

PERFORMANCE AUDIT
OF THE

TRAFFIC AND SAFETY DIVISION

BUREAU OF HIGHWAY TECHNICAL SERVICES
MICHIGAN DEPARTMENT OF TRANSPORTATION

March 1999

EXECUTIVE DIGEST

TRAFFIC AND SAFETY DIVISION

INTRODUCTION This report, issued in March 1999, contains the results of our performance audit* of the Traffic and Safety Division, Bureau of Highway Technical Services, Michigan Department of Transportation.

AUDIT PURPOSE This performance audit was conducted as part of the constitutional responsibility of the Office of the Auditor General. Performance audits are conducted on a priority basis related to the potential for improving effectiveness* and efficiency.*

BACKGROUND The Department was organized under Sections 16.450 - 16.458 of the *Michigan Compiled Laws* (Sections 350 - 358, Act 380, P.A. 1965). The Department was established to provide the people of Michigan with a safe, efficient, and environmentally sound total transportation system in the most cost-effective manner.

The Bureau of Highway Technical Services contains five divisions and is one of six operating bureaus. The Traffic and Safety Division is located within the Bureau of Highway Technical Services. The Division's mission* is to serve the public transportation needs by applying comprehensive highway traffic engineering technology; by participating in all phases of the Department's effort to

* See glossary on page 23 for definition

reduce traffic accidents and injuries, vehicle delay, fuel consumption, pollution, and operating costs; and by increasing the safety, efficiency, and capacity of the State trunkline system. Also, the Division is responsible for the development, coordination, and oversight of new highway system technologies, including the development and administration of the Intelligent Transportation System* (ITS) program.

During fiscal year 1997-98, the Division administered \$40.6 million for State Trunkline Safety programs and projects. Division administrative expenditures totaled approximately \$7.4 million for the fiscal year ended September 30, 1998. As of September 30, 1998, the Division had 101 full-time employees.

**AUDIT OBJECTIVES,
CONCLUSIONS, AND
NOTEWORTHY
ACCOMPLISHMENTS**

Audit Objective: To evaluate the effectiveness and efficiency of the Division's use of traffic and safety engineering technology to identify programs and projects that reduce traffic crashes and injuries and vehicle delay.

Conclusion: We concluded that the Division's use of traffic and safety engineering technology was generally effective and efficient. However, our review disclosed reportable conditions* related to data used to identify safety programs and guardrail information (Findings 1 and 2).

Audit Objective: To evaluate the Division's effectiveness at planning, designing, implementing, and maintaining traffic and safety engineering programs and projects.

Conclusion: We concluded that the Division was generally effective at planning, designing, implementing,

* See glossary on page 23 for definition.

and maintaining traffic and safety engineering programs and projects. However, our review disclosed reportable conditions related to high-crash location documentation, ITS goals* and objectives*, and conflict of interest disclosure (Findings 3 through 5).

Audit Objective: To evaluate the Division's efforts to coordinate with external partners to ensure maximum impact of the State's overall safety efforts.

Conclusion: We concluded that the Division made sufficient efforts to coordinate with external partners to ensure maximum impact of the State's overall safety efforts. The Department and the Office of Highway Safety Planning, Michigan Department of State Police, facilitated the development of the Michigan Traffic Safety Management System* (MTSMS) in 1997. In 1998, the Division co-chaired the third annual Traffic Safety Summit. Also, the Division serves as a focal point for traffic engineering information requests for the Department, as well as legislative, governmental, and private agencies.

Noteworthy Accomplishments: In 1997, the Second Regional Dispatch Center of the Michigan Department of State Police moved to the Michigan Intelligent Transportation System (MITS) Center* in Detroit. The relocation may improve the ability of the staff to manage incidents in southeast Michigan by providing 24-hour, seven days a week monitoring of the traffic management center.

Also, during fiscal year 1997-98, the Traffic Operations Section conducted special signal system training at the region offices^{*} to improve employees' understanding of the

* See glossary on page 23 for definition.

standards and regulations for signals, signs, pavement markings, and traffic control.

**AUDIT SCOPE AND
METHODOLOGY**

Our audit scope was to examine the program and other records of the Traffic and Safety Division. Our audit was conducted in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and, accordingly, included such tests of the records and such other auditing procedures as we considered necessary in the circumstances.

Our audit methodology concentrated on interviewing Division and other Departmental staff and reviewing procedures, reports, programs, program and project files, and other documentation developed for the period October 1, 1995 through September 30, 1998 to identify potential areas for improvement. We then determined which identified areas had the greatest risk to the Division or the potential to improve the operation of the Division. We established audit objectives that defined and covered these areas. We developed and performed audit methodologies that allowed us to address each audit objective.

We reviewed the Division's processes for identifying programs and projects. We also reviewed the Division's procedures for planning, designing, implementing, and maintaining traffic and engineering programs and projects. Furthermore, we reviewed the Division's procedures for coordinating traffic and safety efforts with external partners in traffic safety.

**AGENCY RESPONSES
AND PRIOR AUDIT
FOLLOW-UP**

Our report includes 5 findings and 7 recommendations. The Department's preliminary response indicated that it concurred and will comply with all of the recommendations.

The Department complied with 8 of 11 prior audit recommendations, 1 recommendation was rewritten for inclusion in this report, and 2 recommendations were no longer applicable.

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Mr. Barton W. LaBelle, Chairman
State Transportation Commission
and
Mr. James DeSana, Director
Michigan Department of Transportation
Transportation Building
Lansing, Michigan

Dear Mr. LaBelle and Mr. DeSana:

This is our report on the performance audit of the Traffic and Safety Division, Bureau of Highway Technical Services, Michigan Department of Transportation.

This report contains our executive digest; description of agency; audit objectives, scope, and methodology and agency responses and prior audit follow-up; comments, findings, recommendations, and agency preliminary responses; and a glossary of acronyms and terms.

Our comments, findings, and recommendations are organized by audit objective. The agency preliminary responses were taken from the agency's responses subsequent to our audit fieldwork. The *Michigan Compiled Laws* and administrative procedures require that the audited agency develop a formal response within 60 days after release of the audit report.

We appreciate the courtesy and cooperation extended to us during this audit.

AUDITOR GENERAL

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Description of Agency

The Michigan Department of Transportation was organized under Sections 16.450 - 16.458 of the *Michigan Compiled Laws* (Sections 350 - 358, Act 380, P.A. 1965). The Department is governed by a commission of six members who are appointed by the Governor with the advice and consent of the Senate. The commission is responsible for establishing policies. The Department is managed by a director, appointed by the Governor, who is responsible for administering the Department and implementing the policies established by the commission. The Department was established to provide the people of Michigan with a safe, efficient, and environmentally sound total transportation system in the most cost-effective manner.

The Bureau of Highway Technical Services contains five divisions and is one of six operating bureaus. The Traffic and Safety Division is located within the Bureau of Highway Technical Services. The Division's mission is to serve the public transportation needs by applying comprehensive highway traffic engineering technology; by participating in all phases of the Department's effort to reduce traffic accidents and injuries, vehicle delay, fuel consumption, pollution, and operating costs; and by increasing the safety, efficiency, and capacity of the State highway trunkline system. Also, the Division is responsible for the development, coordination, and oversight of new highway system technologies, including the development and administration of the Intelligent Transportation System (ITS) program.

The Division is organized into three sections: Safety Programs and Technical Services, Traffic Operations, and Transportation Systems. The Safety Programs and Technical Services Section is responsible for performing safety evaluations and traffic crash analyses, operating the highway safety management systems, delivering regulatory and litigation services, and providing technical computer support services to the Division. The Traffic Operations Section is responsible for the analysis, design, and implementation of traffic signals, signs, and pavement markings; review of geometric design of bridge interchanges and roadways; and development and delivery of plans and specifications for the safety programs. The Transportation Systems Section is responsible for overseeing the work of consultants, suppliers, and contractors for the ITS program.

During fiscal year 1997-98, the Division administered \$40.6 million for State trunkline safety programs and projects. Division administrative expenditures totaled \$ 7.4 million for the fiscal year ended September 30, 1998. As of September 30, 1998, the Division had 101 full-time employees.

Audit Objectives, Scope, and Methodology and Agency Responses and Prior Audit Follow-Up

Audit Objectives

Our performance audit of the Traffic and Safety Division, Bureau of Highway Technical Services, Michigan Department of Transportation, had the following objectives:

1. To evaluate the effectiveness and efficiency of the Division's use of traffic and safety engineering technology to identify programs and projects that reduce traffic crashes and injuries and vehicle delay.
2. To evaluate the Division's effectiveness at planning, designing, implementing, and maintaining traffic and safety engineering programs and projects.
3. To evaluate the Division's efforts to coordinate with external partners to ensure maximum impact of the State's overall safety efforts.

Audit Scope

Our audit scope was to examine the program and other records of the Traffic and Safety Division. Our audit was conducted in accordance with *Government Auditing Standards* issued by the Comptroller General of the United States and, accordingly, included such tests of the records and such other auditing procedures as we considered necessary in the circumstances.

Audit Methodology

Our audit methodology concentrated on interviewing Division and other Departmental staff and reviewing procedures, reports, programs, program and project files, and other documentation developed for the period October 1, 1995 through September 30, 1998 to identify potential areas for improvement. We then determined which identified areas had the greatest risk to the Division or the potential to improve the operation of the Division. We established audit objectives that defined and covered these areas. We developed and performed audit methodologies that allowed us to address each audit objective.

We reviewed the Division's processes for identifying programs and projects. We also reviewed the Division's procedures for planning, designing, implementing, and maintaining traffic and engineering programs and projects. Furthermore, we reviewed the Division's procedures for coordinating traffic and safety efforts with external partners in traffic safety.

Agency Responses and Prior Audit Follow-Up

Our report includes 5 findings and 7 recommendations. The Department's preliminary response indicated that it concurred and will comply with all of the recommendations.

The agency preliminary response, which follows each recommendation in our report, was taken from the agency's written comments and oral discussions subsequent to our audit fieldwork. Section 18.1462 of the *Michigan Compiled Laws* and Department of Management and Budget Administrative Guide procedure 1280.02 require the Michigan Department of Transportation to develop a formal response to our audit findings and recommendations within 60 days after release of the audit report.

The Department complied with 8 of 11 prior audit recommendations, 1 recommendation was rewritten for inclusion in this report, and 2 recommendations were no longer applicable.

COMMENTS, FINDINGS, RECOMMENDATIONS, AND AGENCY PRELIMINARY RESPONSES

IDENTIFYING PROGRAMS AND PROJECTS

COMMENT

Audit Objective: To evaluate the effectiveness and efficiency of the Traffic and Safety Division's use of traffic and safety engineering technology to identify programs and projects that reduce traffic crashes and injuries and vehicle delay.

Conclusion: We concluded that the Division's use of traffic and safety engineering technology was generally effective and efficient. However, our review disclosed reportable conditions related to data used to identify safety programs and guardrail information.

FINDING

1. Data Used to Identify Safety Programs

The traffic accident data used to identify safety programs and projects was not timely or comprehensive.

Our review of the Division's process used to identify safety related programs and projects disclosed certain inefficiencies:

- a. The Division uses the Safety Management System^{*} (SMS) for its biennial analysis of State trunkline accident data for each region. Although updated data is generally available monthly, the Department of Transportation only updates SMS annually. As a result, current data is not available on SMS.

The 1998 biennial analyses were based on data from fiscal years 1992-93 through 1994-95. The Division manually updated these analyses with

^{*} See glossary on page 23 for definition.

information from the mainframe system, which is updated monthly, to ensure that program decisions were based upon current conditions.

Updating SMS monthly would be more efficient than manually updating the analyses with information from the mainframe system.

- b. The current analysis of traffic accident data focuses on the location, crash types, crash rate, and severity of injuries. Other data (such as type and age of vehicles involved, age of drivers, speed citations, or other moving citations) that may have a bearing on the cause of the accidents is not considered. Inclusion of this other data in the identification of safety-based improvements would help ensure that all necessary safety-based improvement opportunities are identified, evaluated, and implemented. The non-road improvement corrections could then be referred to and used by the Division's external partners (Michigan Department of State Police, Department of Education, Emergency Services, etc.) to ensure maximum benefits of the State's overall safety efforts.

RECOMMENDATIONS

- (a) We recommend that the Department update SMS at least monthly.
- (b) We recommend that the Division evaluate the benefits of analyzing other traffic-related data.

AGENCY PRELIMINARY RESPONSE

The Department concurred with the first recommendation that SMS data needs to be updated more frequently. The Department determined that quarterly updates, rather than monthly updates, would be sufficient for its design work. The Department plans to initiate discussions by February 28, 1999 for developing a process for quarterly updates of the SMS data.

The Department also concurred with the second recommendation and believes that analysis of "other" data is useful in enhancing safety. The Department has research contracts to analyze non-roadway information, such as behavioral data. The Department shares the results of these research contracts with external partners, including the Michigan Department of State Police and its Office of

Highway Safety Planning. The Department indicated that it would consider developing a formalized process to ensure that non-roadway data is analyzed and included, if relevant, in its biennial analyses.

FINDING

2. Guardrail Information

The Division did not have centralized records and a consistent methodology for obtaining and maintaining information on guardrail.

We were informed that there were approximately 9 million feet of guardrail in the State trunkline system. The cost for this guardrail is approximately \$20 per foot. The Traffic and Safety Division has an \$8.2 million annual program allocated for guardrail projects. Also, guardrail is replaced as part of the Department's approximately \$1.2 billion transportation project program.

The Division initiated a guardrail inventory system in the 1980's in an effort to reduce litigation liability by ensuring timely replacement based on age, type, and condition of the guardrail. In our prior audit report of the Division, we recommended that the Bureau of Highway Operations delegate the responsibility to the appropriate division to keep the guardrail inventory system current. However, the guardrail inventory system has not been maintained.

During our audit period, the Department redefined various divisions' responsibilities and reorganized highway operations into seven regions that provide direction to their Transportation Service Centers (TSC). Currently, the region and TSC staff submit a list a guardrail projects to the Traffic and Safety Division for consideration. All of the guardrail information that is compiled to develop this list of guardrail projects is maintained at the region and/or TSC. As a result, the Division could not easily evaluate the region and TSC offices process for identification of guardrail projects. Also, guardrail information was not directly available for use in planning the Department's other transportation projects, as a program development or training tool for region or TSC offices, or for infrastructure reporting.

RECOMMENDATION

We recommend that the Division develop centralized records and a consistent methodology for obtaining and maintaining information on the guardrail inventory.

AGENCY PRELIMINARY RESPONSE

The Department concurred with the recommendation. The Department believes that infrastructure information, including knowledge of existing guardrail, is essential for the safe and efficient operation of the highway system. The Department informed us that it is developing enterprisewide information systems that will include infrastructure data. The Department plans to initiate discussions by March 31, 1999 to assess the feasibility of incorporating guardrail information as part of the infrastructure data.

PLANNING, DESIGNING, IMPLEMENTING, AND MAINTAINING PROGRAMS AND PROJECTS

COMMENT

Audit Objective: To evaluate the Division's effectiveness at planning, designing, implementing, and maintaining traffic and safety engineering programs and projects.

Conclusion: We concluded that the Division was generally effective at planning, designing, implementing, and maintaining traffic and safety engineering programs and projects. However, our review disclosed reportable conditions related to high-crash location documentation, Intelligent Transportation System (ITS) goals and objectives, and conflict of interest disclosure.

FINDING

3. High-Crash Location Documentation

The Division did not retain documentation to support its conclusions that safety improvement projects for high-crash locations were not needed.

The Division uses computer printouts from the Michigan Dimensionalized Accident System* (MIDAS), photolog^{*}, engineering drawings, and accident reports to analyze high-crash locations and develop recommendations for safety improvement projects. If analysis and review of documentation shows that a safety improvement is necessary, a safety improvement project is recommended. Decisions not to recommend a safety improvement project are based on the lack of an identifiable correctable trend. The Division's retention and disposal schedule requires that this type of documentation be maintained until updated.

We sampled and analyzed 19 of 715 high-crash locations containing conclusions that a safety improvement project was not needed. The files for 6 (32%) of the 19 locations did not have documentation to support the conclusion. Employees of the Traffic and Safety Division disposed of the documentation when the conclusions were issued or when they left employment.

Retention of the documentation is important to support conclusions in the event of litigation. In addition, the documentation of the previous analysis would provide a starting point for the next analysis of the high-crash location.

RECOMMENDATION

We recommend that the Traffic and Safety Division retain documentation to support its conclusions that safety improvement projects for high-crash locations were not needed.

AGENCY PRELIMINARY RESPONSE

The Department concurred with the recommendation and will retain documentation to support its conclusions regarding all safety improvement projects.

* See glossary on page 23 for definition.

FINDING

4. ITS Goals and Objectives

The Division did not develop long-range measurable program goals and objectives for ITS. Also, the Division did not develop formalized procedures to maintain an inventory of the original ITS cable.

The original ITS is located in downtown Detroit and consists of 32.5 miles of freeways involving segments of I-94, M-10, I-75, and I-375. ITS includes buried cable which connects cameras, changeable message signs, ramp meters, and inductive vehicle detectors. The information collected from this equipment is used by the Michigan Intelligent Transportation System (MITS) Center in Detroit and the Michigan Department of State Police to detect incidents and manage traffic congestion, and provide congestion information to the Department web site. Between 2,000 and 15,000 people a day visit the web site. The Department is currently expanding the original ITS to cover an additional 148 miles of the freeway system in metropolitan Detroit. The plan includes installation of more cameras, changeable message signs, ramp meters, highway advisory radio transmitters, and inductive vehicle detectors and will cost an estimated \$33 million.

Our review disclosed:

- a. The Division has not developed long-range measurable goals and objectives for ITS. Long-range measurable goals and objectives would allow the Division to assess the long-term overall effectiveness of ITS and would also assist the Division in evaluating new ITS technology. Also, the information generated could be shared with others considering ITS technology and to apply/attract funding for other ITS projects. The Division did calculate a benefit/cost ratio prior to expanding ITS. The Division has also contracted with two outside entities for the collection and analysis of data for the purpose of evaluating ITS.
- b. The original ITS cable was never documented in a Department inventory or documented on the MISS DIG System^{*}. Consequently, some of the cable supporting the original ITS was damaged when the State trunkline was being

^{*} See glossary on page 23 for definition.

repaired. As a result, some of ITS cannot currently be used by the MITS Center in Detroit and the Michigan Department of State Police to detect incidents and manage traffic congestion, and provide congestion information to the Department web site.

RECOMMENDATIONS

We recommend that the Division develop long-range measurable program goals and objectives for ITS.

We also recommend that the Division develop formalized procedures to maintain an inventory of the original ITS cable.

AGENCY PRELIMINARY RESPONSE

The Department concurred with the first recommendation that the Department should have long-range measurable goals and objectives for ITS and has already started to develop these goals. The Department initially established and utilized systemwide air quality goals as the basis for funding the project as part of the Congestion Mitigation and Air Quality (CMAQ) Program. The Department believes that the expanded system will be able to reduce non-incident type congestion and improve mobility for highway users and has included this as a goal.

The degree to which these systemwide air quality and congestion goals will be achieved is one of the anticipated results from a study the Department has contracted for with two universities. We were informed that Phase 1 of the study has already established and quantified an initial systemwide baseline condition. Systemwide improvements should be measured as part of the contracted study in approximately six months to a year, when the performance of the system stabilizes.

The Department concurred with the second recommendation that a cable inventory needs to be maintained and made available to contractors and maintenance personnel working on the State trunkline. The Department intends to contact the MISS DIG System and arrange to supply the clearinghouse system with details of the ITS cable locations by February 28, 1999.

FINDING

5. Conflict of Interest Disclosure

The Traffic and Safety Division did not require employees who were subject to disclosure of interest reporting to file disclosure of interest statements.

Section 2-22 of the *Rules of the Civil Service Commission* requires that employees who have certain duties file disclosure of interest statements. These duties include developing or approving specifications for contracts, recommending the awarding of contracts, awarding contracts, inspecting or approving work performed by businesses or persons who are not State employees, and supervising employees who have the previously listed duties. The Department established Departmental Regulation 1600.12 to mirror the Civil Service Commission rule and to alert employees of their reporting responsibilities.

We determined that the Division's employees who were required to file disclosure of interest statements did not file them.

The filing of conflict of interest statements helps to ensure the discovery of instances in which employees have financial or personal relationships with contractors that might impair the employees' objectivity.

RECOMMENDATION

We recommend that the Traffic and Safety Division require employees who are subject to disclosure of interest reporting to file disclosure of interest statements.

AGENCY PRELIMINARY RESPONSE

The Department concurred with the recommendation and will have the appropriate employees file disclosure of interest statements by April 30, 1999.

COORDINATING WITH EXTERNAL PARTNERS

COMMENT

Audit Objective: To evaluate the Division's efforts to coordinate with external partners to ensure maximum impact of the State's overall safety efforts.

Conclusion: We concluded that the Division made sufficient efforts to coordinate with external partners to ensure maximum impact of the State's overall safety efforts. The Department and the Office of Highway Safety Planning, Michigan Department of State Police, facilitated the development of the Michigan Traffic Safety Management System (MTSMS) in 1997. MTSMS is a comprehensive system bringing together the four "E's": Engineering, Enforcement, Education, and Emergency Services. In 1998, the Division co-chaired the third annual Traffic Safety Summit, which hosted over 300 advocates who attended traffic safety workshops.

Also, the Division serves as a focal point for traffic engineering information requests for the Department, as well as legislative, governmental, and private agencies. Traffic engineering information requests may include performing a safety review of roadway design plans; publishing and distributing standards and guidelines for signals, signs, pavement markings, and traffic control that contain both federal and State guidelines and are heavily relied upon throughout the regions; analyzing traffic data; and responding to Freedom of Information Requests.

Noteworthy Accomplishments: In 1997, the Second Regional Dispatch Center of the Michigan Department of State Police moved to the MITS Center in Detroit. The relocation may improve the ability of the staff to manage incidents in southeast Michigan by providing 24-hour, seven days a week monitoring of the traffic management center.

Also, during fiscal year 1997-98, the Traffic Operations Section conducted special signal system training at the region offices to improve employees' understanding of the standards and regulations for signals, signs, pavement markings, and traffic control.

Glossary of Acronyms and Terms

effectiveness	Program success in achieving mission and goals.
efficiency	Achieving the most outputs and outcomes practical for the amount of resources applied or minimizing the amount of resources required to attain a certain level of outputs or outcomes.
goals	The agency's intended outcomes or impacts for a program to accomplish its mission.
Intelligent Transportation System (ITS)	The application of new and emerging technologies in the field of transportation. It involves a wide array of technologies, including electronics, computer hardware, software, control, and communications.
Michigan Dimensionalized Accident System (MIDAS)	A package of mainframe computer packages that identifies locations that have an abnormally high number of crashes, compared to similar locations on the trunkline system, gathers all available information about any particular location and presents that information in a package of tables and charts.
Michigan Intelligent Transportation System (MITS) Center	The MITS Center is a traffic management center where staff oversee a traffic monitoring system for 180 miles of Detroit freeway.
Michigan Traffic Safety Management System (MTSMS)	The Department and the Office of Highway Safety Planning, Michigan Department of State Police facilitated the development of MTSMS in 1997. The MTSMS is a comprehensive system bringing together the four "E's": Engineering, Enforcement, Education, and Emergency Services.

MISS DIG System	A utility communication system that helps contractors comply with State law (Public Act 53) which requires notification of utilities before they excavate, tunnel, or discharge explosives 3 working days before starting a project.
mission	The agency's main purpose or the reason the agency was established.
objectives	Specific outputs a program seeks to perform and/or inputs a program seeks to apply in its efforts to achieve its goals.
performance audit	An economy and efficiency audit or a program audit that is designed to provide an independent assessment of the performance of a governmental entity, program, activity, or function to improve public accountability and to facilitate decision making by parties responsible for overseeing or initiating corrective action.
photolog	The photolog system is maintained by the Traffic and Safety Division. It consists of a series of pictures of the road every 1/100 mile. The system documents the existence of various roadway features including: condition of pavement, pavement marking, shoulder characteristics, guardrail, trees, etc.
region office	The Bureau of Highway Operations is organized into seven region offices. Region offices are responsible for administering transportation related activities for a defined geographical area. Region offices also oversee the operations of Transportation Service Centers.

reportable condition	A matter coming to the auditor's attention that, in his/her judgment, should be communicated because it represents either an opportunity for improvement or a significant deficiency in management's ability to operate a program in an effective and efficient manner.
Safety Management System (SMS)	A network-based application that analyzes high-crash locations for safety improvements and ensures that safety-based improvement opportunities are identified, evaluated, and implemented.
Transportation Service Center (TSC)	A TSC is located within a region office's geographical area. TSCs were established for the purpose of bringing the Department's services closer to the Department's external customers (local governments, motorists, vendors, etc.).