

Arizona Department of Transportation in Globe and other small communities throughout the state is an excellent example of an approach that is appropriate in smaller communities. In this procedure, a workshop tour of the city with community leaders is sufficient to identify problems and reach an agreed on course of action. The procedure is responsive to community needs. The workshop participants concluded that this approach is sufficient to solve the transportation problems of many communities and should be considered in all small and medium-sized communities.

A similar approach should be sufficient to uncover problems of community concern. The transportation planner is then able to design study procedures and select techniques in accordance with the complexity of the problems.

The workshop participants unanimously agreed that the problems of small communities should be addressed by using the simplest procedure or technique applicable. Clearly, this will require a planner to have experience with or exposure to a wide variety of techniques so that he or she will know which technique to use in a specific situation and how to properly evaluate and interpret the results. The emphasis should center not on the complexity of the technique but rather on the sophistication of the planner in selecting the appropriate procedure or technique.

Manual techniques (such as those described by Carter) are suggested as applicable for evaluating the transportation effects of a new traffic generator. These techniques allow the local planner to carry out the analysis by using a hand calculator and, by going through the process manually, he or she will develop a better understanding of the nature of the problem. This may lead to a better evaluation of the effects.

The approach described by Waggoner is an example of a procedure that was designed in direct response to a locally perceived problem—that of acute traffic congestion at several intersections. By collecting data pertinent to the perceived problem, the planner is able to quantify the problem and make appropriate recommendations.

The workshop participants concluded that, in a number of situations, especially small communities or those experiencing very limited growth, traffic engineering studies are all that is necessary.

It was also concluded that traditional modeling pro-

cedures need not be used for system planning in small and medium-sized communities. These procedures should be used only in those few situations where major system changes may be required or where the information developed by simpler methods does not satisfy those making the decisions.

When it is necessary to resort to the traditional computer-modeling procedures, synthetic study techniques should be used, both for internal and for external travel. These techniques should be used only when the required computer programs and models are operational and coupled with available data and planning staff expertise.

The workshop participants noted that the time frame for appropriate and effective planning will vary from area to area. The amount of effort devoted to long-range planning versus that devoted to short-range planning should be a function of the growth potential of the area and the nature of the problems to be analyzed. It was generally concluded that the emphasis of the planning effort should be on solving current problems. If a forecast of travel is required to support an improvement, the projection year should be based on the economic life of the particular improvement. For many types of improvements, a long-range forecast of travel is not necessary.

Today, planners face a very challenging task. The traditional formula-oriented approach to system planning is no longer appropriate; the need is for an approach tailored to the unique requirements of the particular area. No longer should planners be tied to the traditional cycle of plan reappraisal and revision every 5 or 10 years. This requires creative ability on the part of planners to decide which approach can best address the problems in their area.

There is no need to invest research money in developing new procedures or techniques. The procedures and techniques are available. What is needed is a planner who has the ability to apply the techniques creatively. To help foster the creative application of existing procedures and techniques, the workshop participants recommended the documentation and dissemination of procedures and techniques designed to address particular problems. Although some of these procedures and techniques were discussed at this workshop, there is a continuing need to provide additional information to the planner.

## System Planning "Do's and Don'ts" for Small Cities

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Some critical points for system planning for small and medium-sized communities are discussed—(a) don't overorganize, (b) don't overdocument, (c) don't be too sophisticated, (d) don't demand stereotyped analyses, (e) don't impede transportation with too many social programs, and (f) don't overregulate. It is emphasized that the need for planning in urban areas is not less in smaller areas but the procedures used in satisfying the needs are different.

This nation has undergone significant changes in the last hundred years. A century ago, nearly 39 million people populated our country. Today, more than seven times that number reside in 50 states. From a rural agrarian society, we have become an urban industrialized one. Towns have become cities, cities have become urban centers, and urban centers have become metropolises.

Our citizens are better educated, more interested, more involved. We are a mobile society, enjoying the

highest standard of living known to history. Yet, we also have urban decay, transportation congestion, and environmental problems.

Over the past several decades, much attention has been focused on attempts to find solutions to our problems. And, although these problems have appeared greatest in large urban centers, the same symptoms are now discernible in smaller urban communities and even in rural areas. Thus, we must begin to acknowledge the need for system planning in small and medium-sized communities; otherwise, they will develop the same symptoms of oversight now prevalent in large urban areas. We must not, however, overreact simply because we have become so overwhelmed by the problems of the big cities. The problems of small and medium-sized cities are different and the way we approach planning for them must be tailored to their needs.

#### DON'T OVERORGANIZE

The metropolitan planning organization (MPO) approach may be useful in large urbanized complexes where there are a number of local governments and no overall constitutionally established authority that can coordinate planning throughout the developing area. However, when only a single city is involved, regardless of its size, the need for such an organization is questionable and, in smaller areas, the requirement of an MPO is absurd.

#### DON'T OVERDOCUMENT

Years ago, millions of dollars worth of transportation improvements were achieved with minimum documentation. Today, even the simplest programs seem to require reams of justification, detailed work-program outlines, and prospectuses. In our comprehensive, continuing, and coordinated (3C) planning operations, we are foundering on a sea of paperwork. Let us not set the smaller cities adrift in the same waters.

#### DON'T BE TOO SOPHISTICATED

Planning in urban and urbanized areas that have populations of less than 200 000 should generally be limited to simple traffic and transportation engineering studies. Costly traffic assignments and the data they require are not usually necessary. Major updates of transportation plans should be made much less frequently in smaller areas than in larger ones. Because the number of transportation improvements that can be accomplished in smaller areas is restricted by available funds and because the list of needs in such areas is usually shorter, they do not accomplish as many marvelous things in the same time span as larger areas. Also, smaller areas have smaller permanent staffs and are thus not geared to perform as larger-city staffs. This should not rule out their occasional estimation of long-range possibilities (e.g., what facilities might be needed if the population doubled, but without tying the forecast to a specific year).

#### DON'T DEMAND STEREOTYPED ANALYSES

The use of modal alternative analyses should be restricted to those areas that have large, high-density populations or where public transportation is a logical alternative. In small cities where there is no interest in public transit or where traffic congestion is marginal to nonexistent, it makes little sense to carry out such analyses.

The goal of system planning should be to match the

needs of mobility to the desires of accessibility. A freeway provides the highest level of mobility but is less accessible from abutting lands. Local streets provide high accessibility to abutting properties but less mobility to travelers. As in all phases of transportation, system planning must try to achieve compatibility between the land-use pattern (urban form) and the transportation network. Thus, stereotyping either of the two without consideration of community goals and characteristics will simply result in another publication on the shelf—impressive, perhaps, but useless.

System planning procedures must be designed to fit the individual urban area. This is the bottom line. Whatever procedures are used, they must recognize the individuality of the given area, its growth potential, its goals, its economic stability, and its overall character of life.

#### DON'T IMPEDE TRANSPORTATION WITH TOO MANY SOCIAL PROGRAMS

Currently, social scientists are demanding more and more of transportation planners and this is resulting in fewer meaningful products. Improvements in air quality; better mobility for the aged, the handicapped, and the economically disadvantaged; the concerns addressed by Title VI of the Civil Rights Act of 1964; environmental protection; and such are all these worthwhile concerns that society must address and accommodate. However, to ask transportation system planning (or project planning for that matter) to cure these social problems is unfair. The old ten basic elements of urban planning must still be the basics on which transportation is planned. Without them, we will have no base for comparisons of progress against forecasts. Economic and social considerations are generally incompatible if either tries to force the other; transportation development is economically oriented, and enforced social programs can have devastating effects.

#### DON'T OVERREGULATE

There should be no insurmountable difficulties in small city planning unless they are created by planners themselves by overzealous application of policy and procedure. Regulations are a crutch for those administrators unsure of what they should be doing. As professionals, planners should be able to respond to public needs and desires without the use of formula procedures. It has been said that there are millions of laws but no real improvement over the Ten Commandments, and much the same can be said of planning regulations.

We should remember that large cities are small towns grown bigger.

#### SUMMARY

The need for planning in urban areas is not affected by the size of the area. The procedures used in satisfying that need are simply different in different-sized areas. In smaller urban areas, traffic analysis is just as necessary as it is in larger urbanized areas. However, current traffic data and reasonable trend information are often more useful than the results of sophisticated modeling techniques.

Urban transportation planning has become a complicated, resource-consuming effort. Several years ago, the American Association of State Highway and Transportation Officials (AASHTO) Standing Committee on Planning embarked on an evaluation of transportation planning. The report of this committee addresses the questions of what activities planning should encompass,

the products that should evolve, who should perform planning, and how it should be financed. Many of the

findings are applicable to system planning for all areas, large or small.

## Transportation Action Program

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The development of transportation plans and programs that are responsive to community needs is a strong advocate position. This paper presents an approach used in Arizona that, although not new, may be useful in many other areas. This transportation action program is discussed as an approach to the identification of transportation issues and problems (real and perceived) in a small or medium-sized urban area.

The transportation action program (TAP) was conceived in 1974 after many years and thousands of dollars had been spent in developing transportation plans for five Arizona cities having populations of more than 10 000. But after all this effort, money, never-ending meetings, coordination, and frustration, the final products were little more than a fancy plan that had no real meaning or community support.

This is not to say that planning is not good or necessary but that the plans developed were, for the most part, too ambitious and were seldom implemented due to lack of funds or community consensus as to what was needed. It is necessary to work at the level of consideration of whether streets should be striped or whether a yield sign should be replaced by a stop sign or removed entirely to develop the people's attention.

The TAP program is one that evolved from the results of the Federal Highway Administration traffic operations to improve capacity and safety (TOPICS) program and the effort expended in developing transportation plans by using highway and research funds in smaller communities. The TAP program brings together the best of the TOPICS program and transportation planning coupled with community involvement. It provides a program whereby the community is involved at the grass-roots level and implementation for the most part is their responsibility.

Planning for transportation in small urban areas has been quite successful in Arizona over the past decade; plans have been developed for Douglas, Flagstaff, Kingman, Prescott, and Yuma. These studies, however, have been somewhat costly in terms of funds and staff needs and, as a result, many communities have not been able to participate. Consequently, TAP was developed by the Arizona Department of Transportation (ADOT) to bring transportation assistance to all communities through a community involvement approach.

### TRANSPORTATION ACTION PROGRAM APPROACH

The approach taken in TAP is to use the knowledge available within the community to pinpoint existing problems and to identify future transportation-facility needs to serve existing growth areas and those anticipated by the community. The local news media is included in the program to keep the community informed.

To illustrate how TAP works, let us look at how it was applied in Globe, a community that has a population

of 10 000. A bus tour was scheduled to motor along the local streets and observe existing traffic characteristics while discussing possible steps leading to transportation improvements. The team consisted of 25 persons and included city, county, state, and school officials and Chamber of Commerce representatives. The route taken on the tour basically consisted of the major and collector streets as determined by functional use.

After the tour, the team met and discussed in greater detail the problems observed, as well as others in areas not covered, and future growth and its related transportation system.

One of the most important factors to be considered in upgrading existing roads and constructing new ones is that of land use. To be effective, the transportation system must be compatible with the land uses and adequately serve them. Each street performs a primary function—traffic movement or land access and, consequently, becomes part of a total network. Classification of the existing street system by function provides a basic tool for analysis and planning.

Traffic volumes are a quantitative yardstick of the transportation system. In the Globe study, the average weekday traffic data collected early in 1974 by the traffic division of ADOT was used in lieu of traditional desire-line networks.

Thus, land use, street classification, traffic volumes, and the tour comments were woven together, using both local and outside expertise to develop recommendations that would lead to adequate and safe transportation facilities for the Globe area.

Some of the recommendations from the Globe study include the following:

1. Eliminate angle parking as off-street parking becomes available.
2. Perform a detailed engineering study to evaluate the transportation impact of a proposed public school development.
3. Conduct a study to determine the feasibility of a pedestrian overpass.
4. Extend a facility to provide for route continuity.
5. Consider providing left-turn lanes at various subdivisions.
6. Eliminate parking on a narrow two-lane street.

Because little can be accomplished without proper guidance, it was recommended that the suggested improvements be pursued by appointing a coordinating committee to follow through. It was also recommended that a workshop be held one year later to determine the effectiveness of this endeavor.

TAP was an attempt to coordinate transportation ideas and knowledge in the Globe area through direct involvement of individuals living and working in the community. A practical approach was taken in an endeavor to capitalize on the available knowledge within the com-