

FINAL STATUS REPORT

RECOMMENDATIONS RELATED TO
THE EQUITY OF THE CURRENT PROVISIONS FOR ALLOCATING
HIGHWAY AND TRANSPORTATION FUNDS IN VIRGINIA



A Report to the SJR 20 Joint Subcommittee
from the Staffs of
The Joint Legislative Audit and Review Commission and
The Virginia Department of Highways and Transportation

December 18, 1984

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COMMONWEALTH OF VIRGINIA

Joint Legislative Audit
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Department of Highways
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December 18, 1984

The Honorable L. Cleaves Manning
Chairman, SJR 20 Joint Subcommittee
General Assembly Building
Richmond, Virginia 23219

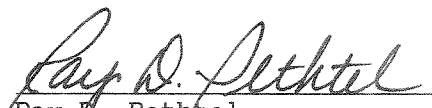
Dear Delegate Manning:


At the direction of the SJR 20 Joint Subcommittee, the staffs of the Joint Legislative Audit and Review Commission and the Virginia Department of Highways and Transportation met on several occasions to review the proposed legislation contained in SJR 20, and the recommendations made by JLARC staff in House Document 11. A Status Report which outlined the preliminary results of those meetings was prepared jointly by JLARC and VDH&T staff and distributed to the SJR 20 Joint Subcommittee on September 25, 1984. Attached is the Final Status Report of the VDH&T and JLARC staffs, and an analysis of the impact of the proposals on Highway Fund allocations.

The Department and JLARC are now in agreement on 23 of the 32 proposals and recommendations. VDH&T and JLARC staff have also reached agreement on the presentation of policy options for 3 of the proposals. The options represent varying policy perspectives which have been developed by the staffs.

The JLARC and VDH&T staffs continue to have a difference of opinion on 6 of the proposals. These differences are the result of different approaches to the complex issues involved.

The attached Final Status Report summarizes all of the items in the order of the proposed bills in SJR 20, and where no bill is involved, in the order of the original JLARC recommendation.


Ray D. Pethtel
Director


Harold C. King
Commissioner

REQUIRED MATCHING OF FEDERAL AND OTHER FUNDS (SJR 20 Bill No. 1)

JLARC Staff Recommendation:

Recommendation. The General Assembly may wish to amend the Code of Virginia to require the matching of all federal and other nonstate funds prior to the expenditure of any allocation. The Commissioner should be required to reduce proportionately the allocations for all programs funded from the Highway Maintenance and Construction Fund in order to provide for the necessary matching funds. As additional funds become available, the Commissioner should restore reduced allocations in the same proportions as the reductions were initially made. The Commissioner should report such actions to the appropriate committees of the General Assembly.

Highway Commission Position:

VDH&T believes that the Highway and Transportation Commission currently has the authority under Section 33.1-215 of the Code of Virginia to insure that all federal funds are matched. Such has been confirmed by the Attorney General's Office.

Current Status:

JLARC staff have reviewed the sections of the Code cited by VDH&T, and while the Commission may have the authority to ensure that federal assistance is matched, the current law has several shortcomings which are addressed in Bill No. 1 of SJR 20. First, the current law deals only with federal assistance, not with any other source of revenue which might require a State match. The SJR 20 legislation would expand the scope of the Commission's authority to include all nonstate revenue sources.

Second, and most importantly, the current law does not specify how the Commission will ensure that funds are to be made available to match nonstate revenues. Without a rational and equitable procedure for reducing allocations to other programs to make funds available, VDH&T would have no alternative but to request the General Assembly to provide an increase in highway taxes and fees. The SJR 20 legislation provides for an alternative method for making funds available by reducing other allocations proportionately, and then restoring them as funds become available.

MAINTENANCE FUNDING PRIORITY (SJR 20 Bill No. 2)

JLARC Staff Recommendation:

Recommendation. The General Assembly may wish to reaffirm its statutory requirement that all reasonable and necessary maintenance funds shall be allocated by specifying in Section 33.1-23 that the requirement applies to ordinary maintenance, maintenance replacement, and any other categories of maintenance which might be designated. (From Draft House Document 11, Recommendation (12).)

Highway Commission Position:

The Commission supports this JLARC staff recommendation.

Current Status:

JLARC staff and the Highway Commission agree on this recommendation.

PUBLIC TRANSPORTATION FUND (SJR 20 Bill No. 3)

JLARC Staff Recommendation:

Recommendation (29). The General Assembly may wish to amend Section 33.1-23.1 of the Code of Virginia to establish a public transportation allocation. The amount of the allocation should be specified by statute to be not less than three percent nor more than five percent of revenues from state sources, with the exact amount of each year's allocation to be set by the General Assembly in the Appropriations Act based on the needs of the transit systems, the availability of funds, and other highway maintenance and construction needs.

Highway Commission Position (Item II.E.):

The Commission does not support the House Document 11 recommendation for a dedicated public transportation fund. The Commission supports the existing process. FY 1985 public transportation funding is approximately 4.5 percent of the anticipated State revenue to be collected.

Current Status:

JLARC staff and the Department have not been able to reach agreement on this recommendation.

SNOW REMOVAL FUND (SJR 20 Bill No. 4)

JLARC Staff Recommendation:

Recommendation (17). The General Assembly may wish to provide in Section 33.1-23 of the Code of Virginia that snow removal should be funded as a separate maintenance item, and that unexpended snow removal funds at the end of a fiscal year should be reappropriated in the following fiscal year. The General Assembly may then wish to provide authority to the State Highway and Transportation Commission to transfer funds from the construction program if the funds in the snow removal fund in any given year are less than snow removal costs.

If the General Assembly provides for the budgeting of snow removal as a separate maintenance item, then DHT should establish the necessary controls to ensure that only reasonable and necessary snow removal activities are charged to the snow removal fund.

Highway Commission Position (Item IV.E.3.):

Snow removal costs should continue to be budgeted as part of ordinary maintenance; the two are inextricably tied. At the same time, uncertainty about potential snow removal demands should not disrupt other routine maintenance operations. The extraordinary statewide fund established beginning in FY 1984-85 should satisfactorily resolve the problem.

JLARC Staff Comments:

JLARC staff have reviewed the Department's proposal and believe it is an acceptable alternative to a separate fund.

REGULAR SYSTEM ALLOCATIONS (SJR 20 Bill No. 5)

JLARC Staff Recommendation:

Recommendation (4). The General Assembly may wish to amend Section 33.1-23.1B of the Code of Virginia to adjust the proportion of funds provided to each system to one-third.

This recommendation is based on a rigorous and objective analysis of the need for construction dollars, which are the direct result of known deficiencies in the existing highway system through the year 2005.

Highway Commission Position (Item II.D.):

The Commission does not support the JLARC staff proposal to change the proportion of construction funds allotted to each of the systems to one-third.

It believes the existing distribution, approved by the General Assembly in 1977, more nearly reflects sound public investment policy.

Current Status:

The Department and JLARC staff have been unable to reach agreement on this recommendation.

UNPAVED ROADS (SJR 20 Bill No. 6)

JLARC Staff Recommendation:

Recommendation (2). The General Assembly may wish to amend Section 33.1-23.1:1 of the Code of Virginia to increase the percentage of funds for unpaved roads from 3.75 percent, not to exceed 7.6 percent. This recommendation would continue the General Assembly's earlier decision to place a priority on paving non-surface treated secondary roads and would base the allocation on construction need, at the 50 vpd funding standard.

Because of questions about the cost effectiveness of the 50 vpd paving standard, the General Assembly may wish to direct the Department of Highways and Transportation to assess the engineering justification for, and the cost effectiveness of, paving unpaved roads with traffic volumes as low as 50 vpd. Pending the results of that study, funding priority should be placed on unpaved roads with traffic volumes in excess of 100 vpd. Based on DHT's assessment, the General Assembly may wish to re-evaluate its current priorities for unpaved roads and revise the funding standards or the paving priority accordingly.

Highway Commission Position (Item II.B.):

The Commission cannot support the dedication of 7.6 percent of funds available for construction to unpaved roads and believes that the current 50 vpd goal is unrealistic.

The present 3.75 percent allotment should be retained for unpaved roads, with the funds distributed among counties in the secondary system based on the ratio borne by each county's unpaved roads carrying 100 or more vehicles daily to the total number of such roads statewide.

Current Status:

At the current 50 vpd allocation standard, the need for funds to pave non-hard surfaced roads equals \$1.259 billion, or 7.6 percent of total needs. At the 100 vpd standard, the need for unpaved road funds is reduced to \$277 million, or about 1.9 percent of the total needs. Thus, three options might be considered by the General Assembly:

(1) Based on need, the unpaved road fund might be set at not more than 7.6 percent at a 50 vpd standard.

(2) Based on need, the unpaved road fund might be set at not less than 1.9 percent at a 100 vpd standard.

UNPAVED ROADS (Continued)

(3) The Department has recommended that the 100 vpd standard be used, and that the current statutory allocation of 3.75 percent (which is unrelated to need) be retained in order to preserve the continuity of the current program.

Based on the Department's analysis of the costs and benefits of paving roads with traffic volumes less than 100 vpd, JLARC staff agree that priority should be placed on paving roads with 100 vpd and concurs in the suggestion that priority might also be given to roads which carry one or more school busses.

INTERSTATE MATCHING FUNDS (SJR 20 Bill No. 7)

JLARC Staff Recommendation:

Recommendation (1). The General Assembly may wish to amend the Code of Virginia to require that funds necessary to match federal interstate aid be set aside from the total funds available for construction activities. Funds for the match should not be deducted from a district's primary allocation. The advantage of this change is that the necessary match would be met by spreading the burden over all construction funds, reducing the severe impact on a few areas.

Highway Commission Position (Item II.A.):

The Commission opposes this recommendation. It would diminish already scarce urban and secondary funds, and would be unfair to districts where the interstate system has been virtually completed.

The Commission would support a set-aside similar to that now established in the Appropriations Act to provide relief in highway districts where the interstate match would exceed 25 percent of their primary system allocation.

Current Status:

The interstate set-aside recommended by the Highway Commission represents a compromise position between the JLARC staff recommendation to take the matching funds off the top, and the current process which takes the match from district primary allocations. JLARC staff believe the Department's proposal is a step in the right direction. In order to assess the appropriateness of the 25 percent level recommended by the Department, JLARC and VDH&T staff have reviewed the extent to which the primary allocations have been reduced for interstate match in each of the districts in previous years. That analysis supports the use of a 25 percent cap on the use of primary allocations for the interstate match as a policy option.

TRANSIT ASSISTANCE FORMULA (SJR 20 Bill No. 8)

JLARC Staff Recommendation:

Recommendation (30). In order to promote certain incentives, the General Assembly may wish to adopt a formula for the purpose of allocating public transportation operating assistance.

Highway Commission Position (Item III.D.2.):

The Commission opposes this JLARC recommendation. Funds remaining after allocations for experimental projects, ridesharing, and technical assistance should be distributed, as now, for capital and administrative costs and for transit fuel, tires, lubricants, and maintenance parts and supplies.

Current Status:

The Department and JLARC staff have been unable to reach agreement on this recommendation as a result of different views about the effects of formula based transit allocations:

The Department opposes the recommendation because the JLARC formulas are not sensitive to varied local service and financial conditions. Allocating funds by the JLARC formula would impose State control on local transit services by establishing incentives which may be in conflict with locally determined goals.

JLARC staff agree that public transportation is a largely local function. As such, a more equitable system of assistance -- and one which gives local governments greater control -- is one which allocates general operating assistance on the basis of a formula which includes factors to account for need and the efficiency of use of scarce State resources.

BRIDGE REPLACEMENT FUND (SJR 20 Bill No. 9)

JLARC Staff Recommendation:

Recommendation (3). In order to ensure the use of available federal aid, the General Assembly may wish to amend the Code of Virginia to provide for funding special bridge needs outside of the system allocation process. This could be accomplished in a manner similar to the distribution of funds for interstate construction or unpaved roads. The special bridge fund should include both the available federal aid and required State match. In FY 1984, such a fund would have amounted to \$17.2 million. Allocations from this fund should be made on the basis of greatest need as determined from DHT's current bridge inspection program and the volume of traffic using the facilities. The funds for bridges should not be deducted from a locality's regular system allocations.

Highway Commission Position (Item II.C.):

The Commission agrees with this JLARC staff recommendation and would develop a comprehensive policy for the administration of the program.

Current Status:

JLARC staff and the Highway Commission agree on this recommendation.

GEOGRAPHIC BASE FOR PRIMARY SYSTEM ALLOCATIONS (SJR 20 Bill No. 10)

JLARC Staff Recommendation:

Recommendation (9). The General Assembly may wish to amend the Code of Virginia to change the geographical basis of aggregating primary allocations from DHT's eight [nine] districts to the planning district boundaries. These boundaries should be used only for the purpose of allocating funds. The districts should continue to administer any projects in their areas. In order to facilitate the programming of projects, the funds might be aggregated at the district level, and allocated to projects as needed. Any transfer of allocations from a planning district would create a balance which would have to be funded at a later date. The General Assembly may wish to specify a limit on the time that such balance may exist.

Highway Commission Position (Item III.A.1.):

The Commission opposes this recommendation and recommends that the current district boundaries be the geographic base for the allocation of primary system funds.

Current Status:

The Department and JLARC staff have developed a revised, technically acceptable formula using the current DHT construction districts. JLARC staff support its use in the allocation of primary system funds, and the use of planning district boundaries is unnecessary.

PRIMARY SYSTEM FORMULA (SJR 20 Bill No. 11)

JLARC Staff Recommendation:

Recommendation (8). The General Assembly may wish to amend the Code of Virginia to revise the current statutory formula for allocating primary system funds to include independent factors which are weighted in proportion to their relationship to construction needs.

Highway Commission Position (Item III.A.2.):

The Commission's position is that an appropriate geographic basis is construction districts. Furthermore, while we are not opposed to a change in the current primary allocation formula, we believe we have documented that the alternatives proposed offer few, if any, improvements. Any new formula adopted should include factors which not only are logical influences on needs variations and traffic demand but for which data is easily collectible or readily available.

Current Status:

An alternative primary system allocation formula has been developed jointly by DHT and JLARC staff. The new formula, Option P-A1, uses three factors: primary system vehicle miles of travel weighted 70 percent, primary system lane mileage weighted 20 percent, and a primary system needs factor weighted 10 percent. The factors are expressed as their percentage of the statewide total. The formula was developed for use in allocating primary system funds on the basis of the nine DHT construction districts.

The regression equation used to develop this formula performed very well. The amount of variation in need explained (R^2) by the formula is .94, or about 94 percent.

Primary system travel is a measure of the existing demand for highway transportation. It is a measure of the overall amount of travel on the primary system in each district, and is used to allocate funds on the theory that more travel would create an increased need for highways.

The second factor, lane mileage, measures the size of the existing system. The relative size of the primary system within a construction district is related to the relative need for improvements in the system in each district. The need stems from the deficiencies in current connectors, and the tendency of expanding transportation systems to stimulate increased use of the system.

The third factor, primary system needs, accounts for needs which are not represented by the other two factors. These needs may

PRIMARY SYSTEM FORMULA (Continued)

have arisen from a number of sources, such as construction cost differences, historical under-allocations, or construction difficulty in a particular district. Evidence of the need for such a factor was indicated by the measured differences between allocation percentages of formulas without the factor, and the percentage of need in each district.

While the Commission would prefer that funds be allocated by the actual needs factors, the new formula is a vast improvement over previous formulas proposed.

Because of the long-term adverse impacts of using directly the needs proportions, JLARC staff support the use of the revised primary system formula developed jointly with the VDH&T staff.

URBAN SYSTEM FORMULA (SJR 20 Bill No. 12)

JLARC Staff Recommendation:

Recommendation (7). The General Assembly may wish to amend the Code of Virginia to establish a statutory formula for allocating urban system funds based on the proportion of population in the jurisdictions eligible for urban funding. Annual allocations should be made only to those cities and towns with approved urban projects.

Highway Commission Position (Item III.C.):

The Commission agrees in principle with this recommendation.

Current Status:

JLARC staff and the Highway Commission agree on this recommendation.

SECONDARY SYSTEM HOLD-HARMLESS (SJR 20 Bill No. 13)

JLARC Staff Recommendation:

Recommendation (5). Because the construction allocations for FY 1977 were not based on any statewide, consistent criteria and appear to be inequitable, the General Assembly may wish to amend Section 33.1-23.4 of the Code of Virginia to end the use of FY 1977 allocations as an allocation requirement.

Highway Commission Position (Item III.B.2.):

The Commission supports this JLARC staff recommendation.

Current Status:

JLARC staff and the Highway Commission agree on this recommendation.

SECONDARY SYSTEM FORMULA (SJR 20 Bill No. 14)

JLARC Staff Recommendation:

Recommendation (6). The General Assembly may wish to amend the current statutory formula for allocating secondary system funds to include factors which have been shown to be independent measures. The alternative formulas presented by JLARC include only the objective factors which meet this criterion.

Highway Commission Position (Item III.B.1.):

The current formula is not technically based, is unnecessarily complex, and costly to support. The Commission supports the JLARC staff position that the formula be simplified and finds S-1 and S-2 technically adequate, logical, and less costly to support from a data standpoint.

Current Status:

JLARC staff and the Highway Commission agree on this recommendation.

ARLINGTON AND HENRICO COUNTY ALLOCATIONS (SJR 20 Bill No. 15)

JLARC Staff Recommendation:

Recommendation (24). The General Assembly may wish to repeal Section 33.1-23.5 of the Code of Virginia, substituting a new process for allocating funds to Arlington and Henrico which provides: (1) an amount for maintenance and administration on a per lane-mile basis at the rate of \$6,254 per lane-mile for Arlington and \$3,130 per lane-mile for Henrico in FY 1984, with the rates adjusted annually to account for increases or decreases in maintenance costs due to inflation for the secondary system; and (2) an amount for construction as allocated by formula for the secondary system. The total allocations should be made to the counties as a lump sum on a quarterly basis as is the current practice.

Highway Commission Position (Item II.G.):

The Commission agrees that the method of determining payments to Arlington and Henrico Counties should be simplified; however, it can find no basis for payments to Arlington and Henrico County's local road maintenance to be any different than the proposed rate of \$4,215 per lane-mile for "other streets" in municipalities.

The Commission concurs in the JLARC recommendation that Arlington and Henrico County each receive an allocation under the Secondary Roads formula, a portion of which would be federal aid funds administered by the Department.

Current Status:

JLARC and VDH&T staffs have developed two alternative methods for allocating maintenance assistance to Arlington and Henrico Counties, based on differing measures of equity.

The JLARC option, which was originally proposed in House Document 11 and is currently included in SJR 20, bases equity on the relationship of the two counties to the counties in the State secondary system. As a result, the methods for developing the payment rates employed an estimate of maintenance costs based on State standards, and an estimate of administrative costs based on budgeted expenditures. The different payment rates are a reflection of the differences in the size and function of the highway systems in the two counties, and the somewhat higher costs for Northern Virginia. Thus, the payment rates more closely reflect the actual costs of maintenance and administration for Arlington and Henrico. Payments would be made on a per lane mile basis. Construction allocations would be made from the secondary system construction fund by formula, as for the other counties.

ARLINGTON AND HENRICO COUNTY ALLOCATIONS (Continued)

The VDH&T option bases equity on equal treatment of the two counties with the cities of the Commonwealth. This option recognizes that Arlington and Henrico local road systems are maintained and administered by the local governments in the same way as streets in the cities and towns. As a result, VDH&T recommends the use of the functional payment rates for city street payments to fund the maintenance allocation for Arlington and Henrico. Payments for the two functional classes would be made on a per lane mile basis as in cities. Construction allocations would be made from the secondary system construction fund by formula, as for the other counties.

The FY 1985 rates for the two options are shown in the table below.

SUMMARY OF PAYMENT RATES		
	<u>Arlington</u>	<u>Henrico</u>
JLARC Option	\$6,735	\$3,371
VDH&T Option		
Arterial	\$7,307	\$7,307
Others	\$3,721	\$3,721

URBAN STREET PAYMENT CLASSES (SJR 20 Bill No. 16)

JLARC Staff Recommendation:

Recommendation (18). The General Assembly should amend Sections 33.1-41, 33.1-43, and 33.1-80 of the Code of Virginia to establish the functional classification of roads defined by the FHWA as the basis for making urban street payments. The principal and minor arterial systems should be grouped into one payment category, and the collector and local streets grouped into a second category. As an alternative, collector and local streets might remain separate because of the differences in mileage.

Highway Commission Position (Item II.F.1.):

The Commission does not support this recommendation.

Current Status:

VDH&T supports the use of the functional classes recommended by JLARC staff, with the cost for street lighting included for the arterial class only. The cost of preparing the inventory of urban streets necessary to make payments to the cities and towns is estimated to be \$200,000, including the costs necessary to inventory Arlington and Henrico Counties.

URBAN STREET PAYMENT RATES (SJR 20 Bill No. 16)

JLARC Staff Recommendation:

Recommendation (19). Payment rates should be established for the functional categories of streets and roads on the same basis as for state maintenance on county roads. Rates could be based on the estimates for ordinary and replacement maintenance prepared for JLARC by DHT resident engineers.

Highway Commission Position (Item II.F.4.):

As noted earlier, the Commission does not agree with the functional class basis of payment proposed in House Document 11. The Commission proposes that at the least, the "other street" rate should be reduced to account for the street lighting component. If this recommendation, alone, were implemented, the rates noted below would result. This represents a 15.5 percent increase over the current allocation.

<u>Administrative Class</u>	<u>Rates</u>	<u>Lane Miles</u>	<u>Total (Millions)</u>
Primary Extensions	\$7,260	3,436	\$24.945
Other Streets	\$4,215	15,205	\$64.089
			<u>\$89.034</u>

Current Status:

VDH&T and JLARC staff agree on the use of the functional classes as the basis for making payments to the cities and towns. In addition, JLARC and VDH&T agree on the rate to be paid for the arterial class. The rate includes the cost of street lighting for principal and minor arterial highways.

Two different rates are proposed for the collector/local class because of a difference of opinion on whether or not the cost of street lighting should be included in calculating the payment rate. JLARC staff support the inclusion of lighting in the estimate of the rate. VDH&T does not support the inclusion of lighting costs; however, with the exception of the concern for the use of the unconstrained budget estimate developed by the Department's resident engineers, the Department can find no basis to take issue with the technical procedures used by JLARC in the development of the proposed rates.

The functional class rates proposed by VDH&T and JLARC staff are shown in the table below:

URBAN STREET PAYMENT RATES (Continued)

PROPOSED RATES FOR URBAN STREET PAYMENTS		
	<u>JLARC Option</u>	<u>VDH&T Option</u>
Arterials	\$7,307	\$7,307
Collectors/Locals	\$4,860	\$3,721

USE OF A SINGLE URBAN STREET PAYMENT RATE (SJR 20 Bill No. 16)

JLARC Staff Recommendation:

Recommendation (20). The General Assembly should amend Sections 33.1-41, 33.1-43, and 33.1-80 of the Code of Virginia to eliminate the use of different payment rates in the eight [nine] DHT construction districts. A single rate for each funding class should be used statewide.

Highway Commission Position (Item II.F.2.):

The Commission agrees with the JLARC staff recommendation.

Current Status:

The Highway Commission and JLARC staff agree on this recommendation.

URBAN STREET PAYMENTS ANNUAL INDEX (SJR 20 Bill No. 16)

JLARC Staff Recommendation:

Recommendation (22). The General Assembly may wish to amend Sections 33.1-41, 33.1-43, and 33.1-80 of the Code of Virginia to establish a method for annually adjusting payments to cities and towns. DHT should establish a unit cost index with a 1983 base which would indicate changes in maintenance allocations due to inflation each year. Adjustments should be made to the base rates established for urban street payments. Each adjustment thereafter should also be made to the base rates.

Highway Commission Position (Item II.F.3.):

The Commission agrees with this JLARC recommendation, but would suggest a 1985 base year.

Current Status:

JLARC and DHT staff agree that the base payment rate for urban street payments should be established for FY 1986. It is also agreed that the inflation index base should be established for 1984 in order to give the Department sufficient historical data on maintenance costs to calculate index rates in subsequent years.

URBAN PAVEMENT STANDARDS (SJR 20 Bill No. 17)

JLARC Staff Recommendation:

Recommendation (23). The General Assembly may wish to amend Sections 33.1-43 and 33.1-221(b) of the Code of Virginia to allow the Highway and Transportation Commission to grant variances in the pavement width requirements for industrial access roads located in cities and towns that qualify for urban street payments. The Commission should take into consideration the need for parking on industrial access roads.

Highway Commission Position (Item IV.A.):

The Commission does not agree with the JLARC staff proposal because it is in conflict with policy of the General Assembly.

Current Status:

Because of the impact that this recommendation might have on the urban street standards established by local ordinances, VDH&T and JLARC staff agree that the General Assembly may wish to review more fully the proposed change prior to its implementation.

PUBLIC TRANSPORTATION OPERATING ASSISTANCE (SJR 20 Bill No. 18)

JLARC Staff Recommendation:

Recommendation (25). The General Assembly may wish to reconsider its general prohibition on the use of state assistance for operating costs. However, assistance for capital acquisition, ridesharing administrative support, and experimental transit programs should be funded prior to the allocation of operating assistance. The distribution of operating assistance should be on the basis of one or more factors which promote the statewide objectives endorsed by the General Assembly, and in no case should state operating assistance to a transit system exceed the actual operating expenditures.

Highway Commission Position (Item III.D.1.):

The Commission opposes this JLARC staff recommendation.

Current Status:

The Department and JLARC staff have been unable to reach agreement on this recommendation as a result of differences in approach:

The Department believes that the current system which includes reimbursement for eligible items such as fuel and tires results in a less intrusive State assistance program, preserves the local responsibility for costs associated with labor, and relates clearly and directly to need.

JLARC staff believe that operating assistance, allocated by a formula which accounts for need and performance, provides for an equitable allocation of available funds, and provides for greater flexibility in the use of State aid at the local level.

DEVELOPMENT OF PAVEMENT MANAGEMENT SYSTEM (SJR 20 Proposed Resolution)

JLARC Staff Recommendation:

Recommendation (14). The General Assembly may wish to require that DHT take all necessary steps to ensure that the pavement management system now under development is used in budgeting on all highway systems for the 1986-88 biennium. In order to monitor the process, the department could be required to periodically report its progress to the House Roads and Internal Navigation Committee and the Senate Transportation Committee.

Highway Commission Position (Item IV.E.2.(a)):

VDH&T is committed to development of a comprehensive and reliable pavement management system, and will use the system to the extent possible in preparing the 1986-88 budget.

Current Status:

The Department has prepared a summary of progress made in development of the system, which includes a commitment to use the PMS data, to the extent possible, for the 1986-1988 budget. Copies of the summary have been provided to the SJR 20 Joint Subcommittee. Additionally, DHT has assigned two fulltime employees to the effort, and an additional engineer is to be assigned in the near future. JLARC staff believe these actions demonstrate a commitment by the Department to complete development of the PMS at the earliest possible date.

USE OF THE PAVEMENT MANAGEMENT SYSTEM (SJR 20 Proposed Resolution)

JLARC Staff Recommendation:

Recommendation (15). The department should put a high priority on integrating the pavement management system into the budgeting process as required by the Appropriations Act. The system should be used to help determine funding needs for maintenance replacement. The threshold rating for resurfacing consideration should be set based on a study of the optimal distress ratings below which pavements should be replaced, rather than on predetermined resurfacing cycles. The pavement management system should also be used to project future biennial budget replacement needs, to assess the consequences of deferred replacement maintenance, and to assess the cost-effectiveness of various types of replacement activities (such as a comparison of surface treatment and plant mix).

Highway Commission Position (Item IV.E.2.(b)):

VDH&T is proceeding toward completion of the pavement management system. Data is being used as it becomes available and will be considered in preparation of the 1986-88 biennial budget.

Current Status:

The Department has prepared a summary of progress made in development of the system, which includes a commitment to use the PMS data, to the extent possible, for the 1986-1988 budget. Copies of the summary have been provided to the SJR 20 Joint Subcommittee. Additionally, DHT has assigned two fulltime employees to the effort, and an additional engineer is to be assigned in the near future. JLARC staff believe these actions demonstrate a commitment by the Department to complete development of the PMS at the earliest possible date.

ADEQUACY OF DATA (House Bill 82, 1984)

JLARC Staff Recommendation:

Recommendation (10). The General Assembly may wish to amend the Code of Virginia to mandate the collection of data for the evaluation of highway fund equity. Because it is essential to such evaluations, the collection of data on vehicle miles of travel for all systems should be specifically included in such a mandate.

Highway Commission Position (Item IV.D.):

VDH&T agreed to collect data on urban vehicle miles of travel in a February 9, 1984, letter to the JLARC staff. The information will be collected using a statistical sampling method, at an estimated cost of \$560,000.

Current Status:

The Department will provide JLARC staff with urban travel data at the end of the current fiscal year, based on the methodology agreed to by VDH&T and JLARC. The data will be used to assess the strength of urban VMT in estimating construction needs in the cities and towns, and to judge the usefulness of continued collection of the data. The analysis will determine if urban VMT is related to other factors which might be used in allocating funds, making its collection for the purpose of allocations unnecessary. The appropriateness of the Department's methodology for future use in urban count programs, and the costs incurred in collecting and reporting the data will also be reviewed.

COLLECTION OF UNIFORM TRANSIT DATA (House Bill 83, 1984)

JLARC Staff Recommendation:

Recommendation (26). The Public Transportation Division should develop uniform financial and operating data for all transit systems. The division should develop specific methodologies for the collection of such data by the transit operators. In addition, the division should regularly and systematically verify the data with annual financial audits and periodic field reviews. To the extent possible, the data should include, but not be limited to, the measures necessary to implement a performance evaluation program.

Highway Commission Position (Item III.D.3.):

The Commission agrees with the intent of this JLARC staff recommendation and with the wording of House Bill 83, as enacted.

Current Status:

JLARC staff and the Highway Commission are in agreement on this recommendation as it was enacted in House Bill 83, and no additional revision of the Code is necessary.

TRANSIT DATA COLLECTION AND REPORTING (House Bill 83, 1984)

JLARC Staff Recommendation:

Recommendation (27). The General Assembly may wish to amend Section 33.1-391E of the Code of Virginia to require the directorate of public transportation to collect and report data which may be required for the allocation of public transportation assistance.

Highway Commission Position (Item III.D.4.):

The intent of this recommendation in respect to data collection and reporting is now being carried out administratively.

The Commission supports House Bill 83 as enacted.

Current Status:

JLARC staff and the Highway Commission are in agreement on this recommendation as it was enacted in House Bill 83, and no additional revision of the Code is necessary.

FUTURE REASSESSMENTS OF FUND EQUITY (House Document 11)

JLARC Staff Recommendation:

Recommendation (11). The Secretary of Transportation and Public Safety should ensure that a reassessment of highway construction allocations is made on a periodic basis as part of the statewide transportation planning process. The analysis should be based on the prioritization of needs among systems and localities, and transportation goals should be more clearly established for the future. An improved methodology for identifying special needs and involving local governments should be developed.

Highway Commission Position (Item IV.C.):

The Commission agrees with this JLARC staff recommendation. In future work to update the statewide highway plan, VDHT will endeavor to increase local government participation.

Current Status:

JLARC staff and the Highway Commission agree on this recommendation.

MAINTENANCE BUDGET ESTIMATES (House Document 11)

JLARC Staff Recommendation:

Recommendation (12). DHT should prepare its biennial maintenance budget on the basis of a realistic assessment of the ordinary and replacement maintenance program to be accomplished, and the actual expenditures anticipated in achieving the proposed program.

DHT should revise its six-year program estimates on the basis of actual costs for the 1983 base year. Maintenance projections should be reduced by \$30.8 million in FY 1985, \$32.6 million in FY 1986, \$34.1 million in FY 1987, \$35.7 million in FY 1988, \$37.3 million in FY 1989, and \$39.0 million in FY 1990.

Because the budget for the 1984-86 biennium was also based on an artificially high budget for FY 1983, the General Assembly could reduce the maintenance appropriation for the second year of the 1984-86 biennium by \$32.6 million without any reduction of the maintenance work accomplished by the department.

Highway Commission Position (Item II.H.):

The Commission feels that sufficient balances must be maintained to cover the anticipated payouts in FY 1985 and that the reduction of the maintenance budget by more than the \$9 million identified by the Department would severely disrupt planned maintenance replacement projects.

Current Status:

JLARC staff have reviewed the Department's revised maintenance budget for 1985 in order to make an independent assessment of the reasonableness of assumptions and the appropriateness of the methodology. As a result of that analysis, JLARC staff now agree with the amount budgeted for the major expenditure items. JLARC staff believe that the amount budgeted by VDH&T for the new Snow Emergency Fund is based on a worst case estimate, and may be more than necessary. As a result, JLARC staff recommend further review of the amount to be budgeted for the fund to ensure that it does not unnecessarily reduce the funds available for other purposes.

The revisions made in the maintenance program by VDH&T resulted in a total net reduction of \$9,363,283 for FY 1985. The revisions to the maintenance program included: (1) a reduction of \$16,604,957 in the general program reserve, (2) an increase of \$3,191,674 in the maintenance replacement item, and (3) the addition of \$2,000,000 for the wet accident program, \$1,000,000 for maintenance replacement reserves, \$550,000 for the thermo-plastic project, and \$500,000 for the pavement management system.

MAINTENANCE BUDGET ESTIMATES (Continued)

The original and revised maintenance budget items are shown in the table below.

REVISED MAINTENANCE BUDGET FY 1985		
<u>Expenditure Item</u>	<u>Original Budget</u>	<u>Revised Budget</u>
Ordinary Maintenance	\$169,089,624	\$169,089,624
Maintenance Replacement	115,345,314	118,536,988
Snow Emergency Fund	9,100,000	9,100,000
Storm Damage Fund	2,500,000	2,500,000
Wet Accident Sites	-0-	2,000,000
Maintenance Replacement Reserve	-0-	1,000,000
Thermo-Plastic Project	-0-	550,000
Pavement Management System	-0-	500,000
General Program Reserve	<u>16,604,957</u>	<u>-0-</u>
TOTAL	\$312,639,895	\$303,276,612

MAINTENANCE MANAGEMENT SYSTEM WORKLOAD STANDARDS (House Document 11)

JLARC Staff Recommendation:

Recommendation (13). DHT should review the MMS [Maintenance Management System] standards periodically and update the standards based on work priorities, workload assumptions, and quality considerations.

Highway Commission Position (Item IV.E.1.):

The Commission agrees with this JLARC staff recommendation.

Current Status:

The Highway Commission and JLARC staff agree on this recommendation.

USE OF PAVEMENT MANAGEMENT SYSTEM FOR ORDINARY MAINTENANCE
(House Document 11)

JLARC Staff Recommendation:

Recommendation (16). DHT should explore the use of pavement condition measures of the pavement management system as one factor in allocating ordinary maintenance surface repair funds.

Highway Commission Position (Item IV.E.2.(c)):

The Commission agrees with this JLARC staff recommendation.

Current Status:

JLARC staff and the Highway Commission agree on this recommendation.

ADJUSTMENT OF URBAN STREET PAYMENT RATES (House Document 11)

JLARC Staff Recommendation:

Recommendation (21). For urban street payments to be reasonable and equitable among municipalities, a clear and reasonable definition of maintenance experience is necessary. The definition should be tied to the level of maintenance funding DHT provides, as well as the activities that occur in cities and towns.

Highway Commission Position (Item IV.B.):

The Commission would develop standards of maintenance for municipal streets as directed by the General Assembly.

Current Status:

DHT has agreed to develop a measure of maintenance experience that is clearly related to urban maintenance. JLARC staff will assist the Department to the extent necessary.

TRANSIT SYSTEM PERFORMANCE EVALUATION (House Document 11)

JLARC Staff Recommendation:

Recommendation (28). The Public Transportation Division should implement a performance evaluation system as soon as possible. The results of performance evaluations should be used to improve the technical assistance provided to the transit operators by DHT. In addition, the General Assembly may wish to adopt the use of performance measures as a part of the public transportation allocation process.

Highway Commission Position (Item III.D.5.):

The Commission agrees with the JLARC staff on the importance of performance evaluation, but believes such a process -- which has been initiated -- should be used to strengthen transit management and to guide technical assistance, not to allocate funds. Fund allocations should be based on public transportation needs, not on performance measures which do not account for significant differences between localities.

Current Status:

The Commission and JLARC staff are in basic agreement on the importance of the performance evaluation system. It has not been possible to reach agreement on the use of performance indicators in a formula for allocating transit operating assistance.

ANALYSIS OF PROGRAM FUNDING IMPACT

The following tables are estimates of the allocations which result from the proposed changes in the provisions for allocating highway and public transportation funds. They have been produced jointly by the the staffs of the Virginia Department of Highways and Transportation and the Joint Legislative Audit and Review Commission for informational purposes only, and do not represent a commitment of actual funding by the General Assembly or the Highway and Transportation Commission. Actual allocations in future years may differ from the estimates shown here.

Table 1: Changes in the Current Six-Year Program

Table 2: Estimated 1985 Urban Assistance Payments to Cities and Towns

Table 3: Estimated 1985 Funding for Arlington and Henrico Counties

Table 4: Summary of Maintenance Funding for Arlington and Henrico

Table 5: Estimated 1985 Assistance for Public Transportation

Table 6: Estimated 1985 Construction Allocations for Unpaved Roads

Table 7: Estimated 1985 Primary System Construction Allocations

Table 8: Estimated 1985 Secondary System Construction Allocations

Table 9: Estimated 1985 Urban System Construction Allocations

NOTE: ALL PREVIOUS TABLES SHOWING ESTIMATED ALLOCATIONS, WHETHER PREPARED BY VDH&T OR JLARC, ARE OBSOLETE.

Table 1
CHANGES IN HIGHWAY AND TRANSPORTATION PROGRAM FUNDING
FROM REVISED JLARC AND DHT PROPOSALS

December 18, 1984
Based on Revenue Estimates of December, 1984

Program	1984 Actual	1985	1986	1987	1988	1989	1990
HIGHWAY FUND REVENUES							
March 1984 Estimate	\$1,031,036,800	\$1,210,832,100	\$1,125,548,100	\$1,116,928,900	\$1,127,044,500	\$1,138,043,700	\$1,150,964,500
December 1984 Estimate		1,227,994,160	1,224,034,564	1,138,346,900	1,151,815,500	1,151,090,700	1,163,920,500
ADMINISTRATION AND OTHER							
Current Program	167,773,965	175,981,895	183,650,020	179,770,300	186,647,800	187,298,700	194,335,000
Revised DHT Program		175,981,895	183,650,020	179,770,300	186,647,800	187,298,700	194,335,000
Revised JLARC Program		175,981,895	183,650,020	179,770,300	186,647,800	187,298,700	194,335,000
COUNTY MAINTENANCE							
Current Program	289,428,300	312,639,895	332,605,675	351,272,800	369,379,100	386,056,100	403,606,500
Revised DHT Program		303,276,612	323,605,677	342,272,791	360,379,165	377,056,139	394,606,439
Revised JLARC Program		303,276,612	323,605,677	342,272,791	360,379,165	377,056,139	394,606,439
URBAN ASSISTANCE PAYMENTS							
Current Program	69,900,000	77,117,300	83,301,960	88,621,800	93,595,600	98,420,000	102,863,500
Revised DHT Program		85,032,589	91,748,644	97,076,187	103,579,758	109,792,167	116,442,412
Revised JLARC Program		101,355,632	109,509,089	115,996,977	123,913,122	131,509,485	139,622,550
ARLINGTON AND HENRICO COUNTIES*							
Current Program	13,604,000	13,938,400	14,031,200	13,973,600	13,806,700	13,732,900	13,812,000
Revised DHT Program		11,021,092	11,880,710	12,558,794	13,386,718	14,174,372	15,016,331
Revised JLARC Program		11,524,339	12,478,335	13,524,427	14,357,642	15,306,270	16,322,674
PUBLIC TRANSPORTATION ASSISTANCE							
Current Program	35,246,335	35,653,360	35,769,580	35,786,400	35,798,900	35,811,900	35,825,100
Revised DHT Program		35,653,360	35,769,580	35,786,400	35,798,900	35,811,900	35,825,100
Revised JLARC Program		40,434,513	41,152,530	41,728,950	42,252,650	42,690,650	43,374,000
HIGHWAY CONSTRUCTION							
Current Program	455,084,200	595,501,250	476,189,665	447,504,000	427,816,400	416,724,100	400,522,400
Revised DHT Program		617,028,612	577,379,933	470,882,428	452,023,159	426,957,422	407,695,218
Revised JLARC Program		596,172,729	556,893,470	448,769,555	427,907,871	401,233,806	379,764,087

*Does not include Construction Allocations.

TABLE 1 (continued)
DETAIL OF CONSTRUCTION ALLOCATIONS

Program	1984 Actual	1985	1986	1987	1988	1989	1990
INTERSTATE FEDERAL AID							
Current Program	207,900,000	262,914,000	209,079,000	200,060,000	200,060,000	200,060,000	200,060,000
Revised DHT Program		262,914,000	267,297,000	200,060,000	200,060,000	200,060,000	200,060,000
Revised JLARC Program		262,914,000	267,297,000	200,060,000	200,060,000	200,060,000	200,060,000
INTERSTATE DISCRETIONARY MATCH							
Current Program	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000
Revised DHT Program		18,614,060	20,580,522	13,947,189	14,757,134	16,528,674	17,316,005
Revised JLARC Program		22,909,137	25,495,936	18,409,178	18,050,937	19,539,654	20,329,876
OTHER MISCELLANEOUS CONSTRUCTION							
All Programs	24,120,200	28,138,380	28,336,275	28,580,900	28,885,600	29,155,100	29,427,800
UNPAVED ROAD FUND							
Current Program	9,400,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000	10,750,000
Revised DHT Program (3.75%)		11,526,081	9,793,730	8,561,038	7,812,016	6,795,512	6,033,428
Revised JLARC Program (7.6%)		21,448,052	17,918,084	15,330,680	13,749,261	11,588,408	9,875,927
PRIMARY SYSTEM AND INTERSTATE MATCH							
<u>Gross Primary</u>							
Current Program (50%)	103,334,000	143,349,430	110,512,194	100,558,905	90,562,718	84,881,831	76,644,681
Revised DHT Program (50%)		147,918,045	125,686,203	109,866,651	100,254,205	87,209,068	77,428,992
Revised JLARC Program		95,549,629	79,918,101	68,044,147	61,874,067	52,124,445	44,657,578
<u>Interstate Match from Districts</u>							
Current Program	21,337,000	28,852,000	21,511,000	20,281,000	20,281,000	20,281,000	20,281,000
Revised DHT Program		17,237,940	15,869,478	13,333,811	12,523,866	10,752,326	9,964,995
Revised JLARC Program		12,942,863	10,954,064	8,871,822	9,230,063	7,741,346	6,951,124
<u>Net Primary</u>							
Current Program	81,967,000	114,497,430	89,001,194	80,277,905	70,281,718	64,600,831	56,363,681
Revised DHT Program		130,680,105	109,816,725	96,532,840	87,730,339	76,456,742	67,463,998
Revised JLARC Program (1/3)		82,606,766	68,964,037	59,172,325	52,644,003	44,383,099	37,706,453
SECONDARY SYSTEM							
Current Program (25%)	51,660,000	71,674,720	55,256,097	50,279,452	45,281,359	42,440,915	38,322,340
Revised DHT Program (25%)		73,959,023	62,843,102	54,933,325	50,127,102	43,604,534	38,714,496
Revised JLARC Program (1/3)		82,606,766	68,964,037	59,172,325	52,644,003	44,383,099	37,706,453
URBAN SYSTEM							
Current Program (25%)	51,660,000	71,674,720	55,256,097	50,279,452	45,281,359	42,440,915	38,322,340
Revised DHT Program (25%)		73,959,023	62,843,102	54,933,325	50,127,102	43,604,534	38,714,496
Revised JLARC Program (1/3)		82,606,766	68,964,037	59,172,325	52,644,003	44,383,099	37,706,453

Source: JLARC and VDH&T Analysis (WP0027A).

Table 2
ESTIMATE OF ALLOCATIONS FOR FY 1985
URBAN ASSISTANCE PAYMENTS

<u>City/Town</u>	<u>Actual 1984 Allocation</u>	<u>Actual 1985 Allocation</u>	<u>Revised JLARC Option</u>	<u>Revised VDH&T Option</u>
Abingdon	\$ 187,082	\$ 219,621	\$ 284,490	\$ 238,383
Alexandria	2,017,540	2,147,338	2,666,272	2,313,375
Altavista	171,231	211,452	246,208	188,506
Ashland	272,289	275,779	305,402	233,828
Bedford	332,823	360,572	420,052	351,165
Big Stone Gap	193,286	228,399	298,398	237,609
Blacksburg	697,337	750,044	966,321	782,202
Blackstone	226,582	226,575	288,287	229,697
Bluefield	147,856	183,378	226,390	189,122
Bridge Tunnel	235,459	242,124	307,259	307,259
Bridgewater	61,124	66,263	82,426	63,108
Bristol	759,132	901,149	1,224,821	1,014,061
Buena Vista	287,780	349,370	432,974	355,682
Charlottesville	1,145,047	1,185,544	1,478,352	1,240,847
Chase City	122,404	120,569	162,227	124,207
Chesapeake	4,857,942	5,128,116	7,617,746	6,386,852
Christiansburg	508,463	553,098	705,884	588,726
Clifton Forge	167,072	183,368	213,459	174,050
Colonial Heights	582,561	580,185	768,715	618,800
Covington	314,962	345,745	405,256	332,816
Culpeper	390,803	401,946	458,669	395,887
Danville	1,698,779	2,167,324	2,471,895	2,120,388
Elkton	93,055	100,879	124,513	95,332
Emporia	182,979	191,857	284,255	236,576
Fairfax	737,523	756,429	870,362	750,482
Falls Church	332,202	340,457	407,429	352,666
Farmville	312,866	390,792	423,999	362,630
Franklin	261,690	273,804	417,989	359,672
Fredericksburg	474,337	692,602	832,391	710,176
Front Royal	469,444	515,422	630,332	535,419
Galax	474,360	511,822	673,635	573,540
Grottoes	--	98,613	120,334	92,132
Hampton	3,089,782	3,250,764	4,916,971	4,243,173
Harrisonburg	594,734	1,020,157	1,263,795	1,087,568
Herndon	313,061	336,600	448,522	386,697

Table 2 (Continued)
ESTIMATE OF ALLOCATIONS FOR FY 1985
URBAN ASSISTANCE PAYMENTS

<u>City/Town</u>	<u>Actual 1984 Allocation</u>	<u>Actual 1985 Allocation</u>	<u>Revised JLARC Option</u>	<u>Revised VDH&T Option</u>
Hopewell	\$ 898,831	\$ 898,479	\$ 1,203,261	\$ 996,954
Leesburg	200,310	206,859	247,522	204,376
Lexington	206,398	226,996	272,124	231,621
Luray	221,884	243,932	289,514	231,835
Lynchburg	2,601,813	3,257,097	3,686,571	3,147,540
Manassas	581,467	660,478	803,531	679,141
Manassas Park	130,265	134,222	156,432	128,436
Marion	234,069	279,039	379,963	321,122
Martinsville	798,220	859,595	1,161,118	990,940
Narrows	86,403	92,212	135,788	103,965
Newport News	3,412,948	3,565,228	5,159,331	4,361,826
Norfolk	5,780,824	6,083,089	8,963,214	7,566,424
Norton	192,291	231,291	254,956	195,204
Pearisburg	89,429	95,441	129,276	98,979
Petersburg	1,535,517	1,545,162	1,989,156	1,658,311
Poquoson	302,357	323,471	458,542	368,287
Portsmouth	2,782,087	2,972,951	4,538,966	3,741,393
Pulaski	448,737	483,522	636,202	529,125
Radford	540,288	580,525	784,171	674,850
Richlands	136,495	160,554	219,922	173,998
Richmond	7,084,389	7,336,282	9,641,329	8,112,484
Roanoke	3,547,871	3,812,551	4,967,115	4,077,249
Rocky Mount	216,794	233,410	270,540	215,253
Salem	1,042,661	1,126,523	1,451,279	1,212,533
Saltville	48,395	70,847	96,908	74,197
Smithfield	118,100	132,153	204,023	156,208
South Boston	339,434	430,841	490,055	411,647
South Hill	301,320	311,570	388,392	319,938
Staunton	848,958	940,267	1,122,484	944,527
Suffolk	262,535	274,679	407,484	343,529
Tazewell	162,956	188,869	190,929	148,991
Vienna	504,091	523,510	657,926	545,689
Vinton	288,551	309,337	401,102	322,374
Virginia Beach	7,320,758	8,190,311	12,479,497	10,415,264
Warrenton	288,493	292,473	306,078	258,320

Table 2 (Continued)
ESTIMATE OF ALLOCATIONS FOR FY 1985
URBAN ASSISTANCE PAYMENTS

<u>City/Town</u>	<u>Actual 1984 Allocation</u>	<u>Actual 1985 Allocation</u>	<u>Revised JLARC Option</u>	<u>Revised VDH&T Option</u>
Waynesboro	\$ 617,673	\$ 686,687	\$ 837,826	\$ 706,203
Williamsburg	335,643	392,514	506,469	430,224
Winchester	631,493	698,349	957,996	791,497
Wise	94,153	110,810	132,484	101,434
Woodstock	111,219	120,570	149,980	114,830
Wytheville	499,891	594,518	780,148	653,240
TOTAL	\$68,559,638	\$74,985,369	\$101,355,632	\$85,032,589

Summary of Rates

<u>Payment Category</u>	<u>Revised JLARC Functional Rate*</u>	<u>Revised VDH&T Functional Rate**</u>
Arterials	\$7,307	7,307
Collectors/Locals	\$4,860	3,721

*Street lighting costs included for all functional categories.

**Street lighting costs included for arterial functional categories only.

Source: JLARC Analysis.

Table 3
ESTIMATE OF ALLOCATIONS FOR FY 1985
ARLINGTON AND HENRICO COUNTIES

JLARC OPTION

<u>County</u>	<u>Actual 1985 Allocation</u>	<u>Maintenance</u>	<u>Construction</u>	<u>Total</u>
Arlington	\$ 6,118,273	\$ 5,283,944	\$3,126,872	\$ 8,410,816
Henrico	9,109,609	6,240,395	3,891,300	10,131,695
TOTAL	15,227,882	11,524,339	7,018,172	18,542,511

VDH&T OPTION

<u>County</u>	<u>Actual 1985 Allocation</u>	<u>Maintenance</u>	<u>Construction</u>	<u>Total</u>
Arlington	\$ 6,118,273	\$ 3,404,102	\$2,799,533	\$ 6,203,635
Henrico	9,109,609	7,616,990	3,483,937	11,100,927
TOTAL	15,227,882	11,021,092	6,283,470	17,304,562

Source: JLARC and VDH&T Analysis.

Table 4
MAINTENANCE FUNDING FOR ARLINGTON AND HENRICO COUNTIES

JLARC OPTION
(Original Proposal from House Document 11)
(With Revised Mileage and Rates)

County	1985	1986	1987	1988	1989	1990
Arlington	5,283,944	5,721,559	6,200,971	6,583,630	7,018,744	7,484,069
Henrico	6,240,395	6,756,776	7,323,456	7,774,012	8,287,526	8,838,605
TOTAL	11,524,339	12,478,335	13,524,427	14,357,642	15,306,270	16,322,674

VDH&T OPTION
(Revised Proposal Based on Functional Rates for City Street Payments)
(With Revised Mileage and Rates)

County	1985	1986	1987	1988	1989	1990
Arlington	3,404,102	3,666,057	3,871,532	4,122,771	4,361,236	4,615,923
Henrico	7,616,990	8,214,653	8,687,262	9,263,947	9,813,136	10,400,408
TOTAL	11,021,092	11,880,710	12,558,794	13,386,718	14,174,372	15,016,331

Source: VDH&T and JLARC Analysis (WP0037A).

Table 5
ESTIMATE OF ALLOCATIONS FOR FY 1985
PUBLIC TRANSPORTATION

PROGRAM ALLOCATIONS

FUNDS AVAILABLE	\$40,434,513
Less: 50% of Rail Capital (Va. only)	14,935,384
50% of Bus Capital	3,354,116
1% for Experimental Projects	365,765
1% for Ridesharing Support	365,765
UMTA Grants and Other	3,858,060
Funds Remaining for Operating Assistance	\$17,555,423

SYSTEM ALLOCATIONS
OPERATING ASSISTANCE FORMULA: PASSENGER TRIPS (100%)

System	Current Allocation	SJR 20 Capital Grant	SJR 20 Operating Allocation	SJR 20 Total Allocation
WMATA	\$20,634,000	\$17,000,000	\$9,050,563	\$26,050,563
Tidewater	2,914,790	0	2,181,593	2,181,593
Richmond	2,876,710	0	4,316,124	4,316,124
Peninsula	1,653,210	348,000	935,739	1,283,739
Roanoke	521,615	350,000	309,779	659,779
Lynchburg	357,790	200,000	327,000	527,000
Tri-Cities Area	113,750	0	157,433	157,433
Charlottesville	249,300	0	103,398	103,398
Danville	255,900	121,500	67,444	188,944
Bristol	30,650	10,500	8,607	19,107
Staunton	a	0	22,888	22,888
Winchester	a	1,500	36,756	38,256
James City County	a	18,000	10,484	28,484
Harrisonburg	a	19,000	9,399	28,399
JAUNT	a	31,000	18,216	49,216
Other	1,312,585	190,000	b	190,000
TOTAL	\$30,920,300	\$18,289,500	\$17,555,423	\$35,844,923

Notes:

a. Included in Other Category.

b. No data available.

Source: JLARC Analysis.

Table 6
ESTIMATE OF ALLOCATIONS FOR FY 1985
UNPAVED ROADS

County	Actual 1984 Allocation	Actual 1985 Allocation	JLARC* Option	VDH&T** Option
Accomack	\$ 3,666	\$ 4,689	\$ 9,354	\$ 4,778
Albemarle	232,650	257,963	514,679	435,791
Alleghany	13,818	19,390	38,687	22,233
Amelia	57,246	76,816	153,261	2,925
Amherst	107,160	117,015	233,464	6,046
Appomattox	59,314	82,959	165,517	1,268
Augusta	332,290	364,510	727,258	456,854
Bath	26,884	38,581	76,975	73,623
Bedford	283,222	315,970	630,413	44,271
Bland	72,850	74,309	148,258	6,241
Botetourt	157,544	170,661	340,496	95,369
Brunswick	76,704	85,630	170,846	39,006
Buchanan	318,096	354,878	708,041	1,146,865
Buckingham	189,316	260,507	519,755	15,895
Campbell	27,448	36,836	73,494	11,702
Caroline	16,638	19,772	39,448	14,530
Carroll	317,062	322,985	644,409	44,466
Charles City	8,554	9,577	19,108	43,101
Charlotte	91,368	114,834	229,113	975
Chesterfield	10,340	11,485	22,915	39,786
Clarke	44,086	49,194	98,150	64,652
Craig	17,672	19,554	39,013	0
Culpeper	194,204	213,948	426,862	223,795
Cumberland	112,424	119,849	239,120	0
Dickenson	245,246	223,889	446,695	178,061
Dinwiddie	48,034	61,515	122,732	85,715
Essex	21,620	17,282	34,481	3,315
Fairfax	27,542	28,658	57,178	120,235
Fauquier	263,858	293,690	585,961	411,022
Floyd	139,778	196,302	391,656	32,960
Fluvanna	47,846	53,355	106,453	36,080
Franklin	114,492	146,146	291,585	7,509
Frederick	148,708	180,056	359,242	249,929
Giles	92,026	102,404	204,312	43,199
Gloucester	36,942	45,795	91,370	51,292

*Allocation based on 7.6 percent at 50 vpd.

**Allocation based on 3.75 percent at 100 vpd.

Table 6 (Continued)
ESTIMATE OF ALLOCATIONS FOR FY 1985
UNPAVED ROADS

<u>County</u>	<u>Actual 1984 Allocation</u>	<u>Actual 1985 Allocation</u>	<u>JLARC Option</u>	<u>VDH&T Option</u>
Goochland	\$ 39,386	\$ 43,960	\$ 87,707	\$ 86,495
Grayson	255,304	314,353	627,186	112,531
Greene	28,858	32,220	64,285	21,161
Greensville	12,596	14,011	27,955	2,633
Halifax	135,172	153,687	306,632	2,828
Hanover	79,806	94,935	189,410	200,197
Henry	14,758	20,135	40,174	4,973
Highland	29,328	54,791	109,317	27,792
Isle of Wight	34,310	66,949	133,574	74,306
James City	1,880	2,144	4,278	1,658
King and Queen	41,830	48,812	97,388	61,922
King George	25,850	28,986	57,831	10,141
King William	31,584	33,983	67,802	26,621
Lancaster	9,494	9,595	19,144	5,948
Lee	142,504	157,631	314,500	25,354
Loudoun	435,784	479,925	957,531	941,792
Louisa	118,252	131,862	263,086	144,906
Lunenburg	109,604	120,940	241,295	94,491
Madison	112,706	123,175	245,755	109,216
Mathews	10,810	12,085	24,111	5,266
Mecklenburg	156,416	192,522	384,115	241,738
Middlesex	18,236	17,609	35,134	8,386
Montgomery	198,528	223,852	446,623	459,877
Nelson	71,816	80,087	159,788	2,145
New Kent	26,978	31,548	62,943	37,055
Northampton	0	0	0	0
Northumberland	1,128	836	1,668	0
Nottoway	13,066	29,295	58,447	36,665
Orange	101,990	106,329	212,144	84,252
Page	111,672	140,676	280,671	213,361
Patrick	186,308	182,655	364,427	0
Pittsylvania	209,996	222,580	444,085	17,845
Powhatan	45,872	60,424	120,557	118,480
Prince Edward	61,476	64,768	129,223	0
Prince George	8,554	9,541	19,035	22,916

Table 6 (Continued)
ESTIMATE OF ALLOCATIONS FOR FY 1985
UNPAVED ROADS

<u>County</u>	<u>Actual 1984 Allocation</u>	<u>Actual 1985 Allocation</u>	<u>JLARC Option</u>	<u>VDH&T Option</u>
Prince William	\$ 116,842	\$ 130,390	\$ 260,149	\$ 465,240
Pulaski	131,600	147,490	294,268	268,359
Rappahannock	96,538	107,728	214,936	141,688
Richmond	4,794	5,270	10,515	0
Roanoke	12,878	13,430	26,794	20,868
Rockbridge	139,402	168,480	336,146	222,235
Rockingham	252,014	277,080	552,822	417,263
Russell	232,274	258,835	516,419	210,436
Scott	198,058	217,601	434,150	82,497
Shenandoah	235,376	307,702	613,916	282,401
Smyth	80,464	92,390	184,334	226,623
Southampton	35,156	39,217	78,244	79,669
Spotsylvania	76,704	95,861	191,260	215,311
Stafford	28,858	30,476	60,804	62,117
City of Suffolk	26,038	43,942	87,671	98,294
Surry	10,340	11,594	23,132	0
Sussex	30,644	34,201	68,237	43,491
Tazewell	168,166	202,027	403,077	436,669
Warren	103,306	114,180	227,807	297,126
Washington	167,320	219,818	438,574	164,116
Westmoreland	34,498	38,526	76,866	44,271
Wise	125,678	93,008	185,567	184,984
Wythe	253,518	299,760	598,072	341,592
York	<u>1,034</u>	<u>3,089</u>	<u>6,164</u>	<u>4,388</u>
TOTAL	\$9,400,000	\$10,750,000	\$21,448,052	\$11,526,081

Source: VDH&T and JLARC Analysis.

Table 7
ESTIMATE OF ALLOCATIONS FOR FY 1985
PRIMARY SYSTEM CONSTRUCTION

<u>District</u>	<u>1984 Actual Allocation</u>	<u>1985 Actual Allocation</u>	<u>JLARC Option</u>	<u>VDH&T Option</u>
Bristol	\$ 9,161,000	\$ 12,843,000	\$18,153,649	\$ 28,892,996
Salem	11,243,000	15,101,000	9,505,962	15,222,917
Lynchburg	9,780,000	13,704,000	9,364,628	14,497,152
Richmond	12,763,000	19,448,000	9,579,376	16,158,797
Suffolk	11,652,000	12,483,000	6,755,168	10,457,510
Fredericksburg	4,780,000	5,815,000	6,185,238	9,575,216
Culpeper	13,056,000	7,939,000	7,177,706	11,146,709
Staunton	9,532,000	13,260,000	7,619,232	11,932,714
Northern Virginia	<u>0</u>	<u>13,904,000</u>	<u>8,265,807</u>	<u>12,796,094</u>
TOTAL	\$81,967,000	\$114,497,000	\$82,606,766	\$130,680,105

Source: VDH&T and JLARC Analysis.

Table 8
ESTIMATE OF ALLOCATIONS FOR FY 1985
SECONDARY SYSTEM CONSTRUCTION

<u>County</u>	<u>1984 Actual Allocation</u>	<u>1985 Actual Allocation</u>	<u>JLARC Option</u>	<u>VDH&T Option</u>
Accomack	\$ 699,564	\$ 940,190	\$ 827,195	\$ 740,600
Albemarle	893,246	1,267,211	1,493,208	1,336,890
Alleghany	223,797	339,522	479,036	428,888
Amelia	336,551	448,200	325,354	291,294
Amherst	436,831	627,849	805,131	720,846
Appomattox	292,291	415,441	388,527	347,854
Augusta	1,292,197	1,731,815	1,516,255	1,357,525
Bath	311,506	415,736	332,180	297,405
Bedford	674,861	980,018	1,066,448	954,806
Bland	216,831	297,635	291,434	260,925
Botetourt	555,279	750,927	720,345	644,936
Brunswick	556,562	738,967	564,094	505,041
Buchanan	556,080	809,919	1,001,708	896,843
Buckingham	467,792	632,974	486,456	435,531
Campbell	762,639	1,042,020	1,078,638	965,720
Caroline	299,734	458,214	555,568	497,408
Carroll	725,086	964,948	780,295	698,610
Charles City	150,245	211,997	213,668	191,300
Charlotte	364,166	504,084	455,825	408,107
Chesterfield	1,504,824	2,267,631	3,289,659	2,945,279
Clarke	190,417	267,973	282,844	253,234
Craig	169,341	234,893	225,735	202,104
Culpeper	445,374	598,124	496,074	444,142
Cumberland	263,661	352,772	272,080	243,597
Dickenson	339,737	484,627	556,500	498,242
Dinwiddie	568,636	759,087	664,459	594,900
Essex	197,135	280,890	295,753	264,792
Fairfax	3,689,598	6,330,394	12,611,475	11,291,234
Fauquier	687,864	973,102	961,234	860,607
Floyd	471,163	622,460	404,991	362,594
Fluvanna	269,908	366,438	338,414	302,987
Franklin	762,008	1,064,377	948,967	849,624
Frederick	579,282	818,463	893,086	799,593
Giles	312,722	426,812	426,544	381,891
Gloucester	297,446	432,935	548,123	490,742

Table 8 (Continued)
ESTIMATE OF ALLOCATIONS FOR FY 1985
SECONDARY SYSTEM CONSTRUCTION

<u>County</u>	<u>1984 Actual Allocation</u>	<u>1985 Actual Allocation</u>	<u>JLARC Option</u>	<u>VDH&T Option</u>
Goochland	\$ 259,287	\$ 366,572	\$ 371,293	\$ 332,424
Grayson	319,300	484,517	534,736	478,756
Greene	164,693	226,867	222,212	198,949
Greensville	215,028	310,258	353,258	316,277
Halifax	871,123	1,161,140	971,123	869,460
Hanover	735,998	1,050,875	1,154,185	1,033,358
Henry	1,035,000	1,371,970	1,318,718	1,180,667
Highland	223,202	300,175	239,416	214,353
Isle of Wight	511,414	666,942	513,380	459,636
James City	254,236	367,211	554,294	496,267
King and Queen	178,544	261,740	258,807	231,713
King George	195,009	265,934	294,880	264,010
King William	165,031	249,906	318,785	285,413
Lancaster	163,040	233,780	268,795	240,656
Lee	445,644	619,916	726,733	650,655
Loudoun	1,253,549	1,637,095	1,405,305	1,258,190
Louisa	555,135	736,805	591,052	529,177
Lunenburg	475,076	621,563	438,229	392,353
Madison	354,022	462,289	320,746	287,169
Mathews	117,795	170,621	207,764	186,014
Mecklenburg	697,672	929,141	747,077	668,869
Middlesex	109,542	166,266	218,332	195,475
Montgomery	455,208	629,406	640,087	573,079
Nelson	362,330	496,687	460,989	412,730
New Kent	150,476	221,036	281,871	252,363
Northampton	327,807	437,546	385,016	344,711
Northumberland	209,902	299,467	283,556	253,871
Nottoway	290,921	392,863	341,957	306,159
Orange	390,882	532,041	528,574	473,240
Page	274,994	397,744	432,002	386,778
Patrick	532,890	713,503	561,542	502,757
Pittsylvania	1,492,991	1,999,154	1,794,152	1,606,330
Powhatan	262,666	366,107	379,867	340,100
Prince Edward	424,667	543,420	374,991	335,735
Prince George	382,797	518,491	641,636	574,466

Table 8 (Continued)
ESTIMATE OF ALLOCATIONS FOR FY 1985
SECONDARY SYSTEM CONSTRUCTION

<u>County</u>	<u>1984 Actual Allocation</u>	<u>1985 Actual Allocation</u>	<u>JLARC Option</u>	<u>VDH&T Option</u>
Prince William	\$ 1,857,384	\$ 2,592,186	\$ 3,309,966	\$ 2,963,460
Pulaski	475,653	650,259	649,665	581,654
Rappahannock	209,847	285,276	216,677	193,994
Richmond	156,833	221,853	228,091	204,213
Roanoke	645,890	942,329	1,445,117	1,293,834
Rockbridge	511,441	706,009	588,262	526,680
Rockingham	1,227,467	1,619,004	1,264,481	1,132,108
Russell	399,458	600,755	868,409	777,499
Scott	625,345	838,403	754,982	675,947
Shenandoah	586,590	810,698	738,040	660,777
Smyth	384,361	553,233	680,561	609,316
Southampton	522,233	725,540	646,358	578,694
Spotsylvania	486,639	713,726	860,901	770,777
Stafford	489,290	718,800	992,178	888,312
City of Suffolk	719,858	953,506	938,265	840,042
Surry	184,020	260,387	246,368	220,577
Sussex	375,459	508,075	431,866	386,656
Tazewell	506,728	732,821	944,188	845,345
Warren	241,310	328,909	291,965	261,401
Washington	667,879	946,391	1,106,403	990,578
Westmoreland	300,791	412,679	385,765	345,381
Wise	452,903	660,169	906,558	811,654
Wythe	353,913	513,256	578,587	518,018
York	370,934	523,282	782,277	700,384
Arlington	353,254	369,673	3,126,872	2,799,533
Henrico	<u>737,574</u>	<u>919,809</u>	<u>3,891,300</u>	<u>3,483,937</u>
TOTAL	\$49,265,299	\$69,174,720	\$82,606,766	\$73,959,023

Source: VDH&T and JLARC Analysis.

Table 9
ESTIMATE OF ALLOCATIONS FOR FY 1985
URBAN SYSTEM

<u>City/Town</u>	<u>Actual 1984 Allocation</u>	<u>Actual 1985 Allocation</u>	<u>JLARC Option</u>	<u>VDH&T Option</u>
Abingdon	\$ 0	\$ 100,000	\$ 164,848	\$ 147,590
Alexandria	3,250,000	3,500,000	3,981,846	3,565,004
Bedford	200,000	200,000	240,514	215,336
Big Stone Gap	0	100,000	181,264	162,288
Blacksburg	900,000	1,000,000	1,169,662	1,047,216
Blackstone	100,000	100,000	138,353	123,869
Bluefield	100,000	400,000	227,000	203,236
Bristol	200,000	500,000	717,725	642,589
Buena Vista	0	300,000	260,137	232,904
Charlottesville	850,000	1,200,000	1,538,527	1,377,465
Chesapeake	3,035,000	3,200,000	4,569,769	4,091,380
Christiansburg	0	0	394,940	353,595
Colonial Heights	900,000	400,000	652,824	584,483
Culpeper	500,000	200,000	252,769	226,308
Danville	1,200,000	1,500,000	1,710,323	1,531,277
Emporia	200,000	200,000	187,067	167,483
Fairfax	700,000	300,000	778,808	697,278
Falls Church	0	700,000	358,862	321,295
Farmville	0	0	231,619	207,372
Franklin	200,000	200,000	267,238	239,262
Fredericksburg	400,000	600,000	687,183	615,245
Front Royal	400,000	100,000	424,756	380,290
Galax	700,000	100,000	248,150	222,172
Hampton	3,100,000	4,100,000	4,772,106	4,272,535
Harrisonburg	0	900,000	1,145,382	1,025,477
Herndon	300,000	900,000	437,087	391,330
Hopewell	200,000	900,000	916,244	820,327
Leesburg	0	100,000	375,889	336,539
Lexington	0	200,000	271,056	242,680
Lynchburg	1,900,000	2,100,000	2,569,302	2,300,333
Manassas	500,000	800,000	663,514	594,053
Marion	300,000	300,000	268,345	240,253
Martinsville	700,000	900,000	691,001	618,663
Newport News	3,680,000	4,700,000	5,772,340	5,168,059
Norfolk	6,745,000	8,600,000	10,189,402	9,122,718

Table 9 (Continued)
ESTIMATE OF ALLOCATIONS FOR FY 1985
URBAN SYSTEM

City/Town	Actual 1984 Allocation	Actual 1985 Allocation	JLARC Option	VDH&T Option
Petersburg	\$ 200,000	\$ 200,000	\$ 1,534,709	\$ 1,374,047
Poquoson	200,000	400,000	362,680	324,713
Portsmouth	2,600,000	3,575,000	4,039,111	3,616,274
Pulaski	400,000	400,000	385,815	345,426
Radford	0	100,000	503,934	451,180
Richlands	600,000	200,000	221,273	198,109
Richmond	6,400,000	8,400,000	8,330,189	7,458,138
Roanoke	1,500,000	2,900,000	3,825,321	3,424,864
Rocky Mount	200,000	200,000	160,266	143,489
Salem	700,000	1,600,000	916,244	820,327
Smithfield	0	100,000	139,307	124,724
South Boston	200,000	600,000	271,056	242,680
Staunton	300,000	1,200,000	839,891	751,966
Suffolk	200,000	300,000	338,171	302,769
Tazewell	200,000	200,000	170,574	152,718
Vinton	600,000	0	0	0
Virginia Beach	6,800,000	9,100,000	10,788,778	9,659,348
Warrenton	0	300,000	149,157	133,542
Waynesboro	0	400,000	576,470	516,122
Williamsburg	200,000	700,000	401,926	359,850
Winchester	2,300,000	1,100,000	774,990	693,860
Wise	100,000	100,000	148,661	133,098
Wytheville	200,000	200,000	272,392	243,876
TOTAL	\$55,160,000	\$71,675,000	\$82,606,766	\$73,959,023

The following jurisdictions have no approved projects in the current Six Year Improvement Program:

Altavista
Clifton Forge
Luray
Norton
Vienna

Ashland
Covington
Manassas Park
South Hill
Vinton

Source: JLARC and VDH&T Analysis.

