URBAN STREETS AND HIGHWAYS

REPORT OF THE

VIRGINIA ADVISORY LEGISLATIVE COUNCIL

To

THE GOVERNOR

and

THE GENERAL ASSEMBLY OF VIRGINIA

HOUSE DOCUMENT NO. 24

COMMONWEALTH OF VIRGINIA
Department of Purchases and Supply
Richmond
1969

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REPORT OF THE

VIRGINIA ADVISORY LEGISLATIVE COUNCIL

Richmond, Virginia
January 14, 1970

To:

HONORABLE MILLS E. GODWIN, JR., *Governor of Virginia*

and

THE GENERAL ASSEMBLY OF VIRGINIA

In 1964, Governor Albertis S. Harrison, Jr. requested the Virginia Advisory Legislative Council to study the problems which might exist with respect to the urban highway program. At the end of its two-year study, the Council made the following recommendations, all of which were adopted by the General Assembly in the 1966 session:

(1) That the Urban System continue to include municipalities with 3,500 or greater population, as provided by existing statutes.

(2) That the Department of Highways allocate funds for construction to municipalities on the basis of relative needs.

(3) That the Department of Highways be authorized to acquire by purchase, gift or the exercise of the power of eminent domain rights-of-way in municipalities on State participating construction projects, if requested by the municipality.

(4) That municipalities under 3,500 population which maintain their own secondary roads be paid at the cost per mile expended by the Department of Highways on secondary roads in other municipalities under 3,500 population where the roads are maintained by the State.

(5) That the annual rate of $10,000 per mile to municipalities of 3,500 population or greater for primary route extensions, as provided by § 33-35.2 of the Code, be continued, but that the annual rate of $800 per mile for other streets, as provided by § 33-35.4, be increased to $1,000 per mile.

(6) That the Virginia Advisory Legislative Council be authorized to continue its study of the Urban System of Highways until the 1968 Session of the General Assembly, during which period the Department of Highways expects to complete its integrated transportation studies of major urban areas, as required of it by the United States Bureau of Public Roads.

As a result of further study, in the 1966-68 interim, the Council made another report to the 1968 General Assembly. Of the recommendations made at that time, the following were adopted by the General Assembly:

(1) During the biennium 1968-1970 the State Highway Commission should set aside a minimum of five million dollars each year for the advance purchase of rights-of-way.

(2) The present allowance to municipalities for maintenance, improvement, construction or reconstruction of streets, not a part or an extension of the primary system, should be increased from $1,000 to $1,100.

(3) The study of urban streets and highways by the Virginia Advisory Legislative Council, with the cooperation of the State Highway Department and other State agencies, should be continued.

The Council has continued its study of the urban system of highways with the assistance of the Department of Highways. We attach as Appendix B to this report the Department's report of December 15, 1969 entitled "Into the 70's". At the request of the Council, this report has already been forwarded to all members of the General Assembly. The Department of Highways' Annual Report, which contains valuable statistics, has also been sent to all members.

The report "Into the 70's" makes it clear that the goals of the Highway Commission's nine-year program of road construction, endorsed by the 1966 General Assembly, will not be completed by the target date of 1975 within existing sources of revenue. The delay in the completion of the interstate system, originally planned for 1972, is due largely to delays in federal funding, and is, therefore, beyond State control. The anticipated delays in the arterial, primary, secondary and urban systems will be due to a shortage of revenues caused by the addition of mileage, higher construction standards, and inflation. The Highway Commission's report estimates a gap of $1,149 million in the program on June 30, 1975. The existence of so large a deficit makes it necessary to decide whether revenues should be increased, and priorities changed, so that the most vital portions of the highway system may be completed.

REVENUES

In the fiscal year 1968-69, the State collected approximately $140 million in gas tax revenues for the special highway fund after deduction of gas tax refunds. The State also collected approximately $68 million in other special revenues for the highway fund, after the deduction of the administration overhead of the Department of Highways and the expenses of other State agencies chargeable to the highway fund. In addition to that $208 million, $131.3 million in federal aid was available in 1968-69. The total State and federal funds was thus $339.3 million, of which $3.8 million was allocated to Arlington and Henrico Counties for the maintenance of secondary roads, and $15 million was allocated to the 38 cities and 33 towns which maintain their own streets.

As may be noted, each cent of the State gas tax yielded $20 million in net revenue in the fiscal year 1968-69. Table A below delineates the average yield per mile of the State gas tax of seven cents per gallon on each type of highway.

TABLE A

YIELD OF SEVEN CENTS PER GALLON STATE GAS TAX REVENUE PER MILE BY TYPE OF HIGHWAY IN 1968-69

TYPE OF HIGHWAY	Miles of Highway	% of Total Miles	Vehicle Miles Per Day	% of Vehicle Miles	State Gas Tax Revenue Earned 1968-69	State Gas Tax Earned Per Mile 1968-69
Interstate	660	1.13	9,500,000	13.7	$ 19,211,000	$ 29,106.00
Arterial	780	1.34	8,000,000	11.6	16,235,000	20,814.00
Primary	6,963	11.91	17,500,000	25.4	35,534,000	5,103.00
Urban Primary	867	1.49	15,000,000	21.7	30,458,000	35,121.00
Urban Secondary	5,754	9.87	8,000,000	11.6	16,235,000	2,821.00
Rural Secondary	42,131	72.27	9,200,000	13.3	18,318,000	434.00
Arlington Secondary	372	.64	740,000	1.0	1,503,000	4,040.00
Henrico Secondary	787	1.35	1,204,000	1.7	2,446,000	3,109.00
TOTAL	58,314	100.	69,144,000	100.	$139,940,000	$ 2,400.00

All of the states have felt the pressures of rising costs in attempting to carry out their road programs. In the past year fourteen states have increased their taxes on motor fuels. Three, including North Carolina, have enacted a two-cent increase. Fifteen states now have motor fuel taxes in excess of the seven cents per gallon levied on gasoline in Virginia. North Carolina now has a tax of 9.25 cents per gallon; Tennessee, 8 cents. The State of Washington has had a tax of 9 cents per gallon for several years. Twenty-nine other jurisdictions, including Kentucky, Maryland, West Virginia and the District of Columbia, levy a tax of 7 cents per gallon. Six states have a gas tax of less than 7 cents per gallon.

If Virginia follows the lead of North Carolina and increases its tax by 2 cents per gallon, an estimated additional $44 million will be available in the 1970-71 fiscal year, and an estimated $243.6 million would be realized from this source by June 30, 1975. This still leaves a deficit of $905.4 million. If priorities are reordered, however, the additional funds would make it possible for the Department to complete the arterial part of the nine-year program and meet some of the most pressing needs of the urban primary extensions by June 30, 1975.

DISTRIBUTION OF FUNDS

There were 58,314 miles of highways in the Virginia highway system in 1968-69. The interstate, arterial, primary and urban primary routes encompass only 9,270 miles, or 15.87 per cent, of the highway system, but handle 62.4 per cent of the traffic. The secondary system of 48,044 miles includes the urban secondary streets of the 38 cities and 33 towns, maintained by the cities and towns; the secondary roads of 94 counties, which are maintained by the Department of Highways; and the secondary roads of Arlington and Henrico counties which are maintained by those counties. The secondary system contains 84.13 per cent of the highway system and handles 27.6 per cent of the traffic. The urban extensions of the primary and secondary highway systems include 6,621 miles of highway, or 11.56 per cent of the total system, but carry 33.3 per cent of the traffic. As can be seen from these figures and those in Table A, the urban, primary and arterial roads carry the bulk of the traffic and earn the bulk of the gas tax, while the secondary roads, in comparison, are infrequently used. The amount of State gas tax earned per mile, which directly reflects the amount of traffic per mile of highway, varies from $35,121 for urban primary streets to $434 for rural secondary roads.

Whether or not new funds are made available by an increase in the motor fuels tax, the substantial gap between needed and available funds will prevent completion of the total nine-year plan. A reordering of priorities will insure that the most pressing needs are met within the time set, and that the less important projects will be delayed. In addition to the importance of the projects, there should also be taken into account the relative costs of delay. In urban or urbanizing areas, for instance, the cost of land for rights-of-way is likely to increase more rapidly than in totally rural or sparsely settled areas. Delay in the acquisition of rights-of-way would be more costly in such areas.

Because of the high cost of condemning improved property, the Council, in its report to the 1968 General Assembly, recommended that a set-back line of 50 feet be required to preserve a margin for future rights-of-way. It also suggested that the Highway Commission be authorized to condemn property for future highways up the 16 years in advance. The Council again invites the attention of the General Assembly to these proposals.

In addition, attention is invited to the wide disparities of the present allocation system. To paraphrase "Into the 70's", the goal should be identical financing and uniform operation, construction and maintenance for each functional classification of street and highway without regard to city, town or county boundaries. Table B below indicates the present distribution of secondary road funds in the fiscal year 1968-69.

TABLE B

DISTRIBUTION OF SECONDARY ROAD FUNDS IN 1968-69

TYPE OF HIGHWAY	State Funds Distributed	Miles of Road	Distribution Per Mile	Population Served	Distribution Per Capita
Urban Secondary (38 Cities—33 Towns)....	$ 6,329,000	5,754	$ 1,100	2,075,743	$ 3.05
Rural Secondary (94 counties)............	52,058,000	42,131	1,235	2,297,537	22.65
Arlington Secondary....	1,555,000	372	4,179	182,713	8.51
Henrico Secondary.....	2,243,000	787	2,850	165,835	13.53

Thought should be given to devising a formula whereby the whole State can be treated equally and equitably.

The Council endorses the Department of Highways' proposal that § 33-1131.1 be amended, so that where a county and a city merge the rural roads will continue to be the responsibility of the State. It would be a step in the wrong direction to allow newly enlarged cities to receive additional allocations far larger than the actual costs of maintaining the new roads.

A few present cities are now receiving allocations for some of their rural roads which are higher than the amount needed to maintain them. The Council recommends strict enforcement of the provisions for accounting in §§ 33-35.2 and 33-35.4, to ensure that the funds are used only for highway purposes.

RELOCATION ASSISTANCE

The report "Into the 70's" explains that federal highway funds will be withdrawn unless the State enacts a highway relocation assistance act similar to the federal act (82 stat. 830). The Council endorses the bill suggested by the Department of Highways, which appears in Appendix A of this report. The suggested bill parallels closely the federal act by providing for payment of moving expenses and the expenses of relocation, up to a certain maximum, to persons dislocated by a highway project.

Conclusion

The Council presents to the General Assembly the facts and figures in this report and the two reports of the Department of Highways, so that the Assembly may consider an increase of the gas tax and a reordering of priorities to minimize the effect of the deficit in the nine-year program. The Council recommends the enactment of the two bills mentioned above: The amendment to § 33-1131.1 (state maintenance of roads in newly enlarged cities) and the highway relocation assistance act.

Respectfully submitted,

C. W. Cleaton, *Chairman*
Russell M. Carneal
Robert C. Fitzgerald
J. D. Hagood
*J. C. Hutcheson
Edward E. Lane
Garnett S. Moore
Lewis A. McMurran, Jr.
Sam E. Pope
Arthur H. Richardson
William F. Stone
James M. Thomson
Edward E. Willey

* Senator Hutcheson approved the Report in principle but due to illness had no chance to review it as written.

APPENDIX A

A BILL to amend and reenact § 15.1-1131.1 of the Code of Virginia, relating to the continuation of services of the Department of Highways in cases of consolidation or merger.

Be it enacted by the General Assembly of Virginia:

1. That § 15.1-1131.1 of the Code of Virginia be amended and reenacted as follows:

§ 15.1-1131.1. *At any time after December thirty-one, nineteen hundred sixty-nine* when a county and city merge into a city, or a combination of counties and a city or cities merge into a city, or when any county and all of the incorporated towns located entirely therein merge into a city, ~~the governing body of such city may request of~~ the Commissioner of the Department of Highways ~~and upon such request~~ he shall ~~grant~~ *continue* the full services of the Department of Highways in those areas which were formerly a county or counties ~~for a period not to exceed ten years from the effective date of such merger~~ in the same manner and to the same extent such services were rendered prior to merger. Funds for the maintenance, construction and reconstruction of streets within the areas formerly a county or counties shall continue to be allocated as if such areas were still in the county or counties and such city shall not receive funds for maintenance, construction or reconstruction of streets in those areas ~~during the period the Highway Department furnishes such services.~~ In those areas where the Department of Highways ~~is requested to provide~~ *provides* the above services the governing body of such city shall have control over the streets and highways to the same extent as was formerly vested in the governing body of the county or counties. *Notwithstanding the above, at any time subsequent to the merger, when in the opinion of the Commissioner, the merged area which was formerly a county or counties or any portion thereof becomes substantially urbanized, the Commissioner may, by agreement with the governing body of the city, transfer the streets in any area deemed urbanized to the city for construction; reconstruction and maintenance; and thereafter funds for such streets shall be allocated as otherwise provided by law for city streets.*

A BILL to amend the Code of Virginia by adding in Chapter 1 of Title 33 an article numbered 5.01, consisting of sections numbered 33-75.01 through 33-75.011; and to repeal § 33-67.3, the new and repealed sections relating to relocation assistance for persons displaced by highway construction.

Be it enacted by the General Assembly of Virginia:

1. That the Code of Virginia be amended by adding in Chapter 1 of Title 33 an article numbered 5.01, consisting of sections numbered 33-75.01 through 33-75.011, as follows:

ARTICLE 5.01

§ 33-75.01.—In order that a few individuals not suffer disproportionate injuries or loss as a result of a displacement caused by a highway project, the General Assembly declares that it is in the public interest that persons displaced by the construction of a highway be fairly compensated for the property acquired and inconvenience suffered as a result of programs designed for the benefit of the public as a whole in accordance with the applicable eminent domain laws and the terms of this article.

§ 33-75.02.—For the purposes of this article the following definitions shall apply:

1. "Person" means any individual, partnership, corporation or association which is the owner of a business; any owner, part owner, tenant, or sharecropper operating a farm; any individual who is the head of a family; or any individual not a member of a family.

2. "Family" means two or more individuals living together in the same dwelling unit who are related to each other by blood, marriage, adoption or legal guardianship.

3. "Displaced person" means any person who moves from real property on or after the effective date of this article as a result of the acquisition or reasonable expectation of acquisition of such real property, which is subsequently acquired, in whole or in part, for highway purposes or as the result of the acquisition for highway purposes of other real property on which such person conducts a business or farm operation.

4. "Business" means any lawful activity conducted primarily for the purchase and resale, manufacture, processing, or marketing of products, commodities or any other personal property; for the sale of services to the public; or by a nonprofit organization.

5. "Farm operation" means any activity conducted solely or primarily for the production of one or more agricultural products or commodities for sale and home use, and customarily producing such products or commodities in sufficient quantity to be capable of contributing materially to the operator's support.

6. "Moving expenses" means the cost of packing, loading, transporting, unloading and reinstalling personal property, exclusive of the cost of any additions, improvements, alterations or other physical changes in or to any structure in connection with effecting such reinstallation.

§ 33-75.03. (a) In order to prevent unnecessary expenses and duplication of functions, the State Highway Commissioner may make relocation payments or provide relocation assistance or otherwise carry out the functions required under this article by utilizing the facilities, personnel, and services of any other federal, State or local governmental agency having an established organization for conducting relocation assistance programs.

(b) The State Highway Commissioner shall provide a relocation advisory assistance program which shall include such measures, facilities, or services as may be necessary or appropriate in order:

1. To determine the needs, if any, of displaced families, individuals, business concerns, and farm operators for relocation assistance.

2. To assure that, within a reasonable period of time, prior to displacement there will be available, to the extent that can be reasonably accomplished, in areas not generally less desirable in regard to public utilities and public and commercial facilities and at rents or prices within the financial means of the families and individuals displaced, housing meeting the standards established by the Commissioner of the State Department of Highways for decent, safe, and sanitary dwellings, equal in number to the number of, and available to, such displaced families and individuals and reasonably accessible to their places of employment.

3. To assist owners of displaced businesses and displaced farm operators in obtaining and becoming established in suitable locations.

§ 33-75.04. (a) Payments for Actual Expenses: As part of the cost of construction, the State Highway Commissioner may compensate a displaced person for his actual and reasonable expenses in moving himself, his family, his business, or his farm operation, including personal property.

(b) Optional Payments (Dwellings): Any displaced person who moves from a dwelling who elects to accept the payments authorized by this subsection in lieu of the payments authorized by subsection (a) of this section may receive a moving expense allowance, determined according to a schedule established by the Commissioner of the State Department of Highways, not to exceed two hundred dollars and a dislocation allowance in the amount of one hundred dollars.

(c) Optional Payments (Business and Farm Operations): Any displaced person who moves or discontinues his business or farm operation who elects to accept the payment authorized by this subsection in lieu of the payment authorized by subsection (a) of this section, may receive a fixed relocation payment in an amount equal to the average annual net earnings of the business or farm operation, or five thousand dollars, whichever is the lesser. In the case of a business, no payment shall be made under this subsection unless the State Highway Commissioner is satisfied that the business cannot be relocated without a substantial loss of its existing patronage; and is not part of a commercial enterprise having at least one other establishment, not being acquired by the Commonwealth, which is engaged in the same or similar business. For purposes of this subsection, the term "average annual net earnings" means one-half of any net earnings of the business or farm operation, before federal, State, and local income taxes, during the two taxable years immediately preceding the taxable year in which such business or farm operation moves from the real property acquired for such project, and includes any compensation paid by the business or farm operation to the owner, his spouse, or his dependents during such two-year period. To be eligible for the payment authorized by this subsection, the business or farm operation must make its State income tax returns available and its financial statements and accounting records available for audit for confidential use to determine the payment authorized by this subsection.

§ 33-75.05. (a) In addition to amounts otherwise authorized by this article, as part of the cost of construction the State Highway Commissioner shall make a payment to the owner of real property acquired for a project which is improved by a single-, two-, or three-family dwelling actually owned and occupied by the owner for not less than one year prior to the initiation of negotiations for the acquisition of such property. Such payment, not to exceed five thousand dollars shall be the amount, if any, which when added to the acquisition payment, equals the average price required for a comparable dwelling determined, in accordance with standards established by the Commissioner to be a decent, safe, and sanitary dwelling adequate to accommodate the displaced owner, reasonably accessible to public services and places of employment and available on the private market. Such payment shall be made only to a displaced owner who purchases and occupies a dwelling within one year subsequent to the date on which he is required to move from the dwelling acquired for the project.

(b) In addition to amounts otherwise authorized by this Article, the Commissioner shall make a payment to any individual or family displaced from any dwelling not eligible to receive a payment under subsection (a) of this section which dwelling was actually and lawfully occupied by such individual or family for not less than ninety days prior to the initiation of negotiations for acquisition of such property. Such payment, not to exceed fifteen hundred dollars, shall be the amount which is necessary to enable such person to lease or rent for a period not to exceed two years, or make the down payment on the purchase of a decent, safe, and sanitary dwelling of standards adequate to accommodate such individual or family in areas not generally less desirable in regard to public utilities and public and commercial facilities.

§ 33-75.06. In addition to amounts otherwise authorized by this article, the Commissioner shall reimburse the owner of real property acquired for a project for reasonable and necessary expenses incurred for recording fees, transfer taxes, and similar expenses incidental to conveying such property; penalty costs for prepayment of any mortgage entered into in good faith encumbering such real property if such mortgage is on record or has been filed for record as provided by law on the date of approval by the State Highway Commission of the location of such project; and the pro rata portion of real property taxes paid which are allocable to a period subsequent to the date of vesting of title in the Commonwealth, or the effective date of possession of such real property by the Commonwealth, whichever is earlier.

§ 33-75.07. No payment received under this article shall be considered as income for purposes of any income tax laws; nor shall such payments be considered as income or resources to any recipient of public assistance and such payment shall not be deducted from the amount of aid to which the recipient would otherwise be entitled under any welfare laws.

§ 33-75.08. The Commissioner is authorized to adopt such regulations as may be necessary to implement the provisions of this article and such regulations may include, among other things, provision for payment of fixed amounts in lieu of actual expenses of individuals and families.

§ 33-75.09. In the event the Commissioner and a displaced person are unable to agree on the amount payable under this article, the displaced person may petition the court having jurisdiction of eminent domain proceedings to be paid the amount due such person under this article. Service on the State Highway Commissioner may be held by mailing a copy of the petition to him by registered mail. Upon hearing the matter, the court shall ascertain the proper amount due the petitioner and order the Commissioner to pay the amount so ascertained.

§ 33-75.010. Nothing contained in this article shall be construed as creating in any eminent domain proceeding any element of damage not in existence on the date of its enactment.

§ 33-75.011. The provisions of this article shall be applicable to any highway project undertaken by a city, town or county and such city, town or county is authorized to adopt the necessary ordinance to implement the provisions of this article. In lieu of administering such relocation assistance program itself, a city, town or county may enter into an agreement with the State Highway Commissioner whereby he administers the program and makes the necessary payments subject to reimbursement for all expenses in connection with the program by such city, town or county.

2. That § 33-67.3 of the Code of Virginia is repealed.

3. An emergency exists and this act is in force from its passage.

4. The provisions of this article shall not be construed to apply to any person who actually moved from real property prior to the effective date of this article or who, pursuant to notice from the Highway Department was directed to move prior to the effective date of this article and such person's sole right and remedies for relocation assistance and payments shall be governed by the provisions of § 33-67.3. The provisions of § 33-67.3 shall not be construed to apply to any person who moves on or after the effective date of this article except as noted above.

APPENDIX B

INTO THE '70s

A Review of Virginia's

Nine-Year Highway Program

Submitted by the State Highway Commission

to the

Virginia Advisory Legislative Council

December 15, 1969

A FOREWORD

In 1965, the Virginia Highway Commission prepared a nine-year program of highway improvements intended to meet the basic, minimum needs of motorists by 1975.

The program envisioned all of the interstate system being completed or under construction in 1972, completion of financing of the arterial network by 1975, at least a bolder beginning on the growing need for urban expressways, and certain improvements to the regular primary, urban and secondary roads.

The program contained no frills; indeed, even if fully implemented it would leave many needs unmet, because the program was prepared with full awareness of the limits to which the public could reasonably be asked to provide financial support in a relatively brief period.

But the nine-year plan also was prepared with the knowledge of this Commission's responsibilities to the citizens of the Commonwealth to plan, build and maintain an adequate highway transportation system. It also was developed with the awareness that adequate roads—perhaps next only to adequate schools—represent the key to the economic well-being of the Commonwealth. And there was, further, the knowledge that Virginia's population, motor vehicle ownership, and street and highway travel all were increasing at unequalled rates.

The nine-year program was endorsed by the 1966 General Assembly, and the Legislature made additional funds available to move forward with its provisions.

Substantial progress has been achieved.

Unforeseen developments, however, now have made clear that even the modest goals of this program cannot all be met with existing sources of revenue.

Completion of the national interstate system has been delayed, and Virginia's federal interstate apportionment has been reduced. Higher standards for safety, such as wider bridges and pavement and flatter slopes along the roadside, have led to higher costs in construction. The highway development program is caught up in the general inflationary trend in which the price of virtually every commodity and every service has risen. It is estimated that inflation alone has increased highway costs about 30 per cent since 1965.

There is, quite properly, a growing concern for the environment, and for mass transit in the urban regions. And Virginia and its localities now possess far more detailed information on urban street and highway needs than was available four years ago.

For all these reasons, the Highway Commission has reviewed the nine-year program, its accomplishments thus far and the prospects of reaching its remaining objectives.

The conclusions are reported in the following pages, with the belief that the Governor, the General Assembly and the people of Virginia are entitled to this appraisal.

This report is being submitted first to the Virginia Advisory Legislative Council which, at the direction of the Legislature, is making a continuing study of urban traffic needs. For it is difficult to consider the urban problems without at the same time giving attention to the rural portion of the Commonwealth's 50,000-mile highway system.

I

PEOPLE AND HIGHWAYS

The decade of the '60s has been a time of unparalleled growth and development in Virginia.

In this period:

- Population has risen 17.7 per cent, an increase exceeding the nation's average, and now totals an estimated 4,669,000.

- Motor vehicle registration has climbed 46 per cent. For the first time, more than two million vehicles are registered for operation by Virginia motorists.

- Highway travel has increased 64 per cent, and at present averages more than 44 million vehicle miles a day on the facilities in the state highway system, an average of about 22 miles per day for each registered vehicle.

- Continued growth has occurred in the urban regions, bringing new complexities to many functions of government, not the least of which are those related to transportation.

- The State has been engaged in a vastly expanded industrial development program, strengthening its economy, creating broader tax bases, opening new jobs. This industrial growth undoubtedly has been encouraged in large part by the State's highways. It also has thrust upon Virginia new demands for continued highway and street improvements.

- Establishment of a state-wide system of community colleges, an expanded system of state parks, and new steps to preserve the natural splendor of the Virginia outdoors have been undertaken—and depend largely upon adequate roads for success.

It was against this background that the Commonwealth moved ahead with highway development throughout the '60s. In the final years of the decade, this development has been guided by the nine-year program.

It has become clear that while highways are uniquely financed on a pay-as-we-build basis by those who use them, the function of highways cannot be separated from the other considerations to which Virginians are also committed.

The Commonwealth's rapidly expanding system of community colleges, for example, would not be feasible without highway development to place these schools within easy reach of their students.

Without modern roads, Virginia would have fallen behind other states in the keenly competitive efforts to encourage industrial growth. Industry relies on good high speed, safe roads to bring in raw materials and to transport the finished goods to market, and to bring workers to their jobs and home at day's end.

Between 1966 and mid-1969, a total of 440 new manufacturing plants were built in Virginia, accounting for an increase of almost 30,500 jobs. During the same period, 400 existing industrial facilities were expanded and provided 24,500 new jobs. Capital expenditures by manufacturers for new plants and equipment in this time have been estimated by the Division of Industrial Development at more than $1.2 billion.

Highways also bring Virginia's expanding system of state parks within convenient driving distance of every citizen.

At present, the State operates 11 parks and three major recreational areas, in addition to several historical attractions and natural areas. During the first nine months of 1969, more than two million persons visited these facilities. Most came by car.

Acquisition of sites for 36 new state parks in 10 years, and development of 20 of them, was proposed in the Virginia Outdoors Plan adopted by the 1966 General Assembly. This plan was developed by the Outdoor Recreation Study Commission, and it launched the Commonwealth on a program to preserve out-standing land and water areas and to develop opportunities for citizens to enjoy outdoor activity and contact with nature.

All of these—highways, community colleges, industrial growth, outdoor recreation—are parts of the march toward a better life on which Virginians have embarked as they approach the decade of the '70s.

All are of immeasurable importance; adequate highways, however, are basic to the success of the others.

Beyond this, the sheer growth of Virginia has continued to bring new demands to its street and highway systems.

Total population rose nearly three-quarters of a million during the '60s—from the 1960 census count of 3,967,000 to the 1969 estimate of 4,669,000. It is expected to increase to more than 6 million in the next 15 years.

During the '60s, the number of licensed drivers and the number of motor vehicles registered in Virginia exceeded the two-million mark for the first time.

At the beginning of the decade, there were 1,866,648 drivers; in 1969, this number has exceeded 2,300,000. And when the decade began, 1,451,338 motor vehicles were registered in the State. That figure had grown to 2,112,486 by mid-1969.

Motor vehicle registration has been increasing at the rate of about 5½ per cent each year, and there is no reason to expect a reversal of this trend in the '70s. New industrial development patterns, higher personal incomes, increased leisure time and the general population increase all have contributed to the trend.

And all of this, of course, means steadily increasing use of the State's highways and streets.

II
THE INTERSTATE SYSTEM

When the '60s began, Virginia and other states were just getting well under way with the interstate system, which had been authorized by Congress four years earlier.

Initially, the national system totaled 40,000 miles and Virginia's portion, 14th largest among the states, was 1,056 miles. Subsequent additions have increased the system nation-wide to 42,500 miles, and Virginia's share to approximately 1,070 miles.

On January 1, 1960, Virginia could count 75 miles of interstate highways opened to traffic. It was not a substantial amount. But plans were being drawn, right-of-way was being acquired, and the Department of Highways was adjusting to the far greater requirements placed upon its organization by the interstate program.

By October 1, 1969, the status of Virginia's interstate highways was as follows:

Complete	680 miles, 64%
Under Construction	150 miles, 14%
Remaining	240 miles, 22%

For most Virginians, the interstate system no longer is particularly new. Many travel on it every day. The system has made travel far more convenient than that on the older, conventional roads. Without it, traffic congestion in some areas would be staggering to imagine. But there are other benefits of even greater value.

The higher design of the interstate highways has been responsible for saving the lives of an estimated 495 persons who would have died in accidents on the older roads during the '60s. Construction of these modern highways, with divided lanes and full access control, represents one of Virginia's wisest investments in highway safety.

Unfortunately, the interstate roads won't be accident proof. Traffic accidents will continue to occur regardless of the high design features. The human element involved in many traffic accidents is beyond the control—but not beyond the concern—of the highway engineer.

Besides the safer travel, there is persuasive evidence that construction of the interstate system has been instrumental in encouraging large investments by private enterprise in developing new commercial, residential and industrial facilities along the system. This has meant new jobs and broadened tax bases for many localities.

In 1965, motorists traveled an average of 5,517,364 miles a day on the system. In 1968, with more mileage completed, travel on the interstate routes rose to 9,454,503 vehicular miles daily.

The interstate system is being financed generally with 90 per cent federal and 10 per cent state funds. When the nine-year program was prepared, the estimated cost of Virginia's full share of the system totaled $1.45 billion. A later estimate, as of October 1, 1969, reflects the influence of inflation, higher standards and additional mileage, and totals $1.7 billion, an increase of about $250 million.

Of the total, $1.093 billion already has been spent, leaving an estimated remaining cost of 613.2 million.

Initially, 1972 was set by Congress to complete the financing of the national interstate system. This no longer is a realistic date. The system has been extended formally to 1974, but it is more likely to be the late '70s before the present system has been completed.

Some of the reasons already have been cited—inflation, higher standards and additional mileage (with the last of these factors expected to provide badly needed facilities in the Hampton Roads and Richmond areas).

Another reason is that, beginning with the 1969-70 fiscal year, the federal government adjusted the formula under which its share of interstate funds is distributed to the states.

The adjustment was made because of the goal of completing the system in all states at substantially the same time. Under the change, larger sums will go in the future to states behind schedule; smaller amounts will be distributed to states, like Virginia, which are on or ahead of schedule.

Virginia's federal interstate apportionment for the 1968-69 fiscal year was $114.7 million. It dropped to $91.6 million for 1969-70.

This Commission agrees with the objective of completing the system simultaneously in all states, since the major function of the interstate program is to link major populated centers throughout the United States. However, the fact remains that such reductions in federal apportionments in Virginia will slow this Commonwealth's rate of progress.

Aside from this general reduction, which is expected to continue at least for several more years, there has been increased uncertainty about the release of scheduled apportionments of federal funds to the states for all highway systems.

Three times since the nine-year program was prepared, federal highway funds have been frozen as anti-inflation moves. In the fall of 1969, there were signs that a fourth such freeze was under consideration at the federal level.

In summary, the interstate system will not be completed or totally under construction by 1972, as originally anticipated. It will be extended, instead, at least until late in the decade of the '70s. This is largely beyond state control, however.

III

THE ARTERIAL NETWORK

Recognizing that the interstate system alone would not fully serve all regions of Virginia, the General Assembly in 1964 authorized development of the arterial network of primary highways, and has provided additional funds to finance this development.

The combined interstate and arterial programs will extend the benefits of multi-lane, divided highways to virtually every community having a population of 3,500 or more. This combination will provide Virginia with the finest state-wide network of major highways in the nation.

With completion of these two systems, the Commonwealth will have some 3,000 miles of divided highways four lanes or more in width. When the interstate construction began in 1957, Virginia had about 300 miles of such roads.

For the most part, the arterial highways are being developed by building a new two-lane roadway parallel to an existing two-lane road, thus creating the divided facility.

In some cases, however, the arterial construction is being done completely on new location. In so far as funds will permit, this is the practice where it is considered essential to improve alignment or straighten curves on rural portions of the network. In addition, the bypasses of some 50 cities, towns and hamlets also are being built on new location in order to relieve local streets of unnecessary congestion.

And the bypasses, more than any other single factor, have led to increased arterial costs. These facilities are being constructed almost to interstate system standards, with control of access. These standards are higher than initially planned because of public desires.

When the arterial network was established in 1964, segments totaling 370 miles already were divided, and were included for continuity purposes.

Since 1964, however, 410 more miles have been divided.

On October 1, 1969, this was the status of the arterial system, which will total 1,738 miles in all:

Complete	780 miles, 45%
Under Construction	190 miles, 11%
Remaining	768 miles, 44%

Travel on the arterial routes is increasing steadily. In 1965, when the nine-year program was prepared, the average daily vehicular travel totaled 6,879,971 miles. By 1969 it had grown to 8,044,232.

For 1968-69, the Commission allocated $52 million for this purpose, and increased the amount to $56 million for 1969-70. Since 1964, $234 million has been allocated for arterial projects.

Because of increased costs and design standards, however, this level of financing will not permit completion of arterial funding in 1975, as scheduled in the authorizing legislation.

One example of how prices have risen is the proposed arterial bypass of Martinsville, to be 17.8 miles long. In 1965, the estimate for construction and right-of-way acquisition was slightly more than $12 million; in 1969, it has climbed to $28 million.

Another example is the proposed bypass of Suffolk. The northeast segment will be approximately 5.4 miles long and originally was estimated at about $6 million. Now the estimated cost is $12.3 million.

Through June 30, 1970, the end of the current fiscal year, the Commission expects 1,046 miles of the 1,738 -mile network to be completed or under construction.

In addition, existing revenue sources should provide sufficient funds to let to contract arterial projects totaling 475 miles and estimated to cost $292 million between July 1, 1970, and June 30, 1975.

This will leave approximately 217 miles, expected to cost $159 million, which cannot be financed within the originally scheduled time from present sources.

Arterial Gap: $159 Million

IV

THE REGULAR PRIMARY SYSTEM

Besides the interstate and arterial highways, there are 6,015 miles of regular primary roads in Virginia. Most of these are two lanes wide; some segments are four lanes and divided.

In many areas, these primary routes continue to be the principal highways, serving the mainstream of traffic and working as feeders to the interstate system, arterial network and urban roads.

In 1965, travel on the regular primary highways averaged 15,246,332 vehicular miles a day. It now has grown to 17,527,105 miles daily.

Improvements proposed for these facilities in the nine-year program ranged from complex four-lane construction, to widening existing pavement, to "spot" improvements to correct specific accident-prone locations.

Some were considered as urgent as the arterial network requirements. Other improvements, on routes serving lighter traffic volumes, naturally carried lower priorities.

In order to provide minimum adequate standards for 1975 traffic on the regular primary routes, expenditures totaling $360 million were included in the nine-year program.

This sum was to provide for 475 miles of four-laning and 1,470 miles of total or partial reconstruction.

By June 30, 1970, approximately $60.2 million will have been spent to totally or partially reconstruct 267 miles of regular primary roads.

Between that date and June 30, 1975, an additional $100.4 million is expected from present sources of revenue.

Thus, about $160.6 million will have become available for the primary system exclusive of the arterial network.

However, the cost of reaching the nine-year objectives for the system now has risen to an estimated $561.6 million, leaving a gap of $401 million which cannot be filled with foreseeable revenue.

Regular Primary Gap: $401 Million

V

THE SECONDARY SYSTEM

About four-fifths of the total mileage in the state highway system is represented by the vast network of secondary roads.

Altogether, these totaled 42,131 on January 1, 1969, and were almost equal in length to the national interstate system.

The secondary system consists of virtually all the publicly maintained roads in Virginia except the interstate, arterial and primary highways in 94 of the 96 counties. Arlington and Henrico counties maintain and improve their own local roads, and receive appropriations each year for this purpose.

The growing industrialization and urbanization of the Commonwealth have brought new demands to the secondary system. This has been particularly evident in counties surrounding the cities, where extensive suburban growth has occurred. But many needs also remain unmet on rural portions of the secondary system.

Average daily travel on the secondary system when the nine-year program was prepared was 7,128,284 vehicular miles. In 1969, this has increased to 9,190,120 miles of travel a day.

In developing the nine-year program, plans for the secondary system were directed at four basic goals of long standing:

- A hard surface of width and strength adequate for traffic volumes served on all roads carrying 50 or more vehicles a day.
- An all-weather stone or gravel surface on all roads carrying 10 to 50 vehicles a day.
- A light stone or gravel surface on all roads carrying less than 10 vehicles a day.
- Bringing all bridges of less than 10-ton capacity up to standard.

The nine-year program outlined very minimum needs amounting to $463 million on the vast secondary system to be financed by 1975.

Thus far, approximately $130 million has been allocated for construction.

By June 30, 1970, it will have financed reconstruction or major improvements on 4,481 miles of secondary roads. Despite this extensive work, however, it represents only 18 per cent of the 24,900 miles included in the nine-year program.

And by next June 30, the funds will have paid for reconstruction of 793 secondary system bridges—which in total length represent only 18.1 per cent of the secondary bridge work contemplated in the nine-year program.

Between July 1, 1970, and June 30, 1975, approximately $206 million is expected to be available from present sources. Through that time, about 45 percent of the secondary system objectives will have been achieved with foreseeable revenue.

The effect of increased costs is reflected in such secondary projects as these: 3.8 miles of reconstruction in Prince William County, estimate up from $370,000 to $604,000 in 12 months; 1.7 miles of reconstruction in Fairfax County, estimate from $380,000 to $686,000 in 18 months; 1.9 miles of reconstruction in Giles County, estimate from $137,000 to $192,000 in 18 months.

Consequently, inflation and higher safety standards have pushed the total cost upward. Instead of the original $463 million total estimate for secondary construction, minimum secondary improvements in the nine-year program now are expected to amount to about $628 million.

Secondary System Gap: $292 Million

VI

URBAN VIRGINIA

Nothing has marked Virginia more in this decade than the rapid and sprawling growth in the urban regions.

At the outset of the '60s, 56 per cent of Virginia's people lived in the cities, towns and suburbs. Today, this has increased to more than 65 per cent. And it is estimated that by 1985 about 85 percent of all Virginians will be living in the urban areas—on 12 per cent of the land.

The flexibility and convenience of the family automobile have induced much of this rural to urban trend, which has seen land undeveloped or farmed a few years ago now drawn into the urban environment for subdivisions, shopping centers and industrial complexes.

The implication of this pattern may be no greater for transportation facilities than for other aspects of urban development—housing, schools, open spaces and recreation, clean air, water and sewage requirements.

But surely it is no less.

Almost overnight, huge new demands have been thrust upon urban streets and highways.

Reflecting its concern for these urban traffic needs, the General Assembly has revised the laws governing extensions of the highway system in the 63 cities and towns of more than 3,500 population.

At least 14 per cent of all highway funds, except interstate federal aid, is now apportioned to the roads and streets within the boundaries of these municipalities. It is spent for urban construction and to make annual maintenance payments to the localities at the rate of $10,000 a mile for primary route extensions and $1,100 a mile for other local streets built to certain standards.

At present, 869 miles of primary extensions and 5,700 miles of other streets qualify for these payments.

The General Assembly in this decade also has reduced the localities' share of urban construction costs. Previously, this amounted to 25 per cent; it now is 15 per cent.

Since urban federal aid accounts for less than one-fourth of construction funds available for municipal street and highway improvements, the most frequent financing formula is 85 per cent state, 15 per cent local money. When federal funds are used, the formula is 50 per cent federal, 35 per cent state, 15 per cent local.

In the nine-year program, $200 million was proposed for normal urban construction projects and an additional $182 million was listed for expressways to be financed largely from a federal-aid program expected to follow completion of the interstate system.

At that time, interstate financing was scheduled for completion in 1972, and $150 million was anticipated in federal funds for urban expressways during the latter stages of the nine-year period. As discussed earlier in this report, however, the national interstate program probably will be stretched out to the late '70s.

Thus, the $150 million expected in "after interstate" federal funds for urban projects apparently will not now be available for this purpose during the nine-year program.

Of the $382 million proposed in the nine-year program, $67 million has been allocated. It is estimated that $120 million will become available from present revenue sources by June 30, 1975. But the cost of the urban program has risen to $484 million.

Urban System Gap: $297 Million

ii

THE URBAN STUDIES

Long-range urban needs, extending beyond the limits of the nine-year program and to 1985, are being pinpointed in a series of studies undertaken cooperatively by the Department of Highways and the localities.

Forty-seven such studies have been finished or are nearing completion, and relate future street and highway plans to planning for other aspects of community growth.

The objective is to provide a guide for the use of future urban funds for every area having a center town or city of 3,500 population or greater—from the Tidewater cities on the Atlantic Coast to Big Stone Gap in the far Southwest.

The estimated cost of all of the facilities proposed in the studies is $3.8 billion. Obviously, much of the financing must await an expanded federal-aid urban program. But some of the most urgently needed facilities are included in the nine-year program.

iii

THE REGIONAL APPROACH

This Commission is fully aware of the challenges—and problems—thrust upon municipal leaders and governments by the extensive urban growth occurring in a number of areas of the Commonwealth. And the Commission, together with the Department of Highways, wants to assist to the extent possible in solving the problems.

One of the basic requirements of the 47 urban studies has been that these forecasts of future needs not be confined to present municipal boundaries—for such boundaries are meaningless so far as traffic flows and needs are concerned. The studies, instead, have covered urbanizing areas of adjacent counties as well as center cities and towns.

Because motorists living in the suburbs aren't particularly concerned about governmental boundaries when they drive downtown or across the metropolitan area to work or shop.

They expect—and properly—the same high standards in travel facilities.

In view of the multiple governmental jurisdictions which will exist in each of the urban street and highway systems being outlined in the studies, it has become clear that a regional concept will be necessary for financing, construction, maintenance and operation of these facilities.

As discussed in a report submitted by this Commission to the Virginia Advisory Legislative Council in 1967, the goal should be identical financing and uniform operation, construction and maintenance for each functional classification of street and highway throughout the 47 areas, without regard to city, town or county boundaries.

Between now and the later years of the '70s, when substantially larger sums of federal financing may be provided for urban highways, existing laws and policies should be gradually adjusted to assure a regional approach.

Under this arrangement, there would be an urban highway system comprised of three functional classifications—freeways, thoroughfares, and local streets and secondary roads—in each of the 47 regions. The rural highway system beyond these regions would continue to bear interstate, arterial, primary and secondary road designations.

iv

CITY-COUNTY MERGERS

One of the results of Virginia's increased urban development has been a rising wave of consolidations and discussion of consolidations.

These are local matters for the citizens of the areas to decide, and surely this Commission is in full accord with measures which would help to solve any problems of urban growth and which would work toward a unified approach to these problems.

At the same time, there are implications for the state highway system which the Commission believes cannot be ignored in city-county merger considerations.

Chief among these is the situation of streets and highways in the counties which at present are maintained by the Department of Highways, but which in consolidation would become part of the enlarged cities.

Primary roads in these counties now are maintained by the State for about $2,000 a mile a year. Such primary extensions within cities, however, are eligible for maintenance payments amounting to $10,000 a mile annually.

And yet in many instances the character of these roads would not be changed simply because of the consolidation. Many miles would continue rural in character for a long period of time.

The 1968 General Assembly enacted legislation which permits newly merged cities to request the Highway Commission to continue maintenance of the roads in the former counties for up to 10 years. This provision now is entirely optional on the part of the localities.

This Commission believes this act (Section 15.1-1131.1) should be amended to require state maintenance of the former county roads until these roads become urban in character, and that as this urban development is gradually extended the State would transfer them to city jurisdiction.

Aside from reasons of economy and continuity of the state highway system, such a course would ease the organizational demands on the new city to acquire costly equipment and additional manpower for extensive road maintenance.

V

MASS TRANSPORTATION

The '60s have underscored the fact that private automobiles must be supplemented by improved mass transit in urban Virginia in the years ahead.

Adequate mass transit provides many benefits—relief of city traffic congestion, a feasible means of travel for those who cannot or do not choose to drive an automobile, a broadening of job opportunities for those who live in the suburbs and central city alike.

It is becoming increasingly apparent that such facilities are going to be vitally important to the economic well-being of Virginia cities, and particularly the major metropolitan areas, in the years ahead.

In Northern Virginia, where thousands of citizens live in the suburbs and commute to Washington to work each day, plans are moving ahead to provide rapid rail transit facilities to supplement continued highway improvements.

The Highway Commission and the Washington Metropolitan Area Transit Authority are coordinating plans so that rail lines and passenger stations may be placed in the median of Interstate 66. The Commission views this as a desirable use of high-value urban land.

Elsewhere in the Commonwealth, mass transportation in urban areas almost certainly is going to mean improved bus service, just as commuter buses will continue to be major elements of the total transportation system in Northern Virginia.

The 1968 General Assembly established the Virginia Metropolitan Areas Transportation Study Commission to examine urban mass transit questions. This group's report will be before the 1970 session of the Legislature, and undoubtedly will be of substantial guidance to the future development of such facilities.

Meanwhile, the Department of Highways and this Commission have taken several steps looking toward a greater role for mass transportation.

Besides the agreement for the rail line in the I-66 median, the Department is experimentally reserving two lanes of the Shirley Highway (Interstate 95) in Northern Virginia for the exclusive use of buses during the morning rush hour.

Local, state and federal agencies are observing the results, hopeful that faster bus movement will lead to more attractive bus service and thus relieve in part the congestion caused by autos and buses in the same lanes.

In addition, the Department of Highways during 1969 has established a Metropolitan Transportation Planning Division, and its principal missions will be to work with the localities and regional planning groups in developing urban street and highway plans and in seeking improved mass transit facilities.

There is, further, the prospect of federal assistance for urban mass transportation, with such a proposal now pending before Congress.

VII

THE ALLOCATION OF FUNDS

Statutes and policies governing the distribution of highway funds in Virginia are designed to assure as equitable a sharing of these resources as possible among the various systems and geographic regions.

Generally, funds are distributed by the Commission as follows:

- Interstate System—Construction, including right-of-way and engineering, is financed 90 per cent federal, 10 per cent state, and funds are allocated to the eight highway districts on the cost-to-completion basis. The state funds allocated to the districts each year represent the amount necessary to finance 10 per cent of the construction program and 100 per cent of maintenance.

- Urban System—As directed by the General Assembly, at least 14 per cent of all highway funds exclusive of federal interstate funds are allocated each year to this system. These funds are used to make maintenance payments to the cities and towns at the rate of $10,000 a mile for primary extensions and $1,100 a mile for certain other streets each year. The remainder is allocated for construction purposes among the municipalities on priority of need, available local matching funds, and other pertinent factors.

- Secondary System—By law, this system receives 33 per cent of all highway funds, exclusive of interstate federal-aid and the major portion of income derived from the Revenue Acts of 1966, the latter being primarily designed for the arterial network of the primary system until construction of this is completed. Most secondary funds are distributed among the counties on the basis of area, population, road mileage and vehicular miles of travel. Some funds provided by recent sessions of the Legislature are distributed on the basis of need.

- Arterial Network and Regular Primary System—The balance of highway funds is distributed to these roads, with the larger share now being allocated on the basis of need to arterial projects and the remainder going to the highway districts for regular primary system projects on the basis of area, population and road mileage.

VIII

RELOCATION ASSISTANCE

Under existing laws and regulations, the Highway Commission pays fair market prices for property acquired for highway construction projects, and provides advisory and financial assistance to individuals, families, businesses and others displaced by these projects.

These particular responsibilities are provided by both the state and federal governments, and the assignment for carrying them out has been given to the Department of Highways' right-of-way division and they are integral elements of its land acquisition procedures.

Through the years, the State's objective has been to pay "just compensation" for land and other real estate it purchases for public improvements, including highways. Just compensation has been interpreted by the courts to mean prices based on fair market value.

More recently, statutes have been enacted also providing for payment of "reasonable and necessary" moving expenses for persons, businesses and others displaced by highway construction. In cases of individuals and families, these payments are limited now to the cost of moving up to 15 miles from the point of displacement, or $200, whichever is less. In cases of businesses and non-profit organizations, the payments may not exceed the cost of moving up to 30 miles, or $3,000, again depending on which amount would be less.

However, the 1968 Federal-Aid Highway Act passed by Congress granted increased financial assistance and advice for persons required to move because of federal-aid highway projects.

Principal provisions of the new federal law are as follows:

- Each individual or family displaced could receive a moving allowance up to $200 and a dislocation allowance of $100; or an individual or family could receive actual moving expenses.

- Businesses or farms could receive their actual moving expenses; or, whether they move or discontinue their operations because of the displacement, they could receive an amount equal to average annual net earnings or $5,000, whichever is less.

- Owner-occupants could receive up to $5,000 above fair market value of their houses to assure that they are able to obtain new residences which are "decent, safe and sanitary" under standards set by the Secretary of Transportation and which are at least comparable to the houses taken.

- Up to $1,500 would be provided to enable tenants to find comparable rental housing or to purchase replacement housing.

- Property owners also are to be reimbursed for recording fees, transfer taxes, mortgage payment penalties, and similar expenses involved in the sale of real estate.

All states must bring their highway relocation laws into line with the new federal statute by July 1, 1970, to continue participation in the federal-aid highway program. In the current fiscal year, Virginia is due to receive $120.6 million in federal funds under this program, more than a third of the State's total highway budget.

Because of this requirement—and agreeing that some more liberal benefits are desirable in view of current housing costs—the Highway Commission recommends legislation to parallel the new federal statute.

These benefits should be extended beyond federal-aid projects to include all highway right-of-way acquisition cases, since it would be impractical and inequitable to operate under two sets of regulations, one for federal-aid projects and one for projects financed fully with state funds.

A more liberal relocation program certainly will increase right-of-way costs above the present range of approximately $35 million to $40 million a year. It is difficult at this time to estimate the amount of this increase accurately.

IX

IN SUMMARY

During the '60s, Virginia has made substantial progress in highway development. But it has been barely enough to keep up with the increased needs and desires of motorists.

While four years of the nine-year program time will have passed on June 30, 1970, the Commonwealth will not have made corresponding progress in implementing the program. Already, it has fallen behind schedule on some systems.

The reasons have been discussed in the preceding pages.

Stretchout of the interstate system nationally means that fund allocations must go to that system for a longer period than anticipated, and that it will continue to require time and attention that otherwise would very shortly have been shifting more fully to other road systems.

Inflation and higher design standards for safety and traffic service have pushed costs upward.

When the nine-year program was prepared, construction needs as discussed in this review, plus the cost of maintenance, operations and general expenses, were estimated at nearly $3 billion on the basis of 1965 prices and standards. That estimate for construction and other highway expenses has now risen to approximately $4.6 billion.

This will be partly offset by the fact that revenue from state and federal sources, estimated in 1965 to total about $3 billion for the nine years, now is expected to amount to $3.5 billion.

This leaves a gap of approximately $1.1 billion in financing the goals of the nine-year program. And these goals from the beginning were modest in nature, intended to provide Virginia with a "minimum tolerable" highway system in 1975.

Having determined this gap for the five years immediately ahead, the Highway Commission has looked to the period beyond 1975 to examine prospects of gradually catching up and reducing the deficit.

But instead of catching up in those years, the gap will continue to grow—perhaps to as much as $2.5 billion by 1980—under existing sources of revenue for highway development in the Commonwealth.

The following table indicates what has happened:

Cost Estimate, 1965 Prices and Standards	$3.0	Billion
Cost Estimate, 1969-75 Prices and Standards	4.6	"
Increase	1.6	"
1965 Revenue Estimates	$3.0	Billion
Actual Revenue to 1969, Plus 1969-75 Estimate	3.5	"
Increase	0.5	"
Estimated Gap in Nine-Year Program:	$1.1	Billion