T 167
1968

a master plan for transportation



1968

NEW JERSEY DEPARTMENT OF TRANSPORTATION

"New Jersey, probably more than

any other State in the nation,

is dependent upon a modern and

efficient transportation system."

Governor Richard J. Hughes

May 16, 1966

CONTENTS

HIGHLIGHTS	I
THE PROBLEM	1
THE MASTER PLAN (State Highways / Local Roads / Public Transportation)	27
THE FINANCES (Federal / State)	45
THE HUMAN FACTOR	57
THE PROGRAM	63
THE CHOICE	75
APPENDIX	79

DAVID J. GOLDBERG
COMMISSIONER

STATE OF NEW JERSEY
DEPARTMENT OF TRANSPORTATION
1035 PARKWAY AVENUE
TRENTON, N. J. 08625

March 1, 1968

A Message from the Commissioner of Transportation

Section 5 of the Transportation Act of 1966 requires the Commissioner of Transportation to "*develop from time to time, revise and maintain a comprehensive master plan for transportation development . . .*"

This Report represents the Department of Transportation's initial effort to satisfy the statutory mandate. We recognize that emerging transportation requirements in certain areas, particularly those concerning mass transit including buses, and aviation, require further effort. The Department also recognizes that some of the long-range proposals that are set forth in this Report will be modified from time to time.

We believe, however, that there are well-established highway and railroad needs that do not require further study -- needs so real and compelling that prompt action is essential. We also believe that the action program recommended, while large, is no larger than the problem it seeks to handle. If this program is adopted, the Department is prepared to state that substantial progress can be made in solving New Jersey's chronic transportation problems, and that the cost will be more than justified in terms of improved safety, increased economic activity and greater comfort for the traveling public.

The final judgments on these problems will rest with the people. This report has been prepared in the hope that it can provide the people with the information they need to make a proper decision on what is one of the most vital issues to face New Jersey in recent years.

David J. Goldberg

David J. Goldberg
Commissioner of Transportation

HIGHLIGHTS

HIGHLIGHTS OF THE REPORT

New Jersey is now the most urban of states. In addition, it is continuing to grow at an extremely rapid rate. In one generation it is estimated that the human population will increase by half; the automobile population will increase by three-fourths; and highway traffic will more than double.

* * *

One of the most convincing reasons for acting promptly on any transportation proposal is the increasing cost and difficulty of carrying out solutions. As the State continues to grow, these will become even more significant factors. For example, the Department of Transportation has been forced to abandon a proposal to construct a section of Interstate 278 through Union County because of the hardship in constructing such a facility through densely populated areas. Proposed highway routes which have strong local support, such as the Route 90 connection to the Delair Bridge and the Route 92 Bypass of Princeton, are threatened because of real estate development within the path of the proposed alignment. At the same time, obsolete commuter fleets of our passenger railroads are reaching the point where it is uncertain whether they can remain in service much longer and then only with high operating costs.

* * *

Although patronage on the suburban passenger railroad lines has declined significantly in recent years, the rail commuter traffic has remained high. During the peak hour every morning, railroads carry approximately 40,000 persons into Manhattan from New Jersey. If these 40,000 people had to be accommodated on highways, it would require at least an additional vehicular tunnel or bridge. By way of contrast, the present two tunnels and the George Washington Bridge only carry a total of 39,000 vehicles into New York City from 7 A.M. to 10 A.M.

* * *

At the present time, the Department is capable of operating an annual highway construction program of approximately $200 million a year. This program can be increased to the level of $250 million annually by 1970 if sufficient resources are made available. The present Interstate program, together with the total 50-50 matching funds available, are providing an annual construction program of approximately $150 million. The Department, during the next decade, therefore, will have the capacity to carry out a construction program of at least $100 million a year beyond the level now permitted by all existing Federal-aid programs.

be matched by State appropriations. If New Jersey, however, expects a non-Interstate construction program in excess of $350 million total for all of the next decade, it must be prepared to provide this revenue from its own sources.

* * *

The level of Federal financing for public transportation is much more uncertain than in the area of highways. The Department estimates that approximately $125 million could be obtained from Federal sources from the rail improvement program during the next ten years. The balance of the proposed $375 million program would have to be provided from local sources or abandoned.

* * *

While the cost of any real financial solution to New Jersey's transportation problem is large, it is well within the financial capacity of the State. This is supported by the fact that the people of New Jersey will spend more than $15 billion during the next decade just to buy new motor vehicles. In addition, the entire bond program recommended by the Department can be completely amortized by rather modest increases in the gasoline tax alone.

* * *

The highway program recommended by the Department contemplates the construction of 493 miles of new freeways. If this program is adopted, by the time the final mile is open to traffic, these freeways could save: more than 500 lives; more than 70,000 injuries; and more than $1.3 billion in the total cost of accidents.

* * *

The Department of Transportation recommends capitalizing the revenue produced from a one-cent increase in the gas tax in 1969 and an additional one-cent increase in 1974. The revenue from this single source would permit the Department to carry out its entire basic construction program for highways and public transportation. The gas tax increase would also permit the State to provide an additional $15 million annually, on the average, for local road construction in addition to the funds now allocated for this purpose.

* * *

Using the revenue from the gas tax increases to pay for the indebtedness incurred, it is recommended that a single bond proposal be adopted which would authorize the issuance of $1.2 billion in bonds in three installments of $400 million each. The first $400 million installment or part thereof, including $100 million for public transportation purposes, could be issued any time after

December 1, 1968. The second installment of $400 million or part thereof, including the remainder of bond funds available for public transportation, could not be sold before January 1, 1971. The sale of the final installment would be restricted until after January 1, 1974. This staging would permit subsequent Legislatures and Governors to have a direct say in the final allocation of these funds. It would help insure a continuing re-evaluation of the program within the context of a long-range planning program which this master plan is only the forerunner.

* * *

If there is to be an answer to growing traffic congestion and the deteriorating service on our railroads, the Department of Transportation believes that it must be provided by New Jerseyans. There is no reason to believe that a program of the magnitude discussed in this report can or will be paid for by the Federal government or any other outside source. The issue, therefore, is whether New Jersey wants the transportation improvements discussed in this report badly enough to pay for them. The alternative is to do without them.

* * *

THE PROBLEM

THE PROBLEM

The land of New Jersey always has been a pathway. For more than three centuries it has watched transportation evolve and grow, weaving its way into the innermost fabric of the most mobile society ever known.

Over the years, canal boat and plank road, city trolley and country wagon came, played their honorable roles, and departed. The great rail lines established in the 19th century lent their strength to development of teeming industrial centers. And then, only yesterday as the life of nations is measured, the automobile arrived.

Its coming marked the start of massive changes in the basic structure of community life, not only in New Jersey but throughout the nation. From the beginning, it forced recognition of the steadily growing responsibility of State government to provide for adequate transportation.

The State Highway System was created a half-century ago. Construction of the original system -- 15 routes totalling 700 miles -- was coupled with traffic increases so substantial that by 1924 the State Highway Engineer felt required to report:

> "The motor vehicle has in the comparatively short period since its introduction developed, both as regards its efficiency and the number in use, to a point where it is firmly established as an essential in the social and economic life of the country, and the present rapid yearly increase in motor vehicle ownership is fast approaching a point where there will be one motor vehicle for every four persons in this country."

Noting that railroads built in the previous century were not laid out with proper forethought for future traffic and their role as part of an overall transportation system, the report added:

> "The increasing traffic demands placed upon these rail systems has made betterment, and in many places complete reconstruction work, necessary in order that the burden placed upon them could be carried at all, and the expenditure of enormous sums of money has been required for similar work in order to effect

1930

CAMDEN AIRPORT CIRCLE

1965

economies of operation sufficient to justify the captial investment necessary to effect the improvements.

"In my opinion, the history of the railroads is bound to repeat itself in the highways of this country, unless at this time those responsible for highway construction take advantage of the experience of the railroad companies and give careful thought and consideration to the economics of highway construction and maintenance, and the laying out of comprehensive systems of highways on the basis of the certain increase in motor vehicle traffic which is bound to occur."

THE FIRST "MASTER PLAN"

That analysis, as true today as it was undeniably true then, led to a proposal four decades ago for the first truly comprehensive network of state highways.

Neither this nor any subsequent proposal for construction of a comprehensive highway system on a long-term basis ever was adopted. It was recognized, however, that more and better roads were needed. Funds were provided and, particularly during the 1930's, the State Highway System was gradually extended. Although New Jersey highways came to be regarded as among the finest in the world during this period, it is enlightening -- and somewhat disheartening -- to compare the state highways in operation today with the 1927 plan.

There is no doubt that transportation facilities existing within New Jersey at the close of World War II contributed greatly to the growth of the State. Thousands and tens of thousands of people moved to New Jersey from other areas. Industrial, commercial and research organizations found the State attractive. New Jersey grew!

But population and economic growth experienced in the past two decades were not accompanied by equal expansion in capacity of New Jersey's transportation systems. Until 1956, no meaningful increase in highway construction funds was provided, and then only by the Federal Government for a handful of arterial routes. Growing use of highway facilities was offset by a drop in railroad patronage, so that one of the basic means of transporting people and goods fell into severe financial decline, and lost ability to maintain and improve its service.

STATE OF NEW JERSEY
MAP SHOWING
PROPOSED STATE HIGHWAY SYSTEM
1915 MILES

SCALE 1 INCH = APPROX. 12 MILES

JANUARY 1927

NEW YORK

PENNSYLVANIA

DELAWARE RIVER

DELAWARE BAY

ATLANTIC OCEAN

PORT JERVIS

MILFORD

HIGH POINT

UNIONVILLE

PINGMANS FERRY

GREENWOOD LAKE

SUSSEX

SUFFERN

PASSAIC

BERGEN

PALISADES

FORT LEE

AUGUSTA

FRANKLIN

NEWTON

SPARTA

BLAIRSTOWN

HACKETTSTOWN

DELAWARE

BELVIDERE

BRIDGEVILLE

NETCONG

DENVILLE

MT. LAKES

ROCKWOOD

SINCAC

PATERSON

HACKENSACK

HAWWOOD

BUTTZVILLE

STEPHENSBURG

DOVER

MORRIS

PINE BROOK

CALDWELL

CEDAR GROVE

BLOOMFIELD

TUTHERFORD

CHESTER

MORRISTOWN

LIVINGSTON

BELLEVILLE

WARREN

WASHINGTON

NEWARK

ESSEX

PHILLIPSBURG

MILLBURN

SUMMIT

KENILWORTH

BEDMINSTER

LEBANON

CRANFORD

HUNTERDON

SOMERSET

UNION

CLINTON

OLDWICK

WHITEHOUSE

RAHWAY

BAYONNE

SOMERVILLE

BOUND BROOK

WOODBRIDGE

STATEN ISLAND

PERTH AMBOY

FLEMINGTON

NEW BRUNSWICK

MIDDLESEX

ERNSTON

KEYPORT

ATLANTIC HIGHLANDS

RINGOES

MATAWAN

HENDRICKS CORNER

LAMBERTVILLE

PRINCETON

LINCROFT

MONMOUTH

SWINGVILLE

FREEHOLD

LAKEWOOD

ASBURY PARK

WILBURTHA

TRENTON

HIGHTSTOWN

ROBBINSVILLE

ALLENTOWN

BELMAR

WHITE HORSE

BORDENTOWN

ARNEYVILLE

BURLINGTON

LAKEWOOD

POINT PLEASANT

LAURELTON

PALMYRA

BRIDGEBORO

SYKESVILLE

NEW EGYPT

LAKEHURST

BURLINGTON

MT. HOLLY

TOMS RIVER

CAMDEN

MOORESTOWN

VINCENTOWN

MEDFORD

WHITINGS

PINE BEACH

MARLTON

RED LION

OCEAN

CLEMENTON

HADDONFIELD

FOUR MILE

BRIDGEPORT

WESTVILLE

GLOUCESTER

WOODBURY

BERLIN

CEDAR BRIDGE

OCEAN

MULLICA HILL

ATSION

BARNEGAT

PENNS GROVE

FAIRVIEW

CAMDEN

GLASSBORO

MANAHAWKIN

WOODSTOWN

HAMMONTON

PITTS GROVE

OCEAN

SALEM

MALAGA

DA COSTA

NEW GRETNA

SALEM

ATLANTIC

EGG HARBOR

BUENA VISTA

MAYS LANDING

BRIDGETON

MILLVILLE

CUMBERLAND

ABSECON

PLEASANTVILLE

ATLANTIC CITY

TUCKAHOE

OCEAN CITY

PETERSBURG

MARMORA

DENNISVILLE

SEAVILLE

CAPE MAY

COURT HOUSE

RIO GRANDE

CAPE MAY

1966
OPERATING STATE HIGHWAYS

STATE OF
NEW JERSEY

PREPARED BY THE
NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF PLANNING

LEGEND

FEDERAL AID INTERSTATE ROUTES
U. S. NUMBERED ROUTES
OPERATING N. J. STATE HIGHWAYS
TOLL ROADS

MAP SCALE 0 4 8 12 16 MILES
INSET SCALE 0 2 4 6 8 MILES

A generation ago, 140 million people rode from New Jersey to New York on railroads each year. Now the total is down almost to a third of that number although peak hour ridership remains relatively constant. The commuter remained faithful to rails in the face of fewer trains, antiquated equipment, postponed maintenance and similar annoyances -- largely because there was no other choice.

This is the heart of the financial problem facing the rail passenger carriers. They have plenty of business in the rush hours, when they really don't need any more, and almost no business at all the rest of the time. Manpower and equipment costs are offset by useful production only a few hours out of every day.

PROBLEMS OF ANNUAL FINANCING

The last 10 years have been years of struggle to keep from dropping too far behind new demands on New Jersey's transportation resources -- demands which mount daily. At this moment in time, despite some important advances, it has become clear New Jersey will not catch up without a truly major effort. It has also become very clear indeed that this major effort cannot be accomplished within the framework of existing State revenues, nor on the basis of annual State appropriations tied to existing revenues and the competing demands of other essential services.

Nor should it. Any highway improvement normally requires more than one year to accomplish. Major expansion of the existing highway system will require more than a few years. Highway construction is, in the purest sense of the phrase, "long-term capital construction." It is general practice throughout the United States to finance highway improvements over a period of years. New York State, for example, has just adopted a $2.5 billion bond issue for transportation purposes including highways.

Perhaps at no point in the recent history of New Jersey State Budgets has this approach been more appropriate. Existing State tax revenues are insufficient even to maintain the level of improvement to New Jersey's transportation resources attained in the past two years.

With the largest active highway construction in the State's history underway, with major rail programs well past the stage of initial planning, and with proven ability to actually produce transportation improvements, the Department of Transportation finds itself with inadequate funds at the very moment when it is

most ready to use them and its people of the State are most in need of them.

The answer -- almost the only answer -- is approval of a Master Plan for Transportation to be accomplished during the next decade and at the same time approval of the funds with which to do the job.

Only if New Jersey stopped growing today might it be possible to close the gap between transportation resources and transportation needs with another 10 years of struggle, of maintaining present effort in the face of strong competition from other vital government responsibilities.

This won't happen. The gap is widening, not narrowing. The situation now, today, is that New Jersey's transportation system has not caught up with New Jersey. The situation tomorrow, unless something is done, will be a transportation system even farther behind -- almost certainly too far.

PAINS OF PROSPERITY

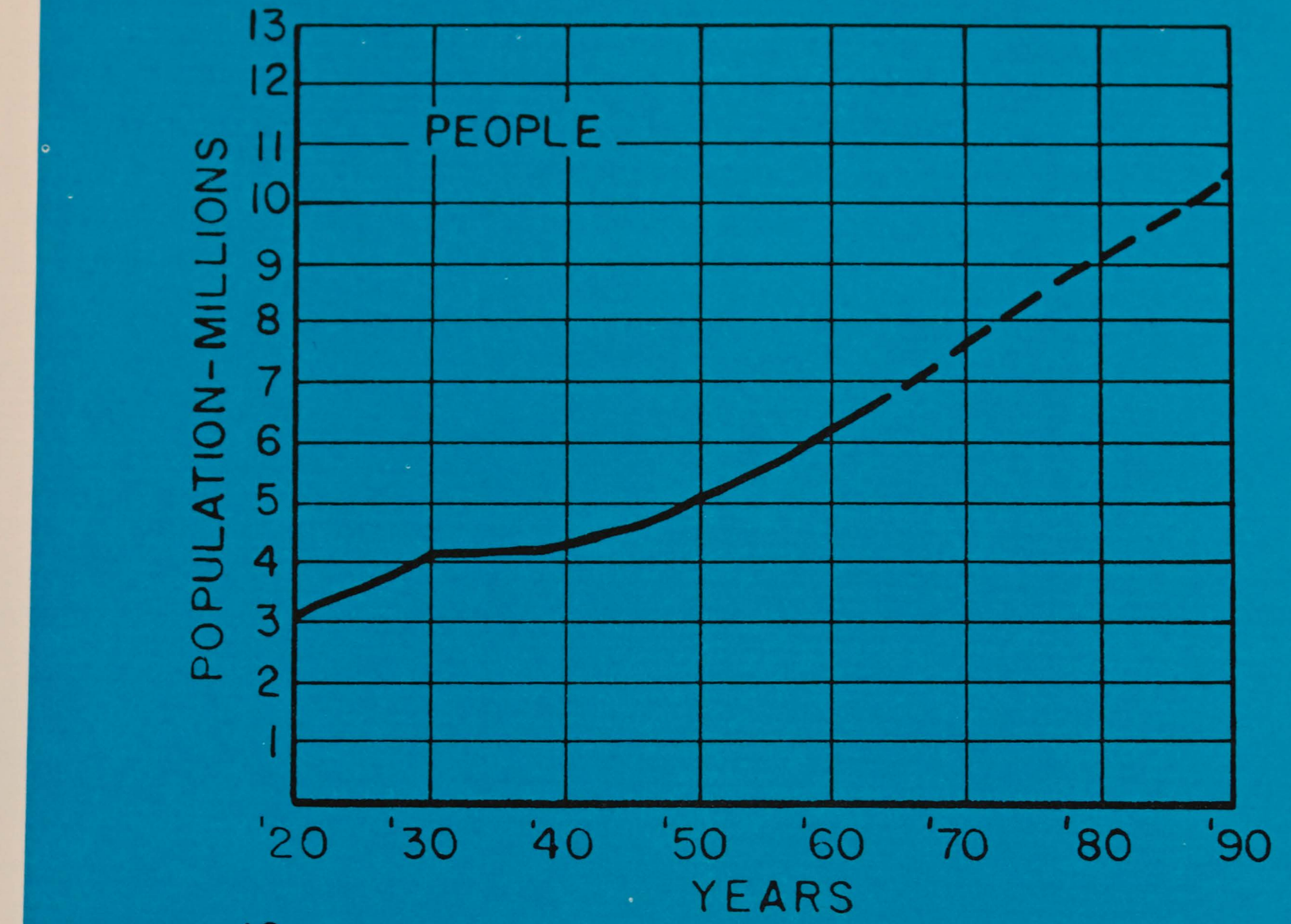
The most ironic fact of the transportation ills which beset New Jersey is that they all came about through prosperity. For example:

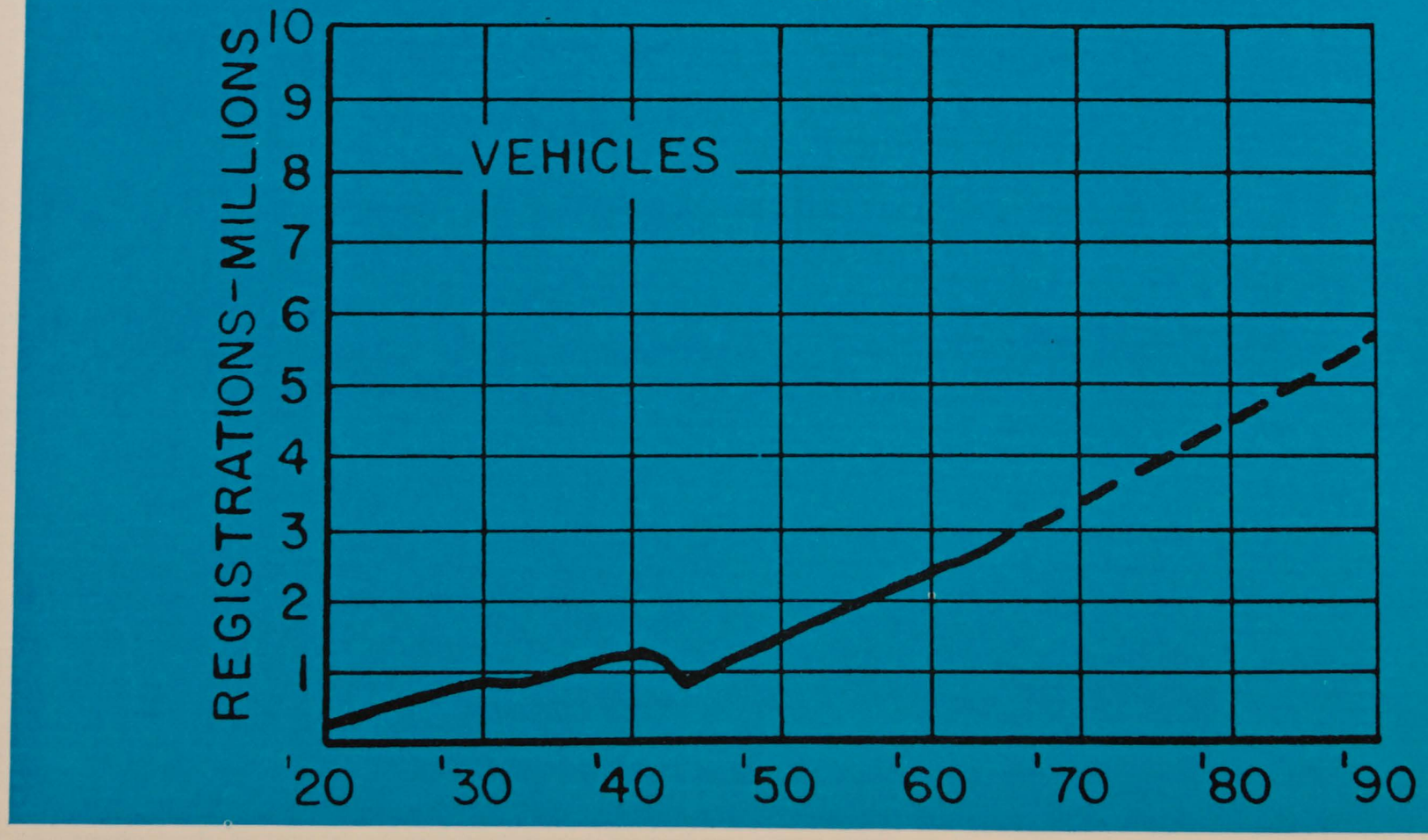
> A higher standard of living means more people can afford cars. In fact, more people can afford more than one car. Today there are about seven million people in New Jersey and three million registered vehicles. In comparison with the 1924 prophecy there is now at least one car for every two people old enough to drive.

Movement of industry into formerly rural areas helps the local tax base. It also means more people drive more miles to work.

Construction of thousands of new homes in the suburbs and establishment of mammoth shopping and social centers to serve them helps create new jobs. It also means there is greater demand for governmental services -- including transportation.

GROWTH TRENDS





Improved production methods and enlightened legislation have lengthened the leisure hours available to most residents of New Jersey. Now they can spend more time enjoying a State blessed with many recreational advantages. It also means more people make more trips to more places for this purpose.

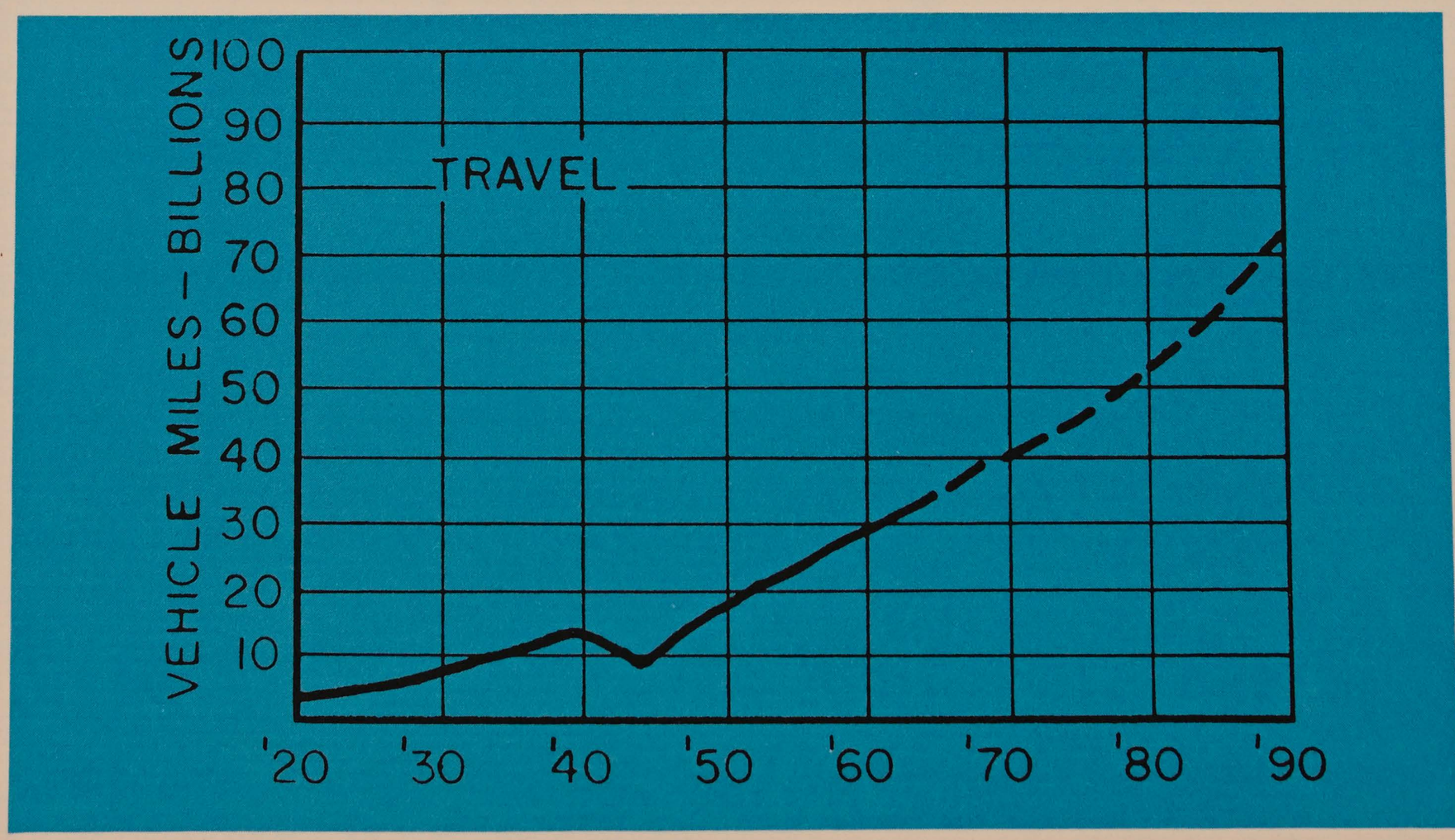
TOMORROW'S PRESSURES

There is a word for all this growth and the problems it produces. It is "urbanization." New Jersey is now the most urban of States, with 900 people for every square mile. It is in the center of the most urban of regions. The colonial pathway of yesteryear has become "Main Street" to the nation. If New Jersey's growth continues, and there is no good reason to believe otherwise, it means that in the next generation:

The human population will increase by half;

The automobile population will increase by three-fourths;

Highway traffic will more than double.



And the highway traffic growth will create even more of an intolerable situation unless existing public transportation facilities -- particularly the commuter railroads -- continue to carry at least their present share of the burden.

New Jersey has earned the title "Corridor State" honestly. Trips across New Jersey's borders are the most numerous in the country.

The volume of traffic between New Jersey and Pennsylvania is the highest in the nation and the volume between New Jersey and New York is the second highest. This situation stems in part from New Jersey's location in the center of the eastern seaboard, but it stems mainly from the fact that large numbers of New Jerseyans are employed in New York City and Philadelphia.

As a result, a tide of commuter traffic -- equal in numbers to the population of a very large city -- flows out of New Jersey in the morning and back at night. There is also a substantial reverse movement, but it is not nearly as large.

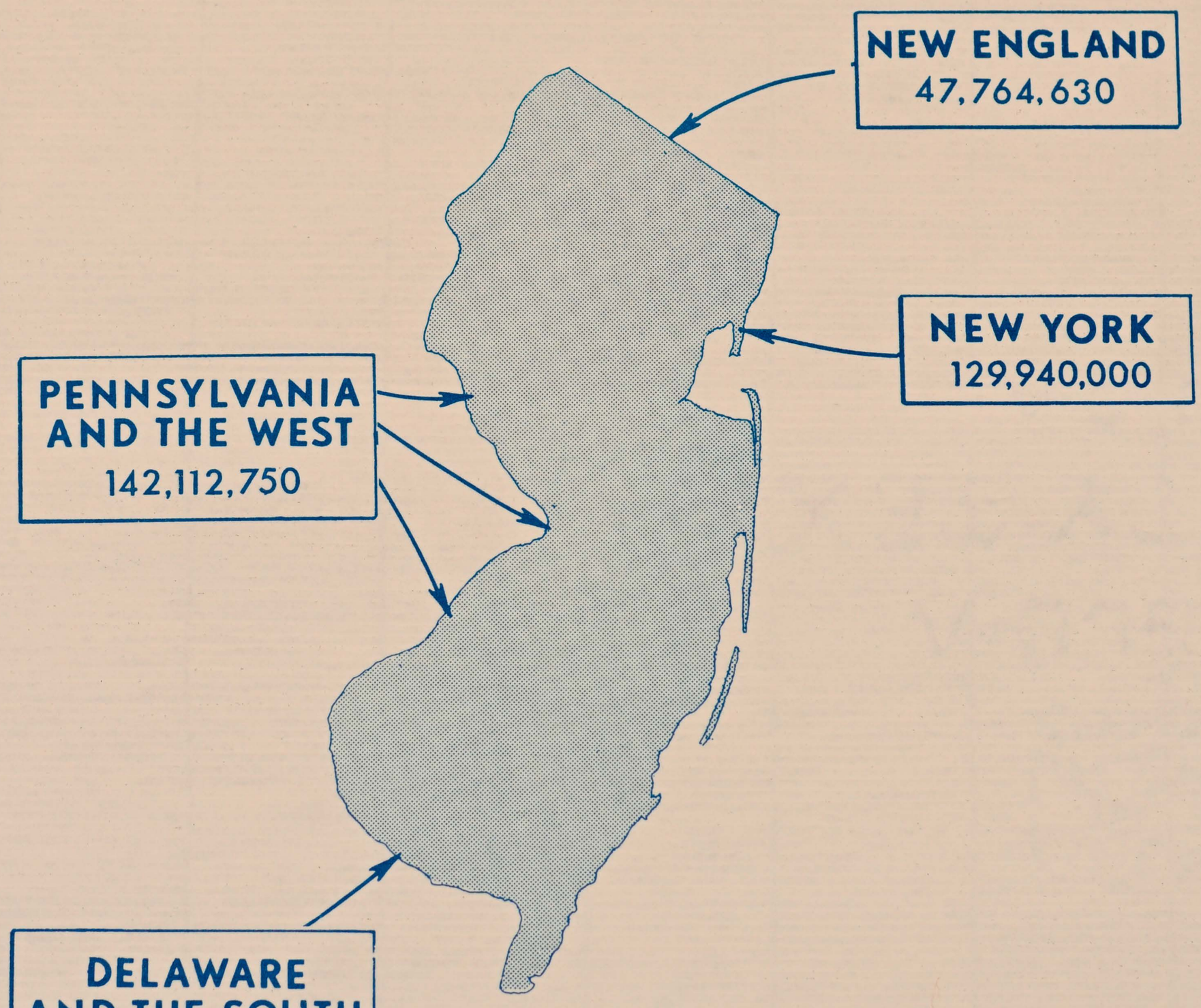
The largest single movement, of course, is into Manhattan. And half of all the people who make this trip each weekday -- about 220,000 -- use mass transit.

The existence of mass transit becomes even more essential when the daily tide of people is at its flood, during the peak commuter hours in morning and evening. During one peak hour in the morning, 100,000 people cross the Hudson River from New Jersey into Manhattan. And four out of every five use mass transit, railroads or buses. The railroads alone carry 40,000 people into Manhattan during this peak hour.

<u>If these 40,000 people had to be accommodated on highway, at least one additional vehicular tunnel or bridge would be required. (At the present time, the two tunnels and the George Washington Bridge only carry a total of 39,000 cars, trucks and buses into New York City during the three peak morning hours.)</u>

The cost of one new facility probably would equal or exceed the cost of the entire suburban railroad improvement program proposed in this Report. And since the City of New York is violently opposed to the creation of any additional vehicular crossings -- for very understandable reasons -- it is extremely doubtful that one could be built anyway.

NEW JERSEY IS A CORRIDOR STATE



334,709,380
INTER-STATE CROSSINGS
1966

Lincoln Tunnel Control

New Southern Jersey Rapid Transit Project

The situation is not as acute in the Camden metropolitan area as in the northeastern area, but the same pattern is beginning to show. A new commuter rail line between Camden and Philadelphia is being built for just this reason.

At the present time, railroads and buses do their greatest work within the metropolitan areas, particularly with regard to carrying people across the State borders. But, the metropolitan areas are constantly expanding. It will not be too long before the areas adjacent to Philadelphia and New York meet and become one in the center of New Jersey.

While the importance of public transportation in the handling of Interstate commuter traffic within the two greater metropolitan regions is paramount, it also has an essential role within New Jersey. Projections indicate that while traffic volumes into New York City and Philadelphia are very, very large, they are relatively static. The greatest increase in traffic demand in the future will be within the State, not across its borders. And, while highways have given most Americans a level of mobility unequaled anywhere else in the world, public transportation is still needed by all those who either cannot or do not drive--the old, the young, the poor and the handicapped. These constitute more than half of the people in the densely populated urban regions of New Jersey.

The older urban centers were built around public transportation systems and depend upon them in very large measure for their economic strength. Preservation and improvement of mass transportation within New Jersey's cities must play a major role in any drive to preserve the cities themselves.

The service New Jersey's railroads provide to suburban areas is almost as vital as the service they provide to the cities. Furthermore, it is in the suburbs that the opportunity still remains to make rail service much more attractive by establishment of "park and ride" stations and similar facilities.

It is impossible in this day and age to build enough highways to carry all of New Jersey's metropolitan traffic load. Even after developing the maximum use of buses by increasing terminal facilities and providing express connections in the Lincoln Tunnel area, the traffic situation in the most densely populated sections of the State would be hopeless without rail commuter service. But highways are the backbone of New Jersey's overall transportation system and must be relied upon to carry most of the load within most of the State, now and in the future. The two travel modes are married, not only for convenience but also by necessity.



1966
URBANIZED AREA

NEW JERSEY
DEPARTMENT OF TRANSPORTATION
DIVISION OF PLANNING
IN COOPERATION WITH THE
U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS



1986
URBANIZED AREA

NEW JERSEY
DEPARTMENT OF TRANSPORTATION
DIVISION OF PLANNING
IN COOPERATION WITH THE
U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

The gap between what New Jersey is doing to meet its present and future transportation needs, and what it ought to be doing, probably never will be bridged entirely. If it ever was bridged entirely, it would mean that the State had stopped growing. But one conclusion is inescapable -- any program for narrowing the gap must cover rail and rubber alike. Both systems need to be improved at the same time and in harmony with each other.

DEFINING THE PROBLEM

The problem confronting the people of New Jersey is threefold. It consists of identifying the size of the gap, pinpointing what can be done about it, and deciding whether or not to do it. The purpose of this Report is to provide the best judgment of the Department of Transportation on the first two parts of the problem. Final judgment on the final part can be made only by the people themselves.

There are some practical limitations:

Time.....Capacity.....Money

Considering New Jersey's existing growth rate and making conservative projections of what is going to happen during the next fifteen years, it becomes apparent that the time remaining for any meaningful effort is rapidly disappearing. It is the judgment of the Department of Transportation that unless a substantial added effort is made during the next decade, it will come too late.

The experience of the past ten years has demonstrated beyond doubt that creation of an adequate transportation network in New Jersey involves human difficulties as well as engineering ones.

New Jersey's urbanization means quite simply that it has a lot of people living in a comparatively small area. And the length of time New Jersey has existed as a State means quite simply that a lot of these people live in older cities not designed for the complexities of modern society. New Jersey's rate of growth since World War II was achieved, in many instances, without planning for the problems this growth would bring.

So, many of the difficulties connected with the location and design of new transportation facilities, or the improvement of

existing ones, can be solved only by rearrangement of the physical environment. And this physical rearrangement often requires a social rearrangement -- a change or adjustment of what was the existing pattern of community life.

The human difficulties created by requiring these kinds of social rearrangements can be solved only by the closest kind of cooperation with local governments, city planners, industrial developers, housing authorites, and all of the many agencies rightfully concerned with creating better community environments. This takes time.

SOME COSTLY EXAMPLES

The difficulties that already confront New Jersey can only tend to become even more difficult, and more costly to resolve with the passing of time. New Jersey is seeing this happen now, today.

Item: The opening of the Verrazano Bridge and the construction of new freeways on Staten Island is generating heavy traffic. This fact, coupled with longstanding plans for a new freeway from the vicinity of Springfield to Morristown and the west made a connection between Springfield and the Outerbridge Crossing to Staten Island near Elizabeth only logical. The Department of Transportation has said this connection--Interstate Route 278--is needed, but strong concerted opposition from the municipalities in the path of the highway have forced the Department to abandon it west of Route 1, at least for the foreseeable future. In this case, the surburban growth of New Jersey got too far ahead of the transportation network.

Item: The pending construction of a new bridge across the Delaware River near Delair poses much the same problem in a rapidly growing area of South Jersey. Here, however, the Department has obtained Federal approval of the location. Now the problem is to protect the right-of-way while the design is developed. Already the Department has been forced to expend a substantial sum to stop construction of a major building project within the alignment. Without adequate funds to purchase the remainder of the right-of-way as rapidly as possible, the ability of the Department to continue protecting this corridor is doubtful.



Bergen Mall

ROUTE 4 SHOPPING CENTERS

Garden State Plaza



1942 - 1968 COST COMPARISONS BY ROUTES

ROUTE #	DESCRIPTION 1942	COMPARATIVE COST ESTIMATES	
		1942	1968
Freeways:			
18	Highland Park to Bound Brook	$1,563,000	$43,000,000
18	Route 18 Freeway, Monmouth Co.	6,000,000	22,500,000
23	N.Y. Line to Passaic Co. Line	3,874,500	40,000,000
24	Route 24, Essex Line, Chatham to Morristown	2,500,000	50,000,000 (Partial)
38	Route 38 to Bennetts Mills	5,650,000	60,000,000
40	Woodstown By-pass	250,000	4,000,000
208	Bergen Line at Ramapo Lakes to N.Y. Line	6,875,000 (25.3 mi.)	26,000,000 (10.5 mi.)
85	Between Lincoln and Holland Tunnel	2,000,000	140,000,000
Dualizations:			
9	Adelphia to Toms River	4,500,000	8,000,000
9	Monmouth Line to Cheesequake	875,000	2,400,000
10	Livingston Circle to Route 53	2,313,000	6,000,000
30	Route 73 to Route 9 (Absecon)	8,000,000	15,000,000
34	Route 33 to Route 9	4,375,000	13,800,000
38	Route 34 to Route 35	437,500	3,500,000
Widenings & Improvements:			
3	Route 20 to Route 46	3,625,000	13,800,000
73	Berlin to Atlantic Line near Folsom	1,962,500	2,000,000

ACTION PRODUCES A PROFIT

The files of the Department of Transportation hold several "master plan" proposals of the past, going all the way back to 1927. Most, if not all of them, are tied to the same basic network of highways which became desirable decades ago. All of them proposed construction of highways which advanced to the point of "study" time and time again. Most of them have received legislative authorization for addition to the State Highway System, but not money.

A comparison of current cost estimates with those of a quarter century ago gives reason for serious reflection on the decisions required now. One fact is apparent -- the financing cost involved in a long-term bond issue program is far less than the increased right-of-way and construction costs which delay inevitably produces.

TIME CONSTRAINTS

The national average for time expended on building a useful section of new highway, from the point where it is but a gleam in the planner's eye to the point where a ceremonial ribbon is cut, is seven years. In New Jersey, it is about five years.

The same is true of railroad improvements. The rail situation reached a point of crisis in 1958 when the Federal Government moved to permit railroads to abandon passenger service that lost money. The State created a Division of Railroad Transportation to solve the problem and embarked on what was supposed to be a stop-gap subsidy program.

Subsidies amounting to about $58 million have in fact saved essential commuter service in New Jersey -- so far. But they have not brought a solution. The only prospect of a solution lies in the realm of permanent capital improvements.

The time remaining to put a rail improvement program into effect is rapidly disappearing. The Interstate Highway System should be completed about 1975. If New Jersey's rail carriers have not been modernized to a considerable degree by then, enough additional commuters may be temporarily diverted to highways to make any rail solution financially impossible.

It also will make the highways become obsolete faster.

So, time is required for any transportation improvement, and now

the time is short. But, because many of the transportation needs of New Jersey have been officially recognized for a considerable period of time and much has been done on them, they can be delivered within the reasonable near future if sufficient money is available.

Many other projects never have progressed beyond recognition that an improvement is desirable. If it is determined promptly that such projects do in fact represent valid needs, and that work should be started on them, they can be delivered before the end of the next decade. If, however, a decision is postponed, it must be realized that in all likelihood these new facilities will not be available to the people of New Jersey before the 1980's. By then a tide of traffic will have washed over the State, inundating the present highway network.

The ability to produce a transportation facility at the right place at the right time not only spells savings to the State and its taxpayers, it also spells economic benefits to the people and the communities affected by the facility.

Residential, commercial and industrial developments in all parts of the State often have been deferred in the past for lack of adequate transportation. No week passes without letters and visits to the Department of Transportation indicating the avid and urgent interest of private developers and municipal officials in the progress on a particular project.

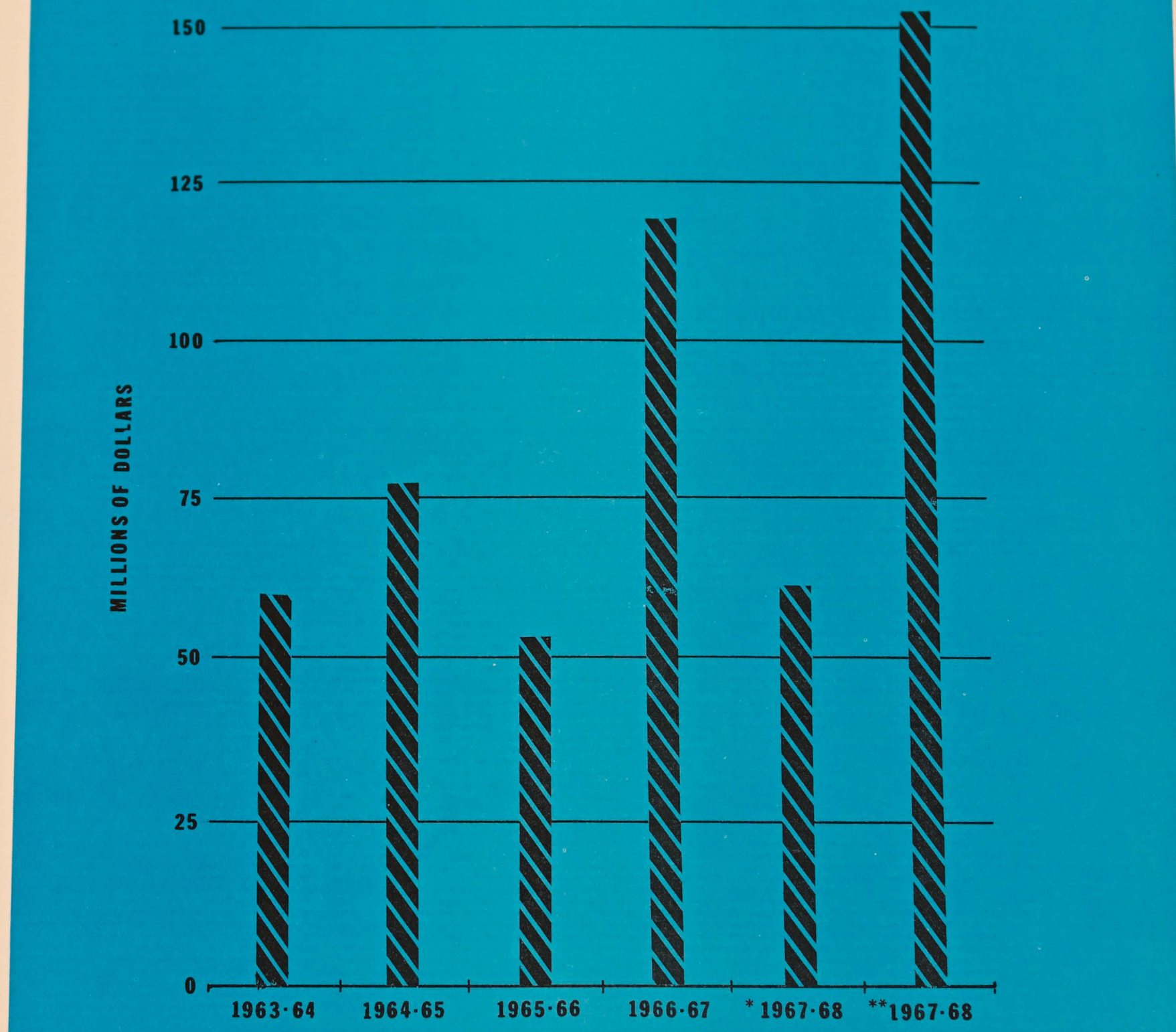
CAN WE DELIVER?

Another constraint, or limitation which must be considered when determining a solution to New Jersey's transportation problem is the ability of the Department of Transportation to deliver the program within a reasonable time.

This ability is best judged in terms of the record, and especially in terms of the Department's demonstrated ability to award an increasing number of construction contracts in recent years. This record was not come by easily. It rests primarily on work accomplished during the past five years which was not visible to the people -- work on highway location, design and right-of-way acquisition. All of these are necessary steps before construction can start, and they take time.

While this time was passing, the Department accumulated a backlog of highway funds. Only the existence of the backlog permitted

HIGHWAY CONSTRUCTION FUNDS COMMITTED TO CONTRACT
(Constuction Only)



* 7 Months ** Full Year Projected

These figures do not include engineering costs, right-of-way acquisition, or miscellaneous construction costs such as relocation of public utilities.

the production record of the past two fiscal years, when more than $360 million dollars in State and Federal funds was put to work. More than $100 million has been put to work since the start of the current fiscal year, and the Department was confident of reaching to $200 million mark in one year prior to announcement of the latest Federal "freeze". This will undoubtedly curtail production in the current year.

The record indicates two things -- the Department of Transportation now has proven ability to handle more than $200 million worth of highway work each year, and the backlog of funds available for non-Interstate highway projects has disappeared.

On the basis of its experience over the past two years, the Department sees no great problem in bringing annual production up to the $250 million level by 1970, given sufficient funds to make this possible. Any expansion beyond that would require larger staff and a little longer period of acceleration.

But a major share of the Department's production for at least the next seven years must be devoted to completion of the Interstate System. This probably will require an annual average of between $110 and $120 million a year between now and 1975. If the existing Federal 50-50 program is added to the constant workload, the Department then has a capacity of approximately $100 million a year beyond the level of all Federal Aid programs.

THE MASTER PLAN

State Highways

Local Roads

Public Transportation

The best judgment of the Department of Transportation at this time is that the cost of needed highway improvements approximates two and three-quarter billion dollars.* (It is important to remember that this figure does not include the cost of routes on the National System of Interstate and Defense Highways. The Department believes the Federal Government is committed to finance the cost of these projects.)

The non-Interstate highway needs are broken down to $1,545,400,000 worth of projects in "first priority" and $1,217,700,000 in "second priority". (See Appendix)

A review of these needs and the priorities established by the Department shows that attention has been focused on three major problem areas. These are:

1. The absolute necessity of revitalizing the State's older cities;

2. The almost equally pressing need to provide for proper movement of people and goods through and within New Jersey's rapidly developing suburbs, before the prolems there become as desperate as they are now in the cities; and

3. The urgency of establishing proper transportation corridors in those parts of New Jersey that are still largely rural, so that the growth which is certain to occur in them will be balanced.

URBAN BACKLOG -- A CRISIS

New Jersey's older cities today are beset by severe economic and social ills. The "flight to the suburbs" has placed many

---

* *An exhaustive study performed by Wilbur Smith and Associates under supervision of the Department of Transportation and the U. S. Bureau of Public Roads projected total State Highway needs, exclusive of initial construction of the Interstate System, as approximately $4.5 billion on a 20-year program. However, this cost includes administration, maintenance, improvement and/or replacement of highways built early in the 20-year program, and work on roads taken over from counties or municipalities. The needs recommended by the Department of Transportation are recognized in the Wilbur Smith report, a large portion as "backlog."*

of them in a position where they can no longer generate sufficient local tax revenues to support needed governmental services, let alone the extensive rehabilitation required in many areas. It has been painfully clear that the cities face great difficulty in competing with the convenience and often lower costs represented by suburban shopping centers, industrial parks, and the like. Construction of new highways outside of the cities has made it possible for industrial and commercial establishments to locate in the countryside without loss of time either for their work forces or in the shipment of goods.

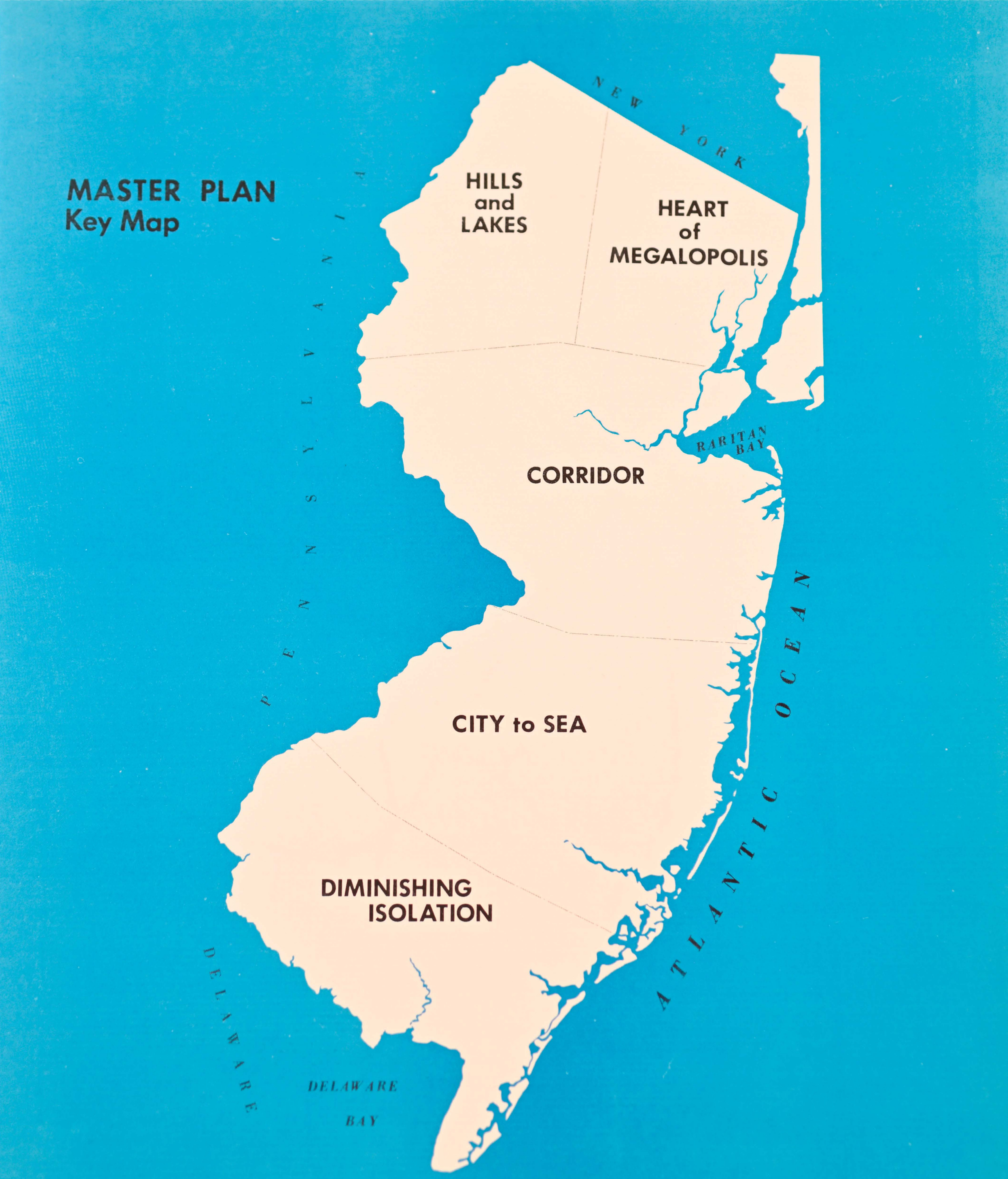
To overcome this, better transportation into the urban core is necessary so that the cities will become more attractive as industrial locations, as retail trade centers, and as a place to live.

Unfortunately, construction of highways in urban centers usually is the most expensive kind, and the same would hold true for construction of a new railroad facility. But a number of the State's major cities -- Newark, with its Route 75 and Route 21; Jersey City and Hoboken with the Tonnele Avenue Bypass and its Tunnel Connector; Paterson and Passaic with their Routes 20 and 21; Elizabeth with its Route 81; Bayonne and Perth Amboy with their Route 440; Trenton with its Route 29; and Camden with its Industrial Highway -- have based their plans for urban renewal on construction of major transportation facilities. All of these highways are in various stages of progress and sections of many of them have been built. Basic location and design agreements have been achieved and now the cities are waiting for their highways. The point has now been reached where they can be completed in the reasonably near future, but only if substantial added funds are provided. More than one third -- in excess of $500 million -- of the Department's top priority projects fall into this intricate and important area.

DEMANDS OF SUBURBAN GROWTH

The growth of suburban areas has outstripped the transportation facilities which were adequate to serve them a decade or so ago. Unless new highways are provided in the "suburban fringe", many centers of population which did not exist at the end of World War II will become as congested as the older cities and will face the same problem of retaining their attractiveness to business and industry. Freeways like Route 18 and Route 35 in Monmouth County, Route 18 in Middlesex and Somerset Counties, Route 92 in Mercer, Middlesex and Somerset Counties, Route 24 in Morris County, Route 55 in Cumberland County, and others must be completed before the task becomes as difficult as it is in the cities. This is truly a race against time.

MASTER PLAN
Key Map

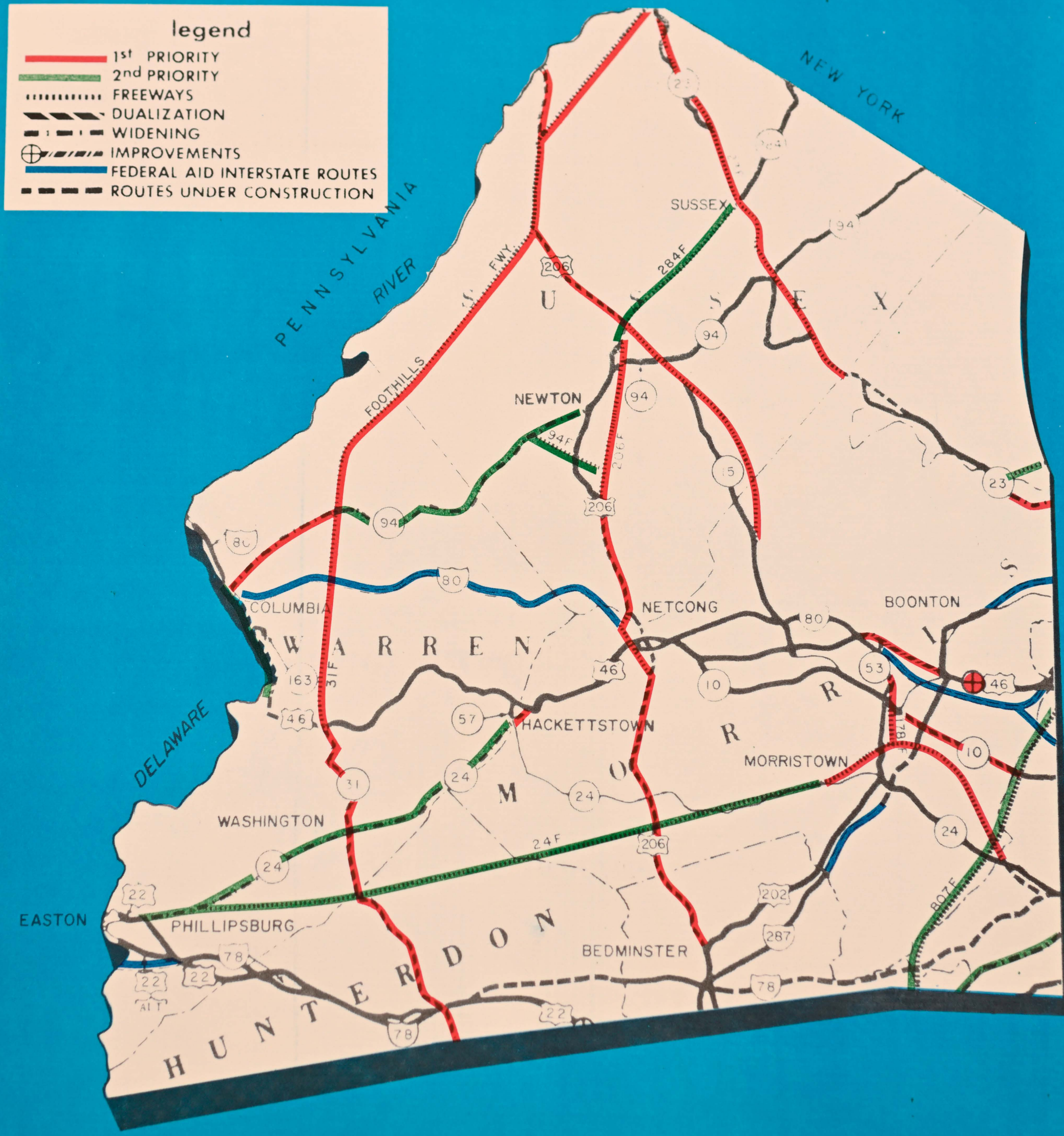


MAP 2

HILLS AND LAKES

legend

- 1st PRIORITY
- 2nd PRIORITY
- FREEWAYS
- DUALIZATION
- WIDENING
- IMPROVEMENTS
- FEDERAL AID INTERSTATE ROUTES
- ROUTES UNDER CONSTRUCTION



MAP 3

HEART OF MEGALOPOLIS

legend

- 1st PRIORITY
- 2nd PRIORITY
- FREEWAYS
- DUALIZATION
- WIDENING
- IMPROVEMENTS
- FEDERAL AID INTERSTATE ROUTES
- ROUTES UNDER CONSTRUCTION

NEW YORK STATE

PASSAIC

BERGEN

ESSEX

HUDSON

UNION

PARAMUS

PATERSON

HACKENSACK

PASSAIC

NEWARK

IRVINGTON

UNION

JERSEY CITY

HOBOKEN

ELIZABETH

BAYONNE

UNION CITY

MANHATTAN

GEO WASHINGTON BRIDGE

LINCOLN TUNNEL

HOLLAND TUNNEL

PARKWAY

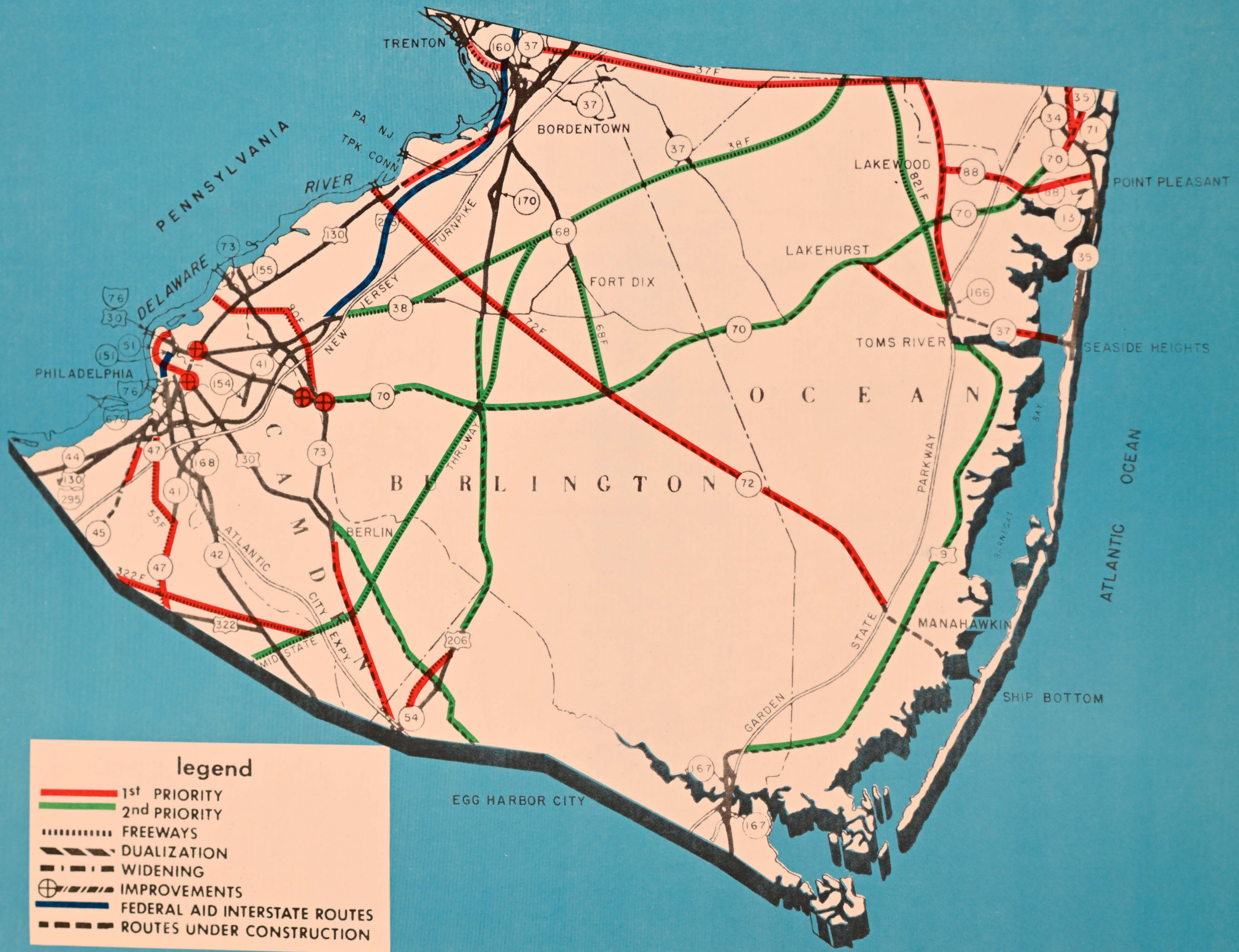
TURNPIKE

JERSEY EXT

NEW YORK STATE

MAP 5

CITY TO SEA



legend

- 1st PRIORITY
- 2nd PRIORITY
- FREEWAYS
- DUALIZATION
- WIDENING
- IMPROVEMENTS
- FEDERAL AID INTERSTATE ROUTES
- ROUTES UNDER CONSTRUCTION

MAP 4

CORRIDOR

HUNTERDON

SOMERSET

UNION

MERCER

MIDDLESEX

MONMOUTH

DELAWARE RIVER

PENNSYLVANIA

FRENCHTOWN

FLEMINGTON

LAMBERTVILLE

PRINCETON

TRENTON

SOMERVILLE

NEW BRUNSWICK

FREEHOLD

BORDENTOWN

LAKEWOOD

TURNPIKE

NEW JERSEY

STATE PARKWAY

MATAWAN GARDEN

BAYONNE BRIDGE

STATEN ISLAND

BROOKLYN

GOETHALS BRIDGE

OUTERBRIDGE CROSSING

RARITAN BAY

ASBURY PARK

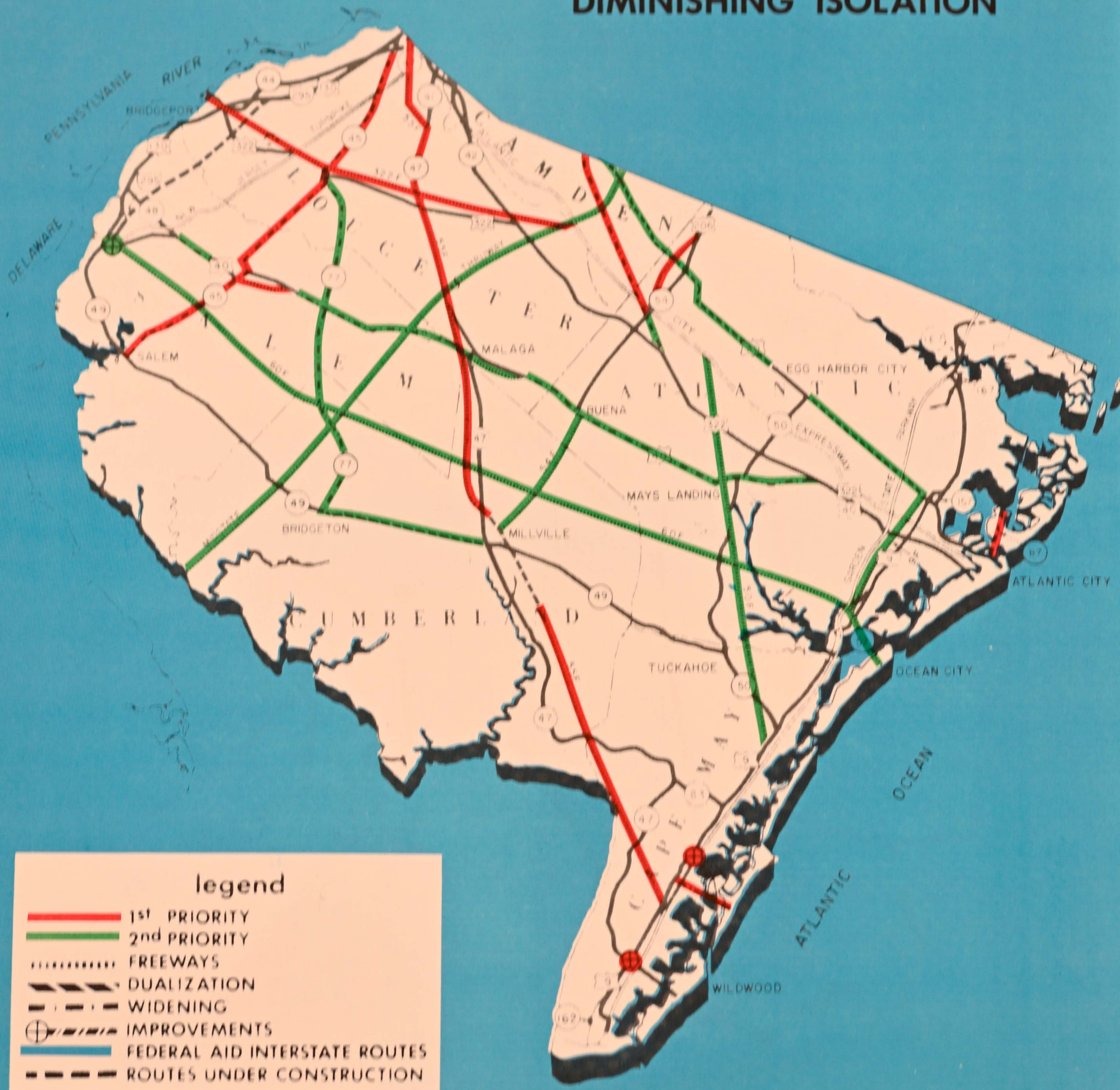
POINT PLEASANT

legend

- 1st PRIORITY
- 2nd PRIORITY
- FREEWAYS
- DUALIZATION
- WIDENING
- IMPROVEMENTS
- FEDERAL AID INTERSTATE ROUTES
- ROUTES UNDER CONSTRUCTION

MAP 6

DIMINISHING ISOLATION



GETTING AHEAD OF THE NEED

Some of the problems now being experienced by the suburbs exist because population and economic growth arrived before adequate transportation was developed. This same kind of population and economic growth will arrive during the next ten to fifteen years in areas that now are predominantly rural. Developments like the Tocks Island Park will accentuate the problem.

Projects to meet this particular kind of need are not as completely developed, not as close to the construction stage, as they are in the urban and suburban problem areas. And it is certain that they will not be developed in time unless the existing production of the Transportation Department is financed, and unless funds are provided in the very near future to start additional work.

Costs still are comparatively low in rural areas, and there still is time to establish the basic transportation network required for proper development of the land.

LONG-RANGE SCHEDULING BENEFITS

This situation highlights one of the great advantages of a long-range capital construction program secured by a sound financial base. It permits preliminary location and design work to proceed on second priority projects at very moderate cost at the same time the major share of available money is used for construction of first priority projects. The right-of-way essential for second priority projects can be preserved during the time required for preparation of the final construction contract plans. And, with the lead time permitted under a long-range schedule, all right-of-way can be acquired in a more orderly manner, at less inconvenience to those displaced by the new facility. All this is just as true of rail projects -- new stations, for example -- as it is of highway projects.

If first and second priority highway projects could be scheduled over a period of years on the basis of a long-range financing plan, then New Jersey would have many projects ready for fast action when added Federal funds become available in the late 1970's. This would avoid the kind of delay encountered right after the start of the 90-10 Federal program in 1956, when the State had to "gear up" to the new level of available money.

LOCAL ROAD SYSTEMS

Although the major share of the highway traffic in New Jersey is carried on the State Highway System, the System itself--even under this Plan--is only a small part of the total road mileage in the State. Traffic within the State normally used the State Highway System only for a part of the individual trip. The beginning and end of each trip usually is on a county road or municipal street.

It is obvious that these local road systems also require substantial expansion and improvement, not only to meet future needs but also to carry their present burden in a more satisfactory manner. The cost is very high indeed, which is not surprising in view of the thousands of miles involved.

The study by Wilbur Smith and Associates indicated that during the next 20 years, approximately $77.6 million will be needed for construction, maintenance and administration of county roads. During the same period, approximately $880.2 million needs to be spent on construction, administration and maintenance of municipal streets, not counting local streets built only for land access, commercial access and residential purposes. The streets in these last three categories would be initially constructed by private developers, and it is estimated that 9,000 miles will be required, but the cost of improving them over the 20 year period together with improvement of existing municipal streets is estimated at approximately $1.5 billion.

The study recommends that certain State highway, county roads and municipal streets, be transferred to other jurisdictions. The Department of Transportation recommends careful consideration of this proposal, as it would tend to provide a more efficient transport system for the State. The Department's master plan proposal, if adopted, will provide badly needed additional revenues for local road needs and finance a local road program of almost $2 billion during the next 20 years.

SUBURBAN RAILS

Northern New Jersey's suburban railroad system with 360 route miles in 12 counties is among the most extensive in the nation. It now serves about 62,000 New Jerseyans on a typical weekday. The major objective in the Master Plan for Public Transportation is rehabilitation and modernization of this suburban rail system.

In May of 1966, Governor Richard J. Hughes, in a message to the State legislature, outlined the Prime Goal of the State's suburban railroad capital improvement program:

> Our goal must be nothing short of a modern, electrified, interconnected commuter (railroad) system. New cars will move passengers swiftly and safely, with few or no train changes, throughout the northern part of the State. Expanded parking, improved stations and more convenient ticketing arrangements also will increase the utility of the system.

This Report recommends a $325 million capital improvement program covering the critical steps toward this goal which must be accomplished by 1975. The program, if adopted now would include electrification of a number of lines, a fleet of new high speed electric commuter cars, new or improved station facilities, interconnections between railroads and other improvements as follows:

CENTRAL RAILROAD COMPANY OF NEW JERSEY

The initial phase of modernizing this railroad was completed in April 1967, when the State put the Aldene Plan into operation. Capital improvments still needed on the Central include additional track connections with the Lehigh Valley Railroad at Aldene and with the Penn Central at Newark; electrification of the Main Line (including trackage of the Lehigh Valley) between Newark and Raritan; a fleet of high speed electric commuter cars; and certain station and parking improvements including high level platforms and station ticket validation. Once electrified, through operation into Manhattan will be possible.

NEW YORK AND LONG BRANCH RAILROAD

An application has been submitted to the Department of Housing and Urban Development for a Federal grant to finance the first phase of modernizing this railroad. This phase provides for electrification between South Amboy and Red Bank; grade crossing eliminations; station improvements; high speed electric commuter cars; track and signal changes; and a storage yard for passenger cars. The next phase will be to extend the electrification, grade crossing eliminations and station improvements to a point south of Asbury Park. Several alternatives are presently open by which this can be accomplished. The final phase will be installation of a station ticket validation system.

PENN CENTRAL

The State of New Jersey has ordered 35 high speed electric commuter cars to be financed jointly by the State and the Department of Housing and Urban Development. An additional 45 cars will complete the replacement of suburban equipment for this railroad.

NORTHERN NEW JERSEY SUBURAN RAILROADS MASTER PLAN

EXISTING ELECTRIFICATION

PROPOSED ELECTRIFICATION

ERIE LACKAWANNA RAILROAD

Diesel Locomotives & Cars
Montclair Connection
Manhattan Access
Stations & Parking
Electrification Extension & Renovation
Electric MU Equipment
Grade Crossings
Platforms
Station Ticket Validation

CENTRAL RAILROAD OF NEW JERSEY

Stations, Platforms & Parking
Electrification
Electric MU Cars
Connections
Station Ticket Validation

SHORE ROUTE PHASE 1 IMPROVEMENTS

Electrification
Electric MU Cars
Track & Yard
Grade Crossings
Stations, Platforms & Parking

SHORE ROUTE PHASE II IMPROVEMENTS

Electrification
Grade Crossings
Track & Yard
Stations, Platforms & Parking
Station Ticket Validation

PENN CENTRAL

Electric MU Cars
Stations, Platforms & Parking
Station Ticket Validation

Suffern
NEW YORK
Mtn. View
Paterson
Netcong
ERIE LACKAWANNA R.R.
Dover
MONTCLAIR CONNECTION
Montclair
IMPROVED MANHATTAN ACCESS
Hoboken
NEWARK
PATH
Bayonne
IMPROVED CONNECTION
Gladstone
E. L. R.R.
N. J. - N. Y. R.R.
NEW BRUNSWICK
South Amboy
READING COMPANY
PENN CENTRAL
N.Y., LONG BRANCH
Red Bank
PENNSYLVANIA
TRENTON

The State will also make certain station and parking improvements, including a new stop near the Garden State Parkway and a new station at Trenton. The final phase of this program will be installation of a station ticket validation system.

ERIE-LACKAWANNA RAILROAD

With 190 route miles, the Erie-Lackawanna operates the most extensive network of passenger lines in New Jersey. Approximately one-half of State expenditures for rail capital improvements in the next ten years will be expended on this railroad. These improvements include renovation of the existing electrification system; extension of electrification to the Greenwood Lake Division between Montclair and Mountain View; a fleet of high speed commuter cars for the electric lines; new coaches and locomotives for operation on the non-electrified lines; and upgrading of station facilities. In addition, the Department plans to include certain connections and a transfer station to increase the utility of the system. Among these is a connection at Montclair between the Montclair Branch and the Greenwood Lake Division to provide greater access to Newark; a connection east of Newark between the Morris & Essex Division and the Penn Central to provide direct service to midtown Manhattan; and a station at Secaucus permitting transfer between the Erie-Lackawanna and the Penn Central to give Bergen County passengers more direct access to midtown Manhattan. High level station platforms and station ticket validation will be the last phase of modernizing this railroad.

UNASSIGNED CAPITAL IMPROVEMENTS

A number of capital improvements are recommended to provide for equipment and facilities needed generally throughout the overall suburban railroad system. The program outlined in detail above contemplates replacement, but not expansion, of the number of seats now provided by the commuter railroads. It is obvious that improved service will create additional demand. To meet this demand additional equipment and expanded parking and station improvements will be required.

It is also the intention of the Department to make other improvements to maintenance facilities, tracks, signals, to increase operating efficiency and permit reduced subsidy payments.

GRADE CROSSING ELIMINATION

Approximately one-third, or $92 million, of the money required for the suburban commuter railroad system would be used for

grade crossing eliminations. Grade crossings are incompatible with modern high speed rail operations. In order to achieve the level of service contemplated by the Master Plan, these crossings must be eliminated or alternate routes selected.

The benefits of grade crossing eliminations go beyond just the rail commuter. The motoring public also benefit in the form of reduced safety hazards and delay, and communities are relieved of prolonged traffic congestion caused by rail operations.

REGIONAL TRANSPORTATION SYSTEMS

The suburban commuter railroads are the key link in the State's public transportation system. The $325 million program just outlined to modernize and rehabilitate that system has to have first priority. But, when the task of revitalizing the commuter rail system is accomplished there will remain the further need to satisfy demands for intrastate public transportation within the major urban centers and their surrounding regions but away from the rail corridors.

The Department is currently studying programs to extend mass transit services into new areas and to increase service in areas where it is now inadequate. It is also exploring alternative methods to increase utilization of commuter railroads and rail rapid transit systems at peak travel hours by feeder bus systems. The intention is to develop a coordinated program which will fully exploit the technical advantages of each mode of transportation.

One of these studies, made in cooperation with the Tri-State Transportation Commission, has involved a loop rapid transit system to serve the entire urban heartland of northern New Jersey covering all of the Hudson County Palisades and the Newark-Paterson area. This loop study is still in the tentative stage and no firm conclusions can yet be drawn. A number of possibilities have been suggested.

The entire region extending from Bayonne through Jersey City and Hoboken north along the Palasades needs additional investments in public transportation. This region is undergoing extensive changes as the older waterfront uses are being abandoned and being replaced with new urban forms. Properly coordinated with other public and private developments, a new public transportation system in this region would produce major benefits and contribute significantly to its revitalization.

Important transportation improvements are also possible in the Bayonne peninsula and several alternatives for improving public transportation in this area are being studied by the Department and the Tri-State Transportation Commission.

The steady deterioration of mass transit in the major urban centers and their surrounding metropolitan regions is a very clear and present danger. Such recent events as the announced abandonment of the Newark subway, the threatened abandonment of transit service in Trenton, the bankruptcy proceeding of a major motorbus operator in northern New Jersey, and the generally weakened financial position of other motorbus carriers all indicate an impending crisis in this crucial segment of the State's public transportation system.

Abandonment or substantial curtailment of these systems would cut off essential employment and recreational opportunities for many thousands of New Jerseyans and would adversely affect the central business district in most of our major cities. It is clear that these systems must be preserved.

It is anticipated that many of these regional programs will involve the joint efforts of the State and its political sub-divisions. The Department is exploring various alternative methods for the creation of a State-local partnership in regional transportation.

AVIATION

Air transportation plays a vital role in New Jersey's economy and is an essential element of the State's master plan for transportation. The rapid growth of aviation and the congestion of the skies around our metropolitan areas place an ever increasing demand on government to insure a sensible use of air space, to provide adequate terminal facilities and to make certain that these facilities are integrated with ground transportation systems in order to meet the needs of the region.

The problems of locating a fourth major air facility in the New Jersey - New York region is well known to all New Jerseyans and is discussed separately in this report. Equally important to the continued growth and prosperity of New Jersey are the smaller facilities located throughout the region.

In addition to providing for commercial passengers and freight uses, these facilities are essential to general aviation -- business, pleasure, air-taxi services and instruction uses.

General aviation accounts for the largest number of aircraft and hours and plane-miles flown in civil aviation. It is paradoxical that at the time when the growth of general aviation is the greatest, and when businesses are becoming increasingly more dependent on the mobility of the private plane, that we have permitted our vital urban facilities to be abandoned for the want of adequate plans and money.

To meet the needs of the State, the Department is in the process of developing a master plan for airports. This plan will be based, in part, on the technical studies and reports of the Tri-State Transportation Commission. In addition, the Department is developing plans for future airport requirements including facilities for the STOL (short take-off and landing) aircraft.

A firm commitment, by the State, backed by sufficient funds to implement an aviation master plan will insure the existence of key air facilities. Without this commitment the pressures to develop areas around these facilities with non-compatible land uses will be too great to resist.

A NEW MAJOR COMMERCIAL AIRPORT

For the past decade, the New Jersey-New York Metropolitan Area has struggled with the problem of locating a new commercial airport within the region. To date, all past efforts to locate a suitable site have failed. The essential physical, technical, economic and sociological requirements have not been satisfied by any of the areas which have been considered to date.

At the time that this Report is being prepared, this important subject remains an open question. New efforts, however, are being carried forward by the Air-Land Service Committee of the New Jersey Citizens Transportation Council. The economical feasibility reports and other technical studies being compiled by the Committee should be available in the very near future and may help shape the ultimate solution to this problem.

For the time being, therefore, it should be recognized that this is one of the areas which will undoubtedly require further consideration by the Governor, the Legislature and the people of New Jersey. Governor Richard J. Hughes has recommended that an authority to develop a suitable commercial airport in New Jersey be created within the Department of Transportation. Legislation to implement this proposal, on a limited basis, is now in preparation and will be available shortly.

THE FINANCES

THE FINANCES

The Department of Transportation does not consider it possible, even if the money were readily available, to compress within a ten-year program all of New Jersey's transportation needs. Ten years does not provide enough time within which to carry out a construction program of such magnitude.

WHERE THE MONEY COMES FROM

But, money is a prime key. If nothing is done to increase the money now available to the Department of Transportation each year for new highways, rail improvements and aviation purposes, how much will this amount to during the next decade and what will it accomplish?

The bulk of all the money available to the Department is highway money, the bulk of the highway money comes from the Federal Government, and the bulk of the Federal money is tied to the National System of Interstate and Defense Highways.

The cost of the Interstate System throughout the nation has risen sharply in recent years, and this does have an impact on New Jersey's transportation problems, but it does not add to the estimated cost of the highway projects outlined in this Report.

In the same way, the Federal funds available only for the Interstate System cannot be counted as a means of paying for any of the proposed highway projects.

In terms of dollars, this means that while New Jersey can expect to receive about $118 million in Federal Aid annually until the presently projected completion of the Interstate System about 1975, $100 million or more than five-sixths of it, is not available for what the Department of Transportation has listed in this Report as important highway needs.

The amount of Federal Aid which can be counted as a resource against these needs is only about $17.5 million a year under present Federal law. No matter how much money the State of New Jersey provides for highway projects that are not on the Interstate System, existing law absolutely limits Federal financial participation to that figure.

While the Federal Government is committed to paying 90 percent

HIGHWAY CONSTRUCTION FUND BALANCES
NON-INTERSTATE FUNDS
MARCH 1, 1968

Primary and Urban (50-50) Projects		$ 29,625,584
Non-Federal Projects (100% State)		8,253,613
	Total	$ 37,879,197

UTILIZATION OF HIGHWAY CONSTRUCTION FUNDS
TO JUNE 30, 1968

Primary and Urban (50-50) Projects		
Engineering		$ 3,850,000
Right-of-Way		17,175,000
Construction		8,123,637
	Sub-Total	$ 29,148,637
Non-Federal Projects		
Engineering		$ 3,598,000
Right-of-Way		1,300,000
Construction		4,016,603
	Sub-Total	$ 8,914,603
	TOTAL	$ 38,063,240

BALANCE AS OF JUNE 30, 1968

Primary and Urban Projects		$ 476,947
Non-Federal Projects	Minus	$ 660,790*

* TO BE MET BY TRANSFER FROM BETTERMENT ACCOUNT

The total balance of non-Interstate Funds on June 30, 1968, will be less than a half million dollars. The cost of projects ready for construction at that time is approximately $45 million.

STATUS OF INTERSTATE FUNDS

The Federal Government during January imposed a limitation on the amount of Federal-aid funds which could be obligated during calendar 1968, under which New Jersey as of March 1st could obligate $31 million prior to June 30, and $59 million after July 1st.

The Federal share of the primary and urban projects which will be advanced between March 1st and June 30th is approximately $16 million, leaving a balance of $15 million in Federal funds which can be obligated against Interstate projects.

The balance of Interstate (90-10) funds on hand March 1st was $181 million. After the $15 million allowed under the "Federal Freeze" limitation is obligated, the balance on June 30, 1968, will be $166 million. The cost of Interstate projects ready for construction at that time is estimated at approximately $70 million, and additional projects estimated at an additional $65-70 million should be ready prior to December 31, 1968.

of the cost of Interstate Routes, it pays only 50 percent, up to $17.5 million, on all other projects. Accordingly, the total matched program of Federal and State money for non-Interstate work comes out to about $35 million a year, or $350 million for 10 years.

This is not nearly enough to finish paying for major non-Interstate projects already started within a reasonable period of time, to say nothing of even making a start on a large number of other highway improvements which many sections of the State have been demanding for considerable periods of time.

In recent years, the Department of Transportation customarily received a State appropriation of from $12 million to $20 million annually, over and above the amount required to match all available Federal aid.

Because of the needs of other important State services, and the level of existing State tax revenues, it has been found impossible to provide that kind of appropriation for the coming 1968-69 fiscal year. Instead, it has been proposed that an appropriation of $20 million for non-Federal highway construction be deferred, and that it be covered later by a bond issue along with some other construction requirements of other departments of the State Government.

THE STATUS OF OUR FUNDS

As of March 1, 1968, there remained on the Department's books approximately $29 million in matched Federal and State 50-50 funds and approximately $8 million in non-Federal funds. There is no doubt that all of this money will be obligated by June 30, 1968, and indeed the problem is to avoid exhausting it before then.

The proposed budget for 1968-69 provides State matching funds against the next Federal apportionment. This is not expected prior to October or November of 1968. Even if the apportionment is made by then, its use is limited by the Federal "freeze".

Under all of these circumstances, it becomes apparent that the only highway activity in New Jersey during the summer of 1968 in terms of "new starts" will be on the Interstate System, and will represent no progress whatsoever on the needs outlined in this Report.

The gap between New Jersey's highway needs and the resources presently available to meet them is more than substantial -- it is becoming overwhelming.

There is a normal tendency to doubt that the situation is really that serious. There is a normal tendency to doubt that the State can support the kind of effort required to make a real dent in the problem.

There is the normal and historically characteristic hope -- even belief -- that while it may be impossible to resolve the highway problem on a statewide basis, the local problem of paramount importance will get solved if only enough pressure is applied in Trenton.

There is the normal and historically characteristic hope -- even faith that the problem can be solved by getting the money from someone else: perhaps the toll-paying traveler from another state or the United States Government.

It is the purpose of this Report to present the facts as realistically as possible, so that the people of New Jersey can face and subdue the doubts. No reliance, however, should be placed on hopes that individual problems can be resolved at the expense of the common problem, or that someone else will step in and make it easy.

THE USE OF TOLL ROADS

There is nothing wrong with the toll-road concept -- when applied properly. It has been used to great advantage by New Jersey and other states.

But a major share of New Jersey's highway needs, in fact more than $800 million worth, lies in the area of improving the safety and capacity of the existing system of land service roads. These highways must remain open to the use of adjoining property owners, industrial, commercial and residential. The need for improvement of Route U.S. 1 in the vicinity of Woodbridge, for example, cannot be resolved by making it a limited access toll road.

Some of the new freeways that are needed will serve areas of New Jersey which are still developing, where the heavy traffic volumes are still "around the corner". Toll road financing is

not yet feasible for these projects, and to wait until it is feasible is to wait too long. By the time the traffic arrives, so will the suburban development which makes location and construction of major new highways so difficult and costly.

It is the best judgment of the Department of Transportation that while toll collections might serve, in some particular areas, to ease the financial burden, they cannot be relied upon to solve it. And in such areas, should they develop to the point of financial and operational feasibility, it would be more advantageous to vest the power of toll collection in the state, rather than in another semi-autonomous authority with primary responsibility to bondholders rather than to the people. Few of the highways now under consideration lend themselves to the toll road concept. The existing toll roads face substantial fiscal problems of their own, related to current or projected improvement programs, so that no surplus revenue from these sources can be counted upon to assist the construction of State highways.

INCREASED FEDERAL AID?

What about increased Federal Aid? Or, what about New Jersey getting a fairer share of the Federal Aid presently dispensed?

The Department of Transportation, regretfully, sees no real possibility that either eventuality will occur in time to help.

The date fixed by Congress more than a decade ago for completion of the National System of Interstate and Defense Highway was October, 1972. It was generally understood that completion of this System was the number one goal, and that Federal Aid for other State highways would be increased to a level of $1 billion a year nationally and remain at the level until the Interstate System was completed.

People talked of an "After '72 Program" when they spoke of increased Federal Aid for highways.

But right now it is almost certain that "after '72" will turn out to be "after '75", and there is a good chance it really will be "after '77". Federal highway user revenues (gasoline taxes, etc.) are not sufficient to meet the rising costs of the Interstate System and still complete it on the original schedule.

The 1965 national estimate of the cost of completing the Inter-

state System showed an increase of $5 billion. Congress did not increase the Federal highway user taxes and so the result was to "stretch-out" the program. The 1967 cost estimate just completed shows another very substantial increase. Unless Congress improves the revenue situation, the program must of necessity be extended even further into the future.

There is very little likelihood the Federal Government will act to provide additional money for State highways which are not on the Interstate System until it has resolved the financial problems confronting that nationwide project. But there is a likelihood that Congress may attempt to recognize the financial problems confronting State highway programs by permitting more routes to be added to the Interstate System.

This would make them eligible for 90-10 instead of 50-50 Federal Aid, thus reducing the burden on the States -- when the highways were built. But without added revenues at the Federal level, the new Interstate routes could not be built for a considerable time. It is not very likely many of them would even be started until the already existing Interstate Routes on which so much time, effort and money already have been expended were complete, about seven years from now.

Under this scheme, any major new highway which is deferred until new 90-10 Federal Aid becomes available cannot be finished and used by the people of New Jersey until the late 1970's or early 1980's. The Department of Transportation does not believe the people of New Jersey want to wait that long.

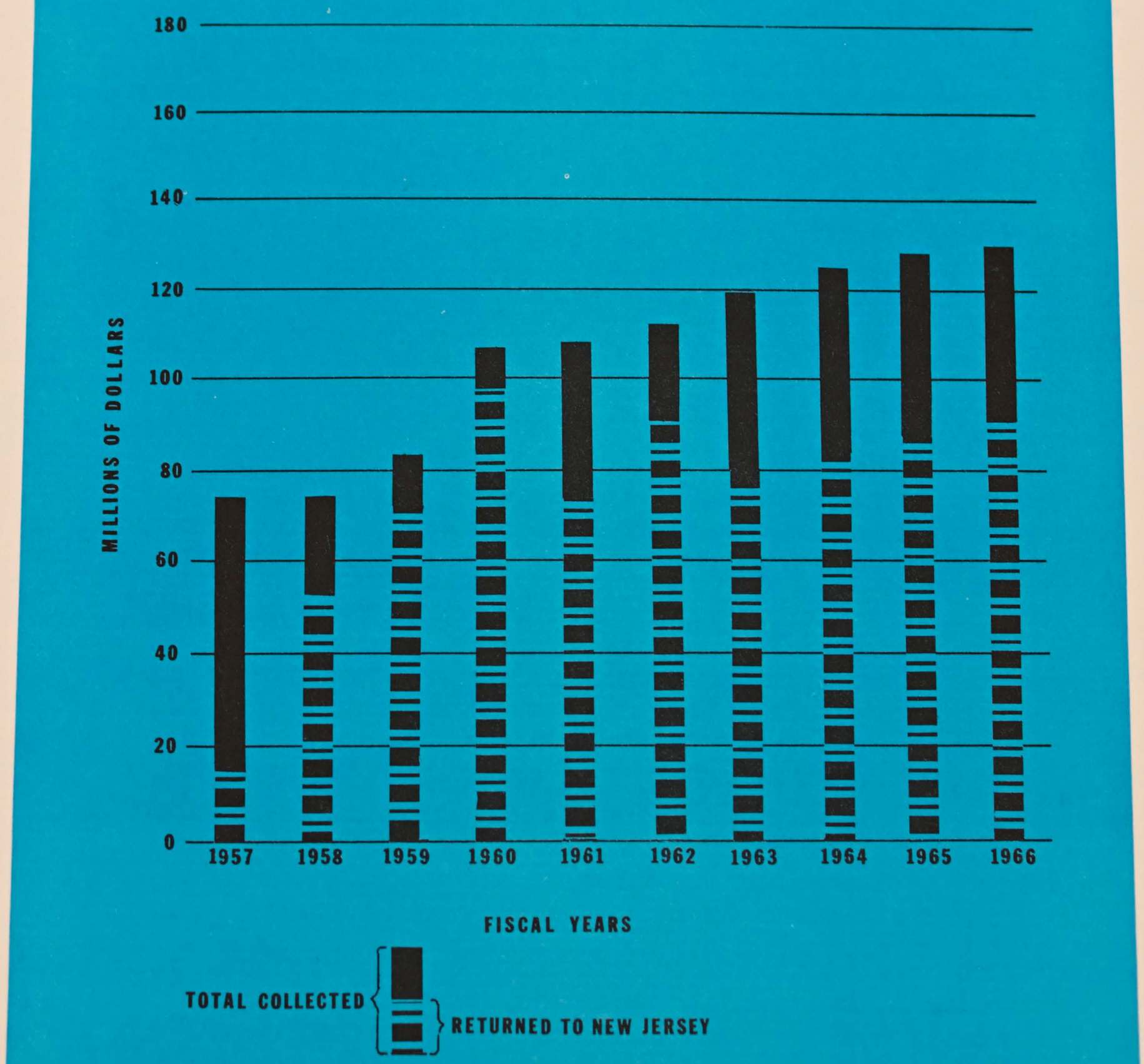
Accordingly, it may be useful to know that once annual Federal apportionments have been fully utilized, any available State funds can be used to finance Interstate projects in advance of Federal Aid. The State can get back whatever money it advances whenever the Federal schedule of apportionments makes more Federal money available.

Many states -- and it's interesting to note that these are the states which rank highest on national listings of progress on the Interstate Program -- do this on the basis of bond issues.

A FAIR SHARE OF THE FEDERAL DOLLAR

The situation is bleak when it comes to getting Congress to give New Jersey a bigger share of the Federal highway money that is

FEDERAL HIGHWAY FUNDS COLLECTED FROM AND RETURNED TO NEW JERSEY



APPORTIONMENT OF FEDERAL-AID HIGHWAY FUNDS AUTHORIZED

FOR THE FISCAL YEAR 1969

TABLE 1

State	Primary highway system ($450,000,000)	Secondary or feeder roads ($300,000,000)	Urban highways ($250,000,000)	Subtotal ($1,000,000,000)	Interstate system ($3,800,000,000)	Total ($4,800,000,000)
Alabama	$8,760,669	$6,674,049	$3,369,393	$18,804,111	$81,654,400	$100,458,511
Alaska	24,048,301	16,139,225	164,555	40,352,081	-	40,352,081
Arizona	6,414,424	4,157,009	1,873,632	12,445,065	58,088,700	70,533,765
Arkansas	6,642,681	5,258,619	1,365,671	13,266,971	29,532,175	42,799,146
California	21,839,630	9,906,762	27,130,366	58,876,758	367,257,175	426,133,933
Colorado	7,709,423	5,005,220	2,551,727	15,266,370	45,217,625	60,483,995
Connecticut	3,796,131	2,137,189	3,946,938	9,880,258	79,590,525	89,470,783
Delaware	2,221,875	1,481,250	575,377	4,278,502	6,754,500	11,033,002
Florida	8,624,017	5,359,367	7,047,439	21,030,823	83,005,300	104,036,123
Georgia	10,429,275	7,928,422	4,061,297	22,418,994	54,186,100	76,605,094
Hawaii	2,221,875	1,481,250	930,272	4,633,397	32,346,550	36,979,947
Idaho	4,957,763	3,558,613	529,778	9,046,154	22,177,275	31,223,429
Illinois	16,636,457	9,095,719	16,093,859	41,826,035	215,318,450	257,144,485
Indiana	9,748,255	7,072,289	5,623,836	22,444,380	82,479,950	104,924,330
Iowa	10,263.662	7,631,420	2,679,255	20,574,337	45,592,875	66,167,212
Kansas	10,222,771	7,133,271	2,459,293	19,815,335	28,031,175	47,846,510
Kentucky	7,439,488	6,284,205	2,502,105	16,225,798	78,427,250	94,653,048
Louisiana	6,843,802	4,914,556	3,923,017	15,681,375	95,238,450	110,919,825
Maine	3,315,034	2,517,278	850,524	6,682,836	16,736,150	23,418,986
Maryland	4,350,557	2,725,204	4,531,983	11,607,744	61,015,650	72,623,394
Massachusetts	5,385,657	2,319,407	8,648,626	16,353,690	81,804,500	98,158,190
Michigan	13,601,700	8,531,677	11,366,162	33,499,539	111,974,600	145,474,139
Minnesota	11,569,013	8,143,626	4,108,905	23,821,544	87,283,150	111,104,694
Mississippi	7,182,081	5,997,986	1,471,939	14,652,006	41,390,075	56,042,081
Missouri	12,397,056	8,477,502	5,569,516	26,444,074	91,260,800	117,704,874
Montana	8,100,984	5,623,510	573,762	14,298,256	38,425,600	52,723,856
Nebraska	7,906,989	5,642,405	1,445,310	14,994,704	21,351,725	36,346,429
Nevada	4,984,092	3,314,806	378,120	8,677,018	23,640,750	32,317,768
New Hampshire	2,221,875	1,481,250	662,973	4,366,098	18,162,100	22,528,198
New Jersey	6,221,344	2,116,307	10,769,268	19,106,919	99,178,575	118,285,494
New Mexico	6,838,957	4,614,964	1,211,653	12,665,574	45,105,050	57,770,624
New York	19,924,585	8,599,521	28,866,686	57,390,792	191,790,275	249,181,067
North Carolina	10,702,351	9,520,127	3,287,519	23,509,997	34,410,425	57,920,422
North Dakota	5,889,603	4,302,209	440,301	10,632,113	17,449,125	28,081,238
Ohio	14,849,050	9,231,337	14,163,376	38,243,763	232,354,800	270,598,563
Oklahoma	9,210,357	6,403,046	2,764,683	18,378,086	39,513,825	57,891,911
Oregon	6,923,007	4,837,129	2,094,024	13,854,160	66,081,525	79,935,685
Pennsylvania	16,076,911	10,298,748	15,951,629	42,327,288	181,771,100	224,098,388
Rhode Island	2,221,875	1,481,250	1,506,946	5,210,071	20,938,950	26,149,021
South Carolina	5,756,130	5,016,127	1,794,985	12,567,242	24,203,625	36,770,867
South Dakota	6,304,410	4,559,064	455,675	11,319,149	33,997,650	45,316,799
Tennessee	9,184,495	7,194,098	3,570,212	19,948,805	81,842,025	101,790,830
Texas	27,370,253	17,302,230	13,928,936	58,601,419	188,938,375	247,539,794
Utah	4,695,949	3,043,047	1,307,387	9,046,383	57,375,725	66,422,108
Vermont	2,221,875	1,481,250	268,464	3,971,589	26,867,900	30,839,489
Virginia	8,529,160	6,648,912	4,345,275	19,523,347	116,515,125	136,038,472
Washington	7,077,400	4,783,785	3,749,265	15,610,450	91,223,275	106,833,725
West Virginia	4,518,817	4,029,644	1,319,082	9,867,543	86,345,025	96,212,568
Wisconsin	10,436,973	7,344,879	4,849,228	22,631,080	31,408,425	54,039,505
Wyoming	5,142,211	3,497,716	295,729	8,935,656	37,037,175	45,972,831
Dist. of Col.	2,221,875	1,481,250	1,573,332	5,276,457	50,208,450	55,484,907
Puerto Rico	2,221,875	2,470,274	1,925,715	6,617,864	-	6,617,864

available for non-Interstate routes. This money -- $1 billion a year nationally -- is divided up under existing Federal law among three classes of roads.

> $450 million a year goes to the Federal Aid Primary System, which is composed of main rural highways. The formula for allocating it to the states is based on area, population and mileage. New Jersey's share comes to slightly more than $6 million a year, or less than one-seventieth.

> $300 million a year goes to the Federal Aid Secondary System, which is composed of less important rural roads. In New Jersey, most of these roads are county highways. The predominant factor in the formula for allocating this money among the States is rural post road mileage. New Jersey's share is slightly more than $2 million, or about one-one hundred fiftieth.

> $250 million a year -- or one-fourth of the total -- is for urban extensions of the Primary and Secondary Systems. The predominant factor in the formula for allocating this money is urban population so New Jersey gets a better share: slightly more than $10 million or about one-twenty-fifth. It is all used on State highways, and can buy about one mile of urban freeway each year.

It is under these circumstances that New Jersey gets about $19 million ($17.5 million for State highways) a year from the Federal Government for all highways which are not on the Interstate System, out of a national total of $1 billion. New Jersey thus gets only slightly less than two percent or one-fiftieth of the total. On the surface this might seem equitable, except for the rather overpowering differences in highway traffic volumes, right-of-way values and construction costs between New Jersey and some of its less urban sister States.

Attempts to correct this situation at the Federal level have proven fruitless in the past and are likely to remain so until an entirely new Federal highway program is developed. And, once again, it is the belief of the Department of Transportation that

New Jersey cannot afford to wait until that happens seven or eight or nine years from now, and that the people of New Jersey do not want to wait.

THE PRICE OF FEDERAL AID

Regrettably, there is one other aspect of Federal Aid which must be noted. The control of the purse strings is in other hands. It has the same drawbacks as an annual State appropriation in terms of providing the kind of stable financial base required for any sizable, long-range program of capital improvements, and for orderly planning. In a word, it is unreliable.

The actions of the Federal Government, imposing "freezes" on the use of highway funds previously apportioned to the States, during the winter and spring of 1966-67 and again for calendar 1968 have demonstrated this fact of life beyond question.

Under the present scheme of things, the Federal Government provides more than twice as much money for construction of State highways as does the State itself. In effect, it controls the pace of highway construction in New Jersey. And, under the present scheme of things, the location and design of New Jersey highways often is the result of compromise between what the State would like to do and what the Federal Government will permit.

The Department of Transportation could duplicate the progress of States with less dependence upon Federal assistance if it had the same degree of financial independence they enjoy.

THE HUMAN FACTOR

THE HUMAN FACTOR

A QUESTION OF LIFE AND DEATH

Adoption of the Department's Master Plan will save lives.

Every day about half the people in New Jersey go out and risk their lives on obsolete and overloaded highways and streets. Every day some of them die, a lot more are injured, and a lot more than that lose money in a traffic accident.

Everything possible should be done to make safer cars and to train safer drivers. But, even after that was accomplished, they would still need to drive on safer roads.

The safest highway yet produced is the freeway. It is safer because the driver is protected from many common kinds of accidents. The limited access feature eliminates "side friction" -- vehicles turning onto the highway from a local street, driveway, or roadside commercial establishment. Elimination of cross-streets through construction of overpasses makes left turns in the face of opposing traffic unnecessary. Separation of the traffic moving in opposite directions reduces the possibility of head-on collisions. Elimination of traffic signals lessens the chance of a rear-end crash.

For these and other reasons, freeways are safer. The record, in New Jersey as elsewhere, proves it.

The highway program outlined in this Report contemplates the construction of 493 miles of freeway classified as "first priority" within a decade. If this program is adopted, by the time the final mile is opened to traffic these freeways would save:

More than 500 lives;

More than 70,000 injuries; and

More than $1.3 billion in the total cost of accidents.

It is the policy of the Department of Transportation to design highways for the traffic estimated to exist 20 years from the date of construction. On this basis, the new freeways would serve, without requiring substantial improvement, till near the end of this century. By that time, they would save:

FATAL ACCIDENTS
N.J. STATE HIGHWAYS
1967

More than 6,500 lives;

More than one million injuries; and

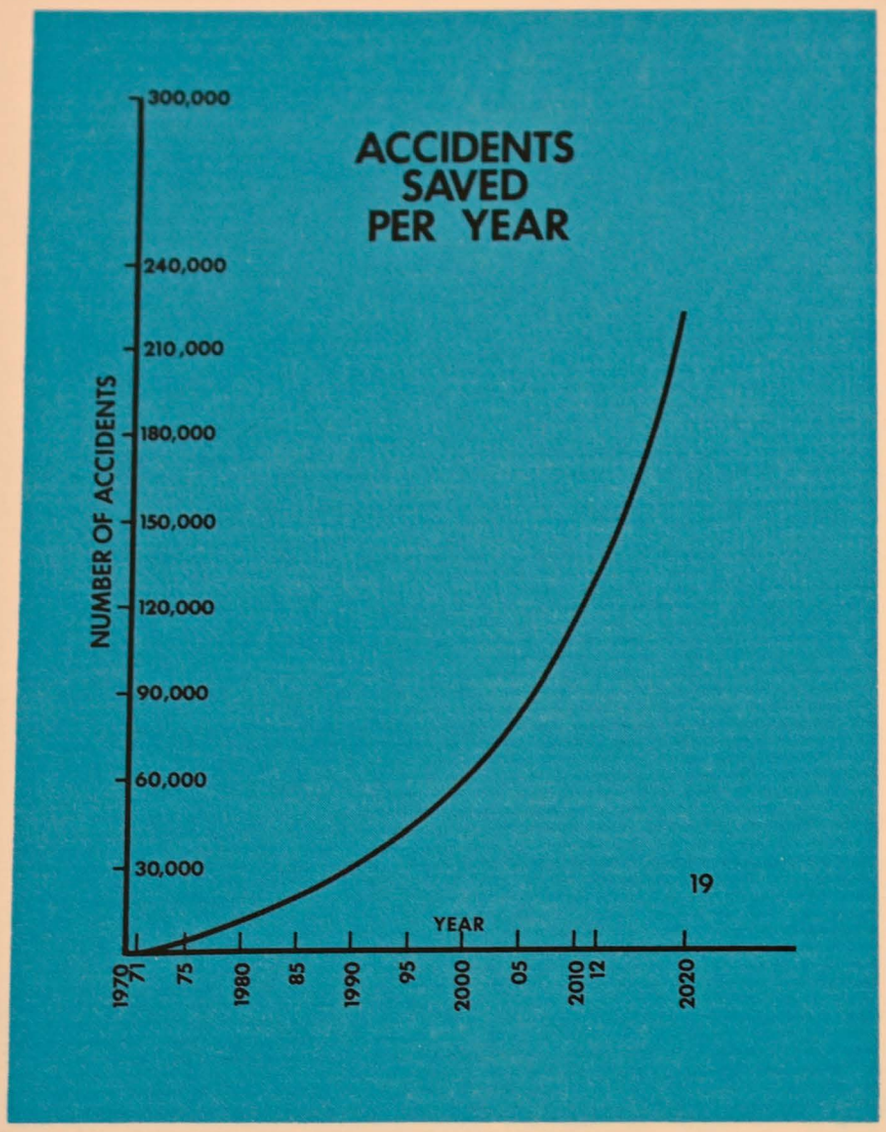
More than 10 times the cost of building the roads.

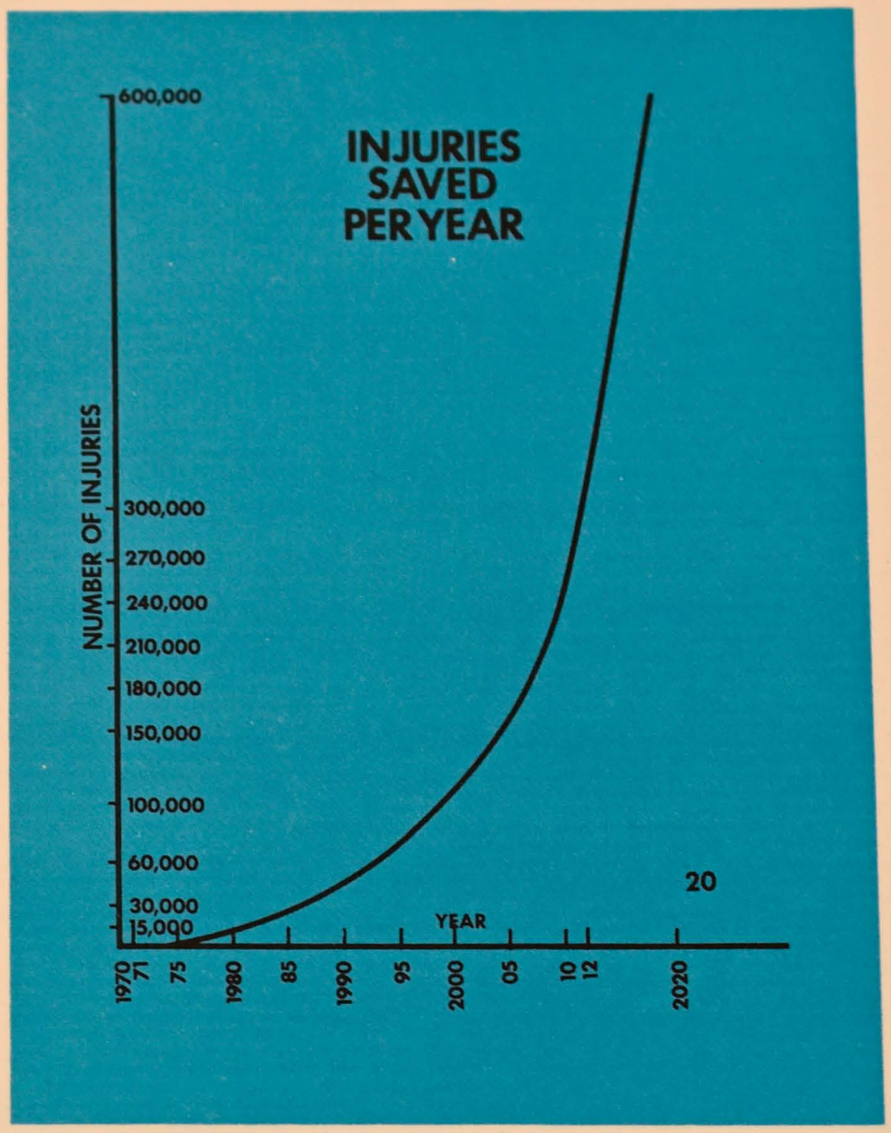
This analysis was prepared by comparing known accident, injury and fatality rates on the existing State Highway System and on freeways alone. What could be expected in the future was determined under two assumptions: first, continue the existing highway system and rail service with normal road improvements as has been the policy of the Department and second, build the "first priority" freeways within a decade.

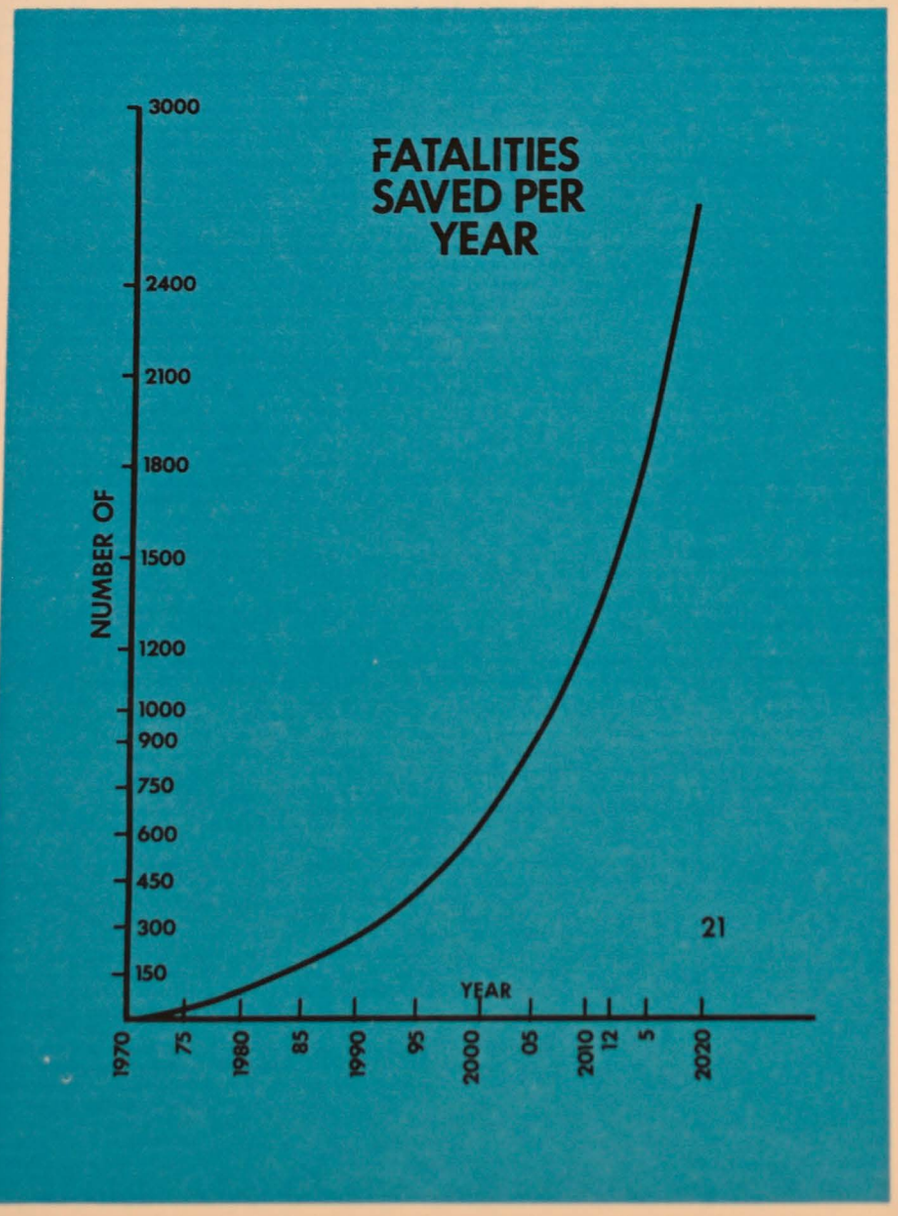
The estimated savings shown above do not include those derived from construction of the non-freeway projects classified as "first priority", nor do they include savings in time, operating costs and convenience which highway users would also enjoy. Both areas are substantial.

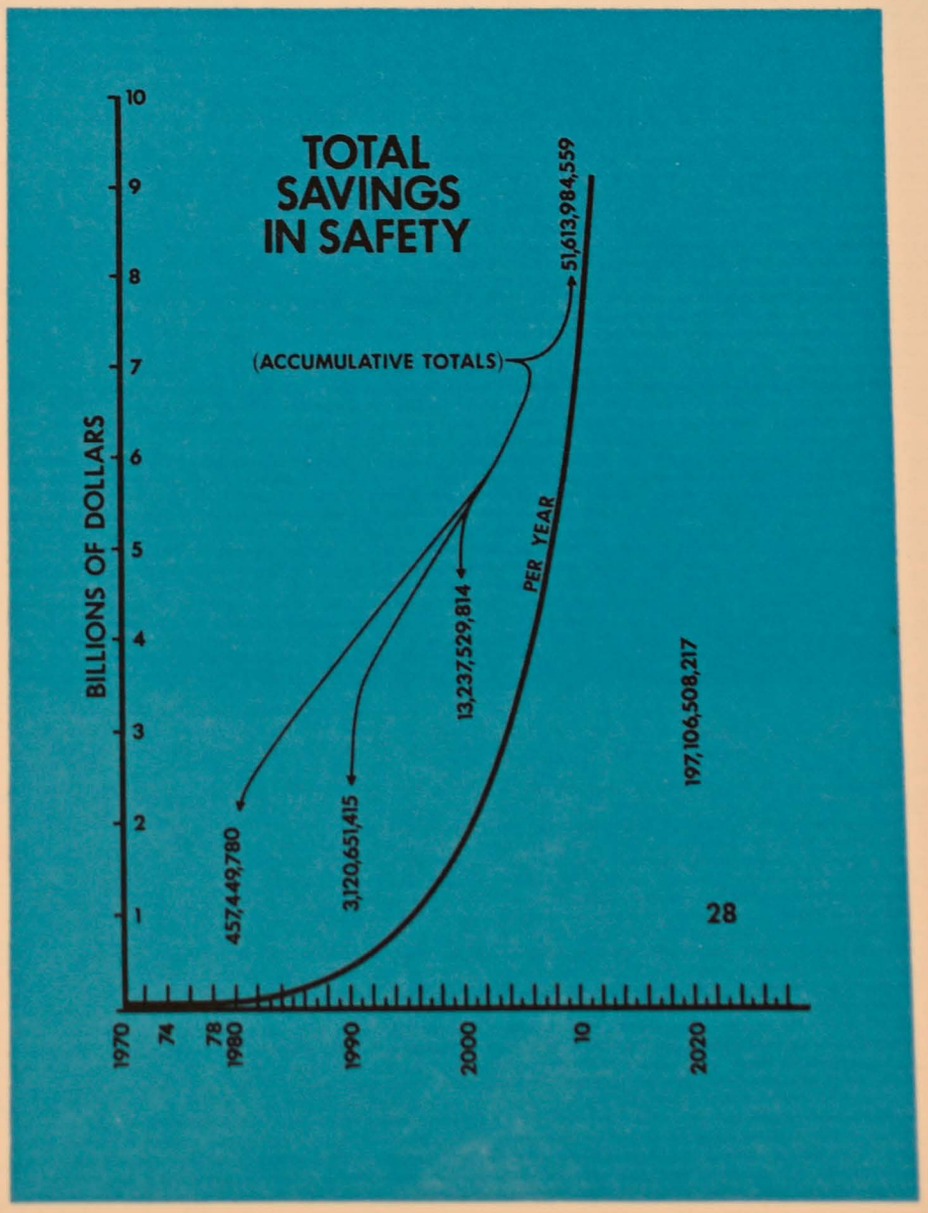
No "cost-benefit" analysis of the program proposed in this Report will fail to show it is worthwhile, just in terms of money. The Department of Transportation believes, however, that human life and suffering has a different kind of value and cannot be measured by money alone.

This kind of value can be determined only by the people of New Jersey. Their lives are the ones at stake.


ACCIDENTS SAVED PER YEAR
NUMBER OF ACCIDENTS
300,000
240,000
210,000
180,000
150,000
120,000
90,000
60,000
30,000
YEAR
1970 71 75 1980 85 1990 95 2000 05 2010 12 2020
19


INJURIES SAVED PER YEAR
NUMBER OF INJURIES
600,000
300,000
270,000
240,000
210,000
180,000
150,000
100,000
60,000
30,000
15,000
YEAR
1970 71 75 1980 85 1990 95 2000 05 10 12 2020
20


FATALITIES SAVED PER YEAR
NUMBER OF
3000
2400
2100
1800
1500
1200
1000
900
750
600
450
300
150
YEAR
1970 75 1980 85 1990 95 2000 05 2010 12 5 2020
21


TOTAL SAVINGS IN SAFETY
BILLIONS OF DOLLARS
10
9
8
7
6
5
4
3
2
1
(ACCUMULATIVE TOTALS)
PER YEAR
51,613,984,559
13,237,529,814
3,120,651,415
457,449,780
197,106,508,217
1970 74 78 1980 1990 2000 10 2020
28

THE PROGRAM

THE PROGRAM

Throughout this report, the substantial nature of the transportation needs that now exist in New Jersey has been stressed. Much emphasis has been placed upon the importance of carrying out a truly meaningful capital construction program, the benefits it would produce, and the disadvantages which will flow from failure to act. For this reason, the Department of Transportation believes that a substantial bond issue, supported by a gas tax increase, is essential to carry out the transportation program.

CAN IT BE DONE?

Confronted with such a monumental task, undoubtedly the question many will ask is: "Can it be done?"

In the opinion of the Department of Transportation, the answer is: "Yes!"

While the cost of any real financial solution to our transportation problem is large, it is well within the financial capacity of this State. The people of New Jersey will spend more than $15 billion to purchase new motor vehicles alone during the next decade. In the face of such massive expenditures, 10% of that amount cannot be said to be too high a price to pay for the capital facilities which will permit those vehicles to be used with a high degree of comfort and safety. The fact that the bond issue proposed by the Department can be completely amortized by rather modest increases in the gasoline tax is further confirmation of this fact.

THE PRACTICE OF DIVERSION

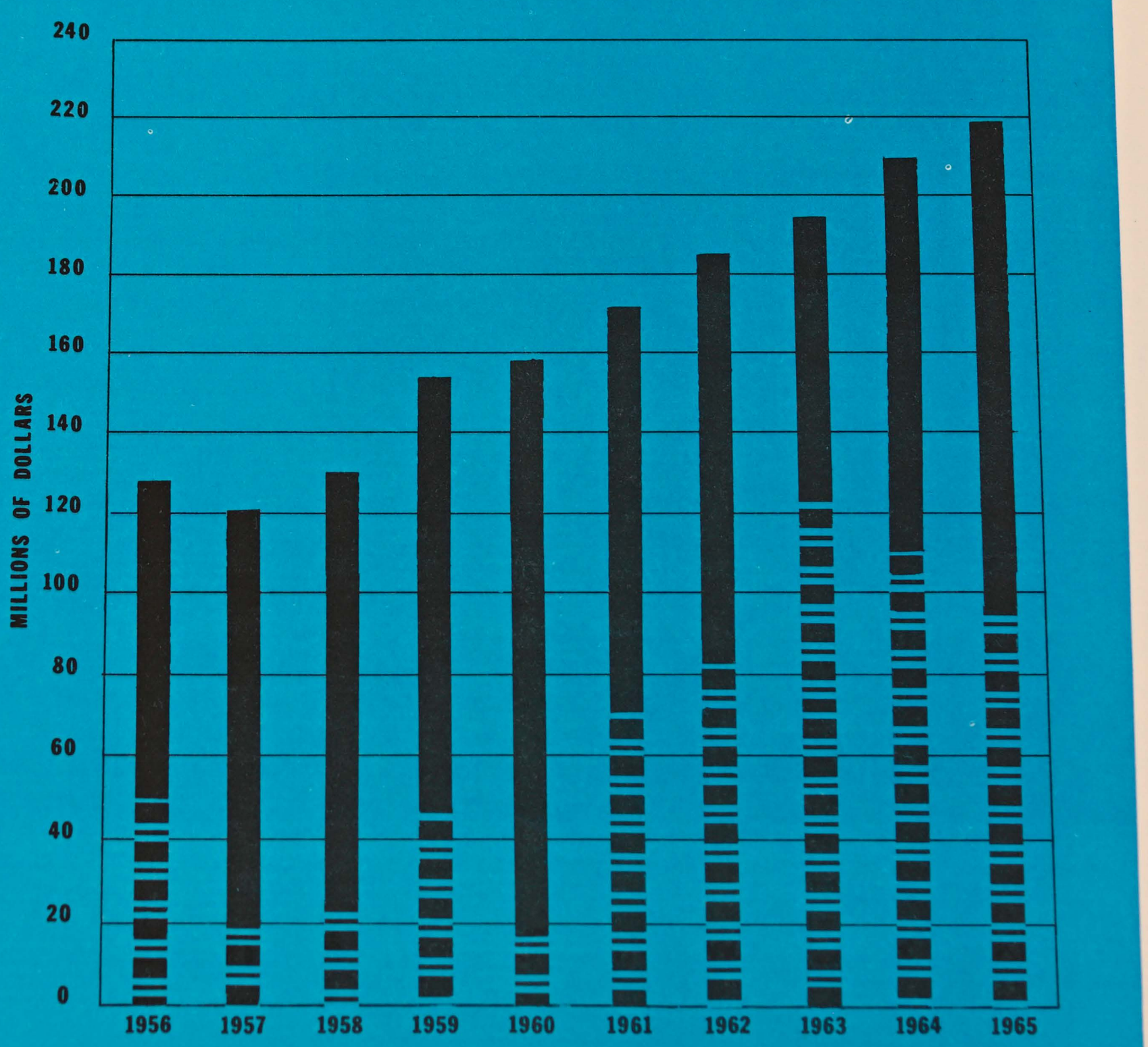
In past years, some highway user groups and many individual taxpayers of this State have condemned the long-standing practice in New Jersey of diverting a substantial percentage of highway user taxes to non-transportation pruposes. They have resisted new financial programs in the hope that existing highway user revenues could be required for this purpose. Yet the practice of diversion has been in existence for more than 20 years. It has been supported by many Governors and accepted, and even extended, by legislatures of every conceivable political complexion.

The budget recommendations by Governor Richard J. Hughes this year merely serve to emphasize how far New Jersey has travelled down the road of diversion. For fiscal year 1969, highway and transportation user taxes will provide nearly $280 million in

DISPOSITION OF STATE HIGHWAY USER TAXES

HIGHWAY PURPOSES

NON-HIGHWAY PURPOSES



revenue while only $111 million is allocated for transportation purposes. Increasing budget pressures make it appear unlikely that major additional allocation to transportation will be made from existing highway user revenues.

THE EXPENSE OF BOND MONEY

There are some who may question the expense of using bond money. Approximately $1.80 must be repaid for every $1.00 in bond money borrowed. This interest expense must be weighed, however, against the savings discussed in the area of safety, the increased economic growth stimulated in our developing areas, the direct economic benefits to our congested urban areas, and the increased construction costs that would be incurred if we delay further. Our experience in the past 25 years would indicate that the single factor of construction costs could more than offset the relatively small interest cost involved in using borrowed money. It is unlikely that the highway and railroad improvements discussed in this report can ever be provided at a cost below our present estimates. The longer we wait the more we will have to pay.

AN ACTION PROGRAM

The Department of Transportation, therefore, recommends capitalizing the revenue potential from a one-cent increase in the gas tax in 1969 and an additional one-cent increase in 1974. By capitalizing the gas tax increase, it is possible to underwrite the entire cost of a $1.2 billion bond issue for transportation purposes. These funds will permit the Department to carry out the basic capital construction program for highways and public transportation. The Department believes that it is reasonable to request the allocation of the proceeds from the next two one-cent increases in the gas tax, at least for the immediate future, to transportation purposes only, so that some inroads can be made on the overwhelming backlog which has been created in the transportation sector. Such action would leave the rest of the State's financial power available for the many other pressing needs of New Jersey.

The reasons for a transportation program have been discussed thoroughly in this report. Some of the advantages of this program are:

(1) It would permit the Department to engage in sensible long-range planning for the first time since the late 1920's and to arrange its construction program in a

manner which would be the most efficient and economical;

(2) It would permit completion of the Interstate System at least a year earlier by using bond revenue to advance fund construction which moneys would be later reimbursed by the Federal government in time for use on purely State projects;

(3) It would permit a concentrated effort on the rehabilitation of the commuter rail network so that this program could be carried out in five to six years; and

(4) It would also permit the completion of an intrastate freeway system in less than half the time the present financing timetables will permit.

Since it is essential to execute at least the first priority program within ten years, it is recommended that a single bond proposal be adopted which would authorize the issuance of a total of $1.2 billion in bonds in three separate installments of $400 million each. The first $400 million installment, or part thereof, including $100 million for public transportation purposes, could be issued anytime after December 1, 1968. The second installment of $400 million or part thereof, including the remainder of bond funds available for public transportation, could not be sold before January 1, 1971. The sale of the final installment of $400 million bonds would be restricted until after January 1, 1974.

By this method, the people could authorize in a single vote an overall, long-range, ten-year program while retaining solid assurance that the funds could only be spent in an orderly fashion. The staging of bond issuance would permit subsequent legislatures and Governors to have a direct say in the final allocation of these funds. This would help insure a continuing re-evaluation of the program so that necessary revisions of priorities could be made from time to time. Such revisions, however, would be made within the context of a long-range planning program of which this master plan is only the forerunner.

THE SINGLE VOTE - A KEY TO SUCCESS

The key to the success of this proposal, however, is a single vote on the entire bond authorization. Cutting the program into

SUMMARY OF FINANCIAL PROGRAM FOR TRANSPORTATION

SHOWING BOND PROPOSAL, REVENUE ESTIMATES AND POSSIBLE SURPLUSES

Year January 1	Bonds Issued	Total Issued	Debt Service 4%	Debt Service 3.5%	Revenue	Surplus 4%	Surplus 3.5%
1969	200.0	200.0					
1970	200.0	400.0	8.0	7.0	28.2	20.2	21.2
1971	200.0	600.0	16.0	14.0	29.2	13.2	15.2
1972	100.0	700.0	24.0	21.0	30.2	6.2	9.2
1973	100.0	800.0	28.0	24.5	31.2	3.2	6.7
1974	100.0	900.0	32.0	28.0	32.2	0.2	4.2
1975	100.0	1000.0	39.6	35.4	66.4	26.8	31.0
1976	100.0	1100.0	47.1	42.7	68.4	21.3	25.7
1977	100.0	1200.0	54.7	50.1	70.5	15.8	20.4
1978	0	1200.0	60.5	55.6	72.6	12.1	17.1
1979	0	1200.0	62.3	57.5	74.8	12.5	17.3
1980	0	1200.0	64.0	59.4	76.9	12.9	17.5
1981	0	1200.0	65.8	61.4	79.1	13.2	17.7
1982	0	1200.0	67.6	63.3	81.3	13.7	18.0
1983	0	1200.0	69.4	65.2	83.5	14.1	18.2
1984	0	1200.0	69.4	65.2	85.7	16.3	20.5
1985	0	1200.0	69.4	65.2	88.0	18.6	22.7
1986	0	1200.0	69.4	65.2	90.3	20.9	25.1
1987	0	1200.0	69.4	65.2	92.6	23.2	27.4
1988	0	1200.0	69.4	65.2	94.9	25.5	29.7
1989-2012 (Yearly Ave.)			55.7	52.4	126.4	70.7	74.1
TOTAL			2321.9	2167.4	4309.4	1987.5	2142.0

This table illustrates a possible bond program for transportation. It sets forth a schedule for issuing the bonds, estimates the annual amount necessary to repay such bonds, assuming average interest costs of 3.5% and 4% and the additional revenue that will be available after such costs. The revenue estimates are based upon a proposed one-cent gas tax increase in 1969 and an additional one-cent increase in 1974. The bonds would be for 35 years with principal repayable after the fifth year.

By way of comparison, the average interest rate paid by the State on bonds issued from 1947 through 1967 is substantially less than 3%. The last sale of bonds by the State was in February 1967 at an average rate of 3.21%. This was the highest rate paid by the State during the period.

If all gas tax revenues shown above, other than the $15 million annually reserved for increased state aid, is applied to debt retirement, the entire debt could be paid off less than 25 years after the last bonds are issued.

two or three steps would cost most of the benefits that could otherwise be expected. For example, an allotment of $600 million for a five-year program would restrict the Department's ability to accelerate the rehabilitation of the rail program unless a disproportionate share of money were taken away from highways. In addition, the Department would not have sufficient financial flexibility to fund the construction of the present Interstate program in advance of the Federal schedule. Finally, all of the benefits of a carefully staged, long-range program would be sacrificed. The Department's planning process suffers now from lack of certainty regarding future availability of funds. This would persist since legislative approval would be required again on one or two additional occasions in the next ten years to say nothing of the uncertainty of the referendum process.

The details of the financial program, by category, are as follows:

STATE HIGHWAY CONSTRUCTION

A program for State highway construction during the next decade, bridging as it does the gap between the present Federal Interstate program and the next Federal program for financing major highway improvements, should be large enough to cover most, if not all, of the State's first priority non-Interstate highway needs which total nearly $1.5 billion.

Under present conditions, the Department cannot anticipate receiving more than $175 million in Federal funds for this non-Interstate highway construction during the next decade. It is recommended that matching State appropriations and an additional $5 million in 100% State funds be appropriated annually from general State funds to provide $225 million in State funds, or a total of $400 million counting Federal aid. This would represent an average annual reduction of more than $17 million from present appropriation levels.

To provide replacement and sufficient additional revenues for a meaningful construction program, it is recommended that $1 billion in bond funds be allocated to State highway purposes during the next ten years. This would provide for a total construction program of $1.4 billion over the next decade.

If it is also necessary to provide from bond revenue the $15 million now allocated to the State Aid Road program, it is recommended that the bond revenues allocated to State highways be reduced by $125 million to $875 million. The Department recom-

REVENUE SOURCES RECOMMENDED TO IMPLEMENT TEN-YEAR MASTER PLAN PROGRAM

ALTERNATE #1
(STATE AID PAYABLE FROM ANNUAL BUDGET)

CATEGORY	REGULAR STATE APPROPRIATION	GAS TAX PROCEEDS	FEDERAL FUNDS	BOND PROCEEDS	TOTAL
State Highways	$225		$175	$1,000	$1,400
Public Transportation	$ 50		$125	$ 200	$ 375
State Aid for Local Roads	$150	$150			$ 300
Total	$425	$150	$300	$1,200	$2,075

ALTERNATE #2
(STATE AID PAYABLE FROM BONDS)

State Highways	$225		$175	$875	$1,275
Public Transportation	$ 50		$125	$175	$ 350
State Aid for Local Roads		$150		$150	$ 300
Total	$275	$150	$300	$1,200	$1,925

(All figures indicated in millions)

mends that the remaining $25 million necessary to provide a total of $150 million for this State Aid program be provided from bond funds otherwise suggested for public transportation.

PUBLIC TRANSPORTATION

The Department's capital program for public transportation must be large enough to permit it to carry out the complete rehabilitation and re-equipping of the Erie-Lackawanna, Penn Central and Central Railroad passenger commuter lines. Current estimates place the cost of this minimum and indispensable program at $325 million. To avoid the effects of ruinous bus-rail competition, it is essential that most of this program be carried out in the next 5 years because the key sections of Interstate Routes 78, 80 and 280 will be completed and open to traffic by then.

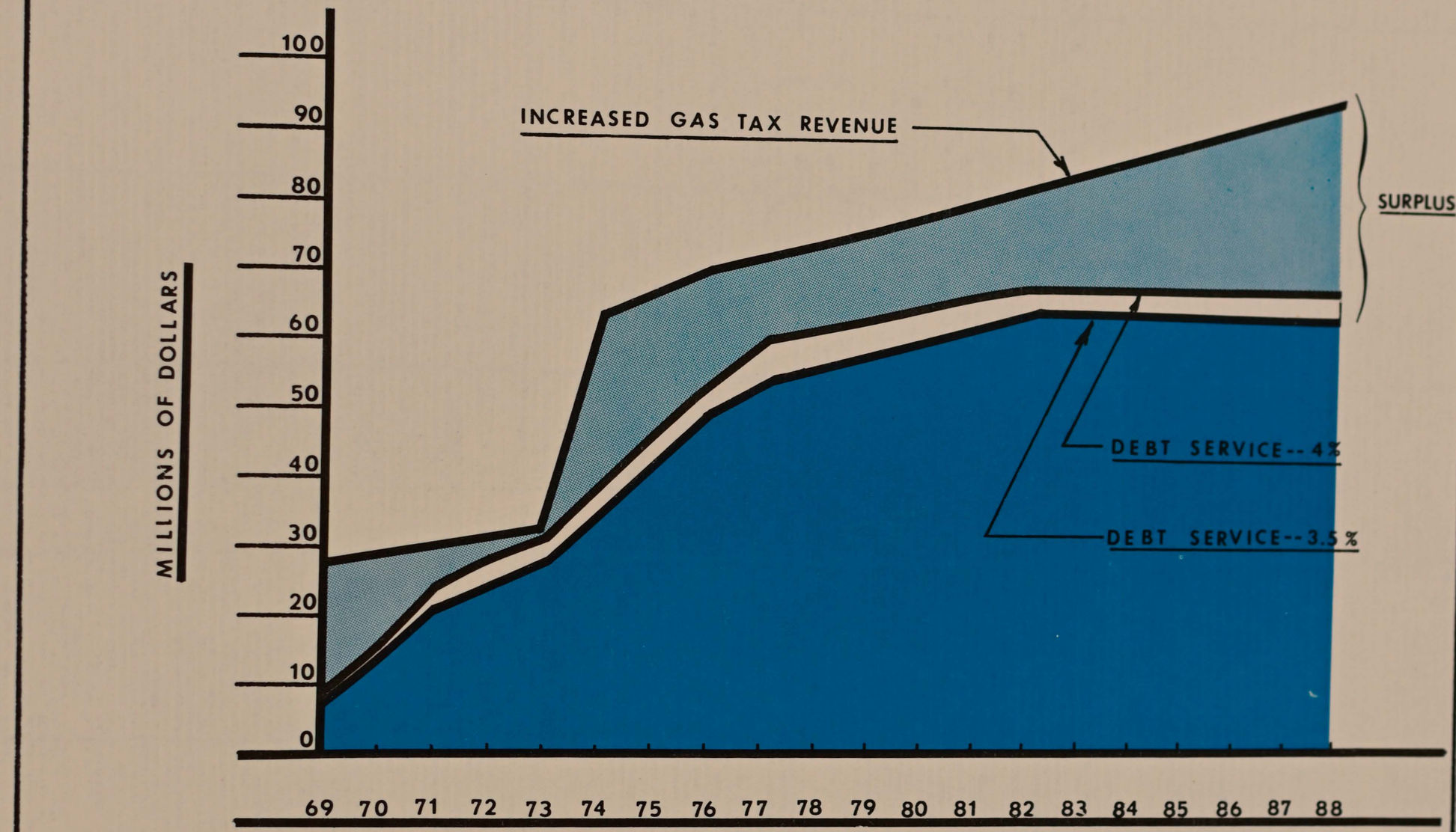
In addition, the Department will require over the next ten years approximately $50 million to undertake modest extension of rail facilities in the Hudson-Newark area, minimum capital improvements such as park and ride facilities for the State's extensive bus system and a start on a capital program for aviation. This would provide for a total capital program of $375 million for public transportation in the next decade.

It is extremely difficult to predict with certainty the level of Federal financial participation. If adequate State funds are available, however, the Department estimates that at least $125 million in Federal assistance can be anticipated during the period. It is recommended that $5 million a year in addition to the funds available from the commuter benefit tax be provided from general appropriations. The $200 million balance required to carry out this public transportation program should be provided from bond sources. Bond revenues would be limited to rail and bus improvements and would not include aviation programs which would be funded from appropriations.

If the State Aid Road System program is to be paid for from bond revenue, as indicated, the Department would suggest that public transportation's allocation of bond money be reduced to $175 million.

STATE AID

The budget submitted by Governor Hughes recommends that the $15 million formerly allocated to the State Aid Road System program from general revenues be included within any bond proposal adopted. The Department of Transportation believes that, wherever



DEBT SERVICE REQUIREMENTS

AND

SURPLUS AVAILABLE UNDER BOND PROPOSAL

possible, State Aid programs should be funded from annual tax sources and not from capital programs. If, however, the financial constraints facing the State at this time make it essential that such funds be provided from bond revenue, the Department recommends that $150 million from the proposed bond issue of $1.2 billion be allocated for this purpose. This would provide a means for funding this program at its present levels during the ten-year period of the bond program.

In addition, it is recommended that during the next decade revenues, in excess of those required for debt service, derived from the one-cent increase in the gas tax suggested for 1969 and 1974 be allocated to the State Aid Road System program and made available as additional county and municipal aid. It is estimated that over the next ten years an average of from $12 million to $17 million a year, depending on bond interest rates, would be available from such revenue sources over and above the debt service requirements of the bond issue.

Assuming that the proposed gas tax increase, over and above debt service requirements, produces an average of $15 million per year, this would make possible from both bond revenue and new tax revenue a $30 million program of State assistance. These funds, if matched equally by local appropriations, would provide a construction program of $60 million a year. This would be in addition to the construction made possible through the other State and Federal Aid programs now in existence.

If all aid Programs were totaled together, this would provide for a county and municipal road construction program in excess of $80 million a year, totaling nearly $2 billion over the 20-year period which is discussed in the Wilbur Smith study of local highway needs. Since it is quite probable that any new Federal program initiated after 1975 will provide additional funds for these local needs, the Department's proposal represents a substantial start in this important area of road needs.

THE CHOICE

THE CHOICE

This report presents the transportation requirements of the seven million people of this State in the area of highway construction and commuter rail operation. It has outlined in specific detail the estimated cost of carrying out the top priority portions of a capital program for highways and rails -- a program which totals approximately $2 billion.

In preparing an action program to meet New Jersey's transportation needs, the Department has considered not only the present range of needs, but also other equally important factors such as the capacity of the Department to use effectively additional funds, the period of time within which the program should be carried out, and the financial ability of the State and its people to underwrite a program.

It is true that not all of the inconveniences and difficulties that exist in the highly urban society that is New Jersey will be eliminated by the program. If it is adopted, however, it is the Department's judgment that the State will receive more than a fair return on its investment.

NEW JERSEY WAS FIRST

Many in New Jersey can still remember when this State's highway system was regarded as the finest in the world and its railroad services were second to none. Despite the relative deterioration of position which has occurred over the past 30 years, New Jerseyans still are benefiting from the foresight and leadership of their parents and grandparents who supported substantial capital programs in order to build the system which we use today.

In large part, the 2,000 miles of the State highway system which is struggling to contain the traffic demands of its seven million citizens and millions of visitors who travel more than 33 billion miles a year in New Jersey were built largely with the proceeds from the more than $100 million in bonds authorized from 1920 to 1930 and the dedicated revenue from highway taxes made available during the period from 1920 to 1939. This concentrated effort gave New Jersey a system which was advanced enough to accommodate much of the growth which this State experienced in the past 30 years. In a sense, it permitted the luxury of ignoring or postponing the responsibility of providing the money needed to extend and improve these facilities.

THE CHOICE IS OURS

The head start provided by this foresight, however, is now gone. In addition, there is no reason to believe the Federal government, during the next eight to ten years, can or will again temporarily relieve New Jersey of this burden as it did with the Interstate program in 1956.

If there is to be an answer to the growing traffic congestion and the deteriorating service on our railroads, it must therefore come from us. In a very real sense this is entirely proper. If we do not believe strongly enough that these conditions can and should be improved, there is no reason to expect others less directly involved to feel more strongly about the need to act.

We must now decide whether we want the transportation improvements discussed in this report badly enough to pay for them. The alternative is to do without them. The choice <u>is</u> ours.

APPENDIX

APPENDIX

APPENDIX 1

HIGHWAY MASTER PLAN

FREEWAYS - FIRST PRIORITY

ROUTE 1 & 9

Tonnelle Avenue is one of the most congested and hazardous highways on the State System. Route 1 and 9 Freeway between the Pulaski Skyway and Route 46, a distance of 8 miles, is proposed to relieve Tonnelle Avenue of its thru traffic at a cost of $80,000,000. (See map #3)

ROUTE 15

Present-day summer recreational traffic exceeds the existing capacity of Route 15 land service road, portions of which were constructed as early as 1930. With the opening of the Delaware Water Gap Recreational Area in 1975, it is anticipated that the additional capacity afforded by this freeway will be vitally needed. This freeway will extend from Woodport to Ross' Corner, a distance of 11 miles and will cost $22,000,000. (See map #2)

ROUTE 18

Increased trans-Raritan capacity in the New Brunswick area is vital to the continued orderly growth of this region. This north-south artery between New Brunswick and Route 22 will provide improved access to the urban center. In addition, this freeway will provide connections to Routes 95, 287, 28 and 22 and will ultimately serve interregional traffic in the corridor from north central New Jersey to the north jersey shore. This project is 8.3 miles long and will cost $43,000,000. (See map #4)

ROUTE 18

This project is a continuation of freeway construction in Middlesex County and will connect improved land service road Route 18 at Route 9 with Route 35 Freeway at Eatontown, a distance of 17.1 miles. Although the existing portion of Route 18 between Albany Street in New Brunswick and Route 9 is not truly a freeway, it has expressway characteristics and adequate capacity. This project will cost $22,500,000. (See map #4)

ROUTE 20

This freeway will be a peripheral highway around Paterson and will do much toward relieving traffic congestion in the urban core. It is anticipated that this freeway will be a real stimulant for improving the present depressed economy in downtown Paterson. It is anticipated that an additional $44,300,000 is necessary to complete this 3.2 mile project. (See map #3)

ROUTE 21

The reconstruction of Route 21 as a freeway between Lafayette Street and Bridge Street is in conjunction with a major urban renewal in the vicinity of Penn Plaza. This urban renewal project includes campus facilities for the expanded Newark Branch of Seton Hall University and commercial buildings in the area west of Pennsylvania Railroad Station (Newark Plaza). The changing land use patterns coupled with the present traffic volumes demand an improved facility designed to freeway standards. The estimated cost for this 1 mile portion of Route 21 is $14,000,000. (See map #3)

ROUTE 21

The need for a direct unimpeded highway connection between the Newark and Paterson areas has long been recognized. Portions of this link have been completed. This project will continue Route 21 northward to a junction with Route I-80. An unusually high proportion of thru traffic, having neither origin or destination in the City of Passaic, produces an intolerable traffic condition on the irregular street pattern of this municipality. In addition, this construction will effectively relieve existing overburdened Passaic River crossing and will provide a vital connection with Route 46. It is estimated that $26,300,000 is required to complete this Freeway. (See map #3)

ROUTE 23

The existing land service road between Stockholm and Port Jervis was constructed in 1927, and has substandard horizontal curvature and very poor grades. These poor engineering features coupled with residential and commercial development immediately adjacent to the right-of-way makes it impractical both physically and economically to increase its capacity by either widening or dualizing. For these reasons, it is proposed to construct a freeway parallel to the existing road having a length of 22 miles and a cost of $55,000,000. In addition, this freeway will provide vitally needed improved access to the Delaware Water Gap Recreational Area. (See map #2)

ROUTE 24

Existing Route 24, a land service road between Springfield and Phillipsburg, is actually only in part on the State Highway System. The portion between Hackettstown and Morristown is signed as Route 24 but is not under State jurisdiction. For its entire length, Route 24 is a meandering two-lane facility, with poor horizontal and vertical alignment, totally incapable of servicing traffic in this corridor particularly between Springfield and Morristown. The construction of Routes 287 and 78 will provide adequate relief from Morristown westerly. The portion between Springfield and Morristown, a distance of 15 miles, will be constructed initially at a cost of $76,000,000. (See map #2)

ROUTE 24-46 CONNECTOR

Presently Routes 24 and 46 at Hackettstown are connected by Route 57. Route 57 and Route 46 intersect at a very sharp angle making it impossible for larger trucks to make the turn. This proposed connection will eliminate this impossible turning movement and do much to relieve traffic congestion in downtown Hackettstown at a cost of $2,500,000. (See map #2)

ROUTE 29

This project is a continuation of an existing freeway between Route 95 and Willow Street and when completed will provide a badly needed artery for the free flow of north-south traffic to the State Capital. In addition, this freeway will interchange with Route 295 and its southeastern terminus will connect with Route 37 Freeway, thereby providing direct access between Trenton and the Monmouth County-Ocean County shore area. This project has a length of 4.4 miles and will cost $26,000,000. (See map #4)

ROUTE 30 - EAST-WEST CONNECTOR

This freeway will extend from the Benjamin Franklin Bridge toll plaza area to Route 30, a distance of a half mile. Present traffic between the approaches to the bridge and Route 30 utilizes an existing city street which acts as a bottleneck to traffic on Admiral Wilson Boulevard due to the narrowness of the lanes and the frequent traffic signals. This freeway has been coordinated with the urban renewal projects underway in Camden. This project will cost $5,000,000. (See map #5)

ROUTE 31

The most direct State Highway linking the Trenton urban area and the proposed Delaware Water Gap Recreational Area is Route 31. This land service highway is scheduled for dualization from Pennington to Buttzville, its northern terminus. This freeway will connect the existing terminus of Route 31 with the "Foot-

hills Freeway," a proposed scenic highway parallel to the Recreation Area, thereby avoiding the routing of Route 31 traffic over Route 46, an inadequate facility. This project is 7 miles long and will cost $14,000,000. (See map #2)

ROUTE 33

This project is a link in the Central New Jersey Expressway System and is a 7 mile freeway on new alignment by-passing the County seat at Freehold thereby allowing free flow of thru traffic while simultaneously improving access to and reducing congestion in that area. It is estimated that this by-pass will cost $7,000,000. (See map #4)

ROUTE 35

The present land service road, most of which is three lane, is congested and hazardous due to traffic generated by army installations, shopping facilities and coastal resorts. By connecting with east-west Routes 38, 33, 66, 18 and the Parkway Spur at Eatontown, it will be possible to divert all thru traffic from local land service roads as well as by-passing highly developed areas. This freeway will cost $11,000,000 and will be 6.8 miles long. (See map #4)

ROUTE 37-38

This project is a link in the Central Jersey Expressway System. Its termini will be at Route 206 in Trenton, on the west, and at Route 38 in Wall Township, on the east. This freeway will provide direct access from the State Capital to the shore resort area. This travel corridor is now being served primarily by county roads. Application has been made to include this route on the Interstate System. This freeway is 35 miles long and will cost $66,000,000. (See map #4)

ROUTE 40

The basic purpose of this freeway is to by-pass Woodstown. At present, all Route 40 traffic must pass through the business district of Woodstown causing a restriction to the free flow of traffic both on Route 40 and the local streets. This by-pass is 4 miles long and will cost $4,000,000 to construct. (See map #6)

ROUTE 55

This freeway will be constructed on new alignment and will extend from Route U.S. 9 in the vicinity of Cape May Court House to Route 295 at Westville, a distance of 50 miles. That portion of the freeway between Port Elizabeth and the Millville-Vineland corporate line is now under construction. Planning and design on the remainder is underway. This freeway is necessary as a parallel facility to existing Route 47, a land service road having poor capacity and horizontal alignment as well as points of extreme congestion where it passes through Vineland and Millville. This freeway will do much to accelerate the residential, commercial and industrial development of Gloucester, Cumberland and Cape May Counties as well as providing direct access to the Cape May peninsula. An additional $70,000,000 is required to complete Route 55. (See map #6)

ROUTE 72

This freeway will connect the proposed new Delaware River crossing south of the present Bristol-Burlington Bridge with Routes 70 and 72 at the Four Mile Circle, a distance of 19.5 miles, and will provide a direct access between the rapidly expanding residential and industrial complex in Bucks County with the New Jersey shore area. In addition, this route will service the expanding population in the vicinity of Willingboro, New Jersey with a direct route to Pennsylvania and the New Jersey shore at a cost of $38,000,000. (See map #5)

ROUTE 74-9

Due to the rapid industrial development in the northeastern portion of Middlesex County, coupled with the lack of an adequate east-west highway, it is proposed to construct a freeway between Route 18 in East Brunswick Township and Route 35 in the vicinity of Cheesequake Creek, a distance of 9.5 miles. This facility will provide for the necessary flow of raw materials and manufactured products as well as servicing the needs of the employees in this highly industrialized section of Middlesex County. The estimated cost of this freeway is $32,000,000. (See map #4)

ROUTE 75

This facility is a vital link in a north-south artery which will ultimately provide a thru route from I-80 in Passaic County to the Goethals Bridge in Staten Island. The project is on approved alignment and construction plans are currently being prepared in conjunction with proposed urban renewal along a major portion of the alignment. This 3 mile portion between Route I-80 and Route I-78 will be constructed initially to provide access to downtown Newark from both Interstate routes. This project is estimated to cost $67,700,000. (See map #3)

ROUTE 81

This project is a part of the proposed Elizabeth By-pass. Present planning and construction staging indicate that Route 81 Freeway will actually occupy the New Jersey Turnpike widening presently being constructed west of the existing Turnpike. The Department will be required to construct a six-lane roadway to the east of the Turnpike which will require the relocation of the Central Railroad of New Jersey tracks. This freeway has a high priority due to the present plans to abandon Route 278 west of Route U.S. 1 and the scheduled expansion of Port Elizabeth as a sea-land facility. The estimated cost of this project is $35,000,000. (See map #3)

ROUTE 85

There is a demonstrated need for a direct connection between the westerly portals of the Lincoln and Holland Tunnels which, in addition, would service the water front thru the City of Hoboken. Initial studies indicate the advisability of constructing a freeway. However, such a facility will cost $140,000,000 for a length of only 3 miles. Additional studies are contemplated to determine if a facility of a lesser level of service would suffice. (See map #3)

ROUTE 90

Inherent in the proposal to construct a new Delaware River crossing between Delair and Bridesburg is the need to tie the bridge into the regional highway network. This is to be accomplished by the construction of a new highway of freeway design connecting the bridge approaches with Route 73 in the vicinity of Church Road, a distance of 6.3 miles. Present programs indicate that the Delair Bridge will be ready for traffic in 1971. The completion of Route 90 in its entirety by 1971 is not feasible. As a consequence, initial design and construction efforts will be concentrated on that portion between the bridge and the first crossing of Route 73, with full interchanges at both Route 130 and Route 73. The total cost of Route 90 is estimated at $42,000,000. (See map #5)

ROUTE 92

The Princeton-Kingston-Rocky Hill area is centered on the longitudinal axis of Megalopolis. It is therefore inevitable that this area will be subjected to an ever increasing flow of traffic, a significant portion of which will be heavy trucks. The expansion of Route 206, a north-south artery, is not practical because it passes thru the heart of historic Princeton and Lawrenceville. Route 92 will act as a by-pass, diverting thru traffic to Routes U.S. 1 and U.S. 130. In addition, this highway will make a connection to Route 33 thereby providing direct access to the Atlantic Shore. This project is 14.2 miles long and will cost $33,000,000. (See map #4)

ROUTE 174

This project is an extension of the Trenton North-South Freeway connecting its present terminus at Whitehead Road with Route U.S. 1 in the vicinity of Bakers Basin, a distance of 1.5 miles. This connection will provide direct access to downtown Trenton from Route U.S. 1 via the North-South Freeway, thereby relieving the congestion now occurring at the Slackwood Circle and the intersection of Route U.S. 1 and Whitehead Road. The estimated cost of this extension is $4,500,000. (See map #4)

ROUTE 178

Existing Route 53 is a two-lane highway with very poor horizontal and vertical alignment. It is both hazardous and congested. This proposed freeway will connect Route 24 Freeway in Hanover Township with Route 10 in Morris Plains, a distance of 2.5 miles. This project will cost $9,000,000. (See map #2)

ROUTE 206

The Town of Hammonton is experiencing much difficulty with present traffic congestion because Route 54 (Bellevue Avenue) is Hammonton's main business street. This project would provide a by-pass of the business district and thereby eliminate delays being encountered by thru traffic, a high percentage of which are trucks. This project is 4 miles long and will cost $8,000,000. (See map #6)

ROUTE 206

Route 206 will be a major feeder road to Tocks Island. In conjunction with the dualization of this highway to the north and south, it is proposed to completely by-pass the center of town. Without this proposed by-pass a capacity restraint of such serious proportions will exist that the value of dualizing Route 206 will be negated and traffic flow to the recreation areas will be drastically hindered. In addition, Newton is considered to become the "Hub City" of the Tocks Island impact area. This by-pass is necessary for the orderly development of this expanding community. This project will cost an estimated $10,500,000. (See map #2)

ROUTE 206

Existing Route 206 will interchange with Route I-80 south of the Stanhope-Netcong area. It is proposed to by-pass these towns by directing traffic westerly over Route I-80, a distance of two miles, then northerly on new alignment to an intercept with existing Route 206 north of Stanhope. This project is 3 miles long and will cost an estimated $6,000,000. (See map #2)

ROUTE 208

At present, there are no State Highways servicing upper Passaic County. The towns of Wanaque and Ringwood as well as the recreational area of Greenwood Lake are most anxious for improved access. Route location studies are now in process. This proposed freeway would extend from Oakland to the New York State Line, a distance of 10.5 miles. This facility will cost $26,000,000. (See map #3)

ROUTE 322

The construction of a new bridge across the Delaware River between Chester and Bridgeport will require a freeway connecting the bridge with the major regional highways such as Route 130, Route 295, the Turnpike, Route 45 and Route 47. Route 322 Freeway will provide the necessary traffic collection and distribution, as well as improving service to the Atlantic City urban area. The overall length of this project is 23.3 miles and will cost approximately $35,000,000. (See map #6)

ROUTE 440

This freeway will connect Route I-95 with the Outerbridge Crossing in Perth Amboy and will complete a circumferential outer loop around the Northeastern New Jersey-New York metropolitan area via Staten Island and the Verrazono-Narrows Bridge. Current industrial development between Route U.S. 1 and Perth Amboy including that occurring on the former Raritan Arsenal property adds to the need for this facility. An additional $21,600,000 will be required to complete this 3.8 mile facility. (See map #4)

ROUTE 440

This highway, now under construction, will connect existing Route 440, north of Turnpike extension with the Bayonne Bridge, a distance of 3.7 miles. For practically its entire length, this freeway will be constructed on fill in Newark Bay. The basic purpose for early completion of this project is the relief of heavily

congested local city streets on the Bayonne peninsula. It is anticipated that the Verrazano-Narrows Bridge will accelerate the development of Staten Island thereby substantially increasing the traffic using the Bayonne Bridge. The land-filling operations between the freeway and existing mean high water line will provide additional benefits to Bayonne. An additional $34,000,000 will be required to complete this project. (See map #3)

FOOTHILLS FREEWAY

This proposed freeway will be constructed at the base of the easterly slope of the Kittatinny Mountains between the northern terminus of Route 31 Freeway and Route 23 Freeway south of Port Jervis. By locating the highway parallel to the longitudinal axis of the Delaware Water Gap Recreational Area easy access can be made to the various recreation sites on the New Jersey side. This facility is 34 miles long and will cost an estimated $68,000,000. (See map #2)

APPENDIX 1

HIGHWAY MASTER PLAN

DUALIZATIONS - FIRST PRIORITY

ROUTE U.S. 9

This project, together with the Route 9 Freeway, would provide complete dualization of Route U.S. 9 all the way from its juncture with Route U.S. 1 in Union County to Adelphia in Monmouth County. The intermediate stretch from the Middlesex County border north to Route 34, a distance of 4.7 miles, is estimated to cost $2,400,000. (See map #4)

ROUTE U.S. 9

This project would continue dualization of Route U.S. 9 south from Adelphia for a distance of 16 miles to the vicinity of Toms River as a first priority item in the area of heaviest travel, to provide added capacity on an existing two-lane highway and eliminate hazardous curves, at an estimated cost of $8,000,000. (See maps #4 &5)

ROUTE U.S. 9W

Heavy traffic volumes generated by the opening of the second deck of the George Washington Bridge and abandonment of some rail service, together with location of several new industrial installations, has produced congestion and hazard at connections with local roads, particularly at peak hours, requiring dualization of this highway for four miles from the Bridge to East Clinton Avenue, at an estimated cost of $2,500,000. (See map #3)

ROUTE 10

Route 10, from Route 53 to Livingston in Morris and Essex Counties, is an important collector-distributor highway. Growing traffic, as a result of the heavy suburbanization of this area, requires dualization on an early schedule. This nine-mile section is estimated to cost $6,000,000. (See maps # 2 & 3)

ROUTE 20

This highway is an extremely important link between the Paterson Plank Road and Route 3 in Bergen County. It serves as a feeder to Route 3 for Lincoln Tunnel traffic. Dualization of a 1.8 mile section at an estimated cost of $1,000,000 is urgent. (See map #3)

ROUTE 31

Route 31 already has been widened from Trenton to the Pennington Circle, where the proposed Route 31 Freeway from Route U.S. 1 on the northern outskirts of Trenton would connect. Due to the growth of Mercer and Hunterdon Counties, this highway is carrying increased traffic north of Pennington. In the future, it will serve as one of the main arteries from the State Capitol to the northwestern resort area of New Jersey and the future Tocks Island Park. Dualization of 9 miles from Pennington to Ringoes, where a dualized portion already exists, is estimated to cost $7,000,000. (See map #4)

ROUTE 31

The same requirements exist for the 25-mile stretch from the northern side of Flemington up to Route U.S. 46 at Buttzville. The cost of this project is estimated at $19,000,000. (See maps #2 & 4)

ROUTE 33

Dualization of Route 33 from Hightstown to Route 34 in Monmouth County already is underway. One contract is completed and another is under construction. At the present time, those sections which have not been dualized provide only a dangerous two-lane highway, which is the main artery of traffic from the State Capitol to the Monmouth shore area, and also carries extensive traffic from the New Jersey Turnpike to the shore. While the section around Freehold will be built in the form of a freeway by-pass, an estimated $6,000,000 is required to complete dualization of a 4.5 mile stretch in Monmouth County. (See map #4)

ROUTE 33

Between Mercerville and Robbinsville, a distance of four miles, Route 33 is one of the few remaining three-lane highways left in New Jersey. Population growth in this area of Mercer County has produced "strip" commercial development along the highway, and there is no doubt that this development will continue in the future. This section of Route 33 presents a typical example of a needed highway improvement which will be far more expensive in future years than it is at the present time. The estimate for dualizing it now is $6,000,000. (See map #4)

ROUTE 35

Route 35 is one of the major land service highways of Monmouth County, serving heavy volumes of north-south traffic. It is presently a two-lane highway with very substantial commercial frontage along both sides and several busy signalized intersections. The accident record is far from desirable, and the Transportation Department has been proceeding with improvement of the highway in other areas of Monmouth County for some time. Engineering analysis indicates dualization is required for a distance of 4.7 miles from the Brielle Traffic Circle to West Belmar, at an estimated cost of $2,500,000. (See map #4)

ROUTE 35

Limited capacity and hazardous conditions, particularly several intersections where the pavement tends to become extremely icy during bad weather, require dualization on another section of Route 35 for a distance of 4.8 miles from the Eatontown Circle to the Asbury Avenue Circle, at an estimated cost of $6,500,000. (See map #4)

ROUTE U.S. 202

The Delaware River Joint Toll Bridge Commission is presently designing a new bridge across the river at Lambertville, which will also involve some relocation of the existing Route U.S. 202 adjacent to Lambertville. When this project is completed, increased traffic will demand dualization of the remainder of Route U.S. 202 from Mount Airy to the point where Route U.S. 202 meets Route 31 at Ringoes. This three-mile project is estimated to cost $1,500,000. (See map #4)

ROUTE U.S. 206

Construction of the Route 92 Freeway will make Route U.S. 206 in Somerset County an important artery between the Somerville area and the shore. The existing highway is only two lanes wide. Present traffic, let alone future demand, requires dualization of this twelve-mile section at an estimated cost of $9,000,000. (See map #4)

ROUTE U.S. 206

North of Interstate Route 78, where Routes U.S. 206 and U.S. 202 split in the vicinity of Bedminster, Route U.S. 206 becomes an important artery to New Jersey's northwestern resort area and the future Tocks Island Park. Dualization of the 14.6 mile section in Somerset and Morris Counties is estimated to cost $11,100,000. (See map #2)

ROUTE U.S. 206

Dualization of Route U.S. 206 from the juncture of the proposed Route 206 and Route 15 Freeways north of Netcong over to a connection with the proposed Foothills Freeway is also required for proper traffic service in the Tocks Island Area, and a short section to the west of the proposed Foothills Freeway is also involved. Altogether, 16 miles of this highway in Sussex County should be dualized at an estimated cost of $9,200,000. (See map #2)

APPENDIX 1

HIGHWAY MASTER PLAN

WIDENINGS & IMPROVEMENTS - FIRST PRIORITY

ROUTE U.S. 1

Route U.S. 1 has been the location of a major travel corridor since colonial times. The Transportation Department has systematically improved it from Trenton up to the New Brunswick area over a period of years. Further improvement from Pierson Avenue north to Interstate Route 278 just south of Elizabeth is a top priority project. Quite aside from its existing capacity constraints and hazards at outmoded traffic circles, timely development of this highway is essential to the orderly economic growth of booming communities such as Woodbridge. Although not strictly a "dualization", this project involves more than mere widening. Grade separations will be required at several locations, and frontage roads will have to be built in others. This 10.4 mile stretch is estimated to cost $35,000,000. (See map #4)

ROUTE U.S. 1

This highway presently connects with Route U.S. 130 as well as some major local roads at an outmoded traffic circle a few miles south of New Brunswick. This circle is a focal point of traffic congestion and hazard particularly during peak travel hours. Elimination of the circle by construction of a modern interchange is estimated to cost $4,000,000. (See map #4)

ROUTE 3

Although Route 3, one of the major arteries to the Lincoln Tunnel and New York City, already has been dualized, it still lacks sufficient capacity for the tremendous peak hour traffic volumes in this urban core. Hazards are created by side friction from numerous driveways exiting on to Route 3 from major industrial and commercial installations. It has been built to almost freeway standards east of Route 20. Similar work is required west of Route 20 and the cost of an 8 mile section extending to Route U.S. 46 in Passaic County is estimated at $13,800,000. (See map #3)

ROUTE 4

Completion of the second deck of the George Washington Bridge as well as the construction of major shopping centers east of Route 17 have created very substantial congestion and hazard on Route 4 in Bergen County. A 6-mile section from Route 17 to Interstate Route 95 should be widened at an estimated cost of $4,000,000. (See map #3)

ROUTE 4

The construction of major shopping centers in almost every quadrant of the interchange between Route 4 and Route 17 has caused this facility to become badly overloaded. It is used more to travel from one shopping center to another than for its primary function of distributing thru traffic between the two highways. Reconstruction of this interchange is estimated to cost $5,000,000. (See map #3)

ROUTE 4

Dualization of Route 208 has created major traffic problems at its connection with Route 4. No solution short of a major revision of the interchange will ease the situation. The estimated cost of this project is $3,000,000. (See map #3)

ROUTE 7

Route 7, from the Passaic River to Fish House Road, is the only access to Jersey City from the Belleville area. The growth of industry in Bergen and Hudson Counties requires the widening of this Route for a distance of 5 miles at an estimated cost of $2,000,000. (See map #3)

ROUTE 9

A heavy volume of summer traffic uses the intersection of Route U.S. 9 and Route 47 at Rio Grande, adjacent to the Cape May shore area and Wildwood. The existing outmoded intersection presents several traffic constraints and hazards, and no solution short of a grade separation will serve. The estimated cost is $2,900,000. (See map #6)

ROUTE 9

A serious traffic hazard presently exists where southbound traffic is carried from Route 35 to Route U.S. 9 near South Amboy. A substantial revision is necessary to carry all directions of travel thru this junction of two major routes in safety. The estimated cost if $6,000,000. (See map #4)

ROUTE 10

The intense suburbanization of western Essex County requires widening a 2.1 mile section of Route 10 at an estimated cost of $900,000. This would run from central Essex into the proposed dualization of Route 10 leading to the area north of Morristown. (See map #3)

ROUTE 17

The Department of Transportation has been improving Route 17 in Bergen County systematically over a period of several years. This work has included the construction of several interchanges, however it is also necessary to widen the highway itself. An estimated $15,000,000 is required to complete this 20 mile project from Route 3 to Interstate Route 287. (See map #3)

ROUTE 22

The existing Route U.S. 22 viaduct across the Waverly Yards of the Penn-Central Railroad carries extremely high volumes of traffic. While the viaduct provides four lanes, they are not divided, and the existing structure is too narrow to permit the construction of a physical center barrier. This project would provide a new viaduct adjacent to the existing one and parallel with it, as well as improvement of the highway itself on either side, so that the work would extend from Meeker Avenue to Route U.S. 1 for a distance of .9 miles at an estimated cost of $10,000,000. (See map #3)

ROUTE 23

Route 23 is a major artery from the metropolitan area to the northwestern part of New Jersey. While several sections had been materially improved, it is essential to widen the highway, close the many island openings and revise the intersections on a 3.5 mile section from Riverdale Circle to Kiel Avenue at an estimated cost of $2,000,000. (See map #3)

ROUTE 23

Route 23 also serves as a major connecting link between Interstate Route 80 and Interstate Route 287 in southwestern Passaic County. Construction of these two super highways requires widening this 3-mile section at a cost of $4,500,000. (See map #3)

ROUTE 202-206-28

The Somerville traffic circle, where Route 28 meets Route U.S. 202 and Route U.S. 206 is one of many designed for the traffic of the immediate post-war era. The population growth of this area, which has generated far higher volumes of traffic, renders this design obsolete. The intersection should be improved at an estimated cost of $5,000,000. (See map #4)

ROUTE 30

Another traffic circle where a highway design originated in New Jersey and considered an extremely modern concept prior to World War II is now obsolete and interfers with the free flow of traffic exists on Route U.S. 30 at Collingswood. Construction of an interchange is estimated to cost $5,000,000. (See map #5)

ROUTE 33

The dualization of Route 33 is presently underway east of the Collingwood Circle in Monmouth County. The circle itself is totally inadequate for existing traffic, let along future demand. A revision, estimated to cost $4,000,000, is planned under which Route 33 westbound traffic would be taken over the circle on a bridge and continue westward for a short distance over new alignment until connecting again with the existing Route 33. (See map #4)

ROUTE 35

A section of land service Route 35 only .6 of a mile long between the Shark River and Sylvania Avenue, is badly congested because it handles the traffic of several intersecting State, County and Municipal roads. Without revision of this area, which means the construction of an interchange, the Asbury Park Relief Route cannot be started. The estimated cost of this project is $2,000,000. (See map #4)

ROUTE 45

Route 45 is one of the main arterial routes for Southern New Jersey, running as it does to parallel the Delaware River from Salem to Woodbury in Gloucester County. It must be widened to accommodate the substantial traffic increases since the time it was built many years ago. The estimated cost of this 26.1 mile project is $15,400,000. (See maps #5 & 6)

ROUTE U.S. 46

Midland Avenue is an important local connector road in Bergen County, and carries heavy traffic loads to and from Route U.S. 46. The existing interchange is outmoded and has a poor accident record. The estimated cost of this project is $200,000. (See map #3)

ROUTE U.S. 46

Despite the construction of Interstate Route 80, Route U.S. 46 continues to carry heavy volumes of traffic. Much of this is commercial traffic destined for the many industrial and commercial establishments in the area. There are also high peak hour traffic volumes caused by bus and automobile commuters who use this highway for part of their journey to work. A 2.6 mile section from Route 17 to Little Ferry should be widened and the traffic circle eliminated at an estimated cost of $20,000,000. (See map #3)

ROUTE U.S. 46

The intersection between Route U.S. 46 and Baldwin Road, an important local feeder road in Morris County, has a poor safety record. Engineering analysis indicates there is no solution short of a revision in the physical layout of the intersection itself. The estimated cost of this project is $800,000. (See map #2)

ROUTE U.S. 46

A six-mile section of Route U.S. 46 between Denville and Parsippany is already a dualized highway, with a center island opened at many locations to permit left turns into local roads and driveways. Over the years since this design was considered to be a modern concept, increasing development along the sides of the highway has made left turns thru these center island openings an extremely hazardous operation. Present design calls for closing the openings in the center island and construction of jughandles to permit safe left turn movements. The estimated cost of this project is $5,000,000. (See map #2)

ROUTE 70

The Transportation Department's continuing analysis of highway accidents reveals an extremely hazardous left turn movement presently exists on Route 70 at Split Rock Drive. The estimated cost of constructing a jughandle to eliminate this safety hazard is $300,000. (See map #5)

ROUTE 73

Route 73 is a major connection from the urbanized area around the Tacony-Palmyra Bridge across the Delaware River to the South Jersey shore via connections with Route U.S. 322 and the Atlantic City Expressway. It already has been improved to just past its intersection with Route U.S. 30 near Berlin. Increasing traffic now requires continuation of the widening, to provide additional capacity down to a connection with the Atlantic City Expressway. The 9.2 mile project which remains to be done is estimated to cost $1,500,000. (See maps #5 & 6)

ROUTE 73

Although Route 73 already has been improved in Burlington County, its intersection with Route 70 requires additional work. This intersection, known as the Marlton Circle, must be replaced by a grade separation at an estimated cost of $3,700,000. (See map #5)

ROUTE 87

Construction of a new bridge and approaches over Absecon Inlet to serve Atlantic City and Brigantine has been under the Transportation Department's list of priority projects for some time. Although some funds were provided in previous years, it is estimated $5,000,000 more will be required to construct the project. (See map #6)

ROUTE 88

Route 88, from Route U.S. 9 to Point Pleasant, presently consists of a very old two-lane highway. Generally, it is without a sidewalk area, adequate drainage, or shoulders. This presents very hazardous conditions, particularly during summer months. It is estimated the cost of widening this 8.5 mile section is $5,000,000. (See map #4)

ROUTE 94

Route 94 is the major arterial route from the Delaware Water Gap Bridge across Sussex County to the population centers in the vicinity of Newton and to connections with other major highways, including Route U.S. 206, Route 15 and Route 23. The function it serves will not be completely shifted to the proposed Foothills Freeway, and Route 94 continues to be used by high volumes of traffic resulting strictly from development of this area, as well as additional traffic going to and from various parts of the Tocks Island Park. Widening a 7-mile section of this highway from Interstate Route 80 to the proposed Foothills Freeway has first priority at an estimated cost of $3,500,000. (See map #2)

ROUTE U.S. 130

This highway, one of the most heavily travelled arterial routes in South Jersey, has been systematically improved from Camden north to the Burlington area. The same type of improvement is urgently required from Burlington further north to Bordentown. This would consist of elimination of the openings in the center islands by construction of a center barrier, as well as the construction of jughandles at appropriate locations, to produce a major improvement in capacity as well as safety. This 10 mile project is estimated to cost $3,700,000. (See map #5)

ROUTE U.S. 130

A short section of Route U.S. 130 -- 0.6 miles in length -- from Cooper River to Collingswood is now operating at capacity despite improvements in the not too distant past. To maintain a free flow of traffic, it must be widened at an estimated cost of $2,200,000. (See map #5)

ROUTE U.S. 130

The Airport Circle Interchange on Route U.S. 130 is a prime example of the alterations in highway design required by increasing traffic. The simple intersection which first existed at this location several decades ago was replaced by a traffic circle in the late 1920's which was then considered to be extremely modern design. The passing of time required the construction of an interchange which still requires substantial alterations and improvement to work properly. The estimated cost of this project is $3,000,000. (See map #5)

ROUTE U.S. 206

The alignment of Route U.S. 206 as it crosses the Reading Railroad at Belle Mead is extremely poor. The highway makes a right angle turn in order to cross the railroad, and then another right angle turn in order to run again parallel with the railroad. There have been several accidents including some fatalities at this location, and it is one of the top priority safety items in the State. The cost of eliminating the right angle turns is estimated at $3,500,000. (See map #4)

ROUTE 444

One of the existing signalized intersections on the Garden State Parkway (Route 444) which has proved extremely troublesome is at Stone Harbor Boulevard. A grade separation is required at an estimated cost of $2,000,000. (See map #6)

STONE HARBOR BOULEVARD

In connection with improvement of the intersection on the Garden State Parkway (Route 444) at Stone Harbor Boulevard, it is necessary to widen the local road for a distance of 3.8 miles to Cape May Court House at an estimated cost of $800,000. (See map #6)

APPENDIX 1

HIGHWAY MASTER PLAN

FREEWAYS - SECOND PRIORITY

ROUTE 9

It is proposed to construct this freeway parallel to an existing land service road which is not only over capacity in the summer months but is a poorly-aligned two-lane facility. There is a concentration of commercial strip development along the existing roadway which results in a high degree of marginal friction with a consequent loss in capacity. The freeway will extend through the urbanized area adjacent to Atlantic City, a distance of 10.8 miles, where the greatest number of traffic movements are occurring. It is estimated that this freeway will cost $21,500,000. (See map #6)

ROUTE 14

There is strong evidence of increasing density of development in the northern portion of Bergen County. Existing highway facilities provide for north-south traffic only. This freeway extending from Route 23 in the vicinity of Butler in Morris County to Alpine in Bergen County will provide for the necessary east-west movement. Originally this proposed freeway was to connect with the George Washington Bridge. Recent studies confirm that the George Washington Bridge (both decks) will be at capacity in 1971 or 1972. It therefore is vital to the performance of Route 14 that a new bridge spanning the Hudson River be constructed north of the George Washington Bridge and south of the Tappan Zee Bridge. This project is approximately 25 miles long and will cost $150,000,000. (See map #3)

ROUTE 23

This proposed freeway will parallel an existing 4-lane undivided land service road which is nearing capacity due to adjacent commercial strip development. With the construction of Interstate Routes 80 and 280, this highway is needed to provide adequate north-south freeway spacing for this urban area. This project is 8 miles long and will cost an estimated $40,000,000. (See map #3)

ROUTE 24

This project is a continuation of the freeway proposed in the first priority and will extend this facility from Morristown to Phillipsburg. This project is 34 miles long and will cost an estimated $68,000,000. (See map #2)

ROUTE 29

Existing Route 29 through Lambertville is a two-lane city street in very poor structural condition. The inadequacies of this highway have received much local comment and criticism. The problems associated with route location due to existing land use and terrain have done much to retard the development of this project. Preliminary estimates indicate that this facility will cost about $3,000,000. (See map #4)

ROUTE 31

This freeway will connect the Route 1 circle in Slackwood with the Pennington Circle in Hopewell Township, a distance of 5.5 miles. A substantial amount of right-of-way has been purchased during the past decade. The basic freeway plan for Mercer County consists of a circumferential (Route 295 and Route 95) and radial arteries. This freeway is one of the radials connecting the loop freeway with the urban center street system. This project will cost an estimated $12,000,000. (See map #4)

ROUTE 38

At the present time, there is no high-speed direct access between the Philadelphia-Camden urban area and the northern shore area. This proposed freeway will provide such a connection. Only the easterly portion between Bennetts Mills and Wall Township, a link in the Central New Jersey Expressway System, was indicated in the first priority listing. The remaining portion between Mount Holly and Bennetts Mills, a distance of 33.5 miles, will cost approximately $60,000,000. (See map #5)

ROUTE 40

This project is proposed to by-pass Malaga. The existing land service road passes thru the center of town and is in essence one of the main streets. The by-pass will divert thru traffic around the town. The anticipated cost of this by-pass is $7,500,000. (See map #6)

ROUTE 50

This proposed freeway will connect the Atlantic City Expressway in the vicinity of Weymouth to Route 50 in the vicinity of Seaville, a distance of 23 miles, thereby providing a more direct route to the Cape May County seashore resorts from the Camden-Philadelphia Metropolitan area. It is estimated that $33,600,000 will be needed to construct this freeway. (See map #6)

ROUTE 54

This freeway will extend southeasterly from Buena to Millville, a distance of 10 miles, and will act as an extension for existing land service road New Jersey Route 54 which presently terminates at Buena. This route will provide a primary facility for the traffic generated in the Millville-Vineland area which has a northerly destination and must presently use secondary roads at a cost of $18,000,000. (See map #6)

ROUTE 60

This freeway will extend from U.S. 40 at Deepwater to Sommers Point near Ocean City. This cross-state freeway will provide access to the southern coastal area for traffic entering New Jersey from the Delaware Memorial Bridge. This 55 mile facility should have a substantial impact on the economic development of the Atlantic County, Ocean City urban complex. The estimated cost of this project is $66,000,000. (See map #6)

ROUTE 68

This 8 mile freeway will be an extension of existing Route 68 from the vicinity of Wrightstown to an intersection with Routes 70 and 72 at Four Mile Circle. This facility will provide a direct connection between the Trenton urban area and the New Jersey shore, in particular, Long Beach Island. In addition, this freeway will serve the military installation at Fort Dix. The estimated cost if $10,000,000. (See map #5)

ROUTE 74

This is a continuation of the Route 74 Freeway listed in the First Priority and will extend this freeway from Route U.S. 9 to Route 35 south of Cheesequake Creek, a distance of 3.5 miles. The estimated cost is $6,800,000. (See map #4)

ROUTE 75

This is an extension of the Mid-Town Connector listed in First Priority between Route 78 and Route 1. This 2 mile link is necessary for system continuity. The estimated cost is $30,000,000. (See map #3)

ROUTE 75

Similar to above, this is a northerly extension of the Mid-Town Connector between Route I-280 and Route 21. The estimated cost for this 1.5 mile link is $15,000,000. (See map #3)

ROUTE 94

Improved traffic circulation is essential to the orderly development of the impact area of the Delaware Water Gap Recreational Area. A key link in the regional highway network is a southern by-pass of the Town of Newton. This by-pass is not intended to specifically enhance the traffic flow from the urban areas to Tocks Island, but rather to divert the region's internal thru movements away from the center of Newton, thereby permitting an orderly growth of this hub community. This project is 3 miles long and will cost $6,000,000. (See map #2)

ROUTE 284

This proposed freeway will connect proposed Route 206 Freeway at Newton to proposed Route 23 Freeway at the Town of Sussex. Although this is not a direct link in the approach roadways to the Delaware Water Gap National Recreation Area, it is considered vital to the controlled development in this portion of Sussex County which will escalate as a result of the construction of the Recreation Area. This facility will be 8.6 miles long and cost $15,500,000. (See map #2)

ROUTE 807

This north-south artery is substantially a northerly extension of Route I-95 from its intercept with Route I-287, a distance of 35 miles. The route number designation is temporary and is used to tie this project into the Wilbur Smith report. This highway will lie between Route 287 and the Garden State Parkway and will generally parallel these two facilities. The Garden State Parkway, thru Union and Essex Counties, has reached capacity and the need for an additional north-south freeway thru this urbanized area is becoming increasingly more apparent. By tying this route into Route 14 Freeway, an effective inner loop will be provided around the densely populated portions of Union, Essex and Hudson Counties. This freeway will cost $150,000,000. (See map #3)

MIDSTATE THRUWAY

This highway will connect the proposed Delaware River Bridge in the vicinity of Sea Breeze with Route 38 Freeway in the vicinity of Fort Dix, a distance of 65 miles. The present extremely crowded travel corridor connecting Washington, Baltimore, Wilmington, Philadelphia, Trenton and New York needs relief. This route would be a link in an alternate corridor crossing the Del-Mar-Va Peninsula via Dover and Annapolis. This facility would hasten the economic emergence of the Vineland-Millville-Bridgeton SMSA. Existing land use along the right-of-way is predominately agricultural at present. The estimated cost is $190,000,000. (See maps # 5 & 6)

APPENDIX 1

HIGHWAY MASTER PLAN

DUALIZATIONS - SECOND PRIORITY

ROUTE U.S. 9

Although traffic growth on Route U.S. 9 in Burlington and Ocean Counties has not been as great as it has been in the more northerly reaches of this highway, still, population and economic trends show that dualization of an additional 36 miles of this highway at an estimated cost of $15,000,000 should be accomplished within the next decade. Action before that time is essential to prevent unplanned strip growth along the edges of the highway which could only result in substantially higher costs, if this work were to be done at a later date. (See map #5)

ROUTE U.S. 30

Route U.S. 30 has been a major cross-State travel corridor from the Atlantic County shore areas to the Camden area for many generations. The portion between Elwood and Egg Harbor was dualized some years ago, but it is important to continue this improvement from Route U.S. 9 in Absecon to Route 73 in the vicinity of Berlin, at a distance of 33.2 miles, to accommodate future growth in this still largely rural portion of the State. The estimated cost of this project is $15,000,000. (See maps #5 & 6)

ROUTE 34

Between Route U.S. 9 and Route 33, Route 34 is a two-lane highway built about 35 years ago. It has been improved only at the major intersections, with occasional stretches of resurfacing on the main line highway. South of Colts Neck, the existing right-of-way is already adequate for dualization, and the entire 17.6 mile section should be dualized at an estimated cost of $13,800,000. (See map #4)

ROUTE U.S. 36

Dualization of Route 36 from Long Branch to Highland Beach, a distance of 7.4 miles, would complete a circumferential artery from the Garden State Parkway at Keyport on the north to another connection with the Garden State Parkway at Eatontown on the south. This would serve traffic destined for the State Park at Sandy Hook, the Monmouth Park Race Track, and the numerous towns, shopping centers and resorts along the route. While studies may indicate that some portions of this highway should be realigned, it is estimated that the cost of dualizing the 7.4 mile section is $11,000,000. (See map #4)

ROUTE U.S. 46

Although some of the traffic now using Route U.S. 46 in Warren County will switch to Interstate Route 80 when that highway is completed, Route U.S. 46 still will remain as the major land service highway serving this still developing area. The cost of dualizing a five-mile section of Route U.S. 46 is estimated at $3,500,000. If projects such as these are deferred beyond the maximum period of ten years, it is certain that land development will push the cost substantially higher. (See map #2)

ROUTE U.S. 49

Route 49 is now a two-lane highway in the eleven-mile section between Millville and Bridgeton. It traverses rolling country, and the growing population and land development is creating delay and congestion at most intersections and population centers. Cost of dualizing this section is estimated at $5,500,000. (See map #6)

ROUTE U.S. 70

This highway is one of the several cross-State routes, familiar to many who habitually vacation at the New Jersey shore, which suffers from extensive congestion during summer months. Traffic estimates indicate this congestion will soon reach a point where it will cause the resort area it serves to become less desirable, and will stifle normal growth along the highway. It should be dualized from the Marlton Circle on Route 73 to the Brielle Circle on Route 35, a distance of 50.3 miles, at an estimated cost of $25,000,000. This project is a striking example of work which should proceed on a planned and orderly scheduled basis in order to achieve lower costs. (See map #5)

ROUTE U.S. 206

Dualization of Route U.S. 206 from its junction with Route 27 in Princeton up to a proposed connection with the Route 92 Freeway is required during the next decade despite construction of Interstate Route 95 on a more or less parallel alignment. While Interstate Route 95 and Route 92 will carry the thru traffic, Route U.S. 206 is essential for land service purposes. There has been extensive residential growth in this area, and the natural surroundings are also attractive to new research installations, etc. This four-mile section is estimated to cost $3,000,000. (See map #4)

ROUTE U.S. 206

Route U.S. 206 is also a major traffic artery from Trenton to the Atlantic City area. It should be dualized from the proposed Hammonton By-pass in Atlantic County to the end of the existing widened portion at Chambers Corner, Burlington County, a distance of 22 miles. This project would provide important connections to the dualized Route 70, the proposed Midstate Thruway, and the proposed Route 38 Freeway. The estimated cost is $14,700,000. (See map #5)

WIDENINGS & IMPROVEMENTS - SECOND PRIORITY

ROUTE U.S. 22

A number of very busy intersections on this route between the Garden State Parkway and Somerville should be eliminated by the construction of overpasses to improve traffic flow on one of the State's major East-West land service highways. Work on this 18 mile section is estimated to cost $13,000,000. (See maps #3 & 4)

ROUTE U.S. 22

The intersection of Route U.S. 22 and County Road 523 in Hunterdon County is a typical example of an overloaded and hazardous facility. Thirty-five years ago, the solution probably would have been a traffic circle. At this time, modern design calls for an overpass at an estimated cost of $1,000,000. (See map #2)

ROUTE 23

The intersection of Route 23 with Bloomfield Avenue in Verona requires massive improvement because of heavy residential and commercial development in this area. Due to the difficult terrain and existing land use, the estimated cost is $6,000,000. (See map #3)

ROUTE 24

From Route 57 near Hackettstown to its connection with Route U.S. 22 just outside of Phillipsburg, Route 24 provides only one traffic lane in each direction. It is now and will remain the main artery for traffic crossing the State border in the Easton-Phillipsburg area destined to the northwestern resort areas of Warren, Sussex and Morris Counties, whether the traffic crosses the River on Route I-78 or Route 22. The highway should be widened to provide two lanes each way over this 19 mile section at an estimated cost of $6,000,000. (See map #2)

ROUTE 27

Route 27 is one of New Jersey's oldest highways, built soon after the State Highway System was created. As part of a continuing effort to bring its condition closer to modern standards, it should be widened for 18.4 miles from its connection with the Route 92 Freeway to Rahway at an estimated cost of $10,000,000. (See map #4)

ROUTE 27

The existing alignment and design of Route 27 through Metuchen is one of the sore spots on this highway. It should be rebuilt to provide better crossing of the mainline tracks of the Penn Central Railroad and eliminate several intersections at grade, some difficult turns, and a constricted railroad underpass. The half mile project is estimated to cost $6,000,000. (See map #4)

ROUTE 29

Route 29 has been improved over the years from Trenton north to Interstate Route 95, and is being improved south of Trenton to a connection with Interstate Route 295 and the proposed freeway to the shore. Construction of a new bridge across the Delaware River at Lambertville requires the widening of Route 29 from Lambertville back to Route 95. It is estimated the 8.1 mile project will cost $4,000,000. (See map #4)

ROUTE 29

The present location of Route 29 in Frenchtown requires travellers to go thru the town on local streets to reach Route 12. This project, 2 miles in length, would eliminate that need at a cost of $3,500,000. (See map #4)

ROUTE U.S. 40

Route U.S. 40 at present is the only direct highway from the Delaware Memorial Bridge across the southern waist of the State to the Atlantic City area. Some portions of it have been improved, but the existing two-lane facility must be widened from Interstate Route 295 at Deepwater to Route U.S. 322 at McKee City, a distance of 36 miles, because the highway will remain the major land service route in this corridor. The estimated cost is $20,000,000. (See map #6)

ROUTE U.S. 40

Although the highway itself has been improved near Deepwater, it intersection with County Road 540 presents the same problems of congestion and hazard that are seen at other overloaded crossings. An interchange is needed at an estimated cost of $2,000,000. (See map #6)

ROUTE 73

This project is a continuation of the Route 73 reconstruction listed in the First Priority. Existing County Road 561 between the Atlantic City Expressway and Route 322, a distance of 5 miles will be widened at a cost of $1,000,000. (See map #6)

ROUTE 77

Route 77 is now the main connection to the Bridgeton area from Camden and Philadelphia. It is a typical two-lane highway far below modern standards and should be widened from Route U.S. 322 in Mullica Hill in Gloucester County to Bridgeton, a distance of 22.6 miles, at an estimated cost of $8,800,000. (See map #6)

ROUTE 94

This is a continuation of the widening of Route 94 listed in the First Priority. This portion, between the Foothills Freeway and Newton, is 14 miles long and will cost an estimated $7,000,000. (See map #2)

MASTER PLAN SCHEDULING
(HIGHWAYS)

ATLANTIC COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
206 Hammonton By-Pass	4.0	$8,000,000	
		$8,000,000	
Dualizations			
0	0	0	
Widenings & Improvements			
87	--	$5,000,000	
		$5,000,000	$13,000,000
SECOND PRIORITY			
Freeways			
9	10.8	$21,500,000	
50	17.5	24,100,000	
54	3.5	6,300,000	
60	16.0	19,200,000	
		$71,100,000	
Dualizations			
30	24.7	$11,160,000	
206	4.0	2,350,000	
		$13,510,000	
Widenings & Improvements			
40	19.0	$10,550,000	
73	4.2	690,000	
		$11,240,000	$ 95,850,000
		GRAND TOTAL	$108,850,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

BERGEN COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
1 & 9	1.8	$ 18,000,000	
21	1.0	7,350,000	
208	1.4	3,500,000	
		$ 28,850,000	
Dualizations			
9W	4.0	$ 2,500,000	
20	1.8	1,000,000	
		$ 3,500,000	
Widenings & Improvements			
3	3.0	$ 8,800,000	
4	6.0	4,000,000	
4 & 17 Interchange	--	5,000,000	
4 & 208 Interchange	--	3,000,000	
17	20.0	15,000,000	
46 - Midland Ave.	--	200,000	
46	2.6	20,000,000	
		$ 56,000,000	$ 88,350,000
SECOND PRIORITY			
Freeways			
14	20.0	$120,000,000	
Dualizations			
0	0	0	
Widenings & Improvements			
0	0	0	
		$120,000,000	$120,000,000
		GRAND TOTAL	$208,350,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

BURLINGTON COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
72	19.5	$38,000,000	
90	5.1	34,000,000	
		$72,000,000	
Dualizations			
72	12.5	$6,250,000	
Widenings & Improvements			
73 Marlton Circle	--	$3,700,000	
130	10.0	3,700,000	
		$7,400,000	$85,650,000
SECOND PRIORITY			
Freeways			
38	19.5	$35,000,000	
Midstate Thruway	22.0	64,400,000	
68	8.0	10,000,000	
		$109,400,000	
Dualizations			
9	5.0	$2,100,000	
70	26.0	12,860,000	
206	21.0	12,350,000	
		$27,310,000	
Widenings & Improvements			
0	0	0	
			$136,710,000
		GRAND TOTAL	$222,360,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

CAMDEN COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
30	0.5	$ 5,000,000	
90	1.2	8,000,000	
		$13,000,000	
Dualizations			
51 Industrial Hwy.	4.0	$16,000,000	
Widenings & Improvements			
30 -- Collingswood Circle	0	$ 5,000,000	
70	0	300,000	
73	9.2	1,500,000	
130 -- Cooper River to Collingswood	0.6	2,200,000	
130 -- Airport Circle	0	3,000,000	
		$12,000,000	$41,000,000
SECOND PRIORITY			
Freeways			
Midstate Thruway	9.0	$26,400,000	
		$26,400,000	
Dualizations			
30	8.5	$ 3,840,000	
		$ 3,840,000	
Widenings & Improvements			
73	1.9	$ 310,000	$30,550,000
		GRAND TOTAL	$71,550,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

CAPE MAY COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
55	12.5	$15,400,000	
		$15,400,000	
Dualizations			
0	0	0	
Widenings & Improvements			
9	0	$ 2,900,000	
444	0	2,000,000	
Co. Rd. 29 Stone Harbor Blvd.	0	800,000	
		$ 5,700,000	$21,100,000
SECOND PRIORITY			
Freeways			
50	6.5	$ 9,500,000	
		$ 9,500,000	
Dualizations			
0	0	0	
Widenings & Improvements			
0	0	0	$ 9,500,000
		GRAND TOTAL	$30,600,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

CUMBERLAND COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
55	15.7	$21,000,000	
		$21,000,000	
Dualizations			
0	0	0	
Widenings & Improvements			
0	0	0	
		$21,000,000	$21,000,000
SECOND PRIORITY			
Freeways			
54	6.5	$11,700,000	
60	21.0	25,200,000	
Midstate Thruway	15.5	45,200,000	
		$82,100,000	
Dualizations			
49	11.0	$5,500,000	
		$5,500,000	
Widenings & Improvements			
77	10.0	$3,900,000	
		$3,900,000	$91,500,000
		GRAND TOTAL	$112,500,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

ESSEX COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
21	0.8	$14,000,000	
24	2.3	21,100,000	
75	3.0	67,700,000	
		$102,800,000	
Dualizations			
10	1.2	$ 1,400,000	
		$ 1,400,000	
Widenings & Improvements			
10	2.1	$ 900,000	
22	0.9	10,000,000	
		$10,900,000	$115,100,000
SECOND PRIORITY			
Freeways			
23	7.0	$35,000,000	
75 (Rt. 1-Rt. 78)	2.0	30,000,000	
75 (Rt. 280-Rt. 21)	1.5	15,000,000	
95 Ext. (807)	11.4	53,500,000	
		$133,500,000	
Dualizations			
0	0	0	
Widenings & Improvements			
23	--	$6,000,000	
		$6,000,000	$139,500,000

GRAND TOTAL $254,600,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

GLOUCESTER COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
55	21.5	$33,000,000	
322	23.3	35,000,000	
		$68,000,000	
Dualizations			
0	0	0	
Widenings & Improvements			
45	11.3	$9,270,000	
		$9,270,000	$77,270,000
SECOND PRIORITY			
Freeways			
40	5.0	$7,500,000	
Malaga By-Pass			
Midstate Thruway	12.0	35,000,000	
		$42,500,000	
Dualizations			
0	0	0	
Widenings & Improvements			
40	2.0	$1,100,000	
77	4.7	1,840,000	
		$2,940,000	$45,440,000
		GRAND TOTAL	$122,710,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

HUDSON COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
1 & 9	6.2	$62,000,000	
440	3.7	34,000,000	
85	3.0	140,000,000	
		$236,000,000	
Dualizations			
0	0	0	
Widenings & Improvements			
Route 1 - 12th & 14th Viaducts	0	$ 3,000,000	
7	5.0	2,000,000	
		$ 5,000,000	$241,000,000
SECOND PRIORITY			
Freeways			
0	0	0	
Dualizations			
0	0	0	
Widenings & Improvements			
0	0	0	0
		GRAND TOTAL	$241,000,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

HUNTERDON COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
0	0	0	
Dualizations			
31	19.0	$14,510,000	
202	3.0	1,500,000	
		$16,010,000	
Widenings & Improvements			
0	0	0	
			$16,010,000
SECOND PRIORITY			
Freeways			
24 Morristown-Phillipsburg	12.0	$24,000,000	
29	3.0	3,000,000	
		$27,000,000	
Dualizations			
0	0	0	
Widenings & Improvements			
22	--	$1,000,000	
29	0.8	400,000	
29 - Frenchtown	2.0	3,500,000	
		$4,900,000	
			$31,900,000
		GRAND TOTAL	$47,910,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

MERCER COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
29	4.4	$26,000,000	
37-38	4.6	9,200,000	
92	2.8	6,500,000	
174	1.5	4,500,000	
		$46,200,000	
Dualizations			
31	6.0	$ 4,650,000	
33	4.0	6,000,000	
		$10,650,000	
Widenings & Improvements			
0	0	0	$56,850,000
SECOND PRIORITY			
Freeways			
31	5.5	$12,000,000	
		$12,000,000	
Dualizations			
206	3.0	$ 2,250,000	
		$ 2,250,000	
Widenings & Improvements			
29	7.3	$ 3,600,000	
		$ 3,600,000	$17,850,000
		GRAND TOTAL	$74,700,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

MIDDLESEX COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
18	8.5	$ 42,100,000	
74-9	9.5	32,000,000	
92	7.8	18,150,000	
440	3.8	21,600,000	
		$113,850,000	
Dualizations			
9	4.7	$ 2,400,000	
		$ 2,400,000	
Widenings & Improvements			
1 - Pierson Ave. - Rt. 278	6.5	$ 22,000,000	
1 - Grade Sep. at Rt. 130	-	4,000,000	
9 - Ramp at Rt. 35	-	6,000,000	
		$ 32,000,000	$148,250,000
SECOND PRIORITY			
Freeways			
74	3.5	$ 6,800,000	
95 Ext. (807)	5.4	23,000,000	
Garden State Thruway	13.0	39,000,000	
		$ 68,800,000	
Dualizations			
34	2.9	$ 2,300,000	
		$ 2,300,000	

Route	Mileage	Cost	Total Cost
Widenings & Improvements (cont'd.)			
27	11.0	$ 6,000,000	
27 - Metuchen	0.5	6,000,000	
		$ 12,000,000	$ 83,100,000
		GRAND TOTAL	$231,350,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

MONMOUTH COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
18	16.6	$21,800,000	
33	7.0	9,000,000	
35	6.8	11,000,000	
37-38	20.2	36,400,000	
		$78,200,000	
Dualizations			
9	8.2	$ 4,100,000	
33	4.5	6,000,000	
35- (Rt. 34 to Rt. 38)	4.7	2,500,000	
35- (Rt. 66 to Rt. 36)	4.8	6,500,000	
35- (Sylvania Ave. to Rt. 66)	2.4	4,000,000	
38	4.0	3,500,000	
66	2.5	1,500,000	
		$28,100,000	
Widenings & Improvements			
33- (Collingwood Circle)	0	$ 4,000,000	
35	0.6	2,000,000	
		$ 6,000,000	$112,300,000
SECOND PRIORITY			
Freeways			
Garden State Thruway	11.5	$34,500,000	
		$34,500,000	

MASTER PLAN SCHEDULING
(HIGHWAYS)

MONMOUTH COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
18	16.6	$21,800,000	
33	7.0	9,000,000	
35	6.8	11,000,000	
37-38	20.2	36,400,000	
		$78,200,000	
Dualizations			
9	8.2	$ 4,100,000	
33	4.5	6,000,000	
35- (Rt. 34 to Rt. 38)	4.7	2,500,000	
35- (Rt. 66 to Rt. 36)	4.8	6,500,000	
35- (Sylvania Ave. to Rt. 66)	2.4	4,000,000	
38	4.0	3,500,000	
66	2.5	1,500,000	
		$28,100,000	
Widenings & Improvements			
33- (Collingwood Circle)	0	$ 4,000,000	
35	0.6	2,000,000	
		$ 6,000,000	$112,300,000
SECOND PRIORITY			
Freeways			
Garden State Thruway	11.5	$34,500,000	
		$34,500,000	

Monmouth County (cont'd.)

Route	Mileage	Cost	Total Cost
Dualizations			
34	14.7	$11,500,000	
36	7.4	11,000,000	
70	3.3	1,640,000	
		$24,140,000	
Widenings & Improvements			
0	0	0	$ 58,640,000
		GRAND TOTAL	$170,940,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

MORRIS COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
15	3.0	$ 6,000,000	
24	12.0	54,900,000	
24-46 Connector	0.8	1,700,000	
178	2.5	9,000,000	
206	2.0	6,000,000	
		$77,600,000	
Dualizations			
10	7.8	$ 4,600,000	
206	10.0	7,600,000	
		$12,200,000	
Widenings & Improvements			
23	3.5	$ 2,000,000	
46 - Baldwin Ave.	-	900,000	
46 - Denville - Parsippany	6.0	5,000,000	
		$ 7,900,000	$97,700,000
SECOND PRIORITY			
Freeways			
14	0.5	$ 3,000,000	
24 - Morristown - Phillipsburg	15.0	30,000,000	
95 Ext. (807)	9.8	42,000,000	
		$75,000,000	
Dualizations			
0	0	0	
Widenings & Improvements			
0	0	0	$ 75,000,000
		GRAND TOTAL	$172,700,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

OCEAN COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
37 - 38	10.2	$20,400,000	
		$20,400,000	
Dualizations			
9	7.8	$3,900,000	
37	6.5	3,000,000	
37 Barnegat Bay Bridge	1.5	5,000,000	
72	9.5	4,750,000	
		$16,650,000	
Widenings & Improvements			
88	8.5	$5,000,000	
		$5,000,000	$42,050,000
SECOND PRIORITY			
Freeways			
Garden State Thruway	15.5	$46,500,000	
38	14.0	25,000,000	
		$71,500,000	
Dualizations			
9	31.0	$12,900,000	
70	21.0	10,500,000	
		$23,400,000	
Widenings & Improvements			
0	0	0	
			$94,900,000
		GRAND TOTAL	$136,950,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

PASSAIC COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
20	3.2	$ 44,300,000	
21	2.6	18,950,000	
208	9.1	22,500,000	
		$ 85,750,000	
Dualizations			
0	0	0	
Widenings & Improvements			
3	5.0	$ 5,000,000	
23	3.0	4,500,000	
		$ 9,500,000	$ 95,250,000
SECOND PRIORITY			
Freeways			
14	4.5	$ 27,000,000	
23	1.0	5,000,000	
95 Ext.	2.1	9,000,000	
(807)		$ 41,000,000	
Dualizations			
0	0	0	
Widenings & Improvements			
0	0	0	$ 41,000,000
		GRAND TOTAL	$136,250,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

SALEM COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
40 Woodstown By-Pass	4.0	$4,000,000	
55	0.3	600,000	
		$4,600,000	
Dualizations			
0	0	0	
Widenings & Improvements			
45	14.3	$6,130,000	
		$6,130,000	$10,730,000
SECOND PRIORITY			
Freeways			
60	18.0	$21,600,000	
Midstate Thruway	6.5	19,000,000	
		$40,600,000	
Dualizations			
0	0	0	
Widenings & Improvements			
40	15.0	$8,350,000	
40	-	2,000,000	
77	7.9	3,060,000	
		$13,410,000	$54,010,000
		GRAND TOTAL	$64,740,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

SOMERSET COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
18	0.3	$ 1,600,000	
92	3.6	8,350,000	
		$ 9,950,000	
Dualizations			
206	16.6	$12,500,000	
		$12,500,000	
Widenings & Improvements			
28 - Somerville Circle	--	$ 5,000,000	
206 - Belle Mead	--	3,500,000	
		$ 8,500,000	$30,950,000
SECOND PRIORITY			
Freeways			
92 Ext. (807)	6.1	$20,500,000	
		$20,500,000	
Dualizations			
206	1.0	$ 750,000	
		$ 750,000	
Widenings & Improvements			
22	7.0	$ 5,000,000	
27	7.4	4,000,000	
		$ 9,000,000	$30,250,000
		GRAND TOTAL	$61,200,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

SUSSEX COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
15	8.0	$16,000,000	
23	22.0	55,000,000	
206 (Newton By-Pass)	6.9	10,500,000	
Foothills Freeway	24.0	48,000,000	
		$129,500,000	
Dualizations			
206	16.0	$9,200,000	
		$9,200,000	
Widenings & Improvements			
0	0	0	
			$138,700,000
SECOND PRIORITY			
Freeways			
94	3.0	$6,000,000	
284	8.6	15,500,000	
		$21,500,000	
Dualizations			
0	0	0	
Widenings & Improvements			
94	7.5	$3,750,000	
		$3,750,000	$25,250,000
		GRAND TOTAL	$163,950,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

UNION COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
81	3.0	$35,000,000	
		$35,000,000	
Dualizations			
0	0	0	
Widenings & Improvements			
1 - Pierson Avenue - Route 278	3.9	$13,000,000	
		$13,000,000	$48,000,000
SECOND PRIORITY			
Freeways			
95 Ext. (807)	0.3	$2,000,000	
		$2,000,000	
Dualizations			
0	0	0	
Widenings & Improvements			
22	11.0	$8,000,000	
		$8,000,000	$10,000,000
		GRAND TOTAL	$58,000,000

MASTER PLAN SCHEDULING
(HIGHWAYS)

WARREN COUNTY

Route	Mileage	Cost	Total Cost
FIRST PRIORITY			
Freeways			
24-46 Connector	0.4	$800,000	
31	7.0	14,000,000	
Foothills Freeway	10.0	20,000,000	
		$34,800,000	
Dualizations			
31	9.0	$6,840,000	
		$6,840,000	
Widenings & Improvements			
94 Columbia to Foothills Fwy.	7.0	$3,500,000	
		$3,500,000	$45,140,000
SECOND PRIORITY			
Freeways			
24 Morristown-Phillipsburg	7.0	$14,000,000	
		$14,000,000	
Dualizations			
46	5.0	$3,500,000	
		$3,500,000	
Widenings & Improvements			
24	19.0	$6,000,000	
94	6.5	3,250,000	
		$9,250,000	$26,750,000
		GRAND TOTAL	$71,890,000

CAPITAL IMPROVEMENT PROGRAM
SUBURBAN COMMUTER RAILROADS

CENTRAL RAILROAD COMPANY OF NEW JERSEY	
Stations, Platforms and Parking	$ 1.4
Electrification	12.0
Electric MU Equipment	15.0
Connections (LV-PC at Hunter Tower and CNJ-LV at Aldene)	3.0
Station Ticket Validation	0.7
TOTAL	$ 32.1
NEW YORK & LONG BRANCH RAILROAD	
Electrification, Phase I	$ 8.2
Electric MU Equipment	11.0
Track & Yard Work, Phase I	2.2
Stations, Platforms and Parking Phase I	3.0
Electrification Phase II	12.0
Track and Yard Work, Phase II	1.0
Stations, Platforms and Parking Phase II	1.8
Station Ticket Validation	5.6
TOTAL	$ 44.8

PENN CENTRAL		
Electric MU Equipment		$ 21.0
Stations, Platforms & Parking		4.1
Station Ticket Validation		1.0
		$ 26.1
ERIE LACKAWANNA RAILROAD		
Diesel Locomotives and Cars		$ 22.7
Montclair Connection		3.2
EL-PC Connection		6.0
Secaucus Transfer Station		0.5
Stations and Parking		2.2
Electrification Extension and Renovation		20.0
Electric MU Equipment		37.5
Platforms		9.7
Station Ticket Validation		3.2
	TOTAL	$105.0
GRADE CROSSING ELIMINATION		$ 92.0

UNASSIGNED CAPITAL IMPROVEMENTS	
Electric MU Equipment	
Park and Ride Facilities	
Maintenance Facilities	
Additional Station Facilities	
Track and Signal Work	
	$ 25.0
GRAND TOTAL	$325.0

(All amounts in millions)

1968 TRANSPORTATION MASTER PLAN

STATE OF NEW JERSEY

PREPARED BY
NEW JERSEY DEPARTMENT OF TRANSPORTATION
DIVISION OF PLANNING

LEGEND

- 1st PRIORITY
- 2nd PRIORITY
- FREEWAYS
- DUALIZATION
- WIDENING
- IMPROVEMENTS
- FEDERAL AID INTERSTATE ROUTES
- ROUTES UNDER CONSTRUCTION
- COMMUTER LINES
- IMPROVED SUBURBAN R.R.
- OTHER EXIST. SUB. R.R.

MAP SCALE 0 4 8 12 16 MILES
INSET SCALE 0 2 4 6 8 MILES

BERGEN
PASSAIC
ESSEX
HUDSON
UNION
MIDDLESEX
MONMOUTH
OCEAN
MORRIS
SUSSEX
WARREN
HUNTERDON
SOMERSET
CAMDEN
GLOUCESTER
SALEM
BURLINGTON
ATLANTIC
CUMBERLAND
CAPE MAY
MANHATTAN
STATEN ISLAND
BROOKLYN
UPPER NEW YORK BAY
RARITAN BAY
DELAWARE BAY
DELAWARE RIVER
HACKENSACK RIVER
PASSAIC RIVER
HUDSON RIVER
EAST RIVER
NEWARK BAY
KILL VAN KULL
ARTHUR KILL
PALISADES INTERSTATE PARKWAY
GARDEN STATE PARKWAY
NEW JERSEY TURNPIKE
LINCOLN TUNNEL
HOLLAND TUNNEL
ATLANTIC CITY EXPRESSWAY
DRPA
P.R.S.L.
PENN CENTRAL
NEW JERSEY & N.Y. R.R.
N.Y. & L.B. R.R.
E.L. R.R.
C.R.R. N.J.
READING

Printed and published March, 1968, by the Division of Central Services, New Jersey Department of Transportation, 1035 Parkway Avenue, Trenton, New Jersey, 08625.

Page 1 cartoon by Wm. Canfield reproduced with permission of the Newark Evening News.