

Accomplishments and Objectives of the Indiana State Highway Department

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It is always dangerous to review in retrospect what has happened or has been accomplished unless such a review leads to constructive and clearer thinking in planning for the future.

It is with this thought in mind that I would like to briefly relate a little of the past: 1. As it has affected us up to this time; 2. Some of our current problems; 3. What the future can hold for us in the execution of our responsibilities to the public as highway officials.

While my discussions will primarily center around the activities of the State Highway Department, many of the things which I have to say will have equal application at local levels of government and the need for cooperation at all levels of government was never more important than it is today.

At the inception of the original Federal Aid Act in 1916 it was indicated that federal aid to good roads would accomplish several of the objectives indicated by the framers of the Constitution: "Establish post roads, regulate commerce, provide for the common defense and promote the general welfare."

This act came about thru the realization that uniform improvements throughout the nation must be undertaken in a large way and not reduced to small, haphazard construction, as had been the situation prior thereto, if we were to cope with the use of the automobile as an instrument to an expanding economy that was beginning to make itself apparent that far back.

It is equally important today that we not only have a uniform national system as is provided for in the Federal Aid Act of 1956, in which the Interstate System was projected, but that we must have similar uniformity within our state as to the design and development of our state road systems, and that these systems must be fully inte-

grated with our highway transportation facilities within our counties and cities. We must look upon the over-all highway system much like the development of a tree, comparing our Interstate System to the trunk of that tree; our Primary System to the major limbs or branches; our Secondary System, both state and county and our arterial street system, as the important branches to each of the major limbs of the tree; and on down to the smaller branches and twigs as comprising the vast mileage of local road and street needs. The tree cannot live without those smaller branches and neither can our economy prosper without a fully integrated system of highway transportation.

In the early days we worked to get out of the mud so-to-speak. In other words, to develop our lines of communication between our larger centers of population. But as these developed the importance of the shorter routes have become more and more apparent. Our farm-to-market roads, wherein our produce can readily be transported to an ever increasing market and our manufactured goods delivered to our consumers throughout the state, are vital to our increasing economy.

Our great influx of population to the larger cities has multiplied our problems of urban transportation and the importance of good transportation facilities from home-to-work have become of greater demand. It is estimated that in 1960 seven out of every ten Americans were urban dwellers. The economic and other control trends indicate that by 1975, the year for which the Interstate System is being designed, seven out of every eight Americans will be urban dwellers. The consolidation of our school systems makes local transportation of increasing importance and the need for long-range planning, as a co-operative effort, is every day becoming more necessary and more important.

The first State Road System of Indiana comprised, I believe, approximately 4,000 miles, and as our needs have grown this has expanded to approximately 11,000 miles on the State Road System today. The Department of Commerce shows for 1959, that there are a total of 101,424 miles of public highways in Indiana.

Financing of the improvements of the State Road System, as well as that of the counties and the city streets, became a major problem and is even greater today. The advent of the gasoline tax came into being in the early 1920s. The first gasoline tax in Indiana was in 1923 wherein a tax of 2 cents per gallon was enacted. This was followed by an increase to 3 cents per gallon in 1925 and 4 cents per gallon in 1929. This tax remained constant until the recent increase to 6 cents in 1957.

The federal government came into the field of gasoline taxes in order to implement federal finances for highway improvement purposes. The first federal gasoline tax was enacted in 1932 in the amount of 1 cent per gallon. These moneys were placed in the General Fund of the United States Treasury. In 1939 this tax was increased to 1½ cents per gallon. In 1951 the tax was increased to 2 cents per gallon and in 1956 it was increased to 3 cents per gallon and for the first time placed in an operating fund, as provided for in the Highway Act of 1956, known as the Highway Trust Fund. In 1959 the tax was increased to 4 cents per gallon.

It was in 1923 that the state of Indiana passed legislation that established the State Highway Fund. Along with these enactments came pressure on the part of the counties and cities for participation in the funds obtained from the automobile license fees and the gasoline tax. Legislation in this regard was first enacted in 1923, involving county participation, and later, in 1925, included the cities. At that time the apportionment was $\frac{2}{3}$ to the State Highway Department and $\frac{1}{3}$ to the counties and towns. In 1932 the legislature established the Motor Vehicle Fund in place of the State Highway Fund and it has remained as such to this time. As of the present time 53 per cent of the state taxes collected as automobile license fees and gasoline taxes are allocated to the State Highway Department, 15 per cent to the cities, and 32 per cent to the counties. The present ratio of apportionment was not established until the early 1940s.

Until the spring of 1957 the gasoline tax in Indiana was limited to 4 cents per gallon. The State Highway Department's share of this tax was not providing adequate funds with which to match the federal allocations to Indiana and at the same time carry on maintenance operations, administration, and other expenditures that were not eligible for federal participation.

As a result, when the increase in the gasoline tax to 6 cents per gallon, was made by the legislature in the spring of 1957, the State Highway Department of Indiana found itself with some \$39 million of available federal funds that it had not been able to match. During the past four years the State Highway Department has endeavored to match this backlog of federal funds, with the result that by the middle of this year we expect to be completely current in the encumbrance of all federal moneys available to us as of June 30, 1961, including all available federal interstate financing. We also expect to be badly in need of additional funds to keep pace with the ever increasing improvement needs of the highway system.

However, in doing this the department did not get off to as fast a start as some states in the construction of the Interstate System. Here I must digress for a word of explanation.

The 1956 Federal Aid Highway Act provided for the completion of the Interstate System by 1972, and allocated money for that purpose for completion over a 15-year period, such allocation being on a yearly basis. This cost, however, was predicated upon an estimate made in 1955, before the standards were fully adopted for this system, and based upon an estimate of federal funds of approximately \$25 billion. A new estimate of the cost of this system in 1958, and again in 1960, these two estimates being approximately the same, increased the federal requirement to approximately \$37 billion.

There were good reasons for this increase. For example, the cost index rose about 12 per cent between 1954 and 1958; the standards of design for the system were more fully known; additional grade separations were added of necessity because of the full limited access requirements; the 1956 Federal Aid Act required equal consideration to be given to connections to communities and areas along the routes of the Interstate System, insofar as practical, thus involving a greater number of interchanges and access roads; the addition of 1,000 miles made in the 1958 act, to the Interstate System, were added to the cost, making a total national system of 41,000 miles; and other miscellaneous items were added which could be better evaluated than had been done in the six weeks time allotted for the original estimate that was submitted in 1955.

Title 2 of the 1956 Federal Aid Act provided that the gasoline tax on the part of the federal government, and certain taxes on trucks and tires, should be deposited in a fund known as the Highway Trust Fund. However, the so-called Byrd amendment made to the 1956 act in the closing days of its passage, provided a pay-as-you-go requirement, wherein the federal government could not allocate to the states for any succeeding year more money than the Department of Commerce and the Treasury Department estimated would be deposited in that fund for such succeeding year.

Therefore, with the increased costs, the initiation of a crash program in 1958 of \$400 million, for which additional funds were not provided in the Trust Fund, and other circumstances, brought about a draw-down on the Trust Fund requiring that a program of so-called "contract control" or "reimbursement planning" had to be initiated in the latter half of 1959. In this program the states were limited in the

encumbrances of federal funds to that amount which the federal government estimated could be encumbered in each quarter of the year and expect to have moneys available in the Trust Fund to meet the obligations when they became due. This control is still in effect. It is hoped that the Congress, now in session, will take such action on additional finances for the Federal-Aid System as to eliminate this control at the earliest possible date.

In the meantime, because of the attention to the backlog of federal funds for the ABC System of some \$39 million, as I previously mentioned, and the fact that the interstate program did not get off to quite as rapid a start in Indiana as some other states, we have today some \$75 million of Federal Interstate funds that are frozen. But we will be in a position to use and to match them as rapidly as they are made available thru further action of the Congress. A majority of the states find themselves in a similar situation to a more or less degree.

The accomplishment of the department since the increase in the gasoline tax in 1957, has meant an increase in the state highway program of some $3\frac{1}{2}$ to 4 times, in dollar value, that accomplished in any previous similar period. This has been done with practically no appreciable expansion of Highway Department personnel, only about 5 per cent, and has taxed the personnel of the department materially beyond reasonable individual assignments.

The cost of highway maintenance and the needs thereof have expanded continuously. As an example, our expenditures for maintenance for 1960 amounts to approximately \$18,544,000. Compare this to the maintenance budget for 1940 which amounted to \$4,500,000. The tentative maintenance budget for 1961 is approximately \$20,120,000. In 1960 our expenditures included for maintenance the following work and approximate amounts over and above routine maintenance operations:

Surface Treatment	481.12	miles
Sealing	789.744	miles
Bituminous Concrete resurface	467.383	miles
Roadside Spraying	1,612.29	miles
Bridges Widened	187	bridges
Bridges Painted	99	bridges

The total construction program during 1960, including contracts awarded, engineering, and right-of-way, amounted to approximately \$124 million. This included approximately 600 miles of highway construction in all categories and 209 bridges.

Of the road contracts awarded there were 418 miles of resurfacing, costing about \$12,740,000; approximately 27 miles of county federal-aid secondary roads costing approximately \$561,700; and approximately 40 miles on the Interstate System totaling better than \$18 million.

Bridge contracts awarded totaled \$40,007,643, of which 77 were on the Interstate System, accounting for approximately half of this amount.

As a further example of the expanding requirements of the department, over 28,000 test samples were processed through the Division of Materials and Tests in 1960, which was an increase of approximately 100 per cent over 1959. I will touch on that further a little later.

The Traffic Division, as a result of a program implemented in 1958, has placed new standard traffic signs on about 2,725 miles of state roads. In addition, signing contracts were awarded on 64 miles of interstate highway at a cost of approximately \$291,500. We expect to continue our re-signing program of the regular systems during 1961 and to continue until the system has been completely overhauled.

In 1958 the need for expansion of the activities of traffic control and of planning led to the separation of these two functions into separate divisions with five sections in the Traffic Division, namely, traffic design, traffic regulations, traffic survey, traffic signals, and railroad signals.

Similarly, the Planning Division was expanded to include highway planning, system planning, metropolitan survey studies, fiscal and economic research, and mapping and graphic design.

The full development of both of these divisions has not been realized because of lack of adequate space and trained personnel. We now have the necessary space as a result of moving into the new State Office Building, but we are still lacking in adequate personnel to handle the full assignment of work that should be going forth in these divisions. We anticipate that further expansion of these divisions will continue.

Because of the expanding program and the fact that our force of engineers and engineering aides have only increased about 5 per cent it has been necessary for the department to make use of consulting engineers for the greater portion of the design of the Interstate System. The supervision of construction, however, has been entirely handled with our own forces.

Photogrammetry and electronic computing have been of great assistance, however, in preliminary engineering.

Probably the greatest single problem facing the State Highway Department today, as well as the departments in the majority of other states, is that of finances. The continuation of the expanded highway program is essential to the continued expansion of the national economy, including that of our own state. This, without a doubt, is a year of decision insofar as federal finances is concerned, and a year of decision as to whether we are to have a continuing uniform program for the next ten or twelve years or one of peaks and valleys, with its disastrous effects on the economy and the entire highway industry.

In 1956 the Congress passed the Federal Aid Highway Act of that date, in which it set out to assist in the financing of the 41,000-mile Interstate System, together with an expansion of the Primary, Secondary, and Urban System to keep pace in what was to be a uniform program throughout a 15-year period. This act came about in 1956 as a result of increasing evidence on all sides that the highway improvement program was not keeping pace with the rapid increase in needs and that because we have our economy geared to transportation, the lack of good transportation facilities was definitely creating an adverse effect upon the over-all economy. I am sure that we in Indiana appreciate this situation as much as any of the other states.

As a result, the highway improvement program became "big business" as compared to its previous activities. As such it drew the attention of many individuals and organizations who previously had not shown an appreciable interest in highway transportation. Unfortunately some of these interests have found occasion to take an adverse attitude towards the program, stating among other things that it is costing too much, it is over designed, it is not being efficiently managed, highway departments are lacking in understanding and knowledge of local requirements, and other similar charges, as well as a charge of misdoing in certain instances.

I am sure that none of us condone in any way those wrong doings of certain highway officials, engineers and contractors, as have been widely publicized as a result of the Blatnik Committee investigations. But people being human beings subject to occasional lapses of strong character, from which the highway industry is not exempt, we may expect that occasionally a wrong doing will develop. This is not to say that we should not be on guard at all times to see that such things do not happen. It should also be pointed out that those matters which have been exposed, and I trust that all of them have or will be, amount to only a small percentage, less than 1 per cent, of the total program,

and in each case wrong doing has been righted and properly dealt with. In practically all cases these matters were discovered through the co-operative efforts of the Highway Departments and Bureau of Public Roads prior to the publicity given them through the Blatnik Committee.

Further than that, as I mentioned earlier, the financing has been thrown out of balance as a result of the demands upon the Trust Fund which were not in accordance with the original undertaking in 1956. A program cannot develop efficiently if it must be accompanied by starts and stops. Neither can we afford to permit the program to be slowed down or stretched out at this time. The completion of the Interstate System by 1972 is vital to the economy of Indiana, as well as the improvements of the so-called ABC System, namely, Primary, Secondary, and Urban connections, to the full extent anticipated by the 1956 Federal Aid Act.

It is therefore the problem of all of us to assist in enlightening the public, who in turn will assist us in impressing upon the Congress the importance of action at this time that will insure the continuity of the program on a uniform basis and its completion within the previously prescribed time.

The motor vehicle registration in Indiana passed the two million mark last year. By 1976 it is estimated that this registration will have increased to approximately 2,973,000 vehicles. This is an increase of nearly 50 per cent and we need only to drive the highways today to realize what it would mean if our improvements and expansion of the highway system did not keep pace with the increase in traffic during the next several years. It must be continually brought out that approximately 1/7 of our gross national product comes from highways and related industry and that our economy and way of life is so closely oriented around the motor vehicle that adequate and safe highways are a must.

It has been said many times that an Interstate System alone, when completed, will annually save 4,000 lives, reduce personal injury by 150,000 and cut economic loss by \$2.1 billion, and, while comprising only about 1.25 per cent of our total highway mileage, it will carry about 20 per cent of our total travel. This applies similarly to Indiana as a state.

Under the present allocation method, wherein the federal appropriation of Interstate funds is allocated to the states in the ratio that the estimated cost of the system in each state bears to the total estimated cost of the system for the nation, Indiana's approximate factor is $2\frac{1}{2}$

per cent or about 1/40 of the annual allocation of federal funds for the Interstate System. If we apply this to the aforementioned national figures we can realize a saving in Indiana, in economic loss of over \$52 million per year, not to mention the saving in lives and personal injuries. Certainly this is well worth the investment that will be occasioned on our part, both from the standpoint of state finances and our share of federal finances. Likewise, we lose sight of the relative cost in many instances.

Actually only a small part of the cost of owning and operating an automobile goes into building and maintaining highways. It has been estimated on a national basis that this amount averages about 12 per cent. Repairs and insurance on our cars take up a much greater part of such cost. As was once said by the late Thomas H. McDonald, former Commissioner of the Bureau of Public Roads, "we pay for good roads whether we have them or not."

In designing the Interstate System for 1975 traffic we are doing so with every reason to anticipate that there will be at least 50 per cent more motor vehicles in operation than are now. If the system is completed simultaneously in all the states, as it must be done, it is apparent that any stretch-out in the program will find us with an overloaded system by the time it is open to traffic.

The Indiana State Highway Department, by careful and efficient handling of its resources can now match the necessary federal financing to keep the highway program on a uniform basis and to complete it within the specified time. However, if this is not done then it will be necessary for the state to spend a greater portion of its finances in betterments and maintenance that must be financed with 100 percent State funds; thus, our finances will be dissipated and we will not realize the most efficient use of the funds that the state of Indiana has considered essential to its future safety and economic development and has so wisely provided thru our state legislature.

The Department of Commerce release of May 22, 1960, shows a total registration for Indiana for 1958 of 1,914,500 vehicles; for 1959 it shows 1,982,609—an increase of 3.6 percent, as compared to the national average of 4.3 percent. The estimated registration, released from the same source September 25, 1960, shows Indiana to have a registration of 2,038,000 vehicles in 1960, an increase of 2.8 percent over the previous year, and compared to the estimated national average of 3.3 percent. Incidentally, Indiana becomes the tenth state in a total of ten, comprising 54 percent of the total registration in the United States. This is but indicative of the gradual increase in motor vehicle

registrations that has been taking place in Indiana since World War II, and its importance in the national economy.

It is no wonder then that we are concerned with the development of a consistent and uniform program whereby the Highway Department, as well as local governmental agencies, can plan ahead and with assurance develop a four to five year program. One that can be executed without undue starts and stops and of sufficient volume to insure the maintenance of an adequate transportation system in line with the increasing economy of this state.

To give you some idea of the extent of finances that Indiana has at its disposal, the current state funds for new construction in each of the years of the 1959-61 biennium have amounted to approximately \$32,000,000, after making allowances for fixed charges, administration and ordinary maintenance expenses, and a rather extensive resurfacing program. The allocation of funds by the Bureau of Public Roads, made June 10, 1960, for fiscal 1961, was based upon a national total of \$2 billion for Interstate and \$873,613,000 for ABC roads. Indiana's share of these funds was \$20,192,000 for ABC and \$53,669,000 for the Interstate System, totaling \$73,861,000.

However, "reimbursement planning" has been in effect all thru 1960 and still is in effect. This permitted the obligation of federal funds on the part of Indiana of only \$18,465,000 per quarter. Anticipated returns to the Highway Trust Fund for the latter part of 1960 permitted the Bureau of Public Roads to authorize us to obligate the first two quarters of the 1961 fiscal year beginning July 1, 1960, during the first three months of this fiscal year, and in December, 1960, we were permitted to encumber the third quarter allotment of \$18,465,000. You recall that in the latter part of January the President authorized the release of the fourth quarter allotment for the 1961 fiscal year, of a like amount as above stated. These various releases, however, did not add any additional federal funds above that which was originally authorized by the 1959 Federal Aid Highway Act.

On June 27, 1960, with "reimbursement planning" still in effect, the Bureau of Public Roads announced that the apportionment for 1962 would be \$2.2 billion and under date of July 26, 1960, an apportionment of \$2,893,750,000 was made nationally, including the aforementioned \$2.2 billion. This amounted to \$11.4 billion total federal moneys authorized for the Interstate System during the first six years of its operation.

The apportionment for 1962 had withheld from it 25 percent of the ABC funds, for which a total of \$925 million had been included in the Federal-Aid Act of 1959, until the 1960 census figures were avail-

able. As many of you know, the apportionment of Primary and Secondary funds to the states is based upon a formula, $\frac{1}{3}$ of which is the ratio that the population of each state bears to the total population of the United States.

Further, the allotments are made on the basis of 45 percent for Primary federal-aid construction, 30 percent for Secondary and 25 percent for Urban connections, or as we usually refer to it, the Urban fund.

For fiscal 1962, Indiana has now apportioned to it \$20,010,553 for the ABC System, including the 25 percent, which has now been released upon receipt of the 1960 census figures. This is the fund which must be matched 50-50. In this apportionment to Indiana there is \$6,728,628 for the Federal-Aid Secondary System.

Half of each year's Secondary apportionment is allotted to the County Federal-Aid Secondary System by a state formula that apportions these funds amongst the 92 counties. The counties are given a year to encumber these funds, after which the balance reverts to the State Highway Department to be used on the state Secondary System. The reason for setting a time limit in which the counties are required to encumber their apportionments, is in order that any apportionments, not encumbered, can still be taken up by the State Highway Department so they will not be lost. We have never lost any federal funds, but the regulations provide that these funds expire two years after the year for which they are apportioned unless they are encumbered prior to that time.

In addition to the above, Indiana was allotted \$62,456,625 for the Interstate System. This amount of money ranks 11th in the amounts allocated to all the states. Therefore the program for fiscal 1962 amounts to \$82,467,178, including the County Federal-Aid Secondary.

We expect to be current by the middle of the year on all federal-aid allotments that are now available to Indiana, and our announced program of lettings, up to and including the one in July, covers all of these available funds.

The 1962 apportionments become available for use July 1, 1961, and these will be all encumbered in the yearly schedule, beginning July 1, 1961, insofar as Primary and Urban funds are concerned, as well as available Interstate moneys. Keeping in mind that, as I previously mentioned, there is a certain amount of money frozen at the present time because of "reimbursement planning" and the county allocation of Secondary funds previously mentioned.

From these figures it can be deduced that by using all available state finances on a matching basis, after allowing a reasonable amount

for certain items that are not eligible for federal aid and that must be carried on each year as betterments to the system, we can anticipate a program for the coming year of approximately \$120 to \$125 million. However, unless additional financing is provided this year by the Congress, the Interstate allocation to be made in August of this year, for fiscal 1963, will probably be cut to about \$1.7 or \$1.8 billion instead of \$2.2 billion.

The recent appropriation act passed by the 1961 legislature of Indiana provides \$41,125,603 for fiscal 1961-62 for construction services and a slightly greater amount for fiscal 1962-63. All of these figures include expenditures for construction, right-of-way, and engineering.

As of January 1, 1960, and based upon the revised estimate for the construction of the Interstate System as prepared last year and submitted as a part of the report made to the Congress in January of this year on the total cost of completing the Interstate System and taking into account those moneys already allocated to Indiana, it is estimated that there will be approximately \$693 million yet needed to complete the Interstate System in this state. The total estimated cost, not including any contracts awarded after January 1, 1960, was approximately \$849 million.

It can therefore be readily seen that for the next ten-year period Indiana's allocation should amount to between \$75 and \$80 million per year for Interstate, assuming there are no unforeseen increases either in the cost index or in unforeseen costs of construction not included in the estimate.

The apportionment of Interstate funds under the provisions of the 1956 act are to be made on the basis of the ratio that the estimated cost for the completion of the system, made by each state, bears to the total cost for the nation. This applies to the allocations for 1963, 1964, 1965 and 1966, after which a new estimate will be submitted and used on the same basis. Indiana's share on such a formula will be approximately $2\frac{1}{2}$ percent of the total federal Interstate allocation. This means that for every \$100 million added or subtracted from the national allocation, Indiana will be affected to the extent of approximately \$2.5 million. You can see, therefore, that we are greatly interested in seeing the Congress set up the available funds on a uniform basis for the next ten or 11 years of the program. So on that basis the Congress should add another \$600 million to \$800 million per year.

Now a little about the objectives for the future other than that which I have already covered:

As to construction, it is, first of all, our intention to keep current on all matching of federal funds both on the ABC System and on the Interstate System. We anticipate giving greater emphasis to the Interstate System and particularly to the development of the Interstate in urban areas where we appreciate that progress cannot be as rapid as in those areas of a rural nature. It is hoped that we can develop the program at the rate of approximately 100 miles per year of Interstate, or its equivalent in the more expensive urban areas, finances permitting.

It is the desire of the department to develop a better maintenance control and uniformity throughout the six districts and to continue the programs of resurfacing and sealing in order that the existing plant and investment therein will be properly maintained. In conjunction with this, we are now at the point where we must develop, somewhat on a separate basis but still under the jurisdiction of the maintenance organization as now existing, adequate facilities for maintaining the Interstate System as additional mileage is opened to traffic.

We plan to develop the necessary routine to facilitate payment of progress estimates on all construction projects, having in mind a normal payment period of 15 days after submission of estimate. Likewise, we hope to expedite the clearance of final estimates, but these, of course, take a little longer because of the added paper work involved.

We hope to improve upon the inventory control of our equipment and supplies and to further develop the operation of a perpetual inventory in all stock room facilities.

In the Traffic Division it is our desire to develop closer cooperation with the Road Design Department in all matters pertaining to the elimination of traffic hazards and the improvement of safety on the highways. In this connection, we also have in mind the expansion of a section of the Traffic Division having to do with accident studies to determine the cause of accidents and the corrections that should be made to eliminate their re-occurrence.

It is the desire of the department to continue the re-signing program in order that the entire state system can be modernized as rapidly as possible in the over-all signing. Probably no other item of our operations has received more favorable attention than those routes on which re-signing has been accomplished. Also, from the standpoint of safety and elimination of traffic hazards it is the intention to continue the small bridge widening program and other corrective measures involving potential hazards. To this also should be added our interest and desire to continue our shoulder improvement program along existing highways. From the standpoint of safety it is also our desire to initiate a safety

program of greater magnitude for personnel within the Highway Department.

By being able to program and plan our construction in advance we should then be able to develop right-of-way plans so that greater lead time can be had by the Right-of-Way Division in clearing rights-of-way for new projects. To this end of the Right-of-Way Division is gearing and organizing itself so it can operate to greater volume and diminish the delays that have occurred in the past in getting the program under way.

We expect to further develop the Planning Division, on which I previously commented, and are transferring the programming operations, both as affects the state biennial program and as affects the programming of individual projects with the Bureau of Public Roads, to the Planning Division.

The development of sufficiency ratings for all state roads is practically complete and will be used as a tool insofar as applicable in the continual development of programs for succeeding years. To this end, also, the Planning Division, it is anticipated, will be able to develop a greater amount of advance planning so the engineering work can be gotten out farther in front of actual construction.

Pursuant to action of the 1961 Indiana General Assembly, we expect to reinstate the training program for young men out of high school and undergraduate students in engineering colleges. This is a very much needed program if we are to continue the necessary replacements and expansion of the engineering aspects of the Highway Department.

The department has already developed its highway letting dates for the first half of 1961, and expects to continue the projection of these dates ahead as well as to tentatively assign the projects on the basis of a balanced program for each year's operations.

There are many other items that could be mentioned, such as continuation of our research program, the necessary research into adequate communications on the Interstate System, the possible upgrading of our specifications in certain aspects, and the development of better liaison between the industry and the Highway Department in the formulation of specifications that will give proper recognition of modern developments but at the same time will maintain quality control in all instances. Better expediency in the sampling and testing of materials is essential to more efficient field construction operations. We are also organizing a soils testing section for the development of soil profiles on our road construction projects and for soils testing and compaction requirements.