

## Curtis Hill

Missouri's First State Highway Engineer



In the early 1900's, the rapid proliferation of automobiles and a continuing clamor for good roads led to an evolving state highway system. At that time practically all of Missouri's roads were dirt roads haphazardly maintained by county governments and local township road overseers.

The State government had not participated in any road or bridge construction since the Civil War, and there was nothing approaching an interconnected state road system. As motor vehicles became more and more pervasive, the Missouri General Assembly gradually responded to the need for statewide road improvements, and in 1907 the Missouri legislature established the office of State Highway Engineer within the State Board of Agriculture.

Curtis Hill was appointed to that position on July 6, 1907. The legislation also provided for county highway engineers; required automobile licensing and registration; and created a state road fund of \$500,000 for new construction or road improvements, distributed among the counties according to their assessed valuations.

In his first report to the State Board of Agriculture, dated December 17, 1907, Hill wrote, "Since assuming office on July 6th, I have devoted two-thirds of my time to two of the proposed cross-state roads from Kansas City to St. Louis. The idea which first went abroad that the State was to build this road, created much enthusiasm, which was greatly lessened after the facts were understood. There still remain enough genuine advocate[s] of this movement to bring results. The idea is to build these roads by the organization of road districts under the "benefit assessment" law. Five proposed districts, comprising in all about 50 miles of road, are in different stages of organization. The publicity given these roads has done much in the agitation for better roads.

... As I now view the situation the engineer must, for the present, devote his time to organizing counties under the new road laws; systematizing road work, making and maintaining earth roads and constructing permanent culverts of stone masonry or concrete. It is in this way that we must prepare for, or lead up to, a hard surface on the main roads. All the encouragement and assistance possible should be given to making rock roads, but by far the greater part of the State is not ready for them.

... The work has been of such nature as to keep me away from the office, leaving practically no time for the preparation of publications. It is my intention to prepare a bulletin of instructions to the county engineers. This bulletin will call attention to wrong ways now used on working the roads, and will contain drawing[s] and plans for concrete and stone culverts, with general items of approximate cost. It will set out and define some of the new road laws, the benefit assessment law, the enactments governing the State road fund and the county highway engineer, with his duties and his relation to the county court. The main feature, however, will be the development of the earth road with permanent culverts and bridges."

In 1908 the county highway engineers organized themselves into the Highway Engineers Association of Missouri. Hill's role as State Highway Engineer was primarily to advise county engineers in matters of road design and financing. Additional legislation in 1909 re-established the road fund on a permanent basis. Counties could now draw half the funds needed for their road construction projects. That year Hill classified only 5,000 miles of roadways as "improved" out of the 110,000 miles of roads across the state.

In his second report to the State Board of Agriculture, dated December 15, 1908, Hill wrote, "The work of a large number of our county highway engineers cannot be too highly praised. In some counties it has required the man to be a philosopher, orator, politician, economist and engineer. It has been a hard position to fill and even with a discouraging season the roads have been improved.

The haphazard way of attending to road interests is fast disappearing, and is superseded by order and system under the supervision of the county highway engineer. There is a saving in handling and buying tools, implements and materials; there is better and more permanent work and better maintenance. More hedges are trimmed, more poll-tax collected, and men and teams are worked to better advantage. Small things, as opening ditches, placing culverts in the right place or abandoning others, putting fences on the established lines or clearing the right of way of obstacles have been attended to.

Many things which any sensible man knows how to do, have never before been done simply because there was nobody whose business it was to do them. This is the result of supervision, and in every county where it has had a fair, honest trial the results are good. The roads of the State have been gradually improving for years along with the natural growth and progress. But the year past shows more advance and improvement in the roads than in any other one year. The efforts of the State highway department shall be for the improvement of the roads as a system and not for an isolated road here and there."

On December 28, 1909, in his third report to the State Board of Agriculture, Hill wrote, "There is a great deal of talk against the office of County Highway Engineer. Under the last legislative action, petitions are being circulated in a few counties for the purpose of suspending the County Engineer act, while one county has already voted in favor of the suspension clause. The law creating the office of County Engineer is good and is sound in principle. If any county does not improve road conditions under it, it is the fault of the county, and not of the law.

If every man would acquaint himself with the loose methods of the past forty years, namely, the condition of our roads, the utter disregard for road laws and road regulations, the counties' mercy at the hands of unscrupulous contractors, and the unsystematical ways in vogue, he would certainly see the necessity for the office of County Highway Engineer. The county engineer can, in many places, collect more of the poll-tax than was collected before him, get the funds upon the road at a less percentage for overseeing, and can gradually bring order out of chaos

... Unfortunately, some of our highway engineers are not qualified to hold their office. We should have an examining board, competent to judge and fix a standard of highway engineers, and to require each engineer to obtain a license from this board. We should do away with the labor tax system. The working out of taxes is an inadequate, inefficient and indefensible form of revenue. We must substitute a cash system and road workers with competent supervision. The men who work out their

taxes, as rule, know nothing and care little about the work. Many of the work with the sole idea of working out the taxes, not to the benefit of the roads. It is not so much the fault of the men as it is the fault of the system., a "venerable" system which has been handed down from generation to generation, but which has become rotten with age.

...We should have a few men in each county whose business is working roads; men who make it a business, men who have an organization, and who are prepared for it as business. They will accomplish more with one dollar than than the average overseer can with two. These road crews should be under the direction of the county engineer, to be sent any place in the county where necessary, such as the districts where we have incompetent overseers or none at all, or where a good overseer requires aid, or where work can be put directly under the engineer. One or two such crews could be kept busy in a county the entire year, and additional crews could be put one in the proper working season.

It need not mean abolishment of the overseer system where good men can be secured to act, but one good outfit, with a competent foreman, to a township, or to 50 or 100 miles of road, would accomplish something in a year's time. It is doubtful if it would cost any more than under the present methods, but even if it should, it will bring results. Further more, the business for this crew of road workers will be to care for the roads while other people are attending to their own business, for as long as road work is everybody's business, together with politics, causes more loss and poorer work upon roads than all the other things together, for the inevitable result is incompetency or loose ends."

Hill continued to serve as State Highway Engineer under the State Board of Agriculture until 1913, when the Missouri General Assembly replaced the State Highway Engineer with a State Highway Commissioner and Deputy Commissioner, and created the Missouri State Highway Department, relieving the State Board of Agriculture of its responsibilities in matters of road construction and maintenance.

Curtis Hill's leadership set the stage for the development of Missouri's highway system throughout its formative years.