

## **Access Management**

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Access management will enter the new millennium with considerable momentum. Many states and local jurisdictions either have in place or are planning comprehensive access management programs. Others are actively practicing access control at the project level. Significant interest in the concept continues because it can provide high returns at a relatively low cost. Unfortunately, technical constraints, along with political and institutional issues, have limited widespread coverage and success to date. In this paper, some of the major challenges for access management in the new century are described, some of the responses that need to be made are discussed, the goals and proposed actions of the Committee on Access Management are identified, and the role that other organizations and agencies should play is indicated. First, the definition of access management is discussed.

### **THE CONCEPT**

#### **What Is It?**

The Committee on Access Management views access management as the control of access along surface (nonfreeway) streets—primarily arterials and major collectors. The concept concentrates on restricting the number of direct accesses to major surface streets, providing reasonable indirect access, effectively designing driveways, and enforcing safe and efficient spacing and location of driveways. A variety of techniques are available for achieving access control. They include geometric design considerations, such as medians and channelized islands that prohibit certain turning movements; consolidation actions, such as joint use of driveways and service roads; and others, such as removal and relocation of existing access and the introduction of auxiliary lanes for left and right turns. If these types of improvements are implemented correctly, we can expect significant dividends in terms of smoother vehicle flow, reduced delay, and fewer crashes. These lead to large aggregate cost savings for users by reducing travel time, fuel consumption, property damage, and injuries. In addition, there is potential for expanding markets for local businesses, reducing vehicular emissions, and fostering quicker emergency response for communities as a whole

#### **Value of Comprehensive Programs**

Traditionally, access control has been accomplished through driveway permitting processes and construction, and reconstruction projects where access control is considered in the design. Unfortunately, these approaches do not guarantee consistent applications over time or throughout a large geographical area where there are many players making access decisions. Nor do they offer systemic considerations that capture how the introduction of a new driveway can affect uniform spacings along a corridor as well as operations and safety in the surrounding area.

The best way to manage access is through formal statewide or local comprehensive programs. Such programs—backed up by standards, regulations, guidelines, and so forth—promote uniform applications throughout an area. That is, sites with similar land use and frontage widths will be treated the same way throughout the region that the comprehensive program covers. Typically, a comprehensive program “clears the air” up front as to what is appropriate access given the characteristics and the location of the site and the functional properties of the roadway being accessed.

## **CHALLENGES**

### **Struggle for Widespread Acceptance**

By its very nature, access management cuts across many disciplines: engineering and design, construction and maintenance, traffic engineering, law, right-of-way, real estate, and transportation and land use planning. It is important that all the individuals involved with each of these functions be on the “same page,” whether at the program or the project level. Access management also brings significant political and institutional issues to the surface. For example, many in the business sector believe that anything less than direct access will hurt their business. Some users question the logic of forcing a more circuitous entry or exit to or from land uses with restricted access. Some members of the general public voice their concern regarding higher speeds on access-managed facilities and the potential for more traffic on residential streets. Considerable political pressure is often exerted to reduce the amount of access control because of fears that developers might be “turned off” and decide to build elsewhere or that voters will object to perceived inconvenience and risk.

The biggest challenge ahead is to gain more widespread acceptance of access management. This means getting more jurisdictions throughout the nation to buy into comprehensive programs. An important follow-on to this is making certain that both existing and newly established programs maintain their integrity over the long run. To accomplish this, developers, business owners, and the public in general must see access management as an ally rather than as a threat.

### **Timing is Everything**

The ability to manage access effectively is often a function of how built-out an area is when action is taken. For instance, when access management is considered in the planning stages, before significant development, state and local agencies have the greatest opportunity to get results that are most in line with the recommended standards and guidelines established in their programs or published in the literature. The bigger challenge occurs in built-out areas where there has been little or no consideration given to managing access along the major corridors. Such situations require the retrofit of access controls, which typically is a long, tedious process. Retrofitting entails modifying access to individual properties as they turn over or change land use. Major roadway reconstruction projects offer a faster and more comprehensive way of retrofitting; however, these approaches are often seriously constrained by short frontages and the lack of space for joint driveways or service roads. We need to develop strategies that can accelerate the retrofit process and still provide acceptable results.

### **Institutional and Philosophical Differences**

Legal issues abound in the access management arena because controlling access often forces property owners to accept what is, in their eyes, less-than-desirable access. Gray areas are common when it comes to acquiring access rights for a property so that a driveway can be closed or moved for reasons of safety or good spacing. What constitutes reasonable access is regularly tested in the courts. Compensation for access modification that is thought by owners to devalue their property is often controversial. Legal and realty specialists need to be aware of the latest rulings and precedents throughout the nation to make fair and supportable decisions for their agencies.

There are also challenges from those who believe that access management hinders pedestrian and bicycle activity. Driveways designed for speedy ingress and egress are good for vehicles leaving and entering the roadway, as well as for the through vehicles that interact with them. However, these high speeds are of concern where there is significant pedestrian or bicycle traffic crossing the driveways. This issue must be studied more closely to assess the magnitude of the problem. The provision of pedestrian-friendly access management techniques also should be addressed.

Access management must be shown to complement some of the livability trends that are appearing in many of our urban areas. This includes sustainability, neotraditionalism, and traffic calming, all of which aim to make our cities more pedestrian friendly and more livable in general. There are concerns that access management is contrary to these trends because it produces higher speeds and potentially diverts traffic to residential streets when access is restricted on arterials.

## **GOALS FOR THE MILLENNIUM**

### **The Big Push**

The primary goal for the 21st century should be the widespread adoption and long-term administration of comprehensive access management programs by most states and localities throughout the United States. This will mean that states and local jurisdictions will need a “bigger stick” than they currently possess to make these programs reality for the long haul. What will it take to make that happen?

If it is marketed and implemented properly, access management can be readily embraced by all communities. For example, if a community is looking to grow and expand its revenue base, access management should be sold as a way to preserve the functional integrity of the transportation system, making it easier and safer for people to visit local businesses. If the emphasis is less on growth and more on livability, access management programs should focus on arterials that are recognized as major through routes and design connections in such a way that the traffic in and out of adjacent land uses will not disrupt through traffic, yet will not be diverted to minor collectors and residential streets.

One could argue that there is a real need to “mainstream” access management so that proper consideration is given to access control in both the land use and transportation planning processes. In addition, access management must be consistently and effectively built into the geometric design process, roadway safety audits, corridor management and preservation, and congestion management, to name a few. One set of goals should be the establishment of national standards and guidelines, endorsed by the American Association of State Highway and Transportation Officials (AASHTO), the Institute of Transportation Engineers (ITE), and others, as well as requirements built into federal regulations to make

federal-aid contingent on developing an acceptable access management plan. To realize these goals, a wide variety of research and development projects, outreach and technology transfer activities, and other concerted efforts will be necessary to get buy-ins from the stakeholders at all levels.

### **Banging the Drum for Access Management**

Stakeholders need to better understand what access management can mean to them, in terms of both benefits and impacts. For the most part, transportation agencies are aware of the value of access control. However, local planning agencies may not appreciate that inadequate land use zoning can promulgate poor access and lead to the functional obsolescence of arterials and major collectors. Property owners, developers, and merchants must understand that safe, efficient travel is key to their success and that all of them must play a role in limiting the effects of ingress and egress on the highway system. The users of the system must understand that limiting direct access at their trip termini will mean that they will experience reduced travel time and less risk for their trip overall. Emergency service providers, delivery services, transit operators, and other stakeholders in the user community should be aware of these benefits as well.

It is important that public and private stakeholders be encouraged to take joint ownership of access management policies, programs, and projects. The only way they can be convinced to come to the table is to see that access management works and that it is not disruptive to business or the quality of life in an area. The provision of good, comprehensive information along with predictive tools is critical. Case studies and success stories are some of the best sources of information. Unfortunately, although they do a convincing job of demonstrating benefits and defusing erroneous perceptions, their proper documentation can be costly and time-consuming.

It is important to note that the marketing of access management needs to occur at three distinct tiers. At the highest level, marketing should focus nationally on special interests and professional organizations. Presentations and exhibits with concise conceptual overviews and good discussions of benefits should be offered at conferences where these groups convene. At the next tier, represented by the state and local decision makers and managers, as well as the major stakeholders in the community, it is necessary to convey information that is easily accessed and digested so that these individuals can think strategically about access management policy and programs. Briefings, videos, tutorials, executive summaries, speeches, short courses, and presentations that offer examples of successful programs are all ways that the message can be effectively conveyed. At the project level, “ammunition” needed to explain and defend proposed actions should be provided. This consists of generic and project-specific materials that can be distributed to the community at public hearings and the like.

### **Building Good Programs**

To increase the number of new comprehensive access management programs and ensure their success, significant guidance must be developed and distributed to state and local agencies that have an interest in starting a new program or enhancing an existing one. These agencies will benefit from being able to review examples of existing programs and model codes and ordinances. The aggregate experience of others should be culled to identify best practices and lessons learned. Although there are no set formulas for comprehensive

programs, agencies need to be aware of their options so that they can customize programs that are in line with their jurisdictional goals and philosophies.

Decisions will have to be made as to how rigid a program needs to be. That is, how much in the way of spacing criteria, design specifications, and so forth will be defined as standards or warrants versus guidelines? Agencies will also have to determine how much “muscle” they wish to build into the permitting and enforcement procedures of their programs. Many agencies will need direction on how to accommodate unique situations that occur most often in built-up areas, where it is unreasonable or impossible to meet standards or warrants because of preexisting constraints. These situations are usually addressed through variance procedures. Variances are necessary to a program, but their administration must be consistent and justifiable on technical grounds so that the effectiveness of the overall program is not diluted over time.

### **Taking Advantage of Modern Technology**

At the project level, whether it be access control along an extended corridor or an improvement at a spot location, tools and techniques that provide the best designs and locations should be available to the responsible agencies. Shopping lists of preferred techniques and strategies are beneficial, particularly when they specify the conditions for which they are warranted. Models and other analytical tools that can predict effects of various access management strategies should be introduced. Unfortunately, most existing tools fall short. Efforts to identify tools that can be successfully enhanced for use in access management applications should be a major priority.

## **COMMITTEE ROLE**

### **Hitting the Ground Running**

The Committee on Access Management will greet the new millennium with the *Comprehensive Access Management Manual*, which will be published and distributed as a TRB special report. The manual will establish the state of the practice in access management and will provide the guidance, information, and assets that will assist state and local agencies in both program development and project planning and design.

Although the first edition of the manual is scheduled for completion in 2000, with distribution no later than early 2001, the committee must remain forward thinking as to how the information in the manual can be delivered more effectively in the future. One issue is the frequency of updates that incorporate new information and research results. Regular updating is desirable, but that is subject to the medium used and the effort, in terms of costs and human resources, required. In addition, consideration must be given to the costs the user community can bear. Frequent updates are worthless if they do not end up in the users' hands.

### **Charting the Course**

As the committee develops the manual, it will identify issues that need to be addressed in 2000 and beyond. Some of the issues may require extensive theoretical or empirical research, others may be resolved with comprehensive documentation of case studies, and others may require the development of better tools, processes, and procedures. To put this all in perspective, the committee will develop a strategic plan that will classify the functional areas within access management and establish benchmarks for them. The plan will show

how the state of the practice should realistically progress for the next 5, 10, and possibly 20 years.

From the strategic plan, a road map of planned activities for the next five years will be established. The road map will specify the projects that will need to be undertaken in that period. The strategic plan, road map, and list of projects will be published as a *Transportation Research Record* that will serve to generate interest and, it is hoped, spawn sponsorship of some of the projects.

### **Making Friends in High Places**

As in the past, the committee, through its research subcommittee, will continue to seek funding for projects through the National Cooperative Highway Research Program (NCHRP), the Federal Highway Administration (FHWA), state research, university research, and others. For this purpose, the committee will generate, submit, and follow up on problem statements. It will continue to lobby organizations such as AASHTO, ITE, and FHWA, for funding support.

The committee has positioned itself as the national focus for access management and will continue to increase its roles in marketing and outreach. Committee members are encouraged to pursue partnerships with other TRB committees, as well as with other relevant professional organizations. These partnerships will lead to coverage of access management through presentations and entire sessions on the subject at conferences and symposiums sponsored by these groups. For organizations that develop guidance and standards in their respective fields, the committee will continue to lobby for more direct consideration of managing access.

A major challenge for the committee will be its efforts to mainstream access management into a variety of planning, programming, design, and funding processes. The ultimate goal will be to require federally funded projects, particularly those for new construction, to require an access management plan. A task force will be set up to investigate the mainstreaming issue and to develop a realistic approach.

It is anticipated that, for marketing purposes, more traditional media will continue to be used. Brochures and short videos are very effective when they send the right message to the right audience in a clear and concise manner. The committee, through its outreach subcommittee, will target the important stakeholders and make recommendations as to the best strategies for achieving their buy-ins. The products required will be published as part of the aforementioned *Transportation Research Record* that shows the strategic plan, road map, and proposed projects.

### **Lending a Helping Hand**

The committee will take advantage of the latest in information and multimedia technology to share information and market the concept. The role of the Internet, now and in the future, will be investigated for these purposes. It is anticipated that there will be a strong move away from printed media into CD/DVD and the Internet for information transfer. The committee will focus on assembling a variety of multimedia assets, including archived slide presentations, photographs, graphics, animation files, videos, and so forth, that would be housed in a database residing on CD/DVD, the Internet, or both. Such assets are valuable resources for public agencies and their consultants when they are developing presentations and materials for decision makers and members of the community.

It is anticipated that the National Access Management Conferences will continue every 2 to 3 years. These conferences present opportunities to network, capture recent experience, and share information. A compendium for each conference is published and made available to all interested parties. The 4th National Conference, scheduled August 13–16, 2000, in Portland, Oregon, will focus on access management in the new millennium.

The committee will also investigate ways that its collective expertise can better serve agencies and practitioners. This could consist of one or more activities, such as frequently asked questions, regular telephone or videoconferences, chat rooms on the Internet, or even peer-to-peer networking.

### **ROLE OF OTHERS**

The Committee on Access Management will continue its aggressive and proactive approach to marketing and mainstreaming access management. When it comes to developing tools and outreach materials, however, the committee can supply energy and time but must rely on public agencies, private and semiprivate organizations, universities, and so forth for funding. Historically, the bulk of the funding has come from FHWA and NCHRP, and that is expected to continue. FHWA will continue to support the national access management website, which will serve as a portal to other sites and will provide some technical and outreach content. TRB and FHWA will be counted on for updates to the manual. FHWA's National Highway Institute will continue to present a 3-day short course on access management, location, and design. The agency will continue to distribute outreach materials and support future national conferences. However, the hope is to branch out to other sources, including independent state-funded research and pooled-fund efforts. We also hope to contact public and private foundations, universities, and professional organizations for help.

### **ONWARD AND UPWARD**

As has been shown, access management has tremendous potential for enhancing mobility and improving safety. There is a high level of commitment to the concept from committee members and other experienced practitioners. There is also a strong belief among these individuals that many of the proposed actions discussed in the paper can be effectively addressed, and that access management will have greater prominence in future transportation decisions.