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The Honorable John H. Chichester
P.O. Box 904
Fredericksburg, VA 22404

The Honorable Charles R. Hawkins
P.O. Box 818
Chatham, VA 24531

The Honorable Martin E. Williams
P.O. Box 1096
Newport News, VA 23601

Dear Senators Chichester, Hawkins, and Williams:

I appreciate the work you and the members of the *Statewide Transportation Analysis and Recommendation Task Force* (START) are doing to address the serious transportation crisis we face.

Virginia and Virginians are threatened. As congestion worsens in our prosperous urban centers, we jeopardize their vitality. Also, while our rural areas may not feel the direct sting of long lines of traffic, citizens in rural towns and counties are paying the price for the increased cost of transporting goods across clogged highways. After all, if the cost to ship a pair of shoes from the Port in Hampton Roads to Bland County increases, the parents of school children in Bland Co. have to reach deeper into their pockets.

Given the current revenue stream for transportation, the picture is grim.

Without additional revenue, between 2020 and 2025:

- Virginia will not be able to match available federal aid for transportation.
- Virginia's transportation construction program will stop – completely.
- Virginia will become a “maintenance only” state.

These few facts alone call for decisive action now.

In your opening address to START on September 20 in Richmond, you noted several innovative ideas to move people and freight at higher speeds and at lower costs. You did an excellent job of setting the stage for the START deliberations.

Regardless of their pre-election positions regarding transportation, all of the candidates for Governor recognize that transportation will be a major – if not *the* major – agenda issue for the next session of the General Assembly. Once elected and free from pre-election advice, I am hopeful that the new Governor will step out as a leader and work hand-in-hand with the General Assembly to find sustainable revenue sources for transportation. The work your task force is doing is important in that regard.

The needs for transportation are well documented. You have been briefed on VTRANS and Secretary Homer, Commissioner Whirley, Director Rae and Ms. Barbara Reese can articulate those particular statistics better than I. Likewise, while I have certain opinions, being an architect of “where” to find “how much” is not my particular area of expertise.

In the pages that follow, I briefly outline a menu of ten concepts that I believe could benefit transportation in Virginia, provided that sustainable revenues are available for them. Some require legislative changes; others do not. Some suggest a more concentrated focus on existing practices; others pick up on ideas that have been floated before, but not implemented. Not all of these thoughts are original. Rather, I offer them here as a collection of ideas that might appeal to a broad base of constituents.

1. Outsource Maintenance

Maintenance must continue to be fully funded as a first priority. The idea of outsourcing maintenance functions is one that has been discussed with increasing interest. I think it’s the right thing to do. I believe we can improve the delivery of maintenance services over the long term by outsourcing it to the private sector. I think we can:

- Shift the capital cost of new equipment to the private sector and divest equipment no longer needed.
- Shift the capital cost of building and grounds for maintenance operations to the private sector and divest property that the state no longer needs.
- Expand the private sector market for maintenance operations, creating more jobs for existing businesses and providing new opportunities for small, minority and women-owned businesses.
- Spur competition, resulting in lower costs and improved performance.
- Reduce the size of VDOT.
- Shift the front-line accountability for outcome based maintenance standards to the private sector.

Managing the human-resource and retirement needs of several thousand state employees is an overhead cost that does not have to be borne by government. Rather, these costs

can be absorbed into existing private sector companies. Shifting the delivery of maintenance services to the private sector offers an opportunity over time to develop a substantially smaller, yet more productive, program-focused state transportation agency. Not everyone will agree. If you study the matter, you will likely end up with both “for” and “against” reports. You will hear that government needs to retain sufficient personnel and equipment to respond to snow removal and natural disasters. I wouldn’t be too quick to form an opinion in that regard. If the private sector has a sense of a long term commitment to outsource services, then the private sector will be the best judge of which are and are not economically viable.

Obviously there are sensitive issues to consider. But, I believe a carefully executed implementation strategy could be developed and implemented over 36 to 60 months. And, I believe the overall result will be lower costs and improved productivity.

2. Develop Access Management Plans

This issue is complex, but the potential benefits are substantial. Also, the development of access management plans may be a key to meaningful progress toward linking land use and transportation.

The purpose of our transportation network can be broken down into two broad categories: *Mobility* (efficiently moving people and goods on longer trips) and *Accessibility* (moving people and goods into and out of specific destinations). Local street networks provide access to and from specific places like retail shops, gas stations, grocery stores, schools, hospitals and the like. On these routes, access is generally plentiful with driveways, curb cuts, traffic signals, and turn lanes. People expect travel on these routes to be slower, and expect to incur more stop-and-go conditions.

The Interstate system and major statewide and regional roads provide mobility between general destinations. Sufficient rights of way on these roads are purchased and the roads are constructed to limit access, usually provided at carefully planned interchanges. We sometimes refer to these roads as having “controlled access.”

Yet requests are frequently made to add access points – or “break” the access control. It is not uncommon for these requests to be made within a relatively short time of a new facility’s opening. Under the current legislative authority, these access breaks are considered on a case-by-case basis. There is no requirement for an access management plan to protect and preserve access along these roads. Perhaps there should be.

Access management plans developed together by local, regional and state government would help assure that the capacity paid for is provided and protected. Further, where possible along existing routes, access management plans could squeeze more capacity out of the existing transportation network, holding off (or maybe eliminating) the need for certain improvements.

These plans should not totally forbid new access in perpetuity. Localities and counties grow, and as they do access management plans will need to change. But, the plans would provide some systematic criteria and guidance for review.

There are some strong data to support the value of access management. According to the Transportation Research Board, effective access management programs on certain roads can increase capacity by 25-45%, reduce travel delay in specific cases by as much 60%, and reduce crashes by as much as 50%. Even if these projections are only partially accurate, the potential results are dramatic.

Senator Houck has long been a proponent of linking land use and transportation planning, and his knowledge of this matter will certainly benefit the task force. Also, VDOT's Transportation Research Council has done some background work on access management that might be helpful to you.

3. Invest in Smart Signal Systems

Poorly timed traffic signals result in unnecessary stop-and-go traffic on city streets, waste money spent on fuel and contribute to urban air pollution. Yet, those very same signals when operated as part of a well-timed coordinated system can save time and money. Here is one example:

- In 1998 a smart signal system using over 15,000 vehicle detectors was put in place to coordinate the timing of about 1,200 signalized intersections in Fairfax, Loudoun and Prince William counties. These signals are adjusted in real time to react to different traffic conditions.
- In terms of fuel consumption alone, the first phase of the project saved taxpayers \$24 million between 1998 and 2001.

You may want to investigate this technology further and consider establishing a program, perhaps on a matching basis, that encourages or requires municipalities to invest in coordinated signal systems across geographical boundaries.

4. Improve safety

In the last twelve months there have been nearly 154,000 crashes on Virginia roads. With additional revenue we could take three important steps to improve safety.

- Invest in brighter signs. The material already exists to substantially improve the reflectivity, or brightness, of highway signs.
- Invest in better pavement markings. Pavement markings need to be wider and brighter, and they need to be plainly visible on wet roads. Material exists to address this issue. Wet-reflective pavement markings can be clearly seen in wet weather, enhancing safety for everyone.

- Invest in more enforcement and safety patrol officers. Egged on by the frustration of congestion, people are driving too fast, following too closely, and changing lanes too carelessly. Traffic flows at its smoothest when moving at posted speeds. It may be prudent to invest a portion of new transportation funds in additional officers to enforce traffic laws, and added safety service patrols to clear incidents rapidly when they occur. Perhaps these officers would not need complete law enforcement training and could instead have limited duties associated with traffic law enforcement and incident management.

5. Complete our Highway Network

I understand the sentiment that we cannot pave our way out of congestion. Smart investments in transit and rail need to be made when the case is clear that such investments will move more people in our most congested urban areas. For example, adding a third track for commuter rail in the I-95 corridor would increase the number of rail commuters and relieve the mainline of a substantial number of automobile trips.

But, a few facts are still inescapable.

Almost all surface trips are made in gasoline-powered rubber-tired vehicles. Nearly all goods reach their final destination by truck. Ninety-one percent of all workers go to work in a car.

The present day difficulty associated with completing our highway network does not stem from bad planning. What were once reasonably planned improvements were never constructed. Now, in spite of the difficulty to do so, Virginia needs to complete and improve its most essential roadways.

- Northern Virginia needs more Potomac River crossings, and a north-south alternative to I-95.
- Hampton Roads needs another crossing of the Hampton Roads harbor or its vitality is measurably threatened, as is the long-term future of the Port, an economic engine that influences all of Virginia.
- I-64 needs to be improved between Richmond and Hampton Roads.
- Route 58 needs to be improved at least to I-77, preferably in its entirety.
- The Coalfields Expressway should be built, and “coal” itself could be the very commodity that provides a good deal of the funds necessary to do so.
- Interstate 81 needs to be improved in the most critical areas. Now that we know that \$800 million in federal funds was not included in reauthorization, serious

consideration should be given to using funds already allocated to I-81 for improvements like truck climbing lanes in identified areas of the greatest need.

- Route 29 needs to be improved, and reasonable new options need to be implemented to relieve congestion in and around Charlottesville. The previously planned Charlottesville Bypass is functionally obsolete.
- Establish and fund a bridge program to repair all structurally deficient bridges across the Commonwealth.

None of these projects are easy to implement, and other folks will have different ideas about what the priorities ought to be. Regardless of the priorities, we need to determine what they are – then we need to build them.

I believe Governor Baliles' plan to use Virginia's Interstate system as a statewide source of revenue dedicated to specific projects merits strong consideration as a means of funding and building priority corridor projects across the Commonwealth.

6. Use more Design-Build

Currently the use of design-build as a procurement method is legislatively limited. I would encourage you to consider removing the limitations and allow the market to drive the decision to use design-build. By using design-build on the right projects, we could:

- Shift the accountability for both design and construction to a single source – the contractor - removing any doubt regarding accountability for errors and omissions.
- Reduce project delivery times by allowing contractors and engineers to work in parallel.
- Reduce project costs by eliminating the development of full engineering drawings before going to construction.
- Reduce government's cost to administer construction projects.

Design-build isn't right for every situation. But, for the right projects it provides a means to hit the ground running with an accelerated program.

7. Hold Rural Areas Harmless

When additional revenue becomes available for transportation, there will be pressure to direct a larger share of the new money to congested urban areas, and it may be reasonable to do so. However, our rural areas also require due consideration. Certainly the rural districts must be held harmless from any loss of current funds. Here's why.

- 60% of statewide pavement deficiencies on the secondary system are in rural districts, as are 70% of primary system pavement deficiencies, and nearly half of Interstate system deficiencies.
- Rural districts carry the burden of 85% of all deficient bridges on the secondary system, 77% on the primary system, and 55% on the Interstate system.

If we are to grow Virginia, we have to protect the economy of our rural areas. Safe and efficient transportation go hand-in-hand with new jobs and opportunities.

8. Telecommuting

Wherever and whenever we can, we should be aggressive about bringing *work to people*, instead of the other way around. The technology exists to make this happen; we don't need to build a bureaucracy around it. If employers knew that incentive or cost-sharing funds were available for telecommuting, then they could make the best decision on how to implement and monitor their own programs. Naturally, the results of the programs need to be measured. Those that pan out should continue to be supported; those that don't produce results should be cancelled. Some of our largest private sector employers may be the best source of ideas for programs that work.

Actually, state government itself should be a proving ground for telecommuting. The state is already in the midst of changing the way it manages its real estate portfolio. Perhaps a telecommuting program as part of that initiative might make sense. Every job that can be performed at home or at a pooled work center contributes not just to cost savings, but to reductions in congestion and air pollution as well.

9. Create a true Surface Transportation Department

I believe that having two separate transportation agencies – one for roads and bridges, and one for public transportation – is fragmenting our transportation planning capabilities. I believe Virginia would benefit from a new agency, integrated to serve all facets of surface transportation planning and implementation. I would encourage you to consider creating a *Department of Surface Transportation* to:

- Combine the best resources and talents of professionals into one cohesive agency
- Eliminate duplicative administrative overhead functions and costs.
- Sharpen our ability to find the best surface transportation solution for every transportation need across all modes.
- Give localities a single-point contact for coordinating land use and transportation plans for all surface modes.

With careful planning, thought and commitment, I am confident that this new agency could eventually employ fewer than 3,000 people.

10. Realign the Commonwealth Transportation Board

The CTB is a powerful body and when composed of people who truly understand the value of a Board of Directors, as the current board does, provides valuable policy guidance and insight. But, too often, the CTB is primarily regarded as the “people who get your project in the Six-Year Program.” That perception is reinforced by the geographical appointment of CTB members. Geography is important and I am not suggesting you completely dispense with it. However, in addition to regional representation, you may want to consider appointing people who are experienced in services significantly affected by transportation. You could consider these specific appointments to be “user” based. I also believe that this realignment of the CTB could paint a broader “people” face on transportation by emphasizing not just projects, but the very services that transportation delivers to citizens. Some examples of user groups are:

- Health care
- Education
- Environmental protection
- Retail sales
- Economic Development
- Fire and police protection
- Security
- Military
- Warehousing

These are only examples, and I’m sure there are others as well.

I believe the board should be more heavily involved in the transportation planning function. Board members should work closely with MPOs, where they exist, to provide policy guidance at a high-level. In Virginia, we tend to focus too narrowly on picking projects, rather than planning broad multi-modal system solutions for our needs. VDOT is making headway in that regard with a new priority planning process. By expanding this process to all surface modes, and by having the CTB involved at the crucial planning stages when decisions on modes should be made, “picking projects” becomes more of a financially driven capital budgeting process. I believe movement in this direction would meet with the approval of the Auditor of Public Accounts.

Also, regardless of your decision regarding item 9, you should consider renaming the board to the *Surface Transportation Board*. Because their duties do not currently extend to aviation or the ports, calling the body a Commonwealth Transportation Board is somewhat of a misnomer.

As Mr. McCarthy sits on the CTB as well as START, his input and advice on these matters will be valuable to you. Finally, I believe that board members should continue to

be appointed for staggered terms, but should only be subject to removal before the end of a term for valid cause.

Some may think that these programs could be implemented under the current levels of funding for transportation. But, to be redundant, by 2025 all of the revenue currently available for transportation will be required for maintenance. If new programs are added to transportation (or if new requirements are placed on existing programs) without adding new revenue to support them, then we only hasten the day when all Virginia can afford is maintenance. That is not a viable strategy in my opinion.

Everything here requires additional discussion and collaboration. Not everyone will agree with what I've suggested, and there are certainly many details that have to be considered.

I do have one additional suggestion for you. There are currently several schools of thought regarding the long term future of petroleum based fuels. Before forming a hard and fast position, I would encourage you to invite Dr. Gary Allen, the Director of the Virginia Transportation Research Council, to share some information with you regarding the primary influences on fuel consumption over long periods of time. I understand the sensitivity surrounding this topic. Regardless of the position you take, you would find the discussion with Dr. Allen interesting.

I remain grateful to you for your leadership, and admire your courage and commitment. If I can be of any assistance as you take this voyage, please feel free to contact me.

Best regards,

Philip A. Shucet

cc: The Honorable Mark R. Warner
The Honorable William J. Howell
The Honorable Leo Wardrup
The Honorable Vincent F. Callahan, Jr.
The Honorable Harry J. Parish
The Honorable Pierce Homer
Mr. Gregory A. Whirley
Ms. Karen Rae
START Members
Commonwealth Transportation Board