



Deloitte Consulting LLP

A nighttime photograph of a multi-lane highway. The scene is illuminated by a series of streetlights that create a strong perspective effect, with light trails from traffic visible in the distance. The overall color palette is dominated by deep blues and bright whites from the lights.

Independent Assessment
of
Auditable Unit D - Management and
Support Functions

Prepared for the Texas Department of Transportation
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Section I: Executive Summary

The Texas Department of Transportation (TxDOT or “Agency”) contracted for five independent assessments of its management and business operations to prepare for the 2009 Sunset Review process. The auditable units to be assessed included Transportation Funding, Contracting and Project Delivery, Consumer Services, Management and Support Functions, and Field Operations. TxDOT retained Deloitte Consulting LLP (“Deloitte Consulting”) to conduct the independent assessment of TxDOT operations related to Auditable Unit D — Management and Support Functions. The objectives of this project were to assess high-risk areas of TxDOT’s management and support functions to improve the quality of the statewide transportation services, identify opportunities for enhancing revenue to maximize financial resources available, develop strategies to remove operational barriers and improve the efficiency and effectiveness of operations, highlight exemplary and innovative practices, and recommend opportunities for reducing risks and improving operations at TxDOT’s headquarters. The results of this assessment are presented herein.

During the course of this engagement, we interviewed more than 70 employees at TxDOT headquarters in Austin and visited or contacted key personnel at five district offices. Using the risk assessment findings, our efforts were guided by the TxDOT-approved workplan and budget document, dated May 11, 2007.

Our findings and conclusions are based upon the representations of management and our analysis of information provided by management. We validated certain risks and identified a variety of processes, policies, and areas that represent additional risks to TxDOT. Due to the nature of this report, we observed many areas that we consider to be commendable business practices; however, they are not all highlighted.

Summary of Findings

The findings and associated recommendations we made were based on the areas identified in the workplan. The next step for TxDOT is to evaluate the benefits of each recommendation. Once evaluated, a logical and feasible course of action for the highest priority recommendations can be developed and implemented.

While there are numerous observations resulting from our review, we noted a number of recurring themes that seem to be root causes for the identified risks and are directly related to our detailed findings that are presented later in this report. We believe that the following overarching themes, for the most part, drive the behaviors, processes, risks, and opportunities within the organization.

Risk Management

TxDOT’s ability to develop and implement a comprehensive risk management program appears to be complicated by the districts’ considerable latitude for decision making and policy interpretation. Divisions and districts invest significant amounts of resources in developing risk management solutions. These solutions are oftentimes not adapted or integrated Agency-wide because they are developed in isolation. It is critical for TxDOT to develop a comprehensive risk management program to address key risks. With the advent of comprehensive development agreements (CDAs), enterprise risks increase and will require TxDOT to prioritize these risks.

Additionally, we also noted that the Internal Audit office (IA) has not been sufficiently involved in evaluating the risks associated with CDAs. It is particularly important that IA be involved as early as possible in evaluating these risks so that they can provide management with assurance that the CDA processes are being properly designed and controlled to limit TxDOT’s exposure with CDAs.

People

People are a critical asset to TxDOT’s ability to accomplish its mission. TxDOT’s business plan is dependent upon having qualified individuals with the right skills in the right place. Several factors currently impact TxDOT’s ability to find and retain qualified individuals. These factors include the use and management of CDAs, retirement eligibility increasing dramatically over the next five years, and a shortage in the supply of technically qualified people. In addition to competing with private sector organizations, Council of Government (COGs) and Metropolitan Planning Organizations (MPOs) perform regional and local transportation services. These

Section I: Executive Summary

organizations compete for the same skills in the same geographic areas as TxDOT District and Area Offices. Without the proper management programs in place, TxDOT's ability to fulfill its objectives will be affected. In this environment, reactive people management may threaten the success of the Agency.

While TxDOT's HRD continues to deliver the traditional services well, HR needs to be more strategic in planning and more analytical in its communications in order to anticipate the emerging needs of customers. These additions to a strong foundation of solid Human Resources (HR) practices will provide TxDOT with a HR service that is truly aligned with building organizational capability.

Based on this review, it is apparent that several key pieces of data are missing that would enable TxDOT to become more proactive. First, TxDOT needs to have a specific understanding of the workforce capability as it moves into this critical time. Second, TxDOT needs a strategic plan to determine how to manage the workforce as a whole. Currently, there is not an HR strategy or comprehensive Talent Management Strategy in place. As TxDOT enters a very competitive labor market, the Agency will need to target areas of concern in the workforce and focus its programs and activities on recruitment and retention. Development of these strategies will not only aid in informing investment decisions, but will also provide support for the organization's goals and objectives by prioritizing and aligning activities.

TxDOT's decentralized structure has worked for the traditional line of business. However, as new technologies and new processes are established, a review of HR activities and programs may reveal the advantages to consolidating some areas where division-level management is more effective. Typically, this type of enterprise-wide management approach yields higher efficiency results, as well as standardizes the application of policies and programs.

Technology

TxDOT has not traditionally viewed information technology (IT) assets and resources as a strategic function but rather as a support function within the organization. Based on the current goals of TxDOT, the Information Systems division (ISD) develops programs and deploys resources to support the needs of the TxDOT districts, divisions, and offices. Best practices would dictate that more strategic and forward-thinking technology departments provide greater value to the organization. This value is seen through higher efficiency, better controls, and more integrated management processes.

Districts, divisions, and offices are given a significant level of autonomy with regard to the development and implementation of information technologies. There does not appear to be a monitoring mechanism to ensure that certain systems are developed to appropriate standards. This lack of oversight in the development of technologies creates risks that could compromise data security and data integrity while also creating inefficiencies and higher costs to the Agency. These risks could be minimized if information technologies are approved and monitored centrally.

In March 2007, TxDOT began transitioning operational support for many of its technology assets to a third party. The transition will be completed by the summer of 2007. TxDOT needs to work with the service providers to ensure that ongoing support needs are met and that future disruptions are minimized. TxDOT's ISD now has an opportunity to analyze its current IT capabilities and create short- and long-term strategic plans that view technology as an enabler to achieving the goals of the organization. As a result of the analysis, ISD resources could be better allocated toward achieving the goals of the organization. Additionally, enterprise-wide standards by which systems are developed and deployed will be reinforced.

The onset of CDAs appears to have had a significant impact on TxDOT's IT needs. Across each area of our review, technology gaps were identified in relation to the policies and procedures around CDAs. TxDOT should conduct a detailed assessment of the technology needs of the organization related to CDAs.

Key Findings and Recommendations

The following section presents an explanation of identified key risk issues, observations, and recommendations for mitigation that have been summarized from the detailed analysis section that follows.

1.1 Governance—Preparation for CDAs

Risk: Comprehensiveness and effectiveness of the planning efforts to support the transition of TxDOT to an operating model that includes broader deployment of CDAs

There are several examples of effective processes and approaches already in place in TxDOT that are emblematic of transformation. Examples of such approaches include the Project Board and CDA Manual. Although there are some new CDA processes in places, there did not seem to be a dedicated and clearly articulated approach to business transformation that all staff could see and determine what their role could be in such change.

TxDOT should consider the following:

- Creating an internal and external communications plan focused on CDAs
- When working to complete the CDA Manual, it may be useful to prepare elements of the CDA Manual that are modular and flexible in order to adapt to the inevitable changes that will take place during the construction and concession phases of these same projects

Risk: Appropriateness of planning and assessment activities for impacts on staffing

With TxDOT's increased use of CDAs and other innovative financing methods, many roles and responsibilities have evolved in the Agency. TxDOT is now responsible for such new areas as bond financing, contract negotiations with multinational corporations, and the appropriate accounting and reporting methods for CDAs. Many of these new responsibilities have been added to the workload of current employees. At this time, TxDOT has not been able to accurately assess the enterprise-wide impacts of CDAs on staffing and no formal analysis process has been initiated.

Performing an Agency-wide assessment of the resources required to support the new CDA operating environment would aid TxDOT in measuring the impact on staffing. When conducting the analysis, it is important to give special attention to those districts that currently have CDAs. The assessment will capture the impact on key leadership positions and staff-level resources. The information in the assessment will assist leadership in evaluating the Full Time Equivalent (FTE) allocation within the Agency and will ensure that the proper number of resources is dedicated to supporting the CDA program.

Risk: Appropriateness of planning and assessment activities for impacts on business processes

Staff members involved in the CDA process are often asked to seek an engineering opinion on many issues that arise in the various stages of the CDA development process. Due to the fast-paced nature of the CDAs, there is often a quick turnaround required on these engineering opinions. Engineering services are considered a professional service and have a specific process outlined in Texas Government Code, Chapter 2254, Subchapter A and Texas Administrative Code (TAC) §§9.30-9.43. To obtain engineering services, the selection process must be made based on qualifications and cannot be solicited without posting a notice for at least 21 days. It was indicated that current state and TxDOT professional services procurement processes are time-consuming and hinder the Agency from reacting in a timely manner to needs for engineering services related to CDAs. With the current procurement rules, CDA staff members are not able to obtain the services necessary to provide Transportation Commission officials and other decisionmakers with the requested information within the necessary time frame. The current process requires accurate planning on the part of those involved in the CDA process. However, it is often difficult to accurately estimate and plan due to the unpredictable needs of the CDA process.

With the advent of CDAs, TxDOT should reevaluate the current process for procuring professional services outlined in Texas Government Code, Chapter 2254, Subchapter A and TAC §§9.30-9.43. Management should consider adding an amendment to the code that addresses the procurement of professional services related to the CDAs. The new amendment should address a faster, more efficient process that applies only to services related to CDAs.

Risk: Appropriateness of planning and assessment activities for impacts on technology

The increasing relevance and importance of CDAs to TxDOT has created a need to assess the capabilities of the Agency's technology assets. Many of the technology assets were purchased or built in the 1980s and 1990s. These assets have been designed for traditional transportation department duties, such as designing, building, maintaining, and operating roadways, which will differ from the new CDA environment.

As the use of CDAs increases, so will the need to capture, process, exchange, report, and analyze data in new ways. Technology assets to address these new needs will become critical to enable the effective and efficient management of CDAs. With the data center services transition underway, the Agency's technology governance

body should begin considering how current and future technology assets will meet the new requirements brought on by CDAs. TxDOT's offices of primary responsibility, with input from the ISD, should conduct an in-depth evaluation and assessment of the Agency's IT needs related to the CDA program as TxDOT continues planning for implementation of the CDA program.

1.2 Governance — Efficiency and Effectiveness of Audit

Risk: Sufficiency of existing audit framework for review of CDAs

IA plays a key role in the accountability structure of TxDOT through its ongoing review and evaluation of the Agency's operations. Through an annual risk assessment process, IA identifies key risks within the Agency and prioritizes audit projects for the Agency based on the areas of highest risk. IA performs compliance, performance, and financial-related audits of various departments and functions across the Agency. Currently, IA has not evaluated its existing audit framework to determine its sufficiency in addressing the new risks of CDAs.

IA should evaluate its existing audit framework to determine its sufficiency in addressing the new risks of CDAs. Specifically, the annual risk assessment and resulting audit plan should fully address the key risks associated with CDAs.

Risk: Sufficiency of existing audit treatments and tools for increased reliance on third-party contractors

As TxDOT increases its reliance on third-party contractors, the need to manage IT complexities, risks, and challenges also increases. Implementing sufficient IT audit treatments and tools is a high priority for TxDOT management. Currently, the IA does not sufficiently use data-mining tools or similar techniques to identify potential errors, irregularities, or acts of fraud. Despite the controls that TxDOT may have in place, the purchasing and procurement process of construction projects could be vulnerable to fraud due to the inherent risk associated with these processes. These errors can go undetected for long periods of time and could have large financial implications for TxDOT. Additionally, the IA does not sufficiently use data-mining tools or similar techniques to proactively analyze information to anticipate, predict, or react to risk. IA is not able to facilitate risk management or plan for risk mitigation strategies. As a result, IA lacks the ability to proactively identify opportunities to help TxDOT leadership improve the management of risk, controls, and governance.

TxDOT IA should consider utilizing additional data mining tools or similar techniques to analyze information to enhance developing and implementing an enterprise-wide fraud program and decrease the risk for fraud to go undetected and to assist management in making decisions. Data mining tools enhance management's ability to assess the controls that are in place and to ensure that third-party contractors meet internal controls and regulatory requirements.

Risk: The role of IA

The role of IA has evolved to help management proactively enhance the control environment, risk management processes, and governance structures of the organization. In addition to performing traditional internal audits, internal auditors are now expected to be process design consultants, able to advise management on how to create a culture in which people have confidence. However, within TxDOT, IA is not routinely utilized as a proactive consultant to management on key issues of control, risk, or governance.

Management and IA should work together to evaluate the role of IA and develop an action plan to provide IA with a seat at the executive table to provide insight and feedback on key strategies and initiatives. Additionally, IA should review its risk assessment and annual audit plan process to include proactive management consulting projects to assist management as it establishes a strong and well-controlled environment and governance structure.

Risk: Sufficiency of internal auditors' knowledge, skills, and abilities relating to CDAs

Internal auditors can assist TxDOT management in ensuring that CDA controls and operations are efficient, effective, and economical, and comply with laws and regulations. To carry out this important work, IA Office must have the necessary knowledge, skills, and other competencies related to CDAs. However, a training initiative to build these abilities has not been established.

TxDOT IA Office should develop and implement a comprehensive training plan to increase the knowledge, skills, and abilities of its resources for reviewing and evaluating CDAs. The training should focus on providing

participants with a thorough understanding of the CDA framework and the associated business processes, as well as the key risks and controls associated with the CDA environment.

1.3 Governance — Risk Management

Risk: Comprehensiveness and effectiveness of the enterprise risk management approach

TxDOT does not have a comprehensive and effective enterprise risk management (ERM) program. Although TxDOT is already performing some risk management activities. However, a formalized mechanism to identify, share, and standardize risk mitigating solutions across districts and divisions does not exist. The decentralized organizational structure and the considerable latitude given to each of the 25 districts complicate the development of consistent and standardized risk mitigating solutions.

Management should consider developing an ERM program to further reduce risks to an acceptable level.

Risk: Clarity of responsibility and organizational roles for ERM

The lines of responsibility and organizational roles for ERM are not clearly defined. TxDOT districts and divisions have different approaches to risk and have different individuals responding to it. At this time, risk mitigation plans are not coordinated among TxDOT districts and divisions.

A key success factor when implementing an ERM is to have clear definitions of roles and responsibilities, clear ownership, and good representation across all areas and levels of the organization. TxDOT should identify an ERM leader to introduce ERM into TxDOT. This individual should act as the central point for coordinating, monitoring, and reporting on risks, as well as provide support to managers as they work to identify the best way to mitigate a risk.

TxDOT should also establish an ERM implementation committee. The purpose of the committee is to provide strategic guidance to the work of the implementation team. In addition, one individual should be chosen from each TxDOT district and division to serve as a liaison for ERM activities.

2.1 Finance Planning, Financial Leadership, and Procedural Development for CDAs

Risk: Comprehensiveness and clarity of knowledge transfer plans for governing the development of financial management expertise within TxDOT from third-party resources

In preparation for the use of the CDAs, TxDOT engaged several private consultants to provide subject-matter expertise. KPMG was retained to provide assistance with financial analysis for the Finance division. TxDOT relies on KPMG to assist in the financial sections of RFQs and RFPs, analyze the financial models submitted in proposals, and create shadow bids to serve as baselines in the RFP process. It is the thought of key members of TxDOT leadership that the Agency will eventually decrease the use of consultants. A common understanding amongst TxDOT leadership is that KPMG will remain an advisor, but the plan is to cultivate most of the financial analysis expertise internally.

The Finance division lacks a formalized knowledge transfer plan for staff members related to the CDA process. To date, any form of knowledge transfer has occurred on an informal basis. An informal process has begun in the Debt Management department; however, there is no clear training or career path for these resources as they take on additional responsibilities related to CDAs.

TxDOT should develop a comprehensive knowledge transfer plan that incorporates all of the skill sets necessary to increase the institutional knowledge of the Finance division related to CDAs. Creating a formal plan will enable TxDOT to cultivate a specialized workforce that is not readily available in today's marketplace.

Risk: Appropriateness of the level and areas of expertise being developed within TxDOT in support of CDAs

The Finance division recognizes that there are many specialized skills required to properly support the CDA process. Finance division leadership believes that the most important finance needs are skill sets related to bond financing, accounting methods for CDAs, and financial analysis. However, division leadership expressed its concerns regarding compensation and the ability to attract and retain staff members with the highly specialized skill sets required for CDAs. Many of the skill sets addressed above command salaries in the private sector that are difficult for the Agency to match based on the state's job and salary classification system.

TxDOT should initiate a compensation strategy and structure that ensures recruitment from the widest possible talent pool and that maximizes retention of key workforce segments (e.g., technical and professional skill sets related to CDAs). As part of this strategy, a compensation analysis should also be initiated. Conducting a division compensation analysis will aid the department in determining the accurate market value of the skill sets. The results of this analysis will serve as the basis for any recommendations TxDOT chooses to make to the legislature, State Auditor's Office, or other key decision makers regarding modifying or granting an exception to the pay scale.

Risk: Progress and direction of the definition of accounting treatments for CDAs

As TxDOT's use of CDAs increases, the Accounting Management section of Finance will be faced with the new challenge of accounting for the up-front payments associated with concession agreements. The department will be responsible for the proper receipt and use of the up-front payments. In addition to the use of the CDAs, TxDOT has also begun to enter into pass-through toll agreements with local entities. Under these agreements, new roadways are financed, designed, constructed, and maintained for a set time period by the local entity. In return, TxDOT makes payments to the entity based on the traffic utilization of the road governed by the agreement. To date, no roads have been completed under this type of agreement and are therefore not recognized as a liability.

As a department, Finance does not have a firm understanding of how to account for the up-front payments associated with CDAs and payments associated with pass-through toll agreements. Key staff members are currently evaluating various strategies to handle these responsibilities. The Director of Accounting Management is considering the option to issue an RFQ for accounting firms to provide insight on this issue. In addition to seeking the opinion of a private entity, department leadership has also considered seeking guidance from the State Auditor's Office on the proper accounting treatments.

TxDOT should continue its current endeavors to seek guidance from qualified organizations, as well as reach out to other states or countries that have similar agreements.

2.2 Finance — Record and Reporting

Risk: Assess the vendor/contractor base to identify concentrations of manual warrants and identify opportunities to move vendors to direct deposit

The Agency recognizes the importance of transitioning vendors from receiving manual warrants to using direct deposits. However, the vendors are resistant to switch to direct deposit due to problems with correctly matching payments to invoices and reconciliation of records. This has required the Agency to absorb the additional costs of handling vendor invoices and mailing payments.

The Texas State Comptroller's Office ("Comptroller's Office") has a program that focuses on periodically identifying the top 10 vendors that receive manual warrants, and reaches out to register vendors for direct deposit. However, TxDOT does not have its own strategy for transitioning vendors receiving manual warrants to using direct deposit.

On a quarterly basis, the Finance and Purchasing departments should identify the top five vendors being issued warrants manually and work with them to transition to direct deposit. TxDOT should also continue to work with the Comptroller's Office to identify joint strategies that will lead to more vendors using direct deposit. It would also be beneficial to determine the cost savings of increasing the number of vendors participating in direct deposit.

Risk: Review the Financial Information Management System modification prioritization protocol

The Accounting Management section within the Finance division is responsible for managing all requested modifications to TxDOT's Financial Information Management System (FIMS). All requested modifications are submitted on Information Resource Request (IRR) form(s) to the Director of Accounting Management, located in the Finance Division, for review and approval. The Director makes every effort to ensure that the IRR has no adverse lateral impact on other systems or departments. An approved IRR is sent to the Management Information Systems (MIS) Unit Manager located in the ISD for review.

Upon MIS receiving the IRR, it is cataloged and a cost impact is determined. An IRR affecting more than one division, department or office, the estimated project cost exceeds 100K, or will require more than six months to complete is required to have a project concept document filled out before it is submitted to the Information Resource Council for consideration and approval. If the estimated project cost exceeds \$250,000 or more, the project concept document, business case, statewide impact analysis, and project charter are also required.

TxDOT should evaluate opportunities to further formalize its modification protocol process to ensure that lateral impact from any change that is made in FIMS is minimized. An example of a more formal process would be for the IRR form to be modified with a section that would require the petitioner to document who has been contacted to ensure that the IRR will not have an adverse impact or an explanation for why further contact was not necessary. The approver would then concur with what has been provided in this section or route the IRR for additional reviews/approvals.

TxDOT should also ensure that the communication and approval process is strengthened when requests are required to be reviewed by the Information Resource Council. The process should ensure that any presentation or submitted documentation (e.g. project concept document, business case, statewide impact analysis, and project charter) includes signed comments from any department that would be affected by the requested change.

2.3 Finance — Reporting and Analysis

Risk: Appropriateness and level of staffing required supporting financial reporting responsibilities

The Accounting Management section of Finance has not responded sufficiently to increased workload requirements and appears to be understaffed. The section has made only minor increases to the staff complement in response to the increased workload. One additional resource has been added to the staff in the past two years. The remaining responsibilities have been added to the duties of two department CPAs. Due to the fact that these new responsibilities have been added to their primary job functions, overtime hours are used to meet the new demands.

In an effort to match the required staff complement with workload requirements of the department, the Accounting Management section should evaluate the new roles and responsibilities related to the CDA operating environment by performing a staffing analysis. Doing so will allow management to determine the impacts on the department and provide a clear understanding of where staff increases are necessary.

Risk: Adequacy of performance management capabilities

As a Texas state agency, TxDOT is required by law to create a five-year strategic plan and track an approved set of performance measures as part of the state's Strategic Planning and Performance Budgeting System. The measures are used to gauge the Agency's progress toward the goals and objectives set forth in the strategic plan. The same set of goals and measures are also used in the preparation of the General Appropriations Bill. A second plan was created in reaction to Agency leadership concerns that the Legislative Budget Board (LBB) strategic plan was out of date and does not accurately display the progress that the Agency was making in achieving its goals. This plan is geared to the public and is used for managing the operations and strategic direction of the Agency and includes TxDOT's vision, mission, goals, strategies, and tactics.

TxDOT is not using performance measures to effectively manage its operations in all divisions, districts, and offices. The legislatively required strategic plan is focused more on tracking outputs versus outcomes and is primarily used to track activity versus performance. The second strategic plan is developed through a top-down approach and is used for managing the operations and strategic direction of TxDOT. While the goals, strategies, and tactics are fairly clear, there are no key performance measures in the plan to measure the progress that is being made toward accomplishing each goal.

TxDOT should continue its efforts to create effective key performance measures that can be used to manage operations. CDAs should be incorporated into the strategic plan and linked to a goal, strategy, and several outcome performance measures that can be consistently tracked and monitored. Upon building key performance measures, there should be a system developed that can track and monitor performance.

3.1 Data Center Service Transition Planning and Implementation

Risk: Completeness of plans, procedures, and controls in the transition plan

On March 31, 2007, TxDOT and 26 other state agencies transitioned data center operations functions to Team for Texas. Other IT responsibilities were retained within the ISD and TxDOT District, Division, and Office (D/D/O) Information Resources (IR) functions.

Team for Texas was granted an extension until June 1, 2007, to transition the resources needed for remote server administration services. As of mid-July 2007, Team for Texas is drafting the remote server support plan,

and has a goal of August 1, 2007 to take over remote support duties. Team for Texas has also been delayed in procuring servers to meet the needs of a TxDOT rollout plan. Following the delays, the servers were delivered in early July 2007. ISD and D/D/O personnel have not been fully redeployed to new roles within TxDOT and still continue to perform activities that address old responsibilities.

TxDOT should continue to provide Team for Texas with resources, as necessary, to complete the transition process and keep detailed records for reimbursement. For the areas where significant logistical issues remain (i.e., remote support, hardware procurement), TxDOT should draft a plan with relevant Department of Information Resources (DIR) and Team for Texas representatives to resolve the issues that is achievable by all parties. The plan should contain measurable elements that align with the contract in case further reimbursement becomes necessary. The plan should build on the communication channels and documentation requirements established as part of the transition.

Risk: Completeness of plans, procedures, and controls in the transition plan

The Team for Texas contract between IBM and the Texas DIR states that Team for Texas will develop and adhere to policies, procedures, and standards to maintain an effective internal control environment and will hire an independent accountant at least annually to perform attestation procedures in accordance with AICPA Statement on Auditing Standards (SAS) No. 70 *Reports on the Processing of Transactions by Service Organizations*.

The internal control structure between TxDOT, DIR, and Team for Texas does not appear to be defined and agreed upon. At the end of May 2007, the policy and procedure manual was not complete, although manual creation has been in progress.

TxDOT should continue working with DIR and Team for Texas to finalize policies and procedures related to the data center services that are specific to TxDOT. This will allow TxDOT to ensure that proper controls are in place and will enhance any existing internal controls to ensure that data is secure, accurate, and valid. These policies and procedures should be finalized utilizing standards such as the Control Objectives for Information and related Technology (COBIT) standards released by the Information Systems Audit and Control Association.

3.2 Management of the Enterprise IT Application Environment

Risk: Development and deployment of new systems or applications can occur that may not adhere to enterprise standards

The structure of the ISD and IR departments is organized to allow ISD to focus on initiatives that benefit multiple D/D/Os, result from legislative action, or otherwise require significant resources (funds, staff resources, etc.), while giving the IR departments the flexibility to quickly and efficiently meet the needs of individual D/D/Os.

ISD can only issue guidelines and not mandates or directives to D/D/O IR departments. Also, ISD does not have the ability or the authority to monitor compliance with these guidelines. ISD issued guidelines in March 2006, titled "D/D/O Application Development Guide for non-Enterprise IT Assets." This document provides system development methodology guidelines to D/D/O for use in developing tools and systems; however, ISD lacks the power to enforce these guidelines.

While the current guidelines state that they should be adopted to be commensurate with the size and complexity of the tool or system being developed, new mandates or directives should contain examples of these requirements. The level of scrutiny placed on the development and deployment of a new tool or system developed by a D/D/O should vary based on the function, purpose, cost, complexity, data source, or data types involved.

Tools or systems developed at D/D/Os should be subject to a monitoring function to evaluate compliance with applicable standards. These tools and systems as well as ISD's monitoring process should be considered for periodic review through IA's annual risk assessment process.

3.3 IT Strategic Planning

Risks: Legacy systems in the IT environment are no longer meeting the Department's needs, maintenance cost appears to be a concern, and definition and maintenance of an overall IT system replacement plan does not exist

The Agency has several technology initiatives in process at any given time, and the Information Resource Council (IRC) evaluates new initiatives as they are required by the Agency. The IRC ensures that ongoing and new technology projects fit the strategic direction of the Agency.

The IRC is the primary body to align IR with the strategic goals of the Agency. The stakeholders in the Agency submit IRRs to propose IT projects to ISD, which are then presented to the IRC and evaluated against the strategic goals of the Agency, resource allocations, and cost/benefits if the resource requirements exceed defined thresholds. However, the Agency does not appear to have a robust mechanism to evaluate existing IR assets for their ability to support the long-term strategic goals or the consideration of IT in the formation of the strategic goals.

To enhance the alignment of IR goals with the strategic goals of the Agency, TxDOT should consider the following recommendations:

- Analyze current IR assets to assess their current and future ability to support the achievement of the five TxDOT strategic goals
- Study the complexity, timing, and cost of significantly enhancing or replacing IR assets (such as the FIMS strategic plan for replacement study currently underway) that are not currently supporting or will not continue to support the Agency's needs
- Develop a plan to significantly enhance or replace existing assets in accordance with the strategic goals of the Agency; continue to develop and deploy tools and systems that help stakeholders use existing IR assets to the fullest extent possible
- Continue to provide training courses, materials, and support to stakeholders to use existing IR assets to the fullest extent possible
- Continue to ensure that D/D/Os have the flexibility to meet their unique needs while enhancing mechanisms for resource and/or technology sharing where possible
- Continue to assess the role of the ISD and redirecting the resources to focus on opportunities to achieve the five strategic goals, since some of the division's traditional responsibilities are transitioning to Team for Texas and some of ISD employees' responsibilities are shifting

3.4 CDAs

Risk: Experience with design/build contracts suggests that ISD may not be prepared to support business needs in the environment of CDAs

Based upon our experience with public-private partnership programs, we found that they have impacts upon the following business processes and information requirements:

- Planning and programming process
- Procurement process
- Design management process
- Contract management process
- Transportation maintenance and operations process
- Data collection requirements
- Systems integration requirements

Due to the business process changes introduced by the CDA program, we estimated that more than 20 percent of existing TxDOT systems may be impacted and that eight new systems may need to be developed. Without these systems, the management and administration of the CDA program will not be as efficient or provide the same level of management controls as the traditional program.

TxDOT's offices of primary responsibility, with input from the ISD, should conduct an in-depth evaluation and assessment of the Agency's IT needs related to the CDA program as TxDOT continues planning for implementation of the CDA program.

4.1 Human Resources Strategy

Risk: Articulate a human resources strategy aligned to TxDOT business operations

A comprehensive HR strategy addressing the short-, mid-, and long-term human capital issues does not exist. One factor that has hindered the development of a detailed HR Strategy has been a focus on the legislatively mandated HR-to-employee ratio of 1:85.

TxDOT HR should develop a comprehensive HR Strategy that is supported by TxDOT's senior leadership and directly addresses TxDOT's most critical Human Capital issues. The strategy should tie the HR department's objectives to the mission and objectives of the organization. The strategy should include a limited number of measures that will provide data regarding how HR is fulfilling its strategy and affecting the management of the workforce.

A comprehensive TxDOT HR Strategy should allow HR to answer the following questions:

- What are HR's priorities and how do they relate to TxDOT's mission and strategic objectives?
- What skills and tools does HR need to address the priorities?
- How will the evolution of CDAs, or other new business practices, affect HR services?
- How will TxDOT compete in the labor market?
- How can Division HR support the field HR to meet TxDOT's needs?
- How will change be managed?

Risk: Enhance existing Workforce Plan detail to support execution of contingency activities

While the TxDOT Workforce Plan outlines demographic profiles, it does not include an actionable strategy to address areas of concern. A detailed workforce plan is critical to TxDOT's operations because the current demographics of the agency indicate a labor shortage in the next five years.

In order to prepare and plan for this business environment, Division HR is using the data and tools it has to raise awareness of the expected issues. HR has developed a foundation for a detailed workforce plan by publishing the 2007 — 2011 Workforce Plan document for the Division leaders and the Districts. While the TxDOT Workforce Plan outlines demographic profiles, it does not include an actionable strategy to address areas of concern. A detailed workforce plan is critical to TxDOT's operations because of the likely labor shortage.

Risk: Enhance organizational change management capabilities to support workforce transition based on changing TxDOT business strategies and priorities

The role of TxDOT Division HR has traditionally been one of providing programs concerning the supply and development of people, delivering communication regarding Agency HR issues and supporting District Management to address significant local issues. Given the traditional role and TxDOT's decentralized structure, Division HR communication to the field is subject to the discretion of the District Management's decisions regarding HR communications to employees. Division HR has no direct connection to the employees in the field. Any change management program or other Agency-wide Human Capital program is dependent on district management.

As TxDOT begins to integrate new business processes involved in administering CDAs and managing those changes, TxDOT should consider the development of a formal Change Management capability. This capability will increase the likelihood of success as TxDOT transitions its strategies and priorities to reflect the current environment.

Developing a change management capability defines who, what, and when information will be shared with those affected by changes. General communications should be used to keep all businesses informed of the progress made to date. Change management should move employees from a state of awareness to understanding to acceptance and ownership of the changes that are occurring.

4.2 Talent Management

Risk: Improve consistency in the execution of the performance management process across the department

Performance management and employee development for the individual TxDOT employee is highly dependent on the supervisor. Based on interviews at the district level, performance evaluations are tied to the functional objectives of the job being reviewed. These evaluations reflect how the employee performed against that job standard. The assessments are typically monitored by the district's HR for compliance to TxDOT's standards. Strategic objectives of the agency or the district are typically not communicated in the performance assessments for the individual contributor.

An understanding of individual performance against the desired organizational capacity would enable TxDOT to increase the effectiveness of its investments with regards to hiring, retention, and training and development.

A workforce assessment is the foundation that ties job performance to the objectives of the Agency. To increase the effectiveness of the current performance management approach, TxDOT should perform a workforce assessment. The assessment should include information regarding critical skill requirements for the Agency. TxDOT can use this data to inform the training and development programs. Employees and supervisors should use this information during the annual evaluation cycle to identify training and development activities that are likely to improve job performance. In this way, workforce assessment results improve upon the current performance management process by tying development activities to the Agency's objectives.

An understanding of individual performance against the context of desired organizational capacity would enable TxDOT to increase the effectiveness of its investments with regard to hiring, retention, and training and development.

Risk: Enhance retention policies and programs for the new generation of TxDOT employees

Compensation is alleged to be affecting retention. The pay scales are perceived to be appropriate for most entry-level classifications, but are not adequate in the high-demand classifications in the district. Some specific high-demand classifications include engineering and environmental categories. Aggregated state compensation analysis justifies the pay scales as a whole, but management's perception is that what is equitable in rural districts may not be the same for the metropolitan and high-growth districts, particularly as the employee gains experience and training.

TxDOT should perform a detailed workforce analysis that includes identifying the critical workforce segments (CWS). The results of the assessment should include suggestions for activities that will decrease the retention levels in those segments.

Risk: Enhance existing recruiting strategy

State-wide recruiting is managed through division HR; however, the perception from both district management and division HR is that effectiveness is declining. Both groups specified obstacles that include the legislature's recent changes in benefits, which erode one of TxDOT's competitive advantages over private sector companies, and restrictions on relocation bonuses. The relocation restriction limits recruiting activities to Texas and specifically to the district in which the candidate currently resides.

TxDOT is in a very competitive talent management environment. As part of an overall Talent Management Strategy, TxDOT should examine the effectiveness of the recruiting activities. The current program should be modified as necessary to increase effectiveness and enhanced to include a link to the objectives of the Agency and the HR strategy.

Risk: Develop a comprehensive formal leadership succession planning program

Leadership programs are dependent on the District Engineer. Leadership training such as succession planning or job rotation is not standardized across districts. For instance, preselection is perceived to be an issue that prohibits a succession planning program in some districts, but not so in others. On the other hand, the perception is that employees selected to take part in Mobility Initiatives are usually the high performers. These employees selected to work on or around the CDA processes are likely to develop skills that are critical to TxDOT's future, but this development has not been formalized.

People practices are a key element in how TxDOT survives the pending labor shortage. Due to the decentralized nature of TxDOT, these practices are highly dependent on the District Engineers. Their guidance and philosophy on performance management, strategic goal setting, retention practices, training, and succession planning are

what gets implemented in the field. TxDOT should consider a formalized training program for high performers that includes development of new business skills required by CDAs.

Risk: Enhance and integrate existing Talent Management Strategy

Division HR sees the value in moving toward a human capital planning HR organization in order to provide mission-related, data-driven solutions, but has some constraints based on the lack of tools and database technology in place. The foundation of data and programs exists; however, HR has challenges concerning building a business case for investment due to the lack of appropriate analysis tools. The ability to access, analyze, and manipulate talent management trends is limited by the lack of appropriate tools.

An integrated Talent Management Strategy should be developed by TxDOT in order to address the current competitive labor market, as well as the expected future labor shortage. This strategy should leverage the data in the Workforce Summaries and independent talent management programs that are already established as a foundation to perform the more detailed analysis required for an organization of this size and complexity. Based on this analysis, a mix of Talent management activities, both existing and those highlighted in the Leading Industry Practice section above, should be optimized through running likely scenarios to assess the activities' effectiveness. The strategy should also include change management activities that include gaining the support of senior leadership, field HR, and other key stakeholders to provide the highest probability of success.

4.3 Organization Review

Risk: Identify any necessary organizational design changes in structure, hierarchy, span of control, skill development, performance management, and culture that may be needed to incorporate CDAs into the operating environment

TxDOT's traditional structure reflects a highly decentralized organization. Each district is run as an independent unit. Additionally, several Mobility Initiative offices have been set up. These offices are layered on top of the existing TxDOT structure to manage a specific scope of work. Mobility initiatives are staffed by TxDOT employees, usually from that district. Current skills required to fulfill TxDOT responsibilities in this environment have not been formally assessed. It is unknown whether new skills or a new combination of skills will be necessary. The further separation of the structure of the mobility initiatives affects the organizational capability by segregating those employees working on this new business process. Job assessments to define and plan for the necessary knowledge, skills, and abilities of those positions required to fulfill TxDOT's CDA responsibilities are needed.

If the workload related to CDAs increases in the future, the separate organizational structure of the mobility initiatives magnifies the disadvantages of a decentralized organization. These disadvantages include lack of standardization, limited knowledge-sharing across business units, and inefficiencies in support functions.

Separate district and mobility initiative organizations make it unlikely that knowledge, skills, and abilities being developed by those employees in the mobility initiative are being transferred throughout the organization. Without an assessment of skills required for mobility initiative roles, any new skills or new combination of skills are unlikely to be reflected in career paths, training, and leadership development programs. Furthermore, TxDOT does not have a standard approach regarding the knowledge transfer from contractors and consultants with specialized skills to TxDOT's employees.

The decentralized structure of TxDOT has some strength in providing District Engineers with a level of control and management discretion. However, a review granting a greater level of authority to manage a change management program from the division level may be required if organization changes are undertaken.

The further separation of the structure of the mobility initiatives affects the organizational capability by segregating those employees working on this new business process and by decreasing the efficiency of support functions. Job assessments to define and plan for the necessary knowledge, skills, and abilities of those positions required to fulfill TxDOT's CDA responsibilities are needed. Analysis of how the mobility initiatives can be supported most efficiently should be explored.

Risk: Identify any necessary organizational design changes in structure, hierarchy, span of control, skill development, performance management, and culture that may be needed to incorporate CDAs into the operating environment

Section I: Executive Summary

While TxDOT District and Area offices as well as COGs and MPOs provide planning and design services and project coordination, each has a different focus for providing the services. The table below summarizes the services offered by these different organizations.

Duties	TxDOT District Office	TxDOT Area/Maintenance Offices	COGs	MPOs
Planning/Design	Yes	Yes	Yes	Yes
Project Coordination	Yes	Yes	Yes	Yes
Operation	Yes	Yes	No	No
Maintenance	No	Yes	No	No
Community Services	No	No	Yes	No

Because of the authority each organization uses to enable its mission (Federal, State, or grants and dues), the processes and management policies are likely to be governed by different laws, regulations, and policies. However, some activities and management practices are common across these organizations. Currently, the TxDOT field offices and COGs and MPOs are not aligned, so one or more TxDOT offices could be working with multiple COGs and MPOs. By aligning the TxDOT field offices with the COGs and MPOs, particularly in the urban areas, coordination of planning activities, project management, and communication could be simplified. TxDOT should analyze how COGs and MPOs interact with specific field offices in order to align and streamline its own processes for improved efficiency, reduced redundancy, and maximize the use of scarce skills across traditional organizational boundaries.

Section II: Background

Introduction

TxDOT provides a variety of diversified services to the citizens of Texas, all of which are focused on achieving its key goals, including congestion relief, safety enhancement, economic opportunity expansion, air quality improvement, and asset value growth. To meet these goals; comply with statutory requirements of Transportation Code, Title 6, Chapter 201.109(b)(5); and prepare for the 2009 Sunset Review process, TxDOT contracted for five independent assessments of TxDOT's management and business operations.

To facilitate the assessments, TxDOT divided its management and business operations into the following auditable units:

- Transportation Funding
- Contracting and Project Delivery
- Consumer Services
- **Management and Support Functions**
- Field Operations

The Texas Transportation Commission determined that multiple vendors would be used in conducting assessments of the above units in order to gain professional expertise with differing perspectives and to promote independence. As such, Deloitte Consulting was retained to conduct an independent assessment of TxDOT operations related to Auditable Unit D—Management and Support Functions, as referenced above and in Specification # TxDOT 946-20-10.

Objective

To align the independent risk assessment with the needs of TxDOT, Deloitte Consulting conducted the risk identification, evaluation, and analysis of the key management and business operations of areas related to management and support functions to achieve the following objectives:

- **Quality** — Improve the quality of the statewide transportation services by providing counsel on ways to better manage resources
- **Increased Revenue** — Identify opportunities for enhancing revenue to maximize financial resources available
- **Efficiency** — Develop strategies to remove operational barriers and improve the efficiency and effectiveness of operations
- **Innovation** — Highlight exemplary and innovative practices, both internal and external to TxDOT
- **Development of Opportunities** — Provide a conclusion or conclusions relevant to these objectives and recommend opportunities for reducing risks and improving operations at TxDOT Central Office.

Section III: Scope

Phase 1: Audit Plan and Risk Analysis

The scope of work for management and support functions required an evaluation and analysis of the organizational structure, business processes, HR practices and supporting information technologies that support the broader operational Divisions and Departments within TxDOT. Within the management and support functions, the suggested areas to be considered for review in Phase 1 included, but were not limited to, the following:

- Governance
- Outreach
- Property management
- HR management
- Finance/accounting
- IT
- Organization structure

Phase 1 work activities included the following:

- Reviewed organizational, policy, procedural, and operational reports and documentation related to the applicable D/D/O
- Developed a risk assessment matrix
- Conducted interviews with management and personnel within the applicable D/D/Os
- Conducted a comparative analysis of information gathered from interviews and from department documentation to existing leading practices where applicable
- Developed recommended focus areas for workplan development and more detailed assessment
- Prepared of Phase 1 Risk Assessment Report

At the completion of Phase 1, Deloitte Consulting developed and submitted an “Audit Plan and Risk Analysis” report that was accepted by TxDOT.

Phase 2: Workplan

Phase 2 included the development of a workplan for our detailed, independent assessment. The workplan details were based on the identified high-risk items reported in Phase 1. The management and support functions workplan and budget for Phase 2 was submitted to TxDOT in April 2007 and finally accepted on May 11, 2007.

Phase 3: Independent Assessment

Based on our Phase 1 analysis of the suggested functional areas to be considered for a detailed independent assessment, we identified four 'Priority Review' areas. Phase 3 of this assessment required an in-depth analysis evaluation of the activities, tools, and procedures utilized by TxDOT in the following four functions:

- **Governance** — Preparation for CDAs; Efficiency and Effectiveness of Audit; and Risk Management
- **Finance** — Planning, Financial Leadership, and Procedural Development for CDAs; Record and Reporting; and Reporting and Analysis
- **IT** — Data Center Service (DCS) Transition Planning and Implementation; Management of the Enterprise IT Application Environment; IT Strategic Planning; and Comprehensive Development Agreements
- **Human Resources** — HR Strategy and Alignment; Talent Management; and Organizational Design

In order to complete the scope of work, Deloitte Consulting analyzed and evaluated the above-referenced areas, and assessed additional areas that came to our attention during Phase 3 fieldwork.

Section IV: Project Approach

In compliance with requirements defined by TxDOT, the approach for the assessment of each auditable area includes three primary phases.

Phase 1

Phase 1 included a high-level assessment of the risks associated with the management and business activities of TxDOT's management and support functions. This assessment was conducted during the first 30 calendar days of the engagement. The information gathered in this phase served as a means for TxDOT to establish a priority and focus for the areas to be assessed during the execution of the audit workplan. At the completion of Phase 1, Deloitte Consulting developed and submitted the Audit Plan and Risk Analysis report.

In order to assess and evaluate TxDOT's management and support functions and meet the objectives of the Phase 1 risk analysis, we focused most of our efforts on interviewing key resources within the various management and support departments, collecting and analyzing management reports, evaluating current systems and technologies being used, and reviewing the organizational structure and reporting relationships within TxDOT. We primarily focused our efforts in the conduct of the following activities in order to develop our Audit Plan and Risk Analysis¹:

- Reviewed organizational, policy, procedural, and operational reports and documentation related to the applicable D/D/O
- Developed a risk assessment matrix
- Conducted interviews with management and personnel within the applicable D/D/Os
- Conducted a comparative analysis of information gathered from interviews and from department documentation to existing leading practices where applicable
- Developed recommended focus areas for workplan development and more detailed assessment
- Prepared Phase 1 Risk Assessment Report

¹ For purposes of this document, "audit" is a generic term that means analysis and evaluation of business operations as defined in TxDOT's RFP. This engagement was performed in accordance with the American Institute of Certified Public Accountants (AICPA) Statement on Standards for Consulting Services. Due to the nature of this engagement, Deloitte Consulting was not retained to perform an evaluation of internal controls and procedures, and our services do not constitute an engagement to provide audit, compilation, review, or attestation services as described in the pronouncements on professional standards issued by the AICPA or any successor standards-setting body. Therefore, our findings do not result in the expression of an opinion or other form of assurance with respect to TxDOT's internal control systems or financial statements. Had Deloitte Consulting performed additional procedures, other matters might have come to our attention that would have been included in this report.

Phase 2

Phase 2 included the development of a workplan for conducting our detailed, independent assessment. The workplan included a description of scope, activities, and major milestones that served as a guide to the more detailed assessment of TxDOT's management and business operations. At the completion of Phase 2, we developed and submitted an "Audit Workplan" for review and approval by TxDOT.

Phase 3

For Phase 3, we conducted similar activities as in Phase 1; however, due to the sizable scope and the in-depth nature of the assessment, we focused our efforts on the high-risk items identified in Phase 1. This approach allowed us enough time to perform a more detailed evaluation of each of the four priority review areas. In addition, we did make some visits to district offices and held discovery calls with district office personnel at other sites to clarify our findings with other sources.

The following detailed procedures were conducted to meet each of the objectives of the assessment:

Performed Document Analysis

We evaluated organizational, policy, procedural, and operational documentation related to TxDOT management at both the division and district level, including recent internal audits pertinent to our scope of work².

Conducted Interviews

We conducted interviews with key TxDOT division and district office management and personnel to gain an understanding of the project development, project delivery, and support operations processes³.

Conducted Limited District Office Visits

We conducted some visits with key personnel who are responsible for managing various functions at district offices. In other cases, we conducted discovery conference calls to obtain clarifying information and/or to obtain additional information regarding management and support function systems, processes, and policies.

Analyzed Processes and Procedures

We assessed the adequacy of processes and procedures within the division and district offices and evaluated consistency, prioritization, and effectiveness of organizational practices and controls. Based on discussions and documentation analyzed, we then identified strategies for process improvements, alignments, and business transformations for the management and support functions.

Identified Functional and Cross-Functional Issues/Opportunities

We looked at the four functions identified as potential risks in our Phase 1 report to identify and address function-specific and cross-functional issues/opportunities.

Cross-functional processes and procedures were analyzed to develop recommendations for improving the overall management and support functions and supporting systems. For a portion of this scope, we worked with the other Deloitte Consulting teams that are evaluating the other auditable units to coordinate our analysis efforts.

² See Appendix B for a list of the documents reviewed during our Phase 3 work efforts.

³ See Appendix C for a list of TxDOT personnel interviewed during our Phase 3 work efforts.

Identified Leading Industry Practices

As part of our scope, we reported on relevant leading industry practices. This information has been included for the consideration of TxDOT.

Developed Report

Based on our observations and findings in Phase 3, our research into industry best practices, and suggestions gathered from TxDOT personnel, we developed recommendations for improving the work processes as they relate to management and support functions. An effort was made to address all high-risk issues identified in our Phase 1 report. Our findings and recommendations were compiled and submitted in this Phase 3 report; “Independent Assessment of Auditable Unit D – Management and Support Functions.”

Section V: Detailed Observations, Findings, and Recommendations

1.0 Governance

1.1 Preparation for CDAs

Audit Area: Governance

1.1.1 Risk: Preparation for CDAs —
Comprehensiveness and effectiveness of the
planning efforts to support the transition of
TxDOT to an operating model that includes
broader deployment of CDAs

Background:

In response to the growing transportation funding crisis, Texas has begun the use of CDAs and other innovative financing methods. CDAs represent a significant change in the way TxDOT designs, builds, maintains, and operates transportation infrastructure. Instead of the traditional design-bid-build process, TxDOT will enter into a CDA with a single contractor who will in turn design, build, maintain, and operate the transportation facility for a set time period. This approach represents a new way of doing business and could impact TxDOT business processes and information systems in the following major ways:

- **Planning and Programming Process** — The CDA approach provides a dynamic new source of funding for transportation that can make many projects financially viable. Existing planning processes, and the systems that support them, must be adapted to include CDAs as a source of all or part of the project funding. In addition, projects may be advanced outside of the traditional planning process by unsolicited proposals. These projects must also be accommodated into the planning and review process.
- **Procurement Process** — CDAs require a procurement process that closely resembles a proposal process. Most of the systems used by TxDOT for procuring design, construction, and maintenance services cannot be used for CDAs because of the different business processes used for awarding CDAs.
- **Communications Requirements** — The successful long-term relationship between TxDOT and the contractor depends upon open and effective communications. IT can play a role in enabling these communications and making information-sharing simpler. Examples of such technologies include shared electronic databases, reporting systems and document repositories. The backbone of an effective CDA is the strength of the communications and data-sharing systems.

Observation/Findings:

There are several examples of effective processes and approaches that are already in place in TxDOT, which are emblematic of transformation. Examples of such include the Project Board and CDA Manual. The presence of the board demonstrates the commitment of senior leadership and provides a decision-making forum that allows for cross-fertilization among districts and sharing of experiences among districts. However, the Project Board may become overburdened and make it difficult for senior leadership with other significant responsibilities to devote the necessary time and energy to all projects.

TxDOT's efforts in creating a CDA Manual are another area in which much progress has been made. At this time, the manual exists only in outline format. The Agency has plans to hire a consultant to help with the creation of the manual.

Although there are some new CDA processes in places, there does not seem to be a dedicated and clearly articulated approach to business transformation that all staff could see and determine what their role could be in such change.

Impact:

Without a change management program, employees and managers being affected by new processes may not recognize the benefits of the changes. An understanding of the changes promotes the willingness of employees to support the new processes. A lack of communication makes it difficult for employees to realize their role in the changes and develop skills to improve their performance. An absence of communication also has the ability to

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Governance

1.1.1 Risk: Preparation for CDAs —
Comprehensiveness and effectiveness of the
planning efforts to support the transition of
TxDOT to an operating model that includes
broader deployment of CDAs

decrease the expected return on the changes made.

Leading Industry Practices:

An organization's capability to implement and manage a change management program will have an effect on how well the organization is able to react to a dynamic business environment. Listed below are some of the activities related to change management: planning and management, leadership alignment, and communication and stakeholder management:

- Planning and management activities define the guiding principles for supporting employees throughout the changes. During these activities, the change program leaders interface with other program leaders to fully understand the implications of change and related issues within the organization. The governance process is established, and project tracking and reporting standards are defined.
- Leadership alignment involves assessing leadership attitudes concerning the program. Once this alignment is understood, activities to address leadership issues are defined.
- Communication and stakeholder management activities include identifying stakeholders and understanding key issues in order to define key messages. These messages should be specific to stakeholder groups and their concerns. A targeted communication plan should also be developed. As part of the stakeholder analysis, a change readiness assessment should be performed.

Conclusion/Recommendation for Improvements:

Effective business transformation and change management requires effective internal and external communications. Therefore, TxDOT should undertake an internal communications strategy, which demonstrates to staff the case for change as it applies to CDA implementation. The strategy should also communicate the type of skills necessary, the performance metrics associated with CDAs, and the benefits of implementing CDAs, and other innovative financing methods.

TxDOT has spent a great deal of energy in communicating its intentions on implementing CDAs to the development and concession industry. Given the recent legislative challenges and political attention directed toward the CDA projects, it may now prove useful to establish a systematic external communications strategy that clearly articulates the objectives for CDAs and the principles used to ensure that the best interests of the state are respected and protected. While this will not eliminate the political challenges or criticisms by interest groups, it may help to better communicate the financial benefits and the economic, social, and quality-of-life benefits of TxDOT's efforts in implementing CDAs.

When working to complete the CDA Manual, it may be useful to prepare elements of the CDA Manual that are modular and flexible in order to adapt to the inevitable changes that will take place during the construction and concession phases of these same projects.

Audit Area: Governance

1.1.2 Risk: Preparation for Comprehensive Development Agreements — Appropriateness of planning and assessment activities for impacts on staffing

Background:

With the adoption of CDAs and other innovative financing methods, some areas within TxDOT have seen a decrease in work. However, many new roles and responsibilities related to CDAs have evolved inside the Agency. TxDOT is now responsible for such new areas as bond financing, contract negotiations with multinational corporations, and the appropriate accounting and reporting methods for CDAs. Many of these new responsibilities have been added to the workload of current employees.

Observation/Findings:

TxDOT has not been able to accurately assess the enterprise-wide impacts of CDAs on staffing inside the organization. Texas Turnpike Authority, Finance division, and Agency leadership whose primary job duty is to manage operations is now being called upon to assist in the CDA process. A significant amount of time is also being devoted by staff-level members of the Agency due to the addition of new roles and responsibilities related to CDAs. It was indicated that the Texas Turnpike Authority and the Finance Division in particular will need more staff members to help manage the traditional operating activities as TxDOT and the CDA process evolves.

In the Dallas district, the Deputy District Engineer and several high-level engineers have been moved to the CDA effort, removing their normal operational duties. The district is utilizing a matrix organization where skills needed for CDA efforts are requested based on the workload, resulting in short-term assignments of specialized skills.

In the recent legislative session, TxDOT was given the authorization to increase the staff complement by 200 FTEs. At this time, leadership is unsure of where these new resources will be allocated in the Agency. The vision is that a large portion of the newly granted FTEs will be used to fill the staffing gaps related to the CDA program; however, a formal analysis has not been conducted.

Impact:

At this time, a formal analysis of the impacts has not been initiated. Failing to accurately assess the impacts of CDA activities on TxDOT staffing may have a significant impact on TxDOT operations. There is the potential that many standard day-to-day duties may be overlooked due to the heavy involvement of leadership and staff members in the CDA process.

Leading Industry Practices:

In both the private and public sector, it is a best practice to perform a staffing analysis to determine any potential impacts on staff brought on by new business processes. In conducting this analysis, it is necessary to assess the following:

- Identify original job duties for positions of individuals currently involved in the CDA process
- Identify additional job duties related to CDAs
- Assess the available staff resource hours
- Determine which job duties are affected by the additional job duties related to CDAs
- Create a plan of action to address the impacts on the workforce

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Governance

1.1.2 Risk: Preparation for Comprehensive Development Agreements — Appropriateness of planning and assessment activities for impacts on staffing

Conclusion/Recommendation for Improvements:

TxDOT should consider performing an Agency-wide assessment of the resources required to support the new CDA operating environment. When conducting the analysis, it is important to pay special attention to those districts that currently have CDAs. In this assessment, it is especially important to capture the impact on key leadership positions. The information in the assessment will aid leadership in evaluating the FTE allocation within the Agency and will ensure that the proper number of resources are dedicated to supporting the CDA program.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Governance

1.1.3 Risk: Preparation for Comprehensive Development Agreements — Appropriateness of planning and assessment activities for impacts on business processes

Background:

In order to meet the demands of CDAs, TxDOT has increased its use of third-party consultants in the legal, finance, and engineering fields. The subject-matter expertise provided by these consultants has aided TxDOT in several key decisions related to CDAs. Staff members involved in the CDA process are often asked to seek an engineering opinion on many issues that arise in the various stages of the CDA development process. Due to the fast-paced nature of the CDAs, there is often a quick turnaround required on engineering opinions.

Engineering services are considered a professional service and have a specific process outlined in Texas Government Code, Chapter 2254, Subchapter A and TAC §§9.30-9.43. To obtain engineering services, the selection process must be made based on qualifications and cannot be solicited without posting a notice for at least 21 days. Currently, TxDOT does have a small number of contracts with a select group of engineering firms valued at approximately \$2 million each, commonly referred to as evergreen contracts. Unfortunately, these contracts can be exhausted in a short period of time leaving the agency without the on-call service of an engineering firm.

Observation/Findings:

It was indicated that current state and TxDOT professional services procurement processes are time-consuming and hinder the Agency from reacting in a timely manner to needs for engineering services related to CDAs. In this environment, it is often necessary to obtain engineering opinions on CDA issues as they arise. With the current procurement rules, CDA staff members are not able to obtain the services necessary to provide Transportation Commission officials and other decision-makers with the requested information within the necessary time frame. The current process requires accurate planning on the part of those involved in the CDA process. However, it is often difficult to accurately estimate and plan due to the unpredictable needs of the CDA process.

Impact:

Failing to alter the Agency's professional procurement process related specifically to the procurement of engineering services to support the CDA process may hinder the department's ability to make timely decisions related to the development or management of CDAs.

Leading Industry Practices:

Making the Agency's professional procurement process for obtaining engineering services more efficient will aid in the timely management of CDAs. It will allow the Agency increased flexibility in dealing with time-sensitive demands for engineering opinions.

Although the Agency does have the ability to increase the amount of some contracts to \$5 million, TxDOT can still improve its procurement process to reduce the time needed to obtain approval for seeking an engineering opinion. Applying the following industry best practices in the supply chain channels for procurement will help improve efficiency in the process and meet the demands for time-sensitive CDAs:

- **Streamlined Approval Process** — Streamlining the approvals process by establishing greater approval thresholds allows the system to function with greater efficiency.
- **Delegate Down Approval Authority** — Approval authority is delegated to divisions to eliminate bottlenecks and allow upper-level directors to focus on strategic planning and program development.
- **No Approval Process for Committed Funds** — It is unnecessary to require approvals on funds that have been previously committed at an earlier stage in the purchasing process.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Governance

1.1.3 Risk: Preparation for Comprehensive Development Agreements — Appropriateness of planning and assessment activities for impacts on business processes

Conclusion/Recommendation for Improvements:

With the advent of CDAs, TxDOT should reevaluate the current process for procuring professional services outlined in Texas Government Code, Chapter 2254, Subchapter A and TAC §§9.30-9.43. Management should consider adding an amendment to the code that addresses the procurement of professional services related to the CDAs. The new amendment should address a faster, more efficient process that applies only to services related to CDAs.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Governance

1.1.4 Risk: Preparation for Comprehensive Development Agreements (CDAs) — Appropriateness of planning and assessment activities for impacts on technology

Background:

The increasing relevance and importance of CDAs to TxDOT has also created a need to assess the capabilities of the Agency's technology assets. Many of the technology assets were purchased or built in the 1980s and 1990s, before CDAs were relevant to TxDOT. These assets have been designed for traditional transportation department duties for designing, building, maintaining, and operating roadways, which will differ from the new CDA environment.

Observation/Findings:

The focus for the Agency's technology assets appears to be transitioning data center services to a new third-party service provider and on meeting the Agency's current technology needs. The Agency has not fully explored the technology impacts of CDAs.

Impact:

As the use of CDAs increases, so will the need to capture, process, exchange, report, and analyze data in new ways. Technology assets to address these new needs will become critical to enable the effective and efficient management of CDAs. The Agency will need to find a way to measure and evaluate its future technology needs in order to comply with requirements of CDAs.

Leading Industry Practices:

Not applicable.

Conclusion/Recommendation for Improvements:

With the data center services transition underway, the Agency's technology governance body should consider how current and future technology assets will meet the new requirements of CDAs. Based upon our experience, we have found that public-private partnership programs have impacts upon the following business processes and information requirements:

- Planning and programming process
- Procurement process
- Design management process
- Contract management process
- Transportation maintenance and operations process
- Data collection requirements
- Systems integration requirements

We recommend that TxDOT offices of primary responsibility, with input from the Information Systems Division, conduct an in-depth evaluation and assessment of the Agency's IT needs related to the CDA program as it evolves.

1.0 Governance

1.2 Efficiency and Effectiveness of Audit

Audit Area: Governance	1.2.1 Risk — Efficiency and Effectiveness of Audit — Sufficiency of existing audit framework for review of CDAs
<p>Background:</p> <p>IA plays a key role in the accountability structure of TxDOT through its ongoing review and evaluation of the Agency’s operations. Through an annual risk assessment process, IA identifies key risks within the Agency and prioritizes audit projects for the Agency based on the areas of highest risk. IA performs compliance, performance, and finance-related audits of various departments and functions across the Agency.</p> <p>As the new operating model continues to evolve with the increased use of CDAs, new risks will continue to face the Agency. IA needs to identify these new risks and determine the procedures to audit these risks to be able to provide assurance that internal controls are in place to adequately mitigate these risks.</p>	
<p>Observation/Findings:</p> <p>IA has not evaluated its existing audit framework to determine its sufficiency in addressing the new risks of CDAs. While IA has performed some work associated with CDAs, the annual risk assessment and resulting audit plan do not fully address some of the key risks associated with the sufficiency and adequacy of the following processes:</p> <ul style="list-style-type: none">• Preprocurement• Contracting• Financing and accounting• Technology• Performance evaluation• Stakeholder relations and communications• Risk management• Preventative and detective controls• Monitoring	
<p>Impact:</p> <p>It is critical that the key risks associated with CDAs be identified and prioritized against other key Agency risks in the annual internal audit plan to ensure that IA is adequately focused on the areas of highest risk to the Agency.</p> <p>It is particularly important that IA be involved as early as possible in evaluating CDAs so that it can provide management with the assurance that the CDA processes are being properly designed and controlled to limit the Agency’s exposure with CDAs.</p>	
<p>Leading Industry Practices:</p> <p>The Institute of Internal Auditors (IIA) <i>International Standards for the Professional Practice of Internal Auditing</i> (“Standards”) provides guidance for the conduct of internal auditing at both the organizational and individual auditor levels. They are the result of careful study, consultation, and deliberation about the basic principles for providing internal audit services.</p>	

Audit Area: Governance

1.2.1 Risk — Efficiency and Effectiveness of Audit — Sufficiency of existing audit framework for review of CDAs

Conclusion/Recommendation for Improvements:

IA should evaluate its existing audit framework to determine its sufficiency in addressing the new risks of CDAs. Specifically, the annual risk assessment and resulting audit plan should fully address the key risks associated with CDAs to include the sufficiency and adequacy of the following processes:

- Preprocurement
- Contracting
- Financing and accounting
- Technology
- Performance evaluation
- Stakeholder relations and communications
- Risk management
- Preventative and detective controls
- Monitoring

Section V: Detailed Observations, Findings, and Recommendations

<p>Audit Area: Governance</p>	<p>1.2.2 Risk: Efficiency and Effectiveness of Audit — Sufficiency of existing audit treatments and tools for the increased reliance on third-party contractors</p>
<p>Background:</p> <p>As TxDOT increases its reliance on third-party contractors, the need to manage IT complexities, risks, and challenges also increases. Implementing sufficient IT audit treatments and tools is a high priority for TxDOT management. This requires demonstration that sufficient security and controls are being operated effectively and meet internal control and regulatory requirements. Internal auditors provide guidance and value to management in many ways. According to the IIA, internal auditors should assess the effectiveness of preventative and detective controls to ensure that they mitigate potential errors, irregularities, or acts of fraud. Internal auditors also should provide recommendations to executive management regarding compliance with internal and regulatory requirements and raise its awareness concerning likely vulnerabilities and impacts. In particular, internal auditors identify where IT security has failed to implement effective vulnerability management processes and validate existing vulnerability remediation efforts.</p>	
<p>Observation/Findings:</p> <p>Currently, the IA does not sufficiently use data-mining tools or similar techniques to identify potential errors, irregularities, or acts of fraud. Despite the controls that TxDOT may have in place, the purchasing and procurement process of construction projects could be vulnerable to fraud due to the inherent risk associated with these processes. These errors can go undetected for long periods of time and could have large financial implications for TxDOT.</p> <p>The IA does not sufficiently use data-mining tools or similar techniques to proactively analyze information to anticipate, predict, or react to risk. IA is not able to facilitate risk management or plan for risk mitigation strategies. As a result, IA lacks the ability to proactively identify opportunities to help TxDOT leadership improve the management of risk, controls, and governance.</p>	
<p>Impact:</p> <p>Insufficient use of data-mining tools or similar techniques to analyze information prevents TxDOT from developing and implementing a strong enterprise-wide fraud program and increases the risk for fraud to go undetected. Additionally, the annual internal audit plan may not adequately cover the IT areas that present the highest vulnerability to the Agency.</p>	
<p>Leading Industry Practices:</p> <p>The IIA's <i>Global Technology Audit Guide</i> (GTAG) is a resource for chief audit executives to use in the education of members of the board and audit committee, management, process owners, and others regarding risks and recommended practices. It covers technology topics, issues, and audit concerns, as well as issues surrounding management, security, control, assurance, and risk management. The global perspective of the guides involves audit and security experts, board members, chief executives, financial executives, technology providers, and IT and security executives.</p>	
<p>Conclusion/Recommendation for Improvements:</p> <p>TxDOT IA should consider utilizing additional data mining tools or similar techniques to analyze information to enhance developing and implementing an enterprise-wide fraud program and decrease the risk for fraud to go undetected and to assist management in making decisions. Data mining tools enhance management's ability to assess the controls that are in place and to ensure that third-party contractors meet internal controls and regulatory requirements. These tools can be implemented rapidly on existing software and hardware platforms</p>	

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Governance

1.2.2 Risk: Efficiency and Effectiveness of Audit — Sufficiency of existing audit treatments and tools for the increased reliance on third-party contractors

and convert massive amounts of data into manageable databases that can be queried and summarized at will. Data-mining tools provide management with the ability to identify anomalies in the data that enable management to quickly resolve issues. These tools also provide extensive documentation to support reports to management and third parties regarding the accuracy of the data. Examples of simple and powerful data mining tools include ACL and Excel.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Governance

1.2.3 Risk: Efficiency and Effectiveness of
Audit — The role of IA

Background:

Auditors play an important role in business strategies because of their independent view to identify and manage risk. Internal auditors' diverse capabilities and independence bring tremendous value to the board and the audit committee in their corporate governance responsibilities and risk management oversight. It is critical that the chief audit executive (CAE), senior management, and the audit committee have sufficient contact and communication to ensure that the parties understand and accept their individual and collective responsibilities for risk management.

Observation/Findings:

IA is not routinely utilized as a proactive consultant to management on key issues of control, risk, or governance. While IA has been involved in some activities, management has the opportunity to provide IA with a seat at the executive table to provide routine insight and feedback on key strategies and initiatives of the Agency.

IA does not structure its risk assessment and annual audit to include proactive management consulting projects to assist management as they establish a strong and well-controlled environment and governance structure.

Impact:

Insufficient management consultation and coordination with IA prevents management from obtaining independent, objective, and expert evaluations of risks. To assist management in policy formulation and decision making.

Leading Industry Practices:

IIA, in coordination with its IIAUK and Ireland affiliate, has issued a position paper on the role of internal audit in *Enterprise-wide Risk Management*. The paper's purpose is to assist CAEs in responding to enterprise risk management issues in their organizations. The paper suggests ways for internal auditors to maintain the objectivity and independence required by The IIAs' Standards when providing assurance and consulting services.

Conclusion/Recommendation for Improvements:

Management and IA should work together to evaluate the role of IA and develop an action plan to provide IA with a seat at the executive table to provide insight and feedback on key strategies and initiatives.

Additionally, IA should begin structuring its risk assessment and annual audit plan process to include proactive management consulting roles to assist management as it establishes a strong and well-controlled environment and governance structure. Legitimate internal auditing roles with safeguards include:

- Facilitating identification and evaluation of risks
- Coaching management in responding to risks
- Coordinating ERM activities
- Consolidating the reporting on risks
- Maintaining and developing the ERM framework
- Championing establishment of ERM
- Developing a risk management strategy for board approval

Section V: Detailed Observations, Findings, and Recommendations

<p>Audit Area: Governance</p>	<p>1.2.4 Risk: Efficiency and Effectiveness of Audit — Sufficiency of internal auditors knowledge, skills, and abilities relating to CDAs</p>
<p>Background:</p> <p>Internal auditors can assist TxDOT management in ensuring that CDA controls and operations are efficient, effective, and economical, and comply with laws and regulations. To carry out this important work, the IA must have the necessary knowledge, skills, and other competencies as they relate to CDAs. Without the necessary education and experience on CDAs, the IA may not have the knowledge, skills, or competencies to accomplish the important responsibilities of the Agency as they relate to CDAs.</p>	
<p>Observation/Findings:</p> <p>A training initiative to build internal auditors' knowledge, skills, and abilities pertaining to CDAs has not been established. Specific CDA areas where IA resources will need additional training include:</p> <ul style="list-style-type: none"> • CDA and PPP operating frameworks • Procurement considerations • Contracting considerations • Financing and accounting treatments • Technology considerations • Performance evaluation and monitoring • Stakeholder relations • Risk considerations • Control considerations 	
<p>Impact:</p> <p>Without sufficient IA capabilities around CDAs, TxDOT may not be able to rely upon IA to provide additional review and monitoring of the CDA process.</p>	
<p>Leading Practices:</p> <p>The IIA <i>International Standards for the Professional Practice of Internal Auditing</i> (Standards) provide guidance for the conduct of internal auditing at both the organizational and individual auditor levels. They are the result of careful study, consultation, and deliberation about the basic principles for providing internal audit services.</p>	
<p>Conclusion/Recommendation for Improvements:</p> <p>We recommend IA develop and implement a comprehensive training plan to increase the knowledge, skills, and abilities of IA resources for reviewing and evaluating CDAs. The training should focus on providing participants with a thorough understanding of the CDA framework and the associated business processes, as well as the key risks and controls traditionally found in the PPP and CDA environment.</p>	

1.0 Governance

1.3 Risk Management

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Governance	1.3.1 Risk: Risk Management — Comprehensiveness and effectiveness of the enterprise risk management approach
<p>Background:</p> <p>According to the Committee of Sponsoring Organizations the Treadway Commission (COSO), the underlying premise of ERM is that “every entity exists to provide value for its stakeholders.” All entities face uncertainty and the challenge for management is to determine how much uncertainty to accept as it strives to grow stakeholder value. ERM enables management to effectively deal with uncertainty and associated risks and opportunities. In addition, the ERM approach enhances management’s capacity to meet strategic objectives.</p>	
<p>Observation/Findings:</p> <p>TxDOT does not have a comprehensive and effective ERM program. TxDOT is already doing a good deal of risk management; however, a formalized mechanism to identify, share, and standardize risk mitigating solutions across districts and divisions does not exist. The decentralized organizational structure and the considerable latitude given to each of the 25 districts complicate the development of consistent and standardized risk mitigating solutions.</p>	
<p>Impact:</p> <p>Absence of an ERM program leads to slow response to risk, heavy investments in systems infrastructure, and an inability to integrate risk solutions Agency-wide.</p>	
<p>Leading Industry Practices:</p> <p>COSO <i>Enterprise Risk Management — Integrated Framework</i> describes the critical principles and components of an effective ERM process, setting forth how all important risks should be identified, assessed, responded to, and controlled. It also provides a common language, so that when executives, directors, and others talk about risk management, they are truly communicating.</p> <p>The framework sets forth how an entity applies ERM in its strategic planning and also describes techniques some entities are using in identifying and managing risk. Importantly, the framework emphasizes how an effective ERM process identifies not only the downside, but also the upside, or opportunities that can be seized to enhance profitability and return. The framework also describes roles of key players in the ERM process.</p> <p>Good ERM starts with a comprehensive and systematic approach to identifying, analyzing, and prioritizing risks across the organization. It also defines the relevant risk mitigation solutions and owners of those solutions across the organization. It is supported by a sustainable and ongoing process for monitoring risk plans and solutions to ensure that risk is appropriately identified and managed throughout the year. Most organizations set the overall process and framework for risk management at the entity level. This framework is then pushed out to each division or department for completion and the division or department level. It is then sent back to the entity-wide team for consolidation. This allows each division or department to manage its specific risks and the entity to appropriately prioritize and manage competing risks across the organization.</p>	
<p>Conclusion/Recommendation for Improvements:</p> <p>TxDOT should consider formalizing an ERM program to reduce risks to an acceptable level. The following key steps will assist TxDOT to help ensure the success of the program:</p> <ul style="list-style-type: none"> • Assessing TxDOT’s cultural readiness for change and innovation and developing a change management approach that includes communication strategy, training, and education • Assigning responsibility of leading the ERM initiative to the highest member of management to ensure 	

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Governance	1.3.1 Risk: Risk Management — Comprehensiveness and effectiveness of the enterprise risk management approach
<p>senior management commitment and organizational attention to the ERM initiative</p> <ul style="list-style-type: none">• Developing and adopting common tools, processes, and terminology to facilitate the process and ensure consistency• Ensuring that staff members are provided with the necessary training to meet the needs of the project, including mentoring and cross-training• Developing internal risk competencies by training employees and involving them in the risk management process• Agreed-upon types of risk and methods for identifying, analyzing, and prioritizing risks that will be used in the ERM initiative	

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Governance

1.3.2 Risk: Risk Management — Clarity of responsibility and organizational roles for enterprise risk management

Background:

One of the biggest challenges that organizations and governmental entities face in implementing an ERM program is to get the various risk management-related functions, teams, and initiatives to work effectively together, across organizational boundaries. The team that is assembled for development and oversight of the ERM effort needs to be heavily weighted toward individuals with experience in areas related to audit and management of diverse risk management processes, activities, and philosophies to create an effective ERM program.

Observation/Findings:

The lines of responsibility and organizational roles for ERM are not clearly defined. TxDOT districts and divisions have different approaches to risk and have different individuals responding to it. Risk mitigation plans are not coordinated among TxDOT districts or divisions. The decentralization of TxDOT's organizational structure and the considerable latitude given to each of the 25 districts further complicate the issue of ownership of a comprehensive risk management program. A key success factor when implementing an ERM program is to have clear definitions of roles and responsibilities, clear ownership, and good representation across all areas and levels of the organization.

Impact:

Absence of clear lines of responsibility to implement an ERM program impedes growth by inhibiting the adoption of new risk strategies.

Leading Practices:

COSO *Enterprise Risk Management — Integrated Framework* describes the critical principles and components of an effective ERM process, setting forth how all important risks should be identified, assessed, responded to, and controlled. It also provides a common language, so that when executives, directors, and others talk about risk management, they are truly communicating.

The framework sets forth how a company applies ERM in its strategic planning and also describes techniques some companies are using in identifying and managing risk. Importantly, the framework emphasizes how an effective ERM process identifies not only the downside, but also the upside, or opportunities that can be seized to enhance profitability and return. The framework also describes roles of key players in the ERM process.

Conclusion/Recommendation for Improvements:

Management should identify an ERM leader to introduce enterprise risk management into TxDOT. The ERM leader should act as the central point for coordinating, monitoring, and reporting on risks, and should provide support to managers as they work to identify the best way to mitigate a risk.

Management should establish an ERM implementation committee. The purpose of the committee is to provide strategic guidance to the work of the implementation team.

Management should identify a person to act as a liaison among the ERM activities between each of the TxDOT districts and divisions.

2.0 Finance

2.1 Planning, Financial Leadership, and Procedural Development for CDAs

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance

2.1.1 Risk: Planning, Financial Leadership, and Procedural Development for CDAs — Comprehensiveness and clarity of the knowledge transfer plans governing the development of financial management expertise within TxDOT from the third-party resources

Background:

In preparation for the use of the CDAs, TxDOT engaged several private consultants — Nossaman Guthner Knox & Elliott LLP, Goldman Sachs, and KPMG International — to provide subject-matter expertise. These contractors possess worldwide public-private partnerships experience that is invaluable to the Agency at this time. They are able to share their international knowledge of best practices and market perspectives that are essential to the successful execution of CDAs.

The objective of retaining KPMG's services is to have the firm provide assistance with CDA-related financial analysis. TxDOT relies on KPMG to assist in the financial sections of RFQs and RFPs, analyze the financial models submitted in proposals, and create shadow bids to serve as baselines in the RFP process.

At this time, there has not been a decision made on whether in the future CDAs will continue to be managed with KPMG providing the current level of service by a separate group of TxDOT employees dedicated solely to CDAs, or by some new combination of these resources. A common understanding amongst TxDOT leadership is that KPMG will remain an advisor, but the plan is to cultivate most of the financial analysis expertise internally.

Observation/Findings:

The Finance division lacks a formal knowledge transfer plan for staff members related to the CDA process. To date, any form of knowledge transfer has occurred on an informal basis. The Director of Debt Management has begun an informal process to integrate three staff members into the CDA process; however, there is no clear training or career path for these resources as they take on additional responsibilities related to CDAs.

Impact:

Failing to create a formalized knowledge transfer plan that outlines all necessary skills and information that must be obtained from the third party, including a method to track TxDOT employee progress, will increase TxDOT's reliance upon consultants in the future.

Leading Industry Practices:

Knowledge transfer activities are critical to preparing the staff to be ready for the changes associated to CDAs and any other upcoming changes within TxDOT. Creating a formal knowledge plan will result in employees with new knowledge, skills, and abilities that will enable the business transformation to a CDA environment. A knowledge transfer plan will serve as a roadmap for the transfer of knowledge, skills, and abilities between third-party resources and other TxDOT employees.

The following are standard activities involved in the knowledge transfer process:

- Identify the roles and responsibilities required to prepare the staff members for the CDA process.
- Identify specific knowledge, skills, and abilities (KSAs) that the transferor will transfer to the recipient. The KSAs should be specific to the recipient's role.
- Identify a learning counterpart who will be responsible for transferring knowledge to the recipient. Set an expected completion date for the knowledge transfer or a date on which an interim review or measurement will be made.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance	2.1.1 Risk: Planning, Financial Leadership, and Procedural Development for CDAs — Comprehensiveness and clarity of the knowledge transfer plans governing the development of financial management expertise within TxDOT from the third-party resources
<ul style="list-style-type: none">• Determine the recipient’s current skill level prior to the start of the knowledge transfer. The transferor and the recipient should determine the recipient’s level together.• Identify expected measures of skill acquisition. This activity involves identifying the desired skill level at a completion/review date.• Set review dates to determine the recipient’s learning skill level throughout the knowledge transfer process. The reviews will aid in assessing whether the recipient is on track for acquiring the KSA by the target date.• Determine a plan of action to address any issues that may be hindering the recipient’s progress in the knowledge transfer.	
Conclusion/Recommendation for Improvements: <p>Develop a comprehensive knowledge transfer plan that incorporates all of the skill sets necessary to increase the institutional knowledge of the Finance division related to CDAs. Creating a formal plan will enable TxDOT to cultivate the necessary specialized workforce that is not readily available in today’s marketplace.</p>	

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance	2.1.2 Risk: Planning, Financial Leadership, and Procedural Development for CDAs — Comprehensiveness and applicability of the TxDOT approach to assess the impacts of the CDA environment on the programs and services of TxDOT
Refer to Section 1.1.1	

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance

2.1.3 Risk: Planning, Financial Leadership, and Procedural Development for CDAs — Appropriateness of the level and areas of expertise being developed within TxDOT in support of CDAs

Background:

The Finance division recognizes that there are many specialized skills required to properly support the CDA process. Finance division leadership believes that the most important finance needs are skill sets related to bond financing, accounting methods for CDAs, and financial analysis. The vision of Finance leadership is to eventually house this expertise internally. Approximately two years ago, the Agency was able to hire a Director of Debt Management who possessed a high level of private sector experience in bond financing. This individual is currently sharing his knowledge with three members of his staff in an effort to build the division's in-house expertise. There are also plans to hire an additional staff member with bond finance experience in the near future.

Observation/Findings:

Finance Division leadership expressed its concerns regarding compensation and the ability to attract and retain staff members with the highly specialized skill sets required for CDAs. Many of the skill sets addressed above command salaries in the private sector that are difficult for the Agency to match based on the state's job and salary classification system.

Concerns were also voiced that the skill sets related to the accounting methods for CDAs will be difficult to find in the marketplace. While there are individuals in the private sector who have extensive experience in enterprise accounting, their expertise does not include the governmental reporting requirements.

It is also important to note that there is concern amongst TxDOT management that for these highly specialized skills related to CDAs, TxDOT will function as a "transitional training ground."

Impact:

Failure to address the Agency's ability to attract and retain talent will hinder the Finance division's ability to increase staff with the key skills highlighted above. Without the ability to attract and retain these key roles, TxDOT will continue to be dependent on consultants for these responsibilities.

The Agency incurs significant costs in hiring and training entry-level resources. The Agency risks incurring these costs and losing invaluable institutional knowledge to organizations with higher levels of compensation in the private sector.

Leading Industry Practices:

A common industry practice to address concerns of compensation is to conduct a compensation analysis that includes the following activities:

- Gather current division job descriptions. Job descriptions will have to be created for specific positions that do not currently exist within the Agency
- Match division jobs to similar positions in the marketplace and gather data:
 - The appropriate market surveys must be selected in order to conduct a meaningful analysis
 - Research salaries for the market positions using standard benchmarking
- Based on market research, reclassify jobs or place the positions within the appropriate classification range
- Explore geographic differentials within the marketplace

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance

2.1.3 Risk: Planning, Financial Leadership, and Procedural Development for CDAs — Appropriateness of the level and areas of expertise being developed within TxDOT in support of CDAs

While a compensation review may be necessary to truly assess the gap between the current TxDOT total compensation package and those being offered by private industry, there are other activities that can support retention goals. Some of the industry practices in regard to maintaining and being competitive in retaining skilled employees are:

- Developing and implementing succession planning and leadership development programs
- Identifying career paths, complemented with competency profiles, and communicating development opportunities
- Continuing rollout of the performance management program
- Supporting formalized mentoring and knowledge transfer programs
- Conducting a more comprehensive review to identify and address factors that are contributing to work-related stress

Conclusion/Recommendation for Improvements:

TxDOT should initiate a compensation strategy and structure that ensures recruitment from the widest possible talent pool and that maximizes retention of key workforce segments (e.g., technical and professional skill sets related to CDAs). As part of this strategy, a compensation analysis should also be initiated. Conducting a division compensation analysis will aid the department in determining the accurate market value of the skill sets. The analysis should include salary, bonuses, benefits, work-life balance issues, and more in order to effectively compare a resource transition from a private firm to a state agency. The results of this analysis will serve as the basis for any recommendations TxDOT chooses to make to the legislature, State Auditor’s Office, or other key decision makers regarding modifying or granting an exception to the pay scale.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance

2.1.4 Risk: Planning, Financial Leadership and Procedural Development for CDAs — Progress and direction of the definition of accounting treatments for CDAs

Background:

As TxDOT's use of CDAs increases, the Accounting Management section of Finance will be faced with the new challenge of accounting for the upfront payments associated with concession agreements. The department will be responsible for the proper receipt and use of the upfront payments made as part of the concession agreements. While the department has not received any payments to date, a \$2 billion payment is expected as part of the State Highway 121 concession agreement.

In addition to the use of the CDAs, TxDOT has also begun to enter into pass-through toll agreements with local entities. Under these agreements, new roadways are financed, designed, constructed, and maintained for a set time period by the local entity. In return, TxDOT makes payments to the entity based on the traffic utilization of the road governed by the agreement. TxDOT's liability to the local entity is bound by the minimum and maximum payments set forth in the contract. To date, no roads have been completed under this type of agreement and are therefore not recognized as a liability. However, beginning in 2008, TxDOT will have financial obligations related to pass-through toll agreements.

Observation/Findings:

Finance does not have a firm understanding of how to account for the upfront payments associated with concession agreements and payment associated with pass-through toll agreements.

The use of both full accrual and modified accrual accounting is currently being considered for the upfront payments. The Governmental Accounting Standards Board, the entity responsible for establishing standards of state and local governmental accounting and financial reporting, has not issued an opinion on the most effective measure for handling such payments. The Finance division has made several unsuccessful attempts to seek guidance from accounting firms on this matter. The Director of Accounting Management is considering the option to issue an RFQ for accounting firms to provide insight on this issue. In addition to seeking the opinion of a private entity, department leadership has also considered seeking guidance from the State Auditor's Office on the proper accounting treatments.

In relation to pass-through tolls, the department is grappling with various issues related to assets and liabilities. Currently, there has been no decision made on how to capitalize the roadway costs. Department staff has considered capitalizing the roadway at the construction cost to the local entity minus any indirect costs or capitalizing based on the net present value of the future pass-through toll payments. Due to the fact that liabilities are based on future vehicle traffic with a minimum and maximum set forth in the contract, the department is unsure how to reflect the liability. The liability could possibly be shown as the minimum pass-through toll payment, the maximum pass-through toll payment, or the payment based on TxDOT's projection of the vehicle traffic.

Impact:

Without a clear understanding of the proper accounting for upfront payments and pass-through tolls, TxDOT risks overstating its revenues or understating its liabilities regarding these funds.

Leading Industry Practices

Until an opinion is issued by the Governmental Accounting Standards Board or a qualified private entity, it is difficult to cite leading industry practices. A study of other states' accounting practices could reveal common practices.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance

2.1.4 Risk: Planning, Financial Leadership and Procedural Development for CDAs — Progress and direction of the definition of accounting treatments for CDAs

Conclusion/Recommendation for Improvements:

TxDOT should continue its current endeavors to seek guidance from qualified organizations, as well as reach out to other states or countries that have similar agreements.

2.0 Finance

2.2 Record and Reporting

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance

2.2.1 Risk: Record and Reporting — Assess the vendor/contractor base to identify concentrations of manual warrants

Background:

The Claims Management department within Finance is responsible for processing all vouchers into the Uniform Statewide Accounting System (USAS) for warrants (payments) to be issued to vendors.

Over the course of the last 12 months, TxDOT has issued more than 243,028 payments (transactions) to vendors or \$7,908,781,199.21 under the 225 transaction code (establish vouchers payable). More than 51 percent of transactions were issued to vendors through direct deposit.

A representative from the Comptroller's office reported that the direct deposit option is used to pay approximately 48 percent of the vendors. This is an average percentage, and the actual percentage will vary from agency to agency. The Comptroller's office has a program that focuses on periodically identifying the top 10 vendors (see Table 1) receiving manual warrants, and reaches out to register vendors for direct deposit. Other outreach efforts have included periodically inserting a notice outlining the benefits of using direct deposit and hosting direct deposit focus groups.

TxDOT currently does not make it a standard practice to identify the concentration of manual warrants issued to vendors.

Table 1 — TxDOT Use of Direct Deposit on the State's Top Ten Vendors
 This Information was provided by the Comptrollers — Fiscal Year to May 31, 2007

PAYEE NAME	TxDOT'S USAGE				ALL AGENCIES			
	WARRANT	DD	TOTAL	DD%	WARRANT	DD	TOTAL	DD%
Harris County	339	153	492	31.10%	2,599	709	3,308	21.43%
ATMOS Energy Corporation	339	77	416	18.51%	2,188	639	2,827	22.60%
Cingular Wireless LLC	204	0	204	0.00%	5,149	8,072	13,221	61.05%
AT&T — SBC Southwestern Bell Telephone	157	1,198	1,355	88.41%	3,264	6,409	9,673	66.26%
US Postal Service	149	7	156	4.49%	3,025	96	3,121	3.08%
City of Austin	109	72	181	39.78%	2,979	591	3,570	16.55%
TIBH Industries Inc.	55	320	375	85.33%	142	8,337	8,479	98.33%
Xerox Corporation	33	559	592	94.43%	768	15,903	16,671	95.39%
ACC Bookstore (Barnes & Noble College Booksellers Inc.)	22	6	28	21.43%	560	2,763	3,323	83.15%
T J C Bookstore (Follett Higher Education Group)	12	4	16	25.00%	2,184	1,586	3,770	42.07%
Konica Minolta Business Solutions	9	311	320	97.19%	5,424	3,441	8,865	38.82%
	1,428	2,707	4,135	65.47%	28,282	48,546	76,828	63.19%

- Notes:
1. DD = Direct Deposit
 2. Some vendors such as AT&T (formerly SBC) have multiple account types.
 3. Not all of these account types can be paid electronically.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance

2.2.1 Risk: Record and Reporting — Assess the vendor/contractor base to identify concentrations of manual warrants

Observation/Findings:

Reviewing TxDOT's top 25 vendors receiving warrants manually (see attached Graph A) presents information to assist TxDOT with beginning to identify the concentration of which vendors (i.e., Austin Bridge & Road LP, Hunter Industries Ltd, and Longview Asphalt Inc.) are receiving manual warrants.

In the attached Graph B, the top 25 vendors receiving warrants manually are illustrated based on the issuing district or division. This graph shows that there were at least seven districts or divisions with more than 200 manual transactions. Further, this graph provides other districts and divisions for TxDOT to start working with to better understand why they have a high number of manual transactions and determine the concentration.

Impact:

Failing to consistently identify vendors that can transition from using manual warrants to using direct deposit will cause TxDOT and the Comptroller's office to continue absorbing the back-end costs for handling, mailing (postage), and purchasing envelopes.

Leading Industry Practices:

Not applicable.

Conclusion/Recommendation for Improvements:

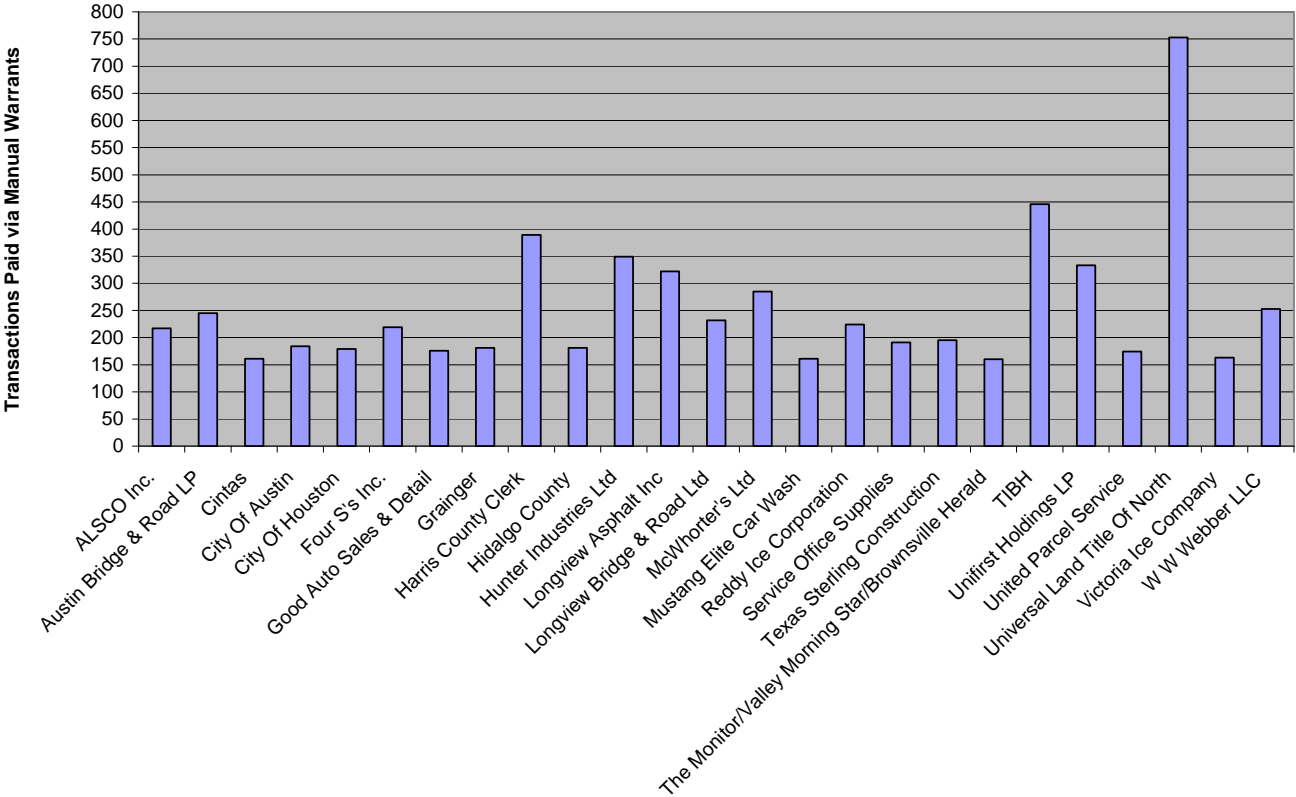
On a quarterly basis, the Finance and Purchasing department should identify the top five vendors receiving warrants manually and determine whether they would be candidate for using direct deposit.

TxDOT should also continue to work with the Comptroller's office to identify the top vendors state-wide receiving manual warrants, and assist with transitioning vendors that have a direct impact to TxDOT to using direct deposit.

Section V: Detailed Observations, Findings, and Recommendations

GRAPH A - Top 25 Vendors Receiving Manual Warrants (based on transactions)

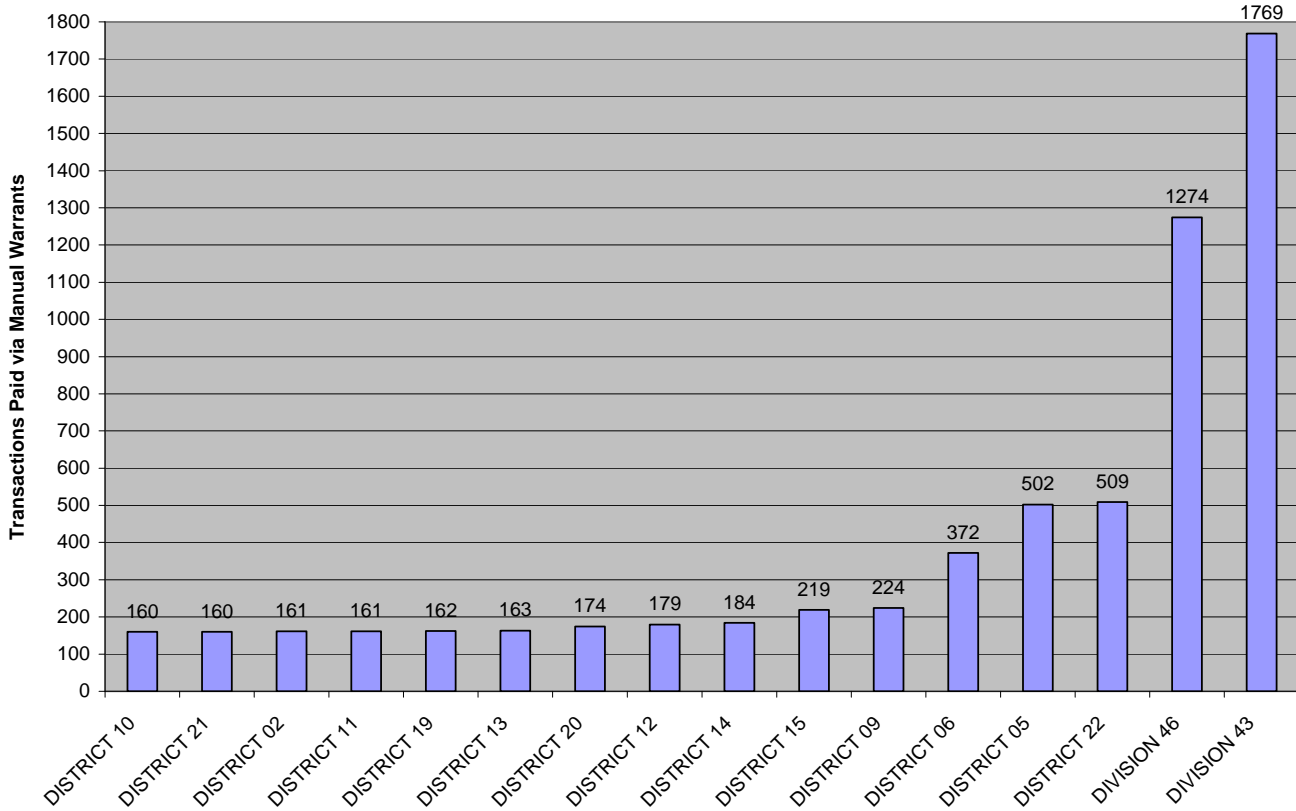
This information was provided by TxDOT - 04/01/06 through 04/30/07
 Energy & Electric Companies were excluded from this data



Section V: Detailed Observations, Findings, and Recommendations

GRAPH B - Top 25 Vendors Receiving Manual Warrants by District (based on transactions)

This information was provided by TxDOT - 04/01/06 through 04/30/07
 Energy & Electric Companies were excluded from this data



Audit Area: Finance

2.2.2 Risk: Record and Reporting — Identify opportunities to move vendors to direct deposit

Background:

The Claims Management department within Finance is responsible for processing all vouchers into the USAS for warrants (payments) to be issued to vendors.

Over the course of the last 12 months TxDOT has issued over 243,028 payments (transactions) to vendors or \$7,908,781,199.21 under the 225 transaction code (establish vouchers payable). Over 51 percent of transactions were issued to vendors through direct deposit.

A representative from the Comptroller's office reported that the direct deposit option is used to pay approximately 48 percent of the vendors. This is an average percentage and the actual percentage will vary from agency to agency. The Comptroller's office has a program that focuses on periodically identifying the top 10 vendors (see Table 1) receiving manual warrants, and reaches out to register these vendors for direct deposit. Other outreach efforts have included periodically inserting a notice outlining the benefits of using direct deposit and hosting direct deposit focus groups.

TxDOT currently does not have a program or initiative to identify opportunities for transitioning vendors receiving manual warrants to using direct deposit.

Table 1 — TxDOT Use of Direct Deposit on the State's Top Ten Vendors
 This Information was provided by the Comptroller's Office — Fiscal Year to May 31, 2007

TxDOT'S USAGE

ALL AGENCIES

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance					2.2.2 Risk: Record and Reporting — Identify opportunities to move vendors to direct deposit			
PAYEE NAME	WARRANT	DD	TOTAL	DD%	WARRANT	DD	TOTAL	DD%
Harris County	339	153	492	31.10%	2,599	709	3,308	21.43%
ATMOS Energy Corporation	339	77	416	18.51%	2,188	639	2,827	22.60%
Cingular Wireless LLC	204	0	204	0.00%	5,149	8,072	13,221	61.05%
AT&T — SBC Southwestern Bell Telephone	157	1,198	1,355	88.41%	3,264	6,409	9,673	66.26%
US Postal Service	149	7	156	4.49%	3,025	96	3,121	3.08%
City of Austin	109	72	181	39.78%	2,979	591	3,570	16.55%
TIBH Industries Inc.	55	320	375	85.33%	142	8,337	8,479	98.33%
Xerox Corporation	33	559	592	94.43%	768	15,903	16,671	95.39%
ACC Bookstore (Barnes & Noble College Booksellers Inc.)	22	6	28	21.43%	560	2,763	3,323	83.15%
T J C Bookstore (Follett Higher Education Group)	12	4	16	25.00%	2,184	1,586	3,770	42.07%
Konica Minolta Business Solutions	9	311	320	97.19%	5,424	3,441	8,865	38.82%
	1,428	2,707	4,135	65.47%	28,282	48,546	76,828	63.19%
Notes: 1. DD = Direct Deposit 2. Some vendors such as AT&T (formerly SBC) have multiple account types. 3. Not all of these account types can be paid electronically.								

Audit Area: Finance

2.2.2 Risk: Record and Reporting — Identify opportunities to move vendors to direct deposit

Observation/Findings:

Some vendors have been reluctant to receive payments through direct deposit because they are unable to accurately reconcile their records. A part of this problem is a result of some agencies not making entries directly into USAS, but using other systems that interface with USAS without providing vendors with the necessary level of detail. Until recent changes by the Comptroller, the form used to sign up vendors for direct deposit served as a barrier. This form and the form used to get an advance notice that direct deposit was in the process of being issued required two separate actions by the vendor. These forms have now been consolidated and are in the process of being distributed to agencies and vendors.

Recently, TxDOT requested a list of vendors using direct deposit from the Comptroller's. Their goal is to match the Comptroller's list with TxDOT's database, and determine whether there are any vendors signed up for direct deposit that are also receiving manual warrants. This scenario could occur because vendors may have multiple accounts set up. Based on the information outlined in Table 1 a vendor such as Cingular would be an opportunity target for transitioning to use direct deposit.

Reviewing TxDOT's top 25 vendors receiving warrants manually (see bottom of attached Graph A for how these vendors were selected) presents a starting point for TxDOT to begin exploring other opportunities to transition vendors such as Austin Bridge & Road LP, Hunter Industries Ltd., and TIBH to direct deposit.

Impact:

Failing to transition more vendors from using manual warrants to using direct deposit will cause TxDOT and the Comptroller's office to continue absorbing the back-end costs for handling, mailing (postage), and purchasing envelopes.

Leading Practices:

Industry best practices in regard to using paperless transaction processes include the following:

- Using an electronic network to route documents (e.g., requisitions, purchase orders, and check requests), invoices, and approval of requests
- Dispensing with handover points and simplifying processes
- Having the ability to track items throughout any given process

Conclusion/Recommendation for Improvements:

On a quarterly basis, the Finance and Purchasing departments should identify the top five vendors receiving warrants manually and work with them to transition to using direct deposit.

TxDOT should also continue to work with the Comptroller's to identify joint strategies that will lead to more vendors using direct deposit. A part of this discussion should include developing a strategy to sign up vendors for direct deposit when they are registering or renewing registration (i.e., Centralized Master Bidders List) to do business with the state of Texas.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance

2.2.3 Risk: Record and Reporting — FTEs and/or roles and responsibilities that may be redeployed if TxDOT moves toward increasing the use of electronic warrants (direct deposits)

Background:

The Support Services team is under Claims Management within the Finance Division. This team is made up of 4 FTEs and spends about 70 percent of its time managing the back-end steps of distributing manual warrants.

The Texas Comptroller of Public Accounts (Comptroller's) Claim Division processes payments and issues payments through direct deposit or sends manual payments back to TxDOT by an in-house carrier. The Support Services team then mails the warrants (payments) back to the district from which the request originated for distribution to vendors. All other warrants are mailed by the Austin Finance division directly to the remaining vendors.

There is no difference in the front-end steps of the process for entering information in USAS for a vendor to be paid by a manual warrant or through direct deposit. The difference is in the back-end steps of the process, which is where costs such as handling, envelopes, and postage are incurred.

Over the course of the last 12 months under the 225 transaction code (establish vouchers payable), TxDOT has issued more than 243,028 payments (transactions) to vendors or \$7,908,781,199.21. More than 51 percent of transactions were issued to vendors through direct deposit.

A representative from the Comptroller's office shared that direct deposit option state-wide is used to pay approximately 48 percent of the vendors. This is an average percentage, and the actual percentage will vary from agency to agency. The Comptroller has a program that focuses on periodically identifying the top 10 vendors receiving manual warrants, and reaches out to work with each vendor toward becoming set up to receive warrants through direct deposit. Other outreach efforts have included periodically inserting, with the mailing of manual warrants, a notice outlining the benefits of using direct deposit and hosting direct deposit focus groups.

TxDOT currently does not have a program or initiative for transitioning vendors receiving manual warrants to using direct deposit.

Observation/Findings:

TxDOT currently does not know what the cost impact is for issuing manual warrants, or what savings could be recognized by increasing the number of warrants being issued through direct deposit. Therefore, at this time TxDOT is unable to determine the number of FTEs or responsibilities in Support Services or in the Districts that could be redeployed as a result of increasing the use of direct deposit.

Impact:

Failing to transition more vendors to using direct deposit will cause TxDOT and the Comptroller to continue absorbing the back-end cost for handling, postage, and envelopes. Further, FTEs on the Support Services Team and in the District will continue to support the issuance of manual warrants and will not be in a position to be considered for redeployment.

Leading Practices:

Industry best practices in regard to determining opportunities for redeploying FTEs include the following:

- Defining the impact to staffing levels based on increasing the use of electronic warrants
- Determining the level of support required to support sustainable changes to the existing process
- Periodically reviewing the impact to current staffing levels and making adjustments as required

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance

2.2.3 Risk: Record and Reporting — FTEs and/or roles and responsibilities that may be redeployed if TxDOT moves toward increasing the use of electronic warrants (direct deposits)

Conclusion/Recommendation for Improvements:

The Finance department should determine the cost impact of having 49 percent of its vendors being paid through the use of manual warrants. Using cost information provided by organizations such as the Research Payment Association will assist with determining the cost impact. The Association suggests savings ranging anywhere from \$0.50 to \$1.50 per transaction could be recognized by using direct deposit. While the Association's research was focused on payroll transactions, the data can be used as a baseline for determining the cost factor(s) for vendor transactions.

At this stage, TxDOT should be able to better determine whether the cost impact would be significant enough to affect a change to the number of FTEs or require a redeployment of roles and responsibilities.

Audit Area: Finance

2.2.4 Risk: Record and Reporting — Review the FIMS modification prioritization protocol

Background:

The Accounting Management department (ACM) within the Finance division is responsible for managing all requested modifications to TxDOT's FIMS. All requested modifications are submitted on Information Resource Request (IRR) form(s) to the Director of Accounting Management, located in the Finance Division, for review and approval. The Director makes every effort to ensure that the IRR has no adverse lateral impact on other systems or departments. An approved IRR is sent to the MIS Unit Manager located in the ISD for review.

Upon MIS receiving the IRR, it is cataloged and a cost impact is determined. An IRR affecting more than one division, department or office, estimated project cost exceeds 100K, or will require more than six months to complete is required to have a project concept document filled out before it is submitted to the Information Resource Council (Council) for consideration and approval. If the estimated project cost exceeds \$250,000 or more, the project concept document, business case, statewide impact analysis, and project charter are also required. The members on the Council include one representative for the districts, the Director of ISD, the Deputy Executive Director, the Assistant Executive Director of Engineering Operation, and the Assistant Executive Director for Support Operations.

If the IRR cannot be managed by MIS with minimal resources, the MIS Unit Manager will return the IRR(s) to the Director of ACM for a level of prioritization to be assigned. Once the IRR has been approved or assigned as pending by the MIS Unit Manager, a requirement document will be sent to the original requester and others who may be impacted by the requested change for feedback and approval on how the change will take place.

Observation/Findings:

Currently, there are 11 requests that are pending and 12 requests that are in progress. Compared to a year ago the number of requests pending and in progress has been reduced significantly. The amount of request activity is driven by customer needs, project size, and complexity. One pending request that would provide TxDOT with the ability to enter fractional hours for employees into FIMS has been changed or updated three times since 1995. The latest request has been estimated to require more than \$1 million (ISD suggested this is a conservative cost estimate) to complete.

A project of this magnitude would require the review by the IRC; therefore, there is reasonable probability for other stakeholders who may be impacted by the change to be included in the decision-making process. Smaller projects rely on a more informal process to ensure that the IRR has no adverse lateral impact.

Impact:

Failing to periodically evaluate and maintain effective processes to support the modification protocol process could lead to adverse lateral impact to other systems and processes.

Leading Industry Practices:

Communicating modification protocol in the public sector can be managed by using the following model to improve the modification protocol model:

- Assess and maintain a current governance model for handling communications
- Periodically determine desired changes and cost impact to the current structure and process
- Standardize the handling of issues and their resolution as they arise
- Quantify efficiency and effectiveness of the process

Conclusion/Recommendation for Improvements:

TxDOT should evaluate opportunities to more formalize its modification protocol process to ensure lateral impact from any change that is made in FIMS is further minimized. One recommendation would be for the IRR form to be modified with a section that would require the requester to document who has been contacted to ensure that the IRR will not have an adverse impact or an explanation for why no one needed to be contacted. The approver would then concur with what has been provided in this section or route the IRR for additional reviews/approvals. This action would support language outlined in the “OPR Roles & Responsibilities for Information Technology Assets” requiring that the office of primary responsibility should involve stakeholders.

Further, TxDOT should ensure that the communication and approval process is strengthened when requests are required to be reviewed by the Council. The process should ensure that any presentation or submitted documentation (e.g. project concept document, business case, statewide impact analysis, and project charter) includes signed comments from any department that would be affected by the requested change.

2.0 Finance

2.3 Reporting and Analysis

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance

2.3.1 Risk: Reporting and Analysis —
Appropriateness of the level of staffing
required to support financial reporting
responsibilities

Background:

The Accounting Management section within Finance is responsible for preparing the Agency's financial statements and responding to inquiries from the State Auditor's Office. The recent shift in TxDOT's operating model to include CDAs and other innovative financing methods has created additional responsibilities for this department. Department personnel are now responsible for preparing financial statements for both the Central Texas Turnpike and the Texas Mobility Fund.

In addition to the reporting requirements for the Texas Mobility Fund, the department is managing the funds transfers between the State Highway Fund 006 and the Texas Mobility Fund. With the opening of the first toll roads within the Central Texas Turnpike system, the department has also taken on the duty of performing the reconciliations between the toll receipts and the bank deposits.

Observation/Findings:

The Accounting Management section within Finance has not responded sufficiently to increased workload requirements and appears to be understaffed. The Department has made only minor increases to the staff complement in response to the increased workload. One additional resource has been added to the staff in the past two years. The new resource is responsible for managing the funds transfer process. The remaining responsibilities associated with the additional financial statements required by the Central Texas Turnpike System and the Texas Mobility Fund have been added to the duties of two department CPAs. Due to the fact that these new responsibilities have been added to their primary job functions, overtime hours are used to meet the new demands.

The reconciliation of toll receipts is being handled by a special project resource within the department. It was originally planned that the Deposits Department would be responsible for this task. However, the Accounting Management section was asked to determine the strategy for handling toll reconciliations because of the expertise of that department's in-house CPAs. The reconciliations were previously completed on a monthly basis; however, due to the amount of work involved, the decision has been made to perform reconciliations daily.

Impact:

Failing to increase the staff complement in response to the increased workload leaves the Accounting Management section vulnerable to the risk of losing key institutional knowledge because of the unrealistic expectations placed on specific employees. It was indicated that if one of the two CPAs dedicated to the new reporting requirements were to leave the department, it would take two FTEs to replace that individual. Additionally, increased overtime costs are incurred when employees have to work overtime to meet workload demands.

Leading Industry Practices:

In both the private and public sectors, it is a best practice to perform a staffing analysis to determine any potential impacts on staff brought on by new business processes. In conducting this analysis, it is necessary to assess the following:

- Identify original job duties for positions of individuals currently involved in the CDA process
- Identify additional job duties related to CDAs
- Assess the available staff resource hours

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance	2.3.1 Risk: Reporting and Analysis — Appropriateness of the level of staffing required to support financial reporting responsibilities
<ul style="list-style-type: none">• Determine which job duties are affected by the additional job duties related to CDAs• Create a plan of action to address the impacts on the workforce	
<p>Conclusion/Recommendation for Improvements:</p> <p>In an effort to match the required staff complement with workload requirements of the division, the Accounting Management section should evaluate the new roles and responsibilities related to the CDA operating environment. Doing so will allow management to determine the impacts on the department and provide a clear understanding of where staff increases are necessary in the department.</p>	

Audit Area: Finance

2.3.2 Risk: Reporting and Analysis —
Adequacy of the performance management
capabilities

Background:

As a Texas state agency, TxDOT is required by law to create a five-year strategic plan and track an approved set of performance measures as part of the state's Strategic Planning and Performance Budgeting System. Both the strategic plan and the performance measures are submitted to the Legislative Budget Board (LBB) and the Governor's Office of Budget, Planning and Policy (GOBPP). The measures are used to gauge the Agency's progress toward the goals and objectives set forth in the strategic plan. The same set of goals and measures are also used in the preparation of the General Appropriations Bill. Within TxDOT's strategic plan, there are 32 performance measures, of which 14 are outcome measures and 18 are output/efficiency measures.

A second plan was created in reaction to Agency leadership concerns that the LBB strategic plan was out of date and does not accurately display the progress that the Agency was making in achieving its goals. The plan produced by the Government and Business Enterprise division is geared to the public and is used for managing the operations and strategic direction of the Agency and includes TxDOT's vision, mission, goals, strategies, and tactics.

In an effort to drive change in the state's strategic planning process, TxDOT submitted this new plan to the LBB in 2005. Unfortunately, it was rejected because it did not fit the state's established template. In 2006, the Texas Transportation Commission also made an appeal to the state legislature to gain support for the acceptance of TxDOT's new strategic plan. To date, an agreement has not been made to accept the Agency's revised plan.

The Agency uses many different systems to support and manage existing strategic plans. The agency does not use FIMS to track performance.

Observation/Findings:

TxDOT is not using performance measures to effectively manage its operations in all divisions, departments, districts, or areas. To assist with meeting operational and budgetary needs, TxDOT is using two different strategic planning tools. One strategic plan is used for tracking outcome and output measures required by the LBB. The primary purpose of this strategic plan is to assist the Agency with maintaining its funding levels from the Texas legislature. While this strategic plan includes TxDOT's goals and strategies, in most cases there is very little linkage with the stated outcome and output measures. This strategic plan is also focused more on tracking outputs versus outcomes. Therefore, this tool is being used primarily to track activity versus performance. The Automated Budget and Evaluation System of Texas (ABEST) is the system being used to track the results of these measures.

The second strategic plan is developed through a top-down approach and is used for managing the operations and strategic direction of TxDOT. While the goals, strategies, and tactics are fairly clear, there are no key performance measures in the plan to measure the progress that is being made toward accomplishing each goal. Effective key performance measures would assist TxDOT with adjusting strategies and tactics when and where necessary to ensure that each goal is accomplished successfully and efficiently.

TxDOT has recognized the need to have performance measures to support the strategic plan that is being used to manage its operations. It is in the process of contracting with a firm to assist with building this component into its strategic plan. A system or a defined process that will be used for tracking the performance measures has not been determined.

Managing two different strategic plans requires additional resources and has the risk of creating confusion. Also, not driving performance measurement requirements to all levels (divisions, departments, district offices, area offices, etc.) of the organization does not allow TxDOT to proactively identify areas where improvements can be made. While there is some discussion of challenges and lessons learned at the District Engineer meetings, it is not clear how either strategic plan is effectively or consistently being used to directly manage the agency's or district's operations. Further, there appears to be inconsistent linkage between both strategic plans and individual performance plans. Districts are developing performance measures or strategies concerning their budget and

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Finance	2.3.2 Risk: Reporting and Analysis — Adequacy of the performance management capabilities
<p>based on their view of what will be required to manage the projects and operations in their district. This approach may or may not align with either of TxDOT's strategic plans. During the effort to develop performance measures, it will be critical to include the participation from the districts in the process.</p>	
<p>Impact:</p> <p>Managing two different strategic plans can create confusion throughout TxDOT about expectations and require the use of extra resources. Further, not having a strategic plan that cascades down or up through the organization may affect how efficiently, effectively, and consistently projects and operations will be managed.</p>	
<p>Leading Industry Practices:</p> <p>Performance-based budgeting is an effective management process and tool if it is based upon tracking and monitoring outcomes that are meaningful for management decisions. Output-based measures can be effective, but do not lend themselves to consistent monitoring of an organization's true performance. Thoughtful selection and consistency in measurement standards are crucial for identifying anomalies and other risk areas in both a snapshot view and in a longer-term trend analysis view.</p>	
<p>Conclusion/Recommendation for Improvements:</p> <p>TxDOT should continue its efforts to consolidate the two different strategic plans into one plan. In the event this is not possible, one of the plans should be renamed to eliminate confusion.</p> <p>CDAs should be incorporated into the strategic plan and linked to a goal, strategy, and several outcome performance measures that can be consistently tracked and monitored.</p> <p>Upon building key performance measures, there should be a system developed that can track and monitor performance. Management should proactively use an outcome-based performance measurement system as a tool for making adjustments to strategies and tactics as necessary. The effective use of a consolidated strategic plan should evolve into becoming a strategic tool that is understood and used throughout all levels at TxDOT in order to move TxDOT toward its objectives.</p>	

3.0 Information Technology

3.1 DCS Transition Planning and Implementation

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Information Technology

3.1.1 Risk: DCS Transition Planning and Implementation — Completeness of plans, procedures, and controls contemplated in the transition plan

Background:

On March 31, 2007, TxDOT and 26 other state agencies transitioned data center operations functions to Team for Texas. Other IT responsibilities were retained within the ISD and TxDOT D/D/O IR functions.

Team for Texas interviewed and had the opportunity to extend employment offers to three TxDOT ISD employees and eight TxDOT ISD contractors. These employees were intended to help with the transition and remain an employee or contractor with one of the Team for Texas companies. However, the employees and contractors who chose to join Team for Texas were a subset of the TxDOT FTE positions who were performing in-scope functions (i.e., new functions to be performed by Team for Texas); the remainder of the TxDOT FTE reduction was accomplished by shifting some personnel into new positions and eliminating open vacancies. This left Team for Texas with many open vacancies to fill and a knowledge gap concerning TxDOT systems even when the vacancies were filled. The solution between TxDOT and Team for Texas was to have TxDOT ISD employees assist Team for Texas after the transition date until the vacancies were filled and the knowledge gaps minimized. Team for Texas reimbursed TxDOT for the use of its personnel.

The approximate reimbursement due to TxDOT for the month of April 2007 is \$137,000. At the end of May 2007, the vacancies and knowledge gaps are being filled and other logistical issues (e.g., work ticket routing) are improving. Other logistical issues such as remote server administration and hardware procurement are requiring further attention.

It should be noted that TxDOT ISD has taken the attitude that adverse impact to the end users is not an option and has shifted resources as necessary to prevent adverse occurrences. ISD has also met with Team for Texas representatives on a daily basis to work out logistics, discuss status, and transfer knowledge to move the transition forward.

Observation/Findings:

Remote server administration and hardware procurement appear to be two areas where logistical issues continue to present challenges. Team for Texas was granted an extension until June 1, 2007, to transition the resources needed for remote server administration services. As of mid-July 2007, Team for Texas is drafting the remote server support plan, and has a goal of August 1, 2007 to take over remote support duties. Team for Texas has also been delayed in procuring servers to meet the needs of a TxDOT rollout plan. Following the delays, the servers were delivered in early July 2007.

In addition, ISD resources and D/D/O IR personnel should have been refocused on new tasks; however, delays in the transition are delaying the redeployment of ISD and IR resources and ISD projects as these personnel perform their former jobs.

Impact:

Although no significant unplanned outages have been noted during the transition phase, the risk remains that there could be end-user impacts, unplanned outages, or further project delays. ISD and D/D/O personnel have not been fully redeployed to new roles within TxDOT and still continue to perform activities that address old responsibilities. This delay in redeployment could lead to setbacks in TxDOT achieving strategic initiatives in current time frames.

Leading Industry Practices:

Not applicable.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Information Technology

3.1.1 Risk: DCS Transition Planning and Implementation — Completeness of plans, procedures, and controls contemplated in the transition plan

Conclusion/Recommendation for Improvements:

TxDOT should continue to provide Team for Texas with resources, as necessary, to complete the transition process and keep detailed records to be reimbursed. For the areas where there are significant logistical issues that remain (i.e., remote support, hardware procurement), TxDOT should draft a plan with relevant DIR, and in turn Team for Texas, representatives to resolve the issues that is satisfactory and achievable to all parties. The plan should contain measurable elements that align with the contract in case further reimbursement becomes necessary. The plan should build on the communication channels and documentation requirements established as part of the transition.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Information Technology

3.1.2 Risk: DCS Transition Planning and Implementation — Completeness of plans, procedures, and controls contemplated in the transition plan

Background:

On March 31, 2007, TxDOT and 26 other state agencies transitioned data center operations functions to Team for Texas, while retaining other duties within the ISD and TxDOT D/D/O IR functions.

The Team for Texas contract between IBM and the Texas DIR states that Team for Texas will develop and adhere to policies, procedures, and standards to maintain an effective internal control environment and will hire an independent accountant at least annually to perform attestation procedures in accordance with AICPA Statement of Auditing Standards No. SAS 70, *Reports on the Processing of Transactions by Service Organizations*.

Observation/Findings:

The internal control structure between TxDOT, DIR, and Team for Texas does not appear to be defined or agreed upon. At the end of May 2007, the policy and procedure manual was not complete.

Prior to Team for Texas transition, TxDOT ISD had policies and procedures to create an environment for an effective internal control structure. This mentality has not changed, but will need to be altered as necessary to complement the structure provided by Team for Texas.

Although Team for Texas has been contracted to perform data center operations functions on behalf of TxDOT, the Agency retains the accountability for the completeness and accuracy of its data, as well as ensuring that contractors maintain an effective internal control environment that is conducive to complete and accurate data.

The independent accountant, along with Team for Texas, will identify and report in the SAS 70 what are typically called “end user controls” or “user consideration controls.” These are controls that the service provider’s end customer (i.e., TxDOT) should have in place to complement the service provider’s internal control structure.

Impact:

An undefined, inappropriate, or ineffective internal control structure increases the risk of unplanned outages, data security weaknesses, data integrity issues, or missed end-user requirements and expectations. Ultimately, rework is required, which increases the cost to provide services to the Agency. Additionally, stakeholders do not have accurate information in a timely manner, which affects their ability to make decisions regarding the Agency.

There is a risk that an independent accountant may not be able to issue an unqualified opinion pertaining to a SAS 70 review. SAS 70 reviews cover a period of time, and since policies and procedures have not existed, a clean opinion would be unlikely.

Leading Industry Practices:

Not applicable.

Conclusion/Recommendation for Improvements:

TxDOT should continue working with DIR and Team for Texas to finalize policies and procedures related to the data center services that are specific to TxDOT. This will allow TxDOT to ensure that proper controls are in place and to enhance or change any existing internal controls to ensure that data is secure, accurate, and valid. These policies and procedures should be finalized utilizing standards such as COBIT released by the Information Systems Audit and Control Association as a guide.

3.0 Information Technology

3.2 Management of the Enterprise IT Application Environment

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Information Technology

3.2.1 Risk: Management of the Enterprise IT Application Environment — Development and deployment of new systems or applications that can occur that may not adhere to enterprise standards

Background:

TxDOT ISD maintains custody of, develops, and supports application systems for the benefit of many or all TxDOT D/D/Os. These application systems are called enterprise applications.

Districts provide the same services, such as transportation or infrastructure, on a conceptual level. These commonalities between districts translate to some common technology solution needs in the districts. However, districts differ in demographics, such as urban versus rural, landscape, size, and complexity. The decentralized structure reflects an acknowledgement of these differences. D/D/Os have IR departments that provide technology solutions tailored to the specific needs of each D/D/O. The IR department heads report to D/D/O management, not ISD.

To be responsive to the needs of each D/D/O, the IR departments develop tools and application systems for their respective D/D/O. These tools are often complex spreadsheets in Microsoft Excel, databases utilizing Microsoft Access or Sybase, or Web-based graphical user interfaces. Enterprise application system data is often the source data for these tools and systems. Although rare, some of these tools and systems upload data to an enterprise system. It should also be noted that some of these tools or systems can contain sensitive data such as employee or customer data, although the enterprise human resources system (i.e., PeopleSoft) has been configured to restrict certain sensitive data from D/D/O personnel utilizing different database views.

The structure of the ISD and IR departments is organized to allow ISD to focus on initiatives that benefit multiple D/D/O, result from legislative action, or otherwise require significant amount of resources, while giving the IR departments the flexibility to quickly and efficiently meet the needs of an individual D/D/O.

Observation/Findings:

ISD can only issue guidelines and cannot issue a mandate or directive to D/D/O IR departments. Also, ISD does not have the ability or the authority to monitor compliance with these guidelines. ISD issued guidelines in March 2006, titled “D/D/O Application Development Guide for non-Enterprise IT Assets.” This document provides system development methodology guidelines to D/D/O for use in developing tools and systems; however, ISD lacks the power to enforce these guidelines.

Audit Area: Information Technology

3.2.1 Risk: Management of the Enterprise IT Application Environment — Development and deployment of new systems or applications that can occur that may not adhere to enterprise standards

Impact:

While the IR structure described above is structured to meet the needs of the end users, the structure is not without risk. The following list summarizes the possible risks, some of which TxDOT has already experienced:

- A tool or system developed by a D/D/O could be adopted by another D/D/O, but lack of development standards and protocols causes ISD to expend resources to bring the tool or system to Enterprise standards
- A tool or system developed by a D/D/O could allow a user greater access to view or possibly manipulate data than the enterprise system(s) would allow
- A tool or system developed by a D/D/O could contain sensitive information that, if not secured properly, could be viewed by unauthorized personnel or others
- A tool or system developed by a D/D/O could contain errors in development that could miscalculate monetary figures or incorrectly associate data elements that could lead to decisions based on incorrect information
- A tool or system developed by a D/D/O could execute scripts on enterprise systems that could delete or corrupt production data if the system was not thoroughly tested prior to implementation

Leading Industry Practices:

Although the D/D/Os supporting different TxDOT districts are flexible in their application of information resources, it is important to have some standardized guidelines applicable across all districts in order to safeguard sensitive data. The central IT of an organization needs to develop standards, guidelines, and policies that must be adhered to within the organization at all levels. Other organizations such as IA and management monitor and enforce compliance.

Audit Area: Information Technology

3.2.1 Risk: Management of the Enterprise IT Application Environment — Development and deployment of new systems or applications that can occur that may not adhere to enterprise standards

Conclusion/Recommendation for Improvements:

Given the risks noted above, it is recommended that the aforementioned ISD guidelines become Agency directives issued by an appropriate level of TxDOT management and to apply to all D/D/Os. The guidelines could be simplified or modified, as necessary, to broaden the applicability and to allow D/D/O IR departments to retain flexibility to allow them to accomplish their unique objectives. The guidelines should continue to contain minimum standards related to:

- Enterprise-recommended technology platform (operating system, database, programming language, etc.)
- Enterprise-recommended security architecture (e.g., work group methodology)
- IR testing and end user acceptance testing utilizing representative test data and validation testing once the new tool or system has gone “live”

While the current guidelines do state that the guidelines should be adopted to be commensurate with the size and complexity of the tool or system being developed, new mandates or directives should contain examples of these requirements. The level of scrutiny placed on the development and deployment of a new tool or system developed by a D/D/O should vary based on the function, purpose, cost, complexity, data source, or data types involved. Examples of tools or systems that may require more scrutiny than others include:

- Tools or systems where there is interest in deploying them Agency-wide in the future
- Tools or systems that contain sensitive information concerning TxDOT employees, contractors, customers, or others
- Tools or systems whose output is returned in an electronic or manual fashion to an enterprise system
- Tools or systems that exceed cost thresholds to develop and deploy
- Tools or systems that are complex in nature (e.g., source data comes from multiple sources or sources outside TxDOT)

In addition to the standards mentioned above, tools or systems developed at D/D/Os should be subject to a monitoring function to evaluate compliance with applicable standards. These tools and systems as well as ISD’s monitoring process should be considered for periodic review through IA’s annual risk assessment process. Review procedures should be designed to test whether tools or systems are developed and deployed in a manner that promotes data security, integrity, and portability that is equivalent to the function, purpose, cost, complexity, data source, or data types involved.

3.0 Information Technology

3.3 IT Strategic Planning

Audit Area: Information Technology

3.3.1 Risks: IT Strategic Planning — Legacy systems in the IT environment are no longer meeting the Department's needs; Maintenance costs appear to be a concern; and Definition and Maintenance of an overall IT system replacement plan does not exist

Background:

TxDOT currently has an IR governance structure that includes:

- **IRC** — The IRC is the governing body for TxDOT technology resources. The IRC recommends approval of operating and strategic plans to other relevant state entities, allocates resources to information resources initiatives and programs, examines project proposals, assigns data ownership and approves project leaders to projects, establishes priorities, approves significant project scope changes or funding overruns, and reviews status of ongoing projects.
- **ISD** — ISD provides information services to support TxDOT administrative and engineering business functions; manages and operates TxDOT central computer, software; and network facilities; and provides information systems. The division also provides the technical expertise to help Agency personnel use these resources, manages voice and data telecommunication systems, and provides photogrammetry services.
- **D/D/O level-IR functions** — These functions serve the needs of their respective D/D/O to provide on-site technical support, development and deployment of local projects and act as technology consultants to D/D/O leadership.

The strategic goals for TxDOT, per the 2007-2011 Strategic Plan, are to reduce congestion, enhance safety, expand economic opportunity, improve air quality, and increase the value of transportation assets. The Agency has several technology initiatives in process at any given time, and the IRC evaluates new initiatives as they are required by the Agency. The IRC ensures that ongoing and new technology projects fit the strategic direction of the Agency.

Through discussions with TxDOT executive management, ISD management, and district personnel, the IRC has made significant progress in recent years in guiding the allocation of technology resources and funds to suit the needs of the stakeholders, such as end users or citizens, to provide value to the Agency and its D/D/O.

Observation/Findings:

The IRC is the primary body to align IR with the strategic goals of the Agency. The stakeholders in the Agency submit IRRs to propose IT projects to ISD, which are then presented to the IRC and evaluated against the strategic goals of the Agency, resource allocations, and cost/benefits if the resource requirements exceed defined thresholds. However, the Agency does not appear to have a robust mechanism to evaluate existing IR assets for their ability to support the long-term strategic goals or the consideration of IT in the formation of the strategic goals.

The Agency has an IR strategic plan that is submitted to the DIR biannually; however, this document is viewed as statutory in nature and does not necessarily capture the direction of the Agency's IR assets and initiatives looking forward to mid-term and long-term goals.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Information Technology

3.3.1 Risks: IT Strategic Planning — Legacy systems in the IT environment are no longer meeting the Department's needs; Maintenance costs appear to be a concern; and Definition and Maintenance of an overall IT system replacement plan does not exist

Impact:

Although mechanisms are currently in place to ensure that resources are deployed in a manner that provides value to the Agency and its stakeholders and that resources are supporting the strategic goals of the department as a whole, there are risks that:

- The collective resources, i.e., personnel, and funds, of the department are not optimally aligned to achieve the department's strategic goals.
- Existing IR assets may not continue to meet the department's needs, leaving a time gap between existing asset obsolescence and the replacement solution, which is unacceptable to the stakeholders.

Leading Industry Practices:

Not applicable.

Conclusion/Recommendation for Improvements:

To enhance the alignment of IR goals with the strategic goals of the Agency, TxDOT should consider the following recommendations:

- Analyze current IR assets to assess their current and future ability to support the achievement of the five TxDOT strategic goals
- Study the complexity, timing, and cost of significantly enhancing or replacing IR assets (such as the FIMS strategic plan for replacement study currently underway) that are not currently supporting or will not continue to support the Agency's needs
- Develop a plan to significantly enhance or replace existing assets in accordance with the strategic goals of the Agency; continue to develop and deploy tools and systems that help stakeholders use existing IR assets to the fullest extent possible
- Continue to provide training courses, materials, and support to stakeholders to use existing IR assets to the fullest extent possible
- Continue to ensure that D/D/Os have the flexibility to meet their unique needs while enhancing mechanisms for resource and/or technology sharing where possible
- Continue to assess the role of the ISD and redirecting the resources to focus on opportunities to achieve the five strategic goals, since some of the division's traditional responsibilities are transitioning to Team for Texas and some of ISD employees' responsibilities are shifting

3.0 Information Technology

3.4 CDAs

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Information Technology

3.4.1 Risk: CDAs — Experience with Design/Build contracts suggests that ISD may not be prepared to support the new business needs in the environment of CDAs

Background:

In response to the growing transportation funding crisis, Texas introduced the CDA. CDAs are a form of public-private partnership and represent a significant change in the way that TxDOT designs, builds, maintains, and operates transportation facilities. The CDA-based approach represents a new way of doing business and could impact TxDOT business processes and information systems.

Observation/Findings:

Based upon our experience with public-private partnership programs we found that they have impacts upon the following business processes and information requirements:

- Planning and programming process
- Procurement process
- Design management process
- Contract management process
- Transportation maintenance and operations process
- Data collection requirements
- Systems integration requirements

Considering the impacts of CDAs we reviewed the inventory of existing systems at TxDOT and in consultation with the ISD made an initial determination of the impact of CDAs upon existing systems as shown in the table below:

Total Systems	No Impact	Low	Medium	High	New
172	135	28	7	2	8
100%	79%	16%	4%	1%	

The following is a description of the table categories:

Total Systems — This is the total number of computer systems evaluated as part of this review. They represent the inventory of existing TxDOT information systems supporting the department’s different business functions.

No Impact — This is the total number of systems where we determined there was no impact either because the system was not related to CDAs, it could be used for CDAs unchanged, or that CDAs are so different that the system could not be used at all. For example, the LET system for bidding construction projects cannot be used because the CDA process is a proposal process.

Low — This is the total number of systems that required minor changes to accommodate CDAs. The changes usually involved adding fields to show that the data came from a CDA project in order to segregate these projects for reporting and analysis and requires less than a three man-months of effort to make the changes.

Medium — This is the total number of systems that required moderate changes to the system to accommodate the CDAs. This involved changes requiring between three and six man-months of effort for the changes.

High — This is the number of systems that required major changes to the system to accommodate the CDAs. This involved changes requiring more than six man-months.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Information Technology	3.4.1 Risk: CDAs — Experience with Design/Build contracts suggests that ISD may not be prepared to support the new business needs in the environment of CDAs
New — We identified new systems that may be required to provide new functionality not provided by existing systems.	
Impact: TxDOT relies heavily upon information systems to manage and control its transportation program. Due to the business process changes introduced by the CDA program, we estimated that more than 20 percent of existing TxDOT systems may be impacted and eight new systems may need to be developed. Without these systems, the management and administration of the CDA program will not be as efficient or provide the same level of management controls as the traditional program.	
Leading Industry Practices: Not applicable.	
Conclusion/Recommendation for Improvements: We recommend that the offices of primary responsibility (i.e., key stakeholders) in TxDOT, along with the ISD, conduct an in-depth evaluation and assessment of their IT needs related to the CDA program as TxDOT continues planning for implementation of the CDA program.	

4.0 Human Resources

4.1 HR Strategy and Alignment

Audit Area: Human Resources

4.1.1 Risk: HR Strategy — Articulate an human resources strategy aligned to TxDOT business operations

Background:

The role of TxDOT Division HR has traditionally been one of providing programs concerning the supply of and development of people, delivering communication regarding Agency HR issues, and supporting District Management to address significant local issues. HR has been considered more of a compliance-focused department rather than a department that manages Human Capital.

With the advent of CDAs, TxDOT is embracing changes in the way projects are being funded and managed. In addition to these changes, the competition for talent is increasing just as a wave of retirements is expected. Considering the anticipated changes in the business environment, HR is interested in evaluating its role in the Agency and how it can be more effective in supporting the mission of the Agency.

Senior HR leadership recognizes an opportunity to increase partnering with Senior TxDOT leadership by developing an HR strategy that is aligned with TxDOT business strategy.

Observations/Findings:

A comprehensive HR Strategy addressing the short-, mid-, and long-term human capital issues does not exist. One factor that has hindered the development of a detailed HR strategy has been a focus on the legislatively mandated HR-to-employee ratio of 1:85. Currently, TxDOT is at a ratio of 1:88. This ratio is a snapshot in time and does not include any vacant HR positions at that time. To ensure that TxDOT maintains the 1:85 legislatively mandated ratio, each of the district offices and the HR division have a staffing allocation for designated HR positions.

Impact:

Without an HR strategy and a definition of priorities, it will be difficult to justify and select HR activities that will have an effect on TxDOT's human capital management. HR will continue to play a support role in the business of TxDOT instead of providing the business partnership that is necessary in today's complex human capital environment.

Audit Area: Human Resources

4.1.1 Risk: HR Strategy — Articulate an human resources strategy aligned to TxDOT business operations

Leading Industry Practices:

Successful HR strategies typically follow these steps:

- Start with a vision
- Gain support from senior leadership in the organization
- Describe a communication plan
- Identify obstacles in order to mitigate the potential barriers to success

HR strategies are aligned with the business and are contextually relevant. HR strategy is supported by senior management.

HR strategies also contain action plans for short-, mid-, and long-term objectives. The planning process includes strategic and operational analysis to identify, assess, and address HR needs and priorities. The results of the planning process are supported by senior leadership and other key stakeholders.

An HR strategy sets expectations regarding HR's performance. With a strategy in place that is relevant and attainable, performance measures can be set. It is important to select a limited number of measures that are indicators for overall trends. A limited set contributes to an organization's focus on the most critical objectives. For instance, if reducing cost of HR services is a strategic objective, monitoring the cost per transaction will tell senior managers whether the costs of HR transactions are rising or falling over time. On a day-to-day basis, each element contributing to the cost per transaction will likely not be reviewed by senior management. However, a trend that indicates rising costs would require further investigation to pinpoint the cause or causes of the rise.

Once performance measures are selected, a baseline is established for progress against the goals. From this point, HR sets goals for performance and implements the plan. A strategy and plan review should occur periodically to assess their relevance and effectiveness.

Conclusion/Recommendation for Improvements:

TxDOT HR should develop a comprehensive HR strategy that is supported by TxDOT senior leadership and directly addresses TxDOT's most critical human capital issues. The strategy should tie the HR department's objectives to the mission and objectives of the organization. The strategy should include a limited number of measures that will provide data regarding how HR is fulfilling its strategy and affecting the management of the workforce.

A comprehensive TxDOT HR strategy should allow HR to answer the following questions:

- What are HR's priorities and how do they relate to TxDOT's mission and strategic objectives?
- What skills and tools does HR need to address the priorities?
- How will the evolution of CDAs, or other new business practices, affect HR services?
- How will TxDOT compete in the labor market?
- How can division HR support the field HR to meet TxDOT's needs?
- How will change be managed?

As HR defines its strategy, begins to prioritize activities and objectives, a review of those positions defined as HR may become necessary to evaluate HR's capacity to achieve those objectives. This will require Legislature review of which positions are inherently HR and not more aligned with other classifications, such as administrative or IT.

Audit Area: Human Resources

4.1.2 Risk: HR Strategy — Enhance existing Workforce Plan detail to support execution of contingency activities

Background:

TxDOT's workforce demographics reflect the global labor situation. Organizations in both public and private sectors are facing an unprecedented situation with the pending retirement of the baby boomer generation. This problem is compounded by a shrinking entry-level talent pool.

In order to prepare for this business environment, division HR is using the existing data and tools to raise awareness of the expected issues. HR has developed a foundation for a detailed workforce plan by publishing a 2007-2011 Workforce Plan document for the division leaders and the districts. This plan follows the State Auditor's classification format and provides district-level demographics.

Observations/Findings:

While the TxDOT Workforce Plan outlines demographic profiles, it does not include an actionable strategy to address areas of concern. A detailed workforce plan is critical to TxDOT's operations because the current demographics of the agency indicate a labor shortage in the next five years. Some of these demographics include indicators in years of service, age of employees, and attrition statistics. TxDOT's demographic indicators include the following:

- 25 percent of the workforce, has 20 years or more of service.
- By FY 2011, almost one-third of the workforce will have become eligible for retirement.
- 71 percent of the population is more than 40 years of age; the average age is 44.5 years.

Division HR provides the districts and management with workforce data; however, it stops short of providing recommendations based on detail analysis of the data.

Impact:

The effect of the pending increase in retirements has not been tied to a business case or to the impact on the objectives of the Agency; without a detailed workforce plan, the most severe shortages cannot be identified. Without identification of these shortages, effective mitigation strategies, such as specific programs to address capability transfer, alternative work programs, and talent development, are unlikely to be executed. Without guidance from HR on specific approaches and recommendations, plans to address these needs are left to management to determine.

Audit Area: Human Resources

4.1.2 Risk: HR Strategy — Enhance existing Workforce Plan detail to support execution of contingency activities

Leading Industry Practices:

A workforce plan is a roadmap for identifying needed/critical skills and jobs. It is an assessment of current retention, recruitment, and development activities. A workforce plan includes an action plan for targeted programs and initiatives to reduce attrition, and increase productivity and employee engagement, within the context of a business case. The business case details the needs, gaps, and impacts from failing to act. It also includes the performance measures for new processes and programs.

Workforce plan characteristics include:

- Description of a systematic, fully integrated, organization-wide process that involves proactive planning
- Alignment between workforce planning efforts to business strategy and goals
- Identification of CWS required for the organization to succeed
- Establishment and monitoring of workforce assessment and plans to address gaps
- Tools to accurately monitor and analyze the workforce through a highly data-driven process

The information contained in a workforce plan will inform other people practices such as training and talent management. A workforce plan enables a fact-based approach connecting business strategy to human capital capabilities. This plan both informs and is informed by HR strategy.

Conclusion/Recommendation for Improvements:

TxDOT's management does not have the detailed information necessary to prioritize HR issues. Based on this review, the most critical issue is the likely labor crisis. Like many other public sector organizations, TxDOT will experience a critical labor shortage within the next five years unless targeted efforts are made. A detailed workforce plan is the first step in building strategies and programs to mitigate the labor shortage effects. A detailed workforce plan serves as the basis for mitigating the effects of the labor gap and the effects of the changing business environment.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.1.3 Risk: HR Strategy — Enhance organizational change management capabilities to support workforce transition based on changing TxDOT business strategies and priorities

Background:

The role of TxDOT division HR has traditionally been one of providing programs concerning the supply of and development of people, delivering communication regarding Agency HR issues, and supporting district management to address significant local issues. Given the traditional role and TxDOT's decentralized structure, division HR is subject to the discretion of district management's decisions regarding HR communications to employees.

Observations/Findings:

Division HR has no direct connection to the employees in the field. Any change management program or other Agency-wide human capital program is dependent on district management.

Impact:

Any change management program or other Agency human capital program could be limited by by district management's flexibility and interpretations.

Audit Area: Human Resources

4.1.3 Risk: HR Strategy — Enhance organizational change management capabilities to support workforce transition based on changing TxDOT business strategies and priorities

Industry Leading Practices:

An organization's capability to implement and manage a change management program will have an effect on how well the organization is able to react to a dynamic business environment. Change management capabilities typically include five key areas of activities: Planning and Management, Leadership Alignment, Communication and Stakeholder Management, Training and Development, and Workforce Transition.

- Planning and management activities define the guiding principles for supporting employees throughout the changes. During these activities, the change program leaders interface with other program leaders to fully understand the implications of change and related issues within the organization. The governance process is established, and project tracking and reporting standards are defined.
- Leadership alignment involves assessing leadership attitudes concerning the program. Once this alignment is understood, activities to address leadership issues are defined.
- Communication and stakeholder management activities include identifying stakeholders and understanding key issues in order to define key messages. These messages should be specific to stakeholder groups and their concerns. A targeted communication plan should also be developed. As part of the stakeholder analysis, a change readiness assessment should be performed.
- Training and development activities include the identification of training needs and the development of a learning strategy. If there is a specific training requirement identified, it is beneficial to track and assess the outcomes.
- Workforce transition is involved when a change occurs in job roles, distribution of employees or the number of employees. If any of these changes occur, a gap analysis is performed to understand the difference between the "as-is" and "to-be" situations. Skills assessment tracking tools, learning management systems, and other tools are used to assess employees for new roles and identify the training necessary.

Effective change management would work toward achieving three key outcomes:

- Executive leadership that agrees on the business case and vision for the change initiative, as well as understands the impact of the change on the business and actively empowers employees to change their behaviors
- Organization architecture, supporting processes (performance management, recruitment, rewards, recognition, training, and development), and culture that facilitate successful engagement with the new business processes
- Individuals who are willing, able, and empowered to change their behavior in order to enhance productivity through their effective application of the new business processes

Conclusion/Recommendation for Improvements:

As TxDOT begins to integrate new business processes involved in administering CDAs and managing the associated changes, TxDOT should consider the development of a formal change management capability that will help transition the Agency's strategies and priorities.

Developing a change management capability defines who, what, and when information will be shared with those affected by changes. General communications should be used to keep all businesses informed of the progress made to date. Change management should move employees from a state of awareness to understanding to acceptance and ownership of the changes that are occurring.

4.0 Human Resources

4.2 Talent Management

Audit Area: Human Resources

4.2.1 Risk: Talent Management — Improve consistency in the execution of the performance management process across the Department

Background:

TxDOT has a formal performance appraisal process that is clearly documented and is performed annually by managers and employees. They have access to training and comprehensive tools. While the intent, tools, and methodology are in place, the performance management process is executed inconsistently across the Agency. The performance management process assesses job tasks, but goals and competencies are not assessed or linked to Agency goals. Managers are not consistently held accountable on executing HR practices such as mentoring and development of staff. Differentiating between low and high performers is not optimal as in 2006 when 84 percent of TxDOT employees were rated either “Exceeds” or “Superior.”

Observations/Findings:

Performance management and employee development for individual TxDOT employees are highly dependent on the supervisor. Based on interviews at the district level, performance evaluations are tied to the functional objectives of the job. The assessments may be monitored by district’s HR for compliance to TxDOT’s standards. Strategic objectives of the Agency or the district typically are not communicated in the performance assessments of the individual contributor.

Impact:

At this time, the evaluation process cannot be consistently enforced across districts.

Evaluations are not tied to an inventory of skills or level of skills attained by the workforce. While the components of a skills inventory exist, these components of the inventory are not part of an integrated talent management system. Without a skills inventory, TxDOT management is not able to accurately assess the organization’s capability.

Leading Industry Practices:

A performance management system describes the competencies and behaviors that will enable an organization to implement new processes and deliver on strategy. It should also provide practical suggestions for performance objectives, as well as development activities for the employees to illustrate how these objectives can be achieved in practice.

Effective performance management is most likely to occur as a result of a systematic approach to the development of skills and consistent communication with employees. An inventory of skills and skill levels provides granular data to form an understanding of the strengths and weaknesses of the workforce and its organizational capacity.

A skills assessment collects data that can help inform talent placement in the new environment. The primary objectives of the skills assessment are to define and assess functional skills required of employees, estimate workload requirements, and inform talent management activities.

Conclusion/Recommendation for Improvements:

A workforce assessment is the foundation that ties job performance to the objectives of the Agency. To increase the effectiveness of the current performance management approach, TxDOT should perform a workforce assessment. The assessment should include information regarding critical skill requirements for the Agency.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.2.1 Risk: Talent Management — Improve consistency in the execution of the performance management process across the Department

TxDOT can use this data to inform the training and development programs. Employees and supervisors should use this information during the annual evaluation cycle to identify training and development activities that are likely to improve job performance. In this way, workforce assessment results improve upon the current performance management process by tying development activities to the Agency's objectives.

An understanding of individual performance against the context of desired organizational capacity would enable TxDOT to increase the effectiveness of its investments with regard to hiring, retention, and training and development.

Audit Area: Human Resources

4.2.2 Risk: Talent Management — Enhance retention policies and programs for the new generation of TxDOT employees

Background:

The composition of the TxDOT workforce and the market in which it competes for talent is changing. A large portion of the TxDOT workforce will become eligible to retire in five years, and the length of employee tenure is decreasing. TxDOT will be forced to compete with the private sector for the limited supply of qualified computer systems analysts, engineers, skilled managers, accountants, and other professions. TxDOT is dependent on hiring a large number of entry-level employees who are provided with on-the-job skills development, training, and certifications necessary to perform their jobs. Recent employee demographic trends show an increasing number of employees separating before reaching four years of service.

Observations/Findings:

Compensation is alleged to be affecting retention. The pay scales are perceived to be appropriate for most entry-level classifications, but are not adequate in the high-demand classifications in the district. Some specific high-demand classifications include engineering and environmental categories. Aggregated state compensation analysis justifies the pay scales as a whole, but management's perception is that what is equitable in rural districts may not be the same for the metropolitan and high-growth districts, particularly as the employee gains experience and training.

Exit surveys completed by separating employees show that 48 percent of employees leaving TxDOT do so in the first four years of service. The perception of District Management is that when employees gain experience and receive job-related training, private companies are able to make offers of significantly higher salaries. Exit surveys and discussions with management show that those indicating better pay or better benefits as a reason for leaving do so for an increase in salary of \$5,000 or more.

Impact:

TxDOT is spending training dollars on candidates who then leave once they are certified or reach an experienced skill level. If the trends continue and the business environment remains competitive, TxDOT is likely to face a labor shortage.

Leading Industry Practices:

While each employee has a specific role to play that enables TxDOT to fulfill its objective, it is necessary to understand who is leaving and why. Identifying who is leaving is important to developing a business case regarding actions to take. These actions could be focused on retention or reducing costs in onboarding and training for that position. This is dependent on how an employee's role creates value for the organization. The concept of CWS focuses programs on retention of the employees who create the most value for the organization. Identifying why they are leaving informs management of issues that could be addressed to prevent other employees from leaving.

CWS are defined as those groups or employees within an organization who drive a disproportionate amount of value creation in comparison to their peers. Characteristics of these employee groups include:

- Directly impacts key business outcomes
- Represents a distinct minority of the total payroll
- Possesses highly developed skills and deep knowledge
- Influences shareholder or customer value by engaging in work activities that directly impact the organization's value chain

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.2.2 Risk: Talent Management — Enhance retention policies and programs for the new generation of TxDOT employees

Conclusion/Recommendation for Improvements:

TxDOT should perform a detailed workforce analysis that includes identifying the CWS. The results of the assessment should lead to suggestions for activities that will increase the retention levels in those segments.

Additionally, an emphasis on separating employees completing the exit interviews can be used for analysis and development of retention program activities. This task should be included in the final tasks for separating employees.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.2.3 Risk: Talent Management — Enhance existing recruiting strategy

Background:

Historically, TxDOT's primary recruiting tool for entry-level engineering and technical jobs is campus recruiting and job fairs. As the business environment has become more competitive, TxDOT has established community outreach and partnerships to engage potential candidates in the transportation industry. Some of these programs include co-op programs with local school districts to train students in technical skills or college scholarships.

Observations/Findings:

State-wide recruiting is managed through division HR; however, the perception from both district management and division HR is that effectiveness is declining. Both groups specified obstacles that include the legislature's recent changes in benefits, which erodes one of TxDOT's competitive advantages over private sector companies, and restrictions on relocation bonuses. The relocation bonus restriction limits recruiting activities to Texas and specifically to the district in which the candidate currently resides.

Impact:

While TxDOT has a recruiting program and process in place, Division Recruiters, District HR Officers, and District Engineers provided feedback that, in the current competitive talent acquisition environment, recruiting efforts are obstructed by certain state policies such as decreasing levels of benefits and restrictions on offering relocation packages.

Districts have successful and innovative recruiting practices that could be leveraged across TxDOT. However, since they do not have a structure or regular opportunities to share these lessons, districts are not benefiting from the others' experience.

Leading Industry Practices:

A comprehensive recruiting program is part of an overall labor strategy that addresses both the supply from the labor market and the labor demands of the organization. By leveraging the existing data, a detailed workforce plan, and an assessment, organizations choose which programs to focus on by running scenarios that quantify the results in terms of the business impacts. The results of the scenarios indicate the most effective programs. The key areas of activities are:

- **Attraction and Selection** — Develop aggressive programs that capture a disproportionate share of available and qualified talent
- **Talent Retention/Extension** — Redesign retirement and rewards programs, increase training and internal mobility and promote extended lengths of service and increase competitiveness for talent
- **External Talent Development** — Develop programs and alliances to train talent that does not bring requisite skills
- **Alternative Work Programs** — Develop programs to reach new and emerging talent pools and accommodate existing worker preferences
- **Capability Transfer** — Develop programs to retain knowledge as talent leaves and share knowledge to aid in performance of junior staff
- **Productivity Enhancement** — Develop aggressive productivity programs to enhance overall organizational performance through business process reengineering and organizational consolidations
- **Automation** — Develop systems-based automated solutions to eliminate or shift work
- **Sourcing** — Evaluate and implement beneficial sourcing alternatives such as outsourcing, cosourcing, or

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources	4.2.3 Risk: Talent Management — Enhance existing recruiting strategy
shared service operations	
<ul style="list-style-type: none">• Self-Service — Redesign product and service programs to capitalize on customer and manager self-service	
Conclusion/Recommendation for Improvements:	
<p>TxDOT is in a very competitive talent management environment. As part of an overall Talent Management Strategy, TxDOT should examine and monitor the effectiveness of recruiting activities. The current program should be modified as necessary to increase effectiveness and enhanced to include a link to the objectives of the Agency and the HR strategy.</p>	

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.2.4 Risk: Talent Management —Develop a comprehensive formal leadership succession planning program

Background:

TxDOT does not currently have a formal leadership succession planning program or framework tied to an integrated Talent Management strategy. However, TxDOT management recognizes the need to ensure knowledge transfer and invest in development of future leadership candidates. At TxDOT, critical jobs and respective career paths have not yet been identified nor have the competencies required to perform in these critical positions been identified.

Observations/Findings:

Leadership programs are dependent on the District Engineer. Leadership training such as succession planning or job rotation is not standardized across districts. For instance, preselection is perceived to be an issue that prohibits a succession planning program in some districts. On the other hand, the perception is that employees selected to take part in Mobility Initiatives are usually the high performers. These employees selected to work on or around the CDA processes are likely to develop skills that are critical to TxDOT's future, but this development has not been formalized.

A Talent Management strategy that develops deploys and connects critical skill sets that drive business priorities has not been established.

Impact:

Due to the autonomy given to District Engineers and the lack of planning, retirees will be leaving with institutional knowledge without a formalized way to pass this knowledge to their successors.

Leadership development without clear schedules of training and placing high performers in leadership opportunities translates into uneven skills and abilities of future managers and directors. This variance in a standard skill set for leaders will result in future managers and directors who are less prepared for their leadership roles at a time when effective management is critical. TxDOT's ability to meet its objectives successfully is likely to be negatively influenced by leaders who are not prepared for their roles or responsibilities.

Leading Industry Practices:

A succession plan ensures that organizations have the people with the right skills to lead the organization to fulfilling its objectives. Part of developing a succession plan is developing a resource plan. Resource planning provides a direct link between a workforce plan, the organizational objectives, and the business unit plan. The plan emphasizes skills and competencies rather than demographic numbers. Resource planning is performed by a partnership between HR and business unit management.

Succession planning should be linked to a standardized competency model that includes leadership and managerial skills, not only technical skills. The depth of a succession plan includes critical workforce segments at all levels of the company, as well as individuals with unique skill sets.

Succession planning is an annual event supported by year-round leadership training and development programs. The types of activities that should be in the plan include job rotation programs, training development milestones, managerial and leadership training, and mentoring. The succession planning process should be transparent. The process should identify the managers who are responsible for working with employees to create development plans.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.2.4 Risk: Talent Management —Develop a comprehensive formal leadership succession planning program

Conclusion/Recommendation for Improvements:

The people practices are a key element in how TxDOT survives the pending labor shortage. Due to the decentralized nature of TxDOT, these practices are highly dependent on the District Engineers. Their guidance and philosophy on performance management, strategic goal setting, retention practices, training, and succession planning are what gets implemented in the field. TxDOT should consider a formalized training program for high performers that includes development of new business skills required by CDAs or other new processes.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.2.5 Risk: Talent Management — Enhance and integrate existing talent management strategy

Background:

While HR recognizes the upcoming Talent Management crisis, it does not have a strategy to mitigate Agency risks. While HR has specific programs to address recruiting and training, a comprehensive talent management program commensurate to the size and complexity of the agency does not exist.

Observations/Findings:

Division HR sees the value in moving toward a human capital planning HR organization in order to provide mission-related, data-driven solutions, but is constrained by the technology in place. The foundation of data and programs exists; however, HR has challenges concerning building a business case for investments due to the lack of appropriate analysis tools. The ability to access, analyze and manipulate talent management trends is limited by the lack of appropriate tools.

Impact:

HR has an opportunity to provide support to TxDOT as it faces the labor shortage; however, given the existing structure and tools available to HR, support will be limited to communication and providing data.

Independently, the programs that target talent management issues are not as effective as they would be as part of an integrated talent management program. Without a standardized approach, including the same processes being applied to all districts, it is difficult to see how TxDOT will effectively attract and retain the workforce it needs for the future.

Leading Industry Practices:

Talent management provides three primary areas that enable an organization to recruit and retain the right number of people with the right skills to fulfill that organization's mission and objectives. These areas include (1) identification of the skills and competencies essential to achieving the business strategy; (2) understanding the challenges and opportunities to delivering a workforce with the required skills and competencies; and (3) strategies, solutions, and enablers that overcome the challenges, leverages the opportunities, and optimizes the delivery of a workforce with the required skills and competencies.

The key areas of an Integrated talent management program are as follows:

- **Recruiting and Staffing** — Focuses on attracting, identifying, acquiring, and deploying internal and external candidates to effectively staff an organization.
- **Orientation, Onboarding, and Assimilation** — Focuses on the relationships and networks for rapid integration. There is an emphasis on building core capabilities to be an effective employee in a particular corporate culture.
- **Learning and Development** — Focuses on the development of the capabilities of individuals and teams to deliver sustained success to organizations through a focus on learning strategy, systems and courses, knowledge management, and leadership.
- **Performance Management** — Focuses on the strategic, integrated process of setting, tracking, and measuring individual performance objectives against organizational goals and competencies.
- **Rewards and Recognition** — Focuses on the financial and nonfinancial impacts aligned with performance goals, as well as compensation strategies for hiring and retaining critical competencies in the market.
- **Workforce Transition** — Focuses on the process of making appropriate decisions concerning the

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.2.5 Risk: Talent Management — Enhance and integrate existing talent management strategy

retention, redeployment, and transition of employees to meet the organization's near- and long-term strategic, financial, and operational goals.

Organizations typically determine which of these areas will yield the highest returns over a specific time frame and concentrate their efforts on those areas.

Conclusion/Recommendation for Improvements:

An integrated talent management strategy should be developed by TxDOT in order to address the current competitive labor market, as well as the expected future labor shortage. This strategy should leverage the data in the workforce summaries and independent talent management programs that are already established as a foundation to perform the more detailed analysis required for an organization of this size and complexity. Based on this analysis, a mix of talent management activities, both existing and those highlighted in the Leading Industry Practice section above, should be optimized through running likely scenarios to assess the activities' effectiveness. The strategy should also include change management activities that include gaining the support of senior leadership, field HR, and other key stakeholders to provide the highest probability of success.

4.0 Human Resources

4.3 Organizational Design

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.3.1 Risk: Organizational Review — Identify any necessary organizational design changes in structure, hierarchy, span of control, skill development, performance management, and culture that may be needed to incorporate CDAs into the operating environment

Background:

With the advent of CDAs, TxDOT is embracing changes in the way Agency projects are being funded and managed. Because of the visibility of these new programs, the effect on the existing operations, and the magnitude of the projects, additional review was necessary regarding the structure of the Agency, as well as the development and management of skills as they relate to the CDAs.

CDAs represent a new way to manage the responsibilities of TxDOT, and only a few TxDOT employees are involved in the management of these programs. Most of the workforce is aligned to the traditional decentralized structure. Given TxDOT's history and business environment, the strictly decentralized structure was appropriate and served the overall mission of the Agency.

Observations/Findings:

TxDOT's traditional structure reflects a highly decentralized organization. Each district is run as an independent unit. Additionally, several Mobility Initiative offices have been set up. These offices are layered on top of the existing TxDOT structure to manage a specific scope of work. Mobility initiatives are staffed by TxDOT employees, usually from that district. Current skills required to fulfill TxDOT responsibilities in this environment have not been formally assessed. It is unknown whether new skills or a new combination of skills will be necessary.

Impact:

If the workload related to CDAs increases in the future, the separate organizational structure of the Mobility Initiatives magnifies the disadvantages of a decentralized organization. These disadvantages include lack of standardization, limited knowledge-sharing across business units, and inefficiencies in support functions.

Separate district and Mobility Initiative organizations make it unlikely that knowledge, skills, and abilities being developed by those employees in the Mobility Initiative are being transferred throughout the organization. Without an assessment of skills required for Mobility Initiative roles, any new skills or new combination of skills are unlikely to be reflected in career paths, training, and leadership development programs. Furthermore, TxDOT does not have a standard approach regarding the knowledge transfer from contractors and consultants with specialized skills to TxDOT's employees.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.3.1 Risk: Organizational Review — Identify any necessary organizational design changes in structure, hierarchy, span of control, skill development, performance management, and culture that may be needed to incorporate CDAs into the operating environment

Leading Industry Practices:

Over time, organizations need to adapt to changes in the business environment. One way to react is to assess the organization's structure. Various events can trigger an organization's need to redesign. These events can include creating a new division, a change in strategy, or a need to improve performance.

When a redesign effort is undertaken, the degrees of organizational changes can vary. The different types of reorganization include:

- Organization alignment, which has minimal changes organization and role changes
- Organization redesign, which includes moderate changes
- Organization transformation, which is a total transformation of roles and structures

Organizational design requires collaboration to ensure that processes and structure are aligned. The first step in an organization design is an organizational assessment. The objectives of this step are:

- Establish a clear vision for the organization to follow
- Build a common understanding with leaders of the vision
- Provide the guidelines and criteria for the organizational design team to follow
- Develop a communication plan to engage the entire organization
- Understand/Identify Operating Model

Conclusion/Recommendation for Improvements:

The decentralized structure of TxDOT has some strength in providing District Engineers with a level of control and management discretion. However, a review granting a greater level of authority to manage a change management program from the division level, under the direction of administration, may be required if organization changes are undertaken.

The further separation of the structure of the Mobility Initiatives affects the organizational capability by segregating those employees working on this new business process and by decreasing the efficiency of support functions. Job assessments to define and plan for the necessary knowledge, skills, and abilities of those positions required to fulfill TxDOT's CDA responsibilities are needed. Analysis of how the Mobility Initiatives can be supported most efficiently should be explored.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.3.1 Risk: Organizational Review — Identify any necessary organizational design changes in structure, hierarchy, span of control, skill development, performance management, and culture that may be needed to incorporate CDAs into the operating environment

Background:

COGs and MPOs provide transportation planning and project coordination focused on regional development. COGs are funded by state and federal grants and membership dues; MPOs were created by Federal Highway Act of 1962 and currently operates under TEA-21 Act of 1998.

Observation/Findings:

While TxDOT District and Area offices as well as COGs and MPOs provide planning and design services and project coordination, each has a different focus for providing the services. TxDOT Offices are part of a state agency and offers planning, design, and project coordination as well as operations and maintenance for interstate roads. COGs are focused on providing local government planning services for that specific area. Their services also include community services, such as Workforce Development Centers and Emergency Preparedness. MPOs exist in areas which have populations of more than 50,000 people and are assigned urban areas. They review and approve plans and designs for Federal transportation funds. They also provide project coordination for projects. The table below summarizes the services offered by these different organizations.

Duties	TxDOT District Office	TxDOT Area/Maintenance Offices	COGs	MPOs
Planning/Design	Yes	Yes	Yes	Yes
Project Coordination	Yes	Yes	Yes	Yes
Operation	Yes	Yes	No	No
Maintenance	No	Yes	No	No
Community Services	No	No	Yes	No

Because of the authority each organization uses to enable its mission (Federal, State, or grants and dues) the processes and management policies are likely to be governed by different laws, regulations, and policies.

Impact:

TxDOT’s District, Area, and Maintenance Offices and the COGs and MPOs overlap in several areas. This redundancy has several possible impacts:

- *Duplication of effort across the organizations.* In the areas where the TxDOT, COGs, and MPOs overlap, there may be confusion regarding the authority and purpose of each organization’s participation.
- *Inefficient processes due to separation of administration and services.* Each of these organizations have areas that are similar. It is likely that a process analysis of these common services could result in a streamlined process that reduces the process inefficiency.
- *Redundant locations for the same data.* All three of these organizations provide data to the public. If this data is held in separate locations, it could result in higher individual organization costs for storage and management of the data.
- *Competition for the same scarce skills in the same geographic areas.* The engineering and management skills that the COGs and MPOs utilize to accomplish their transportation objectives are the same skills TxDOT uses for its objectives. The labor market is extremely competitive for these types of skills.

Section V: Detailed Observations, Findings, and Recommendations

Audit Area: Human Resources

4.3.1 Risk: Organizational Review — Identify any necessary organizational design changes in structure, hierarchy, span of control, skill development, performance management, and culture that may be needed to incorporate CDAs into the operating environment

Leading Industry Practices:

Not applicable

Conclusion/Recommendation for Improvements:

Currently, the TxDOT field offices and COGs and MPOs are not aligned, so one or more TxDOT offices could be working with multiple COGs and MPOs. By aligning the TxDOT field offices with the COGs and MPOs, particularly in the urban areas, coordination of planning activities, project management, and communication could be simplified. TxDOT should analyze how COGs and MPOs interact with specific field offices in order to align and streamline its own processes for improved efficiency, reduced redundancy, and maximize the use of scarce skills across traditional organizational boundaries.

Section VI: Closing

The information presented in this report summarizes the findings from Phase 3 of the TxDOT requested Independent Assessment of Auditable Unit D — Management and Support Functions. With the cooperation of TxDOT employees, we performed multiple interviews in various districts and area offices. From the information gathered and analyzed, we identified risks and opportunities within the organization and provided recommendations for improvement. In addition, we identified operational strengths and exemplary practices currently being utilized by the divisions and/or districts.

Appendices

Appendix A: Workplan Checklist

Appendix B: Documentation Review List

Appendix C: Individuals Interviewed List

Appendix A: Workplan Checklist

	Audit Area	Topic	Issue	Status
1.0	Governance			
1.1	CDAs			
1.1.1	Governance	Preparation for CDAs	Comprehensiveness and effectiveness of the planning efforts to support the transition of TxDOT to an operating model that includes broader deployment of CDAs	✓
1.1.2	Governance	Preparation for CDAs	Appropriateness of planning and assessment activities for impacts on staffing	✓
1.1.3	Governance	Preparation for CDAs	Appropriateness of planning and assessment activities for impacts on business processes	✓
1.1.4	Governance	Preparation for CDAs	Appropriateness of planning and assessment activities for impacts on technology	✓
1.2	Efficiency and Effectiveness of Audit			
1.2.1	Governance	Efficiency and Effectiveness of Audit	Sufficiency of existing audit framework for the review of CDAs	✓
1.2.2	Governance	Efficiency and Effectiveness of Audit	Sufficiency of existing audit treatments and tools for the increased reliance on third party contractors	✓
1.2.3	Governance	Efficiency and Effectiveness of Audit	The role of IA	✓
1.2.4	Governance	Efficiency and Effectiveness of Audit	Sufficiency of internal auditors' knowledge, skills, and abilities relating to CDAs	✓
1.3	Risk Management			
1.3.1	Governance	Risk Management	Comprehensiveness and effectiveness of the enterprise risk management approach	✓
1.3.2	Governance	Risk Management	Clarity of responsibility and organizational roles for enterprise risk management	✓
2.0	Finance			

Appendix A: Workplan Checklist

	Audit Area	Topic	Issue	Status
2.1	Planning, Financial Leadership, and Procedural Development for CDAs			
2.1.1	Finance	Planning, Financial Leadership, and Procedural Development for CDAs	Comprehensiveness and clarity of the knowledge transfer plans governing the development of financial management expertise within TxDOT from the third-party resources	✓
2.1.2	Finance	Planning, Financial Leadership, and Procedural Development for CDAs	Comprehensiveness and applicability of the TxDOT approach to assess the impacts of the CDA environment on the programs and services of TxDOT	✓
2.1.3	Finance	Planning, Financial Leadership, and Procedural Development for CDAs	Appropriateness of the level and areas of expertise being developed within TxDOT in support of CDAs	✓
2.1.4	Finance	Planning, Financial Leadership, and Procedural Development for CDAs	Progress and direction of the definition of accounting treatments for CDAs	✓
2.2	Record and Reporting			
2.2.1	Finance	Record and Reporting	Assess the vendor/contractor base to identify concentrations of manual warrants	✓
2.2.2	Finance	Record and Reporting	Identify opportunities to move vendors to electronic warrant processing	✓
2.2.3	Finance	Record and Reporting	Identify FTEs and/or roles and responsibilities that may be redeployed if TxDOT moves toward increasing electronic warrant processing	✓
2.2.4	Finance	Record and Reporting	Review the FIMS modification prioritization protocol	✓
2.3	Reporting and Analysis			
2.3.1	Finance	Reporting and Analysis	Appropriateness of the level of staffing required to support financial reporting responsibilities	✓
2.3.2	Finance	Reporting and Analysis	Adequacy of the performance management support capabilities of FIMS	✓

Appendix A: Workplan Checklist

	Audit Area	Topic	Issue	Status
3.0	Information Technology			
3.1	DCS Transition Planning and Implementation			
3.1.1	IT	DCS Transition Planning and Implementation	Completeness of plans, procedures, and controls contemplated in the transition plan	✓
3.1.2	IT	DCS Transition Planning and Implementation		✓
3.2	Management of the Enterprise IT Application Environment			
3.2.1	IT	Management of the Enterprise IT Application Environment	Development and deployment of new systems or applications can occur that may not adhere to enterprise standards	✓
3.3	IT Strategic Planning			
3.3.1	IT	IT Strategic Planning	Legacy systems in the IT environment are no longer meeting the Department's needs; Maintenance costs appear to be a concern; and Definition and maintenance of an overall IT system replacement plan does not exist	✓
3.4	Comprehensive Development Agreements			
3.4.1	IT	Comprehensive Development Agreements	Experience with Design/Build contracts suggests that ISD may not be prepared for the new business model	✓
4.0	Human Resources			
4.1	HR Strategy and Alignment			
4.1.1	HR	HR Strategy and Alignment	Articulate of an HR strategy aligned to TxDOT business operations	✓
4.1.2	HR	HR Strategy and Alignment	Enhance existing workforce plan detail to support execution of contingency activities	✓
4.1.3	HR	HR Strategy and Alignment	Enhance organizational change management capabilities to support workforce transition based on changing TxDOT business strategies and priorities	✓

Appendix A: Workplan Checklist

	Audit Area	Topic	Issue	Status
4.2	Talent Management			
4.2.1	HR	Talent Management	Improve consistency in the execution of the performance management process across the Department	✓
4.2.2	HR	Talent Management	Enhance retention policies and programs for the new generation of TxDOT employees	✓
4.2.3	HR	Talent Management	Enhance existing recruiting strategy	✓
4.2.4	HR	Talent Management	Develop a comprehensive formal leadership succession planning program	✓
4.2.5	HR	Talent Management	Enhance and integrate existing Talent Management strategy	✓
4.3	Organizational Design			
4.3.1	HR	Organizational Design	Identify any necessary organizational design changes in structure, hierarchy, span of control, skill development, performance management, and culture that may be needed to incorporate CDAs into the operating environment	✓

Appendix B: Documentation Review List

Documents
Texas Department of Transportation (TxDOT) Organization Chart
TxDOT Division Organization Charts
TxDOT Division Functional Overview
TxDOT Division Policy and Procedures
TxDOT Office Organization Charts
Texas Transportation Commission – Forward Momentum, A Report to the 110th Congress, 1st Session
TxDOT – Meeting the Transportation Challenge, 80th Legislative Session
“Texas has a plan – Strategic Plan for 2007-2011”
TxDOT Full Time Equivalent (FTE) Report – First Quarter FY 2007
TxDOT Legislative Appropriation Requests
TxDOT Finance Explanation of Purpose of Financial Reports from FIMS
Texas Sunset Commission Advisory Report 1996
TxDOT Budget Manual
TxDOT Financial Management Manual
TxDOT MSMS Users Manual
TxDOT Payroll Manual
TxDOT Operations Manual
TxDOT Property Management Manual
TxDOT Purchasing Manual
TxDOT Revenue Accounting Manual
TxDOT Travel Manual
2007-2011 Workforce Plan
FY2006 Annual Training Report
HR Online Documentation
HR System Overview
FY 2006 Occupational Safety Division's Statistical Summary Report
Average Starting Rate for Engineering Assistant II November 2000 – November 2006
FY2002 – FY2006 Performance Evaluation Ratings
Information Systems Division (ISD) Organization Chart
ISD Description of Business Units
Financial Information Management Systems (FIMS) interfaces diagram
TxDOT Computer Applications Inventory
Data Center Services Transformation Milestones by Agency
Data Center Services Agency Transformational Plan
Data Center Services Transformation Milestones Enterprise
Data Center Services Critical Milestones
Financial Transactions (warrants) – Manual and Direct Deposit
Annual Report on Measures (submitted to the Legislative Budget Board)
TxDOT Computer Application Inventory
TxDOT Construction Maintenance Project Life Cycle IT applications (.pdf)
Comprehensive Development Agreement Programmatic Term Sheet
Office of Primary Responsibilities (OPR) Guidelines
Information Systems Division (ISD) Services Guide
Information Resource Council (IRC) Overview
Audit Report 403-6F
IBM Contract (Division of Information Resources website)
Construction Applications Diagram
Data Center Download – January 2006

Appendix B: Documentation Review List

Documents
Team for Texas – TxDOT Transition Plan
D/D/O Application Development Guide
IRC Summary Documents – February 2007
TxDOT Information Resource Strategic Plan – 2006
TxDOT Legislative Appropriation Request for Fiscal Years 2008 and 2009
Texas State Auditor’s “A Biennial Report on Recommended Adjustments to the Classification Salary Schedules (2000)”
Biennial Report on the State’s Classification Plan, September 2006, Report 07-702
2007 Unified Transportation Program Statewide Mobility Program
Texas Department of Transportation Regional Mobility Authority
Guide to Employee Evaluations
Texas Department of Transportation Workforce Summary Guide Prepared by the State Auditor’s Classification Team
TxDOT Human Resources Manual
TxDOT Annual Training Report, Fiscal Year 2006
TxDOT Workforce Summary: Districts
TxDOT Workforce Summary: Division
TxDOT Workforce Summary, FY 2006
2007 Budget and Performance Assessments
TxDOT Classification Schedule
Training Needs and Comparisons, FY 2007
Creating Tomorrow’s Transportation System, Strategic Plan 2007-2011
Job Classification Information
Performance Planning and Review Instructions
Audit Plan and Risk Analysis of Auditable Unit D – Management Support (Phases 1 and 2)
Guidance for Use of Federal Aid State Core Program Funds for Training, Education, and Workforce Development (SAFETEA-LU Section 5204 (e))
Training Needs Survey for FY08
TxDOT Standing Committee on Training – Workforce Development and a Strategic Plan
TxDOT Administrator’s Statement – Automated Budget and Evaluation System of Texas
Annual Report on Measures, FY 2006
TxDOT Audit Office Organization
TxDOT Overview of an Internal Controls Audit
TxDOT Internal Audit Forms
TxDOT Internal Audit Guidelines
TxDOT Audit Plan
TxDOT Internal Audit Reports
TxDOT Internal Audit Consulting Activities
TxDOT Who is Auditing TxDOT
State Auditor’s Office Audit Reports
TxDOT Peer Review Report
TxDOT Risk Assessment
TxDOT CPE Requirement
TxDOT District/Division Peer Review Program
TxDOT District/Division Regional Meeting Agendas and Minutes
TxDOT Sample of Audit Programs
TxDOT CPE Requirements
State Auditor’s Office Reports
TxDOT Internal Audit Selected Metrics
TxDOT Average Rates for Use in Cost Evaluations
TxDOT Peer Reviewers Auditor Information
TxDOT Peer Review Panel

Appendix B: Documentation Review List

Documents
TxDOT Peer Review Schedule
TxDOT Peer Review History
TxDOT–Historical Background on the development of District/Division Offices Peer Review Programs
State Agency Coordinating Committee (SACC)–SAOAF
American Association of State Highway and Transportation Officials Internal Audit Guide
International Standards for the Professional Practice of Internal Auditing – IIA (Red Book)
Government Auditing Standards (Yellow Book)
Committee of Sponsoring Organizations of the Tradeway Commission (COSO)
Risk Assessment – Audit
Risk Assessment – CDA
COSO – Enterprise Risk Management
Memorandum – Legacy Systems and Third Party Submission Requirements
Memorandum – New Rules Relating to the Texas Department of Transportation Comprehensive Development Agreements
Texas Transportation Commission Correspondence to Senator Ogden
TxDOT: Open for Business – Comprehensive Development Agreements
TxDOT: Open for Business– A Guide to Accelerating Transportation Projects
Creating Tomorrow's Transportation System – Strategic Plan 2003-2007
Guide to Performance Measure Management 2006 Edition- Legislative Budget Board
Launching the Next Generation of CDA Projects – Industry Workshop
Performance Measure Reporting for State Agencies – Legislative Budget Board–December 2005
TxDOT District Organization Chart
TxDOT Workforce Plan 2007-2011
Texas Sunset Commission Advisory Report 1996

Appendix C: Individuals Interviewed List

Appendix C: Individuals Interviewed List

Individual	Title	District/Division/Office	Phase
Michael W. Behrens, P.E.	Executive Director	Executive	1
Amadeo Saenz, Jr. P.E.	Assistant Executive Director for Engineering Operations	Executive	1, 3
Steven E. Simmons	Deputy Executive Director	Executive	3
Ed Senra	Assistant Executive Director for Support Operations	Executive	1, 3
Ned Holmes	Commissioner	Executive	3
Bob Jackson	General Counsel	Office of General Counsel	1
Leonard Reese	Associate General Counsel	Office of General Counsel	1
James Bass	Chief Financial Officer	Finance	1, 3
John Munoz	Deputy Finance Division Director	Finance	3
Jose Hernandez	Director – Debt Management	Finance	3
Duane Sullivan	CPA - Director - Debt Management	Finance	1, 3
Paul Campbell	Director – Claims Management	Finance	1, 3
Brian Hohle	Manager – Voucher Processing	Finance	3
Glen Knipsten	CPA – Manager – Financial Reports/ Project Ledgers	Finance	3
Diana Smith	CPA – Financial Reports/Project Ledgers	Finance	3
Silvia Morales	CPA – Financial Reports/Project Ledgers	Finance	3
Devine Yukiko	Budget Department	Finance	3
Lanny Wadle	Director – Funds Management	Finance	3
Steven Bolles	Budget Department	Finance	3
Robert Snipes	Voucher Processing	Finance	3
Ronnie Brown	Supervisor	Finance	3
Diana Isabel	Director	HR	3
Robert Eason, Jr.	Deputy Director	HR	3
Deborah Moore	Employee Conduct and Assistance Program	HR	3
Bennie Uribe	Employee Opportunities	HR	1, 3
Ray Belk	Training, Quality and Development	HR	3
Christine White	Strategic Management, Resource Management	HR	3
Paul Summerbell	Manager	HR	1
Marshall Hinton	Manager	Information Systems Division	3
Madjid Benchou	Manager	Information Systems Division	3
Darryl Zercher	Manager	Information Systems Division	3
Dale Krueger	Customer Representative	Division of Information Resources	3
Will McCarley	Administrator	Division of Information Resources	3
Lee Stone	Internal Auditor	Internal Audit	1
Tonia Ramirez	Manager – Research Section	Government and Business Enterprise	3
Coby Chase	Director	Government and Business Enterprise	1
Helen Havelka	Manager	Government and Business Enterprises	1
Owen Whitworth	Director	Audit Office	1,3

Appendix C: Individuals Interviewed List

Individual	Title	District/Division/Office	Phase
Donna Roberts	Manager	Internal Audit	1, 3
Thelma Garcia	Manager	MIS	3
Brian Wetzig	Supervisor	MIS	3
Kent Thayer	Manager	General Services	1,3
Scott Burford	Division Director	General Services	1
James Dossett	Office Director	Business Opportunity	1
Efrem Casarez, Jr.	Director	Business Opportunity	1
Ronnie Brown	Supervisor	Claims Management	1
Sylvia Mraz	Director	Claims Management	1
Judy Skeen	Director	Information Systems Division	1
Christi Holman	Manager	Information Management	1
Mitch Pope	Manager	Technology Infrastructure Management	1
Frank Bushong	Manager	Technology Architecture Design and Implementation	1
Agustin De La Rosa	Director	International Relations	1
Randall Dillard	Director	Public Information	1
Uly Fores	Section Manager	Facilities Management	1
Randy Sakai	Section Manager	HQ Operations	1
Scott Alley	Branch Manager	Maintenance Support Branch	1
Kathy Harrison	Manager	Employee Relations	1
Jeanne Huston	Manager	Compensation Management	1
Edwin Sims	Director	Occupational Safety	1
Jerral Wyer	Manager	Safety and Industrial Hygiene	1
Tim Jennings	Manager	Customer and Application Services	1
Barry Six	Manager	Business Service	1
W. Dean Wilkerson	Manager	Engineering and Survey Systems	1
Glenn Hagle	Director	Purchasing	1
Fred Underwood	Commissioner	Texas Transportation Commission	1
Richard Williamson	Chair	Texas Transportation Commission	1
Ted Houghton	Commissioner	Texas Transportation Commission	1
Philip Russell	Director	Texas Turnpike Authority	3
Joani Bishop	Manager	Comptroller's Office	1
Alice Alvarado	Supervisor	Comptroller's Office	3
Carol Jagtiani	Internal Auditor	Austin	1,3
Enoch "Bubba" Needham	Supervising Engineer of Public Private Partnerships	Austin	3
Timothy Weight	Director of Turnpike Construction – SH130 Project Director	Austin	3
Jeff Curren	Programs Manager	Austin	3
Cathy Hunter	Human Resources	Austin	3
Sharon Little	Director of Administration	Austin	3
David Casteel	District Engineer	San Antonio	3
Frank Holzmann	San Antonio Mobility Initiative – SH130 Project Manager	San Antonio	3
Schelly Radcliff	Human Resources Officer	San Antonio	3
Cathy T. Floyd	CPA – Director of Administration	San Antonio	3
Gary Triesch	District Engineer	Houston	3

Appendix C: Individuals Interviewed List

Individual	Title	District/Division/Office	Phase
Delvin Dennis	Deputy District Engineer	Houston	3
Dan Fulghum	Human Resources	Houston	3
Julian Bundy	Director of Administration	Houston	3
Bryan Wood	District Engineer	Bryan	3
Bonnie Loehr	Director of Administration	Bryan	3
Dena Richie	Human Resources Director	Bryan	3
Maurice Mannes	Area Engineer	Bryan	3
Darrell Herzog	Maintenance Supervisor	Bryan	3
Karl Nelson	Area Engineer	Bryan	3
Walter Norwood	Maintenance Supervisor	Bryan	3