

MEMORANDUM

TO: Members,
SJR 122 Subcommittee

FROM: Rapid Transit Action Committee
Breakthrough Technologies Institute

DATE: December 17, 2008

RE: Findings and Recommendations

Thank you for your service on the SJR 122 Subcommittee. It is widely recognized that the health and prosperity of our region depends on maintaining a balanced transportation system that moves people and goods quickly and efficiently throughout the region at all times of day. Every year, though, the congestion on major roadways becomes more intense and disruptive.

What is causing this steady increase in congestion, and what can be done to reduce its impact? We believe that an important contributor to the growth in congestion is the increase in single-occupancy-vehicle (SOV) commuter traffic from the fast-growing population centers in the middle and outer edges of the expanding region and the job centers close to the region's urban core.

To the extent that is the case, encouraging SOV commuters to leave their cars at home by switching to long-haul commuter transit can provide many benefits. The carrying capacity of existing roadways can be increased substantially. Commuters find that rapid transit saves them time, money, and stress compared to driving. Employers find it easier to attract employees who can commute to work on transit. Many large employers offer transit reimbursement to employees as a fringe benefit.

Because commuters who switch to transit often save substantial amounts on annual commuting costs, expanding long-haul transit can help the wage-earner cope with the economic downturn. Such a program has the potential to stimulate local economies, promote "smart growth" land use policies, reduce greenhouse gas emissions, and make the region less vulnerable to high gas prices.

Although there is no magic bullet for solving our transportation challenges, mass transit has a vital role to play throughout the region, including connecting fast-growing outer suburbs to the inner jurisdictions and the urban core.

SJR 122:

SJR 122 was established “to study the feasibility of creating a regional rapid transit network for connecting existing and emerging population centers in major transportation corridors”, including the inner jurisdictions like Arlington, Alexandria and Fairfax; the middle ones like Loudoun, Prince William, and Manassas; and the outer ones like Fredericksburg, Spotsylvania, Stafford, Culpeper, and Winchester. The subcommittee was asked to identify corridors with strong existing or potential transit demand based on anticipated growth and land use policies, with special attention to areas impacted by the 2005 Department of Defense Base Realignment and Closure Commission (BRAC) recommendations. The legislation also requested an assessment of new transit technologies and approaches, such as bus rapid transit.

This mandate was a huge challenge – one that is difficult to achieve in the short time allotted for the subcommittee’s work. Therefore, we hope that you will consider requesting that the subcommittee be extended for another year. We also hope that you will consider the following principles and proposed finding and recommendations.

First, the Commonwealth has much to gain by providing alternatives to traveling by single occupant vehicles, especially for routine daily trips such as the journey to work. It is faster and far cheaper to satisfy the growing transportation demand by increasing the throughput of existing infrastructure than by building enough new roadways to accommodate it. We believe a specific transportation goal should be to maximize the efficiency of existing infrastructure, measured in terms of the number of people and volume of freight carried by that infrastructure.

Second, transportation planners must expand their planning horizons to account for the impact on the regional transportation system of the rapid growth occurring in Loudoun, Prince William, and beyond. Every year the number of commuters increases from places as far away as Winchester, the Shenandoah Valley, Manassas, and Fredericksburg to jobs located in the inner counties and Washington D.C.

Virginia’s transportation planners must also be able to respond quickly to decisions by large employers such as the Department of Defense that place substantial new burdens on the transportation network. The Commonwealth has much to gain from a regional rapid transit system that can quickly adapt and respond to new demands.

Third, expanding long-haul rapid transit service offers a fast, cost-effective way to help commuters deal with rush-hour congestion while helping businesses access a broader labor pool. Expanded service also can help reduce the impact of the economic downturn on local families, stimulate local economies, promote “smart growth” land use policies, reduce greenhouse gas emissions, and make the region less vulnerable to a resumption of high gas prices.

Although all modes must be considered for the long term, commuter buses offer the most cost-effective way to increase rapid transit capacity quickly. With relatively small

investments in additional buses and park and ride lots, new services can be added to BRAC-impacted areas, such as Mark Center and Ft. Belvoir, as well as to other major trip generators, such as Tysons Corner.

Finally, high quality commuting options enjoy strong popular support, as shown by public opinion polls and – more importantly – by dramatic and sustained increases in ridership on long-haul transit services, such as VRE, PRTC and Loudoun County Transit. These increases appear to be holding, even as gasoline prices retreat.

Suggested Findings:

Traffic from fast-growing parts of Northern Virginia beyond the planning boundaries of the Northern Virginia Transportation Authority (NVTA) and the MWCOG Transportation Planning Board (TPB) is likely to be a significant source of increasing traffic congestion in the years ahead.

- Both the NVTA and the TPB planning boundaries end at the Loudoun and Prince William County boundaries.
- The region's fastest population growth is in counties outside or at the edge of this planning area, while growth of the inner jurisdictions has stabilized:¹
 - Loudoun (50.6%)
 - Spotsylvania (28.9%)
 - Stafford (27.5%)
 - Prince William (24.1%)
 - Culpeper (24.1%)
 - King George (22.8%)
 - Berkeley, WV (23%)
 - Fauquier (18%)
 - Alexandria (5.5%)
 - Fairfax County (3.8%)
 - Arlington (3.4%)
- Employment growth will continue to add to the disproportionate concentration of jobs in the inner areas and core. Employers will need to attract employees who will commute ever-greater distances to fill these jobs.

As the number of long-distance commuters increases, traffic congestion will be intensified on all roadways connecting outer and inner suburbs.

- Lane miles of congestion in outer suburbs are projected to increase by 550% by 2030

¹ See www.cra-gmu.org/alerts/Trends%20Alert9.pdf

- Lane miles of congestion in the inner suburbs are expected to almost double by 2030

Building and maintaining road infrastructure to continue serving mostly single occupant vehicles will be increasingly expensive and unsustainable.

- Federal and state trust funds are under severe stress
- The ability to secure additional rights-of-way is increasingly difficult

Long-haul commuter bus services such as BRT offer a way to increase the efficiency of existing and future roadways.

- On I-395 during the morning peak, one general-purpose (non-HOV) lane carries roughly 1,500 people per hour. By contrast, the HOV lanes, which include substantial commuter bus service, carry roughly 5,100 people per lane.
- The carrying capacity of a single BRT lane at rush hour is 18,000 to 25,000 people per hour, as demonstrated by the New York / New Jersey XBL lane.

Long-haul, commuter bus services are the fastest growing transit services in the Washington region, with an average annual growth rate of 10% between 1996 – 2006 and higher rates of increase recently.

- Loudoun County commuter transit ridership to D.C. increased 25%, Nov. 2007-2008
- PRTC commuter bus ridership increased 440%, 1996-2006
- Hampton Roads experienced a 32% ridership increase on commuter express routes over 2007.

Surveys have shown that rapid transit is strongly supported by the public throughout the region.

- Those using commuter transit typically cite the following as the most important reasons they switched to transit: Ability to do other things during the trip; less stressful; faster; less expensive.

Bus Rapid Transit (BRT) and related strategies offer a cost-effective way to quickly enhance rapid transit capacity, increase the person-throughput capacity of existing roadway infrastructure, and provide opportunities for transit-oriented development.

- “Quick-start” commuter bus services including BRT are able to expand into growth areas faster and with less cost than any other transit mode.

Creating a uniquely-branded network of high-quality BRT services covering the expanded Northern Virginia region is a promising option to maximize the capacity of existing infrastructure.

- Among other things, it builds upon existing efforts to implement BRT service in critical corridors, like I-95/395 and I-66, adds service to new corridors, and can serve as a feeder system to regional rail networks.

Quickly expanding rapid transit services can save families substantial commuting costs, giving them more disposable income to spend in local businesses.

- By switching to transit, a solo commuter from Leesburg to DC can save over \$10,000 annually. For example, tolls are at least \$9.50 daily on the Greenway and Dulles Toll Road, plus roughly \$50 to operate their car (based on the current \$.585 IRS mileage rate). Assuming an average parking fee of \$10, the total daily cost is \$69.50. A one way fare using the Loudoun County commuter bus service is \$7, if the fare is paid using a SmarTrip card. Thus, the roundtrip cost is \$14, with a daily savings of \$55.50 over driving alone. Assuming 240 commuting days per year, the total annual savings is \$13,320.
- A commuter who switches to transit from Dale City to the Pentagon can save about \$5,000 annually.
- If the employer participates in a transit cost-reimbursement benefit program, the commuter's savings will be even higher (roughly \$1300 annually additional savings).

Barriers to implementing a region-wide public transit network must be addressed. These barriers include the lack of an integrated transportation and land use plan for the expanded Northern Virginia region, financial barriers, and the fragmented nature of public transport service in the greater Northern Virginia region.

The Commonwealth has a unique role in encouraging and supporting the development of a regional rapid transit network and in promoting transit-oriented development around public transit stations.

Suggested Recommendations:

(1) The subcommittee should be extended for another year to complete the tasks requested in the SJ 122. These tasks include:

- Identifying corridors with strong current and future transit demand, including the BRAC-impacted areas;
- Studying innovative approaches used in other urbanizing areas and how they might be adapted to solve problems in the Northern Virginia region;
- Develop ways to coordinate the existing public transit providers to create an integrated transit network. To accomplish this, it is necessary to identify the institutional barriers to creating such a network and ways to overcome those barriers;

- Identify the potential costs and benefits of expanding transit using the available technologies, rail and bus;
- Define the boundaries of the expanded Northern Virginia region for which an integrated transportation and land use plan should be developed;
- Develop options for creating an integrated transportation and land use plan;
- Address institutional and financial barriers for creating an integrated public transport network that harmonizes the large number of independent service providers in the region
- Identify the options for financing such service.

(2) The Commonwealth should establish a clear goal to maximize the efficiency of major commuting routes, as measured by the person-carrying capacity per lane of such routes. The Commonwealth should implement this goal by facilitating and encouraging the use of high-occupancy vehicles, such as commuter buses and vans.

(3) The Commonwealth should establish a regional task force with representation from local government officials, the business community, concerned citizens and public transportation service providers to seek immediate solutions by:

- Identifying high impact, short-term and cost-effective opportunities to quickly enhance rapid transit services, especially for long-distance commuters, in a manner that maximizes the person-throughput capacity of existing infrastructure;
- Building upon existing DRPT BRT/TDM projects, such as adding more bus service in HOV lanes and major arterials, establishing peak hour bus priority, and implementing shoulder bus lanes;
- Identifying opportunities to fund such projects including, but not limited to:
 - federal and state contributions,
 - private sector investment, such as public-private partnerships and awarding naming rights for particular routes,
 - enhanced use of proffers to obtain public transport facilities, such as bus shelters and park-and-ride facilities,
 - incentives for greater service provision by private-sector bus operators, retail and commercial facilities with excess parking capacity, and others
 - incentives and encouragement for major employers, such as government agencies and private sector companies, to expand employer-provided transportation services, such as van pools or dedicated commuter buses, and to provide employee-benefit transit cost reimbursement programs;
- Identifying and developing an ongoing mechanism to better coordinate public transportation services in the expanded Northern Virginia region and to create a unique brand for a network of specific services throughout the region.

(4) The Commonwealth should work with and support local governments to create an integrated transport and land use plan for Greater Northern Virginia and to set criteria, guidelines, and incentives to encourage local governments and other stakeholders to comply with the plan

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