FOLLOW-UP REVIEW

OF THE

AUTOMATED INFORMATION SYSTEMS

MICHIGAN DEPARTMENT OF TRANSPORTATION

May 2004

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AUDITOR GENERAL

May 7, 2004

Mr. Ted B. Wahby, Chairperson
State Transportation Commission
and
Ms. Gloria J. Jeff, Director
Michigan Department of Transportation
Murray Van Wagoner Transportation Building
Lansing, Michigan

Dear Mr. Wahby and Ms. Jeff:

This is our report on our follow-up review of the 4 material findings (Findings 1, 2, 3, and 17) and 7 related recommendations reported in the performance and financial related audit of the Automated Information Systems, Michigan Department of Transportation. That audit report was issued and distributed in July 2000; however, additional copies are available on request.

Our review disclosed that the Michigan Department of Transportation had complied with 6 recommendations and had not complied with 1 recommendation.

If you have any questions, please call me or Scott M. Strong, C.P.A., C.I.A., Deputy Auditor General.

AUDITOR GENERAL

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INTRODUCTION

This report contains the results of our follow-up review of the material findings and related recommendations and the agency's preliminary response as reported in our performance and financial related audit of the Automated Information Systems, Michigan Department of Transportation (MDOT) (#5959099), which was issued and distributed in July 2000. That audit report included 4 material findings (Findings 1, 2, 3, and 17) and 21 other reportable conditions.

PURPOSE OF REVIEW

The purpose of this follow-up review was to determine whether MDOT had taken appropriate corrective measures in response to the 4 material findings and 7 related recommendations.

BACKGROUND

Subsequent to our audit, Executive Order No. 2001-3 transferred the responsibility for all information technology services, including application development and information technology planning, to the Department of Information Technology (DIT). The mission of DIT is to provide the highest quality information and communication capabilities needed to implement MDOT's business objective and strategies. DIT is responsible for providing data processing services to MDOT. MDOT, as the business owner, retains responsibility for all agency business applications. In addition, MDOT retains ownership of all data processed through any systems developed in conjunction with DIT.

SCOPE

We interviewed MDOT managers, DIT project managers and project analysts, and MDOT and DIT contractual personnel. We reviewed policies and procedures related to project management, system development, and contract payments and deliverables. We tested MDOT's and DIT's compliance with these established policies and procedures. We reviewed the system development and project management documentation for the Crash Project Redesign (CPR). CPR is a multi-agency initiative by the Department of State, MDOT, the Michigan Department of State Police, and DIT to redesign and upgrade the State's traffic crash processing system. These agencies use the data collected by this system to help identify potential causes of traffic crashes, deaths, and injuries.

FOLLOW-UP REVIEW RESULTS

EFFECTIVENESS OF PROJECT
AND CONTRACT MANAGEMENT

RECOMMENDATION AND RESPONSE AS REPORTED IN JULY 2000:

1. **Control Environment**

RECOMMENDATION

We recommend that MDOT implement an effective information technology (IT) control environment.

AGENCY PRELIMINARY RESPONSE

MDOT agreed with this recommendation and has taken steps to implement an effective IT control environment. Some of the specific steps taken have been included in the agency preliminary responses corresponding to the subsequent audit findings. MDOT informed us that, once these steps were implemented, the Office of Information Management (OIM) demonstrated substantial improvement of the control environment for IT development. In summary, the new chief information officer (CIO) and the entire management team have placed a great deal of emphasis on improving the control environment and will continue to do so.

FOLLOW-UP REVIEW CONCLUSION

We concluded that MDOT had complied with this recommendation.

Subsequent to our audit, Executive Order No. 2001-3 created DIT. DIT is responsible for establishing the IT control environment for the State of Michigan. MDOT is responsible for ensuring compliance with established policies and procedures.

DIT established a framework for a Statewide IT control environment. This framework includes separation of duties and documented policies and procedures for project management and system development.

MDOT established controls to complement those implemented by DIT. For example, MDOT personnel are an active part of the Information Technology

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Operations Team (ITOT) that evaluates all of the initial IT projects that are proposed each year. This committee submits its recommendation of IT project priorities to the Executive Committee, which includes MDOT and DIT management, for a final listing of approved projects. In addition, MDOT is actively involved in each step of the development process, including verifying that all defined deliverables were received prior to the State issuing a payment.

RECOMMENDATION AND RESPONSE AS REPORTED IN JULY 2000:

2. Procurement Process

RECOMMENDATIONS

We recommend that MDOT comply with Department of Management and Budget (DMB) and MDOT policies and procedures for contracting for system development.

We also recommend that MDOT formalize its process for administering and letting system development contracts.

AGENCY PRELIMINARY RESPONSE

MDOT agreed with the first recommendation and is in compliance with DMB and MDOT policies and procedures for contracting for system development. MDOT informed us that it consistently uses DMB Administrative Guide procedures 510.06 and 1310.11 when contracting for system development and consults with DMB prior to executing system development contracts.

MDOT agreed with the second recommendation and is in the process of formalizing the OIM process for administering and letting system development contracts. Formal instructions are currently being drafted with an expected publication date of August 31, 2000. IT contract administration, budgeting, and spending have all been centralized in OIM under the CIO.

FOLLOW-UP REVIEW CONCLUSION

We concluded that MDOT and DIT had complied with these recommendations.

MDOT and DIT complied with DMB and MDOT policies and procedures for contracting for system development. We examined the system development

contract for the Crash Project Redesign (CPR) and found evidence of all required approvals.

The second recommendation is DIT's responsibility. DIT developed templates and forms to assist in the administration and letting of system development contracts.

RECOMMENDATION AND RESPONSE AS REPORTED IN JULY 2000:

3.   Use of IT Funds

RECOMMENDATIONS

We recommend that MDOT continue to strengthen controls to ensure the effective and efficient use of all IT funds.

We also recommend that MDOT recover the expenditures related to the unfulfilled contracts.

AGENCY PRELIMINARY RESPONSE

MDOT agreed with the first recommendation. MDOT informed us that it has centralized its IT budget to ensure that all IT spending is reviewed and approved by OIM, under the direction of the new CIO. In addition, MDOT informed us that all IT contracts, planned equipment expenditures, software licenses, and proposed IT projects are submitted to MDOT management and the State Transportation Commission IT Subcommittee Chairman for approval as part of the annual budget process.

MDOT agreed with the second recommendation. MDOT is currently in the process of auditing its major IT contracts and is following the procedures identified in MDOT Guidance Document No. 10044, dated September 3, 1998, to recover expenditures related to unfulfilled contract deliverables.

In addition, because of the dollar amounts involved with the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) contracts, MDOT feels that these contracts should be reviewed to identify what deliverables were received/completed and attempt to recover costs from the consultants for those items not received/completed. MDOT will formulate a team, which will include the MDOT project manager for the ISTEA contracts, Commission

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Audit, and the OIM contract administrator, to identify those items that were not received/completed and discuss the possibility of cost recovery with the Department of Attorney General, including the statute of limitations for breach of contract. This will be initiated by October 1, 2000.

FOLLOW-UP REVIEW CONCLUSION

We concluded that MDOT had complied with these recommendations.

In regard to the first recommendation, MDOT and DIT developed a process that required approval from both MDOT and DIT personnel at several points throughout the system development process. These approvals help ensure that developers meet defined deliverables prior to MDOT issuing payment to system development contractors.

In regard to the second recommendation, MDOT identified those deliverables that were not received and discussed the possibility of cost recovery with the Department of Attorney General. As of January 2004, MDOT recovered $837,593 related to unfulfilled contracts.

EFFECTIVENESS OF CONTROLS OVER MANAGEMENT, DEVELOPMENT, AND SECURITY

RECOMMENDATION AND RESPONSE AS REPORTED IN JULY 2000:

17. **System Development Methodology and System Documentation**

RECOMMENDATIONS

We recommend that MDOT implement and document a system development life cycle methodology to identify the procedures to be followed when information systems are being designed, developed, and maintained.

We also recommend that MDOT develop comprehensive Transportation Management System (TMS) and MAP (MDOT Architecture Project) Financial Obligation System (MFOS) system documentation.

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MDOT agreed with these recommendations. As noted in its response to Finding 5, MDOT implemented and documented a system development life cycle methodology in October 1999 to identify the procedures to be followed when information systems are being designed, developed, and maintained.

In regard to the second recommendation, MDOT stated that it cannot comply at this time. MDOT indicated that creating this documentation for existing systems is not a valuable use of its limited development resources. However, MDOT informed us that it will prepare system documentation for future development projects.

FOLLOW-UP REVIEW CONCLUSION

We concluded that MDOT had complied with the first recommendation.

MDOT and DIT implemented and documented a system development life cycle methodology. We examined system documentation for CPR and found that it followed this methodology. MDOT's and DIT's system development life cycle methodology ensured that the business and technical requirements were thoroughly defined, tested, and implemented. As a result, MDOT and DIT made minimal changes to the original system design and the project was delivered on time and within budget.

We concluded that MDOT had not complied with the second recommendation.

MDOT still believes that creating system documentation for existing systems is not a valuable use of its limited development resources. As noted earlier in this conclusion, MDOT did complete system documentation for CPR.