

PREFACE

The Commonwealth Transportation Board (CTB) was directed by the 2002 General Assembly through passage of House Bill (HB) 771 to develop a statewide multimodal long-range transportation plan with a truly statewide focus. This plan, *VTrans2025*, is being developed through the four state transportation modal agencies – Department of Aviation (DOAV), Department of Rail and Public Transportation (VDRPT), Port Authority (VPA), and the Department of Transportation (VDOT) – in three phases.

A technical, staff-level Steering Committee, comprised of representatives of each of the four modal agencies, was established to prepare this Phase 1 Report to the General Assembly. This report summarizes the status of each of the Phase 1 deliverables identified in the state code and is based on significant contributions from numerous transportation stakeholders. This report was presented to the CTB for review and submission to the Governor and General Assembly, as required in state law.

Phase I Status Report to the General Assembly

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EXECUTIVE SUMMARY

VTrans2025, Virginia's statewide multimodal long-range transportation plan, will be developed by the Secretary of Transportation through the four state transportation modal agencies – Department of Aviation (DOAV), Department of Rail and Public Transportation (VDRPT), Port Authority (VPA), and the Department of Transportation (VDOT). The plan's development will be guided by §33.1-23.03 of the Code of Virginia and Section 1204(e) of the Transportation Equity Act of the 21st Century (TEA-21). In general, a summary of transportation issues facing the Commonwealth and an evaluation of transportation policies will be used to develop a series of alternative future transportation scenarios as well as a vision statement, goals, and objectives for the plan. These scenarios will illustrate various long-term transportation visions for the Commonwealth. Concurrently, criteria will be developed for establishing multimodal priorities, an inventory and evaluation of the existing system will be conducted, and a trend analysis and forecast completed. Each mode will complete a needs assessment, which identifies mode-specific transportation needs. A single future transportation scenario will be identified and applied with the multimodal prioritization criteria to the modal needs assessments to derive a multimodal transportation plan and final report.

While the Code of Virginia specifically identifies the Commonwealth Transportation Board (CTB) as the party responsible for developing the plan, the CTB has no jurisdiction over aviation and ports. The Virginia Aviation Board (VAB) and the VPA Board of Commissioners will be briefed on the status of *VTrans2025* deliverables and staff from DOAV and VPA are involved as equal partners in the development of the multimodal plan.

House Bill 771 (see Appendix A) identifies specific deliverables associated with each of three phases of the plan's development. This report to the General Assembly summarizes the status of each of the Phase 1 deliverables. A short summary of each deliverable is included in this Executive Summary and the entire report for each deliverable follows in the corresponding chapter as noted below:

- Chapter 2 Interagency Coordination Plan
- Chapter 3 Stakeholder Involvement Plan
- Chapter 4 Stakeholder Involvement to Date
- Chapter 5 Vision, Goals, and Objectives
- Chapter 6 Criteria for Establishing Priorities
- Chapter 7 Identification of Major Needs
- Chapter 8 Status Report on Modal Needs Assessments
- Chapter 9 Evaluation and Recommendation of a Highway Needs Assessment Tool

Summary of Chapter 2 Interagency Coordination Plan

Development of a statewide multimodal long-range transportation plan is both a federal (i.e., Federal Highway Administration - FHWA) and state legislative requirement. State legislation requires that the plan be truly multimodal, avoiding the aggregation of separately derived local, district, regional, or modal plans. In order to meet both the spirit and intent of the

legislation, it is imperative that the transportation modal agencies work together closely throughout the development of the plan. The purpose of the Interagency Coordination Plan (ICP) is to describe the relationship between the transportation agencies and their respective boards, and Secretary's Office, and the committees responsible for developing and implementing *VTrans2025*. The ICP was developed by the Steering Committee with input from the Deputy Secretary of Transportation for Intermodal Issues.

The ICP describes the committees that have been and will be established to develop *VTrans2025*. Additionally, the ICP describes how these committees will interact with each other, the transportation modal agencies, and the Secretary's Office. In general, the Steering Committee, made up of planning staff from the four transportation modal agencies will be responsible for developing the plan. The Phase 1 Stakeholder Group, an advisory group made up of representatives of various stakeholder groups, will provide feedback to the Steering Committee, as requested. The Policy Committee, made up of representatives from the governing boards of each agency, the director of each modal agency, and the Deputy Secretary of Transportation for Intermodal Issues, provides policy-level guidance to the Steering Committee and facilitates interagency coordination. Products and reports will flow from the Steering Committee to the Policy Committee for final approval before presentation to the CTB, Governor, and General Assembly. The Virginia Aviation Board (VAB) and the VPA Board of Commissioners will also be briefed on the status of *VTrans2025* deliverables.

Implementation of the ICP will ensure development and implementation of a statewide transportation plan that is a model for the rest of the nation. The ICP will be reviewed and revised as circumstances change, more information becomes available, or key decision points are reached, and should, therefore, be regarded only as a reference.

Summary of Chapter 3 Stakeholder Involvement Plan

Stakeholder outreach is a key component of the statewide transportation planning process. Each transportation agency involved in the development of *VTrans2025* is committed to extensive stakeholder involvement throughout the planning process. In recognition of the fact that the statewide plan must be built upon a solid foundation of stakeholder input that ensures well-rounded representation, a Stakeholder Involvement Plan workgroup was formed to identify strategies for stakeholder outreach, feedback, and participation. The workgroup was made up of public affairs staff from each of the transportation agencies. To develop the Stakeholder Involvement Plan, the workgroup reviewed the stakeholder outreach processes used by other states in support of their statewide transportation plans. In addition, federal, state, and transportation agency guidelines for public involvement were used to develop the Stakeholder Involvement Plan. The resulting plan was reviewed by each of the transportation agencies as well as other stakeholders.

In addition to describing stakeholder outreach activities that will support development of *VTrans2025*, the Stakeholder Involvement Plan briefly identifies the key affected stakeholders and major issues to be addressed. The decision-making process and anticipated budget are also summarized. In general, the Stakeholder Involvement Plan is based on four goals:

1. Inform stakeholders
2. Create opportunities for participation
3. Provide feedback
4. Create informed consensus

For each goal, the activities, tools, and desired outcomes are identified by phase and task. A distinction is made between ongoing activities related to each goal and activities tied to specific tasks. The Stakeholder Involvement Plan focuses mainly on activities and deliverables associated with Phase 1 of the plan's development. While a framework is provided for stakeholder involvement in Phases 2 and 3, more detail will be provided at a later date to ensure that the most effective means of reaching stakeholders is used. As such, the Stakeholder Involvement Plan is meant only as a reference, and will be reviewed and revised as circumstances change, more information becomes available, or key decision points are reached. Implementation of this involvement plan will ensure development of a statewide transportation plan that is built on a solid foundation of stakeholder input.

Summary of Chapter 4 Stakeholder Involvement to Date

The nature of the stakeholder input to date has been centered on the visioning process – drafting vision, goal, and objective statements and identifying issues to be considered and evaluated in the plan. At this time, most stakeholder involvement has been through a series of Discussion Group Meetings and surveys. Stakeholder input received thus far has identified the need for more coordinated multimodal planning, more transportation alternatives in both urban and rural areas, more coordination among the transportation agencies, and more coordination between transportation and land use. Ongoing and future outreach efforts will provide feedback to stakeholders on how their input was used, seek validation of the conclusions drawn from that input, and build upon previous input to continue development of *VTrans2025*.

While the input from the visioning process identified a broad spectrum of issues, for the most part, it mainly reflects the views of highway, environmental, and other advocacy groups. For this reason, additional outreach is being done now to target specific stakeholder groups, including state agencies, the business community, local governments and elected officials, transportation operators, and the transportation-challenged community.

The summary of Stakeholder Involvement to Date identifies the outreach activities undertaken thus far in the process and describes the nature of the resulting input. Additionally, an analysis of the visioning process participants and an evaluation of the effectiveness of the outreach activities are included.

Summary of Chapter 5 Vision, Goals, and Objectives

Vision, goal, and objective statements establish the framework around which *VTrans2025* will be built. These statements were drafted to guide the development of the plan based on input from Discussion Group Meetings and Transportation Vision Surveys. These statements also reflect input from the *VTrans2025* Phase 1 Stakeholder Group, the *VTrans2025* Steering Committee, and the Deputy Secretary of Transportation for Intermodal Issues. Additionally, the statements reflect a review of other state and regional transportation plans and the mission and goal statements developed by the four transportation modal agencies. Finally, the vision, goal, and objective statements are consistent with the planning factors identified in TEA-21 and §33.1-23.03 of the Code of Virginia. The vision, goals, and objectives will provide the basis for many policy recommendations in the statewide transportation plan.

Summary of Chapter 6 Criteria for Establishing Priorities

The criteria for establishing priorities are based on a review of case studies, current business practices, professional judgment, and other relevant information. The criteria are tied to the *VTrans2025* goals and the associated performance measures are based on the *VTrans2025* objectives and other information. In general, the criteria are intended for use in scoring and ranking multimodal networks.

As a significant amount of work remains to complete the multimodal prioritization system, these criteria for establishing priorities should be viewed as a work in progress. The performance measures associated with the criteria may be refined and expanded as metrics are identified and point values are assigned.

Summary of Chapter 7 Identification of Major Needs

Major generic modal needs were identified for each mode by the four transportation modal agencies. DOAV identified major aviation needs. VPA identified major port needs. VDRPT identified major rail and public transit needs. VDOT identified major highway, bicycle, and pedestrian needs. These needs have not been prioritized or approved by the governing boards of these agencies.

Summary of Chapter 8 Status Report on Modal Needs Assessments

Each modal agency is required to complete a needs assessment for their respective mode. Modal needs assessment status reports were submitted by each of the four transportation modal agencies and compiled into a single report. While the status of the modal needs assessments varies considerably, all of the modal needs assessments will be completed by July 2005.

Summary of Chapter 9 Evaluation and Recommendation of a Highway Needs Assessment Tool

Two separate and distinct purposes were identified for conducting needs assessments. First, needs assessments can provide an aggregate non-project specific report of highway construction needs. This type of needs assessment is used to identify disparities and establish efficient and equitable highway construction funding formulae (referred to as a Funding Allocation Analysis). This purpose was echoed in the report released by the Joint Legislative Audit and Review Commission of the Virginia General Assembly (JLARC) entitled “*Equity and Efficiency of Highway Construction and Transit Funding.*” Second, needs assessments can provide a list of disaggregate needs with detailed project specific information (referred to as a Highway Project Needs Assessment). This purpose was outlined in the recent recommendations of the Auditor of Public Accounts (APA) as well as the legislation (House Bill 771) guiding this process. With these two distinct purposes in mind, potential needs assessment tools were identified and evaluated, including the Highway Economic Requirement System State Version (HERS-ST) developed by FHWA and the Statewide Planning System (SPS) developed by VDOT’s Transportation and Mobility Planning Division.

The Highway Project Needs Analysis, which uses SPS, would address both the requirements of the APA Recommendations to identify specific projects as well as have the capability of aggregating the project listings by jurisdiction or system, resulting in aggregate analysis, as is recommended by JLARC. The Highway Project Needs Analysis approach is recommended for conducting a comprehensive assessment of highway construction. Such an analysis will consist of a combination of the following data and applications: SPS, Bridge Deficiencies, Safety Indices, and a Secondary Road Tolerable/Non-Tolerable Analysis. This approach allows for the most efficient use of state resources by accomplishing the purpose and intent of providing an aggregate system-wide needs assessment and a project-specific needs assessment under one unified effort.

Summary of Chapter 10 Looking Ahead

Significant progress has been made in developing Virginia’s statewide multimodal long-range transportation plan. As described in this report, Phase 1 involved setting vision, goals, and objectives, conducting background research and analysis, and establishing the framework upon which the plan will be built. Subsequent work during Phase 2 will involve the development of a Vision Plan that builds upon the broad goals and objectives established in Phase 1 to include performance measures, an inventory and evaluation of the existing system, a trend analysis, and an evaluation of policies, practices, and procedures that impact transportation. Also during Phase 2, the *VTrans2025* Policy Committee will be established to ensure appropriate policy direction and oversight throughout development of the statewide transportation plan. This committee will be made up of representatives from the Commonwealth Transportation Board, Virginia Aviation Board, Virginia Port Authority Board of Commissioners, the Deputy Secretary of Transportation for Intermodal Issues, and the directors of the four modal agencies. Finally, Phase 3 will involve completion of the modal needs assessments and application of multimodal prioritization criteria to develop the final multimodal plan.

CHAPTER 1 INTRODUCTION

VTrans2025, the statewide multimodal long-range transportation plan, is required by both federal (i.e., Federal Highway Administration - FHWA) and state legislation and will be developed by the Secretary of Transportation through the four state transportation modal agencies – Department of Aviation (DOAV), Department of Rail and Public Transportation (VDRPT), Port Authority (VPA), and the Department of Transportation (VDOT). The plan’s development will be guided by §33.1-23.03 of the Code of Virginia and Section 1204(e) of the Transportation Equity Act of the 21st Century (TEA-21). See Appendix A for the full text of the applicable federal and state legislation.

State legislation requires the Commonwealth Transportation Board (CTB) to develop a statewide multimodal long-range transportation plan. This plan must have a 20-year horizon and identify transportation needs and priorities on a statewide basis. The code identifies three phases for the plan’s development and identifies specific deliverables associated with each phase as shown below:

- **Phase 1 due December 2002**
 - Interagency Coordination Plan
 - Stakeholder Involvement Plan
 - Stakeholder Involvement to Date
 - Vision, Goals, and Objectives
 - Criteria for Establishing Priorities
 - Identification of Major Needs
 - Status Report on Modal Needs Assessments
 - Evaluation and Recommendation for Highway Needs Assessment Tool
- **Phase 2 due December 2003**
 - Status Report on Existing Transportation System
 - Status Report on Modal Needs Assessments
 - Consideration of Policies Affecting All Transportation Modes
- **Phase 3 due July 2005**
 - Inventory and Prioritization of Multimodal Transportation Needs
 - Assessment of Intermodal Connectivity and Accessibility
 - Summary of Public Involvement

In addition, the code also requires the CTB to coordinate development of a statewide pedestrian policy with the development of the statewide multimodal long-range transportation plan.

Similar to the state legislation, TEA-21 requires development of a statewide multimodal long-range transportation plan that has a 20-year horizon. In addition, TEA-21 identifies seven broad planning factors for consideration in the plan:

- Economic vitality
- Safety and security
- Accessibility and mobility
- Environmental protection and enhancement
- Integration and connectivity
- System management and operation
- System preservation.

Several groups have been established to represent various modal and stakeholder interests as well as policy perspectives during the development of *VTrans2025*. The Steering Committee, consisting of representatives from the four modal agencies, coordinates and oversees preparation of the plan and final report for each of the plan's phases. See Appendix B for a list of Steering Committee members. The Phase 1 Stakeholder Group, made up of representatives of several stakeholder groups, serves as a sounding board for the Steering Committee. See Appendix C for a list of Phase 1 Stakeholder Group members. The Policy Committee, made up of representatives from the governing boards of each agency, the director of each modal agency, and the Deputy Secretary of Transportation for Intermodal Issues, provides policy-level guidance to the Steering Committee and facilitates interagency coordination. See Appendix D for a list of Policy Committee Members. Input from the Policy Committee, Phase 1 Stakeholder Group, and stakeholder outreach activities will be used by the Steering Committee to develop the plan and final reports. The draft plan and final reports will be presented to the CTB for adoption and presentation to the Governor and General Assembly, as required in the law. It is important to note that while the Code of Virginia specifically identifies the CTB as the party responsible for developing the plan, the CTB has no jurisdiction over aviation and ports. The Virginia Aviation Board (VAB) and the VPA Board of Commissioners will be briefed on the status of *VTrans2025* deliverables and staff from DOAV and VPA are involved as equal partners in the development of the multimodal plan, as described in the Interagency Coordination Plan.

A detailed scope of work and schedule were prepared by the Steering Committee to guide development of the plan and ensure its timely delivery. The scope of work identifies tasks and a timeline for completion of the plan. See Appendix E for the complete scope of work. In general, a summary of transportation issues facing the Commonwealth and an evaluation of transportation policies will be used to develop a series of alternative future transportation scenarios as well as a vision statement, goals, and objectives for the plan. These scenarios will illustrate various long-term transportation scenarios for the Commonwealth. Concurrently, criteria will be developed for establishing multimodal priorities, an inventory and evaluation of the existing system will be conducted, and a trend analysis and forecast completed. Each mode will complete a needs assessment, which identifies mode-specific transportation needs. A single future transportation scenario will be identified and applied with the multimodal prioritization

criteria to the modal needs assessments to derive a multimodal transportation plan. This plan will be assessed for intermodal connectivity and a final report prepared.

This report to the General Assembly summarizes the status of each of the Phase 1 deliverables identified above. Each deliverable is included in this report as a separate chapter, as noted below:

- Chapter 2 Interagency Coordination Plan
- Chapter 3 Stakeholder Involvement Plan
- Chapter 4 Stakeholder Involvement to Date
- Chapter 5 Vision, Goals, and Objectives
- Chapter 6 Criteria for Establishing Priorities
- Chapter 7 Identification of Major Needs
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- Chapter 9 Evaluation and Recommendation of a Highway Needs Assessment Tool

CHAPTER 2 INTERAGENCY COORDINATION PLAN

Introduction

VTrans2025, the Commonwealth's statewide transportation plan will be developed under the direction of the Secretary of Transportation by the state's transportation agencies – DOAV, VDRPT, VPA, and VDOT. In addition, several committees have been established to ensure the successful development and implementation of the *VTrans2025*. This Interagency Coordination Plan (ICP) describes the relationship between those committees, the transportation agencies and their respective boards, and the Secretary's Office for the purposes of developing and implementing *VTrans2025*. The first section describes the coordination among the various groups responsible for development of the plan. The second section describes how the transportation modal agencies and their boards will implement *VTrans2025*. It is important to note that this ICP is intended only as a reference, as it will be reviewed and revised as circumstances change, more information becomes available, or key decision points are reached.

Coordination

Two groups, a Steering Committee and a Phase 1 Stakeholder Group, have been established to represent various modal and stakeholder interests as well as policy perspectives during the development of *VTrans2025*. This section describes how these groups will interact throughout the development of the statewide transportation plan, as well as afterwards. In addition, establishment of a new Policy Committee is discussed. It is important to note that while the Code of Virginia specifically identifies the CTB as the party responsible for developing the plan, the CTB has no jurisdiction over aviation and ports. The VAB and the VPA Board of Commissioners will be briefed on the status of *VTrans2025* deliverables and staff from DOAV and VPA are involved as equal partners in the development of the multimodal plan, as described below.

VTrans2025 Steering Committee

The Steering Committee serves as staff to the Deputy Secretary of Transportation for Intermodal Issues. In this capacity, the Steering Committee produces the legislative deliverables and other products necessary to develop the statewide transportation plan, oversees the statewide transportation plan consultants, and approves products and reports for presentation to the CTB. The Steering Committee is comprised of senior planning staff from DOAV, VDRPT, VPA, and VDOT. The group meets monthly, or as necessary to accomplish its mission. This is a standing committee, which will continue to function after completion of *VTrans2025* in July 2005 to ensure ongoing long-range multimodal planning and coordination.

The following is a list of Steering Committee members:

- Jim Bland, Manager of Airport Services, DOAV
- Cliff Burnette, Chief Airport Planner DOAV
- Jeff Florin, Chief Engineer, VPA
- George Connor, Assistant Director for Rail, VDRPT
- Bill LaBaugh, Richmond and Hampton Roads Regional Manager, VDRPT
- Alan Tobias, Rail Passenger Projects Manager, VDRPT
- Ranjeet Rathore, Rail Special Projects Manager, VDRPT
- Gus Robey, TDM and Marketing Section Manager, VDRPT
- Ken Lantz, Transportation Planning Division Administrator, VDOT
- Diane Mitchell, Transportation Planning Assistant Division Administrator, VDOT
- Marsha Fiol, Statewide and Special Programs Section Manager, VDOT
- Katherine Graham, Transportation Planning Engineer, VDOT
- Kimberly Spence, Statewide Multimodal Transportation Plan Project Manager, VDOT
- Frank Dunn, Transportation Planning Engineer, VDOT

To date, the Steering Committee has developed a scope of work and schedule for the plan's development, provided numerous opportunities for stakeholder input, and prepared all of the deliverables associated with Phase 1 of §33.1-23.03 of the Code of Virginia. See Appendix E for the complete scope of work and schedule developed by the Steering Committee.

VTrans2025 Phase 1 Stakeholder Group

The Phase 1 Stakeholder Group is made up of stakeholders in the multimodal transportation planning process and provides feedback to the Steering Committee on selected draft products prior to their presentation to the public. The Phase 1 Stakeholder Group serves as a sounding board and precursor to traditional public review. The group meets upon request by the Steering Committee.

The following groups are represented on the Phase 1 Stakeholder Group:

- AMTRAK
- Citizens
- CSX
- Economic Development Partnership
- Federal Highway Administration
- Federal Transit Administration
- Metropolitan Planning Organizations
- Norfolk Southern
- National Park Service
- Virginia Chamber of Commerce
- Virginia Conservation Network
- Virginia Commonwealth University

- Virginia Department of Aviation
- Virginia Department of Rail and Public Transportation
- Virginia Department of Transportation
- Virginia EcoTourism Association
- Virginia High Speed Rail Development Committee
- Virginia Port Authority
- Virginia Trucking Association

Membership of this group may be revised during Phase 2 of the plan's development to ensure equal and adequate representation of all stakeholder groups.

VTrans2025 Policy Committee

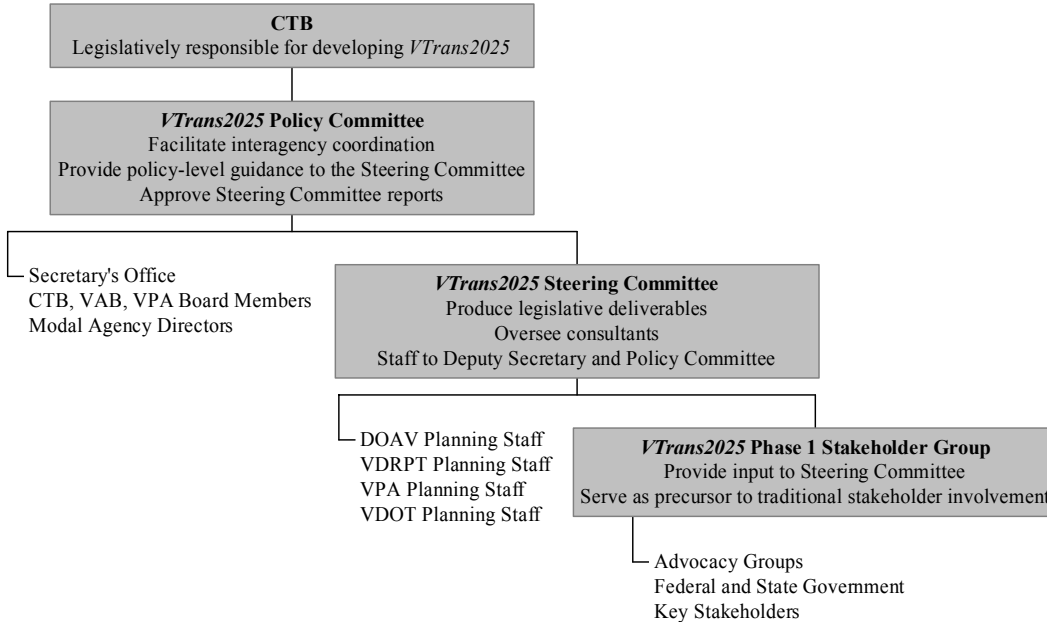
A Policy Committee will be established during Phase 2 of the plan's development to ensure appropriate policy direction and oversight throughout development of the statewide transportation plan. The Policy Committee will be comprised of representatives of each mode and staffed by the Steering Committee. The primary role of the Policy Committee will be to provide input on the interpretation of legislative requirements, guidance related to policy recommendations in the plan, and final approval of reports produced by the Steering Committee. The committee will provide final approval of the Phase 2 deliverables and reports before presentation to the CTB, Governor, and General Assembly. The VAB and the VPA Board of Commissioners will also be briefed on the status of *VTrans2025* deliverables.

The following is a list of Policy Committee members:

- Julia Connally, CTB Member, Chair
- Gerald McCarthy, CTB Member
- Hunter Watson, CTB Member
- Harry Lester, CTB Member
- James Keen, CTB Member
- Kenneth Klinge, CTB Member
- William Kehoe, VAB Member
- John Milliken, VPA Board of Commissioners Chairman
- Philip Shucet, VDOT Commissioner
- Karen Rae, Director VDRPT
- Charles Macfarlane, DOAV Director
- Robert Bray, VPA Executive Director
- Ralph Davis, Deputy Secretary of Transportation for Intermodal Issues

The diagram below illustrates the interagency coordination process and the relationship between the parties involved in developing *VTrans2025*.

Figure 2-1. Interagency Coordination Process



Implementation

VTrans2025 will be used to develop the transportation plans and programs for each modal agency and serve as a mechanism for ongoing long-range multimodal coordination and planning. In general, the modal agency plans will be consistent with vision, goals, and objectives identified in *VTrans2025*. Additionally, the policies and commitments identified in the statewide transportation plan should serve as a basis for decision-making and policy-setting within the transportation modal agencies. The prioritization criteria established in *VTrans2025* will be coordinated with the prioritization systems being used by the individual modal agencies. Each agency will work with the Secretary’s Office to ensure implementation of the multimodal planning and coordination mechanisms identified in the statewide transportation plan.

Conclusions

This ICP establishes the framework that will guide the coordination of the *VTrans2025* committees, the transportation agencies and their respective boards, and the Secretary’s Office for the purposes of developing and implementing *VTrans2025*. It is important to note that this ICP is intended only as a reference, as it will be reviewed and revised as circumstances change, more information becomes available, or key decision points are reached.

CHAPTER 3 STAKEHOLDER INVOLVEMENT PLAN

Introduction

Stakeholder outreach is a key component of the statewide transportation planning process. Virginia is committed to extensive stakeholder involvement throughout the planning process. *VTrans2025* must be built on a solid foundation of stakeholder input that ensures well-rounded representation. This Stakeholder Involvement Plan is based on four broad goals for stakeholder involvement:

1. Inform stakeholders
2. Create opportunities for participation
3. Provide feedback
4. Create informed consensus

Specific tasks in the scope of work were identified as information items and/or consensus points. Throughout the planning process, efforts will be made to create opportunities for involvement and provide feedback. This Stakeholder Involvement Plan focuses mainly on activities and deliverables associated with Phase 1 of the plan's development. A framework is provided for stakeholder involvement in Phases 2 and 3, however, more detail will be provided at a later date to ensure that the most effective means of reaching stakeholders are used. Furthermore, due to the dynamic nature of the statewide transportation planning process in Virginia, frequent revisions and/or updates to this document are anticipated to ensure consistency with the overall statewide transportation planning process.

Scope of Work

A detailed scope of work and schedule were prepared by the Steering Committee to guide development of the plan and ensure its timely delivery (see Appendix E). Task numbers referenced in this Stakeholder Involvement Plan correspond to tasks identified in the scope of work dated June 6, 2002. Essentially, Phase 1 involves setting out the framework for preparing the plan, Phase 2 involves collecting the background technical information needed to do the plan, and Phase 3 involves identifying projects and policies consistent with the final plan. Various levels of stakeholder involvement will be employed throughout each phase.

Identification of Key Affected Stakeholders

The term stakeholder refers to any individuals or groups with an interest in transportation in the Commonwealth, including the general public, the business community, elected officials, transportation operators, advocacy groups, etc. The following is a list of key affected stakeholders:

- Local elected officials
- State elected officials
- Community leaders
- Traveling visitors to the Commonwealth
- Citizens of the Commonwealth
- General public
- Transportation providers
- Transportation operators
- Transportation system users
- Transportation-challenged community
- Business community
- Federal, state, local, and regional government
- Advocacy groups
- Regional planning commissions and authorities

This list is not meant to be comprehensive; rather, it identifies key stakeholders. Further, this list is not in any order of priority. Efforts will be made throughout the plan's development to involve these key stakeholders.

Identification of Major Issues

True multimodal transportation planning is a relatively new concept in the Commonwealth. Traditionally, the four state transportation agencies – DOAV, VDRPT, VPA, and VDOT – have each reported individually to the Secretary of Transportation. There has been no mechanism for long-range planning across the modes at the agency level. This organization, combined with recent state budget shortfalls and ever-increasing transportation system demand, has led to the development of several major transportation-related issues. A comprehensive identification of transportation-related issues, policies, and procedures will be completed as part of Tasks 1.1, 2.1, and 2.2. The following is a tentative list of major issues that will likely need to be addressed during the plan's development:

- Safety and security of transportation facilities
- Capacity of each mode
- Coordination of transportation planning, local land use planning, and economic development goals
- Intermodal connectivity, accessibility, and use
- Funding flexibility, revenue sources, and availability

- Appropriate use of technology
- Transportation system maintenance
- Education and enforcement
- Coordination between federal, state, local, and regional governments
- Environmental impact of transportation projects

This list is not meant to be comprehensive, nor is it in any order of priority.

Decision-Making Process

The decision-making process is described in detail in the Interagency Coordination Plan. In general, the Steering Committee coordinates and oversees preparation of the plan and final reports for each of the plan's phases, and serves as staff to the Deputy Secretary of Transportation for Intermodal Issues and the Policy Committee. The Phase 1 Stakeholder Group serves as a sounding board for the Steering Committee. The Policy Committee provides policy-level guidance to the Steering Committee and facilitates interagency coordination. Input from the Policy Committee, Phase 1 Stakeholder Group, and stakeholder outreach activities will be used by the Steering Committee to develop the plan and final reports. The draft plan and final reports will be presented to the CTB for approval and presentation to the Governor and General Assembly, as required in the law.

Budget

While a limited amount of federal statewide planning and research (SPR) funds are available to VDOT for use in developing *VTrans2025*, no state funds have been budgeted. Until such time as funds are specifically appropriated to complete the plan, only existing and internal resources will be used for stakeholder involvement activities. The Virginia Transportation Research Council (VTRC), the research arm of VDOT, may be used to assist the Steering Committee with these and other activities. In addition, consultants already on-call by the four modal agencies may be used for specific tasks, as needed.

Stakeholder Involvement Plan

This Stakeholder Involvement Plan is organized according to the four stakeholder involvement goals previously identified. For each goal, the activities, tools, and desired outcomes are identified by phase and task.

GOAL 1. Inform Stakeholders

One goal of this Stakeholder Involvement Plan is to inform and engage stakeholders in the statewide transportation planning process. Additionally, this Stakeholder Involvement Plan is designed to inform stakeholders when draft reports or products related to *VTrans2025* are available for review and/or comment.

ONGOING ACTIVITIES

Several tools will be used to inform stakeholders of statewide transportation planning activities and issues, including the overall process, schedule, requirements, responsible agencies, progress, upcoming meetings, and draft products. Efforts will be made to use a wide variety of media to ensure that all stakeholders have access to current information throughout the plan's development. The following tools are *currently* being used to inform stakeholders about *VTrans2025* and engage them in the process.

- **Web Page:** The *VTrans2025* web page is located on the Secretary of Transportation's site at www.sotrans.state.va.us. The web site provides information on past and upcoming meetings, the overall planning process and schedule, legislative requirements, contact information, and the availability of draft/final reports and documents.
- **Newsletter Articles:** Upon request, articles are provided for association newsletters on *VTrans2025*. To date, articles have been published in the Virginia Association of Planning District Commissions (VAPDC) and Virginia Municipal League (VML) newsletters.
- **Flyers/Brochures:** Several flyers and brochures have been developed for distribution at various meetings and/or conferences. These flyers provide general information on the Statewide Plan, the overall planning process and schedule, and contact information.
- **Phase 1 Stakeholder Group:** A Phase 1 Stakeholder Group made up of representatives of many stakeholder groups was established to serve as a sounding board throughout development of the plan. This group serves as a precursor to traditional stakeholder involvement.
- **Presentations:** Presentations are made to groups regarding the Statewide Plan. To date, several presentations have been made to advocacy groups and other stakeholder groups, including the Bike/Walk Advisory Group and the VAPDC.

In addition to these tools, other media are being considered for future activities. Production of a short informational video is currently underway for use at public meetings, on local cable access channels, and other suitable locations. Additionally, the Springfield Information Store and local public libraries are being considered for dissemination of information on *VTrans2025*. A quarterly newsletter may be developed to keep stakeholders up-to-date on the development of the plan, including how to get involved, how stakeholder input is being used, upcoming meetings and events, and progress-to-date. Other new and innovative tools are continuously reviewed for their feasibility and appropriateness. For example, use of a computer kiosk is being explored as a possible means of obtaining stakeholder input. Finally,

the Planning District Commissions (PDCs) will be used to the greatest extent possible to identify and involve stakeholders throughout the process.

PHASE 1 ACTIVITIES

Task 1.2 involves developing a vision statement and goals and objectives to guide the development of the plan. These draft statements were presented to the Phase 1 Stakeholder Group. In the future, additional stakeholders may be informed of these statements via newsletters, brochures, presentations, and the web site. (This will also serve to provide feedback to stakeholders that participated in the visioning process by attending a Discussion Group Meeting and/or completing a Transportation Vision Survey or other surveys/ questionnaires.)

PHASE 2 ACTIVITIES

Tasks 2.3 and 2.4 involve conducting an evaluation and inventory of the existing transportation system, preparing a trend analysis, and developing individual modal forecasts. Upon completion, a variety of means, potentially including newsletters, brochures, presentations, the web site, information stores, and libraries may be used to inform stakeholders of the results.

PHASE 3 ACTIVITIES

Tasks 3.3 and 3.5 involve preparing the draft and final plan and reports. Multiple methods of contacting stakeholders, potentially including newspaper advertisements, direct mail-outs, the web page, newsletters, flyers/brochures, and other means may be used to notify stakeholders when draft reports and documents are available for review and comment.

Tasks Identified as Information Items

- 1.2 Develop Vision, Goals, and Objectives
- 2.3 Conduct Evaluation of Existing System, Inventory, and Trend Analysis
- 2.4 Develop Modal Forecasts
- 3.3 Prepare Draft Plan
- 3.5 Prepare Final Report

GOAL 2. Create Opportunities for Participation

The second goal of this Stakeholder Involvement Plan is to create meaningful opportunities for stakeholders to participate in the plan's development. Opportunities to participate in the process must be accessible to all stakeholders. Efforts will be made to ensure that all stakeholders are able to participate in the statewide planning process. Where appropriate, the following efforts will be made to ensure stakeholder accessibility:

- Public meetings will be held at transit-accessible locations.
- Public meetings will be held at well-known public community centers, such as libraries and schools to ensure convenience, adequate parking, etc.
- Stakeholder meetings will be held at times that are convenient for the targeted stakeholder group(s).
- Participation in stakeholder meetings will be convenient and enjoyable.
- When requested, documents will be provided in languages other than English, including Braille.

Other measures may be identified and applied throughout the plan's development.

ONGOING ACTIVITIES

Stakeholders will have several means of participating in the plan's development throughout the process. The following opportunities will be available to stakeholders throughout all three phases of the plan's development.

- **Phase 1 Stakeholder Group:** The Phase 1 Stakeholder Group was established to serve as a sounding board throughout development of the plan.
- **Toll Free Phone Line:** The *VTrans2025* toll free phone line (1-866-835-6070) provides a 24-hours a day, seven days a week means for stakeholders to provide input on any aspect of the planning process.
- **E-mail:** The Statewide Plan e-mail address (statewideplan@virginia-dot.org) provides a 24-hours a day, seven days a week means for stakeholders to provide input on any aspect of the planning process.

PHASE 1 ACTIVITIES

Tasks 1.1 and 1.2 involve identifying transportation-related issues for consideration in the plan and drafting a vision statement and goals and objectives. Stakeholders were encouraged to participate in this visioning phase of the plan's development via meetings and/or surveys:

- **Visioning Process Meetings:** In the fall of 2001, a series of 12 Discussion Group Meetings were held across the state to introduce the statewide plan and gather stakeholder input on a long-range vision for transportation in the Commonwealth. Input from these meetings was used to draft the vision, goals, and objectives for the plan (see the Stakeholder Involvement to Date for a detailed description of these meetings). A

review of the Discussion Group Meeting attendees revealed that five groups of stakeholders were not represented during this initial outreach phase – local elected officials, transportation operators, the business community, the transportation-challenged community, and state agencies. In the late summer and fall of 2002, staff attended previously scheduled conferences/annual meetings held by some of these groups (e.g., the Virginia Association of Counties Annual Meeting, the Virginia Municipal League Annual Meeting, and the Virginia Aviation Conference Annual Meeting). Additionally, in the summer of 2002, an issue framing session was held for Steering Committee members. In the fall of 2002, a focus group meeting may be scheduled for state agency staff to provide input.

- **Visioning Process Surveys:** A Transportation Vision Survey was used to facilitate discussion at the Discussion Group Meetings held in the fall of 2001. Stakeholders could attend a Discussion Group Meeting and provide their comments, submit a completed survey, or both. Input from the Transportation Vision Survey was used in conjunction with data from the Discussion Group Meetings to draft the vision, goals, and objectives for the plan. In the late summer and fall of 2002, a Supplemental Survey and brief questionnaire were produced to target stakeholder groups that did not provide input through the initial meetings and surveys. These instruments were distributed at conferences and annual meetings and may also be administered via mail-outs, focus groups, and phone contact. Input from these instruments will be used to supplement data from the Discussion Group Meetings and Transportation Vision Surveys as well as develop alternative future transportation scenarios in Phase 2. See Appendix F for sample surveys instruments.
- **Phase 1 Stakeholder Group:** The Phase 1 Stakeholder Group reviewed the draft vision, goals, and objectives and provided comments that were used to revise the draft statements.

PHASE 2 ACTIVITIES

Tasks 2.1 and 2.2 involve identifying modal issues and policies not already identified in the initial visioning process. The Supplemental Survey and brief questionnaire described above provided an opportunity for stakeholders to participate in this phase of the plan's development. Additionally, the state agency focus group meeting, Steering Committee issue framing session, and mail-out and phone surveys described above also provide opportunities for stakeholders to participate in this phase of the plan's development.

Tasks 2.3 and 2.4 involve conducting an evaluation and inventory of the existing transportation system, preparing a trend analysis, and developing individual modal forecasts. Task 2.8 involves establishing multimodal prioritization criteria. Stakeholders may be given the opportunity to

Tasks Identified for Stakeholder Participation

- 1.1 Identify Issues
- 1.2 Develop Vision, Goals, and Objectives
- 2.1 Identify Additional Modal Issues
- 2.2 Identify Existing Policies
- 2.3 Conduct Evaluation of Existing System, Inventory, and Trend Analysis
- 2.4 Develop Modal Forecasts
- 2.8 Establish Criteria for Setting Multimodal Priorities
- 3.2 Select Alternative Future Scenario
- 3.3 Prepare Draft Plan

comment to these reports and criteria via the toll free phone line, web page, e-mail, and possibly additional focus group meetings.

PHASE 3 ACTIVITIES

Similar to Phases 1 and 2, it is anticipated that focus groups and other stakeholder meetings will provide stakeholders the opportunity to assist in the selection of a future transportation scenario in Task 3.2. Most likely, traditional public meetings will be held to gather stakeholder comments on the draft plan in Task 3.3. Meetings targeted to specific stakeholder groups may also be held. Comments will also be accepted via e-mail, phone, and other means.

GOAL 3. Provide Feedback

The third goal of this Stakeholder Involvement Plan is to provide feedback to stakeholders on how their input was used or applied. Stakeholders are often frustrated when they attend a meeting, provide their input, and then never learn of the final result. This Stakeholder Involvement Plan seeks to provide a means by which stakeholders can be kept apprised and continuously aware of progress and opportunities to participate. This ensures informed and engaged stakeholders throughout the process.

ONGOING ACTIVITIES

The following tools will be used throughout the process to ensure that stakeholders are kept updated with the plan's development, and how their input is being applied:

- **Web Page:** In addition to providing information on past and upcoming meetings, the overall planning process and schedule, legislative requirements, and contact information, draft and final documents and reports may also be posted on the web page to provide feedback to stakeholders, and provide an opportunity to comment.
- **Newsletter:** A newsletter may be developed to keep stakeholders up-to-date on the development of the plan, including how stakeholder input is being used, upcoming meetings/events, and progress.
- **Flyers/Brochures:** Flyers and brochures will be used to provide information to stakeholders on draft deliverables. This will serve to provide feedback to stakeholders on how their input was used.
- **Phase 1 Stakeholder Group:** Regular meetings of this group ensure complete stakeholder feedback.

PHASE 1 ACTIVITIES

The Supplemental Survey and brief questionnaire developed in Phase 1 were used to supplement data received during the initial visioning process and to provide feedback to existing stakeholders and validate previously obtained information. Stakeholders will be informed of the draft final vision, goals, and objectives. This will serve to provide feedback to stakeholders that participated in the visioning process by attending a Discussion Group Meeting and/or completing a Transportation Vision Survey, Supplemental Survey, or brief questionnaire.

PHASE 2 ACTIVITIES

As stated above, stakeholder input will be sought on several of the reports developed in Phase 2, including the evaluation and inventory of the existing transportation system, trend analysis, modal forecasts, and multimodal prioritization criteria. Comments on these draft reports will be accepted via several means and feedback will be provided to stakeholders in the form of revised reports that will be widely distributed via the tools identified for ongoing information dissemination.

PHASE 3 ACTIVITIES

The draft report prepared in Phase 3 will provide feedback to all participants in the statewide planning process and will be widely distributed via the tools identified for ongoing information dissemination so that all stakeholders can see how their input was used to develop the plan.

GOAL 4. Create Informed Consensus

The fourth goal of this Stakeholder Involvement Plan is to achieve informed consensus on several key items. To accomplish this goal, it is imperative that Goals 1 through 3 be successfully achieved. The tasks identified for informed consensus represent key decision and review points.

ONGOING ACTIVITIES

Generally speaking, items requiring informed consensus are related to specific tasks, and therefore, not ongoing efforts. In a sense, however, all reports developed as part of *VTrans2025* will be based, to varying degrees, on stakeholder input. This input will be integrated into the development of final reports and available to the Steering Committee, Phase 1 Stakeholder Group, Commission, CTB, Governor, and General Assembly prior to their approval of all final reports. Review of the stakeholder input and subsequent approval of final reports by these oversight groups constitutes a level of informed consensus of stakeholders.

PHASE 1 ACTIVITIES

No items in Phase 1 were identified as consensus points.

PHASE 2 ACTIVITIES

Tasks 2.3 and 2.4 involve conducting an evaluation and inventory of the existing transportation system, preparing a trend analysis, and developing individual modal forecasts. Upon completion, newsletters, brochures, presentations, the web site, information stores, and libraries may be used to inform stakeholders of the results and stakeholders will be able to provide comments via the toll-free phone line, web page, e-mail, and possibly focus groups. Integration of the stakeholder comments and distribution of revised reports will assist stakeholder feedback and informed consensus.

Tasks Identified as Consensus Items

- 2.3 Conduct Evaluation of Existing System, Inventory, and Trend Analysis
- 2.4 Develop Modal Forecasts
- 3.2 Select Policy Alternative
- 3.3 Prepare Draft Plan
- 3.5 Prepare Final Report

PHASE 3 ACTIVITIES

Task 3.2 involves selecting one of several alternative future transportation scenarios for the Commonwealth. Community forums and surveys may be used to gather input and create consensus on the appropriate scenario. Task 3.3 involves preparing the draft plan. Integrating stakeholder comments on the draft plan will represent informed consensus. Task 3.5 involves preparing the final plan. This task is the culmination of all the stakeholder involvement. Proper integration of stakeholder input in the preparation of interim and draft documents throughout all three phases of the plan's development will ensure development of a final plan that is based on informed consensus.

Conclusions

As stated above, this Stakeholder Involvement Plan is meant only as a reference, and will be reviewed and revised as circumstances change, more information becomes available, or key decision points are reached. Implementation of this plan will ensure development of a statewide transportation plan that is built on a solid foundation of stakeholder input.

**CHAPTER 4
STAKEHOLDER INVOLVEMENT TO DATE**

Introduction

Stakeholder involvement activities during Phase 1 were dedicated to the visioning process, which involved drafting vision, goal, and objective statements and identifying issues to be considered and evaluated in the plan. Ongoing and future outreach efforts will be designed to provide feedback to stakeholders on how their input was used and seek validation of the conclusions drawn from that input. This summary of Stakeholder Involvement to Date identifies the stakeholder outreach activities that were undertaken during Phase 1, summarizes the input received, and evaluates the effectiveness of the outreach. Additionally, ongoing and future outreach activities are identified.

Visioning Process

The purpose of the visioning process was to develop vision, goal, and objective statements and identify issues, policies, procedures, and practices to be considered and evaluated in the plan. The draft vision, goal, and objective statements, which establish the framework for the plan, are based on the stakeholder input received during Phase 1. The input received thus far will also be used in conjunction with future input to identify transportation issues, policies, practices, and procedures that need to be evaluated as part of the plan's development and to formulate a series of alternative future transportation scenarios.

Outreach Activities

Discussion Group Meetings were held across the state to gather stakeholder input on a long-range vision for transportation in Virginia. One meeting was held in each of nine VDOT Construction Districts, with an additional meeting held in the Hampton Roads, Culpeper, and Northern Virginia Construction Districts. An additional meeting was also scheduled for the Richmond District, but was cancelled due to projected low participation. Twelve Discussion Group Meetings were held between May 2001 and November 2001. Figure 4-1 below shows the location of the meetings within each of the Construction Districts. See Appendix H for a Discussion Group Meeting Schedule and Meeting Summaries.

Figure 4-1. Location of Discussion Group Meetings



Specific individuals were targeted for the Discussion Group Meetings, including elected officials, interested citizens, transportation professionals, and representatives from planning district commissions, chambers of commerce, transit operators, advocacy groups, modal agencies, and public service agencies. Interested individuals were encouraged to respond to a mailed postcard invitation to receive meeting materials, including a Transportation Vision Survey (see Appendix G for a copy of the Transportation Vision Survey). Participants were requested to complete the survey and bring it to the meeting.

Efforts were made to select convenient meeting locations and times to promote attendance. Meeting locations were typically well-known community centers, such as public libraries, and were easily accessible. Many sites were on public transit lines. No transportation modal agency facilities were used for meetings to maintain a non-biased atmosphere and encourage consideration of multimodal issues. All meetings were held on weekdays and most were held between 3:30 pm and 7:00 pm in order to permit attendance by individuals working both day and evening shifts. Light refreshments were served.

A facilitator from Virginia Commonwealth University’s (VCU) Conflict Resolution Institute ran 11 of the 12 meetings. The meeting format was informal and all attendees were encouraged to participate. The facilitator led the group through the Transportation Vision Survey provided to participants prior to the meeting. The group was encouraged to refrain from debating issues or attempting to reach a consensus, but rather to give all participants the

opportunity to contribute their ideas. The survey requested feedback on each transportation mode and numerous transportation-related issues with respect to several topics, including funding, infrastructure requirements, and priorities. In response to stakeholder feedback, the meeting format and several survey categories were modified slightly during the visioning process to obtain more meaningful input. Participants were not required to be present the entire time as their completed surveys could be submitted at any time before, during, or after the meetings. Several individuals submitted completed surveys in lieu of attending a Discussion Group Meeting. Surveys received by fax, mail, or e-mail were also included in the data.

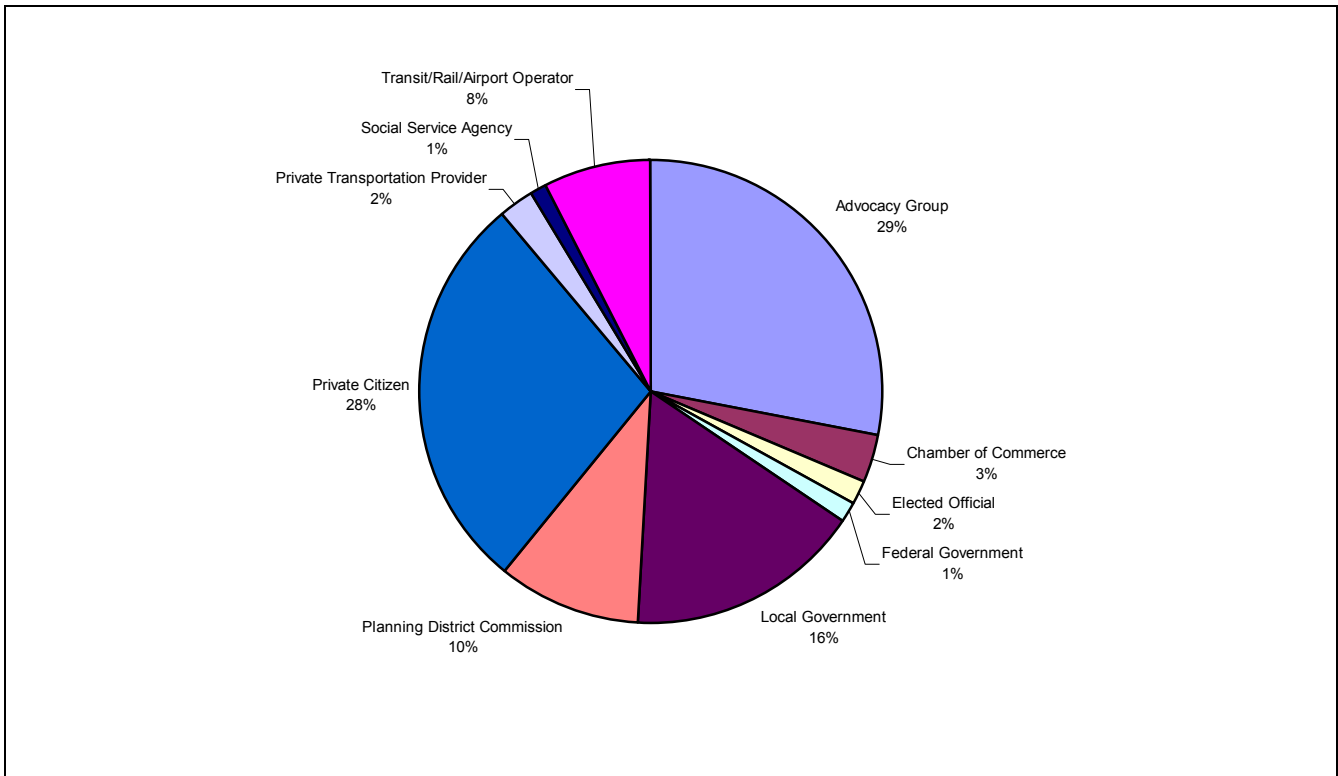
During the meetings, comments were captured in three ways – by the facilitator on a flip chart, by staff through hand-written notes, and on a laptop projected for the audience to review. Participants were encouraged to revise or reword their comments as the meeting progressed. On many occasions, participants had copies of summaries from previous meetings that served to spur conversation and generate additional comments. Following the meetings, summaries were sent to all participants for review and comment. Final meeting summaries were posted on the *VTrans2025* web.

In addition to the Discussion Group Meetings and Transportation Vision Surveys, the statewide transportation plan web site was launched in November 2001 and provided information on Federal and state legislative requirements, the plan update schedule, public involvement opportunities, contact information, and related web sites. The web site was updated periodically to provide up-to-date information, including Discussion Group Meeting Summaries, updated schedules, and vision and goal statements. Staff also attended several meetings, including those hosted by the Bike Walk Committee, Virginia Disability Services Board, and Virginia Planning District Committee to present information on the statewide transportation plan and receive stakeholder feedback.

Participant Profile

A total of 110 surveys were received and 315 individuals attended the Discussion Group Meetings. Participants in the visioning process included federal, state, and local government staff, planning district commission staff, private citizens, advocacy group members, chamber of commerce representatives, elected officials, social service agency staff, private transportation providers, and public transportation providers. In general, positive feedback was received from the public and federal representatives on the Discussion Group Meeting format, the use of the Transportation Vision Survey, and the opportunity to participate in the visioning process. Figure 4-2 shows the type of individuals that participated in the visioning process, either by attending a Discussion Group Meeting or by submitting a Transportation Vision Survey. Most state government staff attendance at the Discussion Group Meetings was for meeting support only, so it is not represented in the chart below.

Figure 4-2. Visioning Process Participants



Summary of Input

Comments from the Discussion Group Meetings and the Transportation Vision Surveys were entered into a comment database for analysis. The comments were categorized into the following common themes, shown in order of occurrence, with the most common comments shown first:

1. Build more and safer bike facilities and sidewalks.
2. Provide/expand passenger rail service (including high speed rail).
3. Coordinate transportation planning and local land use planning.
4. Provide multimodal access to airports.
5. Increase the flexibility in the use of federal and state transportation money (including the required match).
6. Provide information to travelers early enough to influence their choices regarding routes and modes (web page, radio, VMS, etc.).
7. Focus on maintenance of existing infrastructure.
8. Employ more flexibility with design standards.
9. Improve intermodal connectivity.
10. Divert freight from roads to rail.
11. Enforce speed limits and other driving rules, especially for trucks.
12. Increase the use of signal synchronization systems to address congestion.

13. Reach out to low income and minority populations early in the planning process.
14. Expand transit service in rural areas.
15. Encourage transit-oriented development.
16. Provide education on signage, driving laws, and yielding rules.
17. Employ more traffic calming measures.
18. Improve coordination and communication between VDOT and local and regional governments.
19. Expand transit service to low income and minority neighborhoods to improve job access.
20. Provide incentives to employers and developers for providing transit service.
21. Use context sensitive design.
22. Eliminate at-grade railroad crossings.
23. Improve and/or expand existing highway system.
24. Encourage localities to develop and implement access management plans.
25. Protect air and water quality.
26. Provide pedestrian access to schools.
27. Encourage brownfield development (where infrastructure already exists).
28. Charge user fees (e.g., congestion pricing, car tax, fuel tax).
29. Avoid relying heavily on intelligent transportation systems (ITS) to relieve congestion.
30. Make signal systems more responsive to bicyclists, pedestrians, and handicapped individuals.
31. Provide dedicated funding sources for transit, bicycle facilities, pedestrian facilities, and/or park and ride lots.
32. Provide more park and ride lots.
33. Limit the length and weight of trucks.
34. Require developers to help pay for necessary infrastructure improvements.
35. Make tolls systems seamless with systems in other cities and states.
36. Increase funding for transit improvements and provide more service.
37. Emphasize the multimodal potential of roads by maximizing the use of paved surfaces for all modes.
38. Improve local airport service.
39. Reduce light pollution.
40. Address critical bridge needs.
41. Consider/research development of additional inland ports where appropriate.
42. Allow localities to generate money through taxes, tolls, etc. to pay for needed transportation improvements.
43. Improve airport and rail service near industrial parks.
44. Increase the use of weigh-in-motion technology.
45. Promote the use of ferries as tourist attractions.
46. Provide good rail access to ports.
47. Promote mixed-use development.
48. Make transit systems seamless within and between cities.
49. Protect view sheds.

In general terms, the stakeholder input identified the need for more coordinated multimodal planning, more transportation alternatives in both urban and rural areas, more coordination among the transportation agencies, and more coordination between transportation and land use.

Application of Stakeholder Input

Input from the meetings and the surveys was reviewed and categorized into a series of common themes. These common themes were further consolidated into goal and objective statements. Additionally, a vision statement was developed to guide the development of the plan based on input from the Discussion Group Meetings and the Transportation Vision Survey. These draft statements were presented to the *VTrans2025* Phase 1 Stakeholder Group, a stakeholder advisory group to the Steering Committee, for review and comment. The statements were revised based on comments from the Phase 1 Stakeholder Group and presented to the Steering Committee for review. Additional refinements were made by the Steering Committee based on a review of other statewide transportation plans, metropolitan plans, federal and state legislation, and transportation agency mission and goal statements. Finally, the vision statement was revised to reflect feedback from the Deputy Secretary of Transportation for Intermodal Issues.

Supplemental Outreach Activities

While the input from the visioning process identified a broad spectrum of issues, it mainly reflects the views of highway, environmental, and other advocacy groups. For this reason, additional outreach is being done now to target specific stakeholder groups, including state agencies, the business community, local governments and elected officials, transportation operators, and the transportation-challenged community. Surveys and questionnaires are being distributed at various meetings and conferences to obtain feedback from these groups. Additional discussion group/focus group style meetings are planned for these groups as well. See the Stakeholder Involvement Plan for more information on future stakeholder outreach activities. This additional outreach will provide an opportunity for new stakeholders to get involved in the process as well as provide feedback to stakeholders on how their input was used, seek validation of the conclusions drawn from that input, and build upon previous input to continue development of *VTrans2025*.

Outreach Activities

Surveys and questionnaires have been distributed at the following meetings and conferences to obtain feedback from the stakeholder groups identified above. See Appendix G for sample survey instruments.

- Virginia Aviation Conference, Virginia Beach, August 20-22, 2002
- Virginia Transportation Conference, Lexington, October 16-18, 2002
- Virginia Municipal League Annual Conference, Norfolk, October 20-22, 2002
- Virginia Association of Counties, Hot Springs, November 10-12, 2002

In addition, informational brochures have also been distributed to provide general information on plan development. Additional discussion group/focus group style meetings are planned for these “missing stakeholder groups” as well. See the Stakeholder Involvement Plan for more information on future stakeholder outreach activities.

Conclusions

In general, feedback on the nature of the stakeholder involvement process and the opportunities provided thus far has been positive. A significant body of input has been collected through Discussion Group Meetings and various transportation survey instruments. This input has been used to develop vision, goal, and objective statements, identify issues for consideration and evaluation in the plan, and begin developing a series of alternative future transportation scenarios. Continuing outreach efforts will provide feedback to stakeholders on how their input was used, seek validation of the conclusions drawn from it, and build upon previous input to continue development of *VTrans2025*. Stakeholder involvement will continue to be a vital element throughout the development of *VTrans2025*.

CHAPTER 5 VISION, GOALS, AND OBJECTIVES

Introduction

Vision, goal, and objective statements establish the framework around which *VTrans2025* will be built. These statements will provide the basis for many policy recommendations as well as the multimodal prioritization system. The vision, goals, and objectives reflect both stakeholder input and the tone and direction of the Administration.

Background

Twelve Discussion Group Meetings were held across the state during the fall of 2001 to obtain stakeholder input on a long-range vision for transportation in the Commonwealth. In addition to the Discussion Group Meetings, Transportation Vision Surveys were distributed to obtain stakeholder feedback. (See the Summary of Public Involvement to Date for more information on Visioning Process stakeholder outreach activities and input.) Input from the meetings and the surveys was reviewed and categorized into a series of common themes. These common themes were further consolidated into goal and objective statements. Additionally, a vision statement was developed to guide the development of the plan based on input from the Discussion Group Meetings and the Transportation Vision Survey. These draft statements were presented to the *VTrans2025* Phase 1 Stakeholder Group for review and comment. The statements were revised based on comments from the Phase 1 Stakeholder Group and presented to the Steering Committee for review. Additional refinements were made by the Steering Committee based on a review of other statewide transportation plans, metropolitan plans, federal and state legislation, and transportation agency mission and goal statements. Finally, the vision statement was revised to reflect feedback from the Deputy Secretary of Transportation for Intermodal Issues. The final vision statement reflects the vision for transportation articulated by the Governor in his January 2002 “State of the Commonwealth Address” and by the Secretary of Transportation in “The First 100 Days Report,” April 2002.

Vision Statement

Build a world-class multimodal transportation system that sets the standard for the rest of the nation.

Goals and Objectives

Goal 1: Safe and Secure Transportation

- a. Consider flexibility with design standards where it is appropriate and does not degrade safety.
- b. Improve safety and security at modal intersections and transfer points.
- c. Promote user and operator education and related law enforcement.
- d. Apply efficient and effective transportation security measures.

Goal 2: System Management

- a. Maintain an efficient and reliable transportation system balancing safety and effective operation.
- b. Promote the use of appropriate technology to maximize system effectiveness.
- c. Encourage development and implementation of planned access.
- d. Provide accessible and reliable traveler information.

Goal 3: Intermodalism and Mobility

- a. Encourage intermodalism to maximize the accessibility, use, operation, and efficient connectivity of the overall transportation system.
- b. Provide effective and economical transportation choices and alternatives for people and goods across the state.
- c. Improve communication and coordination among state transportation agencies.
- d. Develop an integrated multimodal freight mobility system.

Goal 4: Economic Competitiveness

- a. Provide for smooth and efficient transfers for passengers and freight between ports, airports, railroads, and highways.
- b. Develop a transportation system that supports statewide economic development, commerce, and tourism.
- c. Coordinate transportation planning with local land use planning and economic development goals.

Goal 5: Fiscal Responsibility

- a. Ensure balanced and effective transportation investments.
- b. Develop realistic transportation programs based on accurate cost estimates.
- c. Explore the use of alternate funding mechanisms.
- d. Increase the flexibility in the use of federal and state transportation funds.

Goal 6: Quality of Life

- a. Improve coordination and communication among stakeholders throughout the transportation planning and implementation process and ensure that the process is accessible for all communities and citizens.
- b. Enhance and protect the natural environmental quality and cultural and historic resources.
- c. Ensure that transportation services are compatible with the communities they serve.

Conclusions

The vision, goal, and objective statements were drafted to guide the development of the plan based on input from Discussion Group Meetings and Transportation Vision Surveys. These statements also reflect input from the *VTrans2025* Phase 1 Stakeholder Group, the *VTrans2025* Steering Committee, and the Deputy Secretary of Transportation for Intermodal Issues. Additionally, the statements reflect a review of other state and regional transportation plans and the mission and goal statements developed by the four transportation modal agencies. Finally, the vision, goal, and objective statements are consistent with the planning factors identified in the Transportation Equity Act for the 21st Century (TEA-21) and §33.1-23.03 of the Code of Virginia.

CHAPTER 6 CRITERIA FOR ESTABLISHING PRIORITIES

Introduction

This report identifies the criteria for establishing multimodal transportation priorities. These criteria will be further developed and used to prioritize multimodal networks across transportation modes. Currently, each transportation agency has a system in place to identify and program transportation priorities. There is no current mechanism that is routinely used, however, for identifying interrelated multimodal networks and reviewing projects across the modes to identify transportation priorities for the Commonwealth.

Development of the Criteria for Establishing Multimodal Priorities

The criteria for establishing multimodal priorities were developed by the Steering Committee with assistance from the VTRC. The group began by reviewing the prioritization systems currently used or being developed by each of the transportation modal agencies. Additional research was done to review case studies, current business practices, and other relevant information. Existing systems were evaluated for their potential application across the modes. In general, the criteria are based on the *VTrans2025* goal statements and the associated performance measures are based on the *VTrans2025* objectives (see the chapter on Vision, Goals, and Objectives for more detail on these statements). Functionally, the prioritization system is based largely on the prioritization system currently used by DOAV.

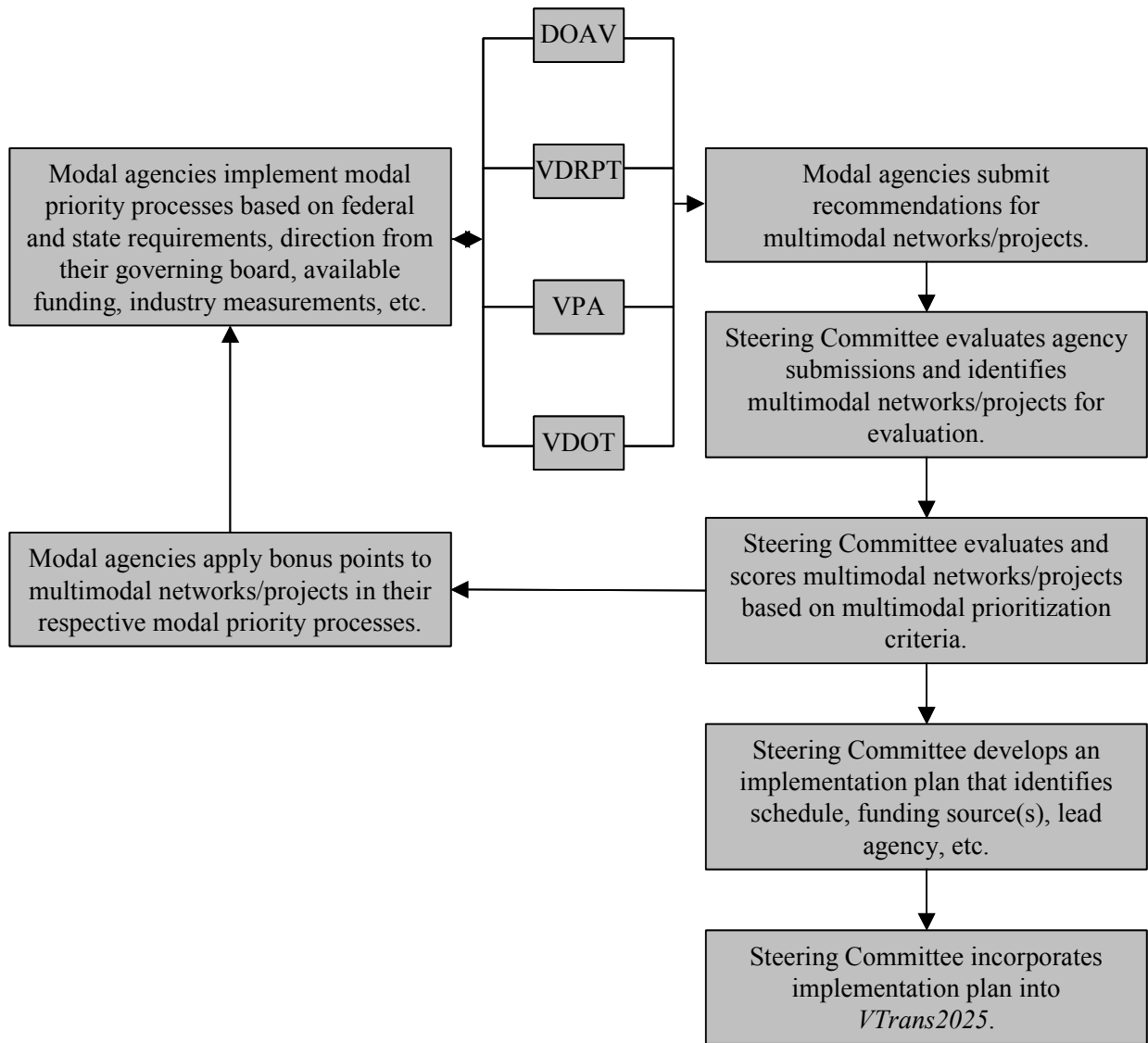
These criteria will be further developed to include metrics for each performance measure and assign point values to the criteria and metrics. It is anticipated that stakeholder input will be used to accomplish this. As this work continues, the criteria and performance measures may be refined and/or expanded.

Application of the Criteria for Establishing Multimodal Priorities

The criteria for establishing multimodal priorities are not intended for application to all the individual transportation projects for which the transportation agencies are responsible. Because of the variability in size, cost, scope, and impact of transportation projects from various modes, application of a single set of prioritization criteria to all projects, across modes, is not feasible. Instead, the criteria for establishing multimodal priorities are intended for application to “multimodal networks.” Multimodal networks are defined as interdependent multimodal projects that collectively serve a common purpose for transportation in the Commonwealth. For example, a multimodal network may be comprised of the construction of a new airport, interstate improvements to provide access for passengers and cargo, expanded transit service to the new airport, and rail improvements to facilitate freight movement to and from the new airport. It is anticipated that there are approximately a dozen such multimodal networks in the Commonwealth; these multimodal networks comprise many more individual projects. The entire multimodal network will be scored based on the final prioritization system and ranked accordingly. Individual projects identified as part of a multimodal network will be given bonus

points in the mode-specific prioritization systems to ensure their successful implementation and to ensure they are executed in time to support their contribution to the overall multimodal network. Multimodal networks will be identified by the Steering Committee based on projects submitted by each transportation modal agency. The Steering Committee will score the multimodal networks and they will be ranked accordingly. The system will be designed such that alternative solutions to a single transportation problem can be evaluated and compared (e.g., expanding interstate capacity or improving rail service along a corridor). Figure 6-1 illustrates how the prioritization system will be applied to multimodal networks.

Figure 6-1. Application of Multimodal Prioritization Criteria



Criteria for Establishing Multimodal Priorities

The criteria and associated performance measures developed by the Steering Committee for application to multimodal networks are shown in the table below. The criteria are based on the *VTrans2025* goals, and the performance measures are based on the *VTrans2025* objectives. In the future, metrics will be identified for each performance measure and point values assigned. For example, a metric for the performance measure “Project improves safety.” might be the expected change in accident rate resulting from the project.

Criteria	Performance Measures
Safety and Security	<ul style="list-style-type: none"> • Project improves safety. • Project improves security. • Project includes innovative design features to improve safety and/or security.
System Management	<ul style="list-style-type: none"> • Project improves the operation of the existing system. • Project promotes the use of appropriate technology. • Project includes implementation of planned access features. • Project promotes system preservation. • Project creates needed redundancy in the system.
Intermodalism and Mobility	<ul style="list-style-type: none"> • Project improves intermodalism, connectivity, and use. • Project facilitates passenger movement. • Project facilitates freight movement. • Project creates transportation alternatives. • Project promotes energy efficiency.
Economic Competitiveness	<ul style="list-style-type: none"> • Project supports statewide economic development goals. • Project is consistent with regional economic development goals. • Project provides smooth transfers for passenger and freight between modes. • Project supports statewide commerce and tourism goals.
Fiscal Responsibility	<ul style="list-style-type: none"> • Project promotes fiscal responsibility. • Project involves innovative financing. • Project is cost-effective.
Quality of Life	<ul style="list-style-type: none"> • Project creates transportation alternatives. • Project protects/enhances environmental quality, including cultural and historical resources. • Project is consistent with community character and land use planning.

Conclusions

These criteria for establishing multimodal priorities are based on the *VTrans2025* goals and objectives. Further development of the prioritization system will involve identification of specific metrics and point values. These criteria are intended for application to multimodal networks only – not individual projects.

CHAPTER 7 IDENTIFICATION OF MAJOR NEEDS

Introduction

Several methods were pursued to identify major needs, including the identification of project-specific needs by mode, identification of project-specific needs across modes, conceptual multimodal needs, and generic modal needs. Identification of project-specific needs by mode was determined to be inappropriate because it would circumvent the planning process and jeopardize the objective integrity of the individual modal needs assessments. Similarly, project-specific needs were not identified across all the modes because the variability in the cost, size, scope, and impact of transportation projects would tend to be biased towards highway projects and impede true multimodal planning. The identification of conceptual multimodal needs was abandoned to provide more mode-specific detail. Based on guidance from the Deputy Secretary of Transportation for Intermodal Issues, each transportation modal agency prepared a list of major generic needs for their respective modes.

Identification of Major Needs

Major needs were identified by each transportation modal agency for their respective modes. DOAV identified major aviation needs; VPA identified major port needs; VDRPT identified major rail and public transportation needs; and VDOT identified major highway, bicycle, and pedestrian needs. The major needs are identified below by mode and are not presented in any specific order. The list is not comprehensive and is subject to revision as circumstances change, more information becomes available, and key decision points are reached.

Aviation

The basis for these twenty-year needs is the 2000 Virginia Air Transportation System Plan Update (VATSP) and the Code of Virginia. The following list has not been prioritized and has not been reviewed by the VAB.

- A system performance measurement used by the Federal Aviation Administration (FAA) is percentage of population within 30-minute travel time to a general aviation airport and 45-minute travel time to a commercial service airport. Currently, 97 percent of the Commonwealth's (2000) population is within the FAA's performance criteria. To ensure that every Virginian has access to the nation's air transportation system, the Commonwealth needs to develop new or replacement general aviation airports over the next twenty years. The development of the airports would bring the coverage level to 99 percent. Topography and population density preclude the Commonwealth from obtaining 100 percent geographic coverage.
- Runway extensions are vital to the growth and capacity of an airport. The Commonwealth needs to extend runways at its commercial service, reliever, regional, and community service airports.

- As demand and operational requirements increase during the next twenty years, the Commonwealth will need to develop new runways at existing airports.
- In order to increase capacity and improve safety, the Commonwealth needs to develop full-length taxiways at existing airports during the next twenty years.
- In order for an airport to operate safely and economically it must have sufficient apron area to accommodate aircraft movement, transient parking, and long-term tie-down space. Over the next twenty years, the Commonwealth will need to expand apron areas to accommodate increased demand.
- Airport terminal buildings serve as "gateways" to Virginia's communities. In many instances the airport terminal building is the first and last impression a visitor or business executive has of a community; therefore, it is important that the Commonwealth's airport terminals are modern, well maintained, and meet the flying public's requirements. There will be significant needs during the next twenty years to expand, modernize, and develop new airport terminal buildings.
- Safety is paramount in the aviation industry. Today the Commonwealth has one of the most extensive and modern Facilities & Equipment (F&E) networks in the country. F&E includes many different types of equipment, all designed to aid the pilot. Examples include: runway and taxiway lights, rotating beacons, weather reporting information systems, instrument landing systems, and voice communication equipment. To insure over the next twenty years that the Commonwealth's airports remain safe and accessible in all weather conditions, existing systems and equipment will need to be modernized or replaced with the newest technology, specifically transitioning from ground-based navigational aids to satellite technology (e.g., global positioning systems - GPS).
- The Commonwealth's world-class network of airports can be directly attributed to the level and quality of the airport, environmental, and system-planning efforts the Department has performed over the past three decades. In order for the Commonwealth to retain its status, the Department will need to continue its comprehensive planning program.
- In order to expand existing facilities, develop new airports and provide for clear runway approaches, additional property will have to be purchased either by fee simple or easement. Land acquisition is crucial to meeting critical state and/or FAA safety standards and protecting airports from incompatible land-use encroachment.
- The rehabilitation of existing pavements, preservation of facilities, and the purchase of maintenance equipment are essential to the Commonwealth retaining a world-class air transportation system. Because Virginia has a mature and extensive airport system, it is imperative that the proper levels of resources are available to maintain the existing system. The next twenty years will require significant maintenance costs to maintain the acceptable material conditions of its pavements and facilities.
- Growth in based aircraft and corporate aircraft puts significant demands on airport sponsors to provide hangar facilities in a timely manner in order to remain competitive or risk losing business opportunities. Hangar facilities are the cornerstone to the economy of an airport and a key ingredient to the economical success of airport-related businesses. The Commonwealth does not develop hangars, however, it does provide funding for site preparation and taxiway development. As the system grows over the next twenty years it

is essential that the Commonwealth be prepared to meet the substantial demand for additional hangars.

- Often the most overlooked airport facility requirement is airport ground access. To fully serve the flying public all airports must have convenient access and adequate road signage. Over the next twenty years access to existing airports will have to be improved and access to new airports will have to be provided. In addition, airport signage will have to be replaced, updated, or installed in the case of new airports.
- As a direct result of September 11, 2001 terrorist attacks in Northern Virginia and elsewhere in the United States, Governor Mark Warner issued Executive Order 7, The Secure Virginia Initiative. The Executive Order states that the most important responsibility and profound duty of government, at all levels, is to provide for the safety and security of its citizens. To this end, the Governor created the Secure Virginia Initiative. The purpose of this Initiative is to improve the safety and security of the citizens of the Commonwealth. The Initiative includes, but is not limited to, improving the Commonwealth's preparedness, response, and recovery capability for natural disasters and emergencies of all kinds, including terrorist attacks. In response to Executive Order 7 the VAB created the Virginia General Aviation Airport Volunteer Certification Program (AVCP). The intent of AVCP is to provide funding for capital projects that will raise the level of security at the Commonwealth's general aviation airports in order to prevent private aircraft from being used as weapons of mass destruction. It is anticipated with the establishment of AVCP and the issuance of anticipated unfunded federal mandates, security needs will significantly increase in the near-term and over the next twenty years.

Ports

The basis for these twenty-year needs is VPA's Master Plan, which was completed in July 2001. These needs have not been prioritized by the Port or approved by the VPA Board of Commissioners.

- In order to accommodate projected cargo demand and remain competitive with other ports, repair, modernization, and expansion of the Port's four existing facilities - Norfolk International Terminals (NIT), Portsmouth Marine Terminal (PMT), Newport News Marine Terminal (NNMT), and Virginia Inland Port (VIP) - is needed.
- In order to accommodate projected cargo demand and remain competitive expansion and modernization of VPA's existing terminals is needed. While the existing terminals are nearing capacity, the Port of Virginia has sufficient water and land area to meet short-term growth needs through expansion and upgrading of existing facilities and equipment. Container throughput will exceed existing VPA terminal capacity by 2016 so that additional terminal capacity will be needed. Craney Island Marine Terminal (estimated total cost approximately \$2 billion) will be built in phases to provide needed capacity to handle projected container volume.
- Container vessels are growing in size to meet market demand. These vessels require larger cranes and deeper water, resulting in the need for dredging and for rehabilitating or renovation of existing wharf structures. Future container ships will need a 55-foot

channel, estimated to cost \$200 million. This will enable the largest container ships to be serviced by the Port of Virginia to be competitive with other east coast ports. The deeper channel also allows larger coal ships to be fully loaded making coal prices more competitive with world markets. These larger vessels will also require loading and discharging a higher number of containers per vessel call without an increase in port time. Thus, state-of-the-art landside facilities and handling equipment are required.

- Portions of VPA's current facilities were constructed prior to 1920. Due to age, these facilities are both functionally obsolete and deteriorated to a point where repair and maintenance yields diminished returns. Similarly, much of the port's container handling equipment is at the end of its useful life and will soon require replacement.
- In order to maintain existing market share and capitalize on its opportunity for growth, significant capital investment will be required to modernize terminal facilities, increase terminal capacity, and improve the state's transportation infrastructure (i.e. dredging deeper channels, road and rail infrastructure improvements to move cargo to and from the port).
- Approval and funding for the 55-foot channel into the Port of Virginia to enable the largest container ships to be serviced by the Port of Virginia is needed in order to be competitive with other east coast ports. The deeper channel also allows larger coal ships to be fully loaded making coal prices more competitive with world markets.
- Craney Island Eastward Expansion is needed. A fourth marine terminal will be built in phases to provide capacity for container growth as container growth will exceed existing VPA terminal capacity by 2016.
 - Extend the useful life of the Craney Island Dredge Material Management Area (CIDMMA)
 - Provide land for the construction of a fourth marine terminal
 - Provide a load-out point for military forces in a time of war
 - Landfill (600 acres) to be constructed from 2006-2012
 - Phase I (220 acres) of marine terminal to be constructed from 2012-2017
 - Levee construction
 - Dredge material to fill levee
 - On terminal Intermodal Rail Loading Facility (ICTF)
 - Rail and road access

Rail

- Intercity passenger rail service improvements are needed in major corridors to increase capacity and eliminate delays. These involve new and improved high speed and regular intercity rail service. Improvements include signals, new track, and grade crossing projects. Intercity passenger rail service will then provide an alternate choice of travel, relieve congestion on other modes, and enhance safety.
- Commuter rail service infrastructure improvements are needed to improve and expand this service. Commuter rail service provides an alternate choice of travel and congestion relief to highways in heavily traveled areas.
- Freight rail improvements are needed in the major freight corridors to eliminate rail

choke points. This will allow the railroads to increase freight movement, divert truck traffic, and reduce some of the effects of freight movement on other systems. Access to port facilities also needs to be improved.

- Rail access to new and expanding businesses is an economic development tool, which enhances the Commonwealth's economic development programs. Since the inception of the program, businesses associated by grants have invested \$4 billion in the Commonwealth.
- Shortline railroads help continue rail service to localities that would be left without a means of service to move commodities. The loss of this service would mean the loss of businesses or large increases in truck traffic on local roads. The assistance is for capital improvements to ensure preservation of shortline railroads, which are a vital element of state's freight transportation network.

Public Transportation

- Public transportation systems require security improvements and critical equipment replacement projects to provide for the continued safe operation of public transportation services.
- Public transportation systems require the routine replacement and/or rehabilitation of buses, rail vehicles, equipment, yards, and facilities to maintain comfortable and reliable public transportation services.
- Many public transportation systems need additional rail and bus vehicles, equipment, and facilities to provide higher levels of public transportation service to accommodate increased ridership demands in their service areas.
- New public transportation initiatives are needed in highly congested urban corridors and in unserved areas of the Commonwealth.
- Expanded public transportation services are needed in under-served areas of the Commonwealth.
- Additional support is needed for transportation demand management and ridesharing efforts, especially in areas that are having problems meeting air quality requirements.
- Alternative transportation and transportation demand management programs such as the telework program are needed to serve all areas of the Commonwealth.
- Sufficient resources are needed to support the programs in the Commonwealth Mass Transit fund at the full levels authorized in Section 58.1 – 638 of the Code of Virginia.
- Dedicated local or regional funding resources are needed to support public transportation services. In most areas of the Commonwealth, local support for public transportation currently comes from the local governments' general funds (i.e. property taxes, personal property taxes, etc.). This severely restricts the ability of public transportation operators to expand services.

Highways

- Maintain and rehabilitate existing infrastructure. In particular, improve and rebuild deficient, functionally obsolete bridges that cannot carry heavy loads or accommodate wide vehicles.
- Upgrade the capacity and safety of Virginia's aging congested interstate system to improve intra-state and inter-state mobility of people and freight.
- Develop projects that incorporate highways and other modes within the same corridor to address the Commonwealth's transportation mobility needs.
- Construct new highways to assist in attracting economic enhancements to areas of the Commonwealth that need greater economic stimulation.
- Develop projects that improve highway access to ports, airports, and other intermodal facilities.
- Develop projects that increase capacity and include restricted lanes for high occupancy vehicles (HOVs) along existing freeway corridors in large urban areas. This action promotes energy conservation, increases vehicle occupancy, and reduces the need for more additional lanes.
- Provide additional highway capacity to relieve congestion at crossings of natural barriers.
- Improve existing urban arterials to relieve congestion in urbanized, urban, and suburban areas of the Commonwealth.
- Expand transportation management systems (e.g., ITS) to all high volume facilities and integrate those systems with local traffic and transit management, state and local police, and public safety agencies. This action will reduce the duration and impact of incidents, adverse weather conditions, and special events by improving traffic flow.
- Improve the traffic carrying capacity and safety of major primary routes that are part of the national highway system.
- Construct new principal urban arterials (freeway-expressway) that will accommodate existing and projected induced travel demand from development. These facilities will also reduce congestion on existing facilities.
- Improve roadways that are geometrically and capacity deficient in areas that are experiencing development-related traffic growth.
- Improve rural collectors and local roads that are geometrically inadequate and pave unpaved highways carrying over 50 vehicles per day.
- Build new highways that incorporate a high level of technology.

Bicycles and Pedestrians

- Incorporate bicycle and pedestrian accommodations in the design, construction, and maintenance of transportation facilities and networks.
- Incorporate Americans with Disabilities Act (ADA) accessibility in design, construction, and maintenance activities.
- Provide multimodal connections for bicyclists and pedestrians.
- Maximize the use of eligible funding sources for bicycle and pedestrian transportation accommodations.

Conclusions

As noted above, these major needs are not presented in any specific order and are subject to change. As the individual modal needs assessments are completed and the planning process develops, specific major needs may be more clearly identified.

CHAPTER 8 STATUS REPORT ON MODAL NEEDS ASSESSMENTS

Introduction

Needs analyses are used in the transportation planning process to identify deficiencies and potential solutions. Each transportation agency has or will conduct a twenty-year needs assessment as part of the statewide transportation plan's development. Each agency is responsible for using an objective tool and methodology to prepare a needs assessment that identifies specific transportation needs. The modal needs assessments will be used in conjunction with multimodal prioritization criteria to develop a multimodal transportation plan that reflects the needs of each mode and the Commonwealth as a whole.

Status Reports

Status reports were provided by each agency and are presented below.

Virginia Department of Aviation

DOAV has a current twenty-year needs analysis, which is an element of the Virginia Air Transportation System Plan (VATSP) update. The VATSP was completed in 2002 and identifies a twenty-year list of needs. Aviation needs are prioritized annually based on submittal of Six-Year Plans by airport sponsors. The needs were identified based on application of FAA design and planning criteria to projected demand and capacity requirements, findings of airport master plans, and airport Six-Year Plans.

Virginia Department of Transportation

VDOT reviewed several tools available for use in conducting highway needs assessments. The Department recommends using a combination of tools to ensure an objective and accurate highway needs assessment. Data collection and refinement in preparation of the needs assessment will be conducted during Phase 2 of the plan's development. A final highway needs assessment is expected to be completed by July 2005. See Chapter 9, Recommendation for a Highway Needs Assessment Tool, for more information on the process used to review available highway needs assessment tools and methodologies.

Virginia Department of Rail and Public Transportation

VDRPT completed a comprehensive needs assessment for public transportation in 1997 and 1998. The Department plans to conduct a new needs assessment and is currently negotiating with a consultant to assist with this work.

Virginia's rail network is under study by VDRPT, including six identified passenger and two freight transportation corridors. Studies are underway to analyze the current rail infrastructure, identify areas where improvements are needed, and to implement the identified

freight and passenger needs. These studies will be completed in 2003. The Department has identified the Richmond to Washington D.C. corridor as the first priority for physical improvements in preparation for higher speed passenger rail service. Comprehensive study has resulted in the identification and prioritization of improvement locations within the corridor that are being implemented. Improvements underway include construction or reconstruction of rail infrastructure between Washington, D.C. and Fredericksburg for the benefit of both intercity passenger rail and the Virginia Railway Express (VRE) commuter rail service. Studies are underway to identify freight needs in the I-81 and I-95 corridors. These processes include a safety evaluation of all grade crossings in the study areas.

A major rail needs assessment for VDRPT was conducted in 1997-98. Since that time, rail service has undergone a transformation nationally due to major changes in transportation logistics. This transformation was in response to changes in the global marketplace, product origin and destination, and innovation in passenger rail technology that makes high speed rail travel competitive with air travel. Following the studies underway, identified freight and passenger needs will result in an update of the rail needs for Virginia. Data collection and an update of VDRPT's efforts of 1998 will result in a prioritized needs list to reflect real time rail needs for Virginia's passenger and freight rail network.

Virginia Port Authority

VPA has a current twenty-year needs analysis, which is an element of the Master Plan. The Master Plan was completed in July 2001 and identifies a twenty-year list of needs. These needs have not been prioritized by the Port or approved by the VPA Board of Commissioners. The needs were identified based on a comparison of projected growth in containerized and break-bulk cargo and the capacity of existing port facilities.

Conclusions

The status of the modal needs assessments varies considerably, however, needs assessments for all the modes will be completed by July 2005. All of the needs assessments will be conducted using a sound, objective tool and methodology. The results of the individual modal needs assessments will be reviewed and used to develop a multimodal transportation plan that reflects the needs of each mode, as well as the needs of the Commonwealth as a whole.

CHAPTER 9
RECOMMENDATION FOR A HIGHWAY NEEDS ASSESSMENT TOOL

Introduction

A Highway Needs Assessment Team (hereafter referred to as the “team”) was created to identify and evaluate potential highway needs assessment tools. The team consisted of representatives from VDOT, VTRC, and the Joint Legislative Audit and Review Commission of the Virginia General Assembly (JLARC). The team met monthly to discuss the highway needs assessment, and more specifically, review potential highway needs assessment tools. (See Appendix I for a list of team members.)

Purpose of the Highway Needs Assessment

As the issues related to a highway needs assessment were considered and discussed by the team, it became obvious that there were two differing viewpoints regarding the purpose and intent of the highway needs assessment. One definition of a highway needs assessment is to identify efficiencies and inequities in the highway funding formulae. This is the approach described in the JLARC report, “Equity and Efficiency of Highway Construction and Transit Funding.” Under this definition, highway construction needs would be reported at an aggregate level, with the ability to provide aggregate level needs by highway system at the local, regional, and statewide level.

The original highway needs assessment legislation was consistent with this approach, as it defined the needs assessment as a tool to be used for setting and evaluating funding formulae. The most recent legislation from the 2002 General Assembly, however, associates the highway needs assessment with the needs assessments of other modal agencies (through the statewide multimodal long-range transportation plan legislation). The needs assessments of other modal agencies are not intended to address funding issues, but rather are used to identify projects for inclusion in modal long-range plans and programs as well as the statewide multimodal transportation plan.

During the summer of 2002, the Auditor of Public Accounts (APA) released a report entitled “Special Review of Cash Management and Budgeting Practices” that addressed the issue of a highway needs assessment. Through this report, the APA identified its definition of a highway needs assessment as a tool to identify a list of projects needed to address transportation demand. The report further clarified that the project list identified in the highway needs assessment should feed the Statewide Highway Plan. The projects listed in the Statewide Highway Plan should, in turn, feed the Six Year Program. To accomplish this, information must be provided at the specific project level.

Analysis and Investigation

After considering the two differing definitions from JLARC and the APA, the team identified two distinct methodologies for conducting a highway needs assessment. The term “Funding Allocation Analysis” refers to a methodology that will provide a system-wide report of needs aggregated by jurisdiction or system – the approach advocated by JLARC. The term “Highway Project Needs Assessment” refers to a methodology that will provide more specific, detailed information at the project level – the approach advocated in the APA report. The two methodologies are compared in the table below. The specific tools identified for each are discussed in more detail in the appendices.

Methodology	Highway Project Needs Assessment	Funding Allocation Analysis
Primary Model	SPS (Statewide Planning System) (see Appendix J)	HERS-ST (Highway Economic Requirement System – State Version) (see Appendix K)
Model Source	VDOT	FHWA
Bridge Sufficiency Ratings	Integrated (see Appendix L)	Offline (see Appendix L)
Safety Indices	Integrated (see Appendix N)	Offline (see Appendix N)
Year of Highway Capacity Analysis Equations	2000	1997
Data Used	All Functionally Classified Roadways	Sample
Results	Project-Specific Recommendations	Aggregate Results

Representatives from FHWA’s Office of Asset Management and Office of Legislation and Strategic Planning attended a team meeting to demonstrate the HERS-ST model, and provide an opportunity for the team to ask questions directly to the model designers. An advance copy of the HERS-ST model was obtained from FHWA, which team members used to perform trial runs. The entire team discussed the results and observations. This provided an opportunity to review the output from HERS-ST as well as learn more about the importance of the quality of the input data. Additionally, a team representative attended the HERS-ST Conference and Workshop in Charlotte, NC in September 2002, to learn more about the model and its capabilities.

Capability of Satisfying the Purpose and Intent

The Highway Project Needs Assessment methodology provides project-specific needs, using the SPS. This methodology uses the Commonwealth’s primary transportation planning system and incorporates existing FHWA criteria for bridge needs, state transportation safety indices, and the most recent highway capacity procedures. The results of this micro analysis are project recommendations based on analysis of all functionally classified roadways. Since this

information is in a detailed format, it can also be aggregated into system-wide reports by other categories such as jurisdiction and highway system.

The Funding Allocation Analysis methodology provides information at the aggregate level using the HERS-ST model plus off-line analyses for bridge, safety, and rural secondary road (see Appendix M) needs. The HERS-ST model was designed for this type of macro analysis. The HERS-ST model uses a sample selection of input, and provides the capability to aggregate estimated needs for different jurisdictions and funding systems. The results are estimates based on samples. Individual projects cannot be identified from this analysis without a complete dataset.

The possibility of performing two separate highway needs assessments concurrently was also discussed. While doing so would indeed satisfy both the desire to have an aggregate assessment and a project-specific assessment, it would also result in confusion to the General Assembly, the CTB, and the citizens of Virginia, due to the potential for generation of two different total dollar amounts representing the official highway needs of the Commonwealth. Additionally, VDOT management emphasized the desire of the Governor to adhere to a process that is prudent with respect to the use of state resources. Performing two separate assessments would result in significant additional time, effort, and expense during a time of budget shortfalls and financial constraint.

Conclusions

The Highway Project Needs Assessment methodology has the capability of performing a needs assessment on the project-specific level (a requirement of the APA Recommendations) and the option of aggregating the identified needs by system or jurisdiction (a requirement of the JLARC for addressing funding issues). Although there has been uncertainty regarding which of the two purposes is currently the General Assembly's intent for the Highway Needs Assessment, the Highway Project Needs Assessment is capable of fulfilling both purposes. For this reason, the Highway Project Needs Assessment methodology, using SPS, is recommended for use in developing the Highway Needs Assessment component of the Statewide Multimodal Long-Range Transportation Plan. HERS-ST does, however, hold potential for use as a highway project prioritization tool as part of development of the Constrained Statewide Highway Plan recommended by the APA. More analysis of this specific application of the HERS-ST model is recommended as part of that process.

CHAPTER 10 LOOKING AHEAD

As described in this Phase 1 Report to the General Assembly, work on the statewide multimodal long-range transportation plan is well underway. Phase 1 involved setting vision, goals, and objectives, conducting background research and analysis, and establishing the framework upon which the plan will be built. Subsequent work during Phase 2 will involve the development of a Vision Plan that builds upon the broad goals and objectives established in Phase 1 to include performance measures, an inventory and evaluation of the existing system, a trend analysis, and an evaluation of policies, practices, and procedures that impact transportation. Finally, Phase 3 will involve completion of the modal needs assessments and application of multimodal prioritization criteria to develop the final multimodal plan.

The most notable change during Phase 2 will be the establishment of the *VTrans2025* Policy Committee to ensure appropriate policy direction and oversight throughout development of the statewide transportation plan. Specific responsibilities include providing policy-level guidance to the Steering Committee, providing input on the interpretation of legislative requirements, facilitating interagency coordination, approving reports produced by the Steering Committee for presentation to the CTB, and conducting stakeholder outreach. The Policy Committee will be made up of representatives from the Commonwealth Transportation Board, Virginia Aviation Board, Virginia Port Authority Board of Commissioners, the Deputy Secretary of Transportation for Intermodal Issues, and the directors of the four modal agencies.

Development of *VTrans2025* will continue to be a truly multimodal effort, employing the expertise and experience of key representatives from each mode. Additionally, stakeholder involvement will continue to be a key element of the plan. This is a major undertaking at a statewide level, and an excellent opportunity for all Virginians to participate in the development of the Commonwealth's future multimodal transportation system....

VTrans2025...One Virginia, One Future

List of Acronyms

ADA	Americans with Disabilities Act
APA	Auditor of Public Accounts
AVCP	Airport Volunteer Certification Program
CIDMMA	Craney Island Dredge Material Management Area
CTB	Commonwealth Transportation Board
DOAV	Virginia Department of Aviation
F&E	Facilities and Equipment
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GPS	Global Positioning System
HCM	Highway Capacity Manual
HERS-ST	Highway Economic Requirement System – State Version
HOV	High Occupancy Vehicle
HTRIS	Highway Traffic Record Inventory System
ICP	Interagency Coordination Plan
ICTF	Intermodal Rail Loading Facility
ITS	Intelligent Transportation System
JLARC	Joint Legislative Audit and Review Commission
NIT	Norfolk International Terminal
NNMT	Newport News Marine Terminal
PDC	Planning District Commission
PMT	Portsmouth Marine Terminal
PPTA	Public/Private Transportation Act
SHiPS	Statewide Highway Planning System
SPR	State Planning and Research Funds
SPS	Statewide Planning System
TEA-21	Transportation Equity Act for the 21 st Century
VAB	Virginia Aviation Board

VAPDC	Virginia Association of Planning District Commissions
VATSP	Virginia Air Transportation System Plan
VCU	Virginia Commonwealth University
VDOT	Virginia Department of Transportation
VDRPT	Virginia Department of Rail and Public Transportation
VIP	Virginia Inland Port
VML	Virginia Municipal League
VMS	Variable Message Sign
VPA	Virginia Port Authority
VRE	Virginia Railway Express
VTRC	Virginia Transportation Research Council

Glossary

Accessibility	Ability of transportation facilities and/or services to be reached and used.
Connectivity	Services and/or facilities that establish intermodal transfer points (e.g., park and ride lots).
Intermodal	Provision of transfer points and/or connections between different transportation modes.
Major Need	Transportation facilities and/or services essential to the development of a world-class transportation system: (1) a transportation project that is currently in a transportation plan and/or program and above a given dollar amount, (2) non project-specific transportation requirements that apply across modes, or (3) non project-specific transportation requirements that apply to individual modes.
Mobility	Movement of people and goods via various transportation modes and/or routes.
Multimodal	The presence of or pertaining to more than one mode (e.g., highway, bicycle, pedestrian, port, rail, public transportation, aviation).
Multimodal Network	Interdependent multimodal projects that collectively serve a common purpose for transportation. A multimodal network may be comprised of the construction of a new airport, interstate improvements to provide access for passengers and cargo, expanded transit service to the new airport, and rail improvements to facilitate freight movement to and from the new airport.
Needs Assessment	An objective evaluation used to identify transportation deficiencies.
Stakeholder	Any individuals or groups with an interest in transportation in the Commonwealth, including the general public, the business community, elected officials, transportation operators, advocacy groups, etc.
System Management	Maintenance, care, and operation of transportation facilities and/or services.

System Performance	A measure of how well a transportation system meets demand, typically measured in terms of levels of service, etc.
Transportation Plan	A long-range (typically 20 years or more) document that considers various transportation options designed to meet the transportation needs of a particular area: (1) a list of long-range transportation project recommendations and/or studies for a particular area, and/or (2) a document establishing a long-range vision, which evaluates and makes recommendations regarding transportation policies, practices, and procedures for a particular area (e.g., <i>VTrans2025</i>)
Transportation Program	Short-range (typically three to six years) document that identifies transportation projects and funding sources (e.g., VDOT's Six-Year Program).

APPENDIX A
HOUSE BILL 771

VIRGINIA ACTS OF ASSEMBLY -- 2002 SESSION

CHAPTER 639

An Act to amend and reenact § 33.1-23.03 of the Code of Virginia, relating to the Statewide Transportation Plan; preparation to stress statewide perspective.

[H 771]

Approved April 6, 2002

Be it enacted by the General Assembly of Virginia:

1. That § 33.1-23.03 of the Code of Virginia is amended and reenacted as follows:

§ 33.1-23.03. Board to develop and update Statewide Transportation Plan.

The Commonwealth Transportation Board shall conduct a comprehensive review of statewide transportation needs in a Statewide Transportation Plan setting forth an inventory of all construction needs for all systems, and based upon this inventory, establishing goals, objectives, and priorities covering a twenty-year planning horizon, in accordance with federal transportation planning requirements. This plan shall embrace all modes of transportation and include technological initiatives. This Statewide Transportation Plan shall be updated as needed, but no less than once every five years. The plan will provide consideration of projects and policies affecting all transportation modes and promote economic development, intermodal connectivity, environmental quality, accessibility for people and freight, and transportation safety. Each such plan shall be summarized in a public document and made available to the general public upon presentation to the Governor and General Assembly.

It is the intent of the General Assembly that this plan assess transportation needs and assign priorities to projects on a statewide basis, avoiding the production of a plan which is an aggregation of local, district, regional, or modal plans.

2. That the first phase of the plan prepared in accordance with the provisions of this act shall be presented on December 1, 2002, and shall include: the vision, goals, and objectives of the plan; criteria for establishing priorities; identification of major needs; a public involvement plan; a summary of public involvement to date; an interagency coordination plan; an evaluation and recommendation for selection of a highway needs-assessment tool; and a status report on the modal needs assessments. The second phase of the plan shall be presented on December 1, 2003, and include: a status report on the existing transportation system; a status report on the modal needs assessments; and consideration of policies affecting all transportation modes, including technology, economic development, intermodal connectivity, environmental quality, accessibility for people and freight, transportation safety, and revenue sources and availability. The third phase of the plan shall be presented on July 1, 2005, and include: an inventory and prioritization of statewide multimodal transportation needs; an assessment of intermodal connectivity and accessibility; a summary of public involvement activities and comments; and a final report.

APPENDIX B

STATEWIDE TRANSPORTATION PLANNING FEDERAL AND STATE LEGISLATION

U.S. Code

Sec. 135. - Statewide planning

(a) General Requirements. -

(1) Findings. -

It is in the national interest to encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight and foster economic growth and development within and through urbanized areas, while minimizing transportation-related fuel consumption and air pollution.

(2) Development of plans and programs. -

Subject to section 134 of this title and sections 5303 through 5305 of title 49, each State shall develop transportation plans and programs for all areas of the State.

(3) Contents. -

The plans and programs for each State shall provide for the development and integrated management and operation of transportation systems and facilities (including pedestrian walkways and bicycle transportation facilities) that will function as an intermodal transportation system for the State and an integral part of an intermodal transportation system for the United States.

(4) Process of development. -

The process for developing the plans and programs shall provide for consideration of all modes of transportation and shall be continuing, cooperative, and comprehensive to the degree appropriate, based on the complexity of the transportation problems to be addressed.

(b) Coordination With Metropolitan Planning; State Implementation Plan. -

In carrying out planning under this section, a State shall coordinate such planning with the transportation planning activities carried out under section 134 of this title and sections 5303 through 5305 of title 49 for metropolitan areas of the State and shall carry out its responsibilities for the development of the transportation portion of the State implementation plan to the extent required by the Clean Air Act.

(c) Scope of Planning Process. -

(1) In general. -

Each State shall carry out a transportation planning process that provides for consideration of projects and strategies that will -

(A)

support the economic vitality of the United States, the States, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency;

(B)

increase the safety and security of the transportation system for motorized and nonmotorized users;

(C)

increase the accessibility and mobility options available to people and for freight;

(D)

protect and enhance the environment, promote energy conservation, and improve quality of life;

(E)

enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight;

(F)

promote efficient system management and operation; and

(G)

emphasize the preservation of the existing transportation system.

(2) Failure to consider factors. -

The failure to consider any factor specified in paragraph (1) shall not be reviewable by any court under this title, subchapter II of chapter 5 of title 5, or chapter 7 of title 5 in any matter affecting a transportation plan, a transportation improvement plan, a project or strategy, or the certification of a planning process.

(d) Additional Requirements. -

In carrying out planning under this section, each State shall, at a minimum, consider -

(1)

with respect to nonmetropolitan areas, the concerns of local elected officials representing units of general purpose local government;

(2)

the concerns of Indian tribal governments and Federal land management agencies that have jurisdiction over land within the boundaries of the State; and

(3)

coordination of transportation plans, programs, and planning activities with related planning activities being carried out outside of metropolitan planning areas.

(e) Long-Range Transportation Plan. -

(1) Development. -

Each State shall develop a long-range transportation plan, with a minimum 20-year forecast period, for all areas of the State, that provides for the development and implementation of the intermodal transportation system of the State.

(2) Consultation with governments. -

(A) Metropolitan areas. -

With respect to each metropolitan area in the State, the long-range transportation plan shall be developed in cooperation with the metropolitan planning organization designated for the metropolitan area under section 134 of this title and section 5303 of title 49.

(B) Nonmetropolitan areas. -

With respect to each nonmetropolitan area, the long-range transportation plan shall be developed in consultation with affected local officials with responsibility for transportation.

(C) Indian tribal areas. -

With respect to each area of the State under the jurisdiction of an Indian tribal government, the long-range transportation plan

shall be developed in consultation with the tribal government and the Secretary of the Interior.

(3) Participation by interested parties. -

In developing the long-range transportation plan, the State shall -

(A)

provide citizens, affected public agencies, representatives of transportation agency employees, freight shippers, private providers of transportation, representatives of users of public transit, providers of freight transportation services, and other interested parties with a reasonable opportunity to comment on the proposed plan; and

(B)

identify transportation strategies necessary to efficiently serve the mobility needs of people.

(4) Financial plan. -

The long-range transportation plan may include a financial plan that demonstrates how the adopted long-range transportation plan can be implemented, indicates resources from public and private sources that are reasonably expected to be made available to carry out the plan, and recommends any additional financing strategies for needed projects and programs. The financial plan may include, for illustrative purposes, additional projects that would be included in the adopted transportation plan if reasonable additional resources beyond those identified in the financial plan were available.

(5) Selection of projects from illustrative list. -

Notwithstanding paragraph (4), a State shall not be required to select any project from the illustrative list of additional projects included in the financial plan under paragraph (4).

(f) State Transportation Improvement Program. -

(1) Development. -

(A) In general. -

Each State shall develop a transportation improvement program for all areas of the State.

(B) Consultation with governments. -

(i) Metropolitan areas. -

With respect to each metropolitan area in the State, the program shall be developed in cooperation with the metropolitan planning organization designated for the metropolitan area under section 134 of this title and section 5303 of title 49.

(ii) Nonmetropolitan areas. -

(I) In general. -

With respect to each nonmetropolitan area in the State, the program shall be developed in consultation with affected local officials with responsibility for transportation.

(II) Review. -

Not later than 1 year after the date of enactment of this subclause, the State shall submit to the Secretary the details of the consultative planning process developed by the State for nonmetropolitan areas under subclause (I). The Secretary shall not review or approve such process.

(iii) Indian tribal areas. -

With respect to each area of the State under the jurisdiction of an Indian tribal government, the program shall be developed in consultation with the tribal government and the Secretary of the Interior.

(C) Participation by interested parties. -

In developing the program, the Governor shall provide citizens, affected public agencies, representatives of transportation agency employees, freight shippers, private providers of transportation, providers of freight transportation services, representatives of users of public transit, and other interested parties with a reasonable opportunity to comment on the proposed program.

(2) Included projects. -

(A) In general. -

A transportation improvement program developed under this subsection for a State shall include federally supported surface transportation expenditures within the boundaries of the State.

(B) Chapter 2 projects. -

(i) Regionally significant projects. -

Regionally significant projects proposed for funding under chapter 2 shall be identified individually in the transportation improvement program.

(ii) Other projects. -

Projects proposed for funding under chapter 2 that are not determined to be regionally significant shall be grouped in 1 line item or identified individually in the transportation improvement program.

(C) Consistency with long-range transportation plan. -

Each project shall be -

(i)

consistent with the long-range transportation plan developed under this section for the State;

(ii)

identical to the project as described in an approved metropolitan transportation improvement program; and

(iii)

in conformance with the applicable State air quality implementation plan developed under the Clean Air Act (42 U.S.C. 7401 et seq.), if the project is carried out in an area designated as nonattainment for ozone or carbon monoxide under such Act.

(D) Requirement of anticipated full funding. -

The program shall include a project, or an identified phase of a project, only if full funding can reasonably be anticipated to be available for the project within the time period contemplated for completion of the project.

(E) Financial plan. -

The transportation improvement program may include a financial plan that demonstrates how the approved transportation improvement program can be implemented, indicates resources from public and private sources that are reasonably expected to be

made available to carry out the plan, and recommends any additional financing strategies for needed projects and programs. The financial plan may include, for illustrative purposes, additional projects that would be included in the adopted transportation plan if reasonable additional resources beyond those identified in the financial plan were available.

(F) Selection of projects from illustrative list. -

(i) No required selection. -

Notwithstanding subparagraph (E), a State shall not be required to select any project from the illustrative list of additional projects included in the financial plan under subparagraph (E).

(ii) Required action by the secretary. -

Action by the Secretary shall be required for a State to select any project from the illustrative list of additional projects included in the financial plan under subparagraph (E) for inclusion in an approved transportation improvement program.

(G) Priorities. -

The program shall reflect the priorities for programming and expenditures of funds, including transportation enhancement activities, required by this title.

(3)

Project selection for areas of less than 50,000 population. -

(A) In general. -

Projects carried out in areas with populations of less than 50,000 individuals (excluding projects carried out on the National Highway System and projects carried out under the bridge program or the Interstate maintenance program) shall be selected, from the approved statewide transportation improvement program, by the State in cooperation with the affected local officials.

(B) National highway system projects. -

Projects carried out in areas described in subparagraph (A) on the National Highway System and projects carried out in such areas under the bridge program or the Interstate maintenance program shall be selected, from the approved statewide

transportation improvement program, by the State in consultation with the affected local officials.

(4) Biennial review and approval. -

A transportation improvement program developed under this subsection shall be reviewed and, on a finding that the planning process through which the program was developed is consistent with this section, section 134, and sections 5303 through 5305 of title 49, approved not less frequently than biennially by the Secretary.

(5) Modifications to project priority. -

Notwithstanding any other provision of law, action by the Secretary shall not be required to advance a project included in the approved statewide transportation improvement program in place of another project in the program.

(g) Funding. -

Funds set aside pursuant to section 505(a) of title 23, United States Code, shall be available to carry out the requirements of this section.

(h) Treatment of Certain State Laws as Congestion Management Systems. -

For purposes of this section, section 134, and sections 5303-5306 and 5323(k) ^[1] of title 49, State laws, rules or regulations pertaining to congestion management systems or programs may constitute the congestion management system under this Act ^[1] if the Secretary finds that the State laws, rules or regulations are consistent with, and fulfill the intent of, the purposes of this section, section 134 or sections 5303-5306 and 5323(k), (FOOTNOTE 1) as appropriate.

(i) Continuation of Current Review Practice. -

Since plans and programs described in this section are subject to a reasonable opportunity for public comment, since individual projects included in the plans and programs are subject to review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), and since decisions by the Secretary concerning plans and programs described in this section have not been reviewed under such Act as of January 1, 1997, any decision by the Secretary concerning a plan or program described in this section shall not be considered to be a Federal action subject to review under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).

CHAPTER 453

An Act to amend the Code of Virginia by adding a section numbered 33.1-23.03:001, relating to providing for the development of a Statewide Pedestrian Policy by the Commonwealth Transportation Board.

[S 393]

Approved April 2, 2002

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding a section numbered 33.1-23.03:001 as follows:

§ 33.1-23.03:001. *Statewide Pedestrian Policy.*

The Commonwealth Transportation Board shall prepare and update as needed a Statewide Pedestrian Policy. The Board shall:

- 1. Provide opportunities for receipt of comments, suggestions, and information from local governments, business and civic organizations, and other concerned parties;*
- 2. Identify and evaluate needs at statewide, regional and local levels for additional facilities required to promote pedestrian access to schools, places of employment and recreation, and major activity centers;*
- 3. Consider and evaluate potential ways of meeting these needs; and*
- 4. Set forth conclusions as to goals, objectives, and strategies to meet these needs in a safety-conscious manner.*

The Board shall coordinate the development of the Statewide Pedestrian Policy with that of the Statewide Transportation Plan provided for in § 33.1-23.03 and cover the same twenty-year planning horizon. The Statewide Pedestrian Policy shall be summarized in a public document and made available to the general public upon presentation to the Governor and General Assembly, either in combination with the Statewide Transportation Plan or as a separate document.

CHAPTER 361

An Act to amend the Code of Virginia by adding in Article 10 of Chapter 2 of Title 2.2 a section numbered 2.2-229, relating to the Intermodal Office of the Secretary of Transportation.

[H 290]

Approved April 1, 2002

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia is amended by adding in Article 10 of Chapter 2 of Title 2.2 a section numbered 2.2-229 as follows:

§ 2.2-229. *Intermodal Office of the Secretary of Transportation.*

There is hereby established the Intermodal Office of the Secretary of Transportation, consisting of a director, appointed by the Secretary of Transportation, and such additional transportation professionals as the Secretary of Transportation shall determine. It shall be the duty of the director of the office to advise the Secretary and the Commonwealth Transportation Board on intermodal issues.

APPENDIX C
VTRANS2025 STEERING COMMITTEE MEMBERS

Committee Members:

- Jim Bland, Manager of Airport Services, DOAV
- Cliff Burnette, Chief Airport Planner DOAV
- Jeff Florin, Chief Engineer, VPA
- George Connor, Assistant Director for Rail, VDRPT
- Bill LaBaugh, Richmond and Hampton Roads Regional Manager, VDRPT
- Alan Tobias, Rail Passenger Projects Manager, VDRPT
- Ranjeet Rathore – Rail Special Projects, VDRPT
- Ken Lantz, Transportation Planning Division Administrator, VDOT
- Diane Mitchell, Transportation Planning Assistant Division Administrator, VDOT
- Marsha Fiol, Statewide and Special Programs Section Manger, VDOT
- Katherine Graham, Transportation Planning Engineer, VDOT
- Kimberly Spence, Statewide Multimodal Transportation Plan Project Manager, VDOT
- Frank Dunn, Transportation Planning Engineer, VDOT

Stakeholder Involvement Plan Workgroup Members:

- Lynda South, Director of Communications, VDOT
- Gus Robey, TDM and Marketing Section Manager, VDRPT
- Cherry Evans, Public Relations Manager, DOAV

APPENDIX D
VTRANS2025 PHASE 1 STAKEHOLDER GROUP

- AMTRAK
- Citizen-at-large
- CSX
- Economic Development Partnership
- Federal Highway Administration
- Federal Transit Administration
- Metropolitan Planning Organizations – Hampton Roads Planning District Commission
- National Park Service
- Norfolk Southern
- Virginia Chamber of Commerce
- Virginia Commonwealth University
- Virginia Conservation Network
- Virginia Department of Aviation
- Virginia Department of Rail and Public Transportation
- Virginia Department of Transportation
- Virginia EcoTourism Association
- Virginia High Speed Rail Development Committee
- Virginia Port Authority
- Virginia Trucking Association

* Membership may be revised in Phase 2 to ensure adequate and equal representation of all stakeholders.

APPENDIX E
VTRANS2025 POLICY COMMITTEE MEMBERS

- Julia Connally, CTB Member, Chair
- Gerald McCarthy, CTB Member
- Hunter Watson, CTB Member
- Harry Lester, CTB Member
- James Keen, CTB Member
- Kenneth Klinge, CTB Member
- William Kehoe, VAB Member
- John Milliken, VPA Board of Commissioners Chairman
- Philip Shucet, VDOT Commissioner
- Karen Rae, Director VDRPT
- Charles Macfarlane, DOAV Director
- Robert Bray, VPA Executive Director
- Ralph Davis, Deputy Secretary of Transportation for Intermodal Issues

Appendix F

VTRANS2025 SCOPE OF WORK AND SCHEDULE DATED JUNE 6, 2002

Phase 1

Due: December 1, 2002

Deliverables:

- a. Vision, goals, and objectives of the plan
- b. Identification of major needs
- c. Public involvement plan
- d. Summary of public involvement to date
- e. Interagency coordination plan
- f. Evaluation and recommendation for selection of a highway needs assessment tool
- g. Status report on the modal needs assessments
- h. Criteria for establishing priorities

Phase 2

Due: December 1, 2003

Deliverables:

- a. Status report on the existing transportation system
- b. Status report on the modal needs assessments
- c. Consideration of policies affecting all transportation modes, including technology, economic development, intermodal use and connectivity, environmental quality, accessibility for people and freight, transportation safety, and revenue sources and availability

Phase 3

Due: July 1, 2005

Deliverables:

- a. Inventory and prioritization of statewide multimodal transportation needs
- b. Assessment of intermodal use and connectivity
- c. Summary of public involvement activities and comments
- d. Final report

General Overview of *VTrans2025*

VTrans2025 will be developed by the Secretary of Transportation through the four state transportation modal agencies – the Department of Aviation, Department of Rail and Public Transportation, Department of Transportation, and Port Authority. The plan’s development will be guided by §33.1-23.03 of the Code of Virginia and Section 1204(e) of the Transportation Equity Act of the 21st Century. In general, a summary of transportation issues facing the Commonwealth and an evaluation of transportation policies will be used to develop a series of alternative future transportation scenarios as well as a vision statement and goals and objectives for the plan. These scenarios will illustrate various long-term transportation visions for the Commonwealth. Concurrently, criteria will be developed for establishing statewide multimodal priorities, an inventory and evaluation of the existing system will be conducted, and a trend analysis and forecast completed. Each mode will complete a needs assessment, which identifies specific transportation needs. A single future transportation scenario will be identified and applied with the statewide multimodal prioritization criteria to the modal needs assessments to derive a multimodal transportation plan. This plan will be assessed for intermodal connectivity and a final report prepared.

Staffing

In the absence of staff for the Deputy Secretary of Transportation for Intermodal Issues, VDOT will take the lead on coordinating meetings, preparing documents for review, compiling and reviewing reports, and disseminating information. The primary mechanism for interagency coordination will be the Steering Committee, which is made up of representatives from each modal agency. An Interagency Coordination Plan will be developed with the assistance of the Steering Committee to provide more detail on how the agencies will coordinate with each other. Outside consultants may be used to provide assistance to the Steering Committee on various aspects of the plan. The Statewide Planning Team, as noted in this scope of work, is the Steering Committee and any outside consultants used to develop the plan. The Phase 1 Stakeholder Group, made up of the Steering Committee, advocacy groups, and other transportation interests, will be used to provide input as described in the Stakeholder Involvement Plan and feedback on other issues deemed appropriate by the Steering Committee.

Public Involvement

Public input will be continuous, comprehensive, and accessible throughout the development of *VTrans2025*. Details of public involvement opportunities will be described in the Stakeholder Involvement Plan. In general, VDOT will take the lead on coordinating public involvement activities on a multimodal level. Each agency will be responsible for any mode-specific meetings or outreach activities as well as providing mailing lists and other information necessary to ensure the success of public meetings or other activities.

PHASE 1

1.1 Identify Issues May 2001 – December 2001

Twelve Stakeholder Discussion Group Meetings were held in the Fall of 2001 to gather input on transportation-related issues facing the Commonwealth. While the meetings were successful at identifying a broad spectrum of issues, for the most part, they mainly reflected the views of highway, environmental, and other advocacy groups. For this reason, additional issue framing sessions may be held to ensure that all modal issues are identified (see Task 2.1). Information from these meetings will be used to develop a vision statement and goals and objectives for the plan. In addition, this information will be used to develop a series of alternative future transportation scenarios, which will illustrate various long-term transportation scenarios for the Commonwealth (see Task 2.7), and evaluate existing policies (see Task 2.6).

1.2 Develop Vision, Goals, and Objectives December 2001 – June 2002

A vision statement and goals and objectives will be developed for the plan based on the issues identified during the Stakeholder Discussion Group Meetings (see Task 1.1) and the additional issue framing session(s) (see Task 2.1). The vision, goals, and objectives will be succinct, clear statements reflecting public input, modal agency perspectives, and the direction of the plan. This is a Phase 1 deliverable.

1.3 Develop Criteria for Establishing Multimodal Priorities May 2002 – July 2002

Criteria for establishing multimodal priorities will be identified by each mode based on a review of case studies, current business practices, professional judgment, and other relevant information. These criteria will form the basis for the multimodal prioritization system required in Task 2.8. This is a Phase 1 deliverable.

1.4 Identify Major Needs June 2002 – November 2002

To comply with state legislative requirements, major transportation needs will be identified. Each agency will be responsible for identifying “major needs” for their respective mode. The identification of major needs will serve only to illustrate the nature of the transportation needs in the Commonwealth. It will not be a comprehensive listing nor will it be the basis for multimodal prioritization criteria (see Task 2.8). It is anticipated that the list of major needs will be based largely on conceptual needs, anticipated project cost (either absolute cost or percent of budget), and identification in a transportation program. This is a Phase 1 deliverable.

1.5 Summarize Public Involvement to Date September 2002 – November 2002

To comply with state legislative requirements, a summary of public involvement opportunities and public meetings held to date will be compiled. An evaluation of the effectiveness of the public involvement will also be included. This summary will be used to prepare the summary of public involvement for Task 3.6. This is a Phase 1 deliverable.

1.6 Develop Public Involvement Plan May 2002 – August 2002

To comply with state legislative requirements, a public involvement plan will be developed by representatives of each modal agency that ensures continuous, comprehensive, and accessible public involvement throughout the development of *VTrans2025*. The public involvement plan will set goals for public involvement, identify the people or groups to be reached, develop a general approach, flesh out the approach with specific techniques, and assure that the public input aids decision-making. The public involvement plan will identify specific points at which public input will be sought and clarify the role of the Phase 1 Stakeholder Group. This is a Phase 1 deliverable.

1.7 Develop Interagency Coordination Plan July 2002 – August 2002

To comply with state legislative requirements, an interagency coordination plan will be developed that outlines the specific responsibilities of each modal agency with regard to completion of *VTrans2025*. In general, VDOT will take the lead on coordinating meetings, preparing documents for review, compiling and reviewing reports, and disseminating information. The interagency coordination plan will discuss the decision-making process as well as the relationship between the modal agencies, the Phase 1 Stakeholder Group, the Steering Committee, and the Office of the Secretary of Transportation. In addition, the interagency coordination plan will address implementation of *VTrans2025* and provide for presentation and/or approval by each agency's Board. This is a Phase 1 deliverable.

1.8 Evaluate/Recommend Highway Needs Assessment Tool April 2002 – October 2002

VDOT is responsible for convening a group of experts to identify, evaluate, and recommend a highway needs assessment tool. The selected tool will be used to complete the needs assessment in Task 3.1. This is a Phase 1 deliverable.

1.9 Status Report on Modal Needs Assessments August 2002 – November 2002

To comply with state legislative requirements, each agency will be responsible for providing a report on the status of their modal needs assessment. At a minimum, each status report will include percent complete, a description of progress to date, and identification of next steps. The status reports will be compiled into a single report for submittal. This is a Phase 1 deliverable.

2.1 Identify Additional Modal Issues May 2002 – September 2002

Additional issue framing sessions may be held to complete the list of issues identified during the Stakeholder Discussion Group Meetings (see Task 1.1). Participants in the issue framing session(s) will include the Steering Committee and individuals or groups necessary to ensure a comprehensive, balanced, well-rounded discussion. Outside consultants may assist the Steering Committee in identifying additional participants, facilitate the session, compile and review the comments, and identify issues to be added to those identified in Task 1.1. The issues identified during the issue framing session(s) will be combined with those from the Stakeholder Discussion Group Meetings (see Task 1.1) and used to develop the alternative future transportation scenarios (see Task 2.7), evaluate existing policies (see Task 2.6), and revise the vision, goals, and objectives (see Task 1.2), if necessary.

2.5 Compile Summary of Issues October 2002

Issues identified during the Stakeholder Discussion Group Meetings (see Task 1.1) will be combined with issues identified during the issue framing session(s) for the expanded Steering Committee (see Task 2.1) to compile a single summary of issues. Issues will be listed in no specific order. The Statewide Planning Team will be responsible for compiling the issue summary. This information will be used by the Statewide Planning Team to develop alternative future transportation scenarios (see Task 2.7) and evaluate existing policies (see Task 2.6).

PHASE 2

2.1 Identify Additional Modal Issues May 2002 – September 2002

This task was moved to Phase 1 by the Steering Committee. See description in Phase 1.

2.2 Identify Existing Policies January 2003 – October 2003

Policies will be identified for evaluation (see Task 2.6) to aid in development of the alternative future transportation scenarios (see Task 2.7). Issues specifically identified in state and federal legislation will be included, as well as any additional issues deemed appropriate by the Steering Committee. These policies will be evaluated in Task 2.6 and used to develop the alternative future transportation scenarios in Task 2.7.

2.3 Conduct Evaluation of Existing System, Inventory, and Trend Analysis January 2003 – August 2003

Each agency will be responsible for completing (1) an inventory of their existing system, including facility description, functional designation, capacity, current volumes and other relevant information; (2) an evaluation of the existing system, including intermodal connectivity, operational effectiveness, capacity analysis, facility condition, and other relevant information; and (3) a trend analysis, including changes in current travel patterns and freight movement, regulatory requirements, service requirements, and other relevant information. A single set of socioeconomic, land use, and other demographic data will be compiled for the state as a whole. The information will be compiled into a single report and used in conjunction with the modal forecasts (see Task 2.4) to evaluate existing policies in Task 2.6, develop the alternative future transportation scenarios in Task 2.7, complete the modal needs assessments in Task 3.1, and assess intermodal use and connectivity in Task 3.4. This is a Phase 2 deliverable.

2.4 Develop Modal Forecasts January 2003 – August 2003

Each agency will prepare a forecast of system activity, including personal and commercial activity, system demand, and other relevant information. The information will be compiled into a single report and used in conjunction with the evaluation of the existing system, inventory, and trend analysis (see Task 2.3) to evaluate existing policies in Task 2.6, develop the alternative future transportation scenarios in Task 2.7, complete the modal needs assessments in Task 3.1, and assess intermodal connectivity in Task 3.4.

2.5 Compile Summary of Issues October 2002

This task was moved to Phase 1 by the Steering Committee. See description in Phase 1.

2.6 Evaluate Existing Policies February 2003 – March 2003

Data will be collected on the policies identified in Task 2.2 and the impacts of those policies on transportation in the Commonwealth will be considered. The policy evaluation will be used to develop alternative future transportation scenarios in Task 2.7.

2.7 Develop Alternative Future Transportation Scenarios January 2003 – December 2003

Information from the issue identification process (see Tasks 1.1, 2.1, and 2.5), policy evaluation (see Tasks 2.2 and 2.6), inventory, evaluation of the existing system, trend analysis (see Task 2.3), and modal forecasts (see Task 2.4) will be used to develop alternative future transportation scenarios. These scenarios will illustrate various long-term transportation visions for the Commonwealth. It is anticipated that approximately four alternatives will be developed and focus on differences such as funding levels, modal priorities, capital improvements, quality of life, etc. Intermodal use and connectivity will be assessed for each alternative. Public input will be sought on the alternative future transportation scenarios and a single scenario will be identified. The selected future scenario will be used with the multimodal prioritization criteria to filter each modal needs assessment and derive a unified multimodal transportation plan.

2.8 Establish Multimodal Prioritization Criteria January 2003 – April 2003

The criteria for establishing multimodal priorities developed in Task 1.3 will be expanded to include a scoring and ranking scheme based on a review of case studies, current business practices, professional judgment, and other relevant information. The prioritization system criteria will be used in conjunction with the selected future scenario (see Task 3.2) to derive a single multimodal plan (see Task 3.3) based on the four modal needs assessments (see Task 3.1).

2.9 Status Report on Modal Needs Assessments August 2003 – November 2003

To comply with state legislative requirements, each agency will be responsible for providing a report on the status of their modal needs assessment. At a minimum, each status report will include percent complete, a description of progress to date, and identification of next steps. The status reports will be compiled into a single report for submittal. This is a Phase 2 deliverable.

PHASE 3

3.1 Complete Modal Needs Assessments June 2002 – July 2004

Each agency will be responsible for preparing a needs assessment, using an objective tool, which identifies specific transportation needs. The highway needs assessment will be conducted using the tool identified in Task 1.8. Other modes will complete their needs assessments using federally mandated tools or other state-of-the-practice tools. The modal needs assessments will be compiled into a single report. The selected alternative future transportation scenario (see Task 3.2) will be used with the multimodal prioritization criteria (see Task 2.8) to derive a multimodal plan (see Task 3.3) based on the four modal needs assessments. This is a Phase 3 deliverable.

3.2 Select Alternative Future Transportation Scenario January 2004 – February 2004

Stakeholder and public input will be sought on the alternative future transportation scenarios (see Task 2.7) and a single scenario identified. The selected scenario will be used with the multimodal prioritization criteria (see Task 2.8) to derive a multimodal plan (see Task 3.3) based on the four modal needs assessments (see Task 3.1).

3.3 Prepare Draft Multimodal Plan August 2004 – September 2004

The selected alternative future transportation scenario (see Task 3.2) will be used with the multimodal prioritization criteria (see Task 2.8) to derive a multimodal plan based on the four modal needs assessments (see Task 3.1). The multimodal plan will identify and prioritize transportation needs for the Commonwealth.

3.4 Assess Intermodal Connectivity August 2004 – October 2004

The intermodal use and connectivity of the final multimodal plan will be evaluated based on the assessment conducted in Task 2.7. This is a Phase 3 deliverable.

3.5 Prepare Final Report May 2005 – July 2005

A final report will be prepared, including a description of the study approach, vision, goals, and objectives (see Task 1.2), the findings of the system evaluation, inventory, and trend analysis (see Task 2.3), modal forecasts (see Task 2.4), evaluation of future transportation scenarios (see Task 2.7), description of prioritization criteria (see Task 2.8), the selected future scenario (see Task 3.2), modal needs assessments (see Task 3.1), assessment of intermodal connectivity (see Task 3.4), and a summary of public involvement (see Task 3.6). This is a Phase 3 deliverable.

3.6 Summarize Public Involvement May 2005 – June 2005

To comply with state legislative requirements, a summary of public involvement opportunities and public meetings will be compiled. A summary of the input received and an evaluation of the effectiveness of public involvement will be included. Information from Task 1.5 will be used to prepare the final report. This is a Phase 3 deliverable.

**APPENDIX G
SAMPLE SURVEY INSTRUMENTS**

**VIRGINIA STATEWIDE MULTIMODAL LONG-RANGE
TRANSPORTATION PLAN UPDATE**

Name _____	Date _____
Address _____	Title/Organization _____
State _____	City _____
E-mail _____	Zip _____
	Phone/Fax _____

The Virginia Department of Transportation is seeking input on YOUR VISION for multimodal transportation for 20 years and beyond. When you consider each of the following transportation modes and issues, please keep in mind the following questions:

- *What is your vision for transportation 20 years from now and beyond?*
- *What services or infrastructure do you believe need to be improved in order to meet statewide and regional needs over the next 20 years?*
- *Do you have suggestions for funding these improvements?*
- *What are your priorities for transportation services or infrastructure improvements?*
- *Are there any additional items you would like to be considered?*

Thank you for your time. Please return completed surveys to:
Kimberly Spence
VDOT - Transportation Planning Division
1401 East Broad Street
Richmond, VA 23219

TRANSPORTATION MODES

- **Roads**

- **Passenger Rail**

- **Freight**

- **Aviation**

- **Transit**

- **Bicycles**

- **Pedestrian**

- **Ferry**

- **Ports**

Transportation Issues

- **Safety**

- **Intelligent Transportation Systems**

- **Economic Development**

- **Environmental Justice**

- **Mobility**

- **Smart Growth and Sprawl**

- **Environmental**

- **Other**

VIRGINIA STATEWIDE MULTIMODAL LONG-RANGE TRANSPORTATION PLAN RESEARCH

The Secretary of Transportation is currently developing a long-range plan for multi-modal transportation for the next 20 years. We are seeking YOUR input to help guide this effort. Please return your completed survey to the TransVirginia booth **before the end of the conference**. If you cannot return the survey prior to the end of the conference, please mail it back in the attached postage-paid envelope. Everyone who returns a completed survey by **August 30, 2002** will be entered in a drawing for a great prize.

Survey Questions

1. Who should be **primarily** responsible for making **transportation decisions** that **impact people's quality of life**? *[Circle one.]*

Individual Localities	1
Regions of the State	2
The State	3
Federal Government	4

2. To what extent should local, regional, and statewide needs impact **transportation investment decisions**? Please **rank in order** each factor (from 1 to 3) by placing a "1" by the factor you feel is **most important**.

Rank in Order

*1 = Most important.
3 = Least important.*

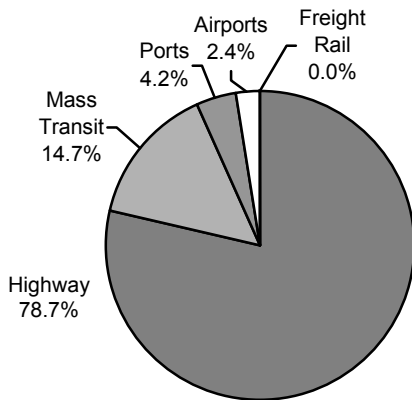
Local Needs	_____
Regional Needs	_____
Statewide Needs	_____

3. On a scale of 1 to 10, where "**1**" is **not at all important**, and "**10**" is **very important**, how important is it to move goods and move people when planning transportation facilities? *[Rate each factor with a response from 1 to 10.]*

*Enter #
between
1 and 10*

Movement of Goods	_____
Movement of People	_____

4. The pie chart below shows the relative proportion of financial resources from the Transportation Trust Fund that are allocated to each transportation mode. How do you think the resources should be allocated over the next 20 years? Please indicate your response for each mode in the box below.



In your opinion, how should the available funds be allocated in the future?

[Check 1 box for each mode.]

Mode	Less	Same as Current	More
Highways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mass Transit*		<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Airports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ports		<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
Freight Rail		<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>

*Mass Transit includes public buses, Virginia Railway Express, Metrorail, carpool and vanpool programs.

5. What should be the **primary** source of funds for transportation facilities/services? *[Circle one response.]*

- Local Tax 1
- Fuel Tax 2
- Sales Tax 3
- User Fees (tolls, etc.) 4
- Bonds 5
- Public/Private Partnerships 6
- Private Investment 7

Other [Specify: _____] 8

6. To what extent do you agree or disagree with the following statements? For each statement, please indicate if you agree strongly, agree somewhat, disagree somewhat, or disagree strongly.

	Agree Strongly	Agree Somewhat	Disagree Somewhat	Disagree Strongly
--	----------------	----------------	-------------------	-------------------

Incentives/Disincentives

It is appropriate to use *incentives* (ex. HOV lanes, fare discounts) to provide effective and efficient transportation facilities/systems.

It is appropriate to use *disincentives* (ex. toll roads, parking fees, etc.) to provide effective and efficient transportation facilities/systems.

Safety

- Safety is an important factor, no matter how much it costs.
- Safety is an important factor, but it should be balanced against costs.
- Safety is an important factor, but it should be balanced against time and convenience.

7. Given the following list of transportation facilities/services, to what extent should the State use its limited resources to subsidize these facilities/services? For each facility/service, check one box.

Facilities/Services	No Subsidies	Minimal Subsidies	Maximum Subsidies
Airports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Airlines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interstate Passenger Rail (ex. Amtrak)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Interstate Bus Service (ex. Greyhound)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Highways	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Commuter Bus	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Commuter Rail (ex. VRE)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Subways (ex. METRO)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vanpools/Carpools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Park and Ride Lots	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Passenger Ferry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle Ferry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bike Lanes/Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sidewalks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traveler Information Services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Commercial Ports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Channels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Freight Rail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. To what extent should the state consider **each** of the following when it establishes **funding priorities**? Please **rank in order** each factor (from 1 to 6) by placing a “1” by the factor you feel is **most important**.

Rank in Order
1 = Most important
6 = Least important

- Safety and Security _____
- Transportation System Performance _____
- Intermodal Connectivity (connections among transportation modes) _____
- Economic Competitiveness _____
- Cost Effectiveness _____
- Quality of Life (impact on people, communities, and natural resources) _____

9. To what extent should the following influence decisions about **how transportation dollars are spent**? Please **rank in order** each factor (from 1 to 5) by placing a “1” by the factor you feel is **most important**.

Rank in Order
1 = Most important
5 = Least important

- Protection of natural resources (ex. noise, water, air) _____
- Special needs of transportation-challenged populations (ex. disabled, elderly) _____
- Number of people who can benefit from the service/facility _____
- Effectiveness of the service/facility _____
- Cost of the service/facility _____

10. How important do you think each of the following are in **making transportation decisions**? Please **rank in order** each factor (from 1 to 3) by placing a “1” by the factor you feel is **most important**.

Rank in Order
1 = Most important
3 = Least important

- Improve or provide connections among transportation modes _____
- Build NEW facilities/provide ADDITIONAL service _____
- Preserve and upgrade EXISTING facilities/services _____

11. What current policies/procedures impede effective multimodal planning in the Commonwealth?

Please complete the following information. Your entry will enter you in a contest to win A GREAT PRIZE!!

Name _____	Date _____
Address _____	Title/Organization _____
State _____	City _____
E-mail _____	Zip _____
	Phone/Fax _____

Lastly....

a. How easy was this survey to complete? [Circle one.] Easy Moderately difficult Very difficult

If very difficult, why? _____

b. Did you understand each of the questions? Yes No

If not, which question numbers were unclear?

On behalf of the Commonwealth of Virginia, thank you for your time and input.



VTrans2025 is Virginia's new statewide multimodal long-range transportation plan. Over the next three years, several federal, state, and regional agencies will be working to develop the final long-range transportation plan. This is a major undertaking at a statewide level, and an excellent opportunity for all Virginians to participate in the development of the Commonwealth's future multimodal transportation system.

Please take this opportunity to participate in the plan's development by answering the questions on the back of this postcard and returning it to the **VTrans2025** booth before the end of the conference. Your input will be used to validate draft vision, goal, and objective statements and formulate future transportation policy alternatives. Everyone who returns a completed questionnaire will be entered in a drawing for a great prize!

VTrans2025

Help us create...**One Virginia, One Future!**

1. What current policies, procedures, and practices do you see as impediments to true multimodal transportation planning in Virginia?

2. How would you improve multimodal transportation planning in Virginia?

3. On a scale of 1 to 10, where 1 is not at all important and 10 is most important, how important are each of the following multimodal transportation planning goals?

	Not Very Important									Very Important
	↓									↓
	1	2	3	4	5	6	7	8	9	10
Safety and Security	1	2	3	4	5	6	7	8	9	10
Transportation System Performance	1	2	3	4	5	6	7	8	9	10
Intermodal Connectivity	1	2	3	4	5	6	7	8	9	10
Economic Competitiveness	1	2	3	4	5	6	7	8	9	10
Cost Effectiveness	1	2	3	4	5	6	7	8	9	10
Quality of Life	1	2	3	4	5	6	7	8	9	10

4. To what extent should local, regional, and statewide needs impact transportation investment decisions?
Please rank in order of importance, where 1 is most important and 3 is least important.

Local Needs
 Regional Needs
 Statewide Needs

Name
Occupation
Address
Phone
E-mail

VTrans2025 One Virginia, One Future

**APPENDIX H
DISCUSSION GROUP MEETING SCHEDULE AND SUMMARIES**

A schedule of the Discussion Group Meetings is shown in the table below. Summaries of the meetings follow.

VDOT Construction District	Location	Date	Time
Richmond	Richmond: Science Museum	October 22, 2001	4-7 pm
CANCELLED	South Hill: Southside PDC	October 24, 2001	4-7 pm
Northern Virginia	Alexandria: Martha Washington Library	November 15, 2001	4-7 pm
	Prince William: Prince William County Library	November 19, 2001	3:30-6:30 pm
Salem	Salem: Salem City Library	October 4, 2001	4-7 pm
Bristol	Abingdon: Southwest VA Higher Education Center	September 20, 2001	4-7 pm
Hampton Roads	Hampton: Sandy Bottom Nature Park	November 7, 2001	4-7 pm
	Chesapeake: HRPDC	November 5, 2001	4-7 pm
Lynchburg	Lynchburg: Lynchburg Ramada Inn and Conference Center, Virginia Room	September 24, 2001	4-7 pm
Staunton	Augusta: Augusta County Government Complex, South Board Room	October 25, 2001	4-7 pm
Fredericksburg	Fredericksburg: Rappahannock Regional Library	November 1, 2001	4-7 pm
Culpeper	Culpeper: Culpeper County Library	October 1, 2001	4-7 pm
	Charlottesville: Doubletree Hotel	May 31, 2001	6:30-8:30 pm

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Charlottesville, Virginia
May 31, 2001**

TRANSPORTATION MODES

1. Roads

- Two-lane widening projects should have the provision to study alternative high capacity passenger transit.
- New roads should have all modes of travel balanced between local and regional modes of travel.
- Use traffic measures and urban design measures.
- Use traffic calming measures.
- Provide planning and construction for all pedestrian and bicycle facilities and traffic calming measures on new and existing roads.
- Route 29 Study - National Significance- should go beyond one-mile limit corridor. There should be more flexibility to take into account local and urban conditions.
- Support locally driven location and design studies (i.e., Meadowcreek Parkway). Localities should be able to hire their own consultants, not necessarily at local expense. Cooperative process is important.
- Connect instead of divide communities.
- Get the most out of the pavement- multiuse.
- Be context sensitive in road design.
- Provide for better maintenance of VA's infrastructure.
- Use up-to-date technology.
- Be flexible in adapting to local land use plans - more integration, good land use planning.
- Respect wishes and emerging visions of local governments.

2. Passenger Rail

- Need more intercity passenger rail service throughout VA.
- Include regional commuter rail service.
- Local transit service - provisions for high speed rail and commuter service and provide ways to travel to intermodal stations to local communities.
- Need intermodal stations.
- Rail between Charlottesville and Richmond.
- Rail service should be reinstated between localities that used to have them and now do not.
- Connections are needed between trains and airports.
- Local commuter rail service on Route 29 and Route 250.
- Combination of commuter and intercity rail.
- Implement the TransDominion Express proposal of VDRPT.

3. Local Transit

- Increase funding by using flexible state and federal dollars.
- Allow for the flexible spending of primary and secondary road funds for transit service operations.
- Allow localities to generate revenue through gas tax and other measures (e.g., assessments).
- Make it easier to establish regional transportation commissions with taxing authority.
- Establish a dedicated and reliable funding source for transit in VA. The formula should be equitable as compared to road funding (i.e., the local match for transit should be no greater than that for roads).
- More connectivity between transit companies (e.g., UTS/Charlottesville Transit)
- Consider ridesharing within the public transit realm (now funded differently).
- Consider transit ways (i.e., dedicated transit lanes) with road widening projects.
- Signal preemptions for buses.
- Actively engage in transit oriented design and land use strategies and planning.

4. Freight

- Implement double track proposal in Shenandoah Valley (Senate Doc. 30).
- Get trucks off of I-81.
- Use waterways and rail lines to get freight off the road.
- Promote local commerce (trade local).
- Keep trucks off of country roads.

5. Aviation

- Support local airport authorities.
- Provide transit service to airports.
- Integrate funding with transit.
- Provide high capacity transit from terminal to urban destination.

6. Bicycles

- Easier access to bike lanes and system- safety considerations.
- Bicycles should be considered a mode of transportation.
- More equity for local match funding as compared to roads.
- Establish an off road system for bike/pedestrian greenways.
- More flexibility for lane location.
- Barrier or separation between bike lanes and roads.
- Increase state and federal funding for bicycle projects.
- Maintain bike lanes.
- Use federal safety dollars for bike lanes.
- Have a very comprehensive bike plan - high and low speed bikes.
- Work with local and state police to enforce legal rights to use the roads.
- Educate stakeholders.
- Pay attention to safety concerns - paint and signage.

- Use of bike lockers, parking, and racks to be funded as part of bike projects.
- Use state and federal funds for bike safety research.

7. Pedestrian

- Increase spending of safety dollars on pedestrian facilities (as outlined by federal highways).
- Wheelchair markations, thin strip of metal to warn leaving sidewalks and entering roads.
- Provide audible warnings at intersections.
- Sidewalks are not adequately maintained. Snow removal from streets. Safety measures and maintenance.
- Make every urban, suburban and town street safe for pedestrians.
- Connect destination points for pedestrians.
- Lower the local match required for the construction of pedestrian projects (currently 50%) to be equal to that of road projects (2% or less).

8. Ferry Service

- Continue maintenance for tourists and transportation.
- More efficient methods (hydrofoil vs. paddlewheel).

TRANSPORTATION ISSUES

1. Safety

- All railroad crossings should have lights and gates- increase funding.
- Spend federal money on bike, pedestrian, and traffic calming measures as allowed under federal guidelines.
- Modernize lights, reflective materials for signs, and striping on the roads.
- Use a more comprehensive set of criteria instead of just accident data.
- Prohibit truck drivers from driving around RR gate or stopping on tracks by revoking their CDL.
- Enforce speed limits on trucks.
- Improve coordination of land use proposals to protect.
- More widespread use of photo red violations (red lights).
- Pave the shoulders especially close to high schools.
- Yield to bus law.
- Target spending for pedestrian /bike/traffic facilities- especially near schools.

2. ITS

- Traffic lights with high technology to monitor traffic volume.
- More attention should be given to the use and efficiency of signals.
- Smart use of signals.
- Increase capacity of existing roads without widening through the use of better signal coordination.

- Emergency vehicles pre-empt in car sound systems.
- Connect to tourism information.
- Offer preboarding payment systems for bus transit.

3. Economic Development

- Visual quality is an important aspect of economic attractiveness.
- Require incentives to industry – include transit access.
- Extra truck lanes at industrial sites should be provided.
- Recognize in VDOT studies (EIS) how roads facilitate the relocation of business activities out of existing commercial centers.

4. Environmental Justice

- All public hearings should be published in all communities appropriately.
- All transportation projects should include outreach to communities that have not traditionally participated (low-income minority), bus notices etc. This is especially important in the early planning stages.
- Expand transit service to underserved populations, especially in rural areas.
- Spend transportation dollars equitably across all levels of the community and across all modes.

5. Mobility

- Incentives to engage employers in helping people get to work, telecommute (use tax incentives).
- Vanpools- ridesharing.
- Construct park and ride lots.

6. Smart Growth and Sprawl

- Educate VDOT planners and engineers in land use planning strategies that can reduce the number of auto trips, trip distances and facilitate bike and walking.
- Use of road standards that are sensitive in urban and suburban areas.
- Road development should be consistent with local land use plan initiatives.
- Develop a means for equitably assessing cost imposed on the public by a developer (impact fees).
- Create a dedicated funding source for park and ride lots.
- Re-examine statutes, zoning ordinances, corrections.
- Recognize and study how new development is induced by road projects.
- VDOT should recognize more pedestrian trips means fewer on road trips, road projects would be impacted.
- Adopt community sensitive road standards.

7. Research

- Pave-in-place materials.
- Tax incentives for innovative, efficient propulsion technology (electric cars, hybrid, LEV).
- Keep it objective and listen.

8. Environmental

- Promote high capacity transit instead of HOVs.
- Promote bike/walking facilities.
- Make sure plans are consistent with environmental goals and developed in a manner sensitive to the environment.
- Improve coordination between VDOT and all state environmental agencies.
- Study interstate – importation of out of state garbage
- Choose the EIS alternative that is less damaging to the environment.

9. ADA

- Have meeting materials placed on tape/Braille.
- Enforce the White King laws.
- Education about the meaning of the law.
- Have VDOT keep a manual- to construct warning signals for audible signals.
- Plastic warning strips should be put on railroad and subway platforms.
- Ensure placement of power/telephone poles, mailboxes, and newspaper boxes does not block wheelchair movement along sidewalk.
- Transportation system should have seamless intermodal connections.
- 1 or 2 percent of gas tax should go to mass or paratransit.
- Promote the value of conservation easements to promote access management.
- Reduce the highway share of the TTF to 75 percent (from 85%) and use this difference to finance Commonwealth fund for intercity rail.
- Eliminate ROW tax shown on phone bill and use to fund some of this (not all agreed).
- Eliminate tax on railroad right-of-way property in instances where state funded transportation is carried.

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Abingdon, Virginia
September 20, 2001**

TRANSPORTATION MODES

1. Roads

- Complete I-77 and I-81.
- Study I-74 and provide more information on the project like North Carolina has done.
- Streamline the project development process.
- Complete the Coalfields Expressway.
- Complete Rt. 58 through Grayson County and the rest of the state. Address the need for bypasses on Rt. 58.
- Upgrade US 21.
- Complete Rt. 94 from Fries northward through Carroll County.
- Continue efforts to provide biking trails.
- Increase funding and coordination for the Rural Transportation Planning Program.
- Focus on maintenance of existing facilities as well as construction of new infrastructure.
- Improve Rt. 23 in Lee and Scott Counties to handle anticipated truck traffic from the Coalfields Expressway.
- Improve Rt. 460.
- Place more emphasis on planning for and improving secondary roads.
- Focus on bridge improvements and increase funding.
- Return responsibility for interstate maintenance to VDOT staff. Privatization results in loss of jobs and lower wages.
- Ensure funding and commitment to road maintenance.
- Improve coordination between the PDCs and VDOT.
- Virginia has a good primary system, however, it is necessary to identify where future breakdowns may occur and meet those challenges.

2. Passenger Rail

- Provide passenger rail service from Bristol to Lynchburg and then to Richmond and/or Washington.
- Renovate the Bristol train depot, possibly using a TEA-21 grant.

3. Freight

- Divert truck freight along the I-81 corridor to rail or a dedicated truck route.
- Use VDOT's web page to provide truck route information, including appropriate routes and restrictions.
- Provide passing/climbing lanes through the mountains on I-81.
- Increase use of the Weigh in Motion System to improve truck travel.
- Oppose triple trailers on Interstates and primary routes.

4. Local Transit

- Increase funding for transit programs. Recent increases have allowed expansion to provide service to the elderly and individuals without access to their own vehicle. Most rural transit service runs at or near capacity and additional service is needed.
- Permit localities to raise additional funds (e.g., gas tax) for transportation needs.
- Fuel tax money should be returned to the area of origin.

5. Aviation

- Recent terrorist activities are likely to reduce the need to invest in aviation infrastructure. Highways and rail are going to be used more.
- Improve air service to Bristol, Roanoke, and Lynchburg so that “leakage” to neighboring states will be minimized.
- Improve airports near industrial parks to facilitate economic development.

6. Bicycles

- Promote bicycles as a recreational activity and incorporate bicycle facilities into urban transportation planning.
- Improve connectivity between trails. Bike lanes/routes along secondary roads could be used to connect trails.
- Coordinate trail development with VDOT, PDCs, local governments, and state parks.

7. Pedestrian

- Design more overhead pedestrian walks instead of at-grade crossings to separate pedestrians and traffic.
- Improve signage at school crossings.
- Use traffic calming measures on state roads that serve local parks.
- Revise the funding formula by reducing the local match requirement to encourage more pedestrian projects.
- Provide more pedestrian facilities around transit facilities. Provide buffered sidewalks along arterial routes.

8. Ferry

- Increase the capacity and frequency of ferries to the Eastern Shore.

9. Ports

- No comments.

TRANSPORTATION ISSUES

1. Safety

- Reduce the severity of curves and widen shoulders on secondary roads and some of the worst primary roads.
- Upgrade substandard guardrails on secondary roads.
- Pave shoulders on all primary routes.
- Add striping to roads to improve safety in poor visibility situations.
- Continue use of reflectors and rumble strips.
- Develop standard policy for placement of plowable snowmarkings.
- Improve school zone safety by using neon green signs and reducing the speed limit to below 25 miles per hour in urban areas.
- Provide safety improvements at the Claypool Hill intersection of US Rt.19 and Rt. 460.
- Reduce the number of at-grade railroad crossings and provide gates and lights.
- Provide stricter enforcement of truck inspections.
- Improve fog safety technology. Review the system of fog lights near Chatanooga.
- Conduct wind sheer studies.

2. ITS

- Better use of VDOT's web site to provide information on truck permits and construction zones.
- Create an interstate weigh station program similar to the Prepass System.
- Get Variable Message Signs (VMS) operable.
- Expand the Travel Shenandoah System throughout the I-81 corridor and other sections of the state.

3. Economic Development

- Balance the need for limited access facilities with the desire for economic development.
- Coordinate the location of interchanges with local master plans and locations of potential industrial and business development.
- Maintain current alignment for Rt. 58 and Rt. 21 to promote economic development and tourism.
- Improve two-lane primary system routes to accommodate tourism.
- Lay fiber optic cable along new roadways.
- Provide education on the advantages and disadvantages of opencutting across the roads.

4. Environmental Justice

- Communicate through non-traditional means to reach all sectors of the population.
- Schedule public meeting times to accommodate the greatest portion of the population.
- Be cognizant of the fact that most public transit does not provide service at night.
- Use local cable TV to inform public.

- Identify special interest groups through the PDCs.

5. Mobility

- Provide/construct additional Park and Ride lots.
- Coordinate public transit to serve Park and Ride lots to promote mobility.

6. Smart Growth and Sprawl

- Improve coordination between VDOT and localities on local zoning and land-use issues.
- Do zoning in rural areas as well as urban areas.
- Protect view sheds by limiting the number of billboards along the interstate.
- Promote mixed-use development.
- Preserve the local character of an area through design requirements, etc.

7. Environmental

- Refocus emphasis on plants and animals and re-emphasize the human factor.
- Balance growth and nature.
- Preserve the natural environment during construction.
- Continue to promote the Adopt-A-Highway and Adopt-A-Stream programs.
- Emphasize aesthetics during the design stage.
- Look at alternatives to leveling mountains, including building roads over or through them.

8. Other

- Utilize local colleges and research facilities to study road projects.
- Increase highway funding.

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Lynchburg, Virginia
September 24, 2001**

TRANSPORTATION MODES

1. Roads

- Need to 4-lane Rt. 551 between Halifax and Lynchburg and bypass Halifax and South Boston to improve safety, capacity, and economic development.
- Address critical bridge needs throughout the state; bridges need designated funds.
- In South Boston, extend Hamilton Boulevard to the west to tie into Rt. 58 to make a circumferential around the town.
- Need Rt. 58 Riverdale Bypass to prevent flooding, eliminate railroad crossings, and connect to industrial property.
- Provide a southeast bypass of Danville from Rt. 58 East to Rt. 29 South. (This will be under study soon.) There is a study of a 29 Bypass inside the city (Piney Forest Rd. Rt. 29 Business). The bypass may be the only solution to help the flow of traffic.
- Rt. 29 should be upgraded to at or near interstate standards to provide a cross-state alternative to I – 81 and I –95 from the North Carolina state line to Northern Virginia. An access management study for this entire corridor is needed.
- Proceed with recommendations from the Trans-America Corridor Study.
- A special funding program is needed to complete the necessary upgrades to Rt. 29 and Rt. 58.
- Resolve the disparity in funding that results from the fact that the Lynchburg District has no interstates.
- Consider the needs and desires of localities in project planning.
- Employ the use of aesthetics and other measures such as traffic calming instead of widening.
- Need an expanded/dedicated funding program for bridges.
- Coordinate road projects with local comprehensive plans and zoning ordinances.
- Need to pave unpaved secondary roads to improve safety and promote economic development. A special fund may be needed.
- Use primary funds to complete access management projects on secondary roads that improve primary roads.
- Complete the bypass from Madison Heights to South Rt. 29.

2. Passenger Rail

- Provide passenger rail service throughout all cities in the Commonwealth above a certain threshold.
- Coordinate the TransDominion Express and existing passenger rail service (VRE) with High Speed Rail service from Washington DC to Raleigh NC.
- Identify a funding source for Amtrak that is separate from the transportation trust fund.
- Study potential connectivity improvements at rail stations (e.g., parking, shuttle service, etc.)
- Short-run rail trips will be expensive and unpopular because people are too dependent on their cars today.

3. Freight

- Divert truck freight to rail. Double track rail lines along I-81 corridor for freight traffic.
- Develop partnerships at the state-level to provide rail improvements that would allow for freight movement and accessibility for passenger rail.
- Develop an intermodal station/transfer point between rail and truck in the Lynchburg area.
- Continue the Rail Preservation Program.
- Continue and expand the Rail Access Program
- Need to preserve intact rail track corridors.
- Increase rail freight to provide traffic and weight relief to the highway system.

4. Aviation

- Expand the Bill Tuck airport in South Boston and replace the terminal that was recently damaged by fire. Economic development is dependent on having a good airport facility.
- Develop a long-range strategy to reduce leakage to competing airports in other states regions.
- Emphasis should be placed on small urban airports, not the largest airports. Air service should be convenient, competitive, and local.
- Airports should be accessible by multiple modes.
- Need a regional airport for Lynchburg-Roanoke.

5. Transit

- The state should take a stronger role in funding transit and give it the same priority as highways. Alternatively, allow localities to raise funds to provide transit service.
- Provide transit service to individuals with limited transportation options.
- The state should take a larger role in developing and maintaining transit in small urban and rural areas.
- Develop transit service in South Boston and Halifax.
- Incorporate transit components in road planning/construction.

6. Bicycle

- Bike lanes in rural areas are nice for recreation, but not sufficient for meeting transportation needs.
- Consider bike lanes as part of road improvements, particularly near college campuses and schools.
- Include bike lockers, etc. at parking facilities.

7. Pedestrian

- Include sidewalks in road/safety improvements in urban areas.
- Buffer sidewalks in town centers to improve safety.
- Provide crosswalks and appropriate signal phasing at intersections.

8. Ferry

- No comments.

9. Ports

- Consider Lynchburg as a site for an intermodal transfer or inland port.

TRANSPORTATION ISSUES

1. Safety

- Increase funding for safety projects.
- Divert hazardous materials to rail from highway.
- Improve signage and awareness of drivers at pedestrian crosswalks.
- Divert freight from highway to rail.
- Continue efforts to educate the public on rail crossings.
- Explore feasibility of mandating the use of safety equipment by child cyclist.
- Put rumble strips on the center line of two-lane roads.

2. ITS

- Integrate ITS technologies into new and existing roads.

3. Economic Development

- Continue to support the Industrial Access for Secondary Roads Program.

4. Environmental Justice

- No comments.

5. Mobility

- No comments.

6. Smart Growth/Sprawl

- No comments.

7. Environmental

- Coordinate road and land use planning.

8. Other

- Explore organization improvements. Establish a Multimodal Secretary to report to the Governor.

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Culpeper, Virginia
October 1, 2001**

TRANSPORTATION MODES

1. Roads

- Use more neighborhood and urban style streets in subdivisions.
- Encourage development that generates jobs locally. Include this type of development in local comprehensive plans and change zoning laws, as necessary.
- Instead of widening two-lane roads, pave the shoulders for bicycle traffic to alleviate the congestion.
- Accommodate pedestrians and bicycles on all roads.
- Subsidize rail as an alternative to roads.
- Include run-off controls and remediation for roads adjacent to water. Balance the road width and the associated runoff.
- Generate funding from tolls in the larger urban metro areas based on auto occupancy. This would provide an incentive for carpooling.
- Get funding from user fees as opposed to using taxes or general funds.
- Provide incentives for people to get out of automobiles, including providing rail service, providing commuter lots with adequate parking, providing tax breaks for people who work close to where they live, encouraging teleworking, and providing employer tax breaks for employees who commute by transit, vanpool, or carpool.
- State and local governments should provide the same incentives as the Federal government to individuals using transit and teleworking.
- Provide roads for people who want to drive slowly.
- Hold developers responsible for transportation improvements.
- Design roads for elderly drivers (e.g., slower speeds and better signage).
- Build roads wide enough for center lining. Use a single strip center line to allow for wider shoulders.
- Ensure individual projects compliance with local comprehensive plans.
- Counties should follow their comprehensive plans since they set project priorities for VDOT. The Secondary Six-Year Program works very well; more coordination is needed for the interstate, urban, and primary portions of the Six-Year Program.
- Improve communication between VDOT and local governments on major projects.
- Eliminate the policy that requires at least 500 vehicles per day before centerlining.
- Use context sensitive design.
- Reduce the speed limit on all secondary roads to 45 mph or less due to safety and elderly driver considerations. Design roads so that people drive a safe speed.
- Many secondary roads are safely driven at 55 mph, speed limit changes should be made on a case-by-case basis.
- Coordinate traffic signals to improve traffic flow.

- Coordinate development throughout the Rt. 29 corridor. Plan and communicate to ensure proper planning now and avoid sprawl.
- Analyze the secondary land use impacts of road improvements to provide local governments the tools to make better decisions.
- Employ a “Fix-it-First” policy - maintain existing roads before building new ones.

2. Passenger Rail

- Connect Washington DC, Norfolk, Richmond, and Winchester to Bristol. Existing rails are adequate for passenger service.
- Continue to renovate old rail stations for rail service.
- Study why attitude toward rail is different in this country than it is in Europe. Educate people about different transportation modes to change the “Route 66” mentality.
- Provide high speed rail service.
- Convert all abandoned rail lines on state property to pedestrian/bike trails.
- Study why rail lines were abandoned in the first place. May need to use old rail lines to meet transportation needs. Once the rail lines are taken up and the rights-of-way are gone, the line is lost.
- Attract industries to abandoned rail lines that can be used as feeders to main lines. Rail lines are abandoned because they are no longer profitable.
- Subsidize railroads – we expect rail lines to be profitable but not roads.
- The state should maintain and acquire all abandoned rail lines for future transportation needs.
- All rail projects should accommodate bikes (e.g., passengers should be able to put bikes on trains.)
- Balance rail planning with road building.
- Deal with funding imbalance now to ensure the success of the multimodal vision.
- Consider rail alternatives before building/widening roads.
- Establish a transportation trust fund to go to rail, including Amtrak, VRE, etc. There is a program that provides state funds to short lines for freight moving.
- Provide access to rail corridors, passenger rail benefits corridors.
- The state should build rail facilities and then let private companies operate the rail service.
- Alleviate congestion by increasing rail and transit usage.
- Tax trucks to build rail infrastructure.
- Need a federal effort, similar to the interstate system, to build a rail system.

3. Freight

- Support double-tracking, bridge raising, and other track modernization improvements to promote rail.
- Address at-grade crossings where there are large traffic volumes.
- Update existing track from Norfolk to Hagerstown as an alternate to I-81.
- Enable higher train speeds so that trains can compete with trucks. Encourage Norfolk Southern and CSX to replace second tracks so that trains can compete with trucks.
- Analyze the costs of expanding rail versus expanding long sections of interstates.
- Develop pick up points for packages in lieu of home delivery to reduce the number of trucks on local roads.
- Develop separate truck corridors.
- Support technology for the Weigh-in-Place program.
- Allow communities to control truck usage of local roads unable to support truck traffic.
- Prohibit triple trucks on Virginia roads and do not support increasing weights or lengths.

4. Aviation

- Make airports multi-modal (e.g., connect with passenger rail, bikes, and transit).
- Extend Metro to Dulles.
- Provide bike lockers at airports.
- Allow passengers to take bikes on airplanes without being charged extra.

5. Transit

- Integrate transit service with park and ride lots and train stations.
- Improve reliability and comfort of transit (e.g., provide shelters, better seats, more frequent service).
- Ensure pedestrian access to all bus stops and stations.
- Increase the transit share of state transportation money. Decrease local match.
- Encourage localities to develop comprehensive plans to support transit.
- Develop a competitive transit system.
- Make transit free in major corridors.
- Explore transit incentives that encourage people to use transit to go to work.
- Reestablish local transit in Culpeper.
- Make sure incentives offered to commuters in rural areas are the same as those offered in larger urban areas (e.g., Guaranteed Ride Home program).
- Provide free bus service to county employees.
- Recognize that teleworking could reduce the need for additional transit service.
- Develop a regional transportation commission to look at issues on a regional basis.
- Provide incentives for employers to use creative programs, including flex time.

- Improve inter-city bus service by providing features such as headsets, leg rests, reclining seats, fixed schedules, seat reservations, multi-time and route choices, and bike racks.

6. Bicycles

- Equip all buses for bikes to open up bicycling opportunities for all.
- Provide a dedicated funding source for bike projects whether or not they are connected to a road projects.
- Standardize the symbol designating bike lanes – use a bike symbol or diamond.
- Recognize that some roads are designed and built for cars and not always suitable for bikes. Mixing bikes and cars can create safety issues. Enhancement funds can be used for bike projects.
- Need to distinguish between recreational and non-recreational bike use. Unpaved trails don't work well for transportation.
- Find a way to safely share the existing system - bicyclists are going to the same places as drivers. A separate system would be too costly.
- Develop criteria for use of bike facilities as with highway facilities to rationalize their development.
- Provide bike facilities that are off the driving surface (e.g., road shoulders).
- Encourage localities, especially in rural areas, to work with VDOT to develop bike plans.
- Educate people on benefits of using bikes for errands, commuting, etc. Provide lockers and racks on transit and at airports to encourage this type of usage. Remove obstacles to using bikes.
- Establish a pedestrian/bike committee in every construction district and MPO.
- Dedicate a larger share of transportation funding to bike projects.
- Require the same local match for bike projects as for roads.
- Require the minimum design standards for roads to accommodate bikes and pedestrians.
- Establish a special fund to provide bike and pedestrian facilities.
- Couple bike trail development with maintenance.
- Accommodate the East Coast Greenway - part of an interstate bike system.

7. Pedestrians

- Make the local match requirement equal to that of road projects.
- Charge drivers that hit pedestrians a fine, which can be used for spot improvements.
- Build sidewalks around schools and make sure they are clear of all obstacles (e.g., street signs, utility poles, and mail boxes).
- Design roads with pedestrians in mind.
- Supply sidewalks on at least one side of the road to encourage pedestrian traffic.
- Identify a local funding source for pedestrian projects.
- Increase the share of transportation funding for pedestrian projects.
- Promote traffic calming in developed areas. Design roads to promote pedestrian safety.

- Use recycled materials to build sidewalks to reduce costs.
- Reduce subdivision standards so roads can be narrower - wider roads encourages speeding.
- Develop pedestrian plans to document localities' needs.
- Ensure that emergency vehicles have clear access - if roads are too narrow, access is more difficult.
- Provide interconnections between subdivisions for both pedestrians and emergency vehicles.
- Use the same run off mitigation for sidewalks as for roadways.

8. Ferry

- Consider going up and down as well as across rivers.
- Promote new service where appropriate and maintain existing service.

9. Ports

- Maintain good rail connections.

TRANSPORTATION ISSUES

1. Safety

- Improve visibility at night by adding more reflectors, controlling lighting from the side, and putting trees in the median.
- Repaint roads quicker after repair work is done.
- Recognize problems that rumble strips pose to bikers; leave a portion of the shoulder available for bicyclists.
- Use different specifications for lighting rural intersections.
- Provide increased funding for rural areas for spot improvements (HES funding).
- Provide new and lengthen existing acceleration/deceleration lanes.
- Use more traffic calming measures.
- Use roundabouts to improve safety.
- Eliminate unnecessary road lighting. Use reflectivity whenever possible.
- Enforce speed limits.

2. ITS

- Increase the use of variable timing and other computerized signalization systems to reduce congestion.
- Look into congestion pricing.
- Recognize the limited application of ITS in rural areas.

3. Economic Development

- Ensure that roadway development is a part of growth, not before or after it.
- Encourage rural areas to see the "big picture" and understand the impacts of economic development..
- Locate industrial parks near existing rail lines and roads.

- Consider urban growth boundaries in the fastest growing areas to reduce sprawl.
- Focus transportation funding on emerging growth areas throughout the state.

4. Environmental Justice

- Provide more resources to transit to provide services to underserved populations.
- Make more of an effort to reach out and involve underserved populations in the decision-making process.
- Provide non-automobile (e.g., bike and pedestrian) access to jobs and services.
- Treat low income and minority populations equally.
- Promote jobs inside of urban areas to provide more job opportunities for low income and minority populations.

5. Mobility

- Provide a dedicated funding source to park and ride lots.
- Focus on mobility of the person, not the vehicle.
- Stop trying to pave the world.
- Distinguish between the different needs/views of rural and urban areas.

6. Smart Growth and Sprawl

- Build out urban areas before destroying open space.
- Define suburban, urban, and rural.
- Locate new public use facilities within growth areas and designated development areas – e.g., post offices.
- Consider relocating major traffic generators to reduce congestion.
- Encourage localities to use their comprehensive plans to encourage mixed-use development.
- Provide intra-inter city connections for bikes and pedestrians.
- Recognize the connection between transportation and land use. Perform secondary land use analyses on new projects.
- Develop access management plans.
- Make local comprehensive plans for enforceable.
- Provide modeling analysis of land use impacts of road projects and economic development to localities.
- Give VDOT land use authority.

7. Environmental

- Perform more street sweeping to reduce runoff and improve facilities for bike use.
- Use more clean fuel vehicles.
- Give priority to projects that reduce VMT.
- Provide incentives to encourage people to use bikes for short trips.
- Conduct a broader environmental assessment of projects; study more than just the project footprint, including secondary impacts.

- Develop rural road standards so that improvements can be made without destroying an area's rural character.

8. Other

- Reinststate the car tax.
- Reduce signage on back roads.
- Put off paving good surfaces to increase funding.
- Eliminate barriers that interfere with sight lines at intersections (e.g., Rt. 211).
- Study why biking/walking to school is declining and provide safer routes.
- Plan growth and land use to make bike transportation more practical.

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Salem, Virginia
October 4, 2001**

TRANSPORTATION MODES

1. Roads

- Provide aesthetic treatments for roads (e.g., landscaping).
- Build roads with a conduit for rail, where rail is likely to follow in the future.
- Implement more technology like the Smart Road.
- Tear down urban interstates and replace them with urban boulevards with at grade intersections in order to reverse the isolation and impoverishment of inner cities caused in part by such highways.
- VDOT needs a long-term vision at least 50 years into the future.
- Consider multimodal corridors, not just highway corridors (e.g., reserve medians for rail, or an exclusive truck way for I-81).
- Achieve “buy-in” by clearly stating goals and pick corridors to emphasize.
- Stop the practice of “thinking regionally, but acting locally.”
- Consider the total transportation system, including all modes.
- Determine statewide goals and base transportation decisions on these goals. Instead of saying “support airports”, for example, we should be more specific and say that we should put a road from x to y because we want economic growth in that area, or that we shouldn’t put a road from x to y because we want to keep that area green.
- Recognize that the basic question of the transportation system’s purpose is a political question.
- Provide intermodal options in Roanoke, including bicycle, pedestrian, and passenger rail options.
- Develop true cost pricing - a system where the users of roads and highways bear a greater portion of the true cost of using that infrastructure.
- Some studies show that user fees do pay for road maintenance.
- Use context sensitive road design.
- Provide education on funding, planning, and the other (hidden) costs of transportation like insurance, taxes, etc.
- Provide statutory incentives for local governments to plan for alternatives to roads.
- Allow localities to plan and design their own roads.
- Restrict hours for truck operation on interstates.

2. Passenger Rail

- Engineer tracks to support passenger rail (e.g., provide double-tracking so that passenger rail does not have to compete with freight.)
- Support rail service with state funds.
- Consider alternative fuels/clean technology for trains (e.g., Maglev).
- Explore the possibility of using Maglev technology for intercity rail.

- Provide bicycle and pedestrian access to rail stations.
- Provide both statewide and regional passenger rail service.
- Provide public education on the benefits of using rail.

3. Freight

- Provide intermodal freight transfer stations to get freight off trucks and onto rail lines. Long haul trips should be by rail and short haul trips should be by truck.
- Emphasize bio-regionalism (using an area's resources to sustain itself) in terms of economic development.
- Change the tax structure to eliminate favoring trucks (by taxing railroads) and provide state subsidies for rail.
- Anticipate the impact of NAFTA on truck traffic in the state.
- Re-examine the safety of double trailers and the feasibility of shifting some of this freight to rail.
- Anticipate changes in consumption patterns and their impact on the transportation system.

4. Aviation

- Provide multimodal access to airports.
- Emphasize the use of high-speed rail for short trips (<300 miles) and air transport for longer trips.
- Consider the importance of NASA's small aircraft transportation program.

5. Transit

- Minimize the use of transit buses in favor of trolleys or alternative fuel vehicles.
- Introduce vanpooling.
- Re-align the relationship between buses and other forms of transit.
- Provide fixed rail facilities.
- Encourage the use of buses as connectors to other transit lines, instead of the main transit vehicle.
- Work toward changing our current transportation system, which favors personal vehicles, to one that is more transit oriented.
- Encourage localities to control growth by managing infrastructure development (e.g., water, sewer, roads).
- Recognize the relationship between transportation and land use and recognize that localities have authority over land use decisions.
- Investigate the availability of futuristic vehicles.
- Expand demand responsive service.
- Anticipate the need for intermodal connections (e.g., park and ride lots).
- Anticipate the impact of retired individuals on the demand for transit services.
- Consider transit a civil right in urban areas since it allows people (especially the poor) to hold jobs throughout an urban area without forcing them to own cars.

6. Bicycles

- Provide bike lanes on minor arterials, collectors, and major arterials.
- Use the Netherlands as an example of a bicycle system. There are paved, signed, safe bicycle facilities.
- Provide more bicycle facilities in urban areas.
- Incorporate bicycle facilities into new road designs and fund with the same formula.
- Shared bike lanes are paid for by the system funding the road; enhancement funds are also available for bike facilities.
- Allow localities, neighborhoods, and semi-rural areas more flexibility in how transportation funds are spent to encourage the development of non-automobile forms of transportation.
- Eliminate the disparity between urban and secondary road funding; counties must pay more of a match than urban areas. Due to political and financial concerns, cities often decide not to invest in bike facilities.
- Streamline the project development process.
- Improve notification and coordination between jurisdictions and neighborhoods with respect to the location of bike routes on local bike plans.
- Develop statewide bike routes.
- Use sensors that recognize bicycles at intersections.

7. Pedestrians

- Provide safe pedestrian facilities (e.g., not in the road).
- Provide signals for pedestrian crossings.
- Provide more pedestrian facilities in suburban localities counties.
- Enforce the law - cars yield to bikes, bikes yield to pedestrians. Give pedestrians priority.
- Provide shade on sidewalks.
- Consider safety and other practical implications – fixed objects such as trees kill and the shade slows snow/ice melting.
- Provide pedestrian and bicycle access to schools.

8. Ferry

- No comments.

9. Ports

- Consider an inland port in the Roanoke area.

TRANSPORTATION ISSUES

1. Safety

- Recognize the tradeoff between safety and shade with regard to trees. There is too much emphasis eliminating shade to prevent ice development.
- Accommodate pedestrians at intersections.
- Provide more signage at intersections so that drivers know to yield to pedestrians.

- Eliminate at-grade rail crossings.
- Enforce speed limits on interstates, especially of trucks.
- Emphasize use of turn signals..
- Explore alternates to weave lanes at interstate interchanges (e.g., where acceleration and deceleration lanes overlap).
- Streets designed to 85th percentile standards are unsafe for other non-vehicular users.
- Discontinue wide, flat, straight street design because it encourages speeding.

2. ITS

- Continue to introduce this into the planning process to increase system efficiency.

3. Economic Development

- Need to decide the purpose of building roads. Consider regional development, using roads to encourage economic development, and community needs.
- Tie transportation policies to land use.
- Make the road fit the circumstances.

4. Environmental Justice

- Transportation decisions should reflect the community not just those who have more resources. The urban poor are disproportionately harmed by our transportation policies. Transportation choices have done great harm to urban neighborhoods subjecting them to pollution and noise and making them dangerous places.

5. Mobility

- Use more coordinated street grids rather than collector roads because they provide multiple routes and distributes traffic better.
- Provide more pedestrian access in towns and cities.
- Make park and ride lots multimodal.
- Provide more park and ride lots.

6. Smart Growth & Sprawl

- Connect land use and transportation.
- Allow localities to spend money on transportation facilities that lead to compact growth.
- Educate local governments on the availability of funding sources and smart growth tools.
- Need to provide education, information and clarification regarding sprawl and its impacts.
- Promote telecommuting as a means of accommodating people's desire to live in the suburbs.
- Encourage flexibility in subdivision road standards. Discourage wide roads in subdivisions because they encourage speeding in subdivisions and create stormwater runoff issues.

- Subdivision standards were changed recently. Roads are only as wide as they have to be for fire and school vehicle use. Developers often build roads to their own standards for their own purposes.

7. Environmental

- Consider air pollution and water quality issues.
- Study the use of and ways to control invasive species.
- Seek more public input on the revision of the tree cutting policy.

8. Other

- Employ sound financial practices.
- Ensure maintenance funding.
- Educate drivers on the true cost of automobile driving and put a user fee in place. Provide incentives and disincentives to automobile use.
- Educate local governments on mobility, transit oriented development, pedestrian friendly development, the connection between land use and transportation, and public investment policies.
- Incorporate boating and recreational access when building roads.
- Understand that most of these suggestions are not VDOT decisions; they are local government and state legislature decisions. VDOT must follow laws, including national environmental, design, and safety standards. While the General Assembly can dictate specific tasks, VDOT must still meet these standards.
- Look long term and develop a vision. Seek buy in from everyone, including the General Assembly. The vision should be put into law. It may come down to a political decision. Funding is absolutely necessary to make it a reality.
- Provide funding to meet ADA requirements.

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Richmond, Virginia
October 22, 2001**

TRANSPORTATION MODES

1. Roads

- Rebuild I-95 exit 78 (Boulevard) to serve as a major gateway to Richmond and provide access to major attractions, including city parks, museums, sports complex, etc.
- Reduce the emphasis placed on and subsidies for roads. Emphasis should be placed on two-lane roads over four-lane and wider roads.
- The ‘Roads’ section is not good place to begin the discussion.
- Build all new roads with bike lanes and retrofit existing roads with bike facilities.
- Improve coordination between localities and the state for the statewide transportation plan.
- Emphasize improving and enhancing existing roads, not building new roads.
- Continue working with communities and listening to their needs to develop “Win-Win” solutions.
- Develop centralized transportation systems to better transport the general population, especially for the disabled.
- Require trucks stay in the right lane, except for passing.
- Use signal synchronization technology to coordinate traffic signals, avoid excess stopping, and keep traffic flowing.
- Evaluate transitions from one interstate to another and eliminate bottlenecks (e.g., I-64 and I-95 at Bryan Park).
- Continue to study the Rt. 460 corridor as an alternative route to I-64. The Rt. 460 corridor provides considerable economic development potential.
- Employ more flexibility with design standards and balance the need for safety with the need to move traffic.
- Emphasize and enhance the state’s natural beauty by limiting billboards, working with zoning at intersections, and maintaining a more “natural” look for roadside vegetation.
- Prohibit construction on weekends, except for emergencies.
- Define priorities. Emphasize intermodalism and the potential of other modes to solve traffic problems traditionally solved through road construction.
- Improve coordination between all levels of government to improve interconnectivity and avoid mistakes that other states have made.
- Coordinate special events with intermodal planning and construction scheduling.
- Provide incentives for non-auto users and alternative fuel vehicles.

2. Passenger Rail

- Upgrade rail facilities to help take trucks off roads

- Bring high-speed rail to Virginia.
- Use rail service to compliment air service for trips of 200 to 400 miles. Replace trips of two hours or less with rail trips.
- Fund rail improvements with public dollars like airways, waterways, and roads.
- Improve rail infrastructure to enhance both high-speed passenger rail and freight rail service.
- Include rail in the planning process to identify possible savings by using alternate modes.
- Encourage rail use.
- Coordinate railroad crossings with VDOT.

3. Freight

- Enforce speed limits for trucks on interstates using ITS and other Smart Highway Systems.
- Require truckers to pay for the use of the road.
- Divert freight movement from roads to rail lines and waterways.
- Explore locations for intermodal facilities to transfer freight from truck to train.

4. Aviation

- Emphasize coordination between air and rail to ensure the timely movement of people.
- Provide transit service to RIC.
- Provide connections between rail lines and airports.
- Encourage FAA to upgrade computer systems using the “Free Flight” system.
- Work to reduce public fear of air travel.
- Employ better land use policies around airports to address noise issues and avoid locating potential hazards nearby.

5. Transit

- Give transit projects the same footing in terms of funding as other transportation projects. Give transit priority over roads.
- Make transit cost effective to get people out of their cars.
- Provide coordinated and affordable paratransit service and centrally located transit hubs. Eliminate artificial boundaries that raise fares.
- Use alternative fuel transit buses.
- Provide more park and ride facilities.
- Put bike racks on all buses.
- Promote regional transit for job access.
- Lower the local match required for transit capital and operating expenses.

6. Bicycles

- Use electric power rights of way for bike trails.
- Provide roads with wide shoulders to accommodate bikes. Bike lanes adjacent to vehicle lanes make roads too wide and encourage drivers to speed.
- Provide bike lanes separated from vehicle traffic with a natural buffer.

- Complete the Richmond Regional Bike and Pedestrian Study.
- Reserve a portion of the Highway Trust Fund (e.g., 1 to 2%) for bike and pedestrian facilities.
- Provide more bike racks within cities.
- Rethink policy on which road facilities (e.g., bridges, etc.) are open to bike traffic.
- Provide safe crossovers on major roadways and other barriers to bicyclists and pedestrians.
- Educate bicyclists on safety issues.

7. Pedestrian

- Allow narrower subdivision roads to reduce speeds and increase safety.
- Encourage sidewalk construction - require sidewalks in subdivisions.
- Increase flexibility and improve coordination between VDOT and localities.
- Encourage developers to design street grids instead of cul-de-sacs.
- Provide pedestrian crossings in areas with high disabled populations.
- Enforce the law requiring motorists to yield to pedestrians at marked crosswalks.
- Lower the local match required for construction of pedestrian projects to be equal to that of road projects.
- Include the cost of sidewalks in the total project, as with curb and gutter infrastructure.
- In subdivisions, design roads for pedestrians and alleys for vehicles.
- Examine the cost benefit of pedestrian projects.
- Encourage shopping within or close to subdivisions for pedestrian accessibility.
- Require sidewalks along major arteries.
- Limit access and curb cuts on certain roads to improve pedestrian safety. Encourage the use of service roads.

8. Ferry

- Continue to operate the Jamestown Ferry.
- Promote ferry use.
- Provide bike and pedestrian facilities and connections.
- Continue to subsidize ferries to promote tourism.
- Maintain and improve existing ferry service.

9. Ports

- Eliminate clearance and other restrictions to facilitate freight movement.
- Provide intermodal facilities and coordinate services with rail.

TRANSPORTATION ISSUES

1. Safety

- Stop using “safety” as an excuse to widen and build new roads.

- Make it easier for communities to ban through-truck traffic on roads not designed for trucks when alternate routes exist.
- Use traffic circles.
- Promote redundancy.
- Divert freight from roads to rail.
- Reduce the use of double tractor trailers. Do not allow longer, wider and heavier trucks than are currently permitted.
- Educate motorists on bike and pedestrian safety. Include in drivers license test.
- Define “safety” in the multimodal context and develop safety measures.
- Spend Federal money on pedestrian and bike safety programs.

2. ITS

- Continue to expand ITS, especially on interstates.
- Continue the use of computerized signalization systems to increase road capacity.
- Install transponders in emergency vehicles so they can change traffic signals.
- Continue integration of ITS into transit (e.g., real-time information, transit passes, ticket purchase through payroll deduction, etc.).
- Standardize computerized toll systems throughout the country.

3. Economic Development

- Coordinate road planning with other types of planning, especially affordable housing.
- Define goals for economic development.
- Recognize the connection between road infrastructure and economic development.
- Provide road and rail service to industrial parks.
- Coordinate industrial development with intermodal facilities development.
- Provide incentives for using existing buildings where roads already exist (e.g., brownfields).
- Provide incentives for secure bike parking in industrial developments.
- Ensure that every neighborhood has access to public transportation and shopping.

4. Environmental Justice

- Provide pedestrian facilities to accommodate individuals without cars.
- Reach out to communities that do not usually participate, especially in the early planning stages.
- Require commuters and truckers to pay for the use of the roads. People using small rural and city streets are paying most of the taxes so that commuters and truckers can have improved interstates.
- Spend transportation money equitably throughout all levels of the community and all modes of travel.
- Investigate the use of congestion pricing.

5. Mobility

- Consider needs of old, young, and those who cannot drive.
- Emphasize the need for passenger rail service.
- Engage in joint land use and transportation planning efforts to reduce dependence on automobiles.
- Provide transportation choices for citizens.
- Place a priority on transit improvements to remediate the historic lack of funding for transit.

6. Smart Growth and Sprawl

- Reorganize so that a Director of Smart Growth reports directly to the Governor, as in Maryland.
- Develop regional agencies to coordinate planning of large-scale regional transportation projects.
- Consider the effects of transportation improvements on future land use.
- Require a smart growth component in the environmental process.
- Work with local governments to develop access management plans. Promote the use of conservation easements as part of the management strategy.
- Protect existing roads from development that prevents them from being able to serve their original purpose.
- Limit curb cuts.
- Recognize and study how new development is induced by road projects.

7. Environmental

- Protect existing natural resources when building new roads or widening existing ones.
- Avoid widening scenic byways to improve performance.
- Avoid the use of toxic chemicals for control of roadway vegetation.
- Use plants to prevent erosion on hills adjacent to roadways instead of rocks.
- Expand wildflower planting along roadways.
- Promote the use of alternate modes to improve air quality.
- Include habitat crossings in all transportation projects.

8. Other

- Restrict VDOT to building and maintaining roads, and let another agency do transportation planning.
- Address land use planning in the statewide transportation plan.
- Remove politics from the transportation planning and programming process.
- Include transportation demand management elements (e.g., telecommuting, etc.)
- Expand ITS to provide other services to citizens in addition to transportation.
- Develop a greater amount of coordination of all elements of transportation.
- Coordinate the statewide transportation plan very closely with local transportation plans.
- De-politicize the CTB; members should have transportation expertise. There should be planners on the CTB.

- Define the mission of the statewide transportation plan and clearly define terms. Develop measurable objectives.
- Hold public hearings for major projects – not public information meetings.
- Include a list of statewide projects in the statewide transportation plan. Meet the requirements for metropolitan area plans.

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Staunton, Virginia
October 25, 2001**

TRANSPORTATION ISSUES

1. Safety

- Fully shield roadway lighting to eliminate glare and light pollution.
- Limit weight and number of trailers on tractor-trailers.
- Enforce truck speed limits.
- Encourage movement of oversized loads (e.g., heavy machinery) and hazardous materials via rail instead of interstates.
- Use more traffic calming techniques in urban areas.
- Provide more bicycle access on scenic roads.
- Ensure that bridges can accommodate the weight of machinery that must use them (e.g., farm machinery in rural areas).
- Recognize that ensuring safety may sometimes require exceeding Federal and state safety standards.
- Require cars and trucks to operate at separate times, like the Autobahn.
- Use rail to transport container trucks.
- Limit truck traffic to certain roads and/or lanes. Provide separate car and truck lanes.
- Enforce minimum speed on interstates.
- Avoid designing roads to encourage excessive speeds.
- Provide different traffic lights for day and night. The new super green traffic lights are too harsh at night in rural areas.
- Provide transportation options to older populations, especially in areas with no public transit.
- Allow localities to ban through trucks on roads not designed to carry them.
- Provide incentives to localities to provide alternative transportation options - bikes, trails, transit, etc.
- Consider the impact of road chemicals and pesticides used for maintenance, etc.
- Provide separate rail lines for passenger and freight movement.
- Recognize that technology cannot replace humans in some instances (e.g., enforcement).
- Increase the training required to obtain and keep a driver's license.
- Address the use of cell phones and in-car computers.
- Educate the public on the benefits of walking and biking.
- Provide safety and security at every point where people change their modes (e.g., park and ride lots, bus stops and stations, etc.)

2. ITS

- Focus on immediate maintenance issues before investing in expensive ITS.
- Use technology to track vehicle operations for enforcement purposes and to identify needs and resources efficiently.
- Use the Internet to provide real time information on traffic problems and road conditions.
- Synchronize traffic signals.
- Avoid encouraging the use of cell phones and personal computers while driving.
- Getting hardware on roads so that motorists can access information through their own PCs.
- Use technology to provide information to motorists and coordinate carpooling, etc.

3. Economic Development

- Coordinate with localities before building new roads. Include local input in planning during the early stages.
- Preserve vistas and scenery.
- Focus development near towns and existing development. Protect farms.
- Recognize that accessible alternative transportation promotes economic development.
- Provide access from rural areas to businesses and services.
- Coordinate industrial development between localities and the state.
- Accommodate truck traffic around industrial parks.
- Coordinate with localities so that roads are constructed where localities want to focus development.
- Use existing under-utilized infrastructure; encourage development in existing facilities.
- Explore the use of school buses as public transit buses.
- Plan development, ensure consistency with communities, and seek input of residents.
- Include tourism in the definition of economic development.

4. Environmental Justice

- Recognize that low income and minority populations may work nontraditional schedules and public transit does not usually operate at hours that would best accommodate them.
- Get the underserved to the table, remove obstacles to their participation, and provide information and access.
- Advertise in minority newspapers and minority languages.
- Bring target audiences to the table earlier in the process and do more to get their input at meetings such as this Discussion Group Meeting.

5. Mobility

- Use ITS to more efficiently develop transportation systems.
- Provide “door-to-door” service – not only “curb-to-curb” service.
- Provide more intermodal options in areas with high commuter populations.
- Establish a seamless intermodal transportation system.
- Encourage flexibility in the application of zoning ordinances so that facilities (e.g., park and ride lots) can be used more efficiently.
- Eliminate the inequity in funding between rural and urban areas.
- Use levels of mobility as measures of effectiveness.

6. Smart Growth and Sprawl

- Include communities in road design.
- Seek locality input on new roads and recognize the relationship between new roads and development.
- Consider the environmental impacts of growth (e.g., run-off, pesticides, water pollution, etc.).

7. Environmental

- Minimize light pollution by fully shielding streetlights and/or using reflective material.
- Complete environmental impact statements before the design process begins.
- Design transportation systems to be compatible with the environment.
- Consider non-motorized modes in road design.
- Preserve waterways.
- Control vehicle emissions, especially trucks.
- Use context sensitive design so that improvements do not destroy local characteristics.
- Study the cumulative effects of road improvements.
- Limit truck idling at rest areas.
- Address wildlife issues - ensure that roadside landscaping contains native species and provide wildlife crossovers.

TRANSPORTATION MODES

1. Roads

- Reorganize VDOT and develop an agency that covers all transportation modes.
- Educate the public on funding issues.
- Treat bicycle improvements the same as road improvements.
- Allow for more flexible road standards to meet the needs of localities.
- Seek community input.
- Fix existing infrastructure before building new facilities.

2. Passenger Rail

- Study and copy the successes in Europe.
- Provide frequent and reliable rail service to compete with the personal car.
- Provide equal funding for rail and highways.
- Encourage high-density development. Rail only works well in areas with high population densities. Diffused populations cannot support rail systems without significant subsidies.

3. Freight

- Provide separate freight and passenger rail systems.
- Provide another inland port between Staunton and Roanoke.
- Provide rail access at inland ports to encourage moving freight by rail.

4. Aviation

- Handle luggage separate from passengers with a system similar to Fed-Ex.
- Provide access to markets that provide commercial flights.
- Connect rail and transit systems to airports.

5. Transit

- Provide a unified system; identify barriers to local transportation systems.
- Give rural areas direct access to federal transit funding.
- Prioritize tax dollars.
- Post schedules and route information at each bus stop.
- Provide bike racks on buses.
- Provide more equitable funding for rural areas.
- Eliminate barriers that increase fares at artificial boundaries (e.g., jurisdiction boundaries).

6. Bicycles and Pedestrians

- Integrate bike and road planning
- Provide adequate road shoulders in rural areas.
- Recognize that wider lanes and bigger roads make biking and walking unsafe.
- Protect rights of way and easements for bike facilities.
- Establish a statewide trail system.
- Integrate bikes and rail systems.
- Post more “Share the Road” signs to promote fact that there are shared uses of the road even when a lane is not provided.
- Separate trails and bikeways from vehicle traffic by building buffers.
- Create separate agency to deal with bike issues.
- Provide safe pedestrian crossovers at wide roads in urban areas.
- Avoid changes that improve vehicle safety at the expense of bicyclist and pedestrian safety.
- Identify incentives for localities to provide non-motorized modes of transportation.

- Provide facilities around schools to accommodate increased bike and pedestrian traffic.
- Enforce the pedestrian right of way at crosswalks and provide improved signage.
- Encourage development that facilitates pedestrian traffic.
- Require new development to provide sidewalks.

7. Ferry

- Provide more ferry service.
- Recognize that ferries can be less environmentally intrusive than roads and can provide access to areas not accessible by roads.

8. Ports

- Promote the use of to encourage economic development.
- Link ports to rail service.
- Maintain and expand service.

9. Other

- Develop special design standards for karst environments due to fact that it is extremely sensitive to development and surface disruption.
- Develop rail service in the valley to reduce emissions.
- Facilitate communication between the localities on large regional projects.
- Value historic buildings and take their presence into consideration.
- Provide more flexibility in implementing standards in scenic or historic areas.
- Establish one agency for integrated transportation planning, where all modes are represented under one agency.
- Educate the public on alternative modes of transportation to change the trend (increasing) in vehicle ownership.

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Fredericksburg, Virginia
November 1, 2001**

TRANSPORTATION ISSUES

1. Safety

- Limit driveway cuts to better manage egress and ingress and improve level of service.
- Provide incentives for developers to use inter-parcel connections to limit the number of entrances necessary.
- Use traffic calming techniques to make roads safer for pedestrians and bicyclists.
- Consider bike and pedestrian access when designing roads.
- Improve safety hazards (e.g., horizontal/vertical alignment) on rural roads.
- Improve and integrate transit service to reduce congestion and promote safety.
- Involve residents in transportation planning to ensure that the area's needs are met.

2. ITS

- Use variable message signs to provide real-time information about traffic conditions and alternative routes to drivers.
- Synchronize signals.
- Take the lead in on-board traveler information systems by providing accurate and timely information.
- Provide real-time information on transit service similar to that for roadway conditions (e.g., train arrival times, bus schedules, etc.).

3. Economic Development

- Provide transportation alternatives in rural areas; citizens in these areas are handicapped without a vehicle.
- Consider existing neighborhoods and communities in the planning stages.
- Establish a process for fast tracking projects when economic development opportunities arise.
- Recognize the relationship between land use and transportation facilities. Transportation should be for mobility and access, not economic development. Ensure that transportation facilities continue to serve their intended purpose.
- Be more proactive when balancing economic development and transportation needs for an area.
- Address funding inequity between small and large counties. Small counties do not always get their share of transportation dollars for safety and economic development improvements.

4. Environmental Justice

- Hold meetings at times when most people, especially minorities and the elderly can attend. Reach out to low income and minority populations and increase their ability to be involved in the decision-making process.
- Actively market public involvement by letting everyone know meeting schedules and locations.
- Make more use of libraries, which are usually within walking distance or on a bus line. Provide opportunities for people to comment outside of a formal meeting environment.
- Go to community centers and encourage participation.
- Put more resources into transit and encourage walkable communities.

5. Mobility

- Coordinate with other transportation agencies to develop an integrated vision of mobility.
- Use facilities for more than one use when appropriate (e.g., park and ride lots and bus stops).
- Provide alternatives to interstate travel, such as parallel local routes.
- Limit the use of cul-de-sacs, which prevent mobility and connectivity.
- Provide more sidewalks and bike trails in subdivisions to permit access throughout the development.

6. Smart Growth and Sprawl

- Give VDOT the authority to require adequate public facilities for site plan approval. Require transportation (roadway) concurrency – development must be concurrent with roadway capacity. Allow disapproval of development plans that reduce the level of service to F.
- Provide pedestrian access in developments.
- Promote regional transportation planning.
- Recommend legislation to the General Assembly to strengthen the integration of transportation and land use planning.
- Recommend legislation to the General Assembly to give VDOT the authority to refuse access to new developments.

7. Environmental

- Do concurrent MIS and EIS studies when new roads are proposed.
- Address ways to integrate public and private funding in transportation projects.
- Require developments that impact roadways to contribute to the funding of improvements.
- Use resources to look at Virginia's development as it relates to the health of our environment, particularly the Chesapeake Bay.
- Address air quality conformity in areas not meeting minimum standards.
- Encourage the use of alternative transit modes to help improve air and water quality.
- Use "low-impact" development standards when constructing new roads.

TRANSPORTATION MODES

1. Roads

- Improve project cost estimates by including inflation and having outside agency review.

2. Passenger Rail

- Use the money saved by rail use (i.e., taking cars off the roads and reducing the need to add capacity) to improve rail service.
- Subsidize rail to improve infrastructure and increase capacity for both freight and passenger service.
- Extend VRE to Spotsylvania.
- Provide statewide passenger rail service with a stable funding source, such as that for highways, that is integrated with other modes. Ensure that service is affordable, user friendly, and compatible with improved freight and high-speed passenger rail service.

3. Freight

- No comment

3. Aviation

- Establish an integrated transportation system to reduce the need to drive to and leave personal cars at airport parking lots.

4. Transit

- Increase mass transit funding to improve the roadway level of service.
- Include bus stops in new roadway design when improving existing roadways.

5. Bicycles

- Put bike lanes on roads where appropriate and safe.
- Develop a policy for requiring multi-use paths on urban roads and on major roads in suburban areas.

6. Pedestrians

- Use exclusive pedestrian lights like those used in Massachusetts. Use of these should be determined by need, such as during peak traffic periods, and can be activated by pedestrians pushing a button. These lights show red and yellow at the same time and allow pedestrians to move in any direction, including diagonally across the intersection.
- Accommodate pedestrians by improving connectivity to activity centers.

7. Ferry

- No comment.

8. Ports

- No comment.

9. Other

- Include a section in the statewide transportation plan on implementation - look at how to evaluate cost effectiveness between modes and examine what legislative initiatives should be undertaken to accomplish the recommendations of the plan.
- Reconsider policy on subsidizing transportation investments. Roads are not expected to pay their own way but transit is. Transit should get a more equitable portion of available transportation dollars.
- Consider intangible factors when building roads such as quality of life and destruction of natural resources. Consider these intangible factors as project costs.
- Ensure that roadways are compatible with other land uses.
- Use a toll system that is compatible with the systems in other states.
- Separate roads approved for construction from those still in planning stages. [*This is currently being done.*]
- Improve the interaction between VDOT and MPOs. Give MPOs the authority to control the allocation of funds projects. Allocate money in lump sums to MPOs so that they can decide what they want funded.
- Fix existing roads first by adding pedestrian and bike facilities and making them more user-friendly.
- This meeting format is beneficial to participants.
- Provide more information to the public on funding of road and transit projects. Having knowledge of the cost involved could improve support for expansion of revenue sources among taxpayers.
- Transit benefits all people and is worthy of financial support.
- The public needs a better way to make transportation investment choices than letting the state decide.
- Provide information to meeting participants in transportation funding by mode.

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Chesapeake, Virginia
November 5, 2001**

TRANSPORTATION ISSUES

1. Safety

- Continue hazard elimination and railroad crossing funding set-aside programs.
- Consider bicycle and pedestrian safety, as well as vehicular/motorist safety.
- Work towards making all major primaries divided highways within next 20 years.
- Bring existing roads up to federal standards for fixed objects and clear zones.
- Remove port-related truck traffic from local streets.
- Provide more flexibility in applying secondary road striping standards.
- Retrofit more roads with rumble strips and plowable markers.
- Recognize that rumble strips and plowable markers are dangerous for bikes.
- Focus on the safety of intermodal connections.
- Provide grade separated rail crossings to permit a true high-speed rail system.

2. ITS

- Continue making improvements necessary for traffic monitoring, but also develop the capability to collect and provide data for use in the planning process.
- Give municipalities a larger portion of highway funds to invest in ITS.
- Provide comparable ITS on intercity roads as on intracity roads to provide travelers real time information on alternate routes and conditions.
- Take the lead in researching and identifying the best actuated signal systems.
- Implement more signal synchronization projects to improve traffic flow.
- Provide real time routing data.
- Implement technology to enable bicyclists to trigger traffic lights.

3. Economic Development

- Develop a set of criteria that shows the economic benefits of transportation projects (all modes), such as the provision of light rail transit in downtowns.
- Encourage businesses to reduce the need for transit by providing preferential parking, and encouraging carpools, van pools, and telecommuting.
- Require developers to fund improvements necessary to reduce their impacts.
- Provide funding for the major projects identified in the Hampton Roads long-range transportation plan.
- Provide connections for high-speed rail service.
- Recognize the economic benefit provided by the port and provide the funding necessary for infrastructure improvements.

4. Environmental Justice

- Expand existing approach to public involvement.
- Limit transit buses to main routes and keep buses off local roads to improve travel time so that transit can compete with automobiles. Provide transit service at night.
- Expand transit systems to provide service in rural areas.
- Provide education on the transportation planning process to encourage participation.
- Use non-traditional channels to contact the public, such as churches, homeowners associations, and targeted mailings.
- Improve the living conditions of low income and minority populations that are relocated for transportation projects.
- Provide transit service for job access.
- Consider the long-range impact of transportation projects on affected populations.
- Increase the efficiency of the transportation system and use appropriately sized transit vehicles to avoid empty seats and allow for more frequent service.

5. Mobility

- Place more emphasis on improving north-south corridors in the state.
- Provide bike and pedestrian facilities on both sides of all roads.
- Provide paved shoulders for bicyclists.
- Coordinate the location of intermodal facilities, such as park and ride lots, so that their use is maximized.
- Eliminate barriers within transit systems associated with jurisdictional boundaries.
- Collect data to provide mobility information for use in updating long range plans.
- Reduce the number of interstate interchanges to reduce congestion.
- Coordinate Federal and state agencies to address congestion related to heightened security.
- Consider implementing a two-tiered transportation system – one that is free but maybe congested, and another that bears a cost but may have less congestion.
- Create more public private partnerships.

6. Smart Growth and Sprawl

- Encourage transit-oriented, mixed-use, dense development to facilitate transit service.
- Establish more permanent count stations to provide actual growth rates.
- Remove barriers within the transportation system; make better use of bridges and underpasses.
- Require localities to approve access management plans.
- Identify and encourage development around potential light rail stops.
- Provide bike racks on vehicles and storage facilities at light rail stops.
- Learn from past mistakes in transportation planning to avoid future transportation deficiencies.
- Provide incentives (e.g., bonus in funding formula) for localities that encourage transit oriented development.

7. Environmental

- Encourage the use of alternate modes (biking, walking, etc.) to improve the environment.
- Consider the air quality impacts of interstate improvement projects.

8. Other

- Require the military to help fund necessary infrastructure improvements.
- Consider the large military presence in Hampton Roads to allow for greater flexibility during the air quality conformity process.
- Increase the flexibility in the use of state funds designated for localities.
- Require public schools to use public buses instead of separate service.

TRANSPORTATION MODES

1. Roads

- Focus on maintenance and repair of bridges and provide more funding for these improvements.
- Provide bicycle lanes and sidewalks on all bridges.
- Provide more funds for landscaping to fit community character.
- Recognize that roads will still be the primary transportation mode in 20 years.
- Look at access management on all main corridors to increase carrying capacity and efficiency.
- Aggressively pursue smart road technology.
- Include right of way for rail in all new 4/6 lane roads.
- Increase connectivity from Southside (Rt. 460 & Rt. 58) to Peninsula by improving Rt. 258.

2. Passenger Rail

- Build terminals where people want to go, provide better intermodal connectivity, and provide more convenient service.
- Provide adequate, safe parking.
- Provide financial incentives to keep fares low and encourage employers to provide incentives for employees to use transit and rail.
- Reduce the need to use personal vehicles by encouraging intermodal connectivity.
- Provide transit service to rail stations and airports.
- Provide dedicated state funding for passenger rail service.
- Establish more stops for the auto train.

3. Freight

- Provide grade-separated infrastructure for rail freight.
- Divert freight from trucks to rail or waterways. Reinvest in waterways as a means of moving freight.
- Recognize that intermodal transfers increase the cost of moving freight and encourage movement by truck.

- Expand Virginia's inland ports to encourage freight movement by rail.
- Invest in a smart tag system for freight to facilitate movement across state lines.
- Make more use of the north/south rail system to remove trucks from roads.

4. Aviation

- Provide intermodal service and facilities (bus, rails, bike, etc.) to airports.
- Encourage localities to enforce zoning regulations around airports to avoid future problems.
- Expand runways at Norfolk Airport.
- Provide funding to address the need to integrate highways with other modes.
- Consider security issues for protecting people and goods.
- Look more than 20 years out for aviation planning.
- Stress the need for intermodal connections to make airports cost effective centers.
- Revisit the existing airport study to identify specific future locations and coordinate this effort with local land use plans.
- Invest today with today's cheap dollars for tomorrow's needs.
- Upgrade Rt. 460 across the state to support a new international airport for Hampton Roads.

5. Transit

- Incorporate public art at transit stops.
- Provide better lighting and landscaping at stops.
- Explore the use of dedicated bus ways as a less expensive alternative to light rail.
- Explore opportunities for using ITS on transit to improve service.

6. Bicycles

- Accommodate the different types of biking (e.g., recreational versus commuter) by providing appropriate facilities.
- Eliminate the potential for accidents and use the funds to provide facilities.
- Consider building off road facilities to provide safer travel.
- Encourage communities to approve and adopt comprehensive bike/pedestrian plans, involving bicyclist and pedestrians in the planning process.
- Allow bicyclists access to major routes. Use Class II bike lanes on everything but interstates and waterways. Put shoulders where crossovers are blocked.
- Provide paved shoulders along major routes for bicyclists.
- Enforce traffic laws for bicyclists.
- Require bicyclists to use bike paths where provided.
- Provide maintenance funds for bike facilities.
- Encourage employers to provide facilities to encourage commuting and shopping by bike (e.g., lockers, showers, bike racks, etc.).

7. Pedestrians

- Encourage denser development to promote walking.
- Require developers to provide pedestrian facilities through local zoning ordinances.
- Provide safe accommodation for walking around schools, shopping centers, and public libraries.

8. Ferries

- Promote ferry use.
- Provide appropriate transit connections at terminals.
- Consider intercity and interregional ferry service. Provide high speed ferry service for business and tourist trips.
- Provide accommodations for bicyclists on ferries.

9. Ports

- Provide more, bigger, deeper, and intermodal connections.
- Improve rail infrastructure to encourage movement of freight by rail instead of truck.
- Provide smaller ports for movement of goods around the state.
- Incorporate ITS elements to the Smart Traffic Center at ports.
- Involve port authority decision makers in the transportation planning process.

10. Other

- Establish an easily accessible system for travelers that provides interstate and intrastate information and is seamless.
- Update the state bicycle map - dangerous routes are identified on it.
- Consider users fees and toll roads.
- Establish a clearinghouse for transportation studies to avoid duplication and make them available to others.
- Establish a repository for ongoing suggestions and comments on transportation issues.

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Hampton, Virginia
November 7, 2001**

TRANSPORTATION ISSUES

1. Safety

- Explore the use of technology to improve safety in all forms of transportation (e.g., air plane doors, RR crossings, etc.)
- Develop a rail plan to improve rail transportation, which will remove trucks from the road and improve safety.
- Use high speed rail to reduce congestion along the I-64 corridor.
- Work with CSX to improve rail service.
- Consider multimodal safety issues, such as safe facilities for pedestrians and bicyclists.
- Provide shoulders/pull offs to improve bus safety on new and existing roadways.
- Maximize the use of TEA-21 funds to reduce conflicts between vehicles and wildlife.
- Develop more rigorous training and licensing requirements to obtain a chauffer license.
- Expand ITS to alert motorists of congested conditions.

2. ITS

- Explore making vehicles more “intelligent,” as well as the roadways.
- Apply the same concepts to railroads to provide safer and faster service.
- Provide traffic condition information on approaches so motorists can alter their travel plans before getting onto congested roadways.

3. Economic Development

- Retain the natural beauty of areas (e.g., tree lined medians on interstates) to attract future businesses and residents.
- Improve all transportation modes and provide more transportation options to benefit tourism and eliminate problems caused by large events.
- Build the Third Crossing with rail capacity and light rail connectors.
- Develop a seamless light rail system from Williamsburg to Virginia Beach, including connections to high-speed rail.
- Provide a good transportation system to encourage economic development and tourism.
- Preserve and enhance the scenic byway system.
- Seek funding from Congress to improve the rail system.
- Take advantage of existing infrastructure to reduce the need to expand (i.e., economic re-development).
- Preserve historic resources in the area by rehabilitating them instead of replacing them.

4. Environmental Justice

- Provide better transit service to low income populations, especially in rural areas. Use appropriately sized vehicles (e.g., mini-buses or vans in areas with low demand).
- Explore new ways of obtaining input from affected populations (e.g., advertise on cable TV, provide information at senior citizen centers and PTAs, etc.).
- Have meetings at locations and times that are convenient for elderly and disabled citizens.

5. Mobility

- Consider the aging population trend in transportation planning.
- Make traffic signs more reflective, larger, and easier to read.
- Make rail safe enough for school children to use to get to school in the future.
- Explore the use of light rail on college campuses.
- Provide more flexibility in transit routes, use smaller vans to service neighborhoods, and provide more frequent service.
- Provide affordable housing on/near bus routes instead of servicing every neighborhood.

6. Smart Growth and Sprawl

- Support legislative changes that will encourage/enforce smart growth.
- Provide state-level control to discourage sprawl.
- Provide incentives to build where development is desirable and infrastructure exists.
- Provide cities and counties more flexibility to manage growth.
- Discourage current development patterns, which discourage connectivity and create transportation problems.
- Encourage mixed-use development.
- Encourage transit-oriented development.

7. Environmental

- Prohibit out of state hazardous waste on Virginia's roadways.
- Put more funding in elevated light rail instead of paving more surfaces.
- Continue the median planting program.
- Evaluate the appropriateness of residential road construction standards.
- Provide landscaping as roads are constructed, not after.
- Require extra off street parking in residential areas to allow for narrower roads.
- Use more pervious surfaces to control run-off.

TRANSPORTATION MODES

1. Roads

- Provide more recreational access to water.
- Maintain roads well.
- Continue to add highway capacity by widening existing roads and building new roads. This will require increasing taxes to provide funding.
- Increased gas taxes to pay for road construction and maintenance.
- Seek increased funding dedicated to transportation.
- Recognize that some corridors cannot be expanded further and alternate solutions need to be explored (e.g., mass transit and high-speed rail).
- Provide equal funding for rail and highways.
- Increase subsidies for rail and even the playing field between highways and other modes.
- Efficiently distribute available funds.
- Permit regions to pass referendums that allow citizens to pay for needed transportation improvements, if state funds are not available.

2. Passenger Rail

- Recognize that passenger rail will become the mode of choice for more local trips.
- Provide transit at rail stations so that passengers can proceed to their destinations.
- Increase rail service and frequency.
- Promote other modes, even though a subsidy will be required, to encourage ridership and improve air quality.
- Use transit availability as a means of attracting economic development.

3. Freight

- Divert freight from trucks to rail.
- Promote freight rail to increase usage.
- Upgrade rail lines.
- Provide dedicated rail lines for freight and for high-speed rail to avoid conflicts.
- Examine further development of inland ports.

4. Aviation

- Ensure safety and timeliness of service.
- Encourage local airports to provide customer convenience.
- Encourage the use of air-taxis/regional commuter flights as an alternative mode.
- Provide better public transit connections at airports.
- Increase passenger transit traffic to airports so service can be provided/improved.

5. Transit

- Increase the use of buses/limos/taxis that use alternative fuels.
- Provide equal funding for transit and highways.

6. Bicycles

- Provide regional bikeways.
- Develop connected systems in urban areas.
- Maintain existing bikeways.
- Develop an “Adopt a Bikeway” program for litter/debris cleanup.
- Maintain recreational bike facilities as part of the transportation system to encourage tourism and economic development.
- Provide bike racks on buses and storage lockers at origins and destinations.
- Promote existing programs/opportunities (bus bike racks) that are underutilized. (Put demonstration bikes on bus bike racks to show the use and purpose of the racks.)
- Provide free bikes for use in urban areas.

7. Pedestrians

- Build more sidewalks and encourage more pedestrian friendly development.
- Conduct a comprehensive analysis of pedestrian activity to determine where sidewalks are needed and include construction of these facilities when constructing adjacent roadways.
- Consider building trails along roads instead of sidewalks, where appropriate.
- Provide pedestrian access from residential areas to adjacent commercial areas and between adjacent commercial areas.

8. Ferry

- Recognize that the Hampton to Norfolk Ferry is too long and has no connections to other attractions.
- Encourage service where feasible and to destinations that encourage ridership.
- Encourage employers to be more flexible with work schedules to encourage the use of alternative modes as a commuting option.

9. Ports

- Recognize that port infrastructure improvements will create additional demands on other modes.
- Provide state funding for infrastructure improvement at ports. Improve the Rt. 460 corridor to support the Norfolk Port.

10. Other

- No comments.

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Fairfax, Virginia
November 15, 2001**

TRANSPORTATION ISSUES

1. Safety

- Review roadway lighting criteria and publish exact criteria. Consider the cost of unnecessary lighting, the quality of the lighting, and the effect of glare on an aging population. Consider only full cut off lighting.
- Adhere to national standards for roadway lighting. Much of current lighting exceeds standards.
- Standardize markings for crosswalks.
- Employ the use of design retrofits that discourage speeding.
- Examine the cost effectiveness of safety projects (e.g., are railroad crossings the best place to spend limited safety dollars?)
- Make left and right turn lanes more manageable by improving markings and providing markings or signs earlier rather than just at the stopbar of the intersection.
- Improve intersections that handle more traffic than they were designed for and bring them up to current standards.
- Make more use of pavement markings and start the marking well in advance of the actual turn lane.
- Place more emphasis on pedestrian safety education. Assist jurisdictions in working with schools.
- Provide education on pedestrian crossings to the general public and to drivers to reduce confusion and improve pedestrian safety.
- Review the design of signage and explore better ways to convey information to drivers. Use lighted street signs and gear signage toward an aging population.
- Use more reflective markings or flashing lights for islands to improve their nighttime visibility.
- Improve pavement marking maintenance.
- Require house/building numbers need to be visible from the street.
- Revise the HES program funding cap to reflect the true cost of construction.
- Provide more enforcement of speeding and other traffic violations.
- Improve ADA accessible traffic signals, which are difficult for visually impaired citizens to operate.
- Improve shoulders and breakdown lanes.
- Reevaluate the statewide practice of installing continuous lighting.

2. ITS

- Recognize the limitations of this technology and evaluate the cost effectiveness of ITS projects.
- Develop a multimodal traveler information system to allow people to divert to other modes when necessary.
- Give signal prioritization to emergency and transit vehicles.
- Post all public hearing meeting dates and locations on the website.
- Consider using a dedicated radio station to provide information on transportation and travel emergencies.
- Use automated tolling and video tolling to reduce congestion.
- Develop a regional ITS system that includes other states (e.g., MD, VA, and DC).
- Define terms used on VMS and give more information (e.g., “delay” means something different to different people).
- Use ITS to collect transit fares.
- Examine the possibility of interoperability between Smart Tag and Fast Toll. Develop a system that is multimodal along heavily traveled corridors.
- Use better signage for Smart Tag lanes and standardize which lane is for Smart Tag users.
- Provide funding for ITS maintenance.

3. Economic Development

- Recognize that passenger rail service enhances the economic vigor of downtown areas thereby paying for itself.
- Recognize that transportation serves as a facilitator for economic development, but not the primary cause.
- View transportation as an integral part of the environment, not just a mover of people and goods.
- Encourage localities and developers to maintain systems.
- Couple land use and transportation planning.
- Provide transit options for job access to and from new developments.
- Use transportation funds to serve development, not to promote speculative economic development.
- Consider the use of HOT lanes for commercial and other vehicles to better manage congestion.
- Use the transportation system to serve the tourism and travel industries.

4. Environmental Justice

- Clarify the meaning of this term.
- Plan for employment access - provide economical transportation for employment purposes for low-income persons.
- Improve methods for disseminating information about public meetings. Explore the use of other means for conveying information.
- Provide a mobile unit to areas prior to going to public hearing to inform affected citizens that cannot get to meetings (i.e., take the meeting to them).

- Consider the traits of the targeted population (e.g., language, reading ability, internet access).
- Consider the potential negative impact of transportation projects on economic development near low-income neighborhoods.
- Hold public meetings at locations accessible by public transit.

5. Mobility

- Hold public meetings at locations that are accessible to more people. Publicize transit routes to meeting locations.
- Focus on moving people rather than vehicles.
- Allow buses on road shoulders. Give preference to transit vehicles to enable them to move faster through congestion.
- Coordinate all modes to facilitate movement of people.
- Integrate the mission of state transportation officials.
- Focus on how to move people and goods during peak periods.
- Encourage teleworking to reduce congestion.
- Simplify the definition of mobility – access and capacity. Recognize that the definition of mobility changes over time.
- Promote accessibility by integrating land use and transportation planning.

6. Smart Growth and Sprawl

- Encourage transit-oriented development instead of vehicle-oriented development.
- Phase development to occur as transportation systems are in place to support it.
- Recognize that growth patterns change over time and what is good now may not be good in 20 years.
- Make better use of existing transportation infrastructure.
- Evaluate investment choices; encourage projects where there is existing infrastructure.

7. Environmental

- Acknowledge light pollution as an environmental problem, especially in rural areas, near national parks, etc. Reduce unnecessary lighting.
- Develop lighting criteria to promote safety. Recognize that providing lighting does not necessarily improve safety, and it can actually reduce safety if glare is created.
- Reduce energy consumption.
- Streamline the environmental process without jeopardizing the intent of process.
- Identify a new source of funding to replace the gas tax.
- Cooperate with localities on underground water flow issues. Share existing resources (e.g., retention ponds).
- Consider the impact of transportation improvements on pedestrians and bicyclists.
- Cooperate with localities to provide more flexibility in the types of vegetation used in rights of way.

8. Other

- Include funding in the list of transportation issues.
- Balance the use of state funds for highway and transit projects.
- Examine the entire funding structure for each transportation mode.
- Develop a means of measuring transportation investment returns and limit projects that do not “pay off.”
- Raise sales and gas taxes to increase funding for transportation.

TRANSPORTATION MODES

1. Roads

- Recognize that we need all the roads that can be funded.
- Make roads bus-friendly.
- Build bypasses.
- Give priorities to buses trying to pull out from bus turnouts.
- Upgrade and increase maintenance of existing infrastructure.
- Look for multiple uses when designing new roads (e.g., provide pedestrian facilities, bike lanes, bus pads, etc.).
- Improve existing two lane roads, where possible, before building new roads.
- Build interstates as managed facilities to maximize the efficient movement of people and cars.
- Encourage DOT employees to take ownership of roadways and report any deficiencies.

2. Passenger Rail

- Expand VRE to Richmond and Charlottesville.
- Provide a high-speed rail line between Washington DC and Richmond.
- Consider renting rail lines for new rail service as a cost effective alternative to building new rail lines.
- Discontinue the requirement for rail projects to compete for funds with other projects.
- Provide seamless transitions between travel alternatives.
- Provide bicycle access and parking at stations.
- Integrate Marc and VRE better.
- Build the TransDominion Express from Bristol to Richmond/Washington.
- Improve parking at VRE stations.
- Provide convenience services (dry cleaning, shopping, etc.) near commuter rail stations.

3. Freight

- Coordinate rail and truck freight planning.
- Fund track improvements on Norfolk Southern and CSX lines to create extra capacity for passenger and freight rail.
- Analyze truck restrictions on existing roads.

- Discourage the movement of garbage and hazardous materials on highways.
- Apply sales taxes to rail and truck freight.
- Give passenger rail service priority to use the rail lines during peak hours.
- Build more weigh stations.
- Use technology to eliminate weigh stations.
- Develop a better system to enforce weight restrictions.

4. Aviation

- Provide bicycle facilities at airports and improve bike access.
- Provide transit (bus and rail) to Dulles.
- Make transit more customer friendly at aviation facilities by accommodating the needs of airport patrons.

5. Transit

- Use money to build transit facilities, expand operations, and accommodate increased ridership.
- Serve the urban core.
- Focus on providing sufficient parking facilities to promote/encourage transit use.
- Invest more money in rail to realize a greater return.
- Provide sufficient access to the transit system.

6. Bicycles/Pedestrians

- Increase on street bicycle facilities.
- Eliminate bike paths that are 8 feet wide or greater.
- Separate bicycle and pedestrian facilities to encourage safety.
- Establish a regional/statewide bicycle and pedestrian advisory committee and plan.
- Encourage localities to develop comprehensive bicycle and pedestrian plans that can be incorporated into the statewide transportation plan.
- Accommodate the needs of bicyclists and pedestrians in all projects.
- Provide more sidewalks.
- Share costs with localities to allow projects to move forward.
- Develop one policy on bike and pedestrian facilities that covers many road classifications.
- Establish more flexible design standards to accommodate more facilities.
- Provide 99 % accessibility for pedestrians.

7. Ferry

- Limit operation of the Reedville-Eastern Shore Ferry to the summer.
- Analyze ferry operations for cost effectiveness.

8. Ports

- Require private entities to finance port infrastructure improvements.

9. Other

- Provide better representation for transit, highways, and local governments on the statewide transportation plan Phase 1 Stakeholder Group.

**Virginia Statewide Multimodal Long-Range Transportation Plan
Discussion Group Meeting
Manassas, Virginia
November 19, 2001**

TRANSPORTATION ISSUES

1. Safety

- Design a highway network that can handle the necessary capacity.
- Recognize that roads do not need to be designed to carry all modes.
- Provide sidewalks and crosswalks for pedestrians.
- Need flexibility in design for local roads. Encourage localities to provide traffic calming measures on state roads.
- Recognize that speed bumps and roundabouts can cause delays for responding to emergencies.
- Reduce the number of at grade railroad crossings in urban areas.
- Improve communications to speed up incident response.
- Design for security, especially mass transit (e.g., provide areas where police can view).
- Increase the use of surveillance cameras for security.

2. ITS

- Provide synchronized traffic signal systems.
- Recognize the limitations of this technology. Technology will help improve the existing network but will not solve future capacity problems.
- Employ technology to provide safety at crosswalks for the handicapped.
- Increase the use of variable message signs with real time information on roadway and transit conditions.
- Provide funding for operation and maintenance of ITS infrastructure, not just for construction.
- Enhance message boards to make them more useful. Provide information on alternate routes.
- Make message boards readable. Be aware of placement in relation to sunlight or artificial lighting.
- Use automatic detour signs to respond to heavy traffic flow and poor conditions.

3. Economic Development

- Provide more capacity. Residents will move out of area if traffic keeps them from getting places on time.
- Provide more service in all modes.
- Develop a regional transportation plan.
- Recognize that accessibility is the key to economic development. The lack of accessibility is a major contributor to sprawl.
- Provide more pedestrian and bike facilities to promote tourism.

- Provide good multimodal access to airports.
- Focus on the movement of goods as well as people.
- Build more bridges to Maryland.
- Provide good intra and interregional connectors to promote a healthy regional economy.
- Encourage the General Assembly to promote regional economic development.

4. Environmental Justice

- Provide an assistance program to economically deprived areas that are displaced by roadway projects.

5. Mobility

- Emphasize intermodalism to increase mobility by connecting different modes of transportation.
- Connect growth areas, do away with spoke type development, and let people move between areas.
- Maximize the existing system for better connectivity.
- Allow bikes on buses; provide bike stops.
- Provide more wheelchair accessible buses.
- Explore ways to bring the destination to people (i.e., telecommuting).
- Provide better transitions between modes.

6. Smart Growth and Sprawl

- Explore ways to better integrate land use and transportation decisions. Examine tax incrementing strategies (see the ATLAS study).
- Improve traffic forecasting practices and right of way preservation methods to ensure adequate future capacity.
- Encourage more regional cooperation in demographic studies.
- Recognize that achieving and sustaining higher densities requires providing additional capacity. Mass transit will not solve problems alone; an adequate road system is necessary.
- Recognize that the market will not generate high densities if mobility is not adequate.
- Recognize that density is often controversial and the planning process is uncertain
- Make sure people know where future roads are going before they move to an area. Require realtors to disclose future development plans.
- Create incentives for jurisdictions to adopt smart growth measures in comprehensive plans.
- Define smart growth.

7. Environmental

- Recognize that environmental goals are often conflicting. There are many inconsistent environmental standards.
- Streamline the environmental process.

- Protect unique features of Virginia and put environmental protection on an equal footing with the need for new roads.
- Build roads that do not negatively impact the environment.

8. Other

- Connect the Prince William Parkway to Route 210 in Maryland.

TRANSPORTATION MODES

1. Roads

- Look at the capacity of major arterials.
- Build roads in regions where they are most needed.
- Recognize that now and in the future 90% of all daily trips will occur on roads and that the second most common mode will be walking.
- Include roads in the definition of Multimodal. Roads are truly multimodal because they move all modes. Developing a well-connected road network will encourage a functional multimodal system.
- Be aware of the limitation of roads – at some time there will be no more room. Right of way availability is becoming a serious issue.

2. Passenger Rail

- Analyze the cost benefit of passenger rail service.
- Recognize that to develop a good passenger rail service, infrastructure needs to be provided outside of the existing right of way, which is currently meant to move freight. This will generate the same problems in develop a new rail system as with building new roads.
- Encourage passenger rail use.
- Provide passenger rail service along the I-81 and I-95 corridors.
- Provide high-speed intercity service.

3. Freight

- Invest in understanding freight movement in order to effectively deal with future freight issues.
- Distinguish between local freight and through freight and the need for truck routes.
- Consider the need to move both people and freight into and out of airports.
- Focus on the integration of freight and passenger rail service.

4. Aviation

- Upgrade reliever airports to provide necessary services such as security.

5. Transit

- Ensure that buses, cabs, and vans are accessible to all persons.
- Encourage private transportation providers to provide accessible options.

- Promote the use of buses, vans, and other flexible mass transit to meet transit needs in rural areas instead of fixed rail.

6. Bicycles

- Provide bike paths in utility rights of way.
- Provide state maintenance of bike paths.
- Recognize bicycles as a means of transportation, not just a recreational activity.
- Connect economic centers with bike paths.

7. Pedestrian

- Provide unified curb cut standards.
- Educate the public on standards.

8. Ferry

- Provide vehicle ferry service from Reedville to Crisfield and Onancock.
- Explore other sites where ferry service would be beneficial.

9. Ports

- No comments.

10. Other

- Follow/incorporate the Northern Virginia Regional 2020 Plan.
- De-politicize the transportation process.
- Incorporate regional plans into the statewide transportation plan.
- Link localities together to promote improved coordination.
- Seek Federal funding for bridge improvements.
- Follow through with the recommendations in plans and studies that are developed.
- Develop express bus service and supporting infrastructure.

Appendix I
Highway Needs Assessment Team Members

- Hal Greer, Joint Legislative Audit Review Commission
- Aris Bearse, Joint Legislative Audit Review Commission
- Arkopal Goswami, Virginia Transportation Research Council
- Larry Caldwell, VDOT
- Frank Dunn, VDOT
- Rick Tambellini, VDOT
- Chad Tucker, VDOT
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APPENDIX J
STATEWIDE PLANNING SYSTEM - SPS

In preparation for the 1999 Highway Needs Assessment, VDOT reviewed comments from a report released by the Joint Legislative Audit and Review Commission of the Virginia General Assembly (JLARC) entitled "Equity and Efficiency of Highway Construction and Transit Funding." Additionally, the status of the necessary data, equations and applications were reviewed. As a result, major changes were made to the Statewide Highway Planning System (SHiPS), the primary tool used for the 1994 Highway Needs Assessment, and it was renamed State Planning System (SPS).

Initially, the SHiPS database was transferred from a Powerhouse relational database into an Oracle schema. This provided the ability to query data in new ways, allowing errors and inconsistencies to be quickly identified and corrected. Conversion into a new more flexible system has allowed the incorporation of procedures for forecasting future traffic levels as well as analyzing road segments using updated capacity analysis formulae.

SPS information has been reorganized to improve functionality and is displayed using a user-friendly interface. Roadway inventory data is organized such that the user can quickly and easily access information such as facility designations, facility characteristics, operational characteristics, traffic history and traffic data. Additionally, information from the Six-Year Improvement Program and metropolitan area Long-Range Plan recommendations can be maintained in SPS.

While SPS has many features from previous highway needs assessments, such as roadway inventory maintenance, capacity analysis, and traffic projections, it incorporates many new features and enhancements to standard capabilities. One major enhancement is in the capacity analysis feature. Previous databases and other analysis tools calculate volume over service volume ratios for a specific level of service threshold. SPS actually calculates the level of service (A-F) for the current year as well as five forecasted years using the current Highway Capacity Manual procedures and equations. Other measures are also provided (density, average speed, etc.) depending on the type of analysis conducted.

Another feature enhanced in SPS is the ability to project traffic. While linear regression is still the tool of choice, the data is presented in a graphical format. Data outliers can be easily identified and flagged in order to provide a more accurate trend line of traffic growth. This feature is helpful in locating data errors and erroneous traffic counts. Also, SPS provides the ability to query records with no traffic counts or records indicating negative growth. The user continues to have the ability to override the trend-based analysis should corridor studies or local land-use decisions indicate changes in future demand levels. Curved linear trend analysis is planned to be an added capability for SPS.

Of the many new tools or features that have been developed, one of the most important features is the ability to link planning segments to the Highway Traffic Record Inventory System (HTRIS). As HTRIS is the official roadway inventory system for the Commonwealth, this relationship will allow SPS to pull information from other Virginia Department of Transportation

(VDOT) data. This provides the ability to directly bring updated traffic data and counts from the Traffic Monitoring System (TMS) into the SPS system. This also provides the ability to display SPS output in geographic information system (GIS) applications allowing for graphic representation for project-specific recommendations or roadway attributes. Other SPS features include the ability to manage functional class changes, an extensive query and export tool, a planning glossary, links to web sites, and data items such as census data.

Currently there are a variety of inventory reports, projection reports, functional class reports, capacity needs reports, and some specialized reports from which the user can choose. Developing and maintaining the SPS as a VDOT in-house database with associated applications provides the flexibility to make changes and add features as necessary. Development and enhancement of the features are currently being prioritized based on the most immediate need. Further, there are plans to link the SPS with the Commonwealth's statewide travel demand model currently under development and the regional travel demand models used throughout the Commonwealth, providing an opportunity to use the SPS to assist with the Commonwealth's efforts to link transportation planning with local land use plans. In summary, the SPS provides the ability to perform the highway needs assessment in both a project-specific manner, as well as in a local, regional or statewide system aggregate manner.

Appendix K
HIGHWAY ECONOMIC REQUIREMENT SYSTEM STATE VERSION - HERS-ST

Developed by the Federal Highway Administration (FHWA), the HERS-ST model is an engineering and economic analysis tool that uses pavement conditions and highway capacity to identify highway deficiencies. The model can then apply economic criteria to evaluate the most cost-effective mix of improvements for system-wide implementation. HERS-ST is designed to evaluate the implications of alternative programs and policies on the conditions, performance, and user cost levels associated with highway systems. The model will provide cost estimates for achieving economically optimal program structures, as well as predict system condition and user cost levels resulting from a given level of investment.

Through investigation and discussion of the HERS-ST model, it was determined that there are two means whereby the model can identify a highway need in order to propose a solution: pavement condition and capacity. This presents two issues. First, pavement condition improvements are focused on maintenance needs while capacity improvements are limited to expanding existing facilities. To calculate future capacity needs, HERS-ST uses outdated 1997 highway capacity equations, which have since been updated by the Transportation Research Board. The HERS-ST model will not identify alternate alignments or look for solutions other than widening the existing segment. (It does not consider alternate modes or alternate alignments.) Second, there is no capability of considering continuity in improvements. For example, HERS-ST may trigger improvements along a corridor that would result in a single corridor being comprised of small segments of two lanes, six lanes, two lanes, four lanes, etc. The model does not correlate improvements along segments. Additionally, the improvements may not be identified for construction for the same year, but may be identified as disjointed segments, ignoring their interrelationships.

HERS-ST has the capability of accepting a highway improvement file (project specific), thereby providing a potential method to assist in project prioritization. The model has the ability to analyze different scenarios. These scenarios include: full engineering needs, cost/benefit ratio constrained, performance goal constrained, and constrained funding. (This is shown as an optional step in the Highway Project Needs Assessment, as the process works into the Statewide Long-Range Constrained Highway Plan. Further analysis of potential highway project prioritization tools should be completed prior to selection of a specific prioritization methodology.)

APPENDIX L
BRIDGE NEEDS IDENTIFICATION - BRIDGE SUFFICIENCY RATING

A Highway Traffic Record Inventory System (HTRIS) report may be obtained from the Virginia Department of Transportation (VDOT) Structure and Bridge Division showing bridges and their associated sufficiency ratings. A brief explanation from the Structure and Bridge Division about sufficiency ratings and their application is included below.

The sufficiency rating was developed by the Federal Highway Administration (FHWA) to serve as a tool to allocate funds, and serve as a prioritization rating of the bridges in the United States. The sufficiency rating varies from 0.0 (very poor) to 100.0 (very good). Structures having sufficiency ratings of 80.0 or more are considered not to have an effect on the long or short term planning needs. Structures that have a rating less than 80 are eligible for federal rehabilitation funds. Structures that have a rating less than 50 are eligible for federal replacement funds.

The sufficiency rating is intended for use on only those bridges and culverts meeting the federal definition of a bridge, i.e., having a length greater than 20 feet. VDOT also uses the sufficiency rating to evaluate and prioritize all culverts having an opening greater than 36 square feet, and all bridges, regardless of length. The bridges and culverts that do not meet the federal definition of a bridge are not eligible for federal bridge replacement and rehabilitation funds. However, the smaller structures may be improved or reconstructed when included as part of projects funded by Surface Transportation Program (STP) funds, Congestion Mitigation and Air Quality (CMAQ) funds, etc.

APPENDIX M
RURAL SECONDARY SYSTEM TOLERABLE/NON-TOLERABLE ANALYSIS

An offline analysis of the rural secondary system is used to identify highway needs. The Highway Traffic Record Inventory System (HTRIS) is the dataset used to perform this analysis. The identification of deficiencies is performed using design standards for defined volume groups. If a facility does not meet the minimum pavement width and surface type standards for its volume group, it is identified as deficient. The following criteria are used to evaluate construction needs on the statewide secondary system.

Traffic Volume Vehicles Per Day (VPD)	Minimum Pavement Width (feet)	Surface Type
0-24	12	Light Surface
25-49	14	All Weather Surface
50-399	16	Paved Surface
400-499	18	Paved Surface
1,000-3,999	20	Paved Surface
4,000-5,999	22	Paved Surface
6,000-7,499	24	Paved Surface
7,500 and Over	Multilane	Paved Surface

APPENDIX N
SAFETY NEEDS IDENTIFICATION – CRITICAL RATE ANALYSIS

An offline analysis is used to identify safety needs throughout the Commonwealth. Each Virginia Department of Transportation (VDOT) District and Residency is responsible for analyzing accident data for their respective areas and developing annual critical rate reports for intersections and road segments. The Highway Safety Section of the Department's Traffic Engineering Division generates statewide intersection and roadway section safety reports from the Highway Traffic Record Inventory System (HTRIS) on an annual basis. A separate report is generated for each system (interstate, primary and secondary). The reports for the interstate and primary systems are further divided by the characteristics of the route; number of lanes, divided/non-divided, control of access, urban/rural, and functional classification. This information is used to identify intersections and road segments with higher than average accident rates. Districts and Residencies use the following criteria to develop the annual Crash Rate Reports.

Section Crash Rate Criteria

Districts and Residencies

Three or more crash locations (not number of crashes) in a section of roadway that is at least 0.3 mile long and where the distance between crash locations is at least 0.01 mile but not greater than 0.2 mile.

Intersection Crash Rate Criteria

Districts

Five or more crashes at an intersection (occurring within a radius of 0.03 mile of the intersection).

Residencies

Two or more crashes at an intersection (occurring within a radius of 0.03 mile of the intersection).

