

Purdue's Interest in Road Improvement

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For the twenty-sixth time it is my privilege to address or to preside at meetings of the Purdue Road School. Between 60 and 100 different groups hold meetings on this campus every year, but no gathering except the Agriculture Conference means more to the public than the Annual Road School, which brings together those who design, construct, and maintain Indiana highways and streets, as well as the suppliers of materials and equipment.

The road-building program of the states and the nation has, no doubt, contributed more than any other single improvement to the general good of the public. Good roads are of public interest politically, socially, industrially, and from the standpoint of national defense. The solidarity of our political units of government, which are separated by great distances, depends upon good roads. Industrial progress is dependent upon efficient and economic transportation systems to distribute goods and services. Good roads are an absolute necessity to protect our long frontiers and coastlines, and for the rapid movement of men and equipment in case of an emergency.

No state in our country has been more progressive in its road-building program than has Indiana. During my 25 years as a citizen of Indiana, this state has expended \$430,000,000 for road building and maintenance. It is to the credit of our State government and of those in attendance at this Road School, that Indiana has at present 10,228 miles of state roads and 72,000 miles of county roads.

I am confident that the Governor of the State and the State Highway Commission realize that our great investment in roads must be protected by an adequate maintenance program. Unless our roads are kept at all times in good condition for the traveling public, our investment of nearly one-half billion dollars will quickly deteriorate. As with all works of man, eternal vigilance and effective maintenance are a necessity to insure safe and comfortable motor-vehicle transport in rain or shine, in winter or in summer.

The war effort has depleted the supply of engineering and scientific personnel. State highway departments are bound to experience great difficulty in finding, attracting, or retaining superior talent on their engineering and maintenance staffs. Rates of compensation for engi-

neers in the service of the state will have to be greatly increased and tenure and working conditions improved if our highway departments expect to retain superior staffs in competition with industry. Positions in our state highway departments must be made attractive as careers for the most competent and best educated engineers.

Purdue University is proud of the fact that 31 years ago it started the first road school in the country, and that this action has stimulated the organization of road schools in other states. It has worked through its extension and its research programs toward higher standards of highway construction and maintenance in Indiana, and its efforts have also benefited other states. The Purdue Road School has at all times encouraged the co-operation of state, county, and city engineering groups, and of highway materials and equipment agencies, in serving Indiana through the best possible street and highway transportation facilities at reasonable costs to the public.

In my remarks at the Twentieth Purdue Road School, on January 25, 1934, I stated that adequate research is the "fountain of youth" for road building, as well as for industry. It is again gratifying that Indiana, more than any other state, through a co-operative research project with Purdue University, has since 1936 made maximum use of research to insure better roads at lower cost. The Joint Highway Research Project has concerned itself with more than 150 distinct problems. Some of these, such as "pavement pumping" and "flexible pavements," have been of distinct benefit to the road-building program of the state and the counties. Others have been helpful to our government in connection with the design and construction of airports, and the aerial photographic method for soil identification has been of enormous aid to the war effort in the Pacific during a critical period. The 25 graduate students who received their master's and doctor's degrees, and the 60 other research workers who have during the past six years pursued advanced study with majors in the field of the Joint Highway Research Project, are Indiana's most important by-product of this research program. These engineers with research backgrounds are now aiding other states in gaining an appreciation of the value of research for the road-building programs of the future. Kentucky, Virginia, New York, and other states, as well as the Federal Government, are benefiting by the research seeds planted for ten years by the foresighted Indiana State Highway Commissions. This important research program is definitely the result of the fine co-operative relationships which have been built up through the Purdue Road School during the past 31 years. Professors Hatt, Albright, Wiley, Woods, and particularly our friend, Professor Ben H. Petty, deserve maximum credit for this important service of Purdue University to the State of Indiana.