



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION
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COMMISSIONER

September 25, 2006

The Honorable Timothy M. Kaine
Members of the General Assembly

Dear Governor Kaine and Members of the General Assembly:

Chapter 54 of the 2006 Acts of Assembly directed state agencies to include in their strategic plans "[a]n analysis of the impact that the aging of the population will have on its ability to deliver services and a description of how the agency is responding to these changes." In addition to that requirement, Chapter 54 also directed agencies to report by October 1 of each year to the Governor and to the General Assembly its progress for addressing the impact of the aging population in at least five specific actions based on guidance issued by the Secretary of Health and Human Services.

The Virginia Department of Transportation (VDOT) established an interdisciplinary study group to address the guidance issued by the Secretary of Health and Human Services on August 25, 2006. Major findings include:

- The population of older licensed drivers in Virginia is increasing;
- VDOT implements roadway element improvements and employs countermeasures to help alleviate potential problems for all of Virginia's traveling public, which necessarily benefits Virginia's aging population;
- Visual-aid improvements have been studied, and several have been implemented, as a result of VDOT's Older Driver Research Initiative; and
- VDOT's Rural Transportation Planning Program is studying ways to improve mobility for elderly persons and for those with disabilities.

Attached is the report that addresses actions undertaken by VDOT to address the aging population. If you have any questions or need additional information, please let me know.

Sincerely,

A handwritten signature in black ink that reads "David S. Ekern".

David S. Ekern

Attachment

cc: The Honorable Pierce R. Homer

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PREFACE

Chapter 54 of the 2006 Acts of Assembly requires that each state agency develop and maintain a strategic plan for its operations and report its progress to the Governor and General Assembly by October first of each year. Specifically, the strategic plan must include an analysis of the impact that the aging of the population has on each agency's ability to deliver services and a description of how the agency is responding to such changes. This study is in response to Chapter 54's reporting requirement.

VDOT's Management Services Division authored the study, with contributions from the following members of the study group:

Nancy Berry - Location and Design
Pam Brookes - Traffic Engineering
Larry Caldwell - Traffic Engineering
Chris Detmer - Transportation and Mobility Planning
Marsha Fiol - Transportation and Mobility Planning
Robin Grier - Transportation and Mobility Planning
Mark Hodges - Traffic Engineering
Bill Kelsh - Transportation Research Council
Donna Purcell Mayes - Public Affairs
Alexis Thornton-Crump - Civil Rights

As Virginia's population ages, VDOT will continue to refine roadway design standards and study the impact of older drivers on the transportation system. Through implementing roadway element improvements and by employing countermeasures to help alleviate potential problems for older drivers, all of Virginia's traveling public, including Virginia's aging population, benefit.

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EXECUTIVE SUMMARY

VDOT serves all residents of Virginia through their direct use of the transportation system and through their reliance on others that use the system (e.g. bus lines, police, emergency medical and fire department vehicles). Based on U.S. Census estimated population data, Virginia's senior citizen population is increasing. Facilitating safe and efficient transportation for all motorists is VDOT's mission. VDOT does not generally provide services directly to individuals unless requested to do so; such requests would include pothole, drainage and signage repairs etc. VDOT addresses issues related to elderly drivers by utilizing Federal Highway Administration design guidelines, implementing research and by employing countermeasures to help alleviate potential problems for older drivers. On many fronts, VDOT chooses to exceed the minimum national standards. Through VDOT's Older Driver Research Initiative, visual-aid improvements have been studied and several have been implemented.

VDOT's external website is being converted to meet accessibility standards that are expected to benefit the senior population, as well as the general public. Additionally, as part of the Rural Transportation Planning Program VDOT is studying ways to improve mobility for elderly persons and for those with disabilities. As a result of phase one of the Hampton Roads 2030 Regional Transportation Plan, Elderly & Handicapped Transportation in 2030 study, VDOT has recommended preliminary steps for improving travel options for older Virginians. Although not focused solely on the older population, the installation of handicap ramps, curb cuts, and rumble strips and state-of-the-art congestion management measures are beneficial to all of Virginia's traveling public, including Virginia's aging population.

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INTRODUCTION

Chapter 54 of the 2006 Acts of Assembly requires that each state agency develop and maintain a strategic plan for its operations and report its progress to the Governor and General Assembly by October first of each year. This study is in response to Chapter 54's reporting requirement (Appendix).

Specifically, the strategic plan must include an analysis of the impact that the aging of the population has on each agency's ability to deliver services and a description of how the agency is responding to such changes.

VDOT's mission, goals and strategies are included in the strategic plan, which are linked to performance measures. Its mission is to plan, develop, deliver, operate and maintain, on time and on budget, the best possible transportation system for the traveling public. The components of the VDOT mission are:

- Plan - design the network for an effective ground transportation program;
- Develop – provide the engineering, technical and financial expertise necessary to implement the planned program;
- Deliver – effectively & efficiently manage construction program delivery;
- Operate – manage the operation of a safe, effective and efficient ground transportation system; and
- Maintain – effectively and efficiently manage and preserve transportation infrastructure assets.

During the next strategic plan update, VDOT's strategic plan will be revised to reflect the requirements of Chapter 54.

In its guidance, the Secretary of Health and Human Resources segmented this examination into five *response sections* as addressed in the balance of this document.

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Section 1: *To the extent such data is available, the number of persons who received services from the agency in the past fiscal year who fell into each of the following age ranges: 65-74; 75-84; and 85 and older. If the agency can provide data that compares such numbers to numbers of senior citizens served in the past, please do so. If the agency lacks specific information about the numbers of senior citizens it serves, but has other evidence indicating that it is serving more or fewer senior citizens than it has in the past, please describe the basis for that estimation.*

VDOT serves all residents of Virginia through their direct use of the transportation system and through their reliance on others that use the system (e.g. bus lines, police, emergency medical and fire department vehicles). Based on U.S. Census estimated population data, Virginia's senior citizen population has increased from 2004 to 2005 as shown in Table 1 below:

Table 1 Population Change of Senior Citizens in Virginia 2004-2005				
Age Range	2004 Population	2005 Population	Change	Percent Growth
65-74 years	453,988	462,028	8,040	2%
75-84 years	291,678	294,072	2,394	1
85 years and older	103,477	109,003	5,526	5%
Source: Estimated Population Data, United States Bureau of the Census.				

As of July 1, 2006, Department of Motor Vehicles (DMV) records indicate that there were 5,210,685 licensed drivers in the Commonwealth of Virginia. Of the total licensed driver population in Virginia, 700,181 (13 percent) are age 65 years or older. Table 2 below shows the age-group breakdowns and rounded percent representations of Virginia's licensed drivers.

Table 2 Licensed Drivers in Virginia by Age Range (2006)		
Age Range	Number of Licensed Drivers	Percentage of Licensed Drivers
64 years and under	4,510,504	87%
65 - 74 years	418,256	8%
75 - 84 years	231,901	4%
85 years and over	50,024	1%
Total	5,210,685	100%
Source: Department of Motor Vehicles, July 1, 2006.		

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Section 2: *Identify the agency services that are utilized by senior citizens 65 and older in significant numbers. Indicate whether the agency has the capacity at present to serve all interested seniors or whether the demand for certain services exceeds the agency's capacity. If so, does the agency maintain waiting lists for services?*

VDOT's mission is geared toward facilitating safe and efficient transportation for all motorists. As noted, VDOT serves all residents of Virginia through their use of the transportation system. VDOT does not generally provide services directly to individuals unless requested to do so; such requests would include pothole, drainage and signage repairs etc. VDOT does not maintain personal data on residents requesting these services.

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Section 3: *Identify current agency programs, specifically designed to serve seniors 65 and older, that fall into any of the following six categories: Health Care/Wellness; Education; Public Safety; Recreation; Financial Security (including Housing); and Transportation.*

Transportation and Public Safety

VDOT has several programs that focus on the needs of senior users, as well as the needs of all roadway users in the Commonwealth. These are summarized below:

- VDOT participated in the Joint Legislative Audit and Review Commission (JLARC) Survey of State Agencies in Virginia on the Impact of an Aging Population in June of 2005.
- Several factors associated with an aging population are regularly and consistently considered in VDOT's roadway design activities including;
 - Slower reaction times and decision making;
 - Visual and hearing deterioration; and
 - Declining ability to judge time, speed and distance accurately.

VDOT will continue to address such issues by utilizing the Federal Highway Administration design guidelines, implementing initiatives and by employing countermeasures to help alleviate potential problems for older drivers.

The design guidelines include:

- The American Association of State Highway and Transportation Officials (AASHTO) 2004 edition of "A Policy on Geometric Design of Highways and Streets" (Green Book) which guides minimum highway design standards for new construction.
- The U.S. DOT, Federal Highway Administration (FHWA) endorsed manual, "Manual on Uniform Traffic Control Devices for Streets and Highway" (MUTCD), 2003 edition, which sets forth minimum standards regarding warning, guiding and regulating traffic flow and safety through the addition of signs, signals, markings, markers and delineators to the road systems. On many fronts, VDOT chooses to exceed the minimum standards set by the MUTCD in an effort to afford the road users with additional information or a more pronounced set of information.
- The FHWA Older Driver Highway Design handbook, which provides remedies for design deficiencies that disproportionately penalize older drivers, associated with changes in functional ability experienced with normal aging. The four main areas of focus recommended in the handbook and incorporated into VDOT practices are:
 - At-Grade Intersections;
 - Roadway Curvature and Passing Zones;
 - Construction/Work Zones; and

- Highway-Rail Grade Crossings.

VDOT Older Driver Initiatives, conducted in the Traffic Engineering function, is directed toward helping motorists in their driving, especially efforts focused on the use of visual aids – Signs, Signals, Roadway Lighting and Marking locations. VDOT has developed many initiatives over the past two decades to improve visual prompts for all motorists, particularly motorists from the older population. VDOT has and will continue to provide Traffic Control and Safety Devices that are above the standards set on the national level.

Three initiatives evaluated over the years are in the implementation phase. Some of these, according to guidelines that have been established, have been used for several years while other are just now being included with new projects:

- Traffic Signals: Use of 12” (lens) traffic signal displays when standards allow for 8”; Use of full circle signal displays in lieu of arrows where practical; Use of black backplates surrounding the signal cluster; Use of more signal clusters than required.
- Traffic Signs: Use of improved lettering and a more highly reflective sheeting on all guide signs; Increased use of overhead and/or advanced ground mounted street name signs at signalized intersections; Use of fluorescent sign sheeting for construction work zones and pedestrian-school-bicycle signage.
- Pavement marking – Markers: Use of pavement markers on Interstate highways and other high volume roads; Installation of markings on roads having lower volumes than the values set at the national level; Use of 6 inch wide pavement markings at some locations (current width is 4 inches); Use of a highly retroreflective marking material on limited access highways and certain other routes; Horizontal Signs (a form of pavement markings) are used to give additional guidance information.

In addition to the three initiatives in the implementation phase, three other initiatives are being evaluated for future use:

- Pavement Markings used in Construction Zones that function better in wet conditions;
- Pavement Markings used in Permanent Applications that function better in wet conditions;
- Glass curb markers to delineate medians at certain locations.

Countermeasures include:

- Improving sight distance, by modifying designs and removing obstructions (particularly at intersections and interchanges);
- Providing additional lengths for decision sight distances;

- Simplifying and redesigning intersections and interchanges that require advanced reception and decision processing;
- Increasing use of protected left-turn signal phases;
- Increasing vehicular clearance times at signalized intersections;
- Providing increased walk times for pedestrians at all crosswalks;
- Providing wider and brighter pavement markings, and larger and brighter signs;
- Providing more redundant information, such as advanced guide signs for upcoming turn lanes, construction zones and street names; and
- Altering curb heights; and increasing driver education.

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Section 4: *Identify the extent to which your agency provides “consumer-oriented” publications and websites online that are designed to be “senior-friendly.” If the information you currently provide is not readily accessible to seniors, identify any steps your agency is taking to improve accessibility.*

VDOT’s external website is being converted to meet accessibility standards for the disabled that are expected to benefit the senior population, as well as the general public. Outreach efforts encouraging public comment on VDOT projects, programs or activities normally include various ways to provide comments, including telephone and regular mail, which the senior population might find easier to use than electronic means. The content of many existing publications and sites are of interest to the senior population, though not specifically designed to be “senior-friendly”.

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Section 5: Describe any other services or programs that the agency has implemented or plans to implement in the future to address the impact of the aging of Virginia's population.

VDOT is committed to increasing mobility options for all Virginians, regardless of age. To that end, VDOT provides funding to Planning District Commissions (PDCs) to execute bicycle and pedestrian plans, paratransit and rural transit plans. VDOT administers federal Congestion Mitigation and Air Quality (CMAQ) funds, distributing them to Metropolitan Planning Organizations (MPOs) to fund transit projects and other improvements aimed at increasing travel options and reducing dependence on automobiles.

As part of the Rural Transportation Planning Program to conduct a study on improving mobility for elderly persons and for those with disabilities, VDOT has awarded the Hampton Roads Planning District Commission a grant, and has recommended preliminary steps for improving travel options for older Virginians. This study, the Hampton Roads 2030 Regional Transportation Plan, Elderly & Handicapped Transportation in 2030, is currently underway. Findings from Part I, titled Improving Elderly Transportation Using the National Highway Transportation System, were issued in June 2005 and generally found:

- A mobility issue exists for aging users of the transportation system;
- The number of aging transportation users is increasing; and
- Transportation strategies to alleviate mobility issues are complex, and involve tactics based on aging driver support, aging non-driver support, enhanced transportation infrastructure, local government land use policy in conjunction with local government infrastructure and service availability, and aligned public transit service policy.

This study is phased in three parts, with an expected completion date of June 30, 2007.

Although not focused solely on the older population, the following initiatives are beneficial to all of Virginia's traveling public, including Virginia's aging population:

- Handicap ramps and curb cuts: In accordance with the Americans with Disabilities Act 28CFR Part 36, VDOT installs handicap ramps and curb cuts where appropriate. VDOT has developed its own Instructional and Informational Memoranda, IIM-LD-55, detailing accessibility standards.
- Rumble strips: Rumble strips have reduced crashes nationwide. Per *Public Roads* magazine, January 2002 edition, VDOT won the 2001 National Highway Safety Award for its experiment with continuous shoulder rumble strips (CSRS) on the State's interstate highway system from 1997 to 2000.
- State-of-the-art congestion management: VDOT is focused on ensuring and continuously improving the safety and security of the roadway system. VDOT is working to decrease incident response times, clearing travel ways faster and restoring service more quickly.

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APPENDIX - HB 110

VIRGINIA ACTS OF ASSEMBLY -- 2006 SESSION

CHAPTER 54

An Act to amend and reenact § 2.2-5510 of the Code of Virginia, relating to the effect of the aging population on state agencies.

[H 110]

Approved March 7, 2006

Be it enacted by the General Assembly of Virginia:

1. That § 2.2-5510 of the Code of Virginia is amended and reenacted as follows:

§ 2.2-5510. (Expires July 1, 2008) Strategic plan.

A. Each agency shall develop and maintain a strategic plan for its operations. The plan shall include:

1. A statement of the mission, goals, strategies, and performance measures of the agency that are linked into the performance management system directed by long-term objectives;

2. Identification of priority and other service populations under current law and how those populations are expected to change within the time period of the plan; ~~and~~

3. An analysis of any likely or expected changes in the services provided by the agency; *and*

4. *An analysis of the impact that the aging of the population will have on its ability to deliver services and a description of how the agency is responding to these changes. Based on guidance from the Secretary of Health and Human Resources, each agency shall report by October 1 of each year to the Governor and to the General Assembly its progress for addressing the impact of the aging of the population in at least five specific actions.*

B. Strategic plans shall also include the following information:

1. Input, output, and outcome measures for the agency;

2. A description of the use of current agency resources in meeting current needs and expected future needs, and additional resources that may be necessary to meet future needs; and

3. A description of the activities of the agency that have received either a lesser priority or have been eliminated from the agency's mission or work plan over the previous year because of changing needs, conditions, focus, or mission.

C. The strategic plan shall cover a period of at least two years forward from the fiscal year in which it is submitted and shall be reviewed by the agency annually.

D. Each agency shall post its strategic plan on the Internet.