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16. Abstract The primary objectives of this research were to investigate access management programs, plans, and related activities in various states in order to learn lessons from their experiences and to determine what Texas needs to do regarding legislation to develop and implement an access management program. This report summarizes the findings of case studies performed on selected states' access management activities, including New Jersey, Colorado, Oregon, Montana, Michigan, Wisconsin, and Hawaii. The research team interviewed department of transportation (DOT) representatives from each state either in person or over the telephone to find out details about their activities and to develop recommendations. This report contains summaries of the state DOT responses and comments, as well as recommendations for the Texas Department of Transportation (TxDOT). The findings and recommendations included in this report will aid TxDOT in the development of an access management program. Detailed information related to legal and legislative issues are included in a white paper titled "Access Management Strategy in Texas: Legal and Policy Considerations," also published as a part of this project.					
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**ACCESS MANAGEMENT
PROGRAMS AND PRACTICES
IN THE UNITED STATES**

by

William E. Frawley, AICP
Associate Research Scientist
Texas Transportation Institute

and

William L. Eisele, P.E.
Assistant Research Engineer
Texas Transportation Institute

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Establish an Access Management Plan for Texas

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TEXAS TRANSPORTATION INSTITUTE
The Texas A&M University System
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DISCLAIMER

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Michael Tello, P.E. - TxDOT (HOU)

Maureen McCoy-Daniel, AICP - TxDOT (TPP-S)

Mike Leary, P.E. - FHWA

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CHAPTER 1. INTRODUCTION

1.1 BACKGROUND

As traffic volumes and congestion have increased in recent years, transportation officials have sought ways to protect their investments in arterial streets and freeways. The primary purpose of these facilities is the movement of vehicles. This purpose is in contrast to that of local streets, which are built to provide as much direct access as possible to businesses and residences. In order for arterial streets and freeways to operate most efficiently, access to and from these roads must be limited to specific points. This strategy reduces the potential conflict points of vehicles crossing opposing lanes of traffic as they make turning movements into and out of driveway and street intersections. The solutions to these problems are found in comprehensive access management programs. A comprehensive access management program includes physical tools, such as driveway spacing, median treatments, auxiliary turning lanes, and grade-separated interchanges, as well as policies for developing, implementing, and maintaining the program.

Several state DOTs around the country have established comprehensive access management programs. Certain states, such as Colorado, Florida, New Jersey, and Oregon, are well-known for the success of their access management programs. These states have already completed the processes of creating, adopting, and implementing access management programs. Other states, such as Montana, Minnesota, and Michigan, are in the process of developing or revising their access management programs.

The people responsible for establishing these types of programs possess a wealth of knowledge concerning what can be required, in regards to legislation and regulations, to create, adopt, and implement an access management program. This research project includes tasks aimed at obtaining valuable information from those DOT staffs. In addition, there are other stakeholders such as legislators and DOT officials, who can provide valuable insight related to the success of access management programs.

1.2 PROJECT OBJECTIVE

The primary objective of this research project is to develop recommendations for Texas to proceed toward developing an access management program. These recommendations will relate to strategies TxDOT may use to successfully create a program, while avoiding or preparing for the obstacles that may stand in the way. In order to accomplish this objective, several tasks were completed. A vital element of this process is to document the access management programs in other states, including the activities that lead to program development.

1.3 RESEARCH METHODOLOGY

The research team began this project by performing a literature search and review of pertinent information. While very little research of this nature has been performed previously, there does exist a significant amount of documentation of various states' programs, as well as processes and/or attempts to develop access management programs. In addition to conducting literature searches, research team members used professional contacts from previous related experience to gain additional knowledge of specific access management program elements. These contacts provided at least basic background information about programs and the people involved with them.

Using information from the literature review and the original contacts, researchers began to investigate programs, including those planned and under development, around the country. The research team identified several programs to develop into case studies. Case studies were developed by three means — personal interviews with state DOT staffs, telephone interviews, and literature review. Five states' programs were targeted for in-depth investigations, involving personal interviews with state DOT staffs at their offices.

Each case study contains the same basic information, although more information was available for some programs than others.

Each of the following subsections of this chapter provides an in-depth explanation of the research methodology steps.

1.3.1 Literature Review

The first step of the methodology was to perform a literature review of materials pertinent to access management programs. While a great amount of literature exists regarding access management in general, there is little documentation of state programs. The research team perused numerous articles and papers that covered myriad access management issues. Some of these articles had information in them that was very useful, while others led the researchers to additional resources and contacts.

The research team also examined numerous documents made available by state DOTs. Most of these documents provided detailed information about the implementation and operation of the states' access management programs.

1.3.2 Identify States with Pertinent Access Management Programs and/or Plans

Using the research team's experience, as well as contacts through the Transportation Research Board (TRB) Access Management Committee, researchers identified several states that have or are planning to have access management programs. Of the states identified through this process, researchers selected specific states due to their individual stages of access management program development, geographic distribution, as well as geographic and demographic similarities to Texas. The research team selected five states using these criteria — Colorado, New Jersey, Montana, Michigan, and Wisconsin.

The research team selected Colorado as a case study in part because it was the first state to have an official access management program. In addition, the coordinator of that program, Philip Demosthenes, is one of the leading authorities of access management in the United States. New

Jersey was selected as a case study for similar reasons that Colorado was selected. New Jersey also has a well-established access management program, and the coordinator of its program, Arthur Eisdorfer, is a leading authority on access management issues. New Jersey Deputy Attorney General, Lorinda Lasus, spends a large amount of time on access management issues, including working one-on-one with Mr. Eisdorfer. Michigan has been developing an access management program for some time, but it has not been implemented as of the time of this project. Therefore, Michigan was selected in order to find out what, if anything, kept the program from advancing. Wisconsin has been implementing access management techniques on limited highway mileages for several decades, though it does not have an official program. Montana is primarily a rural state, with similarities to the large rural areas of Texas. There are also some sparsely populated areas of Montana that are experiencing rapid growth, and they are developing access management techniques. While Montana does not yet have an access management program, it is working toward developing one.

Two additional states, Oregon and Hawaii, were also studied to lesser degrees, due to convenient circumstances. While at a conference, a researcher was able to visit with the person responsible for access management in Oregon. Oregon's access management coordinator, Del Huntington, is also recognized nationally as a leading expert on access management issues. A researcher interviewed Hawaii DOT staff members on the telephone to get background information, including corridors where access management techniques had been implemented or were planned to be implemented. While in Hawaii for personal reasons, the researcher was able to photograph examples of physical access management implementation. There is less information in this report regarding Oregon and Hawaii than there is for the five primary case studies.

1.3.3 Develop State DOT Survey Instrument

The research team desired to obtain as much consistent information from the various states as possible. To accomplish this goal, researchers developed a survey to be administered in person with state DOT officials. Members of the research team conducted brainstorming sessions to

develop lists of potential questions and eventually established a draft questionnaire. Philip Demosthenes assisted the research team in finalizing the survey by clarifying terms and suggesting how to modify it to specific states when implementing the survey. Mr. Demosthenes also recommended questions that did not arise out of the original brainstorming sessions.

An example of the survey is included in Appendix A of this report.

1.3.4 Administer State DOT Survey Instrument

The research team contacted DOTs in each of the case study states to identify the appropriate staff members to interview. This process was simple, for the most part, in that the researchers knew whom to contact in some of the states. Once the proper contacts were identified, researchers called them and scheduled appointments to meet with them at their offices. All of the people contacted were very eager to participate and made efforts to assist in coordinating the various interview schedules.

DOT officials in each state spent at least four hours in the office going through the survey. In some cases officials spent additional time in the office and/or in the field showing the researchers examples of where access management techniques had been implemented. Most of the photographs in this report were taken during these field trips.

A typical interview consisted of a researcher meeting with at least one DOT official and going through the survey questions. In each case, specific issues demanded that the interview stray from the survey questions in order to obtain the most useful information. Formal interviews were conducted in Colorado, New Jersey, Montana, Michigan, and Wisconsin. Information regarding Oregon was obtained during an informal meeting at a conference; the survey had not been developed at that time. Information about Hawaii was obtained through telephone conversations with state DOT officials.

1.3.5 Analyze Survey Results

The research team used the state DOT survey results to develop case studies on the various states' access management programs. The participants in these survey interviews provided very useful experiences related to the development and implementation of their respective programs. Researchers divided the responses into categories among each state. In most cases the categories are used consistently among the states. However, there are some responses provided by specific states that are not applicable to other state programs. This is particularly true for states that were not interviewed in as much detail as others. These situations came about due to the fact that researchers visited only some of the states discussed.

1.3.6 Develop Recommendations

Research team members used the results of the state DOT surveys to develop recommendations for TxDOT related to both establishment and implementation of an access management program. The recommendations are based on the lessons learned by staff members of the state DOTs interviewed. The goal of using these state DOTs' experiences to make recommendations is for TxDOT to avoid as many obstacles and setbacks as possible when developing its access management program.

1.3.7 Develop TxDOT District Survey

The other survey used in this project was sent to all 25 TxDOT districts in order to analyze various access management issues at the district level. The research team used only open-ended questions so that respondents would be free to include complete thoughts in their answers. Furthermore this survey was not intended to produce statistical results, but to find out what is currently being done in the districts related to access management and what thoughts district employees have about access management in general.

The surveys asked 10 questions, which are noted in Appendix B, covering a variety of issues. The first question asked what access management means to the respondent. This question was used to open the survey in order to get the respondents to think broadly about access management from the beginning. It also indicates the level of understanding each respondent has regarding access management issues. The next several questions inquired about potential benefits access management would bring to the respondent's district and what is currently being done in the district related to access management.

The eighth question in the survey asked whether the respondent thought access management should be the responsibility of each district or centralized through a TxDOT division (if a division, which one). This question was included so that the desires of district employees related to implementing and operating an access management program may be identified and considered in the development of a program. The next question in the survey asked if the district staff would benefit from training and what specific issues should be covered. This question was another attempt at determining the levels of knowledge among the district employees and the issues they want to know more about.

The final question asked if the district staff coordinates with any local government entities for the review of site plans and/or plats related to access issues. This question was used to find examples of successful coordination efforts that may be shared with other districts, as well as to determine the need to develop such efforts.

After preparing drafts of surveys that varied from one page to several pages with many detailed questions, the research team decided to use a two-page survey with general, open-ended questions. This approach was favored over a detailed survey due in part to the fact that TxDOT staff has been recently inundated with surveys, and the research team did not want to intimidate any TxDOT staff members with numerous pages of detailed questions. This survey format was simple to read with ample space to provide responses.

1.3.8 Administer TxDOT District Survey

The project team wrote a letter to each TxDOT district engineer explaining the survey and its purpose. The letter asked that the district engineer and/or other appropriate staff respond to the survey. The letter also suggested staff positions that may be appropriate to respond, but did not place any limitations on potential respondents. Each letter was accompanied by six copies of the survey as an attempt to expedite distribution of the surveys and facilitate inclusion of multiple district staff members.

The letters and the surveys included contact information for the research team in case there were any questions. This information proved helpful several times, as some respondents called or e-mailed the research team with questions. Researchers gave only basic definitions of terms in the survey in order to not influence the respondents' answers.

1.3.9 Analyze TxDOT District Survey Results

The research team was quite pleased with the number of responses to the survey. Staff from 22 districts returned 70 surveys. In terms of the number of districts that participated, the response rate was 88 percent. It is difficult to determine a response rate in terms of the number of actual surveys returned, since it was left to each district engineer to decide which employees should respond and how many surveys to distribute. Still, 47 percent of the 150 surveys mailed out were returned.

District staff in numerous positions from all over the state responded to the survey. Therefore, there are several ways to analyze the survey responses, such as by question, staff position, and geographic location. Since staff members of various positions in each district responded to the survey, the research team grouped similar positions together when analyzing the responses. The tables in Appendix C present numerical values for responses to each question, by staff member type, and by district office. Chapter 5 contains a narrative explanation of the responses.

1.3.10 Develop Recommendations

The results of the state DOT surveys and the TxDOT district surveys provided ample information from which recommendations have been derived. Those recommendations range from making revisions to TxDOT manuals to developing educational materials.

The research team developed most of the recommendations regarding access management program development from suggestions made by state DOT staffs during survey interviews. Those DOT staff members provided very candid answers to questions posed by the research team and offered additional information when applicable. The researchers made other recommendations based on the responses from the TxDOT district staffs.

CHAPTER 2. STATE DOT CASE STUDIES

State DOT staffs provided a substantial amount of information through telephone and in-person interviews. This information covers myriad issues related to access management programs. Some of the states discussed in this section have access management programs that have been in place for many years, while other states are in the process of developing programs. Each case study contains examples from which TxDOT may benefit. Some such examples are success stories of how to develop and implement an access management program, while others are lessons learned about obstacles that may arise.

This section summarizes the information obtained from each state DOT. The information is organized primarily by state and then by issue.

2.1 COLORADO

The research team interviewed Philip Demosthenes, the access program administrator for the Colorado Department of Transportation (CDOT). Mr. Demosthenes was originally responsible for developing CDOT's access management program in the 1970s and has been its administrator since its adoption. In addition to providing valuable insight into CDOT's program, Mr. Demosthenes also explained some basic access management issues, which proved extremely valuable in the later survey/interviews.

2.1.1 Basic Issues

The CDOT program covers any point where a vehicle enters a state highway, as well as the state's legal definition of access management. Interviewed staff referred to the access management program as the proper exercise of police powers. The interviewee explained further that since you do not exercise police powers over your own designs, such as medians, then

frontage roads, medians, other design elements, and transportation planning elements are access management tools, but they are not individually the definition of access management.

2.1.2 Program Background and Development

Initial Interest/Support

The initial vision of an access management program came from the CDOT executive director. The next person to champion the concept was the full-time specialist who was given the responsibility to oversee creation of the program. Once the executive director obligated the department to have an access management program, the full-time specialist continued to receive his encouragement and “protection.” The full-time specialist was a planner/scientist at the urban region office where the access problems were considered to be the most severe. CDOT staff created a strategy for involving internal stakeholders to define and design the program, identify the engineering elements, and develop the marketing tools. After those tasks were accomplished, external stakeholders were brought in to maximize the program’s performance with the least amount of impact on all stakeholders.

Legislation and Regulation Creation

The State of Colorado adopted the original access management legislation in 1979. CDOT implemented the access management program in 1980 and regulations in 1981. From the time that there was interest in access management, it took one year to develop internal DOT policy, beginning in August 1977. Another year was required to prepare the legislation, and two years were needed to develop the rule.

Two DOT staff members prepared the legislation, including the chief counsel. This effort was based on information obtained by collecting laws from other states and from Colorado case law. Two committees reviewed drafts of the rules that one primary DOT staff member prepared, with

some committee members contributing some draft materials. One committee was responsible for process and law, while the other covered categories and standards. Those committees met every two weeks for several months in order to complete this task. This effort required approximately 75 percent of the primary staff member's time for the duration.

In Colorado's case, since it was the first formal access management program in the country, there were no other programs to study. However, DOT staff did review various driveway permit rules and procedures to help develop the program, but not as a part of any decision process regarding if there should be a program.

Start-up Costs

Exact figures for CDOT's access management program development were not available. However, the development did require a minimum of 75 percent of one full-time equivalent (FTE) for three years. Additional funds were required for staff involvement on committees, travel, and other related expenses. These expenses were funded by the Highway User Tax Fund and a position allocation.

2.1.3 Public Involvement

During the development phases of Colorado's access management program, public involvement was very pro-active and widespread. Because it involved developing legislation, the state legislature's public involvement process was utilized. In addition, staffs of local government and metropolitan planning organizations played key roles. Special interest groups, such as service station associations, homebuilders associations, and farmers and cattlemen who were thinking about potential land sales and developments were invited to participate in the program's creation. The special interest groups and numerous individuals were on mailing lists so they would receive information during each stage of the program's development. The most successful public meetings were the ones that took advantage of good marketing tools and were presented by

qualified personnel using good materials, such as various financial benefits to the public and photographs of corridors showing the differences between those with and without access management treatments.

CDOT's involvement of stakeholders was limited to maintaining a mailing list of interested parties and keeping them updated on meetings and progress.

The only ongoing public involvement associated with CDOT's program occurs when staff refines rules and category assignments. These public involvement activities follow the standard state rules and procedures.

2.1.4 Program Administration and Staff Requirements

After the access management program was created, the staff specialist was moved to headquarters from a region office to operate the program. The CDOT central office oversees the majority of the access management program activities, including the following efforts:

- program development,
- legal work,
- program oversight,
- training,
- research,
- updates/revisions, and
- permanent records.

Permit processing and issuing, as well as the first phases of enforcement, are handled at the regional office level.

Program Control

Colorado's access management program is controlled by legislation and by regulation (code).

Cost/Size of Program

The current annual cost of CDOT's access management program is approximately \$450,000, which comes from the Highway Users Tax Fund. In each of six regions there is one access manager, one assistant, and one secretary. The majority of their time is spent on access permitting, though they do have some additional responsibilities. At the time of this project, there are two central office staff members dedicated completely to access management. Their tasks include program production, program maintenance, training, region office assistance, and legal work. There is enough of this routine work to keep another FTE occupied, as there is no down-time and employees work many extra hours. In addition, some percentages of other staff members' time is used for access management issues such as plans review, traffic engineering, roadway maintenance, and legal work.

Program Dynamics

The CDOT access management is constantly under development. Major rules revisions require about three to four years. These changes in turn demand secondary adjustments in training, forms, management, and laws.

Variances/Exceptions

CDOT's access management program includes a process for considering "design waivers." This process is included in Section 4.12 of the State Highway Access Code. An applicant must complete a standard form to initiate the waiver process. The application must include specific reasons a waiver is requested by addressing criteria included in the code. Section 4.12 (3) states:

“In consideration of a waiver request, the issuing authority and Department shall determine if, (a) absent approval of the waiver request, there is exceptional and undue hardship on the applicant, and (b) a waiver would meet acceptable standards of practice for engineering, operation, and safety. A waiver may not be contrary to the public interest, shall consider the general design practices of the Department, and is subject to and limited by the purposes of the Code as set forth in subsection 1.2.”

2.1.5 Environmental Issues

While there was no environmental impact statement (EIS) performed during development of the access management program, CDOT has incorporated access management into the environmental assessment/EIS process. Since access controls change traffic circulation in the community, CDOT looks at such changes as potential impacts.

In addition to any potential environmental issues, CDOT staff recognizes that there are social impacts as a result of access management techniques. Such impacts are realized through the reduction of accidents and related affects on the motoring public.

2.1.6 Research/Trends Analysis

CDOT has not performed much research in terms of trends analysis related to the access management program and its implementation. An interviewed staff member stated that it is difficult to isolate factors pertaining to traffic operations improvements. Staff also reported that there is enough research from around the country to show that there is always a positive effect on performance. CDOT does have ample information about the frequency and rates of access-related accidents or the impacts on the motoring public. This type of information has been the core of CDOT’s access management marketing and general support.

2.1.7 Local Government Issues

The primary discrepancies that have arisen between CDOT and local governments relate to emergency vehicle access locations. In addition, there have been disagreements over the purposes and functions of specific highways.

2.2 MICHIGAN

The research team met with representatives from the Michigan Department of Transportation (MDOT) to discuss their activities leading toward development of an access management program. These representatives were from different groups within the department, including planning, utilities and permitting, and traffic and safety. The following discussion provides insight into these meetings and the information they provided.

2.2.1 Basic Issues

Access management is defined in Michigan basically as driveway control and the development of alternative access, such as frontage roads and backage roads. These primary access management treatments are controlled through Administrative Rules (Administrative Rules, 1999).

Additional Traffic and Safety Division notes have been added to supplement the design criteria including spacing for commercial drives and streets, warrants for passing flares at driveways, and traffic impact study needs. The State of Michigan requires a traffic impact study for any proposed development that is anticipated to generate over 100 peak-hour directional trips (Traffic and Safety Note, April 1996). They have also developed a recommended practice for Michigan communities for evaluating traffic impact studies (TIA, 1994).

2.2.2 Program Background and Development

At the time of this research, MDOT had spent approximately 18 months working toward developing an access management program.

Initial Interest/Support

The original support for an access management program came from small groups of MDOT staff. The program ideas were envisioned and prepared at the “front line supervisory level.” Upon making a presentation to middle and upper management, there was a general feeling that the effort should stay away from legislation. Also it was determined that other issues, such as a gas tax increase, formula distribution, and system redefinition, were more pressing.

Start-up Costs

MDOT spent \$240,000 on a consultant study of access management issues.

Legislation and Regulation Creation

During this process, activities were focused away from creating or changing legislation.

2.2.3 Public Involvement

MDOT created an advisory committee comprised of representatives from other road agencies, developers, and land use planners. There are also efforts to inform the public about access management, such as through presentations at conferences.

2.2.4 Program Administration and Staff Requirements

There are approximately 30 MDOT staff members working on access management related tasks in offices throughout the state. In the headquarters office, five or six people work on access management and 30 to 40 more assist in some capacity.

Education and Outreach

Two recent efforts have been aimed at educating the local governmental agencies about MDOT's access management goals. One of these efforts is the publication of a booklet entitled, "Improving Driveway and Access Management in Michigan" (Access Management booklet, 1996). This document is a useful educational tool that defines and describes access management and its benefits, existing state, county, and local access management programs, and opportunities for coordinated access management among jurisdictions. The other effort that has occurred is an educational seminar that is targeted for local jurisdictions including cities, counties, and townships. MDOT personnel indicated that continued education is of importance. Michigan has recently investigated the experiences of several states to further develop guidelines for their access management activities. Consultants were hired by the state to perform an access management study for the state to identify improvement options, and they helped in the development of the public education information.

Cost/Size of Program

One additional concern in the State of Michigan is that the job classification for the permitting engineers is relatively low. Therefore, there is a high turnover of employees in the 25 statewide transportation service centers (TSCs) and seven regional offices where the permitting is performed. Administration at MDOT is also leery of supporting the access management efforts. MDOT's primary concern is that it may require additional legislation. One significant concern is that such legislation may affect the gas tax and how allocations are made within the tax. In

addition, personnel at the regional offices and TSCs recognize the potential benefits of a system-level access management program, yet there is concern that it may cause significant additional work and higher cost especially for retrofit projects. The fact that there are no dedicated personnel to take up the system-wide access management efforts also places a burden on the development of such activities. Although MDOT personnel have these concerns, they are actively interested in continuing public education to promote understanding of their access management activities and to help coordinate their efforts with local jurisdictions. To date, they also have had good court support of their access management initiatives.

In addition to staff salaries, MDOT spends approximately \$50,000 annually for education.

Program Dynamics

The access management program is currently under development.

2.2.5 Environmental Issues

There are no significant environmental issues related to the current process.

2.2.6 Research/Trends Analysis

MDOT has studied local programs that have been implemented and considered successful.

2.2.7 Local Government Issues

The State of Michigan has a strong interest in promoting access management activities and has taken many recent steps to help coordinate its access management activities with local governments. Coordination of access management activities with local agencies is one of MDOT's primary interests. There are approximately 1,800 local government jurisdictions

throughout Michigan, including counties, cities, and townships. Approximately 1,250 agencies have their own planning and zoning authorities. This situation causes difficulty in the coordination of state and local access management efforts. The public education efforts are assisting in coordinating MDOT and local government access management efforts.

2.3 WISCONSIN

Members of the research team also met with personnel at the Wisconsin Department of Transportation (WisDOT). These individuals were from several different areas of the department, including planning, real estate, highway development, and highway operations. The State of Wisconsin is very progressive in its access management initiatives. WisDOT utilizes several methods of managing access to state routes including administrative access control, purchasing right-of-way, driveway permitting, and subdivision reviews. The court system has been supportive of these access control treatments.

2.3.1 Basic Issues

Unlike most of the states discussed in this chapter, Wisconsin does not have a comprehensive access management program. Instead, the state manages access on individual corridors, using mileage thresholds to guide the size of the overall effort. Access management plans differ from programs in that they are more specific to particular roads.

2.3.2 Program Background and Development

Initial Interest/Support

The State of Wisconsin has developed an Access Management System Plan on select state highways on which access will be managed. This includes 5,320 miles of roadway including freeways and two-lane or multi-lane facilities. The system plan is broken into two tiers of

roadways. Tier I roadways include the “Corridors 2020” system that connects primary population centers while the tier II roadways are supplemental highways on which access management will be critical due to current or future projections of traffic volumes and development.

Legislation and Regulation Creation

There are many state statutes that are used for providing access control. Each district of the DOT serves as the point of contact for access management activities. The State of Wisconsin Facilities Development Manual provides extensive guidance on the use and meaning of these access methods. Statute 84.25 authorizes the WisDOT secretary to “freeze” access on rural portions of the state highway system by designating them as controlled-access highways if the existing or projected average daily traffic (ADT) exceeds 2,000 vehicles within the next 20 years. Any future change to the access after it has been “frozen” must obtain the appropriate state approval. When the access to the state highway is “frozen,” private driveways, streets, and highways are not allowed direct access to connect with the facility without DOT approval. Reasonable access must still be provided to the property, and the court system has been very supportive of Statute 84.25 and the access provided. According to the statute, only 1,500 miles of highway can be designated as controlled access in this manner. Statute 84.25 provides a very proactive method to maintain access in rural areas.

According to WisDOT staff, Statute 84.25 is generally utilized in areas where access has a negligible value and does not require compensation. This access is often in rural areas where development is minimal. When reasonable access cannot be provided with Statute 84.25, private property rights must be purchased for public use. Compensation is provided through Statute 84.09. Statute 84.09 allows WisDOT to alter the access or eliminate it entirely as long as reasonable access can still be provided.

As of February 1999, Wisconsin revised their Administrative Code, Trans 233, related to land divisions. The new revisions affect properties such as subdivision plats, certified survey maps, condominium plats, or county plats adjacent to state roadways. Prior to the revisions, only subdivisions were reviewed. The revisions provide another mechanism of ensuring access to state roadways is controlled. Driveway permits for all of these property types must conform to Trans 233 to be granted. The revisions also established a fee of \$110 per submittal. Prior to the revisions there was no charge.

Start-up Costs

Due to the nature of WisDOT's activities, there was no information available related to program start-up costs.

2.3.3 Public Involvement

The public involvement process includes identifying the corridor of interest, meeting with town/city officials, and then conducting public information meetings. There is very high support for this process.

2.3.4 Program Administration and Staff Requirements

One concern that has arisen with WisDOT regarding access management is the need for consistency in the access management activities. This concern was similar in Michigan. In addition, personnel at WisDOT indicated the need for additional personnel and funding in the program. The need for continued and extensive public education was also mentioned, including the observation that more people inside and outside of the department should have been personally contacted to identify contacts within all organizations involved and stakeholders potentially affected. In addition, WisDOT personnel noted that perhaps an opportunity to comment before sending legislation for hearing would be beneficial. It was also noted that

people generally support the ideas and concepts of access management, but education is important, and a significant amount of training is beneficial.

Cost/Size of Program

No annual costs, other than those for staff time, attributable to access management processes were available.

Program Dynamics

The system plan changes periodically, but specific corridors do not.

Variances/Exceptions

All variances are currently handled through the central WisDOT office, but there are thoughts of decentralizing this effort.

2.3.5 Environmental Issues

The research team obtained no information regarding environmental issues specifically related to access management in Wisconsin.

2.3.6 Research/Trends Analysis

No information regarding research/trends analysis in Wisconsin was available at the time of the survey/interview.

2.3.7 Local Government Issues

There are also several other methods that are used in Wisconsin to manage access. Driveway permitting is used according to established statutes. Corridor access is also managed through coordination with local jurisdictions on land use access management plans, zoning/land use planning input, and transportation impact analyses.

2.4 MONTANA

The research team selected Montana as one of the case studies for two main reasons. The first reason for selection is that Montana, at the time of this research, was going through the process of revising its access management processes and developing a comprehensive access management program. The second reason for studying Montana is that it is a primarily rural state, and the research team decided that there would be some similarities in situations to the rural parts of Texas.

2.4.1 Basic Issues

At the time of this research, the Montana Department of Transportation (MDT) was in the process of modifying its access management program. The research team conducted interviews with several MDT staff members who are involved in access management-related work. MDT's primary focus of the program modification is to rewrite existing plans and to update guidelines and standards. This effort will result in the first comprehensive access management program for Montana.

2.4.2 Program Background and Development

Initial Interest/Support

The development stages of an access management program in Montana were still primarily internal to MDT at the time of this study. Interviewed staff indicated that there is widespread support for access management in MDT. The process has not yet reached the public involvement stage; therefore, there is no information on support, or lack of it, from the public. The general public has expressed support for the resolution process, though there has been some opposition to specific issues.

Legislation and Regulation Creation

At the time of this research, no related legislation had been created in Montana.

Start-up Costs

MDT was, at the time of this report, in the development stages of an actual comprehensive access management program. Therefore, there are no start-up costs available.

2.4.3 Public Involvement

The resolution process includes public open houses routinely held in affected areas. The number of meetings per resolution depends on the amount of area covered. The US 93 Resolution involved a 60-mile corridor and included three open houses within a six-month period. Larger scale public involvement activities are planned in the future as the program develops.

2.4.4 Program Administration and Staff Requirements

The program is currently administered by one staff member, with no immediate plans for staff expansion. Requests for access points on Montana highways fall into two categories — those covered by Transportation Commission resolutions and those outside of resolution areas.

The process for obtaining a Transportation Commission resolution begins by staff from the Transportation Planning Division notifying the access management coordinator that a particular corridor will need attention. This notification is in the form of a request for new access control on the corridor or for an extension of access control on another segment of the same corridor. The need is documented through a field report or scope of work. The access management coordinator then requests the Right-of-Way Division to perform a study of existing access points on the ground.

Once the access management coordinator receives the study, Traffic Section staff reviews it and identifies opportunities for access point sharing and reduction. Staff then begins discussions with affected property owners. The next step is to draft a resolution and submit it to the Transportation Commission. This resolution is a legal document that designates the corridor as a controlled-access facility. If the commission approves the resolution, after reviewing it and asking questions of the staff, staff then requests commission approval to actually develop an access management plan. If the corridor goes through a city, MDT must also gain the commission's approval and, for a secondary highway, county approval must be obtained.

After MDT establishes a plan for the corridor, right-of-way staff negotiates with property owners regarding the location of access points. This action results in an amended resolution, showing what has occurred, and the Transportation Commission eventually adopts an amended resolution. Right-of-way staff assesses each property owner's needs and determines reasons for the number of approaches. Staff then explains to the property owner the kind of approach he or she can have and the purpose for which it can be used. For vacant property, staff asks what the plans are for

the land to assess access needs. If the land is later subdivided, the owner(s) must request new access points.

At the time of this research, MDT did not purchase access rights but used police power to take them. Current court cases will have a bearing on this process.

While some of the resolutions are retrofit in nature, others are proactive as part of a construction or improvement project.

Driveway permits are issued through district offices throughout the state.

Cost/Size of Program

There is no special source of funding for the access management work in MDT. The employee salaries are funded through standard staff positions. There is currently one person coordinating the access management program development at the headquarters office, with as many as 25 other staff members assisting in various manners. In addition, there are approximately 12 employees at the district offices that work with access management-related issues, such as driveway permits, on a routine basis.

Interviewed staff stated that the current staffing level is too low. It was noted specifically that the Right-of-Way and Traffic Sections will need to dedicate staff to access management work. These two sections will have greater roles in the program as it develops and is fully implemented.

Program Dynamics

The MDT access management program dynamics are exemplified by the major revisions under development at the time of this research. The program is evolving into one that is comprehensive in nature.

Variations/Exceptions

If a variance request is within an area covered by a commission resolution, it must be determined if the request fits within the allowances of the resolution. If the request does not fit within the resolution, the resolution must be amended by the commission in order for the request to ultimately be approved. Variance requests that fall within the resolution guidelines are granted deeded permits, once approved by MDT.

2.4.5 Environmental Issues

No information was available at the time of this project regarding environmental issues related to the access management program.

2.4.6 Research/Trends Analysis

MDT has not conducted any of its own research related to access management issues. The department did make use of research conducted by other states and agencies.

2.4.7 Local Government Issues

Cities and counties are all afforded opportunities to participate in access management issues. MDT has the lead role on issues affecting state highways. However, local jurisdictions may impose stricter standards if they desire. Access management resolutions by the Montana Transportation Commission must be supported by the cities and counties where the subject access points are located. MDT staff has worked proactively to gain involvement at the local level. In some cases there are informal agreements between local entities and MDT to include MDT in review of developments that will affect access on state highways. This process gives MDT staff the opportunity to review plans and offer comments that the local governments include in their reviews and comments.

MDT staff has taken a proactive role in identifying potential problems or inconsistencies with local governments before they arise. This has been accomplished by establishing good working relationships with the local jurisdictions. Interviewed staff mentioned Gallatin County in particular as an example of a municipality with which MDT has an excellent rapport. Many of the counties routinely include MDT in the review process regarding plats. Some counties will place a stipulation on a plat approval that MDT must approve of the access points. Other counties receive comments from MDT related to access points. In turn, MDT addresses local concerns when issuing approach permits.

2.5 NEW JERSEY

New Jersey has one of the best-known access management programs in the country. In addition, Arthur Eisdorfer, who is in charge of the state's access management program, is considered a leading national authority on the subject. What is probably the best example of a working relationship between a DOT staff and Attorney General's Office staff exists in New Jersey. Lorinda Lasus, deputy attorney general, has the primary responsibility for legal issues related to access management. She and Mr. Eisdorfer work directly with each other on legal and legislative issues.

2.5.1 Basic Issues

The New Jersey Department of Transportation's (NJDOT) access management program covers anything that crosses the right-of-way. NJDOT regulates access through permits. The New Jersey State Highway Access Management Code (Access Code) includes standards for driveways, medians, interchange spacing, signal spacing, streets, and driveways. Access management techniques are implemented on an existing road only if it is going to have other work performed on it. There are four categories of work — reconstruction, rehabilitation, restoration, and resurfacing. All standards in the Access Code are in the top two categories — reconstruction and rehabilitation. Access Code standards are applied during the bottom two

categories of work — restoration and resurfacing — only if there is a history of accidents and access management techniques may improve the road's safety.

2.5.2 Program Background and Development

Initial Interest/Support

Interviewed staff indicated that there was general support from legislators and NJDOT staff and administration for an access management program. The legislative support stemmed from conditions on a commonly traveled highway. The political support actually spanned separate governors' administrations. The State Highway Access Management Act (Access Act) became law under one governor's administration, and the regulations were enacted under another administration. There was some question at one point whether the latter administration would follow through with the regulations, though they were adopted.

The support from NJDOT staff was limited initially, but it increased over time. There was actually early resistance to the idea as some staff did not see the need for an access management program. Many of these people believed they were already designing tremendously safe highways. Setting forth the regulations has helped garner support from within NJDOT staff. The initial NJDOT support came from the top levels of department administration.

Throughout the process there was never any substantial support from landowners. Some stakeholders, through a law-driven working group, offered support in the initial stages, and other support groups surfaced later in the process.

The initial leader and access management champion within NJDOT was staff member Arthur Eisdorfer, the program's coordinator at the time of this report. The Access Act was an NJDOT legislative initiative, one of three bills in a package. The proposed legislation required new access management regulations and a staff group that did not previously exist.

Legislation and Regulation Creation

New Jersey has had access management regulations since about 1970. The regulations were improved in 1987, which included the production of a book covering traffic impact studies. In 1989 the State Highway Access Management Act became law. This legislation required the development of comprehensive regulations, which were adopted in 1992. Although the law required that the program be created within one year, it actually took three years. The proposal process alone lasted one year. Since 1992 the regulations have experienced seven changes, including one major modification. The major change involved changing the rule by eliminating a specific type of waiver. In 1997 the regulations were readopted under the state's sunset requirements, and there have been no major changes since.

Start-up Costs

The effort to develop the comprehensive regulations that were adopted in 1992 cost approximately \$300,000 for consulting services. These funds were provided through legislation related to the access management program. In addition to the consulting expenses, interviewed staff estimated that in-house expenses were at least \$600,000. These costs included the majority of at least four upper-level staff members' time plus travel expenses. The in-house salaries were paid for through the normal salary budgets.

Implementation Issues

The State Highway Access Management Act became effective the same day it was adopted. New Jersey had five months of delay built in for program start-up activities. During this time, NJDOT staff conducted more than 40 training sessions for department appraisers, engineers, planners, etc. Staff also spoke to numerous professional and civic groups. During this time forms and checklists to be used by department workers were also created. Another six months were needed to hire necessary staff.

2.5.3 Public Involvement

NJDOT employed a large-scale public involvement process during the development of the access management program. The department conducted more public hearings than were required by law to ensure that as many people as possible had a chance to participate. Of the 550 municipalities in New Jersey, 400 have state highways in them. NJDOT sent the access management master plan to each of these and conducted two outreach meetings to municipal and county officials to obtain their comments. Approximately 25 percent of the communities responded with comments.

In addition to the outreach to the municipalities, NJDOT staff met with more than 20 constituency groups, such as associations of office parks, gasoline retailers, and shopping centers. There was no outreach to the general public, what some people termed as the “little guy.” This circumstance caused some concern from individuals and small business owners about who was looking out for their concerns. During this time additional groups stepped forward claiming to represent the small business interests.

Interviewed staff stated that the New Jersey Association of Counties was very helpful during the entire public involvement process. While meetings with knowledgeable professionals representing groups of stakeholders were usually productive, staff rated the overall success of the public meetings and public involvement as “marginal” at best. This assessment was due to the fact that many of the access management and transportation issues are difficult to comprehend by the average citizen and that more education of the issues would have been helpful.

One of the lessons learned and shared by NJDOT staff is that an investment in education very early in the process is vital so that the DOT staff can have intelligent conversations with internal and external stakeholders later. Many access management concepts are mainly engineering and planning related as opposed to some of the “public issues,” such as concerns about effects on access convenience and the effects on retail sales and property values. NJDOT staff suggested

starting with the basic concepts, such as mobility and safety, then transitioning into more complex issues related to design. The initial stakeholder meetings and discussions in New Jersey were geared more toward the permitting process than toward individual projects. NJDOT took this direction in response to the public sentiment that access management was just about driveways and that NJDOT was going to make a massive effort to remove driveways, especially on corner lots. In reality, NJDOT did come down on corner lots harder at first, but then eased off to some degree, according to interviewed staff.

Many of the stakeholders included traffic engineers, attorneys, land developers, and marketing people. NJDOT used numerous “what if” scenarios involving spacing of access points and non-conforming lots in the stakeholder meetings. These “what if” scenarios were actually small studies of different types of roads in the state, including rural, urban, two-lane, and divided.

Another lesson learned in New Jersey was that NJDOT began the stakeholder process with a list included in the access management legislation. This list was ultimately not inclusive enough and NJDOT eventually determined that additional groups representing concerns such as historical, environmental, and planning should have been included from the beginning of the process. These groups, it turned out, basically had opposing views of the other stakeholder groups. NJDOT eventually had to explain the issues and each special interest groups’ opposing perspectives to the other groups. Ultimately the entire stakeholder process resulted in compromises of the various concerns. One tool that NJDOT staff used to help get these points across was a set of diagrams using seesaws to show the balances of perspectives related to various issues.

One other issue that was learned through this process was that 90 percent of the properties on affected roadways would be considered non-conforming to the new access spacing standards. NJDOT staff stated that it would have been helpful to have set a target of a certain percentage (such as 50 percent) of non-conforming lots when determining the standards. Staff also stated

that there was no thought given to the question of “what if a lot is non-conforming?” prior to determining the percentage of non-conforming lots.

Public involvement continues to be an element of the program, with the “public” being comprised primarily of the permit applicants. Staff listens to their concerns, comments, and ideas, which in some cases lead to amendments in the regulations. There is also a continuing educational process.

2.5.4 Program Administration and Staff Requirements

NJDOT implements its access management program through two areas of the department — the Office of Access Design and Permits. The Office of Access Design, housed at NJDOT headquarters, is responsible for all project-related access work. The Permits area handles the review and issuance of access permits that are not related to road projects. There are two categories of permits — for access points that will experience more than 500 trips per day and for those that will experience less than 500 trips per day. The Office of Major Access Permits is responsible for the higher volume access points, while the lesser volume access points are reviewed at three regional permit offices around the state.

These two teams, Office of Access Design and Permits, were previously contained in the same bureau of NJDOT. However, an NJDOT reorganization led to the separation of the two offices, which currently work completely independently of each other. This situation has resulted in a loss of cross-communication between the two offices, hindering coordination efforts.

Continuing Program Support

The NJDOT access management coordinator has found that there is constantly a need for advocacy and persuasion of the need for the program. The Access Code has been in danger of

abolishment several times. The legislation was the saving grace for the program, in that it required the program to continue and new regulations to be developed. All research also helps to support the program, and staff uses research results when necessary. According to interviewed staff, research provides the most convincing information.

Cost/Size of Program

New Jersey's access management program requires approximately 35 FTEs in a variety of NJDOT job positions. The salaries alone (not including benefits) for this staff are estimated at \$1.5 million. A large part of these salaries are paid through fees, which generate less than \$1 million annually. The remainder of the salaries is funded by departmental salary accounts.

Of the 35 FTEs working in the access management program, 31 work at the headquarters location with 11 on the project side and 20 on the permit side. The remaining employees are located in the three regions around the state and have additional responsibilities, as well. In addition to these 35 FTEs, there are other staff members who spend at least part of their time on access management-related issues, such as legal, geometric design, drainage, surveying, environmental, and signs/signals. There is also one FTE attorney and parts of a few other attorneys who spend time on access management in the Attorney General's Office.

Interviewed staff indicated that the program could use additional employees, particularly for the project side and for inspections. Staff believes that people may be getting away with violations of the regulations due to the lack of staff resources available to pursue such matters.

Program Dynamics

The entire access management program is a dynamic one. NJDOT staff maintains lists of issues that arise and need to be addressed. This is a cooperative effort between the New Jersey Attorney General's Office and NJDOT. This cooperation is a notable key to the success of the

access management program in New Jersey. The attorney responsible for access management work has a good understanding of the engineering/planning side of the issues.

Variations/Exceptions

As in Colorado, the variations to the regulations are called “waivers.” There are two types of waivers, those dealing with permits and those having to do with projects. The permit waiver process requires the applicant to identify any deviations from the standards and includes a departmental form as a part of the application. NJDOT staff who grant permits have the authority to also grant waivers. This process can raise issues of consistency among various permit and waiver grantors. There is a desire to have a central database that contains all waiver requests, sorted by code provision. Such a database would provide a method for waiver grantors to check for consistency with each other when reviewing requests.

The project waiver process is internal to the department. If a road improvement project includes a driveway that does not conform to the rules, department staff, because NJDOT is the waiver initiator, uses the same form as in the permit waiver process and keeps it in the file system. Staff then notifies the property owner that a waiver has been granted.

2.5.5 Environmental Issues

There has not been any environmental assessment of implementing the access management regulations, due to the simple fact that it would be very difficult to do. It would be very hard to trace implementation to specific environmental impacts. Some of the waivers (discussed previously in Section 2.5.4) give consideration to environmental impacts during the review of regulation waivers. Environmental issues can increase the likelihood of a waiver being granted.

2.5.6 Research/Trends Analysis

NJDOT does not regularly perform any trends analysis to monitor impacts of the access management program. However, the department knows that statistically the state is better off using access management practices, and the specific degrees of improvements are not vitally important. This knowledge stems from research that has been performed. One research project was conducted near the time of the access management program inception. That research said that it is safer to drive on a given road when driveways are spaced further apart. Research continues to be an important key to the dynamics of New Jersey's access management program. At the time of this report, the New Jersey Institute of Technology was conducting research that grew out of a practical problem related to driveway grades. Most of the research for NJDOT has been used to improve and advance the program.

2.5.7 Local Government Issues

In New Jersey the department leads the way for local governments in terms of access management implementation. The local municipalities measure their activities against the department's program and results. In fact, the State Highway Access Management Code controls, to some extent, local regulations. According to the Municipal Land Use Statute, zoning for a parcel of land must conform to the Access Code. Cities bear the responsibility to initiate rezonings to accomplish this. While there have been some rezonings performed in this manner, land zoning, for the most part, is non-compliant with the Access Code.

In some instances disagreements arise between the state and a local government when there are desired access points for a land parcel on a local street and on a state highway. In such cases the city generally wants the access point to be on the state highway, and the state wants the access to be to the city street. In all cases the state law prevails. The reason given for the state law to prevail is that state highways have to exist and function on a larger global basis than what particular municipality barriers create.

2.6 OREGON

The research team conducted an interview with the Oregon Department of Transportation (ODOT) access management program manager during a conference, before the actual survey instrument was developed. Therefore, the information presented about Oregon's program is not as complete as the descriptions of most of the other state DOT case studies.

2.6.1 Basic Issues

Oregon's access management program is considered to be one of the most successful in the country. The program has evolved from a permitting process begun in 1949, operated by one person. ODOT developed the comprehensive access management program with the goals of improving safety, preserving the functional integrity of the roads, and protecting livable communities. Another issue involved was promoting economic development in areas where access management may help such an effort.

2.6.2 Program Background and Development

Initial Interest/Support

According to interviewed staff, one of the primary reasons for developing an access management program in Oregon is to sustain communities. However, staff also indicated that there is not a consistent theme in the access management program that contains all of the necessary perspectives, such as safety, design, and right-of-way.

Legislation and Regulation Creation

Policy development took approximately four years to accomplish. This process began by obtaining factual statistics (e.g., accident rates, costs associated with accidents, etc.) that could be

backed up in court. Using this information, many papers were written that scientifically explained issues such as driveway spacing. These papers, as well as other technical research, were used to develop the access management program policies. This work resulted in four major policies covering medians, variances, driveway spacing, and interchange access management.

ODOT staff did not have clear threshold to determine when to do certain activities, which led to more work than was originally anticipated. The additional work, according to interviewed staff, was worth the effort, however.

The Oregon Transportation Commission requested that there be opportunities along with any remedies. One specific example relates to existing uses, especially within urban growth boundaries. The commission also desired to have ways out of tough situations by using “soft” language. Therefore, there is no “you shall” type wording in the rules. Another commission request was that there be criteria for variance processes.

On the other side of the issues, developers also had desires for the access management program. Developers requested that the permit process be timely with good, quick answers that are provided consistently with flexibility and some degree of predictability.

At the time of this research, ODOT is planning to have a two-tier application process. The process would provide simple procedures for relatively simple requests, while different procedures will be used for more complicated requests.

Start-up Costs

ODOT has developed its access management program in phases over a period of several years, adding staff as needed to provide related services. Therefore, exact start-up costs are not available.

2.6.3 Public Involvement

ODOT used a very open public involvement process, knowing that local communities would likely resist a strong push from the state. In fact, there was a great amount of public involvement during the creation of Oregon's access management program. Public outreach by ODOT was vital in getting groups and individuals to actively participate in the process. While groups representing interests such as bicycle/pedestrian issues were involved from the beginning, trucking and automobile associations became involved later in the process. ODOT staff also kept careful track of the players throughout the process, including "no-shows" of meetings.

As the program development process was nearing its end, several larger retail store representatives put pressure on the Transportation Commission to form a subcommittee to listen to the retailers' concerns. The retail representatives accused ODOT of making rules instead of just making policies. They also accused ODOT of not including the retailers as a part of the overall process. As a result, ODOT compromised on some of the demands.

A primary emphasis during the development of the program was that the purpose of access management is to sustain the community.

ODOT used an extensive set of stakeholders in its public involvement process while developing the access management program. Following are the groups ODOT included in the stakeholder process:

- State Department of Land Conservation and Development (land use concerns),
- 1,000 Friends of Oregon,
- land developers,
- State Department of Economic Development,
- Oregon Truckers Association,
- Federal Highway Administration,

- alternate transportation mode representatives (bicycle, pedestrian, bus),
- bankers association,
- cities and counties,
- Oregonians In Action (private property citizens interest group),
- Institute of Traffic Engineers,
- International Council of Shopping Centers,
- Alliance of Community Traffic Safety (concerned citizens/motorists group),
- Oregon Association of Realtors,
- Retail Task Force (lobbying group concerned about government involvement in retail),
- Chambers of Commerce, and
- ODOT Safety Division.

In addition to the groups listed above, the Oregon State Police were involved with ODOT to a lesser degree. ODOT also invited the American Automobile Association to participate, but they declined.

ODOT required the participating groups to make a true time commitment to the stakeholder process. The stakeholders, comprised of one representative of each agency or special interest group, met for an eight-hour session each month for 14 months. Each participating group also had one alternative member to make sure each group was represented at each meeting. All participants signed an agreement to collaborate in the process. The theory behind this time and collaborative commitment requirement was that if anyone was concerned enough to voice their concerns and provide input into the process, they should be willing to fully participate in the process and listen to each group's concerns.

The stakeholder process began with a training session that spent a few hours explaining the basic facts of access management, including some numbers relating to safety, mobility, and costs. The Oregon Attorney General's Office also spent some time explaining legal issues related to access management. Throughout the process small groups of stakeholders met to craft language to be

included in the policy, which was periodically taken to the full group for discussion. ODOT used professional facilitators who had conflict management expertise in order to keep the meetings efficient, productive, and within set time limits. In some cases not all of the participants could completely agree on certain issues and it was necessary to gain consensus. The facilitators at times also used the signed collaborative agreements as a reminder of the agreed upon process.

One of the best results of the stakeholder process was that when the final product was taken to the public, there were no substantial objections since so many groups were included throughout the process.

Other lessons learned were that ODOT did not have a vote during the process, which resulted in staff feeling that “the deck was stacked against ODOT.” Also, as the policy was being developed external to ODOT, there was no effort to include internal ODOT staff involvement. This situation led to low morale among some uninvolved staff who felt that ODOT “gave away the farm” on certain issues.

2.6.4 Program Administration and Staff Requirements

The greatest challenge related to Oregon’s access management program relates to field staff. It is very important to train the appropriate people for the field jobs. These employees need to have a personality type that will allow them to deal with the public well in situations that may become strained. Field employees also need to have skill sets that include both planning and engineering backgrounds. Such skill sets allow the employees to approach access management cases with broad perspectives that allow them to analyze all aspects of a case.

Program Control

Permit decisions are made at the district/area level. In many cases employees with little experience or skill sets for this type of work are making permit decisions. These employees must

also frequently deal with more experienced persons representing the property owners in permit requests. This situation can put the staff at a disadvantage, since the permit process is somewhat complicated. ODOT has received complaints about the consistency of permit request responses. Complaints usually refer to different answers to same questions, especially as the request moves up to higher levels of employees.

External permit applicants have pushed for ODOT to hire “more competent” employees to write permits. Applicants have specifically requested that employees be able to analyze permit applications, perform adequate review, provide consistency in responses, and have the authority to make the necessary decisions.

Cost/Size of Program

The current program operates on a biennial budget of approximately \$1.8 million, or \$900,000 per year. This figure includes all related activities based out of ODOT headquarters, such as consulting contracts with Oregon State University, as well as staffing positions for regional access management engineers. The salaries for these engineers, based in six regional offices, will transfer to the regional budgets in the near future.

Throughout the state there are approximately 30-35 full-time employees dedicated to the access management program. Four of these people are based in the headquarters office. There are 22 permit specialists located in the 16 district offices, in addition to the six regional engineers. The program also requires part of another 30-35 staff members' time in various offices.

Program Dynamics

Oregon's access management program is divided into two parts. The first is a policy section that is based on the Oregon Highway Plan. It has a four-year schedule to review and consider possible updates.

The second part of the program is the Administrative Rules. ODOT most recently adopted new rules in April 2000. This represented a substantial set of changes to the previous rules. These rules will be reviewed in about 18 months, while the future schedule will call for review every three years.

Variances/Exceptions

One of the lessons learned by ODOT staff is to discuss the appeals process when developing the administrative rules but to not include specific drawings. The drawings make the rules difficult to amend. Also, while specific figures do bind the applicants, they also bind the state DOT, which limits the overall flexibility of the program.

2.6.5 Environmental Issues

There are no elements of the access management program that address environmental issues separate from the standard procedures that ODOT follows related to routine highway projects.

2.6.6 Research/Trends Analysis

While ODOT has not performed any research or trends analysis specific to any corridors, the department does track issues such as collisions at intersections in general.

2.6.7 Local Government Issues

There is significant coordination between ODOT and various local entities. This coordination is due largely to the state's land use laws and growth management strategies in place that are separate from the access management program. They are tied together, though, by a system in which local governments notify an ODOT district office of all planned developments, which ODOT reviews. If a development is relatively small and will not have any substantial impact

regarding access to a state highway, ODOT's involvement remains small. However, if a development will have access impacts on a state highway, ODOT reviews it and provides comments. This process occurs even if a development does not have direct access to a state highway but will feed traffic to a state highway via city street(s).

2.7 HAWAII

One of the other state DOT staffs interviewed for a separate case study indicated that the State of Hawaii had some interests in access management. While the research team did not conduct a formal in-person interview with staff of the Hawaii Department of Transportation (HDOT), it did engage in telephone conversations that produced information of interest to this topic. There is not a formal access management program in Hawaii, but there are some access management practices. This section includes the results of the telephone conversations with HDOT staff who explained current practices in Hawaii.

2.7.1 Basic Issues

There are two classifications of roads in Hawaii, relative to access management — “older roads” and “restricted access highways.” There is no access control on older roads. Restricted access highways, which include any federal-aid highway projects, do have access control. HDOT maps show access restrictions for these roads.

2.7.2 Permit Process

If a property abuts a highway and has existing access, or is the subject of requested new access, the property owner must bring in property development plans. The plans are reviewed by engineers according to standards such as sight distance, highway speed, access spacing, and area (rural or urban) type. The review also considers if the highway is divided and the type of traffic

(industrial, bus, light vehicle) on the highway. This information is used to predict the movements the new access would require.

The review may result in requiring the property owner to provide acceleration and/or deceleration lanes on the highway. If the application is approved, Hawaii DOT gives a “Grant of Access Document” to the applicant. The grant specifically states the approval with any conditions. HDOT also studies the property and how it will benefit from the increased access rights. An appraisal of the value difference is performed, which may result in a fee. Any fee is based on an increase in the property value and must be paid by the applicant.

This process may be considered as a type of access control, because if applicants do not believe the increased access is worth the fee, they will not build it.

One example of a road that will have access control as it is improved is Kuihelani Highway, located on the island of Maui. It is a two-lane, undivided highway that is planned to be widened to four lanes, undivided. The surrounding land is primarily agricultural, but at least one major residential subdivision and a golf course are planned in the near future. Through the approximately four miles of this project, HDOT will have control on the number and spacing of traffic signals. This is an example of addressing access management needs before they actually arise, due to anticipated surrounding land development patterns.

CHAPTER 3. LEGISLATIVE AND LEGAL ISSUES

Several state DOT staff members interviewed provided insight to the legislative and legal issues their states have faced during both development and implementation of their access management programs. This chapter of the report documents various issues that TxDOT should be aware of as it prepares to develop an access management program. A more detailed assessment of the current legislative and regulatory environment in Texas was prepared as a white paper, Access Management Strategy In Texas: Legal and Policy Considerations. Though it was originally prepared and published as a separate document, it is included as Appendix D in this report.

Some of the information included in this chapter is anecdotal in nature, as relayed by staff members from state DOTs. Other sections in this chapter discuss how various state DOTs deal with common legal issues, such as definitions of terms. It is important to keep in mind that each state DOT may address issues in unique manners, and there may be more than one example provided for a given issue.

3.1 ACCESS RIGHTS/REASONABLE ACCESS

“Reasonable access” is a term that is defined differently by just about everyone who uses it. Though actual legal definitions, where they exist, vary, the basic concept of reasonable access is to provide access from a property to a road, without the access being too circuitous.

3.1.1 Colorado

The definition of “reasonable access,” according to interviewed staff, is a fact for the jury to decide in most states. CDOT staff generally defines “reasonable” as functionally adequate and does not let it be defined by the marketplace.

3.2 TAKINGS AND COMPENSATION

3.2.1 Colorado

Compensation standards in Colorado are defined by statutory law and previous case laws. While takings can include business damages in some states, it does not in Colorado, unless the damages are deemed to be substantial in scope. It is CDOT's view that business owners do not have a right to customers, and that CDOT does not have a responsibility to provide customers, or to design and operate the road to guarantee an acceptable level of customers.

3.2.2 New Jersey

Any access that is allowed must be considered reasonable. Compensation is granted only when access is deemed to be no longer reasonable.

3.2.3 Montana

Less than two years prior to the date of this report, MDT adopted a policy that access is not a compensable right as long as reasonable access is allowed to a property. Furthermore, if reasonable access is maintained, MDT can close access points under its police powers. There are litigious cases within the courts that will soon help determine the definition of reasonable access in Montana.

3.3 STATE DOT AUTHORITY

3.3.1 Colorado

In Colorado it was determined that CDOT had the authority and responsibility to protect the health, safety, and welfare of the citizens and to provide a cost-effective transportation system.

Within those parameters, CDOT has developed and implemented an access management program.

3.4 COORDINATION WITH ATTORNEY GENERAL'S OFFICE

3.4.1 New Jersey

The best example of coordination between a state DOT and Attorney General's Office was in New Jersey. The coordinator of the access management program in NJDOT has an excellent working relationship with the deputy attorney general that is assigned to work with access management issues. In this case it is very helpful that there is one attorney primarily responsible for access management issues. This situation provides for consistent review of issues and legal cases that NJDOT faces.

CHAPTER 4. PHYSICAL ACCESS MANAGEMENT TREATMENTS

In addition to the information about other states' access management programs, the research team also learned about various access management physical treatments. A few of these treatments are used primarily in certain areas of the United States, while others are more ubiquitous. This chapter presents photographic examples of some of the physical treatments observed by the researchers. If an example is found primarily in one state, it will be noted in the caption and/or explanation of the photograph.

TxDOT, as well as other government agencies that read this report, may consider using some of these treatments. Many of these treatments, or forms of them, are already used in numerous parts of Texas. Others may be more or less applicable in given areas of the state.

While viewing these photographs and reading the descriptions, it is important to keep in mind that the primary goal is to manage access to and from arterial streets, highways, and freeways. Safety and traffic operations are usually the two specific reasons that these access management techniques have been implemented. The examples shown in this section are from rural, suburban, and urban areas.

4.1 JUGHANDLES

One of the more unique access management treatments the research team found was the jughandle. The jughandle provides the opportunity for motorists to complete left-turn and U-turn maneuvers from the right-hand lane of an arterial street. Using a conventional jughandle, a motorist desiring to make a left turn from an arterial street to another street at a T-intersection will follow an exit from the right-hand lane that sweeps around and meets the intersection perpendicular to the arterial street. If the intersection has four legs, the jughandle ramp will intersect with the cross-street, where the motorist will turn left to approach the arterial intersection. In either case, the motorist, upon reaching the arterial from the jughandle ramp, will

proceed straight through the intersection to complete a left-turn maneuver or turn left to complete a U-turn maneuver.

A reverse jughandle operates in much the same manner as a conventional jughandle, except that the entrance is immediately past the intersection. Therefore, the ramp is quite similar to a ramp at a cloverleaf interchange on a freeway. Either type of jughandle works with similar efficiency, and the decision of which to use often depends on which quadrant of the intersection has land available for right-of-way.

The jughandle eliminates the need for a left-turn lane on an arterial and provides a way for all turns to be made from the right-hand lane. Signage on these arterials is very important so that all motorists, especially those unfamiliar with the corridor, will know how to complete a turning maneuver. Jughandles are most commonly found in New Jersey.

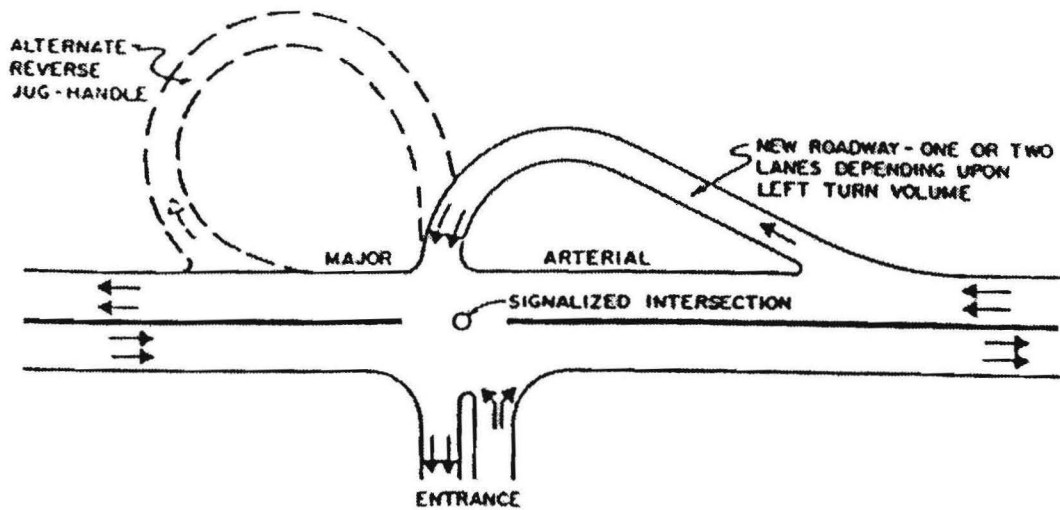
Figure 1 shows an example of a jughandle and the associated signage directing all turns to be made from the right-hand lane. Figure 2 is a plan-view diagram showing both a jughandle and reverse jughandle. Figure 3 shows an example of a reverse jughandle, in which the entrance is immediately past the intersection.

A third type of jughandle treatment provides the opportunity to make mid-block U-turns from a left-turn lane. Using this treatment a motorist turns left from a left-turn lane and drives across the opposing lanes of traffic onto a jughandle ramp that is somewhat parallel to the arterial street. The motorist then accelerates and merges with traffic on the arterial street, completing the U-turn maneuver.

Figure 4 illustrates a mid-block U-turn jughandle, the purpose of which is to allow a motorist to complete a U-turn maneuver in a safer two-step process. When a motorist makes this type of U-turn, he has to be concerned with clearing the opposing traffic only in the first step and then can concentrate on finding an acceptable gap and merging with traffic in the second step.



Figure 1. Jughandle Entrance.



Source: Barkan, Benedict G. and Herbert S. Levinson. "Retrofitting Shopping Centers - Concepts and Case Studies," Proceedings of First National Conference on Access Management, August 1993.

Figure 2. Jughandle Diagram.



Figure 3. Reverse Jughandle.



Figure 4. Mid-Block U-Turn Jughandle.

4.2 ACCELERATION/DECELERATION LANES

Acceleration lanes give a motorist the opportunity to accelerate before merging with traffic on an arterial street. These treatments can be used at intersections with cross-streets or private drives, such as at shopping centers and other major traffic generators. Acceleration lanes add a safety element to the arterial street since merging traffic is moving at speeds closer to that of the through traffic.

In a similar fashion, deceleration lanes provide motorists who are going to make a right-hand turn from an arterial street the opportunity to leave the through traffic lanes and begin slowing down prior to turning. Deceleration lanes remove speed differentials between through and turning traffic, which makes the arterial street safer by reducing the chances for rear-end collisions.

While acceleration and deceleration lanes are commonly used around the country, including Texas, they sometimes do not have adequate length to provide for proper acceleration. Figure 5 presents an example of an acceleration lane on an arterial street.

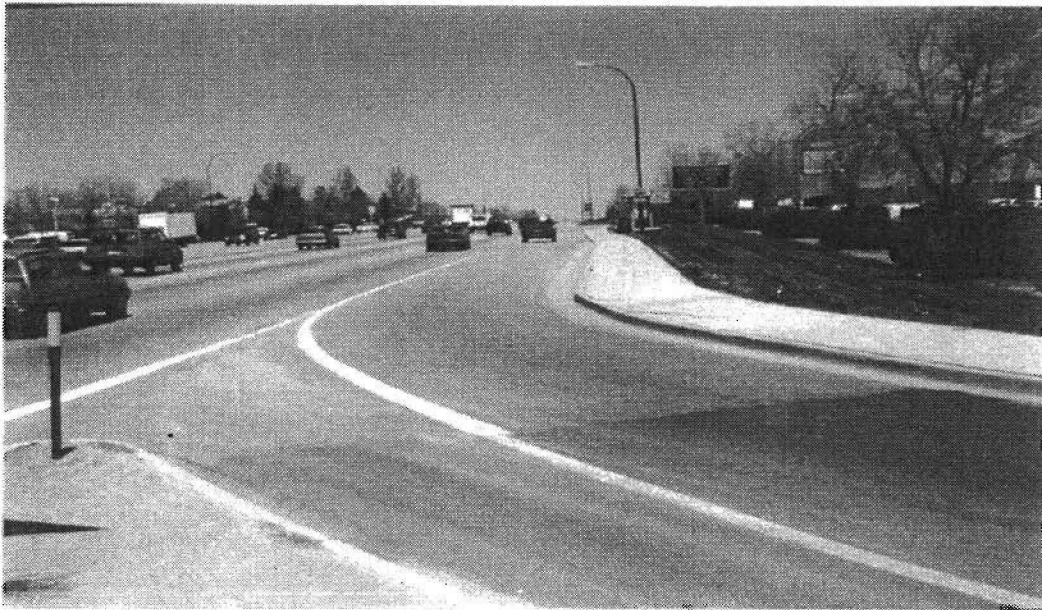


Figure 5. Acceleration Lane.

4.3 AUXILIARY LANES

Auxiliary lanes serve the purposes of both acceleration and deceleration lanes. The distinguishing difference is that auxiliary lanes extend for greater distances, sometimes as long as one-quarter mile or more. Auxiliary lanes can be used when driveway density and/or traffic on an arterial street are relatively high. These lanes provide a place for traffic to weave while entering and exiting the through lanes. Figure 6 shows an example of an auxiliary lane, which in the picture is the lane closest to the sidewalk. While the striping on the street indicates that there are four lanes in the shown direction, the greater length of the street actually has three lanes in each direction, with occasional auxiliary lanes where needed. It is also important to notice in this picture that the entrance to the shopping center is of a sweeping design with a large turning radius. This feature allows vehicles to leave the street at greater speeds, reducing the chances of rear-end collisions.

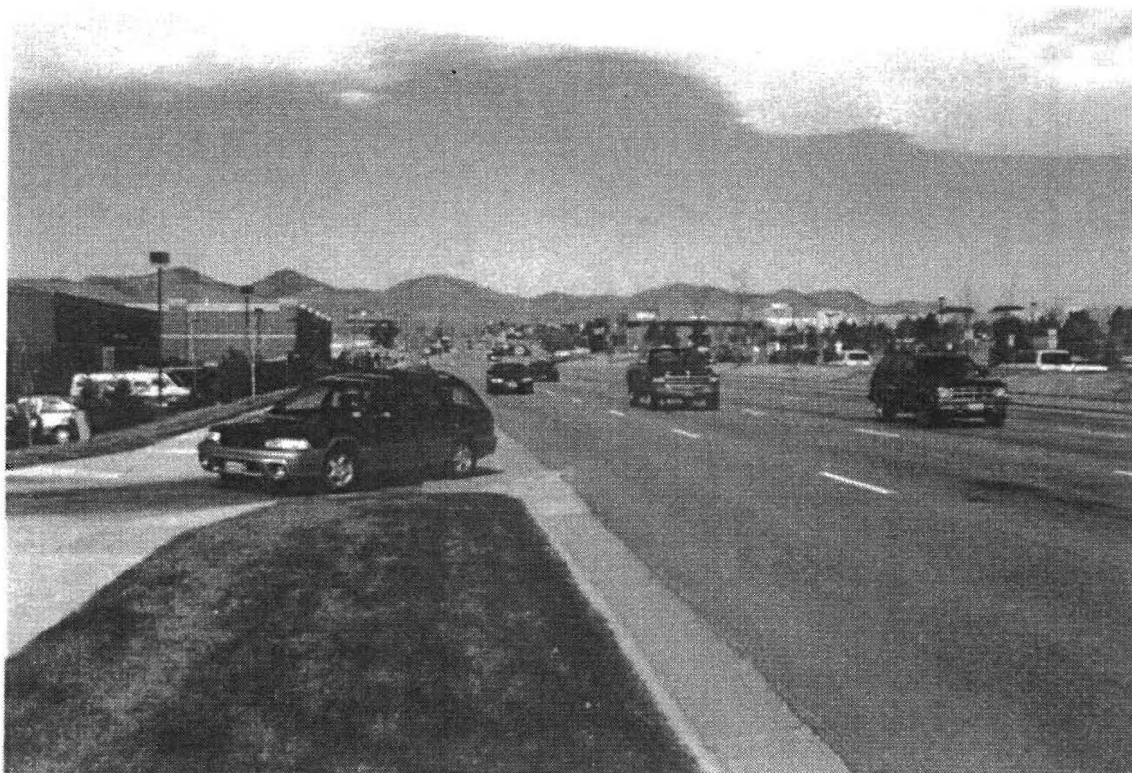


Figure 6. Auxiliary Lane/Increased Turning Radii.

4.4 DELAYED (MICHIGAN) U-TURN

As stated in the example of the jughandle U-turn, there is occasionally the need or desire to have left-turn and U-turn movements occur away from signalized intersections. One treatment that accomplishes this goal is referred to as the “Michigan U-Turn,” since it is most commonly used in that state. The Michigan U-turn, like jughandles, eliminates the need for left-turn lanes on arterial streets at signalized intersections by providing a U-turn opportunity downstream from the intersections. The motorist who wants to make a left turn or U-turn drives through the signalized intersection to a point some distance beyond, where a U-turn bay provides the opportunity to make a U-turn and head back toward the signalized intersection. Upon reaching the intersection, the motorist can either proceed straight through, completing a U-turn maneuver, or turn right, completing a left-turn maneuver. Figure 7 shows a Michigan U-turn facility with two opposing U-turn bays, as well as a vehicle using the facility.

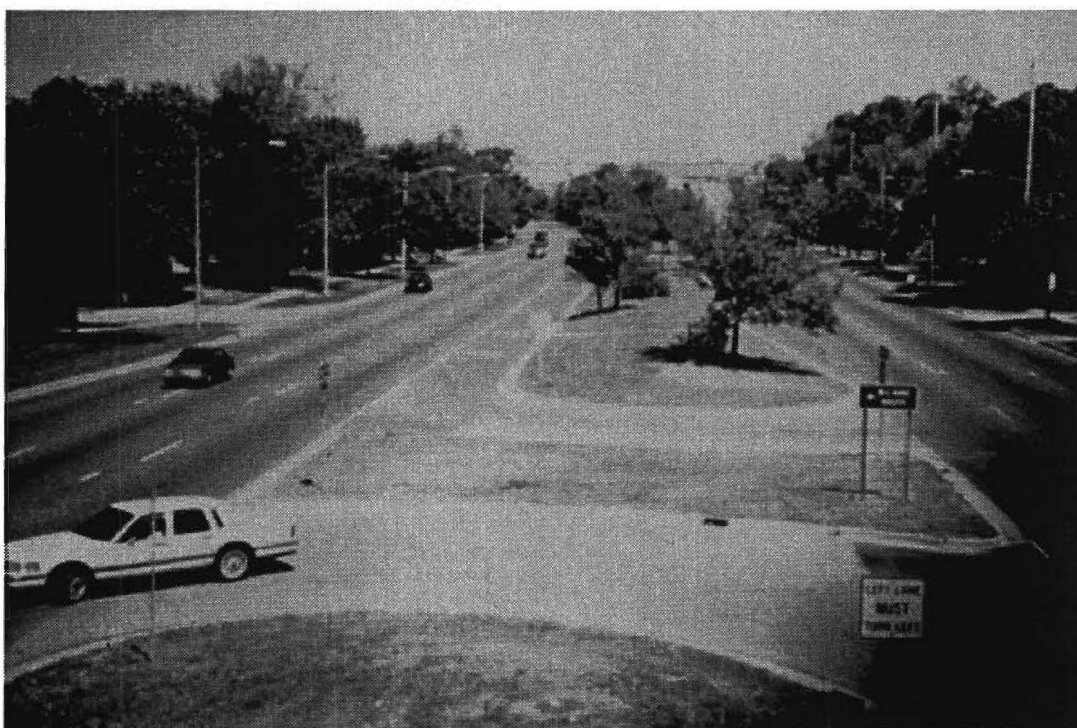


Figure 7. Michigan U-Turn.

4.5 ROUNDABOUTS

Roundabouts, also known as traffic circles, are being used more often as treatments to improve capacity and safety at intersections on arterial streets. While roundabouts are more commonly found in Europe than in the United States, examples of old and new roundabouts can be found in this country. There are still roundabouts in existence in Texas, including one on Business US 77 in Waco and one in Fort Worth at the intersection of US 377 and TX 183. Although these two examples are relatively large roundabouts, smaller ones exist around the country. Roundabouts may eliminate the need for traffic signals at intersections, as well as efficiently handle traffic at intersections with more than four legs.

Figure 8 presents an offset roundabout, which is used to eliminate the need for left-turn movements at signalized intersections. This roundabout is approximately 150 feet from a four-leg, signalized intersection. A motorist traveling on the arterial street who wishes to complete a left-turn or U-turn maneuver makes a right turn at the signalized intersection, proceeds around the roundabout, and approaches the signalized intersection on the cross-street. The motorist then proceeds through the intersection to complete a left turn, or turns left to complete a U-turn.



Figure 8. Roundabout/Traffic Circle.

4.6 MINIMIZING CURB CUTS

In order to preserve the function of an arterial street, access points, including curb cuts for private driveways, must be minimized. This strategy is best implemented through the adoption and enforcement of ordinances, but can be encouraged among property owners in lieu of having such an ordinance. While it is quite common for each property owner to want and/or request his or her own access points on adjacent arterial streets, it is possible to limit the actual number of access points. The research team found examples of minimizing curb cuts on arterials in many of the states in which it conducted DOT interviews. In some cases there was no direct access permitted to the arterial streets for shopping centers. It is notable that many of the types of businesses, such as fast food restaurants, gasoline stations, and big box stores, that commonly request individual access points existed along corridors where curb cuts had been minimized.

When direct access to the arterial is completely eliminated, alternate access can be provided via cross-streets and internal shared access within the retail centers. In situations where some direct access is allowed, the number of access points is still minimized through the use of shared access drives among adjacent businesses. Figure 9 provides examples of business types that often desire individual access points to arterial streets but do not have any in this case. In this example, all businesses have indirect access to the arterial street via adjacent cross-streets.



Figure 9. Minimized Curb Cuts.

One of the most efficient ways to minimize curb cuts is by establishing limitations prior to development of land adjacent to the arterial streets. It is possible to implement this technique on streets with existing development through retrofit projects. However, implementation through retrofit projects can be very expensive and disruptive to businesses. Therefore, limiting curb cuts on new arterial facilities prior to development is often the preferred method. Figure 10 depicts a demonstration project by Colorado DOT in Denver by physically making curb cuts on an arterial street before adjacent land was developed. The development in the foreground of Figure 10 has no direct access to the arterial street, while curb cuts for future access points have already been made on other segments of the street. Access for the development shown is via a cross-street at the signalized intersection.



Figure 10. Minimizing Future Curb Cuts.

4.7 LEFT-TURN LANES

Left-turn lanes serve the purpose of removing vehicles that are making left turns from the through-traffic lanes. This is an important safety feature as it gives motorists who need to turn left from the arterial street a haven where they can wait until opposing traffic has cleared and then make the left turn. Such a technique can be very important, especially on high-speed facilities, in both urban and rural settings. Figure 11 depicts a very good example of the safety benefit a left-turn lane can provide.



Figure 11. Left-Turn Lane.

In addition to providing a safety benefit, the left-turn lane allows for better traffic flow since through traffic does not need to brake as often to avoid colliding with turning vehicles. Improved traffic flow helps reduce congestion on arterial streets, which preserves the capacity and functional integrity of the facilities.

4.8 LEFT-IN/LEFT-OUT PROHIBITION

In some cases, such as on arterial streets with very high-traffic volumes or where sight distance is limited, it is desirable to prevent left turns to and from private driveways or public streets. A common method of prohibiting these maneuvers is to install a sign stating that left turns are not allowed. However, unless it is physically impossible or very difficult to perform the left turn, some motorists will do it anyway. Physical features such as islands can channel traffic in specific directions, thereby preventing certain maneuvers. Figure 12 shows an example of such an island,

sometimes referred to as a “pork chop” due to its shape. It is notable that in the example shown, the island contains a path accessible by wheelchairs. Larger islands are also commonly used to create even more restrictive traffic channeling. The more restrictive channeling can also include larger turning radii, allowing traffic to enter and exit the arterial street at higher speeds, thus causing less disruption of traffic flow on the arterial street. Figure 6 (Section 4.3) shows the entrance channel of such a treatment; there is an identical, adjacent channel that feeds traffic out of the shopping center onto the arterial street.



Figure 12. Physical Barriers.

4.9 FRONTAGE AND BACKAGE ROADS

Among the treatments that limit the number of direct access points on arterial streets are frontage and backage roads. Both of these types of facilities run parallel to the arterial street, providing indirect access to it. As the names indicate, frontage roads are in front of the properties and backage roads are located behind the properties. Occasionally a road will wind its way along the properties, alternating between serving as a frontage road and as a backage road.

Frontage roads are used along arterial streets in both commercial and residential areas, serving the same basic function as frontage roads located along a freeway. Frontage roads obviously require more right-of-way than the arterial street alone but do eliminate direct access points. One problem that arises with frontage roads is the spacing of the frontage road/cross-street intersections and the frontage road/arterial street intersections. The usual close spacing actually forces the functional areas of these intersections to overlap, causing traffic at one intersection to adversely affect the other intersection. Some designs lessen this impact by winding the frontage road back from the arterial street/cross-street intersection, thus increasing the separation of the two intersections.

Backage roads serve the same purpose as frontage roads and, since they run behind the properties, are further removed from the arterial street. This spacing from the arterial street separates the backage road/cross-street intersections and the arterial street/cross-street intersections more than the usual spacing provided with frontage roads. Figure 13 illustrates both frontage and backage roads parallel to an arterial street. One should observe the difference in the spacings of the intersections with the cross-street.

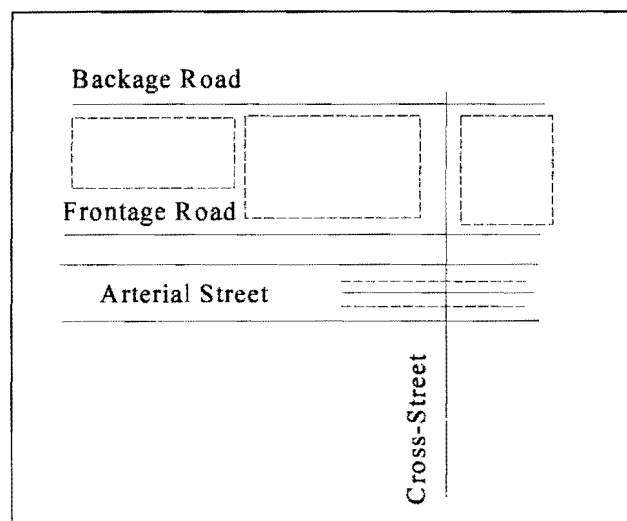


Figure 13. Frontage Road and Backage Road Intersection Spacings.

The frontage road in Figure 14 serves a Denver, Colorado, residential area in which the majority of the streets previously intersected the adjacent arterial street at very close intervals. The fence provides a noise and sight buffer from the traffic on the arterial street. A Colorado DOT staff member noted that while the neighborhood was initially opposed to the frontage road and loss of direct access to the arterial street, the neighborhood later gladly realized a reduction in criminal activity due to the indirect access.

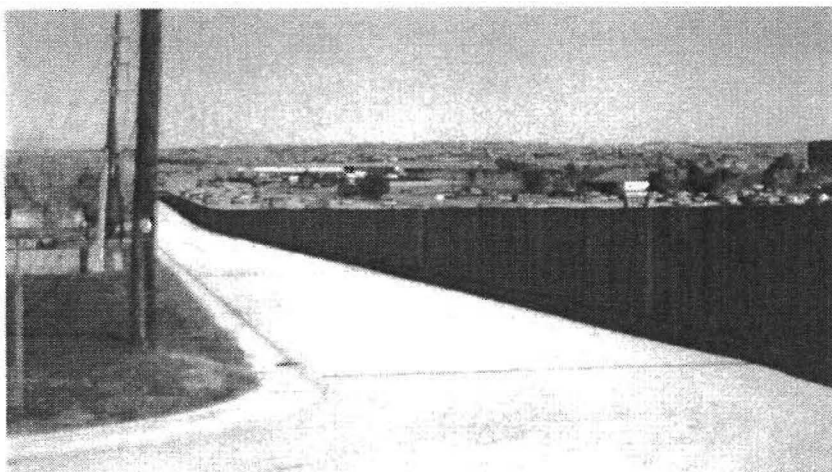


Figure 14. Residential Frontage Road Eliminating Access from Cross-Streets.

Figure 15 shows a slip ramp leading to a residential frontage road serving homes with driveways that would otherwise have direct access to the adjacent arterial street.

A frontage road serving a commercial area is shown in Figure 16. This photograph shows an example of minimal separation between the frontage road (on the right) and the arterial street, which resulted from a retrofit project to widen the arterial street. This frontage road actually winds behind the establishments as it approaches a cross-street and becomes a backage road, greatly increasing the separation between the backage road and the arterial street.



Figure 15. Frontage Road with Minimal Separation from Arterial Street.

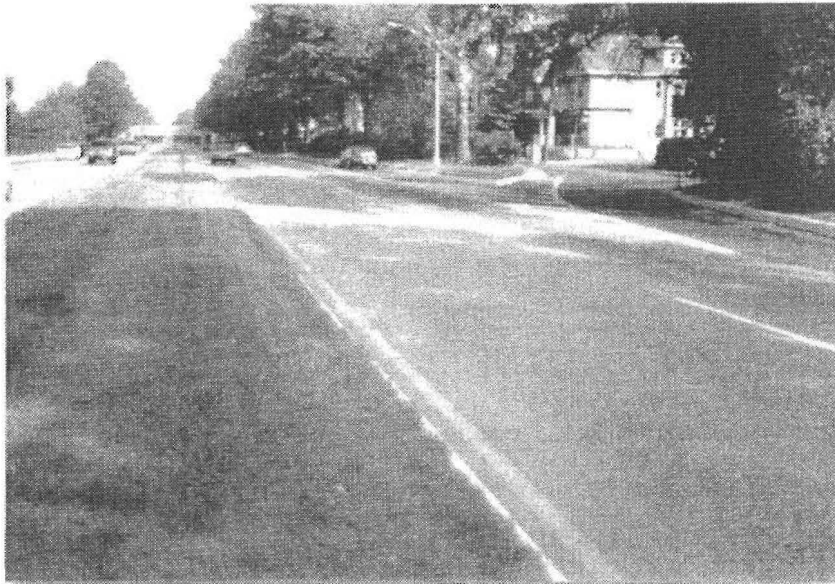


Figure 16. Residential Frontage Road Eliminating Access from Driveways.

4.10 RAISED MEDIANS

One of the most common methods for managing access to and from arterial streets is the use of raised medians. Raised medians are used in both retrofit and new location projects. While raised medians do not eliminate access points along an arterial street, they do control the opportunities to make left turns to and from the arterial street. This technique improves the safety on arterial streets by reducing the numbers of conflict points, or opportunities for vehicle paths to cross. Figure 17 shows an example of a raised median, including a left-turn bay. This particular example of a raised median, on Loop 281 in Longview, Texas, is somewhat unique in that it replaced a flush median that was very wide for the majority of its length. The vast nature of the flush median created a hazard as vehicles would collect in it, waiting, and sometimes competing, to merge with traffic in the through-lanes. In other retrofit cases, raised medians often replace two-way-left-turn-lanes (TWLTLs) as traffic volumes increase and the TWLTLs' functions deteriorate.

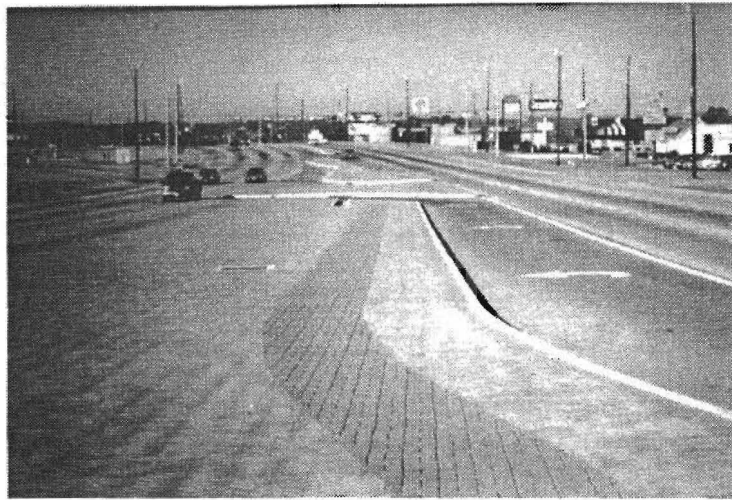


Figure 17. Raised Median.

CHAPTER 5. PRELIMINARY FINDINGS AND RECOMMENDATIONS

5.1 STATE DOT SURVEY RESULTS

This section presents paraphrased statements from interviewed state DOT staff members that reflect their experiences in the development, implementation, and operation of access management programs.

5.1.1 Program Development/Administrative Support

Colorado

A key element of the program's success was the support given by the DOT administration, including the "protection" of the staff member who was charged with early program development.

New Jersey

If you have a consultant write laws, codes, regulations, etc., you need to also hire a good editor with technical expertise. These skills are needed for wording consistency throughout documents, as well as consistency among the various documents.

You don't want to adopt something and have it effective the same day. There needs to be interim time allowed to properly develop the enacting regulations and procedures, as well as all of the detailed aspects, such as application forms and review checklists. There are also needs for staff hiring and training.

Oregon

There must be administrative support. The DOT administration must be patient and understand the time and resources required to establish an access management program. The administration should at least allow, if not push for, the program development.

There needs to be a consistent theme in the access management program that contains all of the necessary perspectives, including safety, design, right-of-way, etc.

Have experienced people write papers based on scientific information that provide supporting evidence of why access management is necessary and beneficial. Obtain numbers, such as accident rates, costs attributable to accidents (including property damage, injuries, and fatalities). Analyze accidents related to intersections (including driveways) and break out between urban and rural roads, tracking data from several years. Also identify the costs of additional relief routes. If possible, compare accident histories of two similar roads built several decades ago — one with some type of median barrier and one without.

5.1.2 Program Control

Colorado

It is an improper, perhaps illegal, exercise of police powers to control the rights of private property access unless the control is by regulation. The DOT has no legal right to control the rights of citizens unless the legislature enacts a law, then it is carried out by regulation.

5.1.3 Marketing Access Management

Colorado

After 22 years, I am still selling, still problem solving, still acting like it's a new program that is always under pressure. In the early years, the best market tool was a set of 200 aerial photos and a few ground photos showing the good, bad, and ugly. Mostly bad — this is the problem and access management is the solution. Here is what good access management looks like — “see, that doesn't look bad, it's not scary.” It's just better decision making and better utilization of current and proven engineering and design. Collect and present accident numbers.

Montana

Put together a user-friendly document that most people can understand and share it with the local governments. It needs to explain the intent and contents of the program. It will make the program go a lot smoother and they will know what you are talking about.

5.1.4 Program Operation/Maintenance

Colorado

An access management program must have a full-time specialist from day one. This type of program will not run on its own. It is controversial, political, legal, and complex. It will be one of the few regulatory programs within a DOT. The program must have a specialist, unless you simply want a mediocre program with mediocre results.

New Jersey

Make sure there is cross-communication between project-oriented staff and permit-oriented staff within the DOT. We have lost most of that.

5.1.5 Potential Barriers and Obstacles

Colorado

Money and internal political priorities will always be obstacles in the development, implementation, and operation of an access management program.

New Jersey

You need to have enough resources, including people and the means to support them. Politics can play a part in any access management program, so it is important that you don't upset the wrong people. Ignorance of the benefits of access management can be an obstacle to the program. The evidence supports that access management is good, but some people choose not to see that.

Montana

Our experience is that following protocol through the levels of bureaucracy by going through proper chains of command to talk to necessary people is crucial. This process is necessary for getting the authority for the access management coordinator to make decisions. There also needs to be adequate dedicated staff time. It is more work than one person can do. It is also important to set out a work plan from the beginning.

5.1.6 “If I Could Do It Again”

Colorado

We would have more staff, a better developed program, and more money to support projects to improve access locations with proven accident records.

New Jersey

Spend more time on education of stakeholders up-front.

Start the process by trying to define what the law means (considering that we started with a law that required us to develop an access management program). Numerous issues have come up related to intent of the law. If no such law exists, define what the program’s goals are.

Broaden the stakeholders list from the beginning to involve more people from early points in the process.

We started with urban, suburban, and rural standards. But, you have to be able to establish where these areas are, and it is difficult to paint a suburban line on the ground.

Would develop the law and the program at the same time. That way you involve all of the constituency groups and develop laws and regulations more smoothly. It would be beneficial to at least go a good way down the path with the two together. If the law will say regulations have to be adopted within a certain amount of time, make sure it is a reasonable amount of time. You won’t get it right the first time — “perfection is the enemy of the good” — you will spend too much time trying to perfect it and won’t ever finish.

Do not ignore highway projects — make sure there is wording on how to implement the program other than through permits.

Montana

We would have actual legislation, instead of relying on the commission for everything. To avoid as much political pressure as possible, there needs to be an actual access management bureau or section. Such a group would bring together staff with experience and expertise.

5.1.7 Legal Issues

Colorado

Write clear, accurate, and complete regulations in proper regulatory language and voice. Test all the ways the rules will be used. Run all the various scenarios to test the text and the standards. The weaker the rule, the faster it will be ignored.

Texas will not be able to change its case law. However, Texas needs to understand its case law in order to write new law and regulation. A new access code/regulation will help change future decisions in case law. Knowing other states' case law helps understand the complexity.

New Jersey

It is important to have one attorney from the Attorney General's office responsible for access management work. That way he or she will be able to learn a great amount about the engineering and planning issues that affect legal cases.

Oregon

There need to be discussions with the Attorney General's office to determine who has authority if the state is going to give cities the right to review access management plans and related requests. Clear rules must be established up front and followed throughout the process. When reviewing examples of legislation and case law, watch for obscure references to driveways.

5.1.8 DOT Authority

Colorado

Look carefully at the duties and powers of the DOT and see if you can find some authority. If not, start preparing and lobbying for adoption.

5.1.9 Word Choice

New Jersey

Be careful about the word choice. Don't assign words an access management meaning if they already have another connotation. Access was a difficult word.

5.1.10 Waivers

New Jersey

Establish a database in which all waiver requests and answers are entered. This will help ensure consistency among various application reviewers. You may consider the code to be a tree and that every waiver is a whack at the tree with an ax.

Oregon

When developing an appeals process, do not include drawings — they are tough to amend. With figures you bind the property owner, but you also bind the DOT.

5.1.12 Other Comments

New Jersey

Texas is doing the right thing by studying other states' programs. There is no substitute for experience. It is smart to ask other people about what you are going to do. They will give you an informed and educated point of view, even if the two programs are not identical. You need to ask people in other DOTs about their experiences.

Montana

You need legislative support and administrative support. Take the time to explain to people what you are doing and why. People often don't trust government so make them a part of the process; be open about it.

5.2 TxDOT DISTRICT SURVEY RESULTS

A total of 70 district staff members throughout the state responded to this survey. The respondents represent a variety of job positions, which were consolidated into 10 related groups. Appendix C includes 10 tables that present detailed responses to each of the survey questions. The discussion in this section gives general overviews of the responses, along with conclusions made by the research team about each. When reviewing the results in either part of the report, it is important to remember that the questions were open-ended, that is, it was mainly up to the respondents to think of the answers they listed. Also, since respondents were able to provide

more than one answer to each question, the percentages provided in the results will not necessarily equal 100.

Responses to the first question indicate that there is generally a pretty good understanding of what access management is and why it is used. It is notable that a few respondents did call or e-mail the research team asking what was meant by the term “access management.” After a brief explanation by a researcher, each respondent was able to complete the survey.

The responses to the first survey question, “what does the term access management mean to you?” indicate that the vast majority of TxDOT district staffs who are in positions that relate to, or would be affected by, an access management program have at least a good, basic concept of what access management is and why it is used. Responses related to physical treatments varied, including the use of raised medians, intersection spacing, entrance/exit ramp locations, driveway designs, and shared access (among adjacent properties).

The second survey question asked, “what potential benefits do you believe access management would bring to your District?” Three general issues were mentioned far more often than any others. They include design consistency (mentioned by 42 percent of respondents), improving the efficiency and functionality of roads by increasing capacity and mobility (53 percent), and improved safety (60 percent). These results are worth noting due to the fact that the two primary purposes usually mentioned around the country, in training and at conferences, are safety and preserving the functional integrity of the roads.

The third question asked, “what is currently being done by your District or other entities within your District related to access management?” Two answers stood out among the many responses to this question, medians (47 percent) and regulating driveways (26 percent). In addition, 16 percent stated that they or other staff use the driveway manual in some manner. These answers indicate that there are opportunities to use many other access management treatments and strategies throughout the state.

The fourth question asked if the respondent believed access points (such as driveways and intersections) cause problems related to safety or congestion along on-system roads in their district. About 99 percent of the respondents stated that they believe there are such problems. The most commonly mentioned issues related to driveways, including frequency and spacing to each other, as well as the spacing relative to street intersections. These responses show that district staffs recognize the needs to address driveway density issues as part of an access management program.

Question 5 asked “what types of access management tools, if any, would you like to implement on the roadways in your District?” More than two-thirds of the respondents listed issues relating to driveways, some naming specific topics, such as location, density and spacing, permits, and shared access. Another 26 percent answered that raised medians are of interest to them. In addition, 17 percent suggested that better guidelines related to access management techniques would be helpful. The overall answers to this question demonstrate the familiarity with two of the more common physical treatments that exists in the districts, as well as the need to inform district staffs of other access management techniques.

The sixth question, “what, if anything, would you say that your District currently does that could be considered access management?” is similar to Question 3, which included the activities of other entities. Again, more than half of the respondents indicated that their districts use medians. Also, the vast majority cited the use of various types of driveway regulations and related practices, including internal access, permits, shared driveways, and driveway density and spacing. These responses reiterate the need to expand the knowledge of access management techniques and applications among the district staffs.

Question 7 asked, “what costs, financial or otherwise, do you believe are related to access management?” The responses covered many issues. The greatest number of answers (35 percent) related to construction costs, including 8 percent who specifically mentioned raised medians. Another 19 percent stated that purchasing access rights would be a financial factor.

Only 9 percent listed business owners' perceptions that they would lose business as a potential cost. It is notable that 14 percent mentioned decreased safety and 17 percent listed decreased efficiency as costs. These last two types of responses indicate an apparent lack of understanding of the safety and mobility benefits that an access management program can provide.

The eighth question asked district staffs if they believe access management for on-system highways should be the responsibility of each district, or centralized through a division. While 93 percent answered that the districts should be primarily responsible, 42 percent said that divisions should provide support. Another 19 percent listed "a better knowledge of the area" as a reason that the districts should have primary responsibility. These results suggest that the districts would like to be primarily responsible for implementing and operating an access management program that is developed cooperatively with and supported by divisions.

Twenty-eight percent said the divisions (Maintenance, Right-of-Way, Traffic, and Traffic Operations) should help develop overall guidelines and/or standards. The Design and Traffic Divisions were the two listed specifically among the staff that thought divisions should have primary control of a program. It is likely that when respondents listed the Traffic Division, they were referring to the Traffic Operations Division, but this is not completely clear.

While the research team made some inferences about the need for training in the district as a result of answers to other questions, Question 9 directly asked if the districts would benefit from access management training. Only 7 percent of the respondents said that training would not be useful. Another 10 percent replied "maybe" or that they were not sure. The vast majority stated that training would be beneficial, listing numerous specific issues that should be covered. Some of the most commonly listed issues include driveway regulations (15 percent), examples of techniques (16 percent), and enforceable policies (9 percent). Respondents also listed topics such as laws, planning, retrofitting, general information, and how to implement the existing Driveway Manual. These answers confirm the need to develop and present informational materials and presentations, as well as the desire among the district staff to receive them.

The 10th and final question asked if the districts coordinate with any local entities for the review of site plans and/or plats related to access issues. A total of 82 percent of the respondents said that they have some level of such cooperation. The largest group of these respondents (18 percent) listed cities as the entities they have such relationships with. Smaller groups listed counties, metropolitan planning organizations (MPOs), and other governmental entities. Some of the respondents listed specific types of developments that they review, including city streets (3 percent), commercial developments (3 percent), driveways (7 percent), industrial developments (3 percent), and schools (3 percent). Although the majority of respondents indicated that there is some type of cooperation in existence, it is apparent that there is great opportunity to expand such working relationships throughout the state.

5.3 RECOMMENDATIONS

The state DOT and TxDOT district surveys were comprised of open-ended questions designed to encourage discussion and explanation. Each staff member interviewed at each state DOT provided a wide variety of responses and recommendations regarding the development and implementation of an access management program. The TxDOT district staffs gave answers that provide a great amount of insight to the issues they currently face and others that interest them. While the actual responses have been presented in other sections of this report, the following list shows recommendations the research team developed as a result of the survey responses:

- Identify internal and external stakeholders that will be involved.
- Involve all stakeholders from the earliest points in the process as possible.
- Form committees of TxDOT staff members to participate in program development.
- Gather statistical and other supporting information (e.g., crash records and related financial benefits, costs of building alternate facilities instead of implementing access management techniques).

- Develop a consistent theme throughout the program that includes issues such as safety, mobility, design, and right-of-way.
- Obtain as much administrative support for the program as possible.
- Inform/educate stakeholders about access management issues.
- Develop specific supporting legislation at some point in the process.
- Develop enforceable regulations.
- Enforce regulations consistently throughout the state, with minimal necessary flexibility.

CHAPTER 6. FUTURE POTENTIAL WORK

There are many additional steps that TxDOT must take in order to develop and implement an access management program. This report includes recommendations that the research team developed after interviewing other state DOTs, as well as from the surveys sent to TxDOT district offices. It will be important for TxDOT to take an approach that is coordinated among various levels of staff in all actions related to developing and implementing an access management program.

This chapter suggests future work, expanding on some of the recommendations made in Chapter 5, that will be appropriate for TxDOT to accomplish as a result of the research performed in this project.

6.1 SELECT AND IMPLEMENT RECOMMENDATIONS

TxDOT staff will need to select and implement the recommendations from this report that are most appropriate for Texas. The research team recognizes that TxDOT may deem that some of the recommendations are not applicable to Texas and that others may need to be modified and/or implemented with strategic timing.

6.2 DESIGN MANUAL REVISIONS

The paramount method of implementing access management is through design of the highways. For TxDOT this will require changes to the design manual that provide consistent design standards related to access management techniques. Modifications to the design manual should address issues such as median opening spacings, signal spacings, auxiliary lanes, and right-turn lanes.

6.3 DRIVEWAY MANUAL REVISIONS

TxDOT should also consider making revisions to the driveway manual. Development of these revisions should include investigations of specific methods to reduce curb cuts on arterial streets that have been successfully used in other states.

6.4 LEGISLATION

According to the white paper, Access Management Strategy In Texas: Legal and Policy Considerations, prepared as a part of this project and included as Appendix D, TxDOT is able to currently develop and implement methods to manage access on state highways. However, it may ultimately be beneficial for the state to adopt legislation that specifically addresses this issue. States that have adopted access management legislation include Colorado, New Jersey, and Oregon. The legislation in these states may be used as guidelines for developing similar laws in Texas. It will be important to keep in mind that there may be some issues in any given state legislation that are more or less applicable to situations in Texas.

The research team prepared the white paper as a result of reviewing legislation and court cases from around the country, as well as interviewing a variety of people.

A principal benefit from the white paper is the knowledge that the department does not need to have legislation in order to apply access management techniques to its highway system. This knowledge provides TxDOT with confidence to begin developing an access management program in lieu of legislation. Another benefit of the paper is the sense of some people interviewed that legislation may ultimately be advantageous due to the mandate it would provide.

6.5 DEVELOP EDUCATIONAL/OUTREACH MATERIALS

One of the most commonly expressed recommendations by state DOT staffs was the development of educational materials about access management. Interviewed staffs reiterated the need and usefulness of informing all types of stakeholders about access management-related issues. At some point in the process of developing and/or implementing their programs, many state DOTs had developed and used educational materials, such as brochures, workshops, and photographs, to present to stakeholders. Some interviewees also added that it might be more tactful in some cases to refer to the material and programs as “informational,” instead of “educational.”

New Jersey and Oregon provided the most detailed examples of the stakeholder process. Detailed descriptions of their efforts are provided in Chapter 2 of this report (New Jersey on page 33 and Oregon on page 41). Colorado DOT staff stated that their stakeholder process primarily consisted of including various groups and individuals informed of progress in the program development by keeping them on an active mailing list.

Educational and outreach materials used by various state DOTs include pamphlets with general information about access management that can be made available to the public at DOT offices. This type of resource explains the concepts, purposes, and benefits of access management in general with some graphical examples. Information sheets specific to projects can be produced for distribution at public meetings and hearings. Some state DOTs have prepared presentations that include slides with bulleted information and photographs of access management techniques and corridors that could benefit from access management. Such presentations can be very focused covering certain aspects of specific techniques and shown to technical staffs. Presentations may also be very general and shown to elected and appointed officials, administrative staffs, and other decision makers. Ultimately presentations can be shown to any audience in the name of outreach as long as the contents are appropriate (more or less technical) for the intended audience.

APPENDIX A: STATE DOT SURVEY

DISCUSSION QUESTIONS FOR ACCESS MANAGEMENT PROGRAMS

General:

1. How do you define access management (e.g., raised medians, frontage roads)? What does it include?
2. Have you established a new access program, or are you in the process?
3. If yes, what is the name/title of your access management program?
4. If in the process - what is your current objective? (New rule, guidelines?)
5. When was it formally established?
6. How long did it take for your state to develop and implement the program from the time interest was developed?
7. Did your state investigate other states/countries when developing your access management program? If so, which states/countries?
8. How is the program administered: district/section/group/division/department/other?
9. Please provide an overview of the administrative process used in developing the program.
10. Do you have a corridor management program; does it include access management?
11. What is your current program for issuing driveway permits everyday?

12. Do MPOs and councils of governments (COGs) in your state have strong roles they can play in supporting access management relative to their regional planning processes?
13. Each state has an equivalent to an Office of Transportation Safety (OTS); has your OTS unit been involved in access management?
14. What does your state roadway design manual say about access management?

Initial Support:

1. Was there general support in the beginning by any, or all, of the following: legislators, DOT administration, public, DOT staff (districts, division, etc.), landowners? How were interested stakeholders identified?
2. Who was the leader and access management champion (group, division, or individual)?
3. At what organizational level was the program envisioned and prepared?
4. Did you find that the support needed for developing and implementing an access management program was present, or was there a need for convincing those that make the final decisions? If there was a need to convince/persuade, what tactics and/or case studies were utilized?

Funding and Operating Costs:

1. What was the cost of the program start-up?
2. How was the start-up funded?

3. What are the annual program costs?
4. How is it currently funded?

Program Size:

1. How many people work with the program exclusively? How many people assist with the program (i.e., in addition to their other responsibilities)?
2. Is the program adequately staffed?
3. If “no” to previous question, please provide more detail, if appropriate.

Public Involvement and Potential Impacts:

1. What type of public involvement process was used during the program development?
2. How would you characterize the success of the public meetings and public involvement?
3. Is there any type of continuing public involvement?
4. Has your state performed any trends analysis prior to implementing the existing access management program to include environmental, safety, economic, or other impacts and benefits? If so, what were the findings? Have you established any contact with the regional Environmental Protection Agency (EPA) office? Have you made any contact with other targeted state DOTs?
5. What environmental issues arose in developing the program and how were these issues resolved? Was an environmental impact assessment (EIA) or an environmental impact study (EIS) performed?

6. Has your state undertaken any research into the impact of its access management program on traffic operations (e.g., congestion, safety, etc.)? If so, what, if any, conclusions have been made? If such studies have not been performed, are they being planned?
7. Can you please provide copies of the comments from stakeholders?

Program Feedback Loop, Policy Challenges, and Governing Policies:

1. Is the program dynamic (i.e., is it under periodic review and revision)?
2. How are exceptions/variances handled?
3. Is the program controlled by legislation, administrative code, regulations, etc.?
4. If your state has a Coastal Zone Management Plan, please discuss the consistency review.

Legislative and Legal Considerations:

1. Part of our task includes establishing the legislative and legal processes for implementing not only access management policy but other policy as well. Who are your legal contacts? Who might you know that we can contact for information regarding legislative steps previously taken by targeted states toward establishing and implementing an access management program?
2. What, if any, specific legislative and legal barriers did you encounter when developing an access management program? How were these barriers overcome (if they were)?
3. Has there been any impact of the *Lucas* decision on your access management program?
4. Has the *Dolan v. City of Tigard* had an impact on your access management program? If so, how? Does it apply to dedication of land only?

5. What case law, if any, has had a significant impact on your program and how (i.e., defining public interest, limitation on government activities, and just compensation)?
6. Does your state consider access rights as property rights?
7. How does your state characterize “taking” of property for which compensation is due (i.e., is compensation only required when the remaining property is damaged by substantial loss of access)?
8. If your state views access as a property right, how is “reasonable access” defined? What court cases are on point, if any?
9. Do your statutes authorize local authority to develop and implement access management standards or rules?
10. Which of your state statutes provide express substantive and procedural planning authority? How was it determined whether the agency had statutory authority to develop and implement an access management program, and whether it was consistent with procedural requirements provided in the statutes?
11. Does your current program allow you to require the developer to make highway improvements? Are the improvements simply where the connection occurs, the driveway? Can turning lanes be required? Can off-site improvements be required even if the improvement is not adjacent to the development? Does the state help fund the improvements?
12. Can your state collect escrows or other bonding instruments to collect money from developers over time to build a single improvement, like a new traffic signal where each

developer on a corner contributes money until there are enough funds to pay for the traffic signal, and the signal is warranted?

13. Are there access management program practices that fall outside the scope of state statutes?
14. How do your DOT regulations have an impact on local access management program activities?
15. What inconsistencies have arisen between your state and local governments?
16. What do you consider as the most important legal challenge in implementing your access management program?

Lessons Learned and Final Comments:

1. What would you do differently if you were doing it all over again?
2. What obstacles/barriers do you feel are most likely going to impede the development of this type of program?
3. Do you have any additional comments, thoughts, or suggestions for an agency interested in developing an access management program?

APPENDIX B: TxDOT DISTRICT SURVEY

**ACCESS MANAGEMENT SURVEY
of TxDOT DISTRICTS**

DISTRICT_____ **NAME**_____ **TITLE**_____

1. What does the term “Access Management” mean to you (ie: purpose, elements, etc.)?

2. What potential benefits do you believe Access Management would bring to your District?

3. What is currently being done by your District or other entities within your District related to Access Management (ie: raised medians, access management ordinances, development regulations, etc.)? (If any cities are involved, please mention them specifically.)

4. Do you believe access points (ie: driveway and street intersections) cause problems, related to safety or congestion, along on-system highways and/or other arterials in your District?
(Please list any examples.)

5. What types of access management tools, if any, would you like to implement on the roadways in your District?

6. What, if anything, would you say that your District currently does or encourages that could be considered Access Management (ie: raised medians, driveway spacing, shared driveways, frontage roads on arterials, etc.)?

7. What costs, financial or otherwise, do you believe are related to Access Management?

8. Do you believe Access Management for on-system highways should be the responsibility of each District, or centralized through a Division (if centralized, which Division)?

9. Would your District's staff benefit from Access Management training? If so, what specific issues would you like addressed in such training?

10. Does your District staff coordinate with local entities for review of site plans and/or plats related to access issues? (Please list any examples.)

If you have any questions about this survey, please contact Bill Frawley of the Texas Transportation Institute at 817.462.0533 or w-frawley@tamu.edu.

Please return completed surveys by September 18 to:

Bill Frawley

Texas Transportation Institute

110 N. Davis Dr., Ste 101

Arlington, TX 76013

APPENDIX C: DISTRICT SURVEY RESULTS

QUESTION #1: What Does the term "Access Management" mean to you (i.e.: purpose, elements, etc.)?

Responses	Tot %		Districts																										
			ABI	AMA	ATL	AUS	BMT	BWD	BRY	CHD	CRP	DAL	ELP	FTW	HOU	LRD	LBB	LFK	ODA	PAR	PHR	SJT	SAT	TYL	WAC	WFS	YKM		
Responded to this question	69		1, 3, 3, 4, 7	5, 6	3, 4, 5, 7	6, 7, 8	5, 6, 7	1, 5, 6, 6, 6	5, 6	7		5, 6, 6, 7	7	4, 7	4, 5, 7, 9, 10	4, 5, 6, 6, 7	9			2, 5, 7	1, 6, 7, 8	6, 7	5, 5, 9	4, 5, 5, 6, 7	5, 5, 7	3, 5, 7, 7	6, 6		
Not sure	4	6	3				7														6, 7								
Physical																													
Curbs/barriers between rdwy and private property	4	6						6, 6																7		7			
Design factor	4	6					5		5					9		9													
Driveway design regulations	18	26	3, 4	6	7			5, 6				5, 6, 7			7						7, 8		5, 5	4, 5	5	7			
Entrance/exit ramp locations	4	6										5, 6													5	7			
Frontage roads	4	6					6																	4, 5		7			
Medians	12	17	4					6				5, 6, 7			5								5	4, 5, 5		7, 7			
Spacing of streets/intersections	4	6	4																				5		5	7			
Operational																													
Access (Control for)																													
All roadways	20	29		5	3				5	7		5, 6, 7		4, 9, 10	7	9			5, 7	1, 6				5, 7	5	5			
Major* roadways	31	45	1, 4, 7	4, 5	7	5, 6	1, 6	6			6	7	4, 7	10	4, 5					7		5, 9	5, 5, 6	5, 5	3, 7, 7	6, 6			
Conflict points (reduce)	2	3	1	5																									
Efficiency, LOS, capacity, and reduce delays	22	32	3		7	7		1, 6, 6						7, 9						1, 6, 7, 8		5, 5, 9	4, 5, 5	5, 7	7	6			
Legal regulations	6	9							5						7	9								5, 7		7			
Manages different and conflicting needs of roadway access	4	6				6, 8					5			5															
Safety (increase/maintain)	23	33			5, 7	7	5, 6	1, 6		7				7	7	7			5	1, 8, 6		5, 5, 9	4, 5		7, 7	6			
Other comments	17	25		6			6					5, 6		7, 9	6, 6, 7					7		5, 5	5	7	3, 7, 7				

* Includes highways, mainlane freeways, on-system roads, and State facilities, collectors, and distributors

Legend

- | | | |
|--|--|------------------------|
| 1 – District Engineer | 6 – Area Engineer/District Design Engineer | rdwy = roadway |
| 2 – Deputy District Engineer | 7 – Operations | LOS = level of service |
| 3 – Director of Construction/Bridge Engineer | 8 – Permit Office Supervisor | ROW = right-of-way |
| 4 – Director of Maintenance/Engineering Specialist | 9 – Project Development | |
| 5 – Director of TP&D/Advanced Planning Engineer | 10 – Director of ROW | |

QUESTION #2: What potential benefits do you believe Access Management would bring to your District?																											
Responses			Districts																								
	Tot	%	ABI	AMA	ATL	AUS	BMT	BWD	BRY	CHD	CRP	DAL	ELP	FTW	HOU	LRD	LBB	LFK	ODA	PAR	PHR	SJT	SAT	TYL	WAC	WFS	YKM
Responded to the question	68		1, 3, 3, 4, 7	6	3, 4, 5, 7	6, 7, 8	5, 6, 7	1, 5, 6, 6, 6	5	7		5, 6, 6, 7	7	4, 7	4, 5, 7, 9, 10	4, 5, 6, 6, 7	9			2, 5, 7	1, 6, 7, 8	6, 7	1, 5, 5, 9	4, 5, 5, 6, 7	5, 5, 7	3, 5, 7, 7	6, 6
Not sure	3	4	3				6															7					
Air quality, pollution (improved)	3	4										5			10									5			
Consistency in design	18	26	1, 7	6	7	8	5, 7	6, 6	5			6, 7			4, 10						7, 8				5	7	
in fairness to property owners	7	10	7		7			6, 6	5						4						7						
to increase expectations of traveling public	4	6	1, 7	6											10												
Efficient and functional roadway with greater capacity and mobility	36	53	1, 4	6		7	6	1	5, 6	7		5, 6	7	4, 7	4, 5, 7, 10	5, 6, 6				2, 7	1, 6	6	5, 5, 9	4, 5, 5, 6, 7	5	3, 5	
Highway funds (more efficient use of)	2	3																						5		7	
Life of existing roadways (increase)	4	6							5														1, 9	5			
Political leverage/enforceable guidelines	4	6										7			9						7		5				
Safety (improved)	41	60	1, 3, 4, 7	6	3	7	5, 6	1, 5, 6, 6	6	7		5, 6	7	7	5, 7, 10	5, 7, 6	9			2, 5	1, 8	6	5, 9	4, 5, 5, 7	5	5, 7, 7	
Other comments	12	18		6		6, 8		1						4							6		5		7	3, 7	6, 6

Legend

- 1 - District Engineer
- 2 - Deputy District Engineer
- 3 - Director of Construction/Bridge Engineer
- 4 - Director of Maintenance/Engineering Specialist
- 5 - Director of TP&D/Advanced Planning Engineer

- 6 - Area Engineer/District Design Engineer
- 7 - Operations
- 8 - Permit Office Supervisor
- 9 - Project Development
- 10 - Director of ROW

- rdwy = roadway
- LOS = level of service
- ROW = right-of-way

QUESTION #3: What is currently being done by your District or other entities within your District related to Access Management (i.e.: raised medians, access management ordinances, development regulations, etc.)? (If any cities are involved, please mention them specifically.)																												
Responses		Districts																										
Tot	%	ABI	AMA	ATL	AUS	BMT	BWD	BRY	CHD	CRP	DAL	ELP	FTW	HOU	LRD	LBB	LFK	ODA	PAR	PHR	SJT	SAT	TYL	WAC	WFS	YKM		
Responded to the question	70	1, 3, 3, 4, 7	5, 6	3, 4, 5, 7	6, 7, 8	5, 6, 7	1, 5, 6, 6, 6	5, 6	7		5, 6, 6, 7	7	4, 7	4, 5, 7, 9, 10	4, 5, 6, 6, 7	9			2, 5, 7	1, 6, 7, 8	6, 7	1, 5, 5, 9	4, 5, 5, 6, 7	5, 5, 7	3, 5, 7, 7	6, 6		
Not sure	5	7	3	3																	7			5, 7				
Nothing	2	3					6						7															
Physical																												
Controlled access facilities (more)	3	4											10										5, 5					
Curbs and gutters	5	7	1		7		1, 5, 6																					
Frontage roads	7	10				6																	4, 5	5	7, 7	6		
Internal circulation	1	1																			9							
Lanes (decel, left-turn, TWLTL)	3	4				6							4												7			
Medians	33	47	1, 4		7	7	6		5, 6		5, 6			4, 5, 9	4, 5, 6, 6, 7	9			2, 7	1, 7, 8	5	4, 5, 5, 6, 7		3, 5, 7, 7				
Regulating driveways	18	26	4	6		7, 8	7	6	5				4		7				7	1	6	5		5	3, 5, 7	6		
Policies and requirements																												
AASHTO's Green Book	2	3											7						5									
Design manual	2	3			6						5																	
Driveway manual	11	16	3	5	3, 4		6	1			5, 6								5	8					7			
Driveway permits	3	4			10						7					9												
Ordinances/ Zoning requirements	3	4	7										4									1						
Purchased access rights	4	6				5, 6					6				5													
Other comments																												
Work with local entities	6	9					1	5							5					6		5	6					

Legend

- 1 - District Engineer
- 2 - Deputy District Engineer
- 3 - Director of Construction/Bridge Engineer
- 4 - Director of Maintenance/Engineering Specialist
- 5 - Director of TP&D/Advanced Planning Engineer

- 6 - Area Engineer/District Design Engineer
- 7 - Operations
- 8 - Permit Office Supervisor
- 9 - Project Development
- 10 - Director of ROW

- rdwy = roadway
- LOS = level of service
- ROW = right-of-way

QUESTION # 4: Do you believe access points (i.e.: driveway and street intersections) cause problems, related to safety or congestion, along on-system highways and/or other arterials in your District? (Please list any examples.)																											
Responses	Tot	%	Districts																								
			ABI	AMA	ATL	AUS	BMT	BWD	BRY	CHD	CRP	DAL	ELP	FTW	HOU	LRD	LBB	LFK	ODA	PAR	PHR	SJT	SAT	TYL	WAC	WFS	YKM
Responded to the question	68		1, 3, 3, 4, 7	5, 6	3, 4, 5, 7	6, 7, 8	5, 6, 7	1, 5, 6, 6, 6	5, 6	7		5, 6, 6, 7	7	4, 7	4, 5, 7, 9, 10	4, 5, 6, 6, 7	9			2, 5, 7	1, 6, 7, 8	6, 7	5, 5, 9	4, 5, 5, 6, 7	5, 5, 7	3, 5, 7, 7	6, 6
No	1	1					6																				
Yes	67	99	1, 3, 3, 4, 7	5, 6	3, 4, 5, 7	6, 7, 8	5, 6, 7	1, 5, 6, 6, 6	5, 6	7		5, 6, 6, 7	7	4, 7	4, 5, 7, 9, 10	4, 5, 6, 6, 7	9			2, 5, 7	1, 6, 7, 8	6, 7	5, 5, 9	4, 5, 5, 6, 7	5, 5, 7	3, 5, 7, 7	6, 6
Physical Problem Points																											
Driveways	32	47	1, 3, 4		3, 4, 7	6, 8		5, 6, 6				7	7	4, 7	4	5, 6, 7	9			5, 7	1, 7, 8	6, 7	5	5, 7	7	7	
Continuous/lay-down curb	2	3	1					5																			
Near entrance/exit ramps	4	6				6											9				1		5				
Near intersections	14	21	3		3, 4	8	7	6						4						5	1, 7, 8	6		5, 7			
Too frequent/too many	7	10	3, 4			6		6												7			5		7		
Frontage rds	3	4													10								5				
Intersections	10	15	1		5, 7							6											5	4		7, 7	6, 6
Median openings	3	4										7								2, 7							
Operational Problems																											
Capacity (decrease)	5	7	1					6																4, 5	5		
In high volume areas	2	3					6																	6			
Turning movements	2	3					6																			5	

Legend

- | | | |
|--|--|------------------------|
| 1 - District Engineer | 6 - Area Engineer/District Design Engineer | rdwy = roadway |
| 2 - Deputy District Engineer | 7 - Operations | LOS = level of service |
| 3 - Director of Construction/Bridge Engineer | 8 - Permit Office Supervisor | ROW = right-of-way |
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QUESTION #5: What types of access management tools, if any would you like to implement on the roadways in your District?																													
Responses		Districts																											
	Tot	%	ABI	AM A	ATL	AUS	BMT	BWD	BRY	CHD	CRP	DAL	ELP	FTW	HOU	LRD	LBB	LFK	ODA	PAR	PHR	SJT	SAT	TYL	WAC	WFS	YKM		
Responded to this question	69		1, 3, 3, 4, 7	5, 6	3, 4, 5, 7	6, 7, 8	5, 6, 7	1, 6, 6, 6	5, 6	7		5, 6, 6, 7	7	4, 7	4, 5, 7, 9, 10	4, 5, 6, 6, 7	9			2, 5, 7	1, 6, 7, 8	6, 7	1, 5, 5, 9	4, 5, 5, 6, 7	5, 5, 7	3, 5, 7, 7	6, 6		
None	3	4	4		5												9												
Not sure	9	13	3, 7	6	4				5			6, 6														5, 5			
Physical																													
Curb and Gutter	3	4	1					1, 6																					
Driveway	20	29	1, 3, 7	5		8	7					5			4, 5, 7, 10						1, 6		5	4, 5, 5, 7	7	5			
Location	8	12	1, 7	5		8	7								4									4, 7					
Number/spacing (limited)	12	17	3	5								5			5, 10						1, 6		5	4, 5, 7		5			
Permits	3	4	3												4									7					
Shared	5	7													7									5, 5	7	5			
Frontage roads																													
Eliminate	1	1													9														
Implement	7	10			3										7					5				4		5, 7, 7			
Intersection regulations	6	9	1	5								5			4, 7											7			
Medians (raised)	18	26	1	5		7		6				5				5, 6, 6				2, 7	1, 6, 7			4, 5, 6		7, 7			
Other Issues																													
Better guidelines	12	17				6, 7		6					7	7					2		7	7	1, 9	5				6	
Enforceability	8	12				7														7	8	6, 7	1, 5			7			
No access to busy streets if access can be otherwise achieved	5	7												7	10	5, 7								5					
Zoning regulations	2	3																			6			5					

Legend

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QUESTION #6: What, if anything, would you say that your District currently does or encourages that could be considered Access?

Responses	Tot %		Districts																									
			ABI	AM A	ATL	AUS	BMT	BWD	BRY	CHD	CR P	DAL	ELP	FTW	HOU	LRD	LB B	LF K	OD A	PAR	PHR	SJT	SAT	TYL	WA C	WFS	YKM	
Responded to this question	69		1, 3, 3, 4, 7	5, 6	3, 4, 5, 7	6, 7, 8	5, 6, 7	1, 5, 6, 6, 6	5, 6	7		5, 6, 6, 7	7	7, 4	4, 5, 7, 9, 10	4, 5, 6, 6, 7	9			2, 5, 7	1, 6, 7, 8	6, 7	5, 5, 9	4, 5, 5, 6, 7	5, 5, 7	3, 5, 7, 7	6, 6	
Not sure	4		3, 3		3										9													
Physical																												
Curbs and gutters	4				7			1, 5, 6																				
Driveway regulations	47		1, 4, 7	5, 6		6, 7	1, 5, 6, 7	1, 6, 6	5	7		5, 7	7	4	4, 5, 7, 10	4, 5	9					1, 6, 7, 8	6	5, 5, 9	5, 6, 7	5, 5, 7, 7	3, 5, 7, 7	6, 6
Internal access	3																				7		5, 9					
Location	4	6					5							5												5	5	
Permits	7	10					7							4, 7			9					6				5	7	
Shared	25	36		5, 6		7	1, 6		5	7		5, 7	7	4	4	4, 5					6, 7, 8		5, 9	5, 6, 7	7	7	6	
Number/ spacing	26	38	4, 7	5, 6			5	1, 6, 6				7		4	4, 5	5						1, 6, 7, 8		5, 5, 9	5	5	3, 5	6, 6
Width	4	6						6																		5	3, 5	
Flexible delineators barriers	3	4			7	7															8							
Frontage roads	9	13	7		5															2					5, 7	5	5, 7	6
Medians	37	54	4, 7		5, 7	7			5, 6			5	7	4, 7	4, 5, 7, 10	5, 7	9			2, 7	1, 6, 7, 8	6	5, 9	4, 5, 5, 6, 7	5, 5	5, 7	6	
Other Issues																												
Driveway guidelines /driveway manual	9	13	1		4, 5			6								6, 6						7					7, 7	
Purchase access rights	6	9					5, 6					5			10	5										5		
TxDOT's Regulations for Access to State Highways	3	4														6, 6, 7												
Work with local entities	6	9						1, 6	5														5	5, 6				

Legend

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QUESTION #7: What costs, financial or otherwise, do you believe are related to Access Management?

Responses	Tot %		Districts																									
			ABI	AMA	ATL	AUS	BMT	BWD	BRY	CHD	CRP	DAL	ELP	FTW	HOU	LRD	LBB	LFK	ODA	PAR	PHR	SJT	SAT	TYL	WAC	WFS	YKM	
Responded to the question	64		1, 3, 3, 4, 7	6	3, 4, 5, 7	6, 8	5, 6, 7	1, 5, 6, 6, 6	5, 6	7		5, 6, 6, 7	7	7, 4	4, 5, 7, 9, 10	4, 5, 6, 6, 7	9			5, 7	1, 6, 7, 8	6, 7	5, 5	4, 5, 5, 6, 7	5, 5, 7	3, 5, 7, 7	6, 6	
Not sure	5	8	3									6				4						5		5				
Air quality (reduced)	3	5					7					5								6								
Businesses perceive loss of business	6	9	1					6							7									5, 6		7		
Construction	17	27	4			8		5	5				7	4		5, 6			5		6, 7		5, 6, 7		5, 7, 7			
Raised medians	5	8	4													5, 6					6					7		
Efficiency (decreased)	11	17	7				7	1				5			7	6, 7			7	6, 7							5	
Efficiency (increased)	2	3																							5	7		
Fuel consumption (decreased)	1	2																							5			
Fuel consumption (increased)	2	3					7													7								
Lawsuits	3	5				8									4		9											
Maintenance of raised medians and frontage roads	2	3	4		7																							
Minimal	3	5			4				6						4													
Political costs	3	5			3		5								10													
Public perception	3	5	3							5, 6																		
Purchased access rights (ROW)	12	19				6, 8						6			9	5, 6, 6							5, 7			3	6, 6	
Safety (decreased)	9	14			5			1, 6				5			7, 10					6, 7							5	
Safety (increased)	2	3																							5	7		
Time for the process of reviewing plans, meeting with appropriate entities, visiting sites etc...	11	17		6				6				7	7			6	9				6, 7	5			7	7		

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QUESTION # 8: Do you believe Access Management for on-system highways should be the responsibility of each District, or centralized through a Division (if centralized, which Division)?																												
Responses			Districts																									
	Tot	%	ABI	AMA	ATL	AUS	BMT	BWD	BRY	CHD	CRP	DAL	ELP	FTW	HOU	LRD	LBB	LFK	ODA	PAR	PHR	SJT	SAT	TYL	WAC	WFS	YKM	
Responded to this question	69		1, 3, 3, 4, 7	5, 6	3, 4, 5, 7	6, 7, 8	5, 6, 7	1, 5, 6, 6, 6	5, 6	7		5, 6, 6, 7	7	4, 7	4, 5, 7, 9, 10	4, 5, 6, 6, 7	9			2, 5, 7	1, 6, 7, 8	6, 7	5, 5, 9	4, 5, 5, 6, 7	5, 5, 7	3, 5, 7, 7	6, 6	
District	64	93	1, 3, 3, 4, 7	6	3, 4, 5, 7	6, 7, 8	5, 6, 7	1, 5, 6, 6, 6	5, 6	7		5, 6, 6, 7	7	4, 7	4, 5, 10	4, 5, 6, 6, 7	9			2, 5, 7	1, 6, 7, 8	6, 7	5, 5, 9	4, 5, 5, 6	5, 5, 7	3, 5, 7, 7	6	
Better knowledge of area	13	19	1	6	5	7	7	5				6				4	9							5	5, 5		6	
Division provide support	29	42	4		7	6	5, 6	1, 5, 6, 6	5			6, 7			4, 5	5				2, 5, 7	7	6, 7	5, 5, 9	4, 5, 5		7, 7		
Design Div.	8	12	4				6	1			7			4, 5						7	7							
Develop guidelines and/or standards	19	28				8	5, 6	5, 6, 6	5			6				5				2, 5		7	5, 5, 9	4, 5, 5		7		
Maintenance Div.	4	6			7										4												7, 7	
Right of Way Div	2	3													5						7							
Traffic Div.	4	6			7									4, 5													7	
Traffic Operations Div.	6	9	4					1			7									2, 7							7	
Needs flexibility	2	3					7																				7	
Division	4	6		5										7, 9										7				
Design	3	4		5										9										7				
Traffic	1	1		5																								

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QUESTION #9: Would your District's staff benefit from Access Management training? If so, what specific issues would you like addressed in each training?																												
Responses			Districts																									
	Tot	%	ABI	AMA	ATL	AUS	BMT	BWD	BRY	CHD	CRP	DAL	ELP	FTW	HOU	LRD	LBB	LFK	ODA	PAR	PHR	SJT	SAT	TYL	WAC	WFS	YKM	
Responded to this question	68		1, 3, 3, 4, 7	5, 6	3, 4, 5, 7	7, 8, 10	5, 6, 7	1, 5, 6, 6, 6	5, 6	7		5, 6, 6, 7	7	4, 7	4, 5, 7, 9, 10	4, 5, 6, 6, 7	9			2, 5, 7	1, 6, 7, 8	6, 7	5, 5, 9	4, 5, 5, 6, 7	5, 5	3, 5, 7, 7	6, 6	
No	5	7						6		7		6	7															6
Maybe	3	4			3, 4																							6
Not sure	4	6	3				7					6			9													
Yes	53	78	1, 3, 4, 7	5, 6	5, 7	6, 7, 8	5, 6	1, 5, 6, 6	5			5, 7		4, 7	4, 5, 7, 10	4, 5, 6, 6, 7				7	1, 6, 7, 8	6, 7	5, 5, 9	4, 5, 5, 6, 7	5, 5	3, 5, 7, 7	6	
All of them	7	10	7		7			1							4	6, 6						6						
General information	2	3	4																					6				
		0																										
Physical		0																										
Design	2	3														7						7						
Driveway regulations	10	15	3		3	8								4		4			7	2, 7	5					5		
Medians	3	4				8	6																				5	
Examples of techniques	11	16	4	5, 6		7						7											5, 9	5	5	7, 7		
Operational																												
Incr. efficiency of roadway	2	3													5	5												
Guidelines/policies etc...																												
Enforceable policies	6	9	1				5	6, 6							7							6						
Implement drive manual.	2	3										5								2								
Laws	4	6		6			5		6													8						
Planning	2	3														7						7						
Retrofitting	2	3							5													6						
Standards	2	3	1				5																					

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QUESTION #10: Does your District staff coordinate with local entities for review of site plans and/or plats related to access issues? (Please list any examples.)																												
Responses			Districts																									
	Tot	%	ABI	AMA	ATL	AUS	BMT	BWD	BRY	CHD	CRP	DAL	ELP	FTW	HOU	LRD	LBB	LFK	ODA	PAR	PHR	SJT	SAT	TYL	WAC	WFS	YKM	
Responded to this question	68		1, 3, 3, 4, 7	5, 6	3, 5, 4, 7	6, 7, 8	5, 6, 7	1, 5, 6, 6, 6	5, 6	7		5, 6, 6, 7	7	4, 7	4, 5, 7, 9, 10	4, 5, 6, 6, 7	9			2, 5, 7	1, 6, 7, 8	6, 7	5, 5, 9	4, 5, 5, 6, 7	5, 5, 7	3, 5, 7, 7	6, 6	
No	4	6						6	5						10	7												
Not sure	3	4	.													6									4, 7			
Sometimes	5	7	4	6	3										9					5								
Yes	56	82	1, 3, 3, 7	5	4, 5, 7	6, 7, 8	5, 6, 7	1, 5, 6, 6	6	7		5, 6, 6, 7	7	4, 7	4, 5, 7	4, 5, 6	9			2, 7	1, 6, 7, 8	6, 7	5, 5, 9	5, 5, 6	5, 5, 7	3, 7, 7	6, 6	
For Physical Elements	0																											
City Streets	2	3			5			5																				
Commercial development	2	3						6													7							
Driveways	5	7			4, 7		7																		5, 5			
If access permit is required	2	3										5			4													
Industrial development	2	3			5, 7																							
Major developments	3	4			5									7	7													
Schools	2	3													7						7							
By Governmental Entity																												
Area Office reviews	7	10		5		6, 7			6								9			2, 7								
Cities	12	18				6, 7, 8								4							8	7	5, 5	5, 6		5, 7		
City councils	1	1																										6
Counties	1	1												4														
Local entities	1	1																						5				

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APPENDIX D: LEGAL AND POLICY CONSIDERATIONS

(Note: Also published as a separate white paper as a part of this project titled “Access Management Strategy in Texas: Legal and Policy Considerations.”)

ACCESS MANAGEMENT STRATEGY IN TEXAS: Legal and Policy Considerations *

A Report to the Texas Transportation Institute
by
Dr. W. M. von Zharen
Professor, Texas A&M University at Galveston
Associate, Center for Ports and Waterways

**January 2001
Resubmitted: May 2001**

*** The contents do not constitute legal advice.**

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PREFACE

Seeking solutions to managed access to our state highways and roads has been an evolutionary process. Modern highway policy and planning incorporate the concept of access management to protect the public's infrastructure investment as well as to protect the public's health, safety, and welfare. This investigation was a first step in determining the legal considerations and climate in Texas for developing and implementing its own access management program.

EXECUTIVE SUMMARY

Drivers in Texas traveled approximately 394.8 million daily miles on state highways during 1998 and approximately 557.9 million miles on all roads in that year. Coupled with these volumes is the fact that arterial roadways can have seventy or more driveways (access points) per mile – each providing a set of conflict points with which the driver must contend. Little wonder, then, that the State of Texas and the Texas Department of Transportation (TxDOT) must have an effective strategy to respond to these traffic volumes. One solution is development and implementation of an access management program (AMP). Access management is part of a growing national trend in response to the realization that individual states and communities can no longer build their way out of congestion. An AMP:

- Is designed to integrate land use planning, engineering, and legal practices to maximize the operational efficiency and safety of all functional categories of roadways;
- Includes strategies to address access issues and implement techniques;
- Involves managing access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity, and speed; and
- Provides a means of implementing a designated state system of arterial roadways that improves mobility while providing access to surrounding development.

As a result, multiple stakeholders have a vested interest in an AMP.

The purpose of this research was to look at the legal and policy dimensions of implementing an access management program in the state of Texas. This was accomplished by meeting three objectives:

1. Identification of policy and legal considerations in access control in general as well as specific policy considerations in targeted states – those that have implemented or are in the process of implementing an AMP;
2. Review of policy issues relating to highway transportation access control in general and delegation of powers to TxDOT in particular; and
3. Determination of what action, if any, is needed for TxDOT to develop and implement an AMP.

The study first identified and defined four legal methods of controlling access, each of which stems from increased competing interests of public and private rights. These included: police powers, eminent domain, the law of nuisance, and contractual agreements. Police power is the ability of a state (or community) to legislate general regulations on behalf of public health or safety including preventing a person from using

her/his property to the detriment of the general public welfare. Access control also involves eminent domain. This control confers on the government the right to acquire possession of property in the manner directed by the Constitution and the laws of the state whenever the public interest so requires. Two lesser-used mechanisms include nuisance, roughly described as the use of property by one party so as to obstruct free passage or use of highways and other public rights; and contractual agreements such as an agreement between a public agency and the owner of property abutting a highway for present or future access to a highway.

In addition to looking at specific legal means of access control, the study also investigated the legislative delegation of power to TxDOT. This investigation was done through review of the applicable statutes, rules, attorney general opinions, case law, legislative history, and interviews with key personnel.

TxDOT is governed by the Texas Transportation Commission (TTC), which, in turn, receives its authority from the Texas legislature. The TTC is the policy arm of TxDOT. The Department, on the other hand, is the management arm. TxDOT's mission is to provide safe, effective, and efficient movement of people and goods in the state. Among other duties, the TTC, with the advice and recommendations of the Executive Director, is required to:

- Plan and make policies for the location, construction, and maintenance of a comprehensive system of state highways and public roads;
- Lay out, construct, maintain, and operate a modern state highway system;
- Develop a statewide transportation plan that contains all modes of transportation;
- Adopt rules for the operation of the department; and
- Establish policy necessary to carry out the duties and functions of the department and the TCC.

TxDOT, and the TTC in particular, are given broad authority to make policies to provide a safe, effective, and efficient transportation system. Additionally, the Texas courts and Attorney General Opinions, in general, appear to give broad discretion to TxDOT decisions. However, interviews with key people in various areas of Texas transportation – inside and outside of governmental bodies – indicate that the unique characteristics of Texas, coupled with the wide, disparate, and cogent stakeholders' interests, mandate that TxDOT be given additional guidance from the legislature. In answering the question, "Does TxDOT have the authority to implement an access management program?" the majority of responses fell into this pattern: *The answer lies somewhere in between. It probably has the authority but would probably not initiate the program without a greater mandate from the legislature. Therefore, TxDOT would benefit by being given clear, legislative direction.*

Finally, the investigation looked at how other targeted states handled legal and policy issues. From this review of individual state departments of transportation (DOT), several areas clearly stood out as pivotal to successful AMP implementation:

1. Preference for clear, legislative direction;
2. That legislation is accompanied by the resources – financial and human – to implement the AMP;
3. That the benefits of an effective AMP are carefully considered and documented;
4. That considerable attention is given to all interested stakeholder groups including legislators, units within a DOT, utilities and other agencies, developers, environmental groups, concerned citizens, and other interested stakeholders;
5. That these stakeholders are educated as to the specific and practical benefits of developing and implementing an effective AMP, and that such education is specifically group-directed so that individual groups of stakeholders' concerns can be addressed; and
6. That input from interested stakeholder groups is encouraged and considered.

METHODOLOGY

The purpose of this research was to look at the legal and policy dimensions of implementing an access management program in the state of Texas. This was accomplished by meeting three objectives:

1. Identification of policy and legal considerations in access control in general as well as specific policy considerations in targeted states – those that have implemented or are in the process of implementing an AMP;
2. Review of policy issues relating to highway transportation access control in general and delegation of powers to TxDOT in particular; and
3. Determination of what action, if any, is needed for TxDOT to develop and implement an AMP.

The first objective involved identifying general policy and legal considerations in access control. Then, in particular, the review looked at targeted states that have successfully implemented a system of access management controls and/or an access management program and determined how legal and policy issues were addressed. To meet this objective, an assessment was made of the legal and policy processes used by the targeted states – Colorado, Minnesota, New Jersey, Oregon, Montana, and Florida. Officials from these states' DOTs were interviewed and/or responded to a questionnaire focusing on policy issues related to their access management program. The research also ferreted out political commonalities among the states, implementation challenges, and how contentious issues were resolved.

The second objective focused on the state of Texas. Policy and legal issues that in general relate to highway transportation access control issues were analyzed. Then indices of the delegation of powers by the legislature to TxDOT were reviewed. To meet the first part of objective two, the research focused on literature review. The second part of the objective was met through literature review and discussion with key personnel. Literature covered specific topics: access controls, interpretation of scope, delegation of authority, and the mission of TxDOT. Relevant literature included statutes, rules, case law, Attorney General Opinions, law review articles, and other periodical literature. Interviews were conducted with key legislative players in Texas.

To meet objective three, determination of what action, if any, is needed for TxDOT to develop and implement an AMP, an analysis of the results from meeting the first two objectives was made. From this, suggestions for implementation of an access management program from both a practical and a policy perspective were developed.

SECTION ONE: INTRODUCTION TO AN ACCESS MANAGEMENT PROGRAM

Background

In 1999, over 16.7 million vehicles were registered in Texas. Texas travelers drove approximately 394.8 million *daily* miles on state highways during 1998 and approximately 557.9 million miles were traveled for all roads. The *total* vehicle miles for state highways were almost 144.1 billion at the end of 1998. For all roads, this number was over 203.6 billion. Texas has over 186,000 lane miles (mileage on unidirectional, single vehicle travel-way on state-maintained roadways) and over 79,000 centerline miles (corridor mileage on state-maintained roadways), serving a growing population of more than 20 million citizens. When these traffic volumes and highway miles are combined with the fact that arterial roadways can have seventy or more driveways (access points) per mile, the result is that drivers must contend with an alarming number of sets of conflict points.

As the demands on transportation infrastructure increase, so will the interest in ensuring that future decisions be based on sound economic, social, and environmental principles. With increased demand, the state has seen a decrease in the ability to provide new highway capacity through major construction projects because of burgeoning urban densities and air quality issues.¹ Even more critical, then, is the need to preserve and improve the integrity of existing highways as well as plan future highways with access management in mind.

Transportation Observations on Access Management

In 1995, the *Urban Transportation Monitor* released a survey on traffic access management among city traffic engineers to obtain their opinions and information about traffic access management.² The results included these observations:

- Most traffic access policies focus on driveway location and design (91%); the second highest response was access management policies (59%);³
- The majority of policies have been legislated into legal codes and/or ordinances (76%);

¹ A classic example of the competing interests of development and environmental interests is the Overton Park case (*Citizens to Preserve Overton Park, Inc. v. John Volpe*, 401 U.S. 402, 91 S.Ct. 814 [1971]). In this case, environmentalists fought successfully against the construction of a six-lane interstate highway through a 342-acre city park located near the center of Memphis, Tennessee.

² Questionnaires were sent to a random sample of 350 city traffic engineers. Altogether, 94 surveys were obtained for a 27% return rate.

³ Respondents checked more than one type of policy.

- The most common weaknesses of the current policies are that they need upgrading (44%); they are only guidelines (42%), and they are open to interpretation (30%);⁴
- Most engineers characterize the strength of the current policies as flexible for judgment decisions (82%); uniform in control of access (76%); and a defensible administration rule (50%);⁵
- Access is managed or enforced through required access permits (69%); case by case (48%); and jurisdictional control (31%);⁶
- Policies vary by road classification (67%); by road speed, volume, and signalization (35%); and no variation (19%);⁷
- Design policies were standards (57%); policies (32%); and guidelines (24%);
- Access policies encourage shared access (72%) and driveway consolidation (70%) but some offer no incentive⁸ (22%);⁹
- Access management policies were implemented as part of the roadway retrofit or reconstruction projects for 69% of the respondents while 31% said they were not part of these projects;
- Types of restraint to implementation that were encountered included: political (63%); economic (private) (48%); economic (government) (24%) and institutional (17%);¹⁰
- Access policies require traffic impact analysis on a case by case basis (54%); for developments that generate at least 100 vehicle trips during peak traffic hours (24%); are not required for 14% of the respondents; and are always required for 3% of the respondents;
- Access management policies are implemented in coordination with developers/owners for 69% of the respondents; with access permit review for 51% of the respondents;¹¹
- An ideal access management policy would: include geometric design standards (92%); control spacing (90%); meet traffic impact analysis (TIA) requirements (79%); deny access (77%);¹² and
- Seventeen percent of the respondents listed other inclusions such as professional judgement; legal requirement that developers are responsible for construction of turn lanes, medians, etc.; advance review capability; crossover spacing criteria; fee for permits and inspections; restrictive covenants on title of property to notify new residents; variance procedures;

⁴ Respondents selected more than one type of weakness. Others included: lost legal challenge, too rigid, does not provide sufficient access management, and not legislated into ordinance.

⁵ Respondents selected more than one type of strength.

⁶ Respondents selected more than one type of enforcement.

⁷ Respondents selected more than one type of variation.

⁸ Incentives are considered as a required resource under action items in Section Three of this study.

⁹ Respondents could have selected both shared access and driveway consolidation.

¹⁰ Respondents could have selected more than one restraint.

¹¹ Respondents could have selected more than one method of implementation.

¹² Respondents could have selected more than one item for inclusion.

stronger political support; and the treatment of cumulative impacts of small developments.

These statistics illuminate how varied access management policies and practices are around the United States and how little these policies are understood. At the same time, the increase in highway capacity demands a fresh look at how a state responds to the increasing demands. One alternative is the development and implementation of an access management program for the state. An AMP is designed to integrate land use planning, engineering, and legal practices to maximize the operational efficiency and safety of all functional categories of roadways.

Elements of an AMP include strategies to address access issues and implementation techniques; and management of access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity, and speed. Other AMP characteristics include policies as well as processes for variances/exceptions, warrants (i.e., when, where, how much, how far apart driveways and median openings should be); limiting the number of vehicular conflict points; separating conflict areas; removing turning vehicles from through travel lanes; and spacing of major intersections to facilitate progressive travel speeds along arterials, among other techniques.

The AMP Focus

The focus on access management is part of a growing national trend, as individual states and communities realize that they can no longer build their way out of congestion.¹³ Based on the research and experience of other states in developing their access management programs, coupled with the unique characteristics of highway planning and development in Texas, the following goals and policies suggest embodiments of the key elements for effective access management programs.

Goals:

- To integrate land use planning, engineering, and legal practices to maximize the operational efficiency and safety of all functional categories of roadways;
- To develop an effective access management program that addresses the unique socioeconomic, environmental, and political postures of the state of Texas including the varying stakeholder interests; and
- To include mechanisms in the program to allow for accurate predictions.

¹³ See, Major Findings, Access Management, Minnesota DOT Report, 1999.

Policies:

- Learn from other states' experiences;
- Ensure that local plans are compatible with state goals; and
- Promote participation, fairness, and equity in policy and management.

The AMP requires two areas of focus. The first is to develop an understanding of the basic characteristics and principles of the control access system – what patterns they exhibit and how they function in space and time. The second is to develop an ability to manage effectively the stakeholder interests in the system in such a way that is consistent with both the basic principles of an AMP and with societal, economic, and environmental goals concerning the kinds of patterns a Texas AMP should exhibit.

SECTION TWO: LEGAL AND POLICY CONSIDERATIONS

General Legal Issues in Access Control: Competing Rights

There are two conflicting issues that underlie the legal feasibility of access control. The first is the notion that the public has the right of safe and efficient movement on state highways regardless of ingress and egress at commercial access points. The second is that a property owner, by the nature of the property's position along the highway, is entitled to suitable and sufficient access. An AMP must effectively satisfy these two competing requirements.¹⁴ Additional competition exists among retail objectives, engineering interests, and utility concerns, to name but a few. The state is legally entitled to control access. At the same time, a citizen has a right to due process of law. Thus, a potentially aggrieved citizen would be an abutting property owner who wants, for example:

- To be protected against private interference with her/his property;
- To be protected against any use of a highway for non-highway purposes such as utility lines;
- To be protected against interference by changes in highway design and structure;
- To have direct access to the public highways;
- To claim damages if traffic is diverted from her/his access point;
- To refuse to comply with restrictions or regulations necessary for the safe movement of traffic; and
- To seek access to new limited access highways.¹⁵

In general, access rights rest on the issue of "reasonable access." Reasonable access does not necessarily mean convenient access; nor does it mean unlimited access. A property owner must have reasonable access to the street system and the access granted must allow the property to be developed "for a use, which is appropriate and economically viable at that location."¹⁶ Studies of access control legislation in Colorado, Ohio, Pennsylvania, and Oregon indicate that "states can control access in the public interest through their police powers. Compensation for, or acquisition of, abutting property is not needed as long as reasonable access is provided."¹⁷

¹⁴ See, J.C. Glennon, J.J. Valenta, B.A. Thorson, J.A. Asseh, and C.J. Wilton, "Evaluation of Techniques for the Control of Direct Access to Arterial Highways." Report No. FHWA-RD-76-85, Federal Highway Administration (August, 1975).bid

¹⁵ See, C.F.J. Koepke and H.S. Levinson, "Legal Considerations." *Access Management Guidelines for Activity Centers*, NCHRP Report 348, 1992, at 34-35 [hereinafter Legal Considerations].

¹⁶ *Id.* at 34-35.

¹⁷ *Id.* at 34-35.

Legal means of access control have evolved through centuries of developing public and private rights. One of the earliest treatises is Blackstone's commentaries on the common law of England,¹⁸ the concepts of which were used by early colonists to frame the U.S. Constitution. The concept of "due process"¹⁹ was set forth in the U.S. Constitution and was meant to protect a person's property from unfair governmental interference or taking. From this beginning, and in tandem with increased competing interests of public and private rights, controlling access centered on four methods: police powers, eminent domain, the law of nuisance, and contractual agreements.

Police Powers. As part of their inherent sovereignty, states possess police powers that allow them to regulate private activities to protect or promote the public health, safety, or general welfare of their citizens. Under police powers, a governmental entity may prevent a person under its jurisdiction from using her/his property²⁰ to the detriment of the general welfare. States, for example, have a strong interest in keeping their local roads and highways safe for their residents. Still, the right of the property owner to suitable and sufficient access competes with this state right and often ends up in court. Because courts balance the interests involved, in general it is difficult to predict the outcome in a particular case. For example, in *Raymond Motor Transportation, Inc. v. Rice*,²¹ the U.S. Supreme Court invalidated a Wisconsin administrative regulation limiting the length of trucks traveling on its highways. The court weighed the burden on interstate commerce against the benefits of the regulations and concluded that the challenged regulations placed a substantial burden on interstate commerce. The court stated: "[The regulations] cannot be said to make more than the most speculative contribution to highway safety."²² On the whole, however, the courts accept these powers regarding access as they are widely used in covering traffic regulatory and operational controls, among others.

Eminent Domain. Access control also involves issues of eminent domain. This concept is sometimes referred to as the condemnation power of sovereignty to take land for public use. It gives a right to the government to acquire possession of property in the manner directed by the Constitution and the laws of the state whenever the public interest so requires. For example, when a new public highway is to be built, the government must decide where to build it and how much land to condemn. The process may involve taking a parcel of private property to widen an existing road or increasing

¹⁸ See, Sir William Blackstone, Commentaries on the Laws of England 296 (1776).

¹⁹ Two due process clauses are found in the U.S. Constitution, one in the 5th Amendment pertaining to the federal government, and the other in the 14th Amendment that protects persons from state actions. Procedural due process guarantees fair procedures while substantive due process protects a person's property from unfair governmental interference or taking.

²⁰ The term *property* is used herein when discussing general property law and refers to real property rather than personal property. Real property consists of the land and everything permanently attached to the land. When structures are permanently attached to the land, then everything attached permanently to the structures is also real property, or realty. All other property is personal property, or personalty.

²¹ 434 U.S. 429 (1978).

²² *Id.* at 447.

the turning radius. The power of eminent domain is generally involved through condemnation proceedings. Again, in general, after the government determines that a particular parcel of land is necessary for public use, if a voluntary sale cannot be consummated, the state brings a judicial proceeding to obtain title to the land. Then, in a separate proceeding, the court determines the fair value of the land. Typically, the value is approximately equal to the market value.

In Texas, the state constitution provides that “[n]o person’s property shall be taken, damaged, or destroyed or applied to public use without adequate compensation being made.”²³ What constitutes “property” for purposes of compensation and as used in the constitutional provision relates to every species of property including personalty.²⁴ It has been construed to include not only a physical thing capable of ownership or possession but also any legal right that a person may have.²⁵ Property includes not only the thing owned but also every right that accompanies ownership and is incidental to it.²⁶

At the same time, in Texas, a legislative declaration as to the necessity for condemning land for a certain purpose is not subject to review by the courts²⁷ if the use is public. The necessity and expediency of granting the power and determining the extent to which property may be taken thereunder are political or legislative questions.²⁸ Such determination becomes a question for judicial review only when abuse of their prerogative by the legislature or such agencies is apparent.²⁹

Property owners have litigated this “taking” in Texas. For example, in *City of Tyler v. Likes*,³⁰ the court held that mere negligence on the part of a government entity which eventually contributes to the destruction of property is not a taking for which adequate compensation is required under the state constitution. In *City of Austin v. Avenue Corp.*,³¹ owners of property close to public works projects such as street improvements that have been damaged or destroyed can recover damages for lost profits only if interference with access caused by the street repair was material and substantial.³² In *State v. Schmidt*, the court denied recovery for diminution of the value of developed commercial property due to “diversion of traffic, an increased circularity of travel to the property, a lessened visibility to passersby, and the inconvenience of

²³ Tex. Const. Art. I, §17.

²⁴ *Renault, Inc. v. City of Houston*, 415 S.W. 2d 948 (Tex. Civ. App. Waco, 1967), judgment rev'd on other grounds, 431, S.W.2d 322 (Tex. 1968).

²⁵ *Ft. Worth Imp. Dist. No 1 v. City of Ft. Worth*, 106 Tex. 148, 158 S.W. 164 (1913).

²⁶ *Id.* at 164.

²⁷ *West v. Whitehead*, 238 S.W. 976 (Tex. Civ. App. San Antonio 1922), writ refused, (Apr. 5, 1922).

²⁸ *Housing Authority of City of Dallas v. Higginbotham*, 143 S.W.2d 79 (1940), answer to certified question conformed to, 143 S.W.2d 95 (Tex. Civ. App. Dallas 1940).

²⁹ *Schooler v. State*, 175 S.W.2d 664 (Tex. Civ. App. El Paso 1943), writ refused w.o.m., (July 21, 1943).

³⁰ 962 S.W.2d 489 (Tex. 1997).

³¹ 704 S.W.2d 11 (Tex. 1986).

³² *Id.* at 12.

construction activities.”³³ The Texas Supreme Court noted: “The benefits which come and go from the changing currents of travel are not matters in respect to which any individual has any vested right against the judgement of public authorities. If the public authorities could never change a street or highway without paying all persons along such thoroughfares for their loss of business, the cost would be prohibitive.”³⁴ In the *City of Austin v. Teague*,³⁵ the Texas Supreme Court rejected the notion that all exercises of state police power are exceptions to the Texas takings clause. The court held that there is “perhaps no test and no single sentence rule that can resolve the varying problems that may arise by government’s interference with a property owner’s exercise of his rights,”³⁶ and that compensation is justified when there has been a physical taking, when property has been rendered wholly useless, or when the government has caused a disproportionate diminution in economic value or total destruction of property value.³⁷

In *City of College Station v. Turtle Rock Corp.*,³⁸ the Texas Supreme Court upheld a city ordinance requiring parkland dedication as a condition to subdivision plat approval. Even though the court stated that the Texas constitution requires payment of adequate compensation when private property is taken for public use, it clearly emphasized: “[A]ll property is held subject to the valid exercise of the police power.” Similarly, in *Taub v. City of Deer Park*,³⁹ the Texas Supreme Court held that denial of a requested zoning change from single-family to multifamily is not a compensable taking even if the result is that the property cannot be profitably developed. Thus, it appears as if there is no compensable taking if acquisition of the property is substantially related to the health, safety, or general welfare of the people and is reasonable rather than arbitrary.⁴⁰

Nuisance and Contractual Agreements. In access control, two lesser-used land-use controls include nuisance and contractual agreements. Although not as common, these still provide arrows in the quiver of access control. Nuisance can roughly be described as the use of property by one party so as to interfere substantially with the reasonable use, enjoyment, or value of another’s property. It is also defined as obstructing free passage or use of highways and other public rights. “Historically, the action of nuisance was the normal method of protecting the interest of the public in the use of the highway under the common law of England and in the statute law of eighteenth- and nineteenth-century America.”⁴¹ Today, the law of nuisance may apply to “...twentieth-century laws enacted for the purpose of promoting positively the public

³³ 867 S.W.2d 769, 770 (Tex. 1993), *cert. denied*, 115 S.Ct. 64 (1994).

³⁴ 867 S.W.2d at 773 (quoting *State Highway Comm’n v. Humphreys*, 58 S.W. 2d 144, 145 (Tex. Civ. App.—San Antonio 1933, writ ref’d).

³⁵ 570 S.W.2d 389, 392 (Tex. 1978).

³⁶ *Id.* at 392.

³⁷ *See id.* at 393.

³⁸ 680 S.W.2d 802 (Tex. 1984).

³⁹ 882 S.W.2d 824 (Tex. 1994).

⁴⁰ *See City of College Station v. Turtle Rock Corp.*, 680 S.W.2d at 804-05.

⁴¹ *See Legal Considerations* at 36.

convenience through zoning, subdivision controls, building codes, set-back lines, and similar measures.”⁴²

Access control can also involve contractual agreements such as restrictive covenants and conditional use agreements. A public agency and the owner of property abutting a highway may enter into a conditional use agreement to define a particular land use for which present or future access to a highway may be granted.

If a state has decided many cases involving control access, then there is precedent for future disputes. The disadvantage, however, is that a ruling has been established in one favor or another. That is, if leniency is shown to an abutting property owner, that leniency may be extended to property owners in future access control rulings. A state having little access control legislation will require the courts to decide access control issues on a case by case basis, something that takes time and money. Although the courts “tend to decide in favor of access control in most “reasonableness” cases,⁴³ a state transportation department has no advance guarantee that court action will uphold an untested access control technique. Bad facts can make bad law. In this type of scenario, access control legislation and rulemaking are preferable, of course, to litigation.

Legislative Delegation of Authority

Legislative Delegation of Power to Agencies: General

Because the scope of TxDOT’s regulatory authority is largely governed by administrative law principles, it is necessary to consider a brief overview of the general administrative framework. The overwhelming and voluminous nature of state administrative law has led some to call it “a headless fourth branch of government.” Keep in mind certain principles when looking at administrative law. Although the various agencies vary structurally, some characteristics are common to all agencies:

- Agencies are created by the legislature;
- All agencies have an appointed board or commission, and act to administer; and
- Courts play a role, in varying degrees, in supervising the conduct of agencies.

Agencies are legislative creatures. As such, their rulemaking abides by whatever is prescribed in their enabling statutes. Agencies have only such powers as the legislature considers it wise to delegate to them. Typically, legislatures give broad discretion to agencies in order to facilitate the necessary flexibility to make rules in

⁴² *Id.* at 36.

⁴³ *Id.* at 35.

highly technical or economic areas.⁴⁴ Agencies are equipped by their very design to accommodate and determine the daily decisions that flow from their rulemaking.⁴⁵ Problems arise when authority for making rules is poorly defined or specified by the legislature.⁴⁶

Delegation of power by a legislature to an administrative agency comes into question because state governments are based on a separation of powers among the three branches of government: legislative, executive, and judicial. When rulemaking power is delegated by a legislature to an administrative agency and, in turn, the agency carries out the legislature's broad policy goals, the agency gains power to shape social and economic policy. In essence, the agency becomes a quasi-legislature. In response, rules and statutes have been negated in circumstances where the legislature has not provided "adequate standards" to guide an agency's discretion.⁴⁷

Historically, most states have struck down statutes when their legislatures have delegated power to an agency without providing "adequate standards" to guide that agency's discretion⁴⁸ while the U.S. Supreme Court has upheld broad delegations of power. Recent case law indicates that many states have begun following the federal trend.⁴⁹ A state's Supreme Court decides "the circumstances under which it will allow, if at all, its state legislature to delegate lawmaking power to administrative agencies. This judicially created state delegation policy reflects the amount of power and discretion each state court has allowed unelected agency officials to wield."⁵⁰

Legislative Delegation of Power to Agencies: The State of Texas

The authority of TxDOT to establish and implement a statewide access management program requires review of state agencies' authority in general. A state agency's authority depends upon statutes specifically governing the agency. As well, the authority may be expressed or implied. Expressed authority occurs when an agency is expressly authorized to do a delegable act; this authority can be directly granted to or conferred upon an agency in express terms.⁵¹ Implied authority is that which is necessary to accomplish or perform what has been expressly delegated to an agency.⁵² State agencies may exercise only those powers that are specifically given to them by

⁴⁴ See Alexander Dill, *Scope of Review of Rulemaking After Chadha: Case for the Delegation Doctrine?*, 33 Emory L. J. 953 (1984).

⁴⁵ See William F. Fox, Jr., *Understanding Administrative Law* 2 (1986).

⁴⁶ See, e.g., Joseph P. Tomain & Sidney A. Shapiro, *Analyzing Government Regulation*, 49 Admin. L. Rev. 377, 377-80 (1997); and E. J. Dionne, Jr., *Why Americans Hate Politics* (1991).

⁴⁷ See, e.g., Arthur Bonfield and Michael Asimow, *State and Federal Administrative Law* 432 (1989).

⁴⁸ *Id.* at 432.

⁴⁹ *Id.* at 432.

⁵⁰ Gary L. Greco, *Survey: Standards or Safeguards: A Survey of the Delegation Doctrine in the States*, 8 Admin. L.J. Am. U. 567 (hereinafter Greco).

⁵¹ For a definition of express authority related to agents, see Black's Law Dictionary.

⁵² For a definition of implied authority related to agents, see Black's Law Dictionary.

statute.⁵³ Agencies also have implied powers to do that which is necessary to carry out the specific powers delegated. The legislatures' intention is to have a workable and effective exercise of the powers expressly and specifically granted the agency. For example, in *Sexton v. Mount Olivet*,⁵⁴ the court held that the full extent of power specifically granted an agency must be ascertained with due regard for rules that the legislature intends the agencies to have. By implication, this power is whatever authority is necessary to carry out specific delegated powers. Thus, in considering the validity of a state agency rule, the determinative factor as to whether the agency has exceeded its authority is whether the rule is in harmony with the general objectives of the statute.⁵⁵ Although administrative rules are presumed valid, courts may find them void if adopted without statutory authority.⁵⁶

Texas administrative agencies make many major policy decisions in the form of rules. Section 5 of the Administrative Procedure and Texas Register Act (APTRA)⁵⁷ prescribes notice, comment, and reasoned justification procedures for agency rulemaking. Section 12 authorizes anyone threatened by an agency rule to sue over its validity and applicability.⁵⁸ Texas agencies make hundreds of rules every year. Many of the rules they make are as important as statutes. The legislature delegates to agencies in order to secure expert action on important, complex, uncertain, and controversial policy matters. Texas has a long record of embracing and overseeing administrative agencies. Texas created its first modern administrative agency, the Railroad Commission, more than a century ago. Texas enacted APTRA nearly a generation ago.

Section 5 states that unless adopted in substantial compliance with these specific procedures, a rule is invalid.⁵⁹ The procedures are:

- Give public notice of proposed rules and the legal and factual bases of those rules;
- Provide reasonable opportunity for all interested persons to comment;
- Consider comments; and
- Write in its final order for adopting the rule a reasoned justification that openly and adequately explains the agency's reasons for its final rulemaking decision.⁶⁰

⁵³ See *Neches v. Aldridge*, 992 S.W.2d 684, 687 (Tex. App.--Austin 1999, pet. denied); *Sexton v. Mount Olivet Cemetery Ass'n*, 720 S.W.2d 129, 137 (Tex. App.--Austin 1986, writ ref'd n.r.e.).

⁵⁴ 720 S.W.2d at 137-39.

⁵⁵ *Gerst v. Oak Cliff Savings & Loan Ass'n*, 432 S.W.2d 702, 706 (Tex. 1968).

⁵⁶ *Hollywood Calling v. Public Util. Comm'n*, 805 S.W.2d 618, 620 (Tex. App.--Austin 1991, no writ); see also *Brown v. Humble Oil & Ref. Co.*, 87 S.W.2d 1069 (Tex. 1935).

⁵⁷ Formerly Tex. Rev. Civ. Stat. Ann. art. 6252-13a (Vernon 1975) (repealed 1993), APTRA is now codified at Tex. Gov't Code Ann. §§ 2001.001-902 (Vernon Supp. 1995). Section 5 is now codified at Tex. Gov't Code Ann. §§ 2001.023-.035.

⁵⁸ Tex. Gov't Code Ann. § 2001.038 (Vernon Supp. 1995).

⁵⁹ Tex. Gov't Code Ann. § 2001.035 (Vernon Supp. 1995).

Thus, the rule must be adopted in “substantial compliance” with the procedural requirements of Section 5.⁶¹ This would include steps to ensure that the notice-and-comment process was meaningful and fairly disclosed the issues, the agency’s proposed solution, and the important basis of the agency’s proposal.⁶² For example, the agency cannot “hide the ball” from potentially interested persons, or not disclose its real proposal or key material upon which the proposal was based.⁶³ As well, the agency must respond meaningfully to substantial issues raised in the rulemaking, and give honest and reasoned explanations of how and why the agency resolved those issues as it did.⁶⁴

In determining the extent to which a legislature delegates power to administrative agencies, one commentator focused on standards each state court uses to measure the constitutionality under the state’s constitution of a legislative delegation of power. The commentator set out three broad categories.

Category I states uphold delegations of lawmaking power to administrative agencies as long as the statute contains “adequate standards” of policy or an “intelligible principle” for the agency to follow.⁶⁵ This embodies the principle that the legislature “should not avoid its political responsibility by delegating its lawmaking power to agencies.”⁶⁶ Delegation of power to an agency must be accompanied by clear and definite standards. The result is that Category I states strike down broad grants of authority to agencies more readily than either Category II or Category III states. Because the legislature cannot delegate power to the agencies without definite standards, administrative agencies in Category I states have less discretion and, correspondingly, less power than agencies in the other states.⁶⁷ “When Category I courts allow a delegation, the legislature retains significant influence over the outcome of policy, and the administrative agency has less discretion to affect policy.”⁶⁸ The “strict” standards-and-safeguards states have decided that the influence over policy decisions should remain within the legislative branch even when the legislature delegates power to an agency. On the other hand, Category II and III states allow delegations where the legislature has less influence on policy than the agencies.

⁶⁰ *Id.* §§ 2001.023, .029, .033.

⁶¹ *See id.* § 2001.035.

⁶² Pieter M. Schenkkan, *When and How Should Texas Courts Review Agency Rules?*, 47 *Baylor L. Rev.* 989 (1995) at 1002.

⁶³ *See id.* at 1002.

⁶⁴ *Id.* at 1001.

⁶⁵ Gary J. Greco, *Survey: Standards or Safeguards: A Survey of the Delegation Doctrine in the States*, 8 *Admin. L.J. Am. U.* 567, 579 (1994) [hereinafter Greco].

⁶⁶ *Id.* at 580.

⁶⁷ *Id.* at 580.

⁶⁸ *Id.* at 584.

Category II states allow delegations of lawmaking power to administrative agencies if the statute contains a “general” rule to guide the agency such as procedural safeguards and/or standards. The impetus stems from the fact that legislatures lack the necessary expertise to deal with specific and complex problems in areas such as economics, industry, and general public health and safety so they must rely on administrative expertise.⁶⁹ This results in delegations of power to agencies with minimal legislative guidance.⁷⁰ Administrative agencies are given more power to determine policy.

In Category III states, delegations of lawmaking power to administrative agencies are upheld by the courts if the administrative agency has adopted adequate procedural safeguards. Thus, the courts look to what procedural safeguards – principle, rules, and standards – administrators have factored into their decision-making process. The result is that most legislative delegations of power to administrative agencies are upheld which, in turn, gives administrative agencies more discretion and power than state agencies in Category I and II states. In Category III states, administrative agencies have even more effect on policy.

Although the commentator included Texas in the list of Category I, it was quickly pointed out that there is an overlap:

In Texas, it is unclear whether the court requires the existence of both standards and procedural safeguards, or simply either one or the other. Therefore, Texas is a state whose standards may overlap into a different category. *Texas Antiquities Comm. v. Dallas County Community College Dist.* [554 S.W.2d 924 (Tex. 1977)], is an example of the ambiguous legal standard of the Texas delegation doctrine. In *Texas Antiquities*, the Texas Supreme Court struck down a portion of the state’s Antiquities Code, which gave the Texas Antiquities Committee, a state agency, the power to designate ‘all buildings and locations of historical interest’ [*Id.* at 927 (citing Tex. Rev. Civ. Stat. Ann. art. 614S-9, section 6)]. The court found the statute unconstitutionally vague. In its decision, the court noted that ‘depending upon the nature of the power, the agency, and the subject matter, varying degrees of specific standards have been required in testing the reasonable breadth of statutes’ [*Id.* at 927 (citing 1 Norman J. Singer, *Sutherland Statutory Construction*, section 4.05 (4th ed. 1975); *Jordan v. State Bd. of Ins.*, 334 S.W.2d 278 (1960))]. In addition to the standards requirement, the Texas court suggested that safeguards to limit discretion would be important to the constitutionality of the delegation. The court stated: ‘Upon the basis of the statute now before us, we are

⁶⁹ See Craig L. Taylor, Comment, The Fourth Branch: Reviving the Nondelegation Doctrine, *B.Y.U. L. Rev.* 619, 638 (1984).

⁷⁰ *Id.* at 638.

unconvinced that we should renounce the settled law of Texas that the legislature may not delegate its powers without providing some criteria or safeguards' [*Id.* at 927].⁷¹

The commentator also pointed out that there had been a “general demise” of the delegation doctrine in the states⁷² and that states were more inclined than ever to uphold delegations to state agencies. Since the commentary was published in 1994, and assuming this general decline continued, then states, in general, would be even more inclined to uphold delegation of power given to agencies. Because of the complex nature of today’s government, legislatures must delegate powers to agencies where appropriate. An example of an inappropriate delegation of power would be where it is clear that the legislature intended to avoid its own political responsibility. Otherwise, legislation should defer to agency experts. Argument could be made that implementing and maintaining an AMP appears to be an area that may be particularly suited to being within the purview of experts – not the legislature. At the same time, consideration should be given to factors such as:

- The purpose for which the power has been delegated;
- The protections against arbitrariness that have been set up;
- The complexity of the issue;
- The sensitivity of the issue; and
- The technical challenges involved with the issue.

The more complex, sensitive, and technical the issue, the more it demands being addressed by an agency. Appropriate legislative oversight hearings ensure that the agency is acting in accordance with legislative intent.

Legislative Delegation of Power to Agencies: Texas Department of Transportation

Background

TxDOT has a relatively long history of expanding powers. The agency’s roots took hold in 1917 when the State Highway Department (SHD) was created to take advantage of federal funds made available by the Federal Highway Act of 1916.⁷³ Over time, the SHD’s activities began to reflect a broader mission: addressing the state’s overall transportation needs.⁷⁴ In 1975, the SHD merged with the Texas Mass Transportation Commission to form the State Department of Highways and Public

⁷¹ Greco at 603.

⁷² Greco at 599.

⁷³ See Texas Department of Transportation, Staff Report, Texas Sunset Advisory Commission, 1996 at 95.

⁷⁴ *Id.* at 95

Transportation.⁷⁵ That same year, this department was assigned responsibility to find sites for the disposal of dredge material from the Gulf Intracoastal Waterway.⁷⁶ In 1976, the Governor's Office on Traffic Strategy was transferred to the department.

The Texas Department of Transportation was created by the Legislature in 1991. TxDOT was formed by the consolidation of the State Department of Highways and Public Transportation with the Texas Department of Aviation and the Texas Motor Vehicle Commission.⁷⁷ TxDOT continued to expand. In 1995, the Legislature transferred motor carrier regulation responsibility⁷⁸ and vehicle storage facilities regulation from the Railroad Commission (RRC) to TxDOT. The Legislature also merged the Texas Turnpike Authority (TTA) with TxDOT.⁷⁹

TxDOT adopted one principal goal in its strategic plan that reflects the department's major functions: "to provide the state of Texas with transportation services and systems that work together; are safe, comfortable, durable, and affordable; are environmentally sensitive; are efficient and effective; and support economic and social prosperity."⁸⁰

TxDOT's Policy-making and Management Structure

TxDOT is governed by the Texas Transportation Commission.⁸¹ This commission consists of three members appointed by the governor with the advice and consent of the senate. The governor designates one member of the commission to serve as the chair who is known as the Commissioner of Transportation. The TTC is the policy arm of TxDOT.⁸² The department, on the other hand, is the management arm.

The department is headed by the executive director, appointed by the TTC. The department conducts its primary activities in twenty-five geographical districts. Varying climate and soil plus differing needs of local populations make decentralization of the department necessary. Each district, managed by a district engineer, is responsible for the design, location, construction, and maintenance of its area transportation systems. Local field offices within districts are known as area offices, and many districts also have separate maintenance offices. Functional divisions and offices headquartered in Austin provide administrative and technical support to the districts.

⁷⁵ *Id.* at 95.

⁷⁶ *Id.* at 95.

⁷⁷ *Id.*

⁷⁸ In 1995, the Legislature largely deregulated motor carriers. *Id.* at 95.

⁷⁹ *Id.* at 95

⁸⁰ *Id.* at 104.

⁸¹ A separate Motor Vehicle Board regulates the motor vehicle distribution industry.

⁸² *See, e.g.*, §201.102, Separation of Responsibilities: "The commission shall develop and implement policies that clearly separate the policy-making responsibilities of the commission and the management responsibilities of the director and staff of the department."

TxDOT's Responsibilities, Powers, and Authorities

TxDOT's mission is to provide safe, effective, and efficient movement of people and goods in the state. As noted previously, the TTC develops and oversees policy. Among other duties, the TTC, with the advice and recommendations of the executive director, will:

- Plan and make policies for the location, construction, and maintenance of a comprehensive system of state highways and public roads;
- Lay out, construct, maintain, and operate a modern state highway system;
- Develop a statewide transportation plan that contains all modes of transportation;
- Adopt rules for the operation of the department; and
- Establish policy necessary to carry out the duties and functions of the department and the TCC.

Specifically, the Texas Transportation Code, §201.101, provides the TTC with the authority to establish rules for the operation of TxDOT. The Texas Transportation Code, §201.103, requires that TxDOT plan and make policies for the location, construction, and maintenance of a comprehensive system of state highways and public roads. Further, the Texas Transportation Code, §201.601, requires TxDOT to develop a statewide transportation plan that contains all modes of transportation (in cooperation with other agencies and political subdivisions that have responsibility for transportation).⁸³

To promote, among other things, public safety and facilitate the movement of traffic, the Texas Transportation Code, §203.002, authorizes TxDOT to lay out, maintain, construct, and operate a modern state highway system with emphasis on the construction of controlled access highways, plan for future highways, and convert where necessary an existing street, road, or highway into a controlled access highway in accordance with modern standards of speed and safety.⁸⁴

The necessity of and approval to develop a plan for future highway needs is evidenced by a proposed rule regarding a planned rural network of four-lane or better divided roadways that will serve as a principal connector of all Texas cities with over 20,000 population as well as major ports and points of entry (with system mileage limits).⁸⁵ The rule's coverage is broad:

⁸³ See, e.g., 22 TexReg 12081, December 5, 1997, adopted rules.

⁸⁴ See Texas Transportation Code, §203.002. See, e.g., 2000 Reg. LEXIS 23106, June 9, 2000, concerning speed zone approval including requiring the TTC to adopt procedures that will be used to determine speed limits on the state highway system.

⁸⁵ See 2000 Reg. LEXIS 23082.

- Maximizing the use of existing four-lane divided roadways;
- Minimizing circuitous or indirect routing;
- Connecting with principal roadways from adjacent states;
- Connecting with principal deep water ports with channel depths of 40 feet or more;
- Connecting with principal Mexican ports of entry;
- Serving significant military or other national security installations;
- Serving tourism and/or recreational areas;
- Comprising major truck routes; and
- Applying to areas that are within 25 miles or less of cities of 10,000 population or greater.⁸⁶

Federal law⁸⁷ requires TxDOT to carry out a continuing, cooperative, and comprehensive statewide intermodal transportation planning process, including the development of a statewide transportation plan and transportation improvement program that facilitates the efficient and economic movement of people and goods in all areas of the state. This Statewide Transportation Improvement Program (STIP) must be developed for all areas of the state in cooperation with the metropolitan planning organizations (MPOs) designated for metropolitan areas. Under federal law,⁸⁸ the governor is responsible for providing for public involvement in the STIP development process. The governor has delegated this responsibility to the TTC, which in turn has delegated the responsibility to the executive director. The TTC will approve the STIP if it finds the STIP has met the requirements including, among others:

- Developing, operating, and maintaining efficient and effective transportation systems and services;
- Improving public safety and security on transportation systems; and
- Facilitating economic and social prosperity through the efficient movement of people and goods.

Historically, the TTC and its predecessor have been given broad powers to adopt rules for governing the day-to-day operation of the state highway system and all portions thereof. For example, an Attorney General Opinion⁸⁹ held that the Texas

⁸⁶ See 43 TAC §15.42.

⁸⁷ See, e.g., 43 TAC §15.8 (2000), incorporating 23 U.S. Code, §135, as implemented by 23 CFR Part 450, Subpart B.

⁸⁸ See 23 USC §135.

⁸⁹ Under provisions set out in the Texas Constitution, the Texas Government Code, and numerous statutes, the Texas Attorney General is authorized to write advisory opinions for state and local officials. Agencies request these advisory opinions when they confront unique or unusually difficult legal questions. The *Texas Register* publishes summaries of all opinions, requests for opinions, and open record decisions. The Attorney General responds to many requests for opinions and open records decisions with letter opinions. A letter opinion has the same force and effect as a formal Attorney General Opinion. It represents the opinion of the Attorney General unless and until it is modified or overruled by a subsequent letter opinion, a formal Attorney General Opinion, or a decision of a court of

Highway Commission may temporarily close a portion of an interstate frontage road for the purpose of allowing an inter-city “grand prix” race. The Attorney General stated that this was within their power. “The Texas Highway Commission is authorized by article 6674w-1, V.T.C.S., to ‘lay out, construct, maintain, and operate a modern State Highway System. . . .’ In the absence of indication of contrary legislative intent, we believe it is clear that this provision empowers the commission to adopt regulations governing the day-to-day operation of the state highway system, and all portions thereof.”⁹⁰ The opinion cites the Texas Supreme Court as declaring that “[t]he State has created a Highway Commission, and has placed under its direct and exclusive control the management of its highway system.”⁹¹ The opinion continues to enumerate additional empowerment including, among others:

- To designate any existing or proposed state highway, of the designated state highway system, or any part thereof, as a controlled access highway;
- To deny access to or from any state highway, presently or hereafter designated as such . . . which may be hereafter duly designated as a controlled access highway, from or to any lands, public or private, adjacent thereto, and from or to any streets, roads, alleys, highways or any other public or private ways intersecting any such controlled access highway, except at specific points designated by the State Highway Commission; and to close any such public or private way at or near its point of intersection with any such controlled access highway;
- To designate points upon any designated controlled access highway, or any part of any such highway, at which access to or from such controlled access highway shall be permitted, whether such controlled access highway includes any existing state highway or one hereafter constructed and so designated; and

record. Only certain state and local officials are allowed to request an Attorney General Opinion. Sections 402.042 and 402.043 of the Government Code set out a list of those officials who are authorized to request formal Attorney General Opinions on questions of law. The Attorney General is prohibited by statute from giving a written opinion to anyone other than an authorized requestor. Authorized requestors include:

- the Governor;
- the head of a department of state government;
- the head or board of a penal institution;
- the head or board of an eleemosynary institution;
- the head of a state board;
- a regent or trustee of a state educational institution;
- a committee of a house of the Texas Legislature;
- a county auditor authorized by law; and
- the chairman of the governing board of a river authority.

⁹⁰ Opinion No. JM-507, 1986 Tex. AG LEXIS 95, June 25, 1986.

⁹¹ *Texas Highway Commission v. El Paso Building and Construction Trades Council*, 234 S.W.2d 857, 859 (Tex. 1950).

- To control, restrict, and determine the type and extent of access to be permitted at any such designated point of access. . . .⁹²

A more recent Attorney General Opinion⁹³ held that TxDOT is authorized to establish advisory committees, for example, the Statewide Transportation Policy Committee and the Bicycle Advisory Committee.⁹⁴ As well, case law upheld TxDOT's authority to place and maintain traffic-control devices on state highways to regulate and guide traffic on these highways.⁹⁵

Specifically, section 201.601 of the Texas Transportation Code and 23 U.S.C. §135, federal law, require TxDOT to develop a statewide transportation plan that encompasses all modes of transportation.⁹⁶ State law requires the department to seek opinions and assistance from other state agencies and political subdivisions in developing the plan.⁹⁷ Federal law further provides that in developing the plan, the department must seek public input from interested parties. "In developing the long-range transportation plan, the State shall . . . provide citizens, affected public agencies, representatives of transportation agency employees, freight shippers, private providers of transportation, representatives of users of public transit, providers of freight transportation services, and other interested parties with a reasonable opportunity to comment on the proposed plan."⁹⁸

The MPOs, noted previously, are an example of stakeholders who must be consulted. Texas is required by federal law⁹⁹ to designate an MPO in each urbanized area. Each metropolitan area must have a continuing, cooperative, and comprehensive transportation planning process that results in plans and programs that consider all transportation modes and support community development and social goals.

While federal law places responsibility for transportation planning on the states,¹⁰⁰ responsibility for statewide transportation planning and coordination has been delegated by the governor to the TTC, which in turn has delegated these responsibilities to the executive director of TxDOT. In order to define for the state how it will coordinate

⁹² V.T.C.S. art. 6674w-1, subdiv. 2(a)-(d).

⁹³ Opinion No. JC-0189, 2000 Tex. AG LEXIS 22, March 1, 2000.

⁹⁴ See Title 43, section 1.85(a)(2) and (8) of the Texas Administrative Code (RQ-0126-JC).

⁹⁵ See, e.g., *Hynes v. The State of Texas*, 855 S.W.2d 731; 1993 Tex. App. LEXIS 322 (1993), citing Tex. Rev. Civ. Stat. Ann. art. 6701d (Vernon 1977), §§ 29 and 30.

⁹⁶ See 43 Tex. Admin. Code §1.85(2)(A) (1999) (rule establishing purpose of Statewide Transportation Policy Committee); see also 23 U.S.C. §135(a) (West Supp. 1999); Tex. Transp. Code Ann. §201.601 (Vernon 1999).

⁹⁷ See Tex. Transp. Code Ann. §201.601(b) (Vernon 1999).

⁹⁸ See 23 U.S.C. §135(e)(3)(A) (West Supp. 1999).

⁹⁹ The United States Code, in Title 23, §134 and Title 49, §5303; see, Chapter 15, Subchapter A, Transportation Planning, Rule 15.1.

¹⁰⁰ 23 U.S.C. §135. Transportation plans and programs must lead to the development and operation of an integrated, intermodal transportation system that facilitates the efficient and economic movement of people and goods.

the various activities required by federal law,¹⁰¹ involve the public in transportation decisions, and collaborate with the MPOs to ensure that state and regional plans and development programs are consistent, Texas law prescribes minimum standards for metropolitan transportation planning. The law also prescribes how the state and MPOs will develop transportation planning processes, plans, and programs, and ensure the effectiveness of statewide and metropolitan transportation planning and program development. The law also addresses eligibility requirements for continued receipt of federal transportation funds.¹⁰²

Appeals from agency decisions are limited. In *Texas Department of Transportation v. T. Brown Constructors, Inc.*,¹⁰³ the Austin Court of Appeals held that a trial court erred by rendering judgment for a party in a different amount than the agency's decision. The court reasoned that although a trial court has the legislative authority to review an agency's decision, substituting its own discretion for that of the agency "usurps the agency's [statutory] authority and discretion" and "violates the separation-of-powers provision of the Texas Constitution."¹⁰⁴

If express authority was not found, argument could be made that since state and federal law require TxDOT to develop a statewide transportation plan with the input of other governmental entities and the public, this, in turn, provides implied authority for the department to establish an AMP. This argument, however, is less than convincing.

TxDOT's Requirement to Protect the Environment

On both the policy side – the Texas Transportation Commission – and the management side – the department – there is a duty to protect and preserve the environment wherever practical. Specifically,

The commission and the department will protect, preserve and, when practicable, enhance the environment. Particular emphasis will be placed on avoidance, minimization, and compensation for adverse environmental impacts while balancing social and environmental concerns with economic growth. Environmental considerations will be fully integrated into department policies, procedures, and decision-making practices in a systematic, interdisciplinary manner. In implementing this policy, the department recognizes the need for effective communication and encourages coordination with the public, environmental or transportation interest groups, environmental agencies, resource agencies, businesses,

¹⁰¹ 23 USC §134 and §135, and 49 USC §§5303-5306.

¹⁰² See Chapter 15, Subchapter A, Transportation Planning, Rule 15.1.

¹⁰³ 947 S.W.2d 655 (Tex. App. - Austin 1997, pet. denied).

¹⁰⁴ 947 S.W.2d 655 at 660 (Tex. App. - Austin 1997, pet. denied).

communities, and similar entities in the transportation policy setting, planning, and development processes.¹⁰⁵

The environment is broadly defined by the Texas Administrative Code to include “the human environment that includes the earth’s system, which consists of water, air, land, plants, people, and animals and the interrelationships that exist among these, including ecological, socio-economic, and archaeological/cultural resources.”¹⁰⁶

Before beginning the right-of-way acquisition process, TxDOT must complete a federal environmental review process under the National Environmental Policy Act (NEPA). NEPA imposes on each federal agency the obligation to prepare a comprehensive environmental impact statement (EIS) before undertaking a proposed major federal action. Major actions include, among others, federal construction projects. When federal funds are used in highway projects, the law applies in varying degrees to TxDOT activities depending on the severity of the environmental impact. Additionally, if the project is funded completely by state or local funds, TCC rules still require TxDOT to perform an environmental assessment that generally follows federal environmental requirements.¹⁰⁷ Thus, all projects, regardless of funding sources, receive an environmental analysis. For projects that are likely to have a significant impact on the environment, TxDOT must prepare an EIS. An EIS contains:

- A statement of environmental impacts (positive and negative) of the proposed action;
- Any unavoidable adverse environmental impacts should the proposal be implemented;
- Alternatives to the proposal (including taking no action);
- The relationship between short-term uses of the environment and enhancement of long-range productivity; and
- Any irreversible commitment of resources.

An environmental assessment is used when projects are anticipated to have no significant impact (a Finding of No Significant Impact [FONSI]) but require some review of alternatives. Categorical Exclusions (CEs) are granted “for projects that have an insignificant impact on the environment,” e.g., traffic signal placement and shoulder construction projects.¹⁰⁸ For non-federal aid projects and in accordance with the Texas Administrative Code, the Environmental Affairs Division of TxDOT certifies environmental clearance of projects.¹⁰⁹ For federal aid projects, environmental clearance is received from the Federal Highway Administration.¹¹⁰

¹⁰⁵ Texas Administrative Code, Title 43, transportation, part 1, chapter 2, subchapter a, rule 2.2.

¹⁰⁶ *Id.* at 1.3 - Definitions.

¹⁰⁷ See Texas Department of Transportation, Staff Report, Texas Sunset Advisory Commission, 1996 at 108.

¹⁰⁸ *Id.* at 108.

¹⁰⁹ *Id.* at 108.

¹¹⁰ *Id.* at 108.

TxDOT is also authorized to acquire or condemn property necessary for highway purposes.¹¹¹ Environmental clearances are the first step. Subsequent steps include appraisal of the fair market value of the necessary property¹¹² and offering that amount to the owner. If the property owner accepts the offer, TxDOT conducts the title transaction and proceeds with the project. If the property owner rejects the offer, TxDOT “may invoke its power of eminent domain” and condemn the property.¹¹³ In a condemnation hearing, three special Commissioners appointed by a judge with eminent domain jurisdiction “hear evidence and determine the amount of the award to the property owner.”¹¹⁴ Either party, the state or the property owner, can appeal the decision of the commissioners to a jury. “TxDOT has a right of possession to the property at the time a state warrant, in the amount of the special commissioners’ award, is deposited with the court.”¹¹⁵

Relationship of Specific Delegated Powers with AMP Implementation Authority

TxDOT, and the TTC in particular, are given broad authority to make policies to provide a safe, effective, and efficient transportation system. Additionally, the Texas courts and Attorney General Opinions, in general, appear to give broad discretion to TxDOT plans and decisions. However, interviews with key people in various areas of Texas transportation – inside and outside of governmental bodies – indicate that the unique characteristics of Texas coupled with the wide, disparate, and cogent stakeholders’ interests mandate that TxDOT be given additional guidance from the Legislature. In answering the question, “Does TxDOT have the authority to implement an access management program?” the majority of responses fell into this pattern: *The answer lies somewhere in between. It probably has the authority but would probably not initiate the program without a greater mandate from the legislature. Therefore, TxDOT would benefit by being given clear, legislative direction.*

Assuming hypothetically that the authority for developing an AMP bears a similar weight to that of including high-speed rail in TxDOT’s plans, a former Commissioner’s statement may be telling. In discussing a long-range transportation plan that does not include high-speed rail, the Commissioner noted: “That issue is bigger than we are ... that’s up to the State Legislature.”¹¹⁶

¹¹¹ On average, TxDOT can acquire all of the necessary right of way in 27 months from the time it issues the FONSI. *Id.* (citing Interview with Right of Way division staff, TxDOT, February 1996).

¹¹² The value includes the value of the property acquired as well as any damage to the remaining property. *Id.* at 109.

¹¹³ *Id.* at 109. As discussed previously, eminent domain is the power to take private property for public use by the state or municipality. The power is found both within federal law (Fifth Amendment, the U.S. Constitution) and state law.

¹¹⁴ *Id.* at 109.

¹¹⁵ *Id.*

¹¹⁶ John Williams, *Texans Face Growing Pains Down the Road; Transportation Plan’s Hearing Set for Today*, *Hous. Chron.*, Nov. 21, 1994, at A11 (quoting Texas Department of Transportation (TxDOT) Commissioner Anne S. Wynne).

Indeed, an AMP integrates land use planning, engineering, and legal practices to maximize the operational efficiency and safety of all functional categories of roadways. As such, multiple stakeholders are potentially impacted. As one commentator stated: “Finding ways to maximize use of roads by restricting adjacent landowners or those traveling on streets, crossing at intersections, etc., those, I think are broad enough kinds of questions that perhaps should be asked at the commissioner level, even the legislative level. Those [kinds of activities] should be explicit and should be communicated to the public: for example, here’s what it’s all about; here’s what it means to you, and are those interests in improving the capability of infrastructure worth the restriction of people’s use of roads? If you envision the decisions on a matrix of a whole lot of competing interests, the interest of optimal use of infrastructure may take second place.... If you choose which is more important, people would come to the conclusion that sub-optimal use of what we have is ok.”¹¹⁷

¹¹⁷ Interview, Governor’s Office.

SECTION THREE: POLICY AND PLANNING – RECOMMENDATIONS OF ACTION ITEMS FOR IMPLEMENTING AMP POLICIES IN THE STATE OF TEXAS

An effective access management strategy is an important complement to existing traffic management approaches. When managers understand the complex socioeconomic environment in which an access management program develops, they may be able to anticipate the effects that their own management plans will have. This investigation looked at how other targeted states handled legal and policy issues. From this review, as well as investigation of policy and legal considerations in Texas, several steps necessary for TxDOT to adopt an AMP became clear. Although this report presents them sequentially, several may be implemented simultaneously.

Steps Necessary for TxDOT to Adopt an AMP

Step One. Benefits: Carefully consider and document the benefits of an effective AMP.

Several states such as Colorado, Florida, New Jersey, and Oregon have developed and implemented AMPs. These plans serve as models for determining what to do and what not to do. Many of these states have documented the benefits realized from AMP implementation including cost efficiency, increased safety, and maximization of operational efficiency.

Because of the significant air quality problems identified in Texas, keep in mind that an AMP may provide potential benefits in terms of reduced vehicle emissions. These benefits, if they exist, would come, for example, from reduced traffic congestion as well as reduced stop-and-go traffic patterns due to turning vehicles. Unlike other future research activities associated with development and implementation of an AMP, this one is most compelling because of the urgency of air quality problems in numerous Texas metropolitan areas.

Step Two. Workshops: Hold workshops throughout Texas to identify problem areas and to encourage dialogue.

This step should begin the collaboration process, bringing together divergent views. This particular step goes hand-in-hand with Steps Three and Four. Use of mediation skills by workshop facilitators would greatly enhance the process as many competing views may be represented in these workshops.

Step Three. Education: Increase awareness about access management issues.

In the course of investigating what can be loosely described as the “political climate” in Texas, even those people most closely associated with Texas transportation issues had not heard of the term “access management program” or “access management plan.” This suggests that educating stakeholders will be no small task. First, identify who the stakeholders are; and evaluate and prioritize the potential impacts an AMP may have on their interests. Then, give these people knowledge about the specific and practical benefits of developing and implementing an effective AMP. Such education should be “specific audience-directed” so that individual groups of stakeholders’ concerns can be addressed as per their own unique issues. Consideration should be given to each stakeholder group including its financial, social, and environmental concerns and the impact of implementing an AMP. Again, the use of mediation skills would facilitate the process.

Pamphlets describing what access management involves such as the use of medians, turn lanes, and traffic signals; the spacing and design of intersections and driveways; and the construction of frontage roads and supporting local streets can be tailored to the specific audiences. Table 1 represents a template for creating a matrix of possible stakeholders and corresponding concern and impact rankings. Table 2 illustrates some of the topical areas for information dissemination and exchange.

Step Four. Input and Committees: Input from interested stakeholder groups is encouraged and considered; appropriate committees should be appointed.

Improving access management requires a collaborative approach because it involves coordinating land use and transportation. Appointment of a broad-based steering committee or its equivalent would provide policy direction. Technical committees would assist in analyzing engineering, land use, and legal issues. These groups should focus on ways to increase awareness about access management issues; assess the extent of the challenges in Texas; identify potential barriers to the implementation of access management policies; and develop strategies to overcome these barriers. To accomplish this, these groups in turn need to educate other stakeholders about access management issues so there is a continual feedback loop.

Mediation skills of TxDOT staff are particularly important when so many potentially disparate and conflicting interests are involved. The steering or other policy committees should make a recommendation as to the necessity for legislative input. Figure 1 illustrates how information and education should interface.

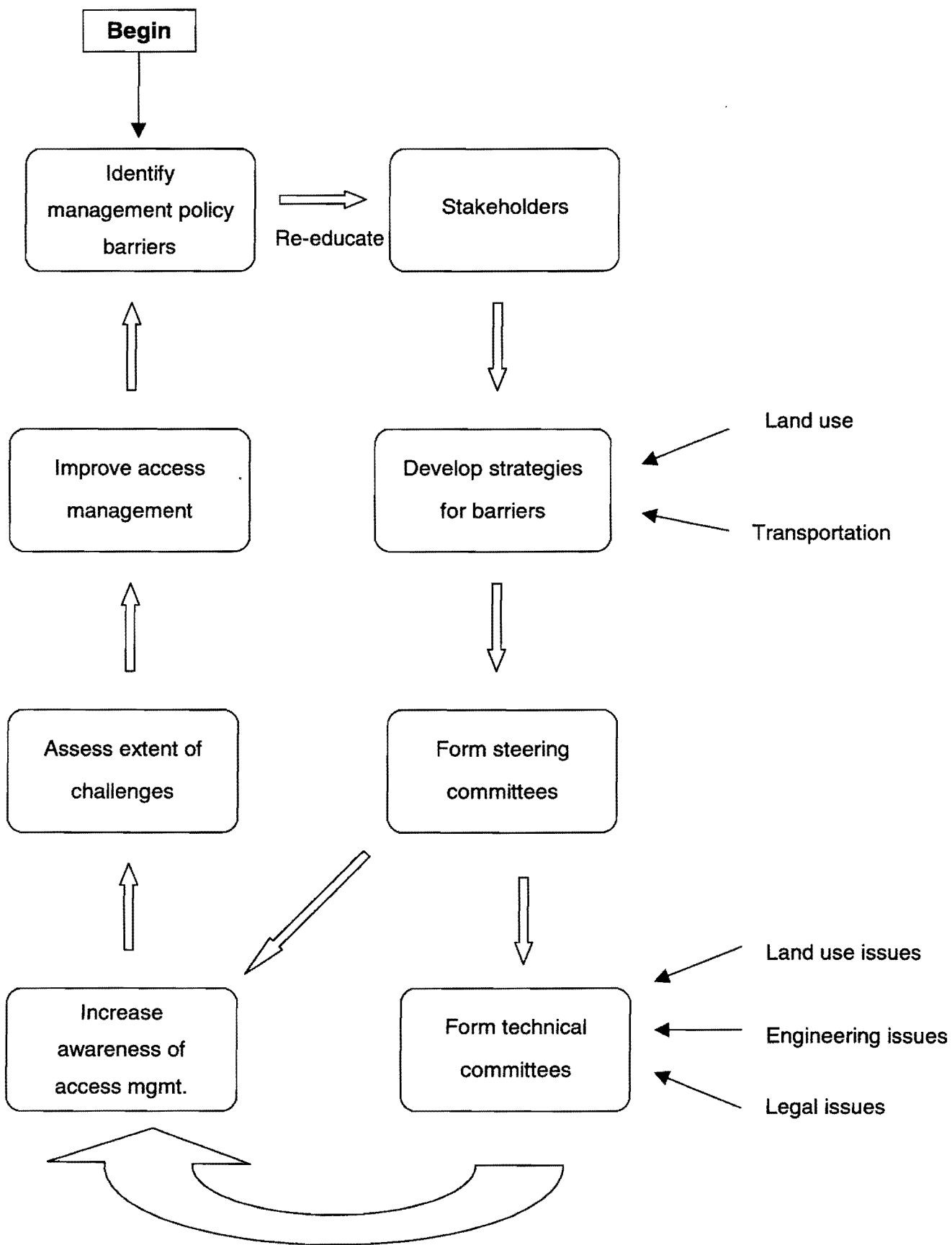
Table 1. Matrix of Interested Stakeholders in Development and Implementation of an AMP: Concerns and Impacts

Stakeholder Examples	Rating Scheme for Concern and Impact		
	Low	Medium	High
	<ul style="list-style-type: none"> • Little or No Concern (NC) • Little Financial Impetus (LF) • Little Social Impact (LS) • Little Policy Impact (LP) 	<ul style="list-style-type: none"> • Occasional Concern (OC) • Medium Financial Impetus (MF) • Medium Social Impact (MS) • Medium Policy Impact (MP) 	<ul style="list-style-type: none"> • Frequent Concern (FC) • Significant Financial Impetus (GF) • Significant Social Impact (SS) • Significant Policy Impact (SP)
Legislators			
TTC			
TxDOT: <ul style="list-style-type: none"> • Administrators • District Engineer • Others 			
Users: <ul style="list-style-type: none"> • Cars/Vans/Trucks • 18-Wheelers • Taxi • Mail Carriers 			
Vehicle Insurers			
Environmentalists			
Utilities Industry			
Railway & Intermodal Ind./Freight Shippers			
Other Agencies			
Ports & Marine Intermod. Industries			
Local Gov'ts.			
Realtors			
Developers			
Adjacent/Near: <ul style="list-style-type: none"> • Businesses • Homes 			

Table 2. Examples of Topical Information Dissemination and Exchange

TOPIC	FOCUS
<i>Growth</i>	Describe how Texas growth and economic expansion puts tremendous pressure on our state highways particularly in metropolitan areas.
<i>Concentration</i>	Illustrate how the majority of travel throughout the state is concentrated on limited percentage of highways.
<i>Capacity</i>	Describe how uncoordinated and unplanned access accelerates the already strained capacity of existing major roadways.
<i>Safety</i>	Determine how access-related incidents cost lives, injure people, and damage property: <i>"Increased number of accesses = increased number of conflicts."</i>
<i>Policy</i>	Police powers of state can be limited by competing rights of constitutionally protected abutting land owners; no clear guidelines for interpreting the right of access; case-by-case analysis. Access laws are complex; specific legislative guidelines may be needed.
<i>Costs</i>	Purchasing access control is cost-effective typically when done in the pre-development stage; costs are rapidly escalating as land values increase; purchasing access control is disruptive to already existing abutting landowners. Access management is cost-effective in long-term; perhaps not in the short-term.
<i>Local Government</i>	Local government land use decisions have major impacts on access conditions on highways and have broad authority to regulate through zoning and subdivision controls which can manage access; local governments should consider access management in their land use decisions and, to do that, they need to be educated about the problems resulting from poor access and the techniques for proper management.
<i>Shared Responsibility</i>	Access management requires sharing of responsibilities among TxDOT, cities, and counties.
<i>Pro-Active</i>	An access problem typically does not show up immediately; a proactive stance that anticipates and thereby corrects a potential problem is the most effective in terms of safety and cost.
<i>Stakeholders</i>	A myriad diverse group of other stakeholders have interest in access to highways.
<i>Competing Interests</i>	Developers and businesses want direct access because it is oftentimes cheaper; this short-term outlook needs to be reconsidered.

Figure 1. Information and Education



Step Five. Communication: If legislative delegation to TxDOT is needed or required, make certain the language provides clear guidance and direction.

From the workshops, committees, and other forms of input, a decision must be made whether cooperation should be a voluntary process or whether this cooperation should be mandated by the legislature. If guidance is requested, for example, the legislature could require a highway access management study under the direction of the TTC. The study's goal could be to gather information and consult with public officials of political subdivisions – TxDOT districts, towns, cities, counties, etc. – to consider views and proposals for establishing a comprehensive, statewide highway access management policy and program. Recommendations covering interrelated land use, engineering, and legal procedures to maximize operational efficiency and safety on roadways would be reported to the Texas Legislature.

Step Six. Resources: Legislation must be accompanied by the resources – financial and human – to implement the AMP.

Funding options should be expanded for access management planning and implementation including funding options related to highway and access improvements as well as incentives.

Step Seven. Collaboration: Develop a shared vision; form partnerships.

Since land use and transportation objectives are typically segmented, the AMP should provide for careful coordination between the two. As well, formal linking mechanisms should be developed to encourage coordination and partnerships among and between those entities responsible for managing highways and those entities responsible for land use. These people/functions should continue the education and dialogue interface with the goal of determining a vision that can be shared by most, if not all, stakeholders. This shared vision, in turn, will lead to consistency among all levels of government and jurisdictions.

Although collaboration was described above in specific steps, it may be more appropriate to break these methods down into even more incremental approaches to meet the overall objectives. Keep in mind that implementing an AMP does not require that everyone understand all things about all components of the program. There is simply not enough money or time to develop a completely unified and informed view of how to implement the most effective and flawless AMP that is acceptable to all stakeholders. There will always be unmeasured entities, random effects, and substantial uncertainties, but these challenges should not be used as the excuses to delay implementing an AMP.

GLOSSARY

Access management program – program to reduce vehicle conflicts and improve traffic operation and safety.

Contractual agreement – conditional use agreement between a public agency and the owner of property abutting a highway.

Eminent domain – the condemnation power of sovereignty to take land for public use.

Environment – the sum of all external conditions affecting the life, development, and survival of an organism including humans and other animals.

Expressed authority – occurs when an agency is expressly authorized to do a delegable act.

Implied authority – that which is necessary to accomplish or perform what has been expressly delegated to an agency.

Nuisance – the use of property by one party so as to interfere substantially with the reasonable use, enjoyment, or value of another's property.

Police powers – the ability of governmental entities to regulate private activities to protect or promote the public health, safety, or general welfare of their citizens.

Property – used herein when discussing general property law and refers to real property rather than personal property. Real property consists of the land and everything permanently attached to the land. When structures are permanently attached to the land, then everything attached permanently to the structures is also real property, or realty. All other property is personal property, or personalty.

Reasonable access – access by a landowner to the street system and highways that allows property to be developed for a use that is appropriate and economically viable at that location.

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