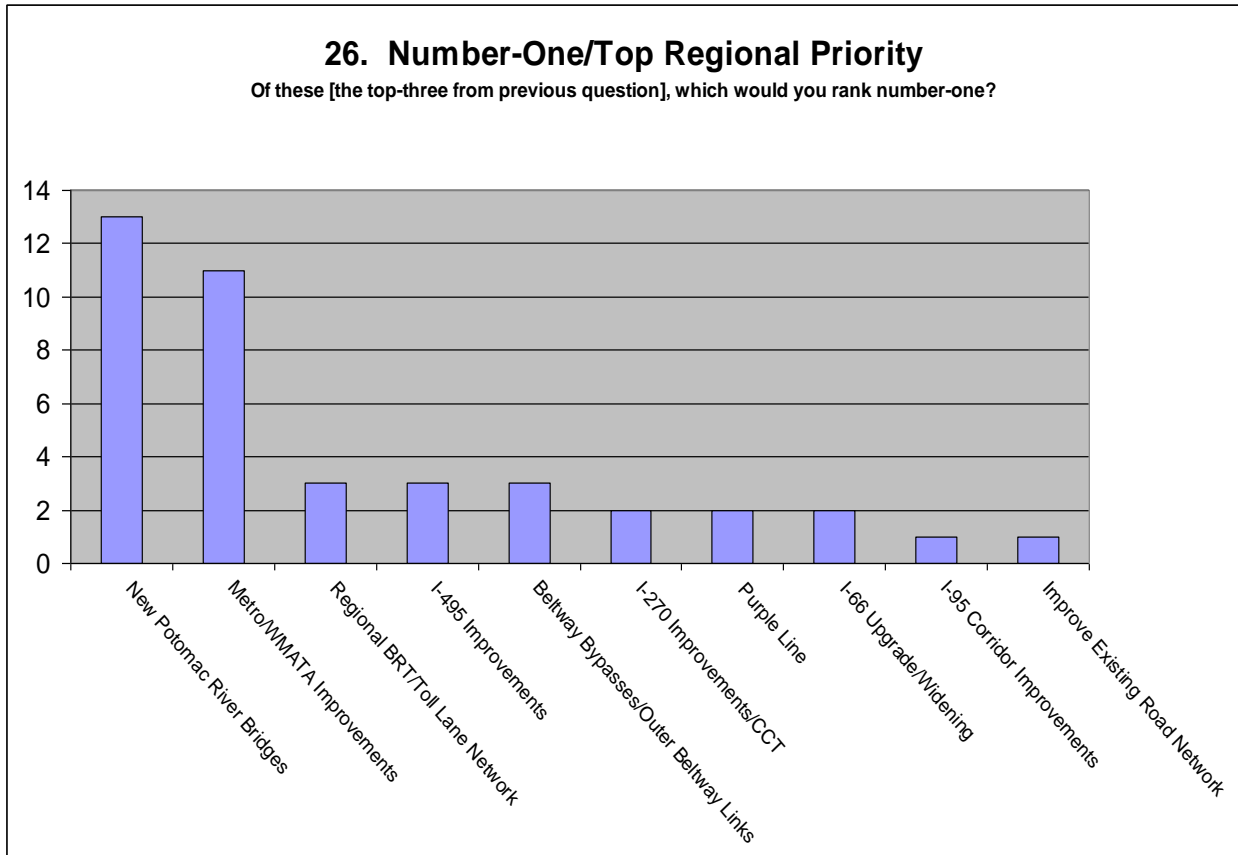
- Metro Maintenance Takes Precedence Over Expansion Projects: According to the experts, funding Metro’s continued operations and maintenance needs is a top priority, more so than expansion of the system. Several participants commented on the severe economic and traffic impacts that would result if we as a region failed to invest in Metro’s core system and improve its reliability.
- New/Improved Bridges and Major Regional Highway Connections Linking Key Corridors Are Near the Top the List: 36 of the 43 participants (83%) name projects that involve new or upgraded Potomac River Bridges (Northern Potomac Crossing, Outer Beltway, Eastern Bypass, Creating Seamless Beltway HOT/HOV/BRT network.) among their top-3 regional transportation priorities.
- Focus on Bus Rapid Transit (BRT). Creation of a regional BRT network received more frequent mention than any expansion of the current Metrorail system (Note: Dulles Rail is assumed to be part of the current system since it is now under construction).
- Provide Capacity in Key Economic Corridors: The balance of the top-10 projects included several multi-modal corridor projects (I-270, I-95/395, I-66, and the Purple Line/Capital Beltway).

- Better Land-use and Transit-Oriented Development also made our experts' list. This shows the long-term importance of better integration of land-use and transportation to maximize transportation investments. However, adding capacity on all modes, and ensuring continued Metro operations and reliability, all rank much higher on their consensus regional priority list.



**We then asked: What is the Single Most Important Regional Transportation Investment in the Next 20 Years?** To further narrow the focus, respondents were asked to identify which one of their three top choices they consider to be the single most important transportation investment the region can make in next 20 years. The results were as follows:

- New Potomac River Bridges (13) – 31.7%
- WMATA Maintenance/Operations (11) – 26.8%
- Regional BRT/Toll Lane Network (3) – 7.3%
- Improve Existing MD Beltway/BRT (3) – 7.3%
- New Regional Beltway Bypasses (Eastern/Western) (3) – 7.3%
- Upgrade I-270/CCT (2)– 4.9%
- Purple Line (2) – 4.9%
- Upgrade I-66 Corridor (2) – 4.9%



Here again, the two most important regional transportation investments are considered to be improving bridge connectivity between Maryland and Virginia and the maintenance and operation of the Metrorail system (which includes rail to Dulles Airport and Eastern Loudoun County). A second-tier including regional BRT/HOT lane networks, Beltway improvements, Beltway bypasses (in key corridors to the east and west of I-495) is also apparent, followed by investments in key corridors.

**When we asked the experts to pare their lists down to their number-one pick, the relative importance of two key projects (New bridge crossings and Metro/Wmata Improvements) became even more pronounced.**

\*[NOTE: When we asked experts for their single most important priority, “Better land-use/Transit Oriented Development” dropped off the list of top-10 most frequent responses, and was replaced with “Improve Existing Road Network”. In the focus group discussions the experts observed that in a mature urban and suburban community, future changes in land-use in areas that are already largely built-out are not going to produce as much impact as new transportation capacity. So even though experts see these land-use changes as important to maximizing transportation investments in the long-term, they do not make it to the top of the list because they are not considered substitutes for needed capacity.]



### **3. The Most Important Regional Public Transit Investment: System Preservation, Operations and Maintenance of Regional Metro System**

The metropolitan Washington region ranks second in the nation in terms of percentage of persons moved by public transit. Upwards of 18% of work trips and about 6% of all daily trips are made via public transit.

Since public transit is in many cases funded separately from highways and bridges, and to ensure that all respondents were focused on and thinking about public transit as part of the solution, each participant was asked to identify those three (3) public transit investments that would make the greatest difference and should command greatest attention in the next 20 years. The responses were as follows:

- Metro/Wmata Improvements (34) – 82.9%
  - Maintenance & Operations (15) – 36.6%
  - Core Capacity Expansion (12) – 29.3%
  - General Funding & Mgmt (4) – 9.8%
  - Extensions/New Lines (3) – 7.3%
- Regional BRT/Toll Lane Network (20) – 48.8%
- Purple Line (14) – 34.1%
- I-66 Metro/BRT/Light Rail Extension (8) – 19.5%
- New Potomac River Transit Crossing Connections (6) – 14.6%
- Route I/I-95(VA) Corridor Transit (6) – 14.6%
- Corridor Cities Transitway (CCT) (5) – 12.2%
- DC Street Cars (5) – 12.2%

Once again, maintenance of the region’s Metrorail network and creation of a supplemental Bus Rapid Transit network command the most support. Construction of the Purple Line and I-66 rail extension or BRT also receive significant mention.

### **4. Northern Virginia’s Most Important Transportation Investments**

Among northern Virginia and regional experts, the most frequent responses to the question as to which three (3) transportation investments would make the greatest difference in improving mobility and reducing congestion in the next 20 years in the northern Virginia sub-region were as follows:

Northern Virginia’s Top Transportation Priorities:

- I-66 Corridor Widening/Improvements (15) – 65.2%
  - Inside Beltway (4)
  - Outside Beltway (5)
  - Both (6)
- New North-South Corridor/Western Bypass (13) – 56.5%
  - Bi-County Parkway (2)
  - Tri-County Parkway (3)
  - Western Corridor (8)

- New Potomac River Bridges (11) – 47.8%
  - North of Beltway (7)
  - South of Beltway/Eastern Bypass (4)
- I-95 Corridor Widening/Improvements (6) – 26.1%
  - South of Beltway (4)
  - Including I-395 North of the Beltway (2)

Other Northern Virginia investments mentioned included:

- I-495 – Match MD-VA HOT Lanes/Widen AL Bridge (3)
- Route 1 BRT (3)
- Better Land Use/Transit Oriented Development (3)
- Convert Fairfax County Parkway to limited access (3)
- Widen existing road network (2)
- Dulles Rail (2)
- BRT Network (1)
- Ridgefield Road (Fairfax-Prince William Connector) (1)
- Columbia Pike Trolley (1)
- Route 9 upgrade/alternative (1)

## **5. Suburban Maryland’s Most Important Transportation Investments**

When Suburban Maryland and regional transportation professionals with experience in Maryland were asked to identify the three (3) most important transportation investments in the next 20 years within suburban Maryland, the most frequent responses were as follows:

Maryland’s Top Transportation Priorities:

- I-270 Widening/Improvements (HOT/HOV lanes with BRT) (17) – 85%
- MD Beltway Widening/Improvements (HOT/HOV with BRT) (11) – 55%
- Purple Line (10) – 50%
- Potomac River Bridges (8) – 40%
- Corridor Cities Transitway (7) – 35%

Other Suburban Maryland investments mentioned included:

- Regional BRT System (4) – 20%
- Local BRT System (3) – 15%
- Metro/Wmata Funding & Maintenance (3) – 15%
- Route 5 Corridor (3) – 15%
- ICC Extended (east to Route 50) (2) – 10%
- Arterial Highway Improvements (1) – 5%
- Montrose Parkway East (1) – 5%
- Potomac Crossing – Metro (Grosvenor to Dulles) (1) – 5%
- Purple Line Extension (New Carrollton to National Harbor) (1) – 5%
- Regional Bike/Pedestrian Network (1) – 5%

## **6. The District of Columbia's Most Important Transportation Investments**

Although home to only about 11% of the region's population, the District of Columbia is a vital part of the regional transportation network and the economic center of the region.

Realistically, most of the District's major transportation infrastructure is in place and this survey takes as a given the importance of maintaining the City's key streets and its Anacostia and Potomac River Bridges, along with maintaining and expanding Metro's core capacity, including new rolling stock, Metro tunnels, parking and platform capacity.

Nevertheless, the survey interviewed several private and public sector transportation professionals knowledgeable about the District's Transportation needs.

Opinion was fairly uniform as to what constitutes the District of Columbia's most important transportation investments. The two most frequently mentioned priorities were as follows:

District of Columbia's Top Transportation Priorities:

- A Citywide Streetcar Network – 80%
- South Capital Street Corridor/11<sup>th</sup> Street Bridge/I-295 Connections – 75%

Other DC investments mentioned included:

- Expanding the District's successful bike sharing program
- Increasing Metrorail's core capacity (including underground pedestrian connections between Farragut North and Farragut West stations, Orange Line Tunnels, etc).
- Maintain and improve Anacostia and Potomac River bridges in DC

## **7. How We Set Regional Priorities: The Most Important Evaluation Criteria According to the Experts**

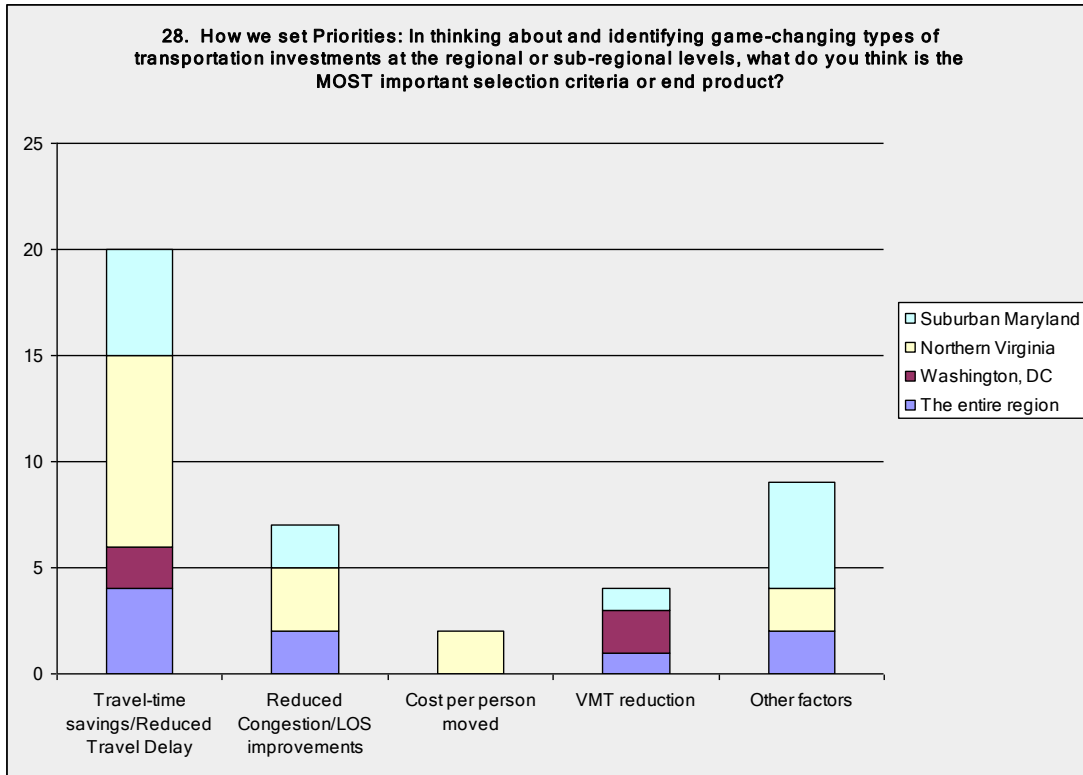
The survey also sought insight on the issue of priority identification and which criteria are most significant in terms of assigning a "game-changing" or "top-priority" designation. During the past decade or so, the list of criteria considered by local, state and regional planners has grown substantially.

The TPB's 1998 vision statement includes at least eight general goals and objectives, which since have been expanded upon during the decade-long Regional Mobility and Accessibility Study. The Northern Virginia Transportation Authority's TransAction 2030 Plan utilizes 19 different criteria all of which are assigned equal value.

However, because all criteria are not of equal value, each respondent was asked to identify the single most important criterion or that criterion to which the greatest weight should be assigned in designating a project to be of "game-changing" regional importance.

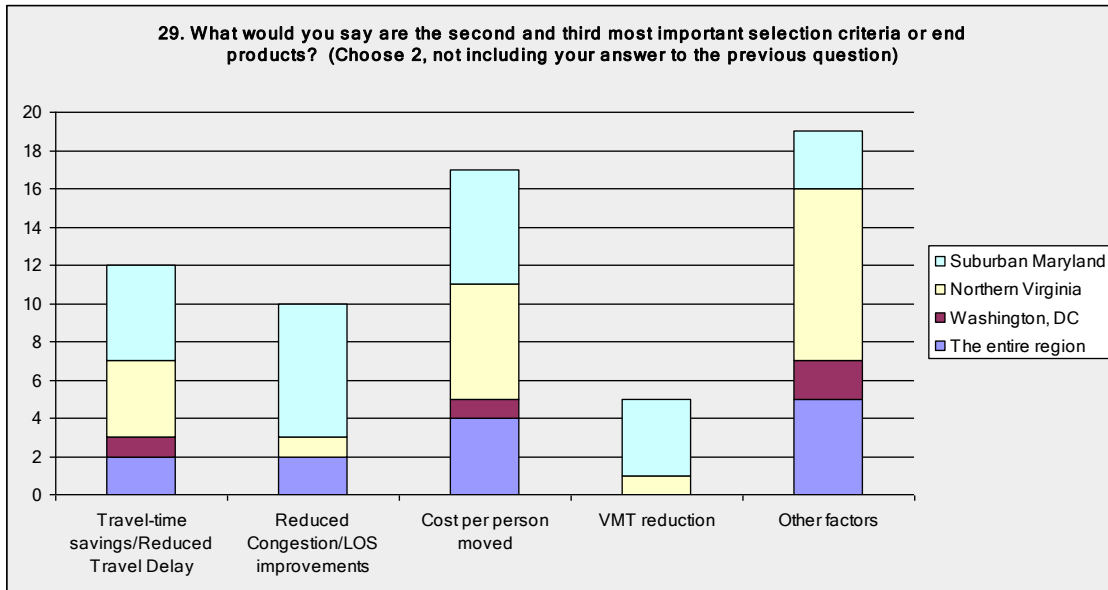
The results were as follows:

- Improve Travel Times/Reduce Delays – 48%
- Reduce Congestion/Improve Level of Service – 17%
- Vehicle Miles of Travel (VMT Reduction – 9%
- Cost per person moved – 5%
- Other – 21% (primarily safety and reliability, but several other metrics as well)



When Participants were asked to name the second and third most important criteria, the most frequent responses were as follows:

- Cost per person moved – 43%
- Travel Times/Delay Reductions – 30%
- Reduced Congestion/Improved LOS – 25%
- VMT Reduction – 12%
- Other – 48%



What is of particular significance in these findings is recent state, regional and local planning documents assign significant emphasis to Vehicle Miles of Travel (VMT) reduction and creating additional choices. Relatively little emphasis is placed on actual congestion reduction or capacity enhancements and, even more strikingly, comparatively little focus is devoted to travel time or delay reductions.

However, this survey finds transportation professionals assign the greatest emphasis, by far, to travel time savings and delay reduction, as well as congestion relief and cost-effectiveness, but very little significance to VMT reduction. “Creation of more choices” was not even mentioned by a single respondent in the “Other” category. Several of the experts pointed out in the focus groups that congestion reduction and travel-time savings are really one in the same, and derive from the same metrics in regional traffic models, so they should really be combined into one category (which only magnifies their relative importance that much more).

An important subset of the time/delay reduction component cited by a number of experts is “reliability and predictability.” It is not only the amount of time required to take a given trip that bothers people as much as the fact that the time for the same trip can vary 20-30 minutes or more from day to day depending on conditions. Thus investments that enhance network reliability, predictability and balance should receive higher priority as well.

Another important consideration noted in the survey verbatim responses and follow-up focus groups is cost benefit analysis, not only in the sense of number of persons moved per dollar invested, but the impact on the regional economic and quality of life and/or time savings over a long time period. The full economic and community benefits of wise transportation investments are not typically communicated well to the public.

## SUMMARY/CONCLUSIONS

### **1. Transportation Experts Have a Well-Defined Short-List of Game-Changing Priorities Worthy of Sustained Regional Focus: It's Time to Start Focusing on Them**

Four decades ago the region came together behind construction of the 98-mile Metrorail system and, to a large extent, regional progress was measured by the manner and pace at which it was implemented. Some years saw greater progress than others, the threat of a cessation or a threatened cut-off of federal funds surfaced on several occasions. However, the region remained resolute on the importance of completing that 98-mile (later amended to 106-mile) network.

With the region's transportation network now considered among the nation's most congested, and millions of new people, jobs and vehicles in the pipeline, it is time for the region to forge a new compact committed to building a multi-modal package of top-priority transportation investments that makes the most difference by 2030, based on travel time savings, congestion relief, and cost- per-person moved.

The input received in the course of this survey points to the following top priorities:

#### Recommended Game-Changing Regional Transportation Facilities & Investments:

- Regional/District of Columbia
  - Metro: Enhance maintenance, safety and reliability of the existing Metro system
  - Bridges: Construct a new Potomac River Bridge north of the American Legion Bridge (connecting to existing road network); Construct a new Potomac Bridge south of the Woodrow Wilson Bridge (connecting to a new Eastern Beltway Bypass); Maintain/improve Anacostia and Potomac River bridges in DC
  - Bus-Rapid Transit: Establish a regional BRT Network
  - Metro Core Capacity: Add new rolling stock, expand station and parking capacity, add new tracks and connecting tunnels where needed
- Northern Virginia
  - I-66: Expand I-66 highway and transit capacity inside and outside the Beltway
  - North-South Connectors: Construct new north-south limited access corridors outside the Beltway (Bi-County-Tri-County Parkway/Western Beltway Bypass)
  - I-95/I-395 Corridor: Widen and improve as part of regional HOV/HOT/BRT network.
- Suburban Maryland
  - I-270 Corridor: Widen and upgrade between I-370 and Frederick, and from I-370 south to the I-270 spurs and the American Legion Bridge, as part of regional HOV/HOT/BRT network; and Construct the Corridor Cities Transitway (CCT) from Shady Grove to Clarksburg.
  - I-495: Widen and integrate HOV/HOT/BRT on the entire Maryland side of this corridor to connect with and compliment Virginia's HOT Lane facility.
  - Purple Line: Construct Purple Line from Bethesda to New Carrollton

The above list represents a starting point. It is short, well-defined and relatively balanced across the region. It would have significant positive impacts on regional accessibility, connectivity and mobility, particularly in providing better multi-modal connections between regional activity centers (via both transit and auto), and it is achievable within a twenty year time frame.

Traffic modeling of this package against a 2020, 2030 or 2040 “no-build” scenario, and against other proposals and scenarios currently under study, would yield valuable data and could help garner public support by reinforcing the connection between the level of investment required and the level of impact on traffic congestion, which remains the number-one threat to our region’s long-term economic health and quality of life.

## **2. Other Key Observations from the Experts**

At the conclusion of the survey participants were asked for any additional observations on regional prioritization, the current transportation planning process and how to improve it. Further responses were obtained in the Maryland and Virginia focus group sessions as a follow-up to the survey. Taken together, these additional observations provide useful guidance from those transportation professionals who are most knowledgeable about our processes and those used in other jurisdictions.

Many of the survey and focus group comments pointed out that, by putting a premium on local government input, the federally mandated Metropolitan Planning Organization (MPO) process works against a truly regionally focused transportation planning effort. Several experts spoke of the need for some type of regionally-based entity or authority to raise the discussion to a higher, more regional, problem-solving/connectivity level.

Perhaps the most cogent observation was this:

**“Not many people actually think along the lines of regional prioritization and what projects would have the greatest positive impact at the regional level. Regional planning doesn’t happen any more. Nobody else is even asking these questions.”**

### **In conclusion**

Key findings and conclusions from this study include:

1. The nation’s most congested region lacks a well-defined short-list of transportation investments that would have the greatest potential to reduce congestion/improve mobility in the next 20 years.
2. Among transportation professionals, significant consensus exists as to highway and public transit investments that would be the most productive.
3. The top-ten projects are listed in the report, with new Potomac bridges, continued investment in WMATA system maintenance and operations, and several key transportation corridors garnering the most consensus.

4. The prioritization process should focus heavily on highway and transit investments that do the most to reduce travel times/delays, reduce congestion, and improve transportation network safety and reliability.
5. Meeting the region's transportation challenges requires not only selecting/advancing the right priorities, but a new process that is more regional and professional and less parochial, political and ideologically driven.