

our plan to continue to study traffic along these lines and supplement the existing data with spot counts from time to time, thereby keeping our traffic information up to date.

We plan to publish a series of reports describing the method and the results obtained. If you desire a copy of these reports, write to the Cook County Highway Department and we shall be very pleased to furnish you the information as soon as it is ready.

ORIGIN-DESTINATION SURVEYS

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Rather than launch into a general discussion of Mr. Mortimer's paper, or of origin-destination surveys, I will limit my remarks to several points that he has presented or suggested.

He has recommended that a practice count be a "must" for any agency planning an O-D survey. To this "must" I should like to add at least two others. The first is, determine exactly what you're shooting at and set your sights accordingly. This "must" may seem rather trite and obvious; but in my limited experience I have seen surveys whose results and conclusions have been of such a general nature that my personal reaction has been, "So what!" Use originality. Let's not follow the exact procedure that was used by our neighbor, merely because that procedure is established and easy to follow.

The second "must" I would add is a "practice analysis," as well as a practice count. Field data may be perfectly recorded and assembled but defy analysis. A practice analysis may show the need for additional data, or it may show that the elimination of certain items will facilitate the final analysis without influencing the results.

These remarks apply particularly to surveys of large scope. No large survey should be an experiment. Experiment first—and by streamlining the survey itself on the basis of these experiments much time, effort, and money can be saved.

The field data from the 26 Indiana stations of the O-D survey described by Mr. Mortimer are being analyzed for our own use by the Highway Planning Department of the State Highway Commission. In the analysis of these data it has been found that many more duplications have resulted than would normally be anticipated by using the last four digits in recording license numbers. These duplications cause much additional work in tracing the vehicles through the various zones, and in some cases make it impossible to trace them accurately.

At present the Highway Planning Department is making a limited O-D survey to determine the probable use of a pro-

posed cut-off to the north approach of the Ohio River bridge at Jeffersonville. In order to eliminate duplications, the entire license numbers are being recorded by the use of dictaphones. It is believed that the additional cost of recording field data in this manner will be more than offset by the saving in time and money in making the analysis.

To me, one of the most interesting features of Mr. Mortimer's paper was his discussion of effective-pavement widths. This subject is one of my favorites, because if we, as road- and street-building agencies, have been professionally deficient in any respects, surely this is one of them.

Recently while glancing through a road magazine, I noticed two pictures side by side. They were both taken from the same point, the first showing a downtown street before improvement, and the second the same street after improvement. The first shows a street with cars parked on both sides, and with one lane of traffic moving in each direction: the street was apparently in need of improvement. The second shows the newly widened street; buildings have been moved back or cut off, undoubtedly at great expense; the pavement has been laned for two lanes of traffic each way. That's wonderful, I think; but something doesn't look just right. I look again—now I've got it! The cars moving in one direction to the right of the picture are in a single line, not in the outside lane, not in the inside lane, but straddling the lane line separating the two. The cars moving in the opposite direction are travelling in the same relative position. Surely this use was not the intent of the builders.

In order to find out what's wrong, let's start from the curb and try to determine the distance to the centerline of the street, providing sufficient width for parallel parking and for one or more lanes of traffic in each direction. The width of a car is approximately 6 feet; allowing one foot for those that are not parked flush to the curb, we have a 7-foot parking lane. From actual observation, it has been found that drivers moving at moderate speeds past a line of parked vehicles will not voluntarily drive closer than $4\frac{1}{2}$ feet on an average. Add 6 feet for the width of the moving vehicle, plus a $2\frac{1}{2}$ -foot clearance from the centerline, and we have a total of 20 feet from curb to centerline. Thus we have a minimum 40-foot street width where parking is permitted on both sides, instead of the generally accepted 36-foot street. And in order to get two effective lanes in each direction with parking permitted on both sides, I believe that 60 feet should be a minimum instead of the generally accepted 56 feet. If truck parking or truck movement is appreciable, allowance should be made for the additional width of these vehicles.

With these thoughts in mind, observe the driving practices on some of the streets and roads with which you are familiar. Let's quit thinking of the width of our streets in terms of feet and think in terms of effective-lane widths.

The speaker has stated that the number of motorists that would use the proposed system of express highways in the Chicago area can be anticipated from the information available through these studies. Such information is vital, not only in the design and location of the highways and feeder routes as he has suggested, but in the economic justification of the project as a whole.

We all know that the demand for improved free-wheel transportation facilities far exceeds the available funds for satisfying these demands. We know that the functional requirements of rapid and safe movement in our modern cars have made many of our streets and highways obsolete. Although they have kept us out of the mud for years, congestion and accidents demand that they be improved. Since the supply cannot meet the demand, everyone interested in roadways must make only those capital investments for traffic facilities that will produce the greatest return per dollar invested.

Since the war emergency, it has become necessary to justify street and highway construction not only on the dollar basis but also on the basis of available critical materials. It is interesting to note that within recent weeks the Public Roads Administration has demanded a detailed report on each road project submitted to it by a state highway commission for approval, such report to contain all available information regarding traffic and accidents. On the basis of these reports, together with the strategic importance of these projects to our national war effort, each project is, if approved, given a priority rating.

The use of traffic studies in determining the justification for improved facilities will assume more and more importance even after the termination of our war effort. Consequently, I believe that there will be an increasingly greater need for such studies.

ON- AND OFF-STREET PARKING

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Motor-vehicle parking is one of the big problems facing practically every city, large or small, in the country today. For a number of years, city engineers and highway engineers have been busy providing, among other improvements, good street pavements and paved roads to make it easy for motorists to get to downtown or business districts in the shortest time possible. In general, pavements have been provided, but the automobile driver, after arriving downtown, faces the serious problem of parking his car. It is easier to get downtown than it is to dispose of one's car after arriving. Very few, if any, of our cities were designed so that the streets can handle the heavy parking burden now thrust upon them.