

Efficient and Economical County Highway Administration

ALLEN M. WILLIAMS

President, County and Local Roads Division,
A.R.B.A.; County Highway Engineer, Ionia County, Michigan

My topic is "Efficient and Economical County Highway Administration" and much of the following discussion will be County Highway Administration in Michigan. This is not because Michigan's organizational setup is necessarily a model of efficiency and economy, but because it is the organizational and operational pattern with which I am most familiar. It shall be left for you to form your own opinions as to whether our method is efficient or whether there is anything to be gleaned from our type of administration that could be useful in Indiana or any other state. Beyond this, I would like to briefly discuss what I think are some cardinal points to be considered in the efficient operation of any county road organization.

Historical Development of Michigan County Roads

During the 19th century, and to a declining degree in the first quarter of the 20th century, the Michigan unit of government most directly concerned with rural road maintenance and development was the township. Direct property taxes were collected for road support, or the taxpayer could "work out" the amount of his tax bill by serving in a road gang in the spring of the year. County Road Commissions first appeared on the scene in the year 1893 after passage of the County Road Act. It was not however, until 1931 that all 83 Michigan counties had county road organizations. During this period the townships maintained all so-called land access roads, and where the growing number of county road commissions existed, they were responsible for construction and maintenance of a selected system of the main farm-to-market roads.

The depression brought about a major change in Michigan county road history. The severe decline in property tax receipts of that era led to complete abandonment of the township road commissions. A 1931 law required that the townships turn over all roads under their jurisdiction to the counties, to be incorporated into the county road system. This meant that approximately 63,000 miles of former township roads

were added to the 22,000 miles of the then existing county road system. That action swelled the total mileage of roads under county jurisdiction to about 85,000. Maintenance of the additional mileage was financed in its entirety by an annual \$4,000,000 apportionment from state gasoline tax receipts. Approximately 80% of all road and street mileage in Michigan is now under county jurisdiction.

Significant interim developments concerning the county road commissions also took place during the period of 1893 to 1931. In 1905, our state highway department was created, and in 1913, it was authorized to develop what later came to be known as the state trunk line system. The county road commissions were instrumental in much of the trunk line road construction through grants from the state. In 1919, the state was authorized to do its own construction of trunk line highways and proceeded to do so with a \$50 million dollar bond issue. The highway department was also authorized to contract with county road commissions for the maintenance of state trunk line highways in 1925. This practice has been continued to date and in 68 of our counties, state trunk line highways are maintained on a cost agreement basis by the county road commissions.

We like to think that this has been a very successful and efficient practice, since it eliminates the duplication of state and county road maintenance organizations in any county where the county road commission is qualified by the state to do the additional state maintenance. This practice also makes possible the additional financial resources to a county, thereby permitting a larger and perhaps more efficient road organization.

Basic Michigan Highway Law

The state law, which governs the basic aspects of highway administration in Michigan today is known as Act 51 of the Public Acts of 1951. This law was the result of a comprehensive highway needs study completed in 1948 by many governmental and private interests, known as the Michigan Good Roads Federation. The study was aimed at determining the administrative, physical and financial needs of all of the highway agencies—city, county and state. Under the provisions of this Act, the proceeds of the state's gasoline tax, motor vehicle license tax and other miscellaneous fees are all placed in a single fund known as the Motor Vehicle Highway Fund. After deducting collection costs, the fund is apportioned under a formula which provides that the state shall receive 44 percent of the proceeds, the counties 37 percent and the cities and villages 19 percent. All county roads are classified under the law into primary and local roads. The 22,000 miles of primary

roads receive 75 percent of the county apportionment and the 64,000 miles of local roads receive the remaining 25 percent.

The primary road money is apportioned among the counties on the basis of motor vehicle registrations, mileage and rural population. The local county road money is apportioned on the basis of mileage and rural population alone. The sum of \$5,000 is returned to each county, which employs a full-time registered, professional engineer, although this sum has not been withheld from those counties which do not, as yet, have a registered engineer. The law originally allowed the counties five years to acquire an engineer or forfeit the annual \$5,000. A bill has passed the Legislature this year to extend this period another three years, in view of the shortage of engineers.

Under the 1951 law, the state highway commissioner is made responsible for the expenditure of all state collected highway funds. Each county road commission and incorporated city and village of the state must submit to the state highway commissioner its biennial highway and street programs, based on long-range plans, with standard specifications for projects included. The state highway commissioner must approve all such programs. All county road commissions and incorporated cities and villages must keep accurate and uniform records on all road and street work and funds, and must report annually to the state highway commissioner the mileage and condition of each road under their jurisdiction. They must also report receipts and disbursements of road and street funds. The expenditure by the county road commissions and the incorporated cities and villages of adequate amounts for administration and engineering is authorized and must be reported separately.

The state highway commissioner must report biennially to the Governor and the State Legislature, describing progress made by the state highway department, the county road commissions and the cities and villages in carrying out the adopted highway and street programs. He must also account for all expenditures of funds allocated from the Motor Vehicle Highway Fund to the state highway department, the county road commissions and the cities and villages. Further, the state highway commissioner must include in his biennial report a summary of the program of road and street improvements scheduled for the next biennium by the state, counties, cities and villages. Failure to comply with the provisions of the Act can result in the withholding of funds from any highway agency during a period of non-compliance.

To assist the state highway commissioner in carrying out his responsibilities under the provisions of this Act, a major unit, known as the Local Government Section, has been created in the highway depart-

ment. This section works closely with all county road commissions, cities and villages in assisting them with their programs, their accounting, reporting, etc. It is primarily through this section that state and local highway administrations are coordinated. This section also provides administrative and engineering assistance to county road commissions participating in the federal aid secondary program. In Michigan, 60% of the annual Federal aid secondary allocations to the state are apportioned among the 83 county road commissions.

After experiencing the uncoordinated, almost antagonistic attitude of the various highway jurisdictions in Michigan toward each other prior to the passage of the 1951 law, one cannot help but feel that the legal provisions for inter-governmental coordination in the expenditure of highway funds are serving the public well. We must constantly be reminded that the highway system in any state is essentially *one* system because traffic recognizes no jurisdiction.

While Act 51 of the Public Acts of 1951 was a long step forward in the field of highway law and administration in Michigan, the Act was superimposed on a long history of archaic, obsolete and utterly useless laws, which remained in the Statutes. A review of Michigan highway needs has just been completed by a joint Legislative Highway Study Committee, and Michigan's highway laws are now being recodified. Legislative action will be required to revise a mass of highway law into a simplified code to guide the highway administrator in his modern day operations.

County Road Association of Michigan

To assist each other and to further the cause of efficient county highway administration, the counties maintain an organization known as the County Road Association of Michigan. This is a non-profit Association, supported by the counties with an efficient staff and permanent offices located at Lansing, the State capitol. The Association has a Board of Directors, who hire an engineer-director for the purposes of carrying out the policies of the organization, coordinating its activities and keeping the county road commissions informed of legislative, engineering and administrative matters which may benefit or adversely affect their organizations. The Association has several active committees, which serve the counties, such as legislative, engineering, standards and specifications, administration, radio, equipment rental and accounting. As a result of cooperation between the local government section of the state highway department and the standards and specifications committee of the County Road Association, new minimum standards and

specifications for Michigan county roads have been developed and it is understood that a manual is soon to be published.

Within the framework of the County Road Association, there are three subsidiary regional county road organizations. These are the Upper Peninsula, Northern Michigan and Southern Michigan associations of county road commissions. The Upper Peninsula Association includes 15 counties, the Northern Association includes 33 counties, and the Southern Association 35 counties. Each of these associations has its annual meeting where policy matters and topics similar to those of a road school are discussed.

So as to coordinate county highway construction and maintenance matters within contiguous and similar areas, the counties are organized into smaller groups of six or eight counties. The road commissions and their supervisory personnel meet monthly or quarterly to discuss both their problems, regarding maintenance and construction and long-range programs. They often make recommendations to the County Road Association of Michigan, for consideration on a statewide basis.

When the county road commissions absorbed the functions of the township road boards in the early 1930's, county road relationships with the township ended for all practical purposes. Today, however, the reverse is true. As a result of a constitutional split in the state sales tax revenue in 1946, a substantial amount of money was annually diverted into the township treasuries. The once almost extinct township governments in Michigan were given a new lease on life. Since the counties can levy no property tax for the support of former township roads and are allowed to spend only 25 percent of their own funds for their support, the sales tax revenue of the townships has been sought by the county road commissions as matching money for construction and snow removal maintenance undertaken on former township, now county roads.

At present, there is nothing mandatory about township participation in these projects. It is entirely a case of persuasion by the county road commissions that it is in the best interest of the townships to use their sales tax money for such purposes. These state sales tax funds, of course, provide the township boards with considerable influence in determining the county road program. Generally speaking, however, township cooperation has been splendid. The townships are presently contributing about \$6- $\frac{1}{2}$ million annually for county road purposes.

Boards of County Road Commissioners

In Michigan, our 83 county road commissions are bodies corporate, which means that they can carry on legal transactions in their own names

without the approval of higher county authority, such as the county board of supervisors. Collectively, our road commissions represent a big business for they are responsible for the annual expenditure of approximately \$75 million in state and locally collected highway revenues. Our boards of county road commissioners are composed of a chairman and two other members, who serve six-year staggered terms at salaries ranging from no remuneration to \$5,000 per year. These commissioners are selected in two ways. In 72 of our counties, the road commission is selected by the county board of supervisors, and in 11 counties, the board is elected at a general election.

There have been outstanding commissioners selected by both methods. However, the consensus of opinion is that the appointive method serves the county better than does the elective method. We feel that, under the appointive method, a greater selection of better qualified men is available. Appointed commissioners are usually men who have been successful in business or government administration. They are men who would ordinarily not seek elective office but will serve when asked. They usually serve long tenures, insuring continuity of policy. They usually are men who are financially independent of low commissioners' salaries. They are appointed because of their existing reputation, their interest in highway affairs, and their ability to be of conscientious public service. They are directly responsible to only one authority.

In general, our road commissions in Michigan operate as policy making boards similar to a city council in the council-manager form of city government. I believe an analysis of the relationship of the superintendent or engineer to such a board is in order.

There is a clear and fundamental difference between the function of the road commission and the function of the county engineer or superintendent. To determine policy, the road commission must make decisions on the main county road problems, regardless of whether the solutions are proposed by its own members, by administrative officials or by private citizens. In so doing, it may take into consideration any facts that it considers pertinent, and give the county engineer, by collective action, orders setting forth the general objective it wishes to attain. It is not the function of its members to attempt to administer personally the policies that it determines, or to influence the administrative officials charged with the execution of these policies.

The County Engineer

The county engineer serves the road commission by providing it with advice and information on the conduct of highway affairs, and by putting into effect its decisions through the use of available funds,

equipment and personnel. As the servant of the road commission, he should not attempt to control or guide the selection of commission members by their appointing authority or bring political influence in any form to bear upon the decisions of the commission. To interpret and explain the technical aspects of highway problems to his board and to the public is one of the principal tasks of the county engineer. By discussions with his board, by the preparation of periodic and special reports, and by dealing with representatives of private groups, the county engineer must educate the road commissioners and the community in highway affairs.

The county engineer's proposals are subject to review—sometimes sympathetic, sometimes skeptical—by a board of laymen whose principal personal interests are not in governmental affairs. The process of review is of advantage to all concerned in two ways. First, it forces the expert engineer to consider his proposals in the light of general interests of the county, rather than in the light of his own specialized interests or technical preoccupations, the necessity of convincing laymen of the advantages of his proposals make the county engineer's proposals more practical and keeps him in touch with public opinion. Secondly, it gives the county engineer a chance to have his proposals considered and supported by a group of men who are interested in all aspects of county road development; thus, it protects the engineer from pressure groups.

No engineer or superintendent could administer his county satisfactorily if he were not free to initiate recommendations for the board's action. But, he should make it clear, both to the board and to the public, that the ultimate decision, however arrived at, is the commissioners' policy rather than his own. He should be prepared to give the commission the benefit of his advice and recommendations on every important issue. He cannot avoid the responsibility for doing so on the grounds that it is a controversial one. Nevertheless, it is his obligation to see that the road commission makes up its mind in the light of all available facts, those that weigh against his recommendations as well as those in favor of them. If the county engineer supplies the commission with all pertinent facts, he has a right to expect the public to hold the road commission, and not himself, responsible.

In Michigan, we have both engineers and non-engineers in the top county road administrative posts. Registered, professional engineer-managers occupy the top spot in 41 counties. Superintendent-managers occupy the chief administrative posts in 42 counties. Of these latter 42 counties, however, 12 have registered, professional engineers working under the superintendent-manager and nine counties have graduate civil engineers on their staffs, who will seek registration as soon as they

have sufficient experience to qualify. It is my opinion that experience has proven that counties employing qualified engineers to administer the county highway program have generally attained higher standards of performance than those counties which do not have engineers as top administrators. Modern county road management requires a basic understanding of technical engineering principles. It has been my opinion that, only through the requirement that the manager of the county road organization be an engineer, may counties expect to attract college trained men with the ability to assume practical knowledge of administrative principles. In Michigan, great opportunities in the county engineering field exist. Within the next five years, about 15 to 20 of our present county engineers will have passed the retirement age. This is in addition to 30 counties which have not as yet retained engineer-managers.

Earmarked Funds

It is my feeling that a certain minimum amount of county highway funds should be required for planning, engineering and administration. Without earmarked funds, inadequate amounts are spent for these essentials because it is believed that these are luxuries enjoyed only by large organizations and that, on the local level, every possible dollar must be spent on the physical plant. Consequently, money is wasted through continued maintenance of roads and equipment without benefit of records to show when their ability has expired, or on what account the money has been spent, or should be spent in the future. Construction and maintenance do not conform to prevailing standards and plans are made entirely on the basis of opinion or public pressure rather than the basis of actual need. The superintendent of such an organization cannot improve his administration because his full time is occupied issuing individual orders, inspecting results and carrying out details of the day-today routine which should be delegated to others.

With earmarked funds for engineering and administration, the engineer or superintendent can be supplied with adequately paid assistants with modern equipment to relieve him of many of the details of his job, in order that he can direct the planning of a program of highway improvements based upon need and integrated with the programs of other counties, cities and the state. He can devote more of his time to his relations with the road commissioners and the general public.

With earmarked funds, the engineer's or superintendent's salary can be made sufficiently lucrative to attract and retain a capable man in the most important position in the organization. An effective record system can also be maintained, which will serve as a guide in future

management and planning problems. If records are uniform with those of other counties and integrated with those of a statewide system, it will be possible to report to the people and the Legislature the annual costs of highways in the state, what the money has been spent for and how much will be needed in the future.

There is, perhaps, nothing which gives greater meaning to day-to-day administration than a flexible long-range plan, which clearly outlines the objectives of the county road organization. There are four steps in the planning process. These steps are:

(1) Adequate information as to what the county actually is, physically and functionally must be assembled.

(2) There must be searching analysis of the data in order to ascertain important relationships, trends, and developments in traffic needs.

(3) The third step, which is the beginning of plan making, is a positive determination of long-range objectives in county road development, based upon the data analysis.

(4) The county must do something about the plan. The plan is not an end in itself, but merely the means to an end. There should be programming of capital improvements over a period of years, so that expenditures may be allocated in accordance with an orderly budgetary plan.

Besides planning, the science of economical and efficient administration deals with such subjects as organizing, staffing, coordinating, budgeting, purchasing, equipment management, reporting, directing, and public relations. This is a tremendously broad and diversified field and some phases of it I have barely mentioned. I do not intend to go into detail in all of the phases, but in the area of coordination we have found most effective in Michigan the use of two-way radio between our central county garages and our field equipment. Forty-five of our 83 counties are now making use of two-way radio, and the applications for F.C.C. licenses of several more counties are pending. We have found, by the use of two-way radio, that the efficiency of operation of both personnel and road equipment is increased to such an extent that the initial cost of the radio is insignificant by comparison.

Public Relations

The field of county road public relations is a most important area of public administration, and in this too many county highway organizations are lax. The object of a sound public relations program to the highway administrator is to take the public into his confidence, so as

to make an ally out of the people he serves. A public relations program is not a substitute for a poor job, but a process whereby a good job can be made to appear better. A sound public education program, coupled with sound planning, can defeat the public pressure and criticism which plague so many of our otherwise well-managed organizations. The use of the local newspapers and all other available media of communication to tell the public of your triumphs, your problems, your plans, or your services will pay big dividends in terms of public understanding and support. It is in this atmosphere that efficiency and economy thrives.

Finally, I should like to leave the thought with you that, as highway administrators, we are concerned primarily with the motor vehicle and its uses. We have stood by almost dumfounded and helpless, as the traffic volumes and the purposes of motor vehicle usage have doubled in the last 10 years, making our highways grossly inadequate. The future promises little relief from this growth of motor vehicle usage unless restrained by inadequate highways. In view of this extremely fast moving situation and the expanded highway program to meet it, highway administrators at all levels of government should take a very critical look at their methods of operation. Many highway organizations in this country are operating in almost exactly the same manner today as they did 20 to 30 years ago. Recently, Harold Plummer, Chairman of the State Highway Commission of Wisconsin, stated at an American Road Builders Association meeting, "If you are doing things today the way you did them 10 years ago, you are doing them wrong."