

# Development of the Chicago-Detroit Expressway

SAMUEL C. HADDEN

Consulting Highway Engineer

Automobile Club of Michigan and Chicago Motor Club

The Chicago-Detroit Expressway, a primary federal aid highway, is being developed as a link in the National System of Interstate Highways, to join the nation's second and fourth largest cities while serving by convenient access the important intermediate cities in northern Indiana and southern Michigan. The name, which is intended to be self-defining and properly descriptive, gives the terminal points and indicates the nature of the facility being built. It is unfortunate that the many fine cities to be directly served cannot all be mentioned, as jointly they will contribute more traffic to the road than the two great cities at its ends. In fact at only a few points will the through traffic equal the local traffic. The local traffic, moving between the intermediate cities, will frequently be three or four times as great as the through traffic. Obviously this fundamental fact, mentioned at this point to secure deserved emphasis, will exercise a governing influence on the location of the highway.

The name, unofficially proposed by the Automobile Club of Michigan and the Chicago Motor Club at the outset of their joint sponsorship of the early development of the Expressway, has since been very generally adopted and used by public officials, the press, and the general public. During the past three years the project has won public approval and support and, after twenty years of discussion and preliminary planning, is moving steadily forward towards realization. The general route has been officially determined; some surveys and plans have been made; some right-of-way has been bought and cleared; and a dozen construction contracts have been awarded, with many more soon to follow. Of vital importance has been the acceptance of the project by the splendid state highway departments of Illinois, Indiana, and Michigan. In each state, projects on the route are being programmed for construction and millions of dollars have already been expended.

While recent progress has been gratifying, it must be recognized that we are here engaged in a long-range program. The general opinion of those who have been close to this program is that it is apt to be from ten to fifteen years before the road can be completed to the standards proposed by the American Association of State Highway Officials and accepted by the Public Roads Administration. This project is only one of many demanding the attention of our highway officials and drawing on their resources and, while perhaps the most important part, is still only one part of the entire state-federal highway program.

#### SOME INTERESTING BACKGROUND

Some years must elapse before the road can be finished, and in the meantime we must maintain public interest and retain official support through changing administrations. It seems wise to get a firm grip on the essential soundness of the project and to know something of the history of earlier roads in this area and their influence on the routing of the proposed Expressway. Of course the importance of connecting the Chicago and Detroit areas by highway has been officially recognized for over a hundred years. Some of this early highway history is of fascinating interest, and some of the moves made in those far off days influence, and often control, our places of abode and our routes of travel to this day. More recently during our modern roadbuilding era, which dates from the enactment of the Federal Aid Highway Act of 1916, as amended in 1921, four well-recognized highway routes have been developed between Detroit and Chicago and these roads are all in use at this time, carrying a volume of traffic undreamed of at the time they were built. While they are now obsolete, unsafe, and uncomfortable to use, a proper respect for the men who built them and due recognition of the service they are still rendering impel us to record the fact that they are still fairly good roads. Of course they fall far short of modern standards, and on this fact rests the justification of the present program to construct a highway that will assuredly meet all demands imposed upon it for many years to come.

The four popularly-recognized present routes between Detroit and Chicago may be briefly described as follows: U. S. 24, the famous Telegraph Road, from Detroit to Toledo, thence over U. S. 20 across northern Ohio and Indiana to Chicago; U. S. 112, the legendary Irish Hills route, from Detroit to New Buffalo, where it joins U. S. 12 and goes on into Chicago; M 60, which leaves U. S. 12 at

Jackson and rejoins it at New Buffalo after joining U. S. 112 at Niles; and, finally, U. S. 12, the old Territorial Road, from Detroit through Plymouth, Ann Arbor, Jackson, Albion, Marshall, Battle Creek, Kalamazoo, Benton Harbor, and St. Joseph and on into Chicago.

Of the three routes across southern Michigan the U. S. 112 route is the shortest, 271 miles, but it is extremely crooked and hilly for the greater part and serves only small cities. The M 60 route is only two miles longer, has much good line and grade, but directly serves only one important community, Three Rivers between Jackson and Niles. The U. S. 12 route is ten miles longer than the U. S. 112 route, is obsolete in many respects, but serves the highly important group of cities already enumerated. These cities are so important in all respects that it would be idle to suppose that it would be politically possible to construct an Expressway across southern Michigan without serving them directly. These roads are all, for the greater part, two-lane roadways with sharp curves, steep grades, short sight distances, narrow rights-of-way, many highway and railway grade crossings, some very narrow shoulders and, of course, no provision for dividing opposing streams of traffic or controlling access.

The Irish Hills route, U. S. 112, is truly a remarkable highway. Despite its innumerable curves and hills, it carries a very heavy volume of traffic, including much truck traffic—traffic which, seemingly, could use another route to greater advantage but which, for some reason, continues to use 112. Here perhaps is an illustration of the fact that many of us become attached to a highway as we do to a river, lake, or city, and its use becomes a habit, a pleasant part of our lives. This road has much natural beauty, passing through a hill and lake country with views to please the eye at every turn. Then, too, it is somewhat shorter than the alternate routes and, to many motorists, directness of route is the most appealing attribute a highway can have. Those of this persuasion cannot resist the impulse to choose a short route no matter how inferior it is in all other respects; if it is so rough as to be uncomfortable, even dangerous, they will drive over it all the faster so as to get over it quickly. So eager are many motorists to reach their destinations that but for the restraining influence of the right-of-way fences they would try to cut across lots if they saw a chance to save a little distance. We suspect that this strange cult is a rather numerous company. This alluring old road, despite its hills and curves, has a good surface and only ten miles of it is zoned for 45 miles per hour in the hills. This highway, which has served its

generations for over a hundred years, was an outgrowth of the old Sauk Indian trail from the Detroit River (the River, mind you) through White Pigeon (a few miles east of Elkhart) to the Chicago River. May we record here a little more of the early history of these grand old roads?

The road from Detroit to Toledo originally was the westernmost segment of the Great Trail from Fort Pitt to Fort Detroit. General Lewis Cass, who became Governor of Michigan Territory in 1813, made an earnest effort to secure the help of the federal government in constructing roads, and as a result the Secretary of War in 1816 ordered that troops be used to build a road between Fort Meigs (Toledo) and Detroit. General Cass referred to this road as the connecting link between the Territory of Michigan "and the more settled portions of the Union." It was completed in 1829.

The original "Chicago Road" linked two military outposts, those of Detroit and Fort Dearborn in Chicago. In 1824, after discovering the inadequacy of the roads in the War of 1812, Congress decided that the road from Detroit to Chicago should be surveyed, and ten years later a stage coach route was in operation between the two towns.

Meanwhile a number of additional roads were built by the territorial government, one of the most important of which extended from Plymouth, westerly from Detroit, through Ann Arbor across the state to St. Joseph, following approximately the present route of U. S. 12.

#### SELECTING THE ROUTE

Nearly all the principal highways leading out from Detroit followed the old Indian trails which connected rivers and lakes. White men built their homes and cities on these bodies of water and there they live today and there our highways must go to reach and serve them. Men did not arrange themselves in straight lines, or arcs of great circles if you please, on the face of the earth. Had they done so, the task of the road-locating engineer would have been greatly simplified. Consequently the proposal to build a straight-line road from Detroit to the southern tip of Lake Michigan, once considered, was long ago abandoned. Such a road, if built, would be but little used, since it would not conveniently serve the important intermediate traffic. Manifestly present cities would not pick up and move over onto such a road. The cities would remain where they are and the demand to give them adequate highway service in their present locations would continue unabated. Obviously, so far as southern Michigan is con-

cerned, a single route, as short as practicable, that would serve the maximum number of people now served by the three present routes, would be the proper solution of the problem of location.

Mention was made of the possibility of utilizing the Detroit-Toledo-Chicago route, via U. S. 24 and 20. This route is now used by a considerable volume of Chicago-to-Detroit traffic, and both segments are included in the designated National System of Interstate Highways. It is but little longer, ten miles, than the U. S. 12 route, and the section across northern Ohio and from Toledo to Detroit is an almost water-level route and is smooth and fast right now. The U. S. 24 section is three- or four-lane undivided, but the U. S. 20 section in eastern Indiana and northern Ohio is only two-lane. However, the portion of U. S. 20 in Indiana east of Elkhart has very little population and passes through some rather rough country. Again there is hardly any population at all on the 72 miles of U. S. 20 from the Indiana line to Toledo. With all the great cities there are in Ohio, and their resulting demands for the federal funds available for expressways, it seems very improbable that the Ohio Highway Department would, for many years, be able to develop the section of U. S. 20 west of Toledo to interstate standards, and similar considerations are likely to delay indefinitely raising U. S. 20 in Indiana east of Elkhart to these standards. For these reasons, but little thought was given to the possibility of developing this route as the Chicago-Detroit Expressway. Moreover, it was the desire of all to draw more closely together the cities of northern Indiana and of southern Michigan, which exchange goods and services and are the best of good neighbors. There is a movement of traffic back and forth between these cities, not interested in going either to Detroit or Chicago, that is of sufficient volume to justify influencing the location of the Expressway.

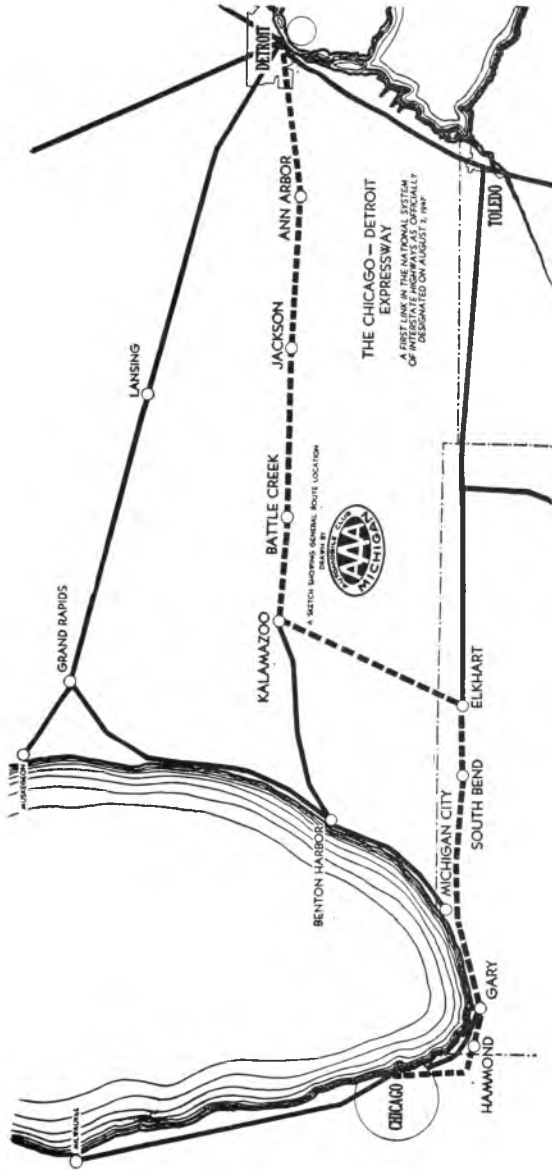
Before leaving this discussion of the Michigan section of the Expressway, it may contribute to a better understanding of the whole location problem to remark that, but for one consideration, the development of U. S. 12 from Detroit to the Indiana line would doubtless be the most generally satisfactory solution from the Michigan standpoint of the problem of locating this section. That one consideration is, however, a most important one: namely, this is an interstate and not merely a state highway. In other words, the point at which it intersects the state line is a matter of legitimate and primary concern to each state. It is expected that this road will, in the long run, be a money maker, that it will pay for itself from the collection of the

gasoline tax from its users. Thus Michigan might strive to keep as much of the road as possible in that state and Indiana might do the same with revenue in mind. This consideration may weigh more heavily with the officials than with the public, but it is a factor that is deserving of recognition. The public, of course, is primarily concerned with the service the road renders; its earnings are an after, or secondary, consideration. However, that this consideration affected the location problem and its solution, cannot be doubted. We mention it here in the interest of complete treatment of the subject.

We have spoken thus at length about the Michigan section, for it was in that area that the choice of location presented the greatest practical difficulties. Taking up next the comparatively short, but vitally important, Illinois section, the matter of location had all been satisfactorily worked out before the problem of locating the routes in the National System came up. The Chicago Outer Drive from the heart of the City to Jackson Park, then Stony Island Avenue and its extension, Doty Avenue to 130th Street, now all completed and in service, will be utilized as the Chicago end of the project. By the way, the proposed Chicago Expressway out South State Street will connect with the Chicago-Detroit route at 95th or 100th Street. South of 130th Street, the fully planned Calumet Superhighway will be incorporated in the road, as will also the Tri-State Superhighway from its intersection with the Calumet to the Indiana state line at 171st Street. Right-of-way has been acquired on the Illinois section, plans have been made, and twelve construction contracts awarded. It is the intention of the Illinois Highway Department to place the entire Illinois section under contract in the year 1948. The Illinois and Indiana departments have worked out all the details of connecting the two sections of the Expressway at the state line.

The Indiana section goes across Lake County, following the established location of the long-proposed Tri-State Highway from the Illinois line to a junction with U. S. 20 in Porter County about two miles east of the Lake County line, a distance of about  $18\frac{1}{2}$  miles. From this point the existing multiple-lane pavement on U. S. 20 and Indiana No. 2 will be utilized to the South Bend-Mishawaka-Elkhart area and the Michigan line will be intersected in the immediate vicinity of Elkhart. The precise location in the area of these cities is still to be determined by the State Highway Commission of Indiana.

Early in our study of the routing problem it was observed that there is a row of important cities, almost on a straight line, from



The Chicago-Detroit Expressway

Detroit through Jackson, Battle Creek, Kalamazoo, etc., and a similar row between Hammond and Elkhart, including Whiting, East Chicago, Gary, LaPorte, Michigan City, South Bend, and Mishawaka. It was evident that the Expressway should be so located as to serve all these cities, if possible, and the problem was to decide at what points the two rows of cities should be joined. The Michigan Highway Department first favored following U. S. 12 all the way, entering Indiana near Michigan City. The Indiana Commission was equally insistent that the Expressway be kept in Indiana as far east as Elkhart and then connected with U. S. 12 at Kalamazoo, as had been proposed by the Public Roads Administration. These preferences were discussed for well over a year, in the most tolerant and friendly spirit conceivable; then the representatives of the two departments were called into conference with representatives of the Public Roads Administration, the whole subject was reviewed and discussed in detail and an agreement reached. Both states and the P. R. A. agreed on the retention of the Kalamazoo-to-Elkhart link, and the Michigan Department and the P. R. A. agreed on the inclusion of the Kalamazoo-to-Benton Harbor link. At Benton Harbor this interstate route will join another similar route coming down from Grand Rapids and will follow U. S. 12 along the east shore of Lake Michigan to the Indiana line and will go into Chicago over U. S. 12 and 20. The routing from Elkhart to the Illinois line was as previously described. The routing from the northwest corner of Elkhart to Kalamazoo was shown on the map, as agreed, as a straight line. It should be noted that even with the route intersecting the state line opposite Elkhart, there will still be more of the road in Michigan than in Indiana, because so much of Michigan lies east of Indiana.

#### PROS AND CONS OF ROUTE SELECTION

Now to describe fully the Michigan interstate routes under discussion, it should be said that, starting at the Detroit end, the existing Detroit Industrial Expressway and its Willow Run Expressway extension will be utilized for 30 miles to the southwest from the city limits at Wyoming and Michigan Avenues (six miles from the heart of the city) to a point on U. S. 112 about two miles southwest of Ypsilanti, then will utilize a bypass to be constructed along the south and west sides of Ann Arbor to a junction with U. S. 12, and then follow the general route of No. 12 to Kalamazoo. From Kalamazoo two interstate routes run to Chicago, one by way of Benton Harbor, and the other by way of Elkhart as previously described. Only the one



by Elkhart is being considered as part of the Chicago-Detroit Expressway Project, but there is no doubt the link between Kalamazoo and Benton Harbor will be constructed; in fact it may be built before the Kalamazoo-to-Elkhart connection. Michigan sentiment may insist upon this; but it does not follow, by any means, that the Elkhart route will not be built without undue delay. It is of first importance to note that in a highly authoritative and unbiased report recently made by Michigan highway experts representing all units of government, highway users of all classes, and the great highway industries, the Chicago-Detroit Expressway was recognized as an urgent necessity and both the Benton Harbor and Elkhart routes were deemed to be essential, the choice of the one to be built first to depend on the results of further engineering studies.

During the discussion preceding the designation in August, 1947, of the National System routes, it was brought out that the route from Chicago to Detroit via Elkhart and Kalamazoo may be as much as ten miles longer than the route via Benton Harbor and Kalamazoo but that it will serve an additional 170,000 people. It was pointed out that the avowed purpose of the National System as stated by Act of Congress is to connect by routes "as direct as practicable" (not necessarily the shortest routes) "the metropolitan areas, cities, and industrial centers," etc. South Bend is the largest city between the Chicago area and Detroit. Elkhart is the fifth city in Indiana in the number of manufacturing plants, being exceeded only by Indianapolis, Fort Wayne, Evansville, and South Bend. Mishawaka alone is substantially larger than Benton Harbor and St. Joseph combined.

While it now appears probable that the Kalamazoo-to-Benton Harbor route will be built before the Kalamazoo-to-Elkhart link, this is by no means a foregone conclusion. The two links are of almost identical length; but the Benton Harbor route traverses the fruit belt where land values are high, while much of the route to Elkhart is over land of little value. It is admitted also by both state and federal highway engineers that the present four-lane, undivided pavement on U. S. 12 from the Indiana line to St. Joseph and Benton Harbor is already overcrowded in the fruit trucking and vacation seasons and must be widened or paralleled with a new roadway. Instead of doing this, there is some sentiment in Michigan to construct a new road further east to reinforce the state's rather inadequate north-and-south highway system in the southern part of the state. The Elkhart link would serve this purpose. It would greatly facilitate the movement of people between northern Indiana

and southern Michigan and between central Indiana and the heart of Michigan.

Some fear has been expressed in Indiana that after this state builds its new Expressway across Lake County, in part to serve the convenience of Illinois and Michigan, that Michigan will build the Benton Harbor link and forget all about the one to Elkhart. For reasons already stated, it does not appear at all probable that this will happen. There is an additional reason why Indiana need not worry too much about collecting her share of the gas-tax revenue. It so happens that the South Bend-Elkhart area is on the real short line between Detroit and Chicago as a matter of geography that is not subject to change. If Indiana will complete her section to the Michigan line near Elkhart, she can sit back and let nature take its course; the short-line enthusiasts will vault lightly over the state line and head for Detroit over U. S. 112 and M 60 even if they are no better than they are today. Of course if the longer but faster, safer and more comfortable Expressway is developed, the majority of people will gradually form the habit of using it, as its proponents intend shall be the case.

It may be that in years to come, after the just claim of the southern Michigan cities to the benefits of express highway service is satisfied, public attention, never far removed from the old Sauk route between Elkhart and Detroit, will insist on the improvement of this route to interstate standards also. It is altogether likely that this will come about in time, but the time is not yet. What, then, of the Kalamazoo-to-Elkhart link if it has been constructed? Will it become useless? By no means, for it will be available to render the service now performed by U. S. 131 south of Kalamazoo, which even now has an average daily traffic equal to two-thirds the average traffic on the National Road across Indiana. No one would be the loser by that process of development.

#### HISTORICAL DEVELOPMENT

While nearly all the tangible progress on the Expressway has been made since 1943, and especially since 1945, it is but the working out of a plan conceived in 1926 by the Chicago Regional Planning Association with suitable provisions to bring it down to date and to modernize the design features. In checking with Mr. Robert Kingery, General Manager of the Association, to whose great vision and inspiring leadership the proponents of the project are deeply indebted, we learn that as far back as July 9, 1926, a meeting of Illinois

and Wisconsin state and county highway officials was held in the Kenosha courthouse to plan the location and width for a main Chicago-Milwaukee highway. The suggestion was made by an Illinois engineer that a belt line around Chicago toward South Bend and the east be studied by staff men. Another meeting of the same group was held later in the same month. It was generally agreed that a right-of-way width of 200 feet should be chosen and that the pavement have a center dividing strip, which was bold planning for 1926. It was further agreed that Indiana be invited to participate. A member of the Indiana Commission accepted the invitation, endorsed the program, and thus the Tri-State Highway Project was born. On October 4 of 1926 another meeting was held and a resolution adopted recommending a route from Milwaukee west and south of Chicago to the Indiana line and thence extending to or near Michigan City, LaPorte, South Bend, and on ultimately to Detroit and eastern points. Following these beginnings, a total of 71 miles of the Tri-State Highway have been paved. We mention these facts to show that the project as we know it today was not launched recently on some sudden impulse.

In the monumental report entitled "Toll Roads and Free Roads", issued by the Public Roads Administration in 1939 on the completion of a study directed by Congress, an interstate route was shown across northern Indiana from Chicago to Angola and thence to Detroit, and in the report of the National Interregional Highway Committee in 1944 an interstate route was shown from Chicago to Elkhart, thence across the state line and on to Detroit over U. S. 112. The representative of all the state highway departments on that Interregional Committee was a distinguished Michigan commissioner of highways. The latter route and the U. S. 12 route are both shown on the map of the Strategic Network of Military Highways as chosen by our highest highway and military officials and as revised in May, 1941. These early developments furnish a background against which routing decision ultimately made can be profitably projected for purposes of comparison.

An important decision yet to be made officially is whether the Expressway is to be routed through or around South Bend. We hope the decision will be for a bypass, as otherwise we fear the project will be long delayed and perhaps ultimately rejected. Bypasses are now in service in the form of the Detroit Expressways around Dearborn, Inkster, Wayne, and Ypsilanti and are planned for all the other Michigan cities named and all the other Indiana cities along the route are being bypassed. It does not seem wise to depart from this

established pattern at one point. Resistance to the Elkhart routing would increase in Michigan if it were proposed to route the Chicago-to-Detroit traffic through South Bend. There is enough of the through traffic to justify the construction of a bypass which would soften Michigan opposition to entering this area.

May we digress to give at this point some information developed in Michigan on the value of controlled access in accident reduction? The figures are especially significant since the comparison is made between a limited-access expressway and a high-type divided highway to which access is freely permitted. The routes compared are U. S. 112 from Detroit through Dearborn, Inkster, and Wayne to the Wayne County line, and M. 112, the controlled-access Detroit Industrial Expressway, from Detroit to the Wayne County line, roughly paralleling and being somewhat longer than the older route. During 1946 there were 90.7 accidents per 100 million vehicle miles on this section of M. 112 and 625.3 accidents per 100 million vehicle miles on the corresponding section of U. S. 112. In other words, on the two highways, each with divided roadways but only one with controlled access, there were nearly seven times as many accidents where access was freely permitted as where it was controlled.

There remains only the privilege of recording some details of progress and of giving credit to some capable and courageous state highway officials. A grading and drainage project on the east end of the Jackson bypass is under construction, and four bridges are programmed for early advertising. Most of the right-of-way on the Jackson bypass has been acquired and a beginning has been made in acquiring the requisite land at Kalamazoo. Other surveys have been made in Michigan, and the preliminary studies leading to final location are far advanced. The Michigan Commissioner of Highways has revealed his desire to push the project, and the Governor has warmly endorsed it.

In Indiana the first mile of the Project, from the Illinois line to Calumet Avenue, the route of U. S. 41, may be referred to as the "high hurdle". In this mile the right-of-way division of our State Highway Department has moved over a hundred houses, occupied homes, without resorting to condemnation in a single case and without arousing opposition or engendering resentment. This is an achievement that has attracted the most favorable national attention and is without a parallel in the annals of the Department. This mile will be entirely cleared by early summer. Plans are completed or far advanced for highway grade separations and interchanges, for a river

bridge and for a railway grade separation, some of which will be placed under contract this year. Right-of-way is also being acquired on the next mile-and-a-half section to the east of Calumet Avenue. It should be noted that when this first mile is finished, with the Illinois section, it will be immediately useful, as it will carry over a high-speed, controlled-access road to the heart of Chicago the traffic from Florida and other southeastern States, Kentucky, Tennessee, most of Ohio, and most of Indiana. Its cost is great, but its value is greater and will grow still greater with the years.

So far as Indiana is concerned, the decision to undertake this Project was made in 1943 when the war was on and construction banned. The Calumet cities asked for the Lake County section to relieve local traffic congestion, but no irrevocable step had been taken when the present State Highway Commission took office. Difficulties were then appearing on every hand: increased costs, material and machinery shortages, a very severe shortage of engineers, and far from an oversupply of contractors. A less resolute and courageous Commission could have found plenty of excuses for dropping the project. But this Commission, in a manner worthy of the highest traditions of the Department and with the active support of our far-seeing Governor, pushed boldly forward and made the Chicago-Detroit Expressway an assured reality