Internal Audit Report

Performance Based Maintenance Contracts

TxDOT Internal Audit Division
Objective
Determine whether Maintenance Division and selected districts have an adequate monitoring process for the performance based contracts to ensure that agreed-upon maintenance is conducted.

Opinion
Based on the audit scope areas reviewed, control mechanisms are effective and substantially address risk factors and exposures considered significant relative to impacting operational execution and compliance. The organization's system of internal controls provides reasonable assurance that most key goals and objectives will be achieved despite significant control gap corrections and improvement opportunities identified. Control gap corrections and improvement opportunities identified are likely to impact the achievement of the organization's business/control objectives, but management has agreed to corrective action plans to address the relevant risks within 6 months.

Overall Engagement Assessment
Satisfactory

<table>
<thead>
<tr>
<th>Findings</th>
<th>Control Design</th>
<th>Operating Effectiveness</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finding 1</td>
<td></td>
<td></td>
<td>Needs Improvement</td>
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<tr>
<td>Finding 2</td>
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<td>Needs Improvement</td>
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</table>

Management concurs with the above findings and prepared management action plans to address deficiencies.

Control Environment
District offices with Performance Based Maintenance Contracts (PBMC) are responsible for oversight and monitoring of contractor performance through inspections, daily communications, periodic road condition assessments, and processing of monthly payments. Policy guidance is provided, and the monitoring activities are based on the individual contract specifications. Contract administrators are used in the districts to communicate regularly with the contractors both verbally and through email. They also inspect the contracted roadway, track reported activities, calculate and process monthly payments, and hold meetings with the contractor to discuss any issues and upcoming work plans.

Tracking contractor reported activities varies depending on the contract and can include use of key performance indicators (KPI) or monthly activity reports. Road condition assessments are also used to evaluate contractor performance throughout the contract as compared to a baseline assessment that is performed at contract execution. The KPIs or activity reports and condition assessments are used to measure contractor performance, and if standards are not met, can result in deductions from the monthly base contractor payment.
## Summary Results

<table>
<thead>
<tr>
<th>Finding</th>
<th>Scope Area</th>
<th>Evidence</th>
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<tbody>
<tr>
<td>1</td>
<td>Road Condition Assessments</td>
<td>Based on review of twelve road condition assessments for seven PBMCs for calendar year 2015 the following was noted:</td>
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<td><strong>Completion of Assessments</strong></td>
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<td></td>
<td></td>
<td>• 3 of 7 (43%) PBMCs tested in six districts could not provide all necessary documentation of completed road condition assessments performed</td>
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<td><strong>Reductions in Payment</strong></td>
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<td>For the twelve road condition assessments tested, nine identified a reduction in the monthly payment made to the contractor. In testing those nine reductions, the following was identified:</td>
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<td>• Three payment reductions totaling $293,414 were waived without documenting the supporting waiver justification</td>
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<td></td>
<td>• Two payment reductions totaling $79,035 were not applied for more than 60 days after the assessment</td>
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<td>2</td>
<td>Contractor Performance Verification</td>
<td>Review of four activity reports for two PBMCs and eight Key Performance Indicator (KPI) documents for two additional PBMCs identified the following:</td>
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<td>• 8 of 12 (67%) documents tested, covering payments of $2.8 million, did not have inspection documentation to support verification of contractor performance</td>
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</table>

## Audit Scope

Audit scope included evaluation of TxDOT monitoring of contractor performance for PBMCs including documentation of inspections of contractor reported activities, monthly estimate payments, and periodic road condition assessments. Auditors interviewed personnel responsible for administering road condition assessments in calendar year 2015 for each of the seven PBMCs for total highway maintenance. Auditors selected PBMCs in the Bryan, Houston, San Antonio, and Waco districts to perform further audit work. Testing for the four PBMCs selected also included reviews of contractor performance documentation (i.e., activity reports and Key Performance Indicators (KPI)) and monthly estimate payments for October and November 2015.

The audit was performed by Alberto Calderon, Azana Headspeth, Franciou Niclas and Cynthia Scheick (Engagement Lead). The audit was conducted during the period from December 14, 2015 to February 9, 2016.
Methodology
The methodology used to complete the objectives of this audit included:

- Reviewed TxDOT internal documents including policy and procedure manuals, organizational charts, presentations, and Maintenance Division (MNT) newsletters
- Evaluated communications (e.g., emails and letters) between TxDOT and the contractors to determine if issues or concerns were being communicated effectively
- Interviewed key personal including the MNT Director, Director of Performance Based Maintenance Contracts, and staff responsible for oversight of the seven PBMCs for highway maintenance
- Reviewed GPS data for October and November 2015 for vehicles used by the contract managers and inspectors to evaluate dates of inspections to validate monitoring activities
- Evaluated Key Performance Indicator (KPI) documentation for October and November 2015 for the San Antonio and Bryan District PBMCs to determine if documentation supported TxDOT review or validation of contractor reported actions
- Evaluated the Monthly Maintenance Schedule and Monthly Work Report for October and November 2015 for the Houston (I-45) and Waco District PBMCs to determine if documentation supported TxDOT review or validation of contractor reported actions
- Tested October and November 2015 monthly estimate payments from SiteManager to see if documentation supported any payment adjustments (i.e., reductions)
- Reviewed road condition assessments (or scored road evaluations) completed in calendar year 2015 for all seven PBMCs to determine if they were completed per established timeframes and monthly contractor payments were adjusted, as necessary

These procedures were applied as necessary to perform the audit fieldwork.

Background
This report is prepared for the Texas Transportation Commission and for the Administration and Management of the Texas Department of Transportation (TxDOT). The report presents the results of the Performance Based Maintenance Contracts audit which was conducted as part of the Fiscal Year 2016 Audit Plan.

Performance Based Maintenance Contracts (PBMC) for total highway maintenance began with a pilot contract in one district in 1999. The department implemented a plan to expand private-sector service for routine maintenance in 2012, in order to provide quality maintenance with cost savings. TxDOT has awarded seven PBMC contracts in six of the twenty-five TxDOT districts for total highway maintenance (i.e., Houston, Dallas, San Antonio, Austin, Waco, and Bryan). Where PBMCs are used, contractors perform all routine maintenance including litter and debris removal, sweeping, traffic control, pavement preventive maintenance and repair, vegetation management, landscaping, and tree maintenance, as examples.

Service levels vary between the PBMCs, but some standardization was implemented in 2014 with the use of Key Performance Indicators (KPIs) to measure performance based on standard specifications. PBMCs preceding 2014 use monthly schedule plans and activity reports provided by the contractor to track activities. Four of the seven PBMCs for total highway maintenance use the 2014 KPIs to evaluate contractor performance. Two of the
PBMCs use monthly activity reports, and one PBMC uses monthly condition assessments to monitor contractor performance. Total highway maintenance contracts require condition assessments that evaluate and score components like pavement condition, traffic operations (i.e., signs and payment markers), and roadside (i.e., vegetation, litter, sweeping, drainage, and safety barriers).

MNT completes the road condition assessments for four of the seven PBMCs. The road condition assessments for the remaining three are performed by the district contract administrator. MNT was also responsible for administering two of the seven PBMCs until January 2016 when they were transferred to the respective districts for oversight and monitoring.

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards and in conformance with the International Standards for the Professional Practice of Internal Auditing. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. Recommendations to mitigate risks identified were provided to management during the engagement to assist in the formulation of the management action plans included in this report. The Internal Audit Division uses the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control – Integrated Framework version 2013.

A defined set of control objectives was utilized to focus on operational and compliance goals for the identified scope areas. Our audit opinion is an assessment of the health of the overall control environment based on (1) the effectiveness of the enterprise risk management activities throughout the audit period and (2) the degree to which the defined control objectives were being met. Our audit opinion is not a guarantee against operational sub-optimization or non-compliance particularly in areas not included in the scope of this audit.

Best Practices
The San Antonio District uses dash cameras in the inspector’s vehicles to take pictures of items needing to be addressed by the contractor. This innovative approach to oversight of contractor performance also addresses staff safety. By using dash cameras, the inspector can avoid stepping out of the vehicle in areas with heavy traffic. The date and time stamped photos also provide evidence to the contractor for items needing to be address or resolution of an issue.
Finding No. 1: Contract Compliance for Condition Assessments

Condition
Required road condition assessments for 2015 for some Performance Based Maintenance Contracts (PBMCs) were not completed. Additionally, reductions in the contractor’s monthly payment, based on condition assessment results, were waived in some cases without documentation supporting the justification for the waiver.

Effect/Potential Impact
Without required documentation to support that road condition assessments were completed, PBMCs invoices may be paid without having proper validation that work was performed. In addition, if road condition assessments are not performed, deterioration of roadways could go undetected and impact safety of the traveling public. The department waived over $293,414 in monthly payment reductions for the audit period tested.

Criteria
PBMCs include clauses that require the Department to measure the vendor performance by roadway condition assessments. Additionally, the PBMCs state these road condition assessments shall formulate the basis for a potential reduction in monthly payment and includes language that allows TxDOT to waive the reduction if it is deemed appropriate by the contract manager. Finally, the PBMCs require that the determination for waiving a reduction shall be fully documented by TxDOT and adequately demonstrate the reason for the waiver.

Cause
There is no review or reporting process to ensure the road condition assessments are being performed timely and according to the contract specifications.

Contract administrators did not document the reasons for the waiver of the reduction in the monthly contractor payment.

Evidence
The evidence obtained in the review included:

Completion of Assessments
3 of 7 (43%) PBMCs tested in six districts could not provide all necessary documentation of completed road condition assessments performed:

- Two PBMCs, that were to be completed not more than once per month, paid out $13.1 million
- One PBMC, that completed 1 of 3 required road condition assessments, paid out $1.6 million during the 4 months an assessment was not completed

Reductions in Payment
For the twelve road condition assessments tested, nine were to have a reduction in the monthly payment made to the contractor. In testing those nine reductions, the following was identified:
Performance Based Maintenance Contracts  TxDOT Internal Audit Division – Limited Scope

- 3 of 9 (33%) condition assessment reductions totaling over $293,414, were waived without documenting the reason for the waiver
- 2 of 9 (22%) condition assessment reductions totaling $79,035 per month were not applied were not applied for more than 60 days after the assessment

Management Action Plan (MAP):

MAP Owners:
Tony Moran, P.E., Director of Maintenance, Waco District

MAP 1.1:
Complete at least one condition assessment as required prior to contract expiration and document accordingly.

Completion Date:
June 15, 2016

MAP Owners:
Terry Paholek, P.E., Director of Maintenance, Bryan District
John Hudspeth, P.E., Director of Operations, Dallas District
Mark Wooldridge, P.E., Director of Maintenance, Houston District
Tony Moran, P.E., Director of Maintenance, Waco District

MAP 1.2:
- Condition assessments will be completed per contact requirements and entered on the Daily Work Report (DWR) on the dates performed with attendees and raters performing the task
- Districts will ensure condition assessments reductions are applied for each item each month until a new road condition assessment is performed unless a waiver is granted. If a waiver of the reduction is granted, the reason for the waiver will be fully documented and attached to the condition assessment in the contract file
- Contract Specialists will ensure contractor meeting minutes are attached to the DWR in Site Manager and a copy entered into the contract file. Documentation needs to include meeting dates, attendees, topics of discussion and decisions made

Completion Date:
June 15, 2016
Finding No. 2: Inspection Documentation

Condition
TxDOT inspections for performance based maintenance contracts (PBMCs) were not consistently documented in the Daily Work Report (DWR) to support validation of contractor reported activities (i.e. monthly activity reports and Key Performance Indicators (KPIs)).

Effect/Potential Impact
Missing documentation can result in payments made to the contractor where work was not performed or at the level needed. Additionally, where reductions are assessed for non-performance, documentation of conditions can provide support to avoid disputes.

Criteria
The Maintenance Contract Manual, revised January 2016, contains requirements for contract inspectors including documentation that serves as a record of activities performed during the course of contract execution. This also includes communicating with the contractor, inspecting work performed, and documenting progress and performance in the DWR.

Cause
District actions for monitoring contractor performance did not include documenting the roadway inspections being performed by TxDOT and, instead, focused on tracking the KPIs and reporting issues to the contractor.

Evidence
The evidence obtained in the review included a review of activity on 4 performance based maintenance contracts for October and November 2015. This included 4 activity reports on 2 contracts and 8 KPI documents on 2 contracts. The testing identified:

- 8 of 12 (67%) activity reports and KPI documents tested, covering payments of $2.8 million, did not have inspection documentation to support verification of contractor performance

Management Action Plan (MAP):

MAP Owners:
Terry Paholek, P.E., Director of Maintenance, Bryan District
Mark Wooldridge, P.E., Director of Maintenance, Houston District
Tony Moran, P.E., Director of Maintenance, Waco District

MAP 2.1:
- Ensure that inspection documentation is created and retained to support contractors performance for PBMCs that meet the requirements of the contract specifications or their failure to do so
  - Ensure this documentation of work performed/not performed by the contractor is attached to DWRs/Diary in SiteManager. Examples could include e-mails or photographs of work requested and performed by the contractor

Completion Date:
June 15, 2016
Summary Results Based on Enterprise Risk Management Framework

Closing Comments
The results of this audit were discussed with the Maintenance Division Director, District Engineers, and Directors of Maintenance and Operations in the districts tested. We appreciate the assistance and cooperation received from the Maintenance Division and districts contacted during this audit.