the urban policy objectives. For example, local officials are specifically identified as partners with the states in the development of federally aided plans and programs. Because DOT programs constitute a significant part of the approximately $30 billion in federal-aid urban programs, transportation is a key element in the urban policy. The interface between air quality and transportation discussed above adds a new dimension to the planning requirements in small urban areas. Although the emphasis at the national level is to address the transportation-related pollution problems of large urban areas, small urban areas also have to be concerned with air quality because the clean air act does not distinguish between large and small areas. As a general guideline, the level of effort for air-quality-related transportation planning in small urban areas should be commensurate with the magnitude and geographical extent of the air-quality problems in the area.

SUMMARY

The key points for better transportation planning are greater flexibility, improved communication, and simplified requirements. Although those at the federal level can contribute to simplifying the planning requirements, it is up to local planners to ensure that the planning process is suited to meeting the needs of the area as seen by the local elected officials and that the resulting projects are within the financial capabilities of the funding agencies. The need to establish a relevant, issue-oriented planning process will be particularly important in the approximately 40 areas that will become urbanized as a result of the 1980 census.

REFERENCE


What Should We Be Trying to Do in the Transportation Planning Process?

Dan C. Dees, Office of Policy and Planning, Illinois Department of Transportation

This paper presents many of the issues and concerns surrounding the transportation planning process and products from a state perspective. The uniqueness of each urban area, including the small and medium-sized ones, dictates a process that is responsive to local needs and products that address the important issues. The regulations formulated at various governmental levels must work to the advantage of the local area; therefore, latitude must be an integral component implicit in this regulation. The long-range planning process cannot be ignored, but its de-emphasis may be required to effectively facilitate shorter-range programs. A survey of local public officials in Illinois has reaffirmed the need to simplify the administrative requirements of the planning process and increase its flexibility by allowing local transportation decision makers to define its direction. The enthusiasm for data and an ongoing data base is not valid in many instances. Suggestions are made as to the critical data elements needed to prepare most alternatives and analyses. The vitality of the transportation planning process rests with the effective union of local decision makers and transportation planners. Local determination and a responsible program that reflects local goals and priorities is the mandate of the transportation planning process.

The time is right to chart a new course for the urban transportation planning process. The problems and issues should be analyzed and a new direction and a new focus developed.

What are we really buying with the millions of dollars spent each year on transportation planning? How are we spending those dollars? In Illinois, the dollars spent on planning are counted and the construction projects that an equivalent amount of money would buy are determined. In the small urban areas of Illinois, the planning funds exceed 10 percent of the dollar amount of federally constructed projects each year. The nearly $30 million of federal money spent nationwide on highway planning alone last year would have resurfaced 320 km (200 miles) of city streets. Over the past five years, 1600 km (1000 miles) could have been resurfaced. We should be sure we are spending each planning dollar wisely.

SMALL URBAN AREAS ARE DIFFERENT

Many planners are associated with the small urban area process and familiar with the transportation and socioeconomic characteristics of such areas. Others, however, are involved in planning at a statewide or a nationwide level and tend to think of small areas (such as Sarasota, Florida) in the same light as Miami, St. Louis, Chicago, or Boston. There is, however, a vast difference in the scope and complexity of work and the planning effort required between large and small cities.

Let us stop for a moment and profile a typical small area. There are subtle differences among areas, but there are also fundamental similarities.

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>100 000 to 150 000</td>
</tr>
<tr>
<td>Population growth (%)</td>
<td>1-2</td>
</tr>
<tr>
<td>Public transportation ridership (percentage of daily person trips)</td>
<td>1-3</td>
</tr>
<tr>
<td>Minority population (percentage of total)</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Handicapped population (who would require special equipment) (percentage of total)</td>
<td>&lt;1</td>
</tr>
</tbody>
</table>

In these areas, air pollution is not usually recognized as being a problem. The regional planning commission staff is often limited to one transportation planner who has one to two years' experience, and the central city...
were somewhat disconcerting.

A former mayor and current state representative stated, "The whole thing (the 3C process) was a complete waste of time." A county highway superintendent felt that the 3C planning process was "a big hassle, with too much documentation and red tape." Another official said, "I don't believe that the great planning processes have really done very much at all except spend a lot of taxpayers' money which might have gone into actual construction. Channel that money into actual construction and let the local agencies do their own planning."

Is this an indictment of the current process? It may be—at a minimum, it points out that the user of the process must be satisfied.

Satisfying the User

Although the state and federal agencies are the prime users of the planning process, its success or failure lies in its being responsive to local decision makers, the officials who actually vote the taxes and appropriate the funds to match any federal planning funds. Thus, a process can be rated as being successful if it can accomplish the following:

1. Provide technical assistance to implementors (i.e., decision makers) by identifying problems, developing options, and recommending solutions;  
2. Provide a quick-response capability to questions from decision makers and the public; and  
3. Identify the projects and strategies in the transportation improvement program (TIP) that provide the most cost-effective solutions.

Technical Assistance

The decision makers—the elected official, the public works director, or the transit operator—are busy with the day-to-day administration and management of their operations. Their staffs, if they have any, are busy and may be overworked. But, the transportation planner or traffic engineer on an MPO staff can provide the technical assistance they need. The planner can identify problems and present solutions to the decision maker. However, if the planning process is not tied into the decision maker, then the technical assistance never reaches the appropriate person and achieves no useful purpose. If the transportation planning process does not succeed in identifying problems such as unsafe or congested intersections and financial shortfalls for transportation investment, then it is not helping those people who need help.

Quick-Response Capability

The elected officials (and other users of the MPO expertise) expect the process to have a very quick-response capability to the questions that come from the public. The impacts of zoning changes, the construction of a new regional shopping center, the relocation of a hospital, or the closing of a factory are all day-to-day questions to which the transportation planning process must respond in a very short time frame.

In addition, because most MPOs are tied into the comprehensive planning process, the quick-response capability can provide an analysis of transportation impacts, as well as of comprehensive planning impacts.

Cost-Effective Solutions

The end of the planning process is usually a decision, most likely a decision to implement a project or a sys-
tems management strategy. Therefore, a major responsibility of the planning process is to ensure that the right project or strategy is implemented. The key is proper project evaluation and setting of project priorities. Because there are state and local projects in almost every urbanized area, the planning process must help the decision makers (from all agencies) set priorities and choose those best projects that provide the most cost-effective solutions.

Process Changes

If the transportation planning staffs and the implementors join forces, there will be changes in the process. Planning will no longer be planning in the abstract; rather it will be tied into the implementation process. What will happen if the process changes are undertaken?

First, the process will concentrate on current priorities as opposed to those of some indefinite and ill-defined future period. It will focus on the situation and conditions of today and tomorrow and perhaps those for the next year and, when those are solved, perhaps for the next 5 years. Too often, plans have been designed for optimistic population projection, a projection that may not come true for 40 or 50 years. Too often, plans have ignored inflation; planners have assumed that the money to build will be available, but it will not!

Second, planning staffs can help the local official to understand federal and state regulations. Federal and state regulations are often too complicated for a part-time or understaffed local official to understand or even keep up with. Furthermore, funding sources may vary and it is often difficult for a local official to deal on a day-to-day basis with state or federal representatives, particularly on matters relating to right-of-way, design, and engineering. These subjects quite often are informally delegated to planners who, in turn, must understand implementation details and be careful to continue to involve local officials at appropriate times.

ISSUES CONFRONTING SMALL URBAN AREAS

Sorting Out the Important Issues

The issues confronting transportation planners are many, varied, and complex. With any degree of imagination, a list containing 50 to 100 different issues could easily be developed.

Issues such as funding, staffing the organization, the composition of the policy committee, and citizen-involvement activities are important, but do not reach the heart of the process. Some issues that deal with the direction of the process are controlled by local initiative and depend on local personalities. These include the following:

1. How can we make the process more sensitive to local priorities?
2. How can we focus on fundable, implementable solutions rather than on system expansions?
3. How can we gain support from federal and state agencies that will provide not only the planning funding but also the staff assistance to do the job?
4. How can transportation planning encourage the economic growth of a community?

Other issues that are broader in nature include the following:

1. How can the regulations work for us?
2. How do we respond to the new actors?
3. Can we ignore long-range planning?
4. How can we simplify the planning process?

How Can the Regulations Work for Us?

If the joint Urban Mass Transportation Administration (UMTA)-Federal Highway Administration (FHWA) planning regulations are examined closely, it is seen that they require several useful products that are tied directly to the decision-making process. There are, however, no prescribed step-by-step instructions on how the products are to be prepared. (There is nothing to replace the computer traffic models or complicated procedures.) Therefore, within very broad limits, a planning process can be established that suits the needs of a specific urbanized area—as long as it produces something called a prospectus, an overall work program, and a TIP that has both short-range and annual elements, as well as transportation system management (TSM) elements.

The regulations also require a long-range systems plan. In Illinois, this is referred to as a transportation system development plan. Although the focus is on providing solutions to the short-range problems, the long-range look at system development is useful in giving some perspective and depth to the planning effort. Efforts should not be concentrated on the long-range element, but a glimpse at the future helps to prevent mistakes in near-term investment decisions.

Unfortunately, many planners have continued the traditional process established in the 1960s by the large urbanized area staffs. Also, by considering the new regulations as a requirement to expand the planning process, planners have used the regulations to justify additional staff to enlarge and protect their domains and areas of influence.

Because the computer packages were developed and available, there was little incentive to find a substitute for them. However, recently, it has become necessary to take a second look at the large data and staff requirements. For example, in Illinois, budget requirements have required a reexamination of computer use; in the early 1970s, five to seven full-time people were kept busy running the transportation planning package for downstate urbanized areas, but today one person works approximately halftime on the traffic model.

Recently, UMTA and FHWA have developed manuals containing planning techniques applicable to small urban areas. Those planning techniques vary widely in complexity and budgetary requirements. Furthermore, it behooves transportation planners who have problems in the interpretation of the planning regulations to resolve their differences—with state and federal officials. The regulations do allow the latitude to do what is useful and ignore what is impractical.

How Do We Respond to the New Actors?

With the new requirements for water-quality and air-quality planning in urbanized areas, new actors such as the U.S. Environmental Protection Agency and the U.S. Department of Energy (DOE) are now involved in the transportation planning process. In many areas, the Federal Railroad Administration is also part of the process. Because these agencies are relatively new to the transportation planning process and not as concerned with implementing highway and transit projects as are transportation planners, it will be necessary to spend considerable time in education. It is also necessary to be very careful that sophisticated technical procedures that are not really necessary are not required.

The interagency agreements between FHWA and DOE
may very well require computerized long-range planning for small urban areas. In some states, the project planning requirements (such as environmental impact statements) make the use of computer analysis for noise and air evaluations a necessity.

Can We Ignore Long-Range Planning?

Long-range planning cannot be ignored; however, it will be necessary to de-emphasize the long-range planning process in order to concentrate on the short-range problems.

In Illinois, it has been found that a very small percentage of the long-range plans developed between 1965 and 1970 have been implemented. This is not only due to a lack of finances but also to the failure of the long-range plan to identify critical near-term project needs.

Another factor in judging the validity of long-range plans is whether or not the area takes land-use planning and zoning seriously. If there is stability in the land-use planning effort, then it may be possible to reduce the number of alternatives to be studied and tested in the long-range planning process. If the area does not take zoning seriously, then a long-range planning effort is a waste of time.

How Can We Simplify the Process?

In the Illinois survey of local public officials involved in the planning process, almost all indicated that many of the activities expected from the small urban planning staffs need not be undertaken. It is simply not possible for the one transportation planner in a small urbanized area to produce all the products required by regulation nor can the staff study or even consider all of the kinds of TSM actions that are suggested within the regulations. There is no definite need to restructure the expectation of the kinds of products that are meaningful to local decision makers in the small areas.

It makes no sense to focus the planning effort on peripheral issues. A public transportation system that carries one percent of the daily trips does not require the same level of study as a system that carries nine percent of the riders. Nor should attention be focused on computer programs that study highway systems that will never be built.

A real revolution in the planning process would occur if the responsibility and accountability for spending transportation money were delegated to the chairman of each urbanized area policy committee. The planning requirements after such a revolution might include the following:

1. A 1-page prospectus indicating the key transportation policy questions requiring an answer.
2. A 1-page work program indicating—in one paragraph each—the four or five key planning products required during the year (thus replacing the 100- to 150-page document normally produced).
3. A 2-page contract indicating in general terms the responsibilities for the transportation and comprehensive planning processes and including the typical preprinted 30-page backup material attached with appropriate blanks filled in, and
4. A TIP consisting of the capital-improvements program documents already produced by the city, transit district, and state department of transportation.

If there were such a revolution and the excessive paperwork eliminated with these types of substitutes for the traditional TSMs, TIPs, and such, the transportation planning staff would be free to do planning activities that are really important. The limited planning dollars could then be spent on such items as determining how to increase the operating efficiency in a critical corridor within a city or how to link the traffic signal system within a city to make it more efficient.

In Decatur, Illinois, for example, there was a critical corridor in the northeast section of town that had long been recognized as a road block to traffic movement. The traditional planning approach in the long-range plan estimated that improving the operating efficiency would require spending $20 to $30 million to widen and improve a 0.8-km (0.5-mile) long viaduct over a manufacturing plant. A smaller scale study, however, recommended a $1 million intersection improvement at the southern end of the existing viaduct that, when completed, will improve operations considerably and maintain a C-level of service throughout the area through 1995. Another study is under way in the same city to evaluate the 104 controlled intersections on the arterial street system and make recommendations as to the critical ones and the overall efficiency of the whole system. The public officials in Decatur have rebelled against the surplus of paperwork and have tried to use as much of the planning funds as possible on planning products that identify and solve the key transportation problems of the city.

The essential point is that the administrative paperwork burden should be minimized to allow the transportation decision makers to define the direction of the planning process (the problems and the products) and allow the MPOs to go to work.

DATA-COLLECTION PROCESSES

The data-collection process is not an end unto itself. In many areas, data-collection activities, inventories, and such have been structured and these structures then left untended over a period of time. It should be remembered that the goal of the information-gathering process is to find timely, simple, low-cost, and accurate responses to important questions.

It is not possible to develop a data-collection effort or data bank that has all of the data necessary to answer every question that might be asked by any citizen or local official. To do so would require an enormous data bank and a continual monitoring-and-revision function. We should examine the data-collection requirements carefully because data collection is a very expensive and time-consuming activity.

In most areas, the full-time MPO staff available to do transportation planning is limited. There is usually, however, a larger work force involved in the effort. Many areas use technical committees composed of transportation professionals from the operational areas (i.e., traffic engineers, public works directors, transit district managers, and such) to broaden the work effort. The technical committee with the MPO transportation planner as the full-time resource person can establish annual work goals and define the data-collection requirements and can also share in the analysis and report writing.

The best way to build an ongoing data base is straightforward—take existing information and use it! A basic, ongoing data base should consist of the street and bridge inventory, accident information, traffic- and transit-flow information, socioeconomic indicators, and basic land-use and development-pattern information. The use of aerial photographs and summaries of building permits or similar input can keep the land-use development-pattern current. Financial inventories and financial trends are a key to establishing the framework within which annual and multiyear programs are developed.
Because of the need for a responsive local transportation planning process, the transportation planner is faced with the need to ascertain the appropriate level of effort. A uniform, highly structured study design is not appropriate in all cases nor is it always effective. This paper is an attempt to define the role of transportation planning in relation to the local general plan, thereby providing guidance for the integration of planning activities, elements, and products into an administrative process. Guidelines for the appropriate level of professional effort for transportation planning for small and medium-sized cities are given as a function of the growth characteristics and general transportation planning activities of the urban areas.

An attempt to determine the appropriate level of effort might begin with the questions, What is planning? and, What is the purpose of planning?

Planning may be defined simply as the "management of change." Different municipalities may have different goals and development potential. Consequently, the nature of the information needed and used by the decision-making structures of political jurisdictions will vary from place to place and time to time. A single highly structured study design is not universally applicable. Forcing inappropriate planning creates unnecessary conflict and can cause the entire transportation planning effort to be ineffective or even counterproductive.

Furthermore, it is essential that plan documentation not become the objective of the planning effort. The plan should be only one of the steps in moving from community goals to implementation. Integration of transportation planning activities into the general urban planning process is essential to implementation.

RELATIONSHIP TO THE GENERAL PLAN

The general plan is a public policy statement as to the generalized future physical development of a municipality. It provides guidance for the various public and private decisions regarding urban development. It also provides the legal basis for a municipal government to control the private use of land through the administration of the zoning ordinances and other applications of the police power.

Transportation and land use constitute the principal categorical plan elements that define the physical form of the urban area. Unfortunately, many of the comprehensive, continuing, and cooperative (3C) transportation planning efforts approached the problem from the point of view that future land use was a given and then proceeded to design the system to meet the forecast travel demand. In reality, both the land-use pattern and the transportation system are variables. Therefore, a solution can be approached by designing the land use so that a given transportation system can accommodate the demand.

It should also be recognized that it is the comprehensive plan that has legal standing in the courts, not the urban-area transportation plan, when the issue is the use of the police power to control development. Informed use of well-designed zoning and subdivision ordinances is essential for the long-term effectiveness of the urban transportation system.

DIMENSIONS OF THE PROBLEM

In small urban areas, the scale of the problem is small and readily understood. An analyst can visualize the existing urban-activity system as a whole. The relationships of the activity pattern and existing and possible future alternatives can be analyzed without extensive reliance on sophisticated modeling techniques. There are six reasons for this.

1. The size is small enough so that an analyst can digest substantial detailed knowledge of all portions of the urban area.
2. Even in urban areas experiencing very high rates of population growth, the area converted to urban uses within a 10- to 20-year time period is rather modest. Consequently, the market for any one developer is small and development is generally dispersed (i.e., the land being converted to urban uses is not confined to one specific area).
3. The street system in the developing fringe is to a very large extent dictated by the extension of the existing arterial street system. The total land area to be developed in the traditional 20-year planning horizon is not so large as to create major changes in street pattern.
4. The market for public transportation (even if the use per capita is exceptionally high) is so small as to preclude fixed-guideway transit. Consequently, many land-use versus transportation alternatives explored for large metropolitan areas need not be considered. For example: at the population density of Toronto, Ontario,