



Internal Audit Report

**Department of Transportation
July 2003**



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We have completed our FY 2002-03 review of the Department of Transportation (MCDOT). The audit was performed in accordance with the annual audit plan that was approved by the Board of Supervisors.

The highlights of this report include the following:

- The MCDOT billing process, for services to other agencies, does not include all applicable costs, which resulted in \$21,000 in unbilled charges.
- MCDOT generally complies with County requirements for procuring design and construction contracts, however file documentation should be improved.
- General controls over security and program changes for MCDOT systems need to be improved.

Attached are the report summary, detailed findings, recommendations, and MCDOT's response. We have reviewed this information with the Director and appreciate the excellent cooperation provided by management and staff. If you have questions, or wish to discuss items presented in this report, please contact Joe Seratte at 506-6092.

Sincerely,

A handwritten signature in cursive script that reads "Ross L. Tate".

Ross L. Tate
County Auditor

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Executive Summary

Billings for Services (Page 9)

MCDOT has not established controls to ensure accurate and complete charges are billed to departments and agencies for which MCDOT provides services. A review of 20 billable services detected \$21,000 in unbilled charges. MCDOT should strengthen controls over their billing process.

Capital Improvement Projects (Page 11)

MCDOT generally complies with statutory and County Procurement Code requirements for design and construction contracts, and change orders are effectively reviewed. Contract file documentation does not always comply with policies or protect the County's interests, and contract monitoring is not adequate to prevent overcharges. MCDOT should strengthen controls over contract file documentation, contract monitoring, and invoice and payment processing.

REACT Program (Page 14)

MCDOT's Regional Emergency Action Coordinating Team (REACT) program provides traffic support services to local law enforcement and the County Sheriff's Office without completed intergovernmental agreements. Formal intergovernmental agreements help protect the County's interests and provide for appropriate cost sharing. MCDOT should complete well-structured IGA's with participating entities.

IT Change Control (Page 17)

Current change control procedures are not adequate to ensure that program changes are properly authorized and approved. In addition, application developers are granted update access to production program libraries. This increases the risk that unauthorized changes can be made that may have an adverse impact on the system. MCDOT should improve change control procedures.

Security and Continuity (Page 19)

Security procedures governing access to MCDOT systems and data need to be improved. Ineffective procedures may result in unauthorized or inappropriate access to systems and data. In addition, while MCDOT has a disaster recovery plan, it has not been tested. Without testing the plan, the risk is increased that some or all of the systems may not be available in the event of a disaster. MCDOT should strengthen controls in these areas.

Vehicle Permits (Page 21)

MCDOT has not established an effective method to monitor department vehicle use permits, equipment certifications, and overnight use authorizations. Without an effective monitoring system, MCDOT cannot ensure only authorized and certified drivers operate County vehicles and equipment. MCDOT should strengthen controls and documentation over vehicle use.

Performance Measure Certification (Page 22)

Our review of five MCDOT Key Results Measures, developed for the Managing for Results (MfR) program, found each of them sufficiently documented and accurately reported. Data collection procedures are reliable and MCDOT accurately certifies its Key Results Measures.

Introduction

Background

Statutory Authority

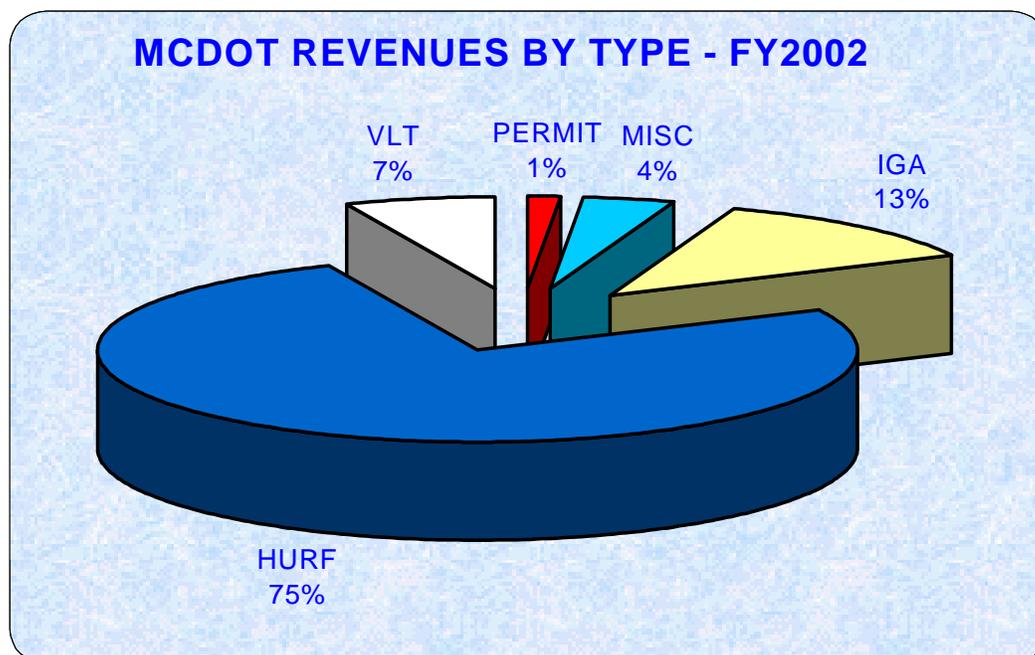
Arizona Revised Statutes (ARS) 28-301 establishes Maricopa County as one of six transportation districts in the state. The Maricopa County Department of Transportation (MCDOT) operates under authority granted to the Board of Supervisors to appoint a County Engineer and road builder. ARS Title 28, Chapters 18 and 19 provide requirements that directly address MCDOT's operation and uses of revenue. Numerous federal, state, and local regulations govern road construction, traffic, and general transportation issues.

Mission, Goals, and Performance Measures

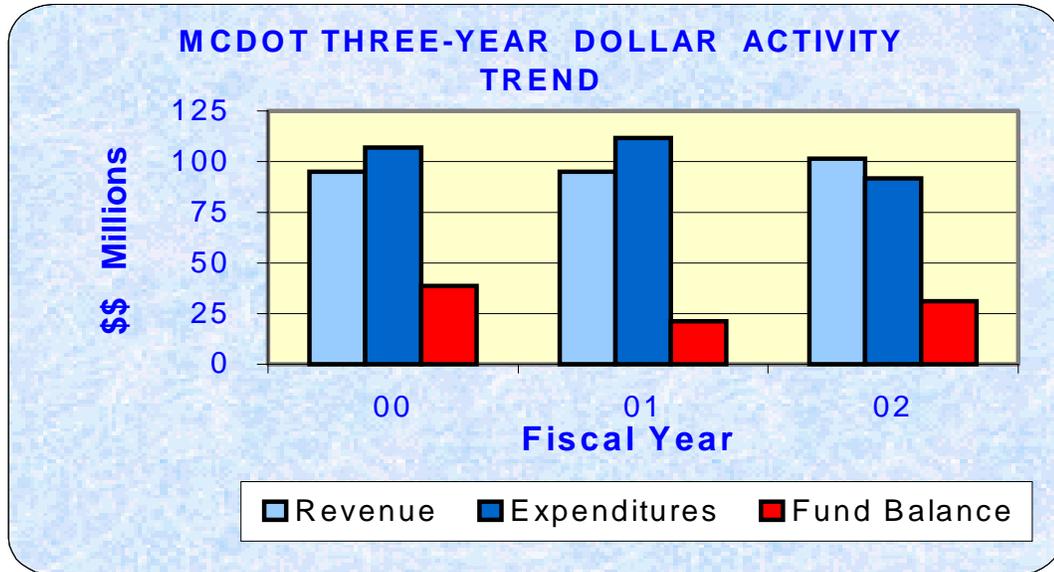
MCDOT's mission is to provide a quality transportation system to Maricopa County travelers so they can experience a safe, efficient, and cost effective journey. In conjunction with Managing for Results (MfR), MCDOT has established goals to be the regional transportation authority, develop and operate a regional transportation system, and increase the safety and capacity of the existing transportation system.

Financial Information

MCDOT's funding is derived largely from State of Arizona Highway User Revenue Fees (HURF). MCDOT generates additional revenues from intergovernmental agreements (IGAs) with the state, cities, and developers that share costs in construction projects. The chart below illustrates FY 2002 revenue sources by type.



We reviewed, summarized and compared revenues, expenditures and fund balances for fiscal years 2000 through 2002. As shown in the chart below, these financial components reflect stable trends.



Organizational Structure

The organizational chart on the following page reflects MCDOT's seven operating divisions. The divisions report to the Director, who in turn reports to the Chief Public Works Officer. MCDOT has a Board of Directors comprised of the five Maricopa County Board of Supervisors. The Supervisors appoint a five member Transportation Advisory Board.

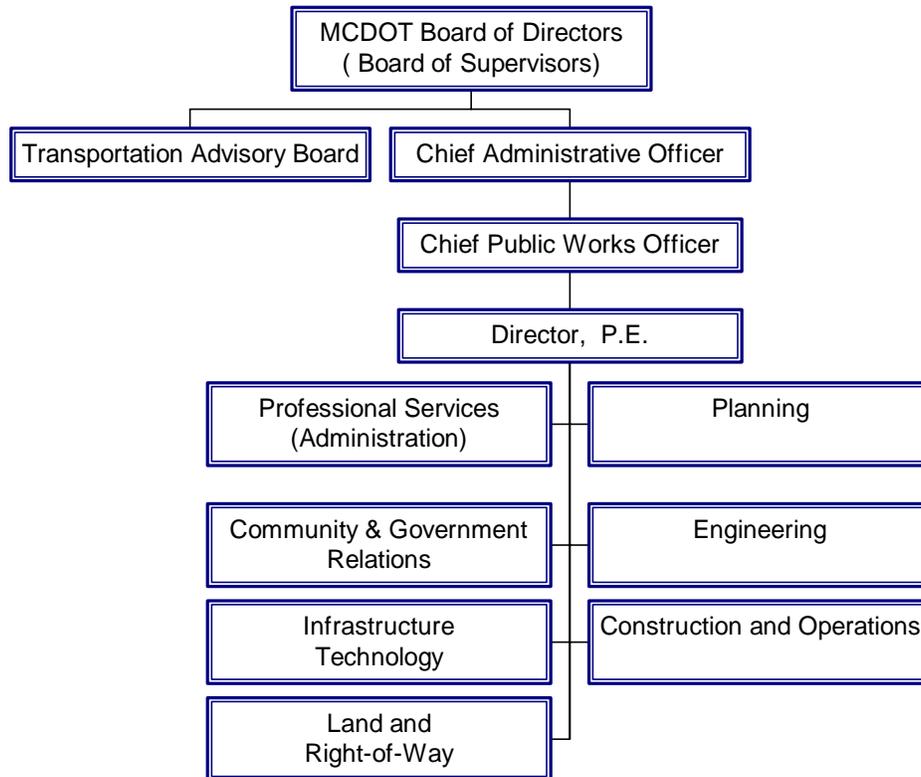
MCDOT is authorized 479 positions for FY 2003, a reduction of 30 positions over FY 2002. The reduction is attributable to the Maricopa Association of Governments (MAG) staff, which had been aligned under MCDOT, being returned to MAG alignment.

Program Operations

The MCDOT operation consists of seven divisions:

- Planning
- Community-Government Relations
- Engineering
- Land/Right-of-Way
- Construction and Operations
- Professional Services
- Information Technology

MCDOT ORGANIZATIONAL CHART



Construction and Operations

Construction and Operations (C&O) is MCDOT's largest division, with 275 employees in five sections. C&O's primary responsibilities are road maintenance and construction, traffic operations and control, materials technology, and construction administration. Maintenance is performed on annual schedules and includes road paving, grading, sweeping, striping, and traffic signal maintenance. C&O performs heavy equipment operation on construction projects, charging costs directly to the projects. C&O has an administrative section to oversee construction projects and monitor internal construction work cost limits. MCDOT services and maintains the following:

- Miles of paved roads 2,042
- Miles of dirt/graded roads 803
- Major bridges 27
- Minor bridges 242
- Signalized intersections 116
- Road signs 45,000

Scope and Methodology

The objectives of this audit were to determine if MCDOT:

- Complies with Arizona Revised Statutes, Maricopa Procurement Code Article 5, and MCDOT in-house construction regulations and policies
- Complies with HURF spending limitations
- Tracks, bills, and recovers costs for services provided to other agencies and departments
- Records, monitors, and approves overtime and stand-by pay
- Adheres to County policies for vehicle use permits
- Administers effective Information Technology application systems
- Effectively gathers and reports information for Managing for Results Key Measures

This audit was performed in accordance with generally accepted government auditing standards.

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Department Reported Accomplishments

The Department of Transportation has provided Internal Audit with the following information for inclusion in this report.

Notable Awards

- American Public Works Association Project of the Year Award – 51st Avenue Bridge Design/Build
- Rubber Pavements Association Outstanding Achievement Award for Aggressive Use of Asphalt-Rubber Applications
- Maricopa County's Managing For Results Award of Commendation for Communication

Regional Transportation District (RTD)

MCDOT was the driving force in the County's RTD bill that was introduced in the House of Representatives and stimulated considerable debate on regional transportation. While that bill did not advance, the County actively supported and influenced the development of a second bill focused on adopting a Regional Transportation Plan (RTP). Under this bill, the Board of Supervisors will have an explicit consultative role, alongside the State Transportation Board and the Regional Public Transportation Authority, in the development and approval of the RTP.

MCDOT, working with the Parks and Recreation Department, leads the development of the Maricopa County Regional Trail System. The program goal is to connect the County Park System, link recreational corridors around the Valley, and help preserve Open Space in the community. MCDOT, in concert with ADOT, continues to preserve and advance the development of the Loop 303 corridor. Landmark agreements with private developers have enabled substantial contributions towards the construction of Loop 303 east of Patriot's Bridge over Grand Avenue.

Infrastructure Development

An additional 39 lane miles have been added to MCDOT's inventory, through development services and improvement districts. MCDOT's normal capital improvement program delivered 65.1 lane miles. Total TIP costs for fiscal year 2002 were budgeted at \$54.9 million with partner revenues at \$15.4 million (28 per cent). Ninety-five percent of MCDOT's TIP projects currently programmed for construction in fiscal years 2003 and 2004 involve partnerships. The ongoing maintenance program maintained 20,863 lane miles of County roadway.

AZTech

MCDOT has significantly broadened public and private sector partnerships, shared data, and extended the benefits of deploying advanced technologies in transportation in ways that are serving as a national showcase and spawning a significant upgrade to travel management throughout the region.

Issue 1 Billings for Services

Summary

MCDOT has not established controls to ensure accurate and complete charges are billed to departments and agencies for which MCDOT provides services. A review of 20 billable services detected \$21,000 in unbilled charges. MCDOT should strengthen controls over their billing process.

Applicable Requirements

ARS 11-952 permits two or more public agencies to enter into intergovernmental agreements or contracts for joint or cooperative action. All IGAs must be in writing, signed by the County Attorney, approved by the Board, and signed by the Board Chairman. Payments for services are to be made only pursuant to a written contract.

ARS 28-6533 restricts the County's usage of Highway User Revenue Fees (HURF) for highway and street purposes, such as rights of way acquisitions, construction, reconstruction, maintenance, and repair.

The Government Accounting Office (GAO) Standards for Internal Control require internal controls provide reasonable assurance that financial reports are reliable, applicable laws and regulations are complied with, and transactions are completely and accurately recorded.

Reimbursable Work Orders

Many of MCDOT's projects contain costs that should be reimbursed by other departments or entities. We tested a sample of projects to determine if MCDOT is recovering these costs. The results of the tests are summarized in the table below.

| WORK ORDER TYPE | WORK ORDERS TESTED | ERRORS FOUND | RESULT | MAJOR FACTOR |
|------------------------|---------------------------|---------------------|---------------------------|---------------------|
| Traffic/Construction | 15 | 7 | Undercharge \$9,400 (Net) | Overhead Not Billed |
| Inter-Agency | 5 | 2 | Undercharge \$11,575 | Overhead Not Billed |

Service Agreements

MCDOT provides lease space and information technology services for other County departments. We found instances in which MCDOT provides these services without formal agreements.

- MCDOT leases space at its Surprise facility to the Wickenburg Justice Court for less than \$12 per day, insufficient to cover MCDOT costs. The lease expired in July 2000.
- MCDOT provides information technology services to Emergency Management, Telecommunications, and Equipment Services without formal written agreements. MCDOT is currently subsidizing a portion of the costs.

Effect

MCDOT has not collected all monies to which it is entitled. MCDOT may be subsidizing costs of services provided to other agencies or County departments, and may be exposed to legal and financial risks.

Recommendation

MCDOT should:

- A. Establish or update written interdepartmental agreements or leases periodically and review agreements annually to ensure rates charged will cover costs.
- B. Establish written policies and procedures to monitor, track, and calculate billings for services provided.
- C. Determine if unbilled costs can be recovered.
- D. Improve controls over job cost data to ensure reimbursable costs are captured and billed timely.

Issue 2 Capital Improvement Projects

Summary

MCDOT generally complies with statutory and Maricopa County Article 5 Procurement Code requirements for design and construction contracts, and change orders are effectively reviewed. Contract file documentation does not always comply with policies or protect the County's interests, and contract monitoring is not adequate to prevent overcharges. MCDOT should strengthen controls over contract file documentation, contract monitoring, and invoice and payment processing.

ARS and Article 5 Procurement Requirements

ARS Titles 28, 32, 34, and 39 provide specific requirements and limitations for construction contracts and projects, including regulations governing submission and approval of invoices.

Article 5 of the Maricopa County Procurement Code requires the following:

- Advertisement for construction procurement in accordance with ARS guidelines and include Minority and Women Business Enterprise (MWBE) goals, bid opening date, and location. Mandatory pre-bid meeting and/or site tour must have date, time, and location in the advertisement
- Scopes of work and specifications; sealed construction bids opened publicly; payment and performance bonds, and upon receipt of required bonds and insurance, a Notice to Proceed
- Change order, appropriately approved, for all changes in the scope of work

The American Institute of Certified Public Accountants (AICPA) Government Accounting and Financial Reporting Manual recommends controls to effectively process invoices. Invoices should be received in a central location, reviewed for completeness, and verified for prices and terms.

Documentation and File Review

We tested five Capital Improvement Projects (totaling \$108 million) for Article 5 Procurement compliance, including file documentation. MCDOT generally complies with Article 5 procurement requirements, including:

- Published notice and affidavit of publication for Letters of Interest and Bids, including MWBE goals
- Selection committees/evaluations for design awards, and sealed bids/registers for construction contracts
- Scopes of work, engineering estimates, and fee proposals
- Signatures and approvals by all appropriate parties

However, file documentation for the Article 5 contracts was not always complete; items were missing from contract files or did not comply with requirements. The exception rate, as illustrated in the table below, is significant.

| REQUIRED DOCUMENTATION | FILES TESTED | ERRORS FOUND | COMMENT |
|-------------------------------|---------------------|---------------------|---|
| Notice To Proceed | 9 | 8 | MCDOT does not use a standard form |
| Performance Bonds | 9 | 6 | Some bonds were missing, some bond changes were not initialed |
| MWBE Affidavits | 10 | 6 | Although affidavits were not on file, signed MWBE goals sheets, and MWBE docs with payments requests were |
| Insurance Certificates | 9 | 4 | Four certificates were missing and an additional file did not provide required coverage |
| Bid Summary/Checklist | 6 | 2 | Forms were missing opening bid data and signatures |

Effective documentation protects the County’s interest on capital improvement projects and helps ensure we comply with applicable state, local, and County Article 5 Procurement requirements.

Change Orders

We tested 20 change orders, totaling \$1,346,800, and found no exceptions. MCDOT has established effective policies and procedures for processing change orders for construction projects. Adequate supporting documentation, for change order scope of work and costs, was on file. Change orders requiring Board of Supervisors’ approval were properly approved and on file.

Invoices and Compliance to Contract Terms

We tested 38 invoices (\$6.9 million), related to the five CIP projects and verified supporting detail, proper account posting, appropriate level review and approval, retention payments, and timeliness of payments. The following exceptions were noted:

- 23 of 38 invoices were not paid timely
- Performance and Payment of Claims certifications did not accompany invoices for on-call contract work assignments
- On-call contract invoices did not comply with contract terms, and we noted a potential \$6,088 overcharge between contract rates and invoice charges
- Amendments to on-call contract “Not-to-Exceed” work order amounts were not approved prior to work completion

Effect

Overpayments can occur when invoices are not compared with contract terms and conditions, when work exceeds the contracted amount without prior approval, and when customers do not receive payments timely. Our testing documented \$6,088 that did not comply with contract terms.

Recommendation

MCDOT should:

- A.** Review ARS and Article 5 Procurement Code to ensure applicable requirements are met and included in the contract file documentation and development process. Designate the contract file as the primary location for original construction and contract documents.
- B.** Establish an effective contract monitoring system to ensure contract files have appropriate documentation and ensure invoices are effectively reviewed and paid in compliance with contracts.
- C.** Determine the cause of delays in the invoice processing and review cycle, and develop procedures to ensure that payments are made timely, including all construction invoices being paid within ARS guidelines.

Issue 3 REACT Program

Summary

MCDOT's Regional Emergency Action Coordinating Team (REACT) program provides traffic support services to local law enforcement and the County Sheriff's department without completed intergovernmental agreements. Formal intergovernmental agreements help protect the County's interests and provide for appropriate cost sharing. MCDOT should complete well-structured IGA's with participating entities.

Constitutional and ARS Requirements

The Arizona Constitution Article 9, Section 14, provides limitations on how counties may spend Highway User Revenue fees (HURF). It states "... for distribution to counties, incorporated cities and towns to be used by them solely for highway and street purposes including costs of rights of way acquisitions and expenses related thereto, construction, reconstruction, maintenance, repair, roadside development, of county, city and town roads, streets, bridges"

Arizona Revised Statutes 28.6533 B. states "the revenues in the Arizona HURF fund shall only be spent for the purposes prescribed in the Constitution. Counties and incorporated cities and towns shall not spend highway user revenue fund monies distributed to them pursuant to this article for enforcement of traffic laws or administration of traffic safety programs."



The REACT program is a regional solution to emergency traffic incidents

ARS 11-952 permits two or more public agencies to enter into intergovernmental contracts or agreements (IGAs) for joint or cooperative action. All IGAs must be in writing, signed by the County Attorney, approved by the Board, and signed by the Board Chairman.

Pilot Program

The REACT program, created as a pilot program in January 2001, provides emergency incident response and traffic management to local law enforcement. The primary objective of the REACT program is to improve safety, minimize incident related traffic congestion, and provide scene security. REACT services are provided by a full time manager and team leader, and two alternating teams of MCDOT employees, who volunteer as REACT responders.

The REACT pilot included response for the Sheriff's Department (MCSO) and for Glendale and Peoria. According to REACT Management, the County Attorney was contacted and indicated that since REACT was a pilot/demo program, no IGAs were required. Written documentation to support this contact with the County Attorney could not be provided. Although REACT has been in place for over two years, intergovernmental agreements (IGAs) have not been developed with

Glendale or Peoria, and no agreement was found with MCSO. REACT incident reports indicate that services also have been provided to El Mirage and Avondale.

Escalating Costs

REACT program costs have increased over the past two years, due to overtime and stand-by pay expenses. On-call team members work a 40-hour week and are paid a stand-by rate for all remaining hours, around the clock, unless called to an incident. Teams receive overtime pay for incident responses outside normal working hours. A large portion of MCDOT response and stand-by pay, which increased 66 percent between FY 2001 and FY 2002 and an additional 33% in FY2003 (see table below), is attributable to the REACT program.

Non-personnel expenditures include five vehicles, equipment and supplies, fuel, and other goods totaling \$315,983 over a two-year period.

| MCDOT RESPONSE/STAND-BY PAY EXPENSE – FY 2000 - 2003 | | | |
|---|--------------------|-------------------------------|--------------------------------|
| FISCAL YEAR | TOTAL SPENT | PRIOR YEAR (+ / -) | VARIANCE (PER CENT) |
| FY 2001 | \$ 63,694 | N/A | N/A |
| FY 2002 | \$105,282 | \$41,588 | 66 % |
| FY 2003 (Projected) | \$139,845 | \$34,563 | 33 % |

HURF Expenditures Appropriate

The REACT program is totally funded by HURF funds. The program supports activities such as “police funeral, crime investigation, police assist, police shooting, Luke Days, hostage situation, and special event.” Since activities did not appear to qualify for HURF funding under spending restrictions as defined by a strict interpretation of the Constitution and statutes, we requested a County Attorney opinion. Opinion 2003-002, approved June 11, 2003 concluded that the REACT operations are for highway and street purposes and are distinguishable from traffic law enforcement and traffic safety programs. Therefore, HURF monies may be expended for the REACT program.

A draft IGA between Maricopa County and public agencies for emergency response aid was prepared. The IGA draft does not provide for cost-sharing among the parties involved. The IGA indicates no party to the agreement has assumed legal responsibility to provide resources, equipment, facilities, or personnel outside its jurisdiction. The agreement enables agreement partners to financially compensate the other party if they are unable to provide services of equal value. Compensation, however, is not delineated.

Potential Impact

MCDOT's goal is to provide a regional approach to all transportation issues. MCDOT should have IGAs in place for all agencies with which it shares or provides services to avoid incurring expenditures for other agencies. Cost-sharing should be delineated in the IGAs.

Recommendation

MCDOT should ensure viable IGAs are in place to protect the County's interests and provide for equitable cost sharing for all entities concerned.

Issue 4 IT Change Control

Summary

Current change control procedures are not adequate to ensure that program changes are properly authorized and approved. In addition, application developers are granted update access to production program libraries. This increases the risk that unauthorized changes can be made that may have an adverse impact on the system. MCDOT should improve change control procedures.

Program Libraries

Industry-leading practices indicate that the developer of business systems should not have access to update source and executable libraries in the production environment. However, application developers at MCDOT have these abilities.

Although the Network Solutions Group apply modifications to production libraries, developers are still granted update access to these libraries. This ability increases the risk that unauthorized changes can be made that may have an adverse impact on the system. Access controls have not been established to limit a developer's capability to update production program libraries.

User Request and Approval

Industry-leading best practices indicate that documented procedures should be in place for users to request modifications and enhancements to applications, document the requirements for the modification, and approve/prioritize expenditure for resources. Formal procedures have not been established for users to request services

Currently, requests are informally communicated to the Business Solutions Manager or the Business Analyst. This practice increases the risk that critical system requests may not be identified and tracked. MCDOT is currently implementing formal procedures to request, approve, and prioritize IT projects based on department-wide needs.

Promotion of Changes

Best practices indicate that documented procedures should be in place for managing promotion of changes from development/testing to production. No formal change management procedures exist for the promotion of changes into the production environment.



The MCDOT Data Center at the Durango Complex

Modifications are placed in a shared directory by the developer and are picked up by Network Solutions and applied to production. The risk is increased that unauthorized changes can be made that would have an adverse impact on the system. Formal procedures have not been established to manage change migration.

User Sign-off

Industry leading practices indicate that users should be required to sign-off their acceptance and approval of the system. Formal user sign-off is not required for acceptance of new program development and significant program modification projects. The practice increases the risk that new and modified programs will be implemented into production, which do not adequately meet user requirements. Procedures have not been established to require user sign-off of testing and system acceptance prior to implementation in production.

Recommendation

MCDOT should:

- A.** Continue to develop procedures to document all requests for modifications to existing systems and new systems. System users should provide written requirements, and approve the estimate of required resources, prior to developers initiating the modification or new system.
- B.** Limit IT developer's access to production program libraries to read only.
- C.** Develop procedures to document and communicate all changes to production systems. Changes should be properly authorized, tested, and should indicate a back-out plan.
- D.** Establish procedures that require user approval of final test results for new and modified programs before implementation into production.

Issue 5 Security and Continuity

Summary

Security procedures governing access to MCDOT systems and data need to be improved. Lax procedures may result in unauthorized or inappropriate access to systems and data. In addition, while MCDOT has a disaster recovery plan, it has not been tested. Without testing the plan, the risk is increased that some or all of the systems may not be available in the event of a disaster. MCDOT should strengthen controls in these areas.

Security Policy

County Policy A1605 supports industry-leading practices, which indicate that information security policies should be documented and communicated to all employees. Information security policies have not been documented and distributed to MCDOT employees, increasing the risk that effective security practices will not be followed or enforced. Information security policies are the responsibility of the Security Officer in the Office of the CIO.

Network Account Creation and Deletion

Best practices indicate that formal procedures should be established for requesting new network user accounts, as well as for modification and deletion of these accounts. Requests for network account creation and deletions are not documented and there is no formal request/approval and deletion process. A standard form is not used for the request and approval of creation, modification, or deletion of network user accounts.

This increases the risk that unapproved accounts may be established, or that excessive access will be granted. MCDOT Information Technology (IT) accepts any type of request without requiring specific authorization levels for administration of network user accounts.

Disaster Recovery

Best practice provides that disaster recovery plans be tested regularly and that a current copy of the plan be distributed to recovery team members. MCDOT has not tested its Disaster Recovery Plan (DRP). In addition, the plan has not been distributed to the recovery team members. Without testing the DRP, the risk is increased that some or all of the systems may not be available in the event of a disaster. Without distribution of the plan, some or all of the recovery team members may not have adequate information in the event of a disaster.

IT management indicated that they were seeking outside assistance to develop and perform a test of the DRP. In addition, the recovery manager has not completed this area of responsibility established in the plan.

Recommendation

MCDOT should:

- A.** Work with the Security Officer to document information security policies and establish procedures for distribution to all employees. Employees should acknowledge that they have received and read the policies.
- B.** Develop a standard request form that indicates the levels of access to be granted and documents appropriate authorization.
- C.** Establish procedures to notify the application administrators when changes in employee status occur that may impact user access accounts.
- D.** Test the Disaster Recovery Plan annually and distribute a copy of the plan to appropriate employees.

Issue 6 Vehicle Permits

Summary

MCDOT has not established an effective method to monitor department vehicle use permits, equipment certifications, and overnight use authorizations. Without an effective monitoring system, MCDOT cannot ensure only authorized and certified drivers operate County vehicles and equipment. MCDOT should strengthen controls and documentation over vehicle use.

County Requirements

Employees who operate County-owned vehicles or equipment must obtain an appropriate County Vehicle Use Permit, as well as training and certification when required. County Administrative Policies A2302, A2309, and A2310 establish permit criteria. Specific requirements include the following:

- A valid Arizona driver's license
- A valid Arizona commercial driver's license (CDL), appropriate for the type of equipment operated, and an operator qualification test administered by MCDOT
- An overnight use permit. The County Administrative Officer must approve continuous overnight use permits

Testing Results

MCDOT relies on data maintained by the Risk Management Safety Office (RMSO) to manage permits and certifications. We tested RMSO files to determine if relying on RMSO data is effective in managing vehicle permits and certifications. We found several exceptions that indicate RMSO data is not completely accurate. These include the following:

- Ten percent of the 453 permits on the RMSO list were expired
- Driver's license copies were missing or expired
- Actual driver's certifications and classifications did not agree to RMSO system
- Overnight permits listed in the RMSO system are not accurate

Impact

The County may be exposed to legal risk if unauthorized drivers are allowed to operate vehicles. Potential losses or increased expense could result from inaccuracies in vehicle permit lists.

Recommendation

MCDOT should:

- A. Establish an effective system to track employees' vehicle use permits and certifications.
- B. Review the vehicle permit list, employee permits, and equipment certifications to ensure that they are current and meet the position needs of employees.

Issue 7 Performance Measure Certification

Summary

Our review of five MCDOT Key Results Measures, developed for the Managing for Results (MfR) program, found each of them sufficiently documented and accurately reported. Data collection procedures are reliable and MCDOT accurately certifies its Key Results Measures.

County Policy Requirements

Maricopa County Board of Supervisors Policy B6001 (4.D Evaluating Results) requires the Internal Audit Department to review County departments' strategic plans and performance measures. The policy also requires that the results of the review be reported.

As part of this audit, we performed certification reviews of five MCDOT Key Results Measures. The following information defines the results categories that are used in the certification process.

Definitions

Certified: The reported performance measurement is accurate (+/-5 percent) and adequate procedures are in place for collecting/reporting performance data.

Certified with Qualifications: The reported performance measurement is accurate (+/-5 percent) and adequate procedures are not in place for collecting and reporting performance data.

Factors Prevented Certification: Actual performance measurement data could not be verified due to inadequate procedures or insufficient documentation. This rating is used when there is a deviation from the department's definition, preventing the auditor from accurately determining the performance measure result.

Inaccurate: Actual performance is not within five percent of reported performance and/or the error rate of tested documents is greater than five percent.

Not Applicable: Performance measurement data is not yet available.

Review Results

Key Measure #1: Percent of Particulate Matter (PM-10) roads that have been paved per County Air Quality regulations for dust suppression/mitigation.

Results: Certified.

We reviewed department documentation showing the actual number of centerline miles paved in relation to the goal of 40 miles. No activity occurred in the first quarter and 2.6 miles were paved in the second quarter.

| Measure #1 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | FY03 Total |
|-------------|-------|-------|-------|-------|------------|
| Reported #s | 0 | 6% | | | |
| Actual #s | 0 | 6% | | | |

Key Measure #2: Percent of MCDOT projects that go to bid and are eligible for partnerships and have partnerships in place.

Results: Certified.

We verified there were no bids in the first quarter and eight projects, identified as going to bid in the second quarter, were part of the approved Transportation Improvement Program (TIP). We also verified six of the eight had agreements in place that replicate the 75% reported for the second quarter's results.

| Measure #2 | Qtr. 1 | Qtr. 2 | Qtr. 3 | Qtr. 4 | FY 03 Total |
|--------------|--------|--------|--------|--------|-------------|
| Reported #'s | 0 | 75% | | | |
| Actual #'s | 0 | 75% | | | |

Key Measure #3: Percent of total road mileage with pavement condition rating of “good” or better.

Results: Certified.

The MCDOT Road Management System generates statistical reports which automatically calculate the ratings, number of miles, and percent of miles falling into each of five categories, ranging from Excellent (85 – 100) to Poor (< 40). We verified the FY 2003 first and second quarter reports to the MfR reported figures of 99%, with no exceptions.

| Measure #3 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | FY 03 Total |
|-------------|-------|-------|-------|-------|-------------|
| Reported #s | 99% | 99% | | | |
| Actual #s | 99% | 99% | | | |

Key Measure #4: Percent of bridges with sufficiency rating of “good” or better.

Results: Certified

We were able to validate the calculation used for reporting the FY 2002 annual percentage. That calculation excluded 87 facilities along the Sun Valley Parkway because their large sufficiency rate change was attributed to previous inaccurate inventory data. (FY 2002 figures are used because this is an annual rating and FY 2003 figures are not yet available.)

| Measure #4 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | FY02 Total |
|-------------|-------|-------|-------|-------|------------|
| Reported #s | | | | | 81% |
| Actual #s | | | | | 81% |

Key Measure #5: Percent reduction in accidents per intersection or roadway segment.

Results: Certified

FY 2001 began the initial three-year period for tracking multi-way stop installation statistics. MCDOT has been documenting statistics for installations and collecting accident data. However, accident reduction after implementation of improvements is typically measured over a three-year period and the first installation accident result percentages would not be reported until the first quarter of FY 2004. Statistics shown are for reported incidents, since percentages are not yet reportable.

| Measure #5 | Qtr 1 | Qtr 2 | Qtr 3 | Qtr 4 | FY03 Total |
|-------------|-------|-------|-------|-------|------------|
| Reported #s | 0 | 0 | | | |
| Actual #s | 0 | 0 | | | |

Recommendation

None, for information only

Department Response



MARICOPA COUNTY

Department of Transportation

MEMORANDUM

DATE: July 1, 2003

TO: Ross Tate, County Auditor

VIA: David R. Smith, County Administrative Officer
Joy Rich, Chief Regional Development Services Agency Officer

FROM: Thomas R. Buick, Transportation Director and County Engineer 

SUBJECT: Internal Audit of MCDOT, June 13, 2003

MCDOT has reviewed the audit findings prepared by the Internal Audit Department. Attached are our responses to the audit recommendations.

This memo confirms that we concur with the report and findings and are therefore willing to forego the Closing Conference.

We wish to commend the Internal Audit Department for their professionalism during the audit process. If there are questions, please feel free to contact me or John Gorman (506-8300).

Attachment

AUDIT RESPONSE
Maricopa County Department of Transportation June 30, 2003

Issue #1:

MCDOT has not established controls to ensure accurate and complete charges are billed to departments and agencies for which MCDOT provides services. A review of 20 billable services detected \$21,000 in unbilled charges. MCDOT should strengthen controls over their billing process

Response: Concur.

Recommendation A: Establish or update written interdepartmental agreements or leases periodically and review agreements annually to ensure rates charged will cover costs.

Response: Concur--in process. An Interdepartmental Agreement was established with the Justice Courts in September 1999. Since that time, the Court has required additional square footage and now operates every Wednesday at the MCDOT Northwest/Surprise Service Facility. A draft IGA has been written and is awaiting an appraisal to update the rental charges.

Formal agreements will be developed for information technology services provided to outside departments.

Target Completion Date: 11/30/03

Benefits/Costs: Increased control over accuracy and accountability to ensure rates charged will cover costs.

Recommendation B: Establish written policies and procedures to monitor, track, and calculate billings for services provided.

Response: Concur--in process. Written policies and procedures will be developed for billing reimbursable work orders. The process of monitoring, tracking and billing will be centralized in one area. This will ensure a consistent process and establish accountability.

Target Completion Date: 9/30/03

Benefits/Costs: Improved collection of billings for reimbursable work.

Recommendation C: Determine if unbilled costs can be recovered.

Response: Concur--in process. Overhead has always been a billed cost on reimbursable work. There was a programming change in the system that, by accident, removed overhead charges from the billing reports. This has been corrected. The unbilled overhead costs will be recovered in FY03.

Target Completion Date: 7/30/03

Benefits/Costs: Recovery of unbilled overhead charges.

Recommendation D: Improve controls over job cost data to ensure reimbursable costs are captured and billed timely.

Response: Concur--in process. Improved controls will be established in new written policies and procedures to avoid the issues identified in the audit. A centralized responsibility for billing reimbursable work will ensure compliance with established controls

Target Completion Date: 11/01/03

Benefits/Costs: Stronger controls will detect unbilled charges.

Issue #2

MCDOT generally complies with ARS and Maricopa County Article 5 Procurement Code requirements for design and construction contracts, and change orders are effectively reviewed. Contract file documentation does not always comply with policies or protect the County's interests, and contract monitoring is not adequate to prevent overcharges. MCDOT should strengthen controls over contract file documentations, contract monitoring, and invoice and payment processing.

Response: Concur

Recommendation A: Review ARS and Article 5 Procurement Code to ensure applicable requirements are met and included in the contract file documentation and development process. Designate the contract file as the primary location for original construction and contract documents.

Response: Concur--in process. Construction and Consultant Procurement Schedule processes were established and implemented February 18, 2003. These schedules will be used to document that the procedures are adhered to and will be followed by the project managers of all the divisions within MCDOT.

A team (members that have ownership) will be established to implement these processes for file documentation, and to determine the primary location for all original documents.

All file documentation (scanned documents) will be available on a web-based application.

Target Completion Date: 12/01/03

Benefits/Costs: Improved file documentation and compliance to the ARS Title requirements.

Recommendation B: Establish an effective contract monitoring system to ensure contract files have appropriate documentation and ensure the payment requests are effectively reviewed and paid in compliance with contracts. Recommendation B is linked to C response.

Response: Concur--in process. A Contract Management Database System for the tracking of Article 5 contract files has been installed in the Procurement Services Branch. This system was transferred from the Flood Control District. The system will ensure payment requests are made in a timely manner and within the ARS guidelines. The Article 5 Contract Specialists will review, verify, and maintain the database for all payment requests. The Procurement Services Branch will be responsible for compliance issues.

Target Completion Date: 11/01/03

Benefits/Costs: Improved process, eliminate overpayments, compliance to contractual agreements.

Recommendation C: Determine the cause of delays in the invoice processing and review cycle, and develop procedures to ensure that payments are made timely, including all construction invoices being paid within ARS guidelines.

Response: Concur--in process. The MCDOT leadership team appointed a liaison to form a team that will coordinate the payment requests, approvals, and compliance process. The team will review the payment request cycle to develop procedures so that the Contract Management Database will have a payment request tracking function to ensure the payment cycle is completed in accordance with the ARS.

Target Completion Date: 03/01/04

Benefits/Costs: Improved process and business relations with the construction and consultant communities.

Issue #3:

MCDOT's Regional Emergency Action Coordinating Team (REACT) program provides traffic support services to local law enforcement and the County Sheriff's Office without completed intergovernmental agreements. Formal intergovernmental agreements help protect the County's interests and provide for appropriate cost sharing. MCDOT should complete well-structured IGA's with participating entities.

Response: Concur

Recommendation A: Ensure viable IGAs are in place to protect the County's interests and provide for equitable cost sharing for all entities concerned.

Response: Concur--will implement with modifications. The Emergency Traffic Management Mutual Response IGA was submitted to the County Attorney for review in July 2003 before it was distributed to the cities for consideration. The purpose of this was to make sure the agreement met all legal requirements and County needs before partner negotiations. The IGA that the cities are considering will be the approved version from the County Attorney.

The IGA is set up for mutual response/mutual aid. It is an exchange of services. We are currently revising our REACT reporting forms to track the number of responders and hours responding from other cities.

A Memorandum of Understanding (MOU) will be developed between MCDOT and MCSO that will articulate the administration of each agency's constitutionally appropriate duties during emergencies, on the same road, at the same time, and will be accomplished in a collaborative manner to improve the safety and mobility of the citizens and travelers in Maricopa County.

Target Completion Date: 12/31/03

Benefits/Costs: Increased accuracy and accountability.

Issue #4:

Current change control procedures are not adequate to ensure that program changes are properly authorized and approved. In addition, application developers are granted update access to production program libraries. This increases the risk that unauthorized changes can be made that may have an adverse impact on the system. MCDOT should improve change control procedures.

Response: Concur.

Recommendation A: Continue to develop procedures to document all requests for modifications to existing systems and new systems. System users should provide written requirements, and approve the estimate of required resources, prior to developers initiating the modification or new system.

Response: Concur—in process. New IT Request and Review Policy and Procedure was approved by MCDOT's Leadership Team on 4/22/03. This new policy and procedure includes a standardized, centralized request process for application development projects, and the use of a Project Charter or agreement between the requester and ITC for the scope, schedule and budget for requested services.

Target Completion Date: 09/01/03

Benefits: Improved control over IT resources, both staff time and enterprise-wide data; improved quality of IT deliverables; increased customer satisfaction.

Recommendation B: Limit IT developer's access to production program libraries to read only.

Response: Concur—in process. Will take steps to leverage an existing software versioning tool, SourceSafe, by training all developers on its use. This tool allows developers to "check out" and "check in" only that source code for which they have permissions in order to make changes.

Target Completion Date: 09/01/03

Benefits: Increased control over application source code; leveraging existing development tool.

Recommendation C: Develop procedures to document and communicate all changes to production systems. Changes should be properly authorized, tested, and should indicate a back-out plan.

Response: Concur—in process. Will modify existing Web-based tool for developer's use to log requested changes to production databases and applications. Will formalize the procedure for testing and migrating changes from development to production. Will establish a procedure that will limit ability to make database and application changes to select individuals. Will implement a bi-weekly meeting of developers and Network Solutions staff to discuss upcoming changes.

Target Completion Date: 09/01/03

Benefits: Improved control over production system integrity; improved communication among developers and between Business Solutions and Network Solutions staff.

Recommendation D: Establish procedures that require user approval of final test results for new and modified programs before implementation into production.

Response: Concur—in process. New IT Request and Review Policy and Procedure was approved by MCDOT's Leadership Team on 4/22/03. This new policy and procedure includes a standardized, centralized request process for application development projects, and the use of a Project Charter or agreement between the requester and ITC for the scope, schedule and budget for requested services. Additionally, ITC is implementing MS Project, project management software, and project plan templates that include product testing as a step in the software development process.

Target Completion Date: 11/01/03

Benefits: Improved quality of IT deliverables; increased customer satisfaction.

Issue #5:

Security procedures governing access to MCDOT systems and data need to be improved. Ineffective procedures may result in unauthorized or inappropriate access to systems and data. In addition, while MCDOT has a disaster recovery plan, it has not been tested. Without testing the plan, the risk is increased that some or all of the systems may not be available in the event of a disaster. MCDOT should strengthen controls in these areas.

Response: Concur.

Recommendation A: Work with the Security Officer to document information security policies and establish procedures for distribution to all employees. Employees should acknowledge that they have received and read the policies.

Response: Concur--in process. Working with the Office of the CIO, Security Officer, on the establishment of the County Security Policies and Data Classification Policies.

Target Completion Date: 90 days from the completion of the ICJIS IT Security Policy (approximately 10/01/04), in collaboration with the OCIO.

Benefits/Costs: Increased control and accountability.

Recommendation B: Develop a standard request form that indicates the levels of access to be granted and documents appropriate authorization.

Response: Concur--in process. Working with the Office of the CIO, Security Officer, on the establishment of the County Security Policies and Data Classification Policies.

Target Completion Date: 90 days from the completion of the ICJIS IT Security Policy (approximately 10/01/04), in collaboration with the OCIO.

Benefits/Costs: Increased control and accountability.

Recommendation C: Establish procedures to notify the application administrators when changes in employee status occur that may impact user access accounts.

Response: Concur – in process. Working with MCDOT Human Resources to ensure timely notification to ITC of employee status changes. Will also promote use of the Outlook software tool identified by the MCDOT New Employee Orientation to track status changes. Internally to ITC, will use the Web-based tool (referred to in Issue #4, Recommendation C response) for developer to log requested changes to production databases and applications, including set up of user accounts and passwords.

Target Completion Date: 12/01/03

Benefits/Costs: Increased control and accountability.

Recommendation D: Test the Disaster Recovery Plan annually and distribute a copy of the plan to appropriate employees.

Response: Concur – in process. Working with external consultant, KPMG, to develop comprehensive phased test plan and staged plan of execution.

Target Completion Date: 06/30/04

Benefits/Costs: Planned demonstration of the hardware, to ensure functionality, and refinement of our methodologies to implement and deal with off-site hot stand-by systems.

Issue #6:

MCDOT has not established an effective method to monitor vehicle use permits, equipment certifications, and overnight use authorizations. Without an effective monitoring system, MCDOT cannot ensure only authorized and certified drivers operate County vehicles and equipment. MCDOT should strengthen controls and documentation over vehicle use.

Response: Concur.

Recommendation A: Establish an effective system to track employees' vehicle use permits and certifications.

Response: Concur--in process. MCDOT will establish a system to track vehicle use permits and authorizations. Our HR Manager will be responsible for the coordination of this process, with Risk Management Safety Office.

Target Completion Date: 09/01/03

Benefits/Costs: A written procedure outlining the process followed, to effectively track employees' vehicle use permits and authorizations.

Recommendation B: Review the vehicle-permit list, employee permits, and equipment certifications to ensure that they are current and meet the position needs of employees.

Response: Concur--in process. Our HR Section will be responsible for the coordination of this process with Risk Management Safety Office (RMSO). MCDOT will request more frequent reports from RMSO; follow-up on identifying employees that are no longer with MCDOT; determine if employees actually need a Blue Card; and be proactive on notifying employees before their Blue Card expires.

Target Completion Date: 09/01/03

Benefits/Costs: Stronger controls and documentation of vehicle use.

Issue #7:

Our review of five MCDOT Key Results Measures, developed for the Managing for Results (MfR) program, found each of them sufficiently documented and accurately reported. Data collection procedures are reliable and MCDOT accurately certifies its Key Results Measures.

Response: Concur

Recommendation A: None, for information only.

Approved By :

Thomas R Buick
Department Head/Elected Official

7.3.03
Date

[Signature]
Chief Officer

7.8.03
Date

J. Wu for DRS
County Administrative Officer

7-8-03
Date