As excerpted from "Supplement to TRANSPORTATION IN MICHIGAN—2000 A.D.: A GUIDE FOR STUDY POLICY-PROCE-DURE," prepared for John C. Mackie, State Highway Commissioner, December 1962. Prepared by the Engineering Development Committee of the Michigan State Highway Department.

DEVELOPMENT OF HIGHWAY SYSTEMS IN THE NINETEENTH CENTURY

The network of Michigan roads and streets began centuries ago as Indian trails. Nearly all of the principal highways radiating from Detroit were first narrow paths marked by blazed trees and campfire ashes. Lesser trails branched off to form a network similar to the present trunkline system and principal county roads.

For 150 years after the first settlements in Michigan there were no wagon roads into the interior. Without roads, growth lagged behind the development of other sections of the Northwest Territory. During the War of 1812 lack of wagon roads was disastrous in the Michigan Territory. In 1816 federal troops started to build wagon roads between the forts and into the interior. Settlements in the interior started to develop. Additional roads into the interior were built by the territorial government.

When Michigan became a state in 1837, federal road building stopped. The new state had little money for maintenance. The roads soon became impassable. As a natural result, traffic to the interior was reduced. Few wagons came into Detroit. Hotels built for the accommodation of farmers were unoccupied. Firewood became scarce. Detroit businessmen came to the conclusion that plank roads should be built across the lowlands into the interior. The first plank road company, the Detroit and Port Huron, was chartered in 1844. In 1848, the Legislature passed a General Plank Road Act to regulate operations. Plank roads were built and tolls charged. The planks decayed. The roads could not be kept up with the tolls received. The companies abandoned operation. Mark Twain after a stagecoach trip to Grand Rapids remarked. "The road would not have been bad if some unconscionable scoundrel had not now and then dropped a plank across it."

From the time of the first settlement, the building of city streets was a local responsibility. The first paved street in Detroit was two blocks of Atwater. This was authorized by the Common Council about 1835.

The revised state constitution of 1850 provided for township jurisdiction of all rural roads. This constitution also transferred to township control the roads that had been built by the federal and state

governments. This constitution bespoke the prevailing belief that roads were largely the responsibility of the people who lived along them. With the statute labor system then in effect the property owners and the township residents worked the roads. The roads built under this system connected the farms with the township trading centers. The median radius of a trade area was five miles—the distance that a team and wagon with load could go and get back in a single day. The work, carried out by untrained officials and inexpert labor, was poorly done. There was little chance for building intertownship roads.

The Legislature in 1883 established a "Stone Road District" in Bay County consisting of Bay City, West Bay City and six surrounding townships. It authorized the "Stone Road Board" to levy ½ mills on all property in the cities and in the townships to build three stone roads to Bay City. The act was amended every two years to 1893. The accomplishments of the "Stone Road District" were so satisfactory that it became a model for subsequent legislation. It confirmed the belief that a highway building unit larger than a township was needed to connect market centers with one another.

The first magazine wholly given to advocating improved rural roads was "Good Roads." The League of American Wheelmen published the first edition in January, 1892. This led the farmers, fearful of taxes, to say, "Nobody wants good roads but the bicyclist."

The Legislature in 1893 passed the "County Road Act." It permitted a county by a vote of the people to set up a county road commission and to levy a road tax of not more than three mills. This act with amendments has enabled Michigan to be outstanding among the states in county roads, accomplishment and administration. It took 37 years of promotion, patience and amending legislation to establish the 83rd county road commission.

In 1905 only eighteen counties had adopted the county road system. The township supervisors supported by farmers generally opposed county roads. They feared loss of control and increased property taxes.

DEVELOPMENT OF HIGHWAY LEGISLATION IN THE TWENTIETH CENTURY

At the start of the twentieth century, the years of agitation and promotion by the League of American Wheelmen, supported by city auto owners, stirred the Legislature to action.

- 1900 The first International Good Roads Congress was held in Port Huron in July, 1900. Few legislators or public officials depending on rural votes dared to attend the meeting and be identified with the good roads movement
- 1901 The League of American Wheelmen, organized in 1879, started the "Good Road" movement. They later gained the support of automobile owners who lived in cities.
 - The 1901 Legislature authorized a committee on highways to investigate and report a plan of improvement, and means therefor, to the next Legislature.
 - The Michigan Highway Committee reported in 1903 with specific recommendations that the State Constitution be amended to permit: improvement of highways by the state, a state highway department and state aid for roads.
- The Highway Committee report was written into the Governor's message. A debate about "words" in the concurrent resolution caused delay of a vote by the people in April, 1903. The word "highways" might mean railroads, canals or other modes of transportation.
 - Act 203, P.A. 1903, provided for a commissioner of highways, a deputy commissioner, "who shall be a competent civil engineer," other employees and an appropriation of \$5,000.
 - The Attorney General advised the Auditor General that the act was unconstitutional.
- The concurrent resolution considered by the Legislature in 1905 used the words, "public wagon roads" instead of "highways." There were 2,959 automobiles registered in the state.

The 1905 Legislature passed the resolution for constitutional amendment providing state expenditure for "Public Wagon Roads." Act 146 of P.A. 1905 provided for a state highway commissioner, a deputy, an organization and authorized aid to counties and townships. The state highway department was established to give instruction "in the art of building, improving and repairing of public wagon roads and bridges, collecting reports;" also to furnish outline plans and specifications.

The constitutional amendment was adopted by the people in April, 1905, with a favorable majority in all 83 counties. The state highway department was organized, records were started, township supervisors reported. The procedures set up were followed throughout the life of state reward. This procedure failed to connect towns with one another. The Legislature provided and continued appropriations for state reward until 1925.

The Legislature by concurrent resolution invited the third annual convention of the American Road Makers Association to Port Huron in 1905. The Legislators now were anxious to be identified with good roads movement.

- 1907 Townships were authorized to levy a "road repair tax."
- 1912 A conservative and cautious Commissioner reported in the biennial report:

"The demand for improved roads is general, but there is yet much discussion over which roads shall be improved first. The farmer and merchant are most benefited by radial roads which reach out from the various trading centers, like the spokes of a wheel, and put forth strong arguments to sustain their positions. They tell us that the volume of travel drops off very rapidly as the distance out from a given town increases, which is true, for it is usually twice as great on the first mile as it is on the third and fourth miles out. Then it drops off very markedly as each cross road is passed until a point is reached where the traffic divides with the next nearest town. This is always at or near the point where the inducements offered and the efforts required to reach the two towns about balance, and is never at the midway point unless the roads and

market conditions are equal in both directions. Hence, if roads are to be first built where they will serve the most people and the greatest volume of traffic, they must be built almost simultaneously from the various market centers out, favoring to some extent the principal market places, but completing all of the roads near the towns before the distant ends are connected up and through roads thus secured.

"Opposed to this plan are the tourists and people who desire to drive from town to town and who are very busy in arguing that a mile of good road at this town and a mile at the other town accommodates nobody in particular and gives evidence of an entire lack of system in road building, which is akin to the waste of money. The coming of the automobile has largely added to this latter class of people, who, in fact, constitute a very large part of the people of the other class; for the merchants and farmers who, for business reasons, need the radial roads first, have become automobile owners and now are yearly, weekly or daily visitors of quite distant as well as the nearby towns. This has brought to their notice and then to our attention, the wretched condition of many outlying roads, which for economic reasons have heretofore been neglected. Such people are loud in their demands that the through roads be improved and are anxious and willing to pay their proportion of the cost of such improvement. All of these people, who in the very business by which they earn money to pay for their recreation adhere rigidly to the principles of economy and will not spend a dollar unless it shall be returned to them with profit, are ever ready to spend money for good roads with a free hand and are not prone to count the cost nor the returns on the investment. In no other way can the insistent demand for through roads be explained. Nevertheless, this demand is plain and urgent and the road builder who does not heed it is likely to be run over by the wheels of progress.

"There is yet another reason why Michigan should give some heed to the demands of the motor car. It manufactures 60% of all the cars made in the United States. In 1910, the value of automobiles produced in Michigan was more than a million dollars greater than that of twelve of her staple and leading farm crops. Can such an industry be ignored? Though at present the automobile is largely a pleasure vehicle, the next ten years will see its economic possibilities developed beyond the dreams-of the most sanguine, but good roads must be the rule and not the exception before that time shall arrive.

"Some of the benefits that will then be derived may be summed up as follows:

- 1. The number of days in the year that a team can use the road will be increased.
- 2. Crops yielding a greater tonnage and a greater profit per acre can be grown, e.g., wheat and sugar beets,
- 3. Light loads can be hauled at greater speed,
- 4. Any rise in the market can be taken advantage of.
- 5. More markets can be reached by each farmer,
- 6. Car shortage in the fall can be reduced,
- 7. Money shortage will be less frequent as the marketing season is extended,
- 8. Rural mail and parcels post will be more rapidly extended, because of lessened expense,
- 9. Motor cars and trucks will largely take the place of horse drawn vehicles on the highways. Market gardeners around Detroit are already beginning to use them and are saving three-fourths of the time formerly spent on the road."
- 1913 Efforts of the advocates of through routes from city to city finally convinced the people and enabled the Legislature to pass the State Reward Trunkline Act. There were 60,1,68 automobiles registered.
 - Act 334, P.A. 1913, provided for laying out some 3,000 miles of trunklines between the cities and naming the towns enroute. It authorized double reward, made appropriations and provided full

authority to survey, make plans and carry out construction. Initiative remained with the people acting through road districts, townships and counties.

The department organization was expanded to initiate trunkline work. It continued to carry out the provisions of state reward on other roads. Improvement of the state trunkline system began. Double state reward and motorist pressure caused the building of an integrated system of good roads. An annual traffic census was initiated. This was continued until 1931. It was discontinued as an economy measure,

1915 The demand for new roads in the more populous areas of the state and particularly new subdivisions was greater than could be satisfied from available funds.

The 1915 Legislature passed the Covert Act authorizing property owners to initiate road construction by petition, paying half the cost by assessment. Governmental units were authorized to issue bonds. Motor vehicle weight tax was enacted. Allocation of proceeds was 50% state, 50% townships and counties.

This act enabled local authorities to build a large mileage of roads. Although abused by some promoters, it permitted the start of urbanization. The department supervised construction and bonding for inter-county Covert Roads and super highways.

1916 The national interest in the development of good roads caused action by Congress for federal aid for highways,

The Federal Aid Road Act of 1916 authorized and appropriated funds to be administered by the Secretary of Agriculture.

It directly caused the states to organize state highway departments equipped with staffs of capable engineers.

- 1917 Congress required enabling legislation for the states to qualify for federal aid.
 - Act 99, P.A. 1917, approved the federal legislation and made an adequate appropriation.
- 1918 In the winter of 1919, snow was removed from 590 miles of highways for passage of cars and trucks essential for the war effort.
- 1919 Initiative by township and county officials limited by the tax base could not produce a statewide highway system. Road users and administrators alike concluded that a bond issue was needed. There were 262,125 vehicles registered.

In the 1919 spring election the voters amended the Constitution and authorized a \$50 million bond issue by an overwhelming majority. Act 19, P.A. 1919, authorized the Commissioner to take full charge of trunkline construction and maintenance.

The counties, road districts or townships continued to participate in the cost of construction. Local approval of alignment was required. In all, the bond issue and matching funds improved 3,398 miles of trunkline roads and bridges.

1921 The experience gained and the transportation emergency of World War I pointed to desirable amendments of federal legislation. Highway transportation of people and goods had become a national necessity.

Federal Highway Act of 1921 amended and supplemented the 1916 Federal Aid Road Act. The federal aid highway system was spelled out with limited mileage. Act 106, P.A. 1923, directed the Commissioner to operate a ferry service across the Straits of Mackinac.

This federal legislation amended and supplemented, enabled the nationwide system of highways. In the winter of 1922–23, a system of snow removal was initiated on 1,115 miles of main trunklines.

1925 It became apparent that gravel and stone roads would not hold up under heavy traffic and that a substantial part of the trunkline system would have to be rebuilt. A better administrative and financial plan was needed.

A dedicated and foresighted Governor led the Legislature to enact a series of laws: a two-cent tax on gasoline; state reward was abolished; the state to pay the full cost on trunkline construction and maintenance.

Local rural control of location ended. Administrative provisions of the act permitted the improvement of an efficient trunkline system connecting the cities.

A reorganized central control highway department evolved and an 8,900-mile trunkline system was improved.

- The motor fuel tax was raised to 3 cents. An urban state trunkline system was established with \$2,000 per mile allocated to cities for maintenance.
- By 1931 the impact of the depression brought about the reorganization of the highway administrative and financial structure. The people acting through the Legislature, concluded that they could no longer afford good roads. The cities were pressing for a share of the motor vehicle funds.

Act 130, P.A. 1931, the McNitt Act—a property tax relief measure—provided for the counties to gradually take over the township roads. A share of the motor vehicle taxes allocated to counties was authorized for cities and villages. The Dykstra Act of 1931 made provision for larger state participation in urban trunkline costs.

This ended township road building and maintenance. The township roads taken over were in poor condition. The allocated state funds were not sufficient. The counties were forced to curtail county primary road improvements, Michigan was among the first to cooperate with city governments and spend state funds on city streets.

1932 The depression approached its lowest ebb; farm prices touched bottom, urban unemployment rose, local government defaulted on bonds issued under the Covert Act.

The Horton Act of 1932 was an attempt to meet an emergency. It drastically revised the distribution of motor vehicle funds. It reduced the weight tax on passenger cars from 55 to 35 cents per 100 pounds.

This act designed to meet a set of emergency conditions became an administrative and financial structure that lasted for 19 years. It handicapped the development of transportation facilities.

- 1941 The Legislature provided for limited access highways. It authorized borrowing by the state. Local participation was a requirement.
- The facts gathered by the Highway Planning Surveys since 1935 had been interpreted and presented to Congress and the Legislature. They had brought into reality highway facilities far beyond those first imagined by the highway planners.

The Federal Aid Act of 1944 provided for three federal aid systems: the primary, the secondary, and the interstate. It established urban areas and authorized funds to be appropriated for construction on each system and on the extensions into urban areas.

- 1947 On August 2, 1947, the Bureau approved the National System of Interstate Highways that had been selected by joint action of the states.
- 1951 Through promotion of a highway needs study, the Michigan Good Roads Federation aroused public interest in better roads.

Act 51, P. A.1951, completely revised highway administrative procedures with a new financial structure for the support of all roads and streets. It authorized the determination of road and street systems by the state, the counties, and the cities and villages.

The Commissioner established a local government section to administer for him the provisions of the act as they pertained to the local governments. Construction of better roads was renewed throughout the state.

1955 The need for additional traffic capacity on the high-traffic-volume principal trunklines became

apparent. It was recognized that the financial plan provided in 1951 was not sufficient.

The Legislature increased the motor fuel tax and designated an arterial highway system to be financed with the state's share of the increase.

This initiated the construction of expressways and freeways off the Interstate System.

1956 The Interstate System needed a financial plan for progress toward reality.

In the 1956 Federal Aid Highway Act, the Congress established the trust fund.

Construction of Interstate System was enabled.

Another highway needs study and a financial plan authorized by the Legislature, had been completed. It was realized that the state required bonding to catch up with the growing requirements for state trunklines.

The Legislature amended and supplemented Act 51, P. A. 1951, to incorporate the provisions of an act adopted in 1955, It authorized additional bonding.

The Commissioner reorganized the department, published a five-year construction program with scheduled letting dates. With this national first, he successfully carried out the mandate of the Legislature.

1962 Michigan needs a state transportation policy, a long-range plan for highways with a sound financial structure to enable continued progress.

This report was issued in December 1962 by the State Highway Department as many in state transportation leadership were lobbying for long-range policy and procedure guidance from elected officials, hence the above statement and the document leaving off with the year 1962.