

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF SEPTEMBER 16, 2015

Item 1, Report No. 11, of the Finance, Administration and Audit Committee, which was adopted without amendment by the Council of the City of Vaughan on September 16, 2015.

1 INTERNAL AUDIT REPORT – AUDIT OF ROAD OPERATIONS

The Finance, Administration and Audit Committee recommends:

- 1) That the recommendation contained in the following report of the Director of Internal Audit, dated September 8, 2015, be approved; and
- 2) That the presentation by the Audit Project Manager and the Director of Transportation Services, Parks and Forestry Operations and C2, presentation material titled “*Road Operations Audit*”, dated September 8, 2015, be received.

Recommendation

The Director of Internal Audit recommends:

1. That the Internal Audit Report on the Audit of Road Operations be received.

Contribution to Sustainability

Internal Audit activities and reports contribute to the sustainability of the City by providing advice and assurance that controls supporting the effective delivery of services and programs are effective. Longer term sustainability needs the support of good, efficient risk mitigation strategies. Internal Audit can provide support for that sustainability by providing independent advice and assurance.

Economic Impact

There are no direct economic impacts associated with this report.

Communications Plan

Not applicable.

Purpose

To present to the Finance, Administration and Audit Committee the Internal Audit Report on Road Operations and to provide an evaluation of operational process and controls, as well as opportunities for improvement.

Background - Analysis and Options

This audit was done to evaluate the adequacy and effectiveness of the internal controls, processes and procedures in place to mitigate the business risks associated with the Roads Maintenance division’s summer maintenance programs.

The audit was part of the 2012 to 2014 Revised Risk Based Internal Audit Plan previously approved by the Finance, Administration and Audit Committee.

Relationship to Vaughan Vision 2020/Strategic Plan

This report supports the strategic goal of management excellence through financial stability and effective governance.

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Regional Implications

Not applicable.

Conclusion

Improvements are required to ensure risks related to the Road Maintenance division's activities are efficiently and effectively mitigated. The following opportunities were identified:

- Developing and implementing formal department specific operational health and safety training programs.
- Improving monitoring and oversight activities over several processes including road patrols, work order administration, inspections and contract administration.
- Developing a corporate wide strategic policy to govern the purchase, use and distribution of vehicles, machinery, equipment and inventory.
- Leveraging advances in technology to assist with service delivery, data analytics, management reporting and automation of additional processes.

Attachment

1. Internal Audit Report – Audit of Road Operations

Report prepared by

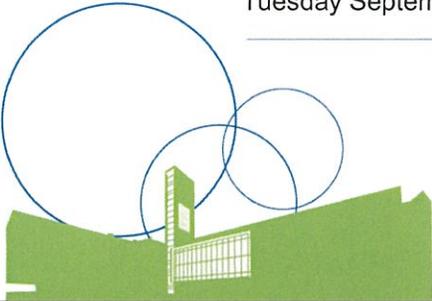
Kevin Shapiro CIA, CFE, CRMA
Audit Project Manager

(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)

<u>C 2</u>	
COMMUNICATION	
FAA -	<u>SEPT 8/15</u>
ITEM -	<u>1</u>

Road Operations Audit

Tuesday September 8th, 2015



Today's Presentation

- Audit Objective, Scope and Methodology
- Audit Conclusion
- Audit Recommendations
- Management Response and Action Plans
- Next Steps
- Questions



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Audit Objective

- To evaluate the effectiveness of the controls, processes and procedures in place to mitigate the business risks associated with the Roads Maintenance division's summer maintenance programs.



Audit Scope & Methodology

- Review of existing Policies and Procedures
- Staff interviews
- Data analytics
- Sampling of work orders and 3rd party service agreements.
- Review period was 2013 and 2014 summer maintenance activities.

Not in Scope: → Winter Maintenance Programs.



Audit Conclusion

- No evidence of inappropriate or irregular activities for the period under review.
- Opportunities exist to ensure risks related to the Road Maintenance division's activities are efficiently and effectively mitigated.



Audit Recommendations

1. Develop formal department specific operational training programs.
2. Improve monitoring and oversight processes.
3. Develop a strategy to govern the purchase, use and distribution of assets.
4. Invest in technological advances to assist with service delivery, data analytics, management reporting and automation of processes.



Management Action Plans

1. Develop formal department specific operational training programs:

- Development of job specific competencies.
- Competency assessments prior to certifying staff is sufficiently trained to perform duties.
- Formal roles, responsibilities and expectations to be incorporated into procedure documents.
- Consolidated records and training library.



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Management Action Plans

2. Improve monitoring and oversight processes:

- Reclassification of work order data capture to ensure MMS compliance and for setting work order priorities.
- Implementation of formal inspection processes.



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Management Action Plans

3. Develop a strategy to govern the purchase, use and distribution of assets:

- Update existing Fleet policy to incorporate 2015 operating reality.
- Identify minimum utilization rates for vehicles and equipment.
- Re-purpose assets within the corporation the area's of need, prior to adding to the Fleet.
- Train staff on legislative and daily maintenance requirements for operating vehicles and equipment



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Management Action Plans

4. Invest in technological advances to assist with service delivery, data analytics, management reporting and automation of processes:

- Internal process review currently under way with CAM and ICI.
- Develop a list of requirements for Computer Maintenance Management System (CMMS)
- Integration with Route Patrol Manager (RPM).



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Next Steps

- Action plans have been developed.
- Implementation is underway.
- Internal Audit will follow-up and report on the status of these action plans.



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Questions?



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INTERNAL AUDIT REPORT – AUDIT OF ROAD OPERATIONS

Recommendation

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Regional Implications

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Conclusion

Improvements are required to ensure risks related to the Road Maintenance division's activities are efficiently and effectively mitigated. The following opportunities were identified:

- Developing and implementing formal department specific operational health and safety training programs.

- Improving monitoring and oversight activities over several processes including road patrols, work order administration, inspections and contract administration.
- Developing a corporate wide strategic policy to govern the purchase, use and distribution of vehicles, machinery, equipment and inventory.
- Leveraging advances in technology to assist with service delivery, data analytics, management reporting and automation of additional processes.

Attachment

1. Internal Audit Report – Audit of Road Operations

Report prepared by:

Kevin Shapiro CIA, CFE, CRMA
Audit Project Manager

Respectfully submitted,

Paul Wallis CPA, CMA CIA CISA CRMA
Director, Internal Audit



INTERNAL AUDIT REPORT

Road Operations Audit

March 2015

INTERNAL AUDIT REPORT

AUDIT OF ROAD OPERATIONS

CONCLUSION AND SUMMARY

Improvements are required to ensure risks related to the Road Maintenance division's activities are efficiently and effectively mitigated. The following opportunities were identified:

- Developing and implementing formal department specific operational health and safety training programs.
- Improving monitoring and oversight activities over several processes including road patrols, work order administration, inspections and contract administration.
- Developing a corporate wide strategic policy to govern the purchase, use and distribution of vehicles, machinery, equipment and inventory.
- Leveraging advances in technology to assist with service delivery, data analytics, management reporting and automation of additional processes.

The City of Vaughan is committed to ensuring the health and safety of its employees in the workplace. The City's Occupational Health and Safety policies and procedures manual covers several topics including personal protective equipment, safe work practices and health & safety training. Implementing a more formal approach for developing and implementing department specific operational health and safety training programs will help mitigate the risk of work place injuries or errors, which may compromise the health & safety of City staff and the general public.

Management oversight is an important element of the City's overall governance framework. As the City continues to grow, management will need to continually assess whether the City has the right tools, resources and controls in place to mitigate the most crucial risks facing the organization. There are increased operational, financial, liability and reputational risks to the City when management oversight is absent or focused on activities that are not crucial to meeting the City's organizational objectives. For the Roads Maintenance division, this includes enhancing processes and use of resources to support effective supervision over project and contract administration.

Clarity and guidance is required from a City wide perspective as it relates to the purchase, use and distribution of vehicles, machinery, equipment and inventory. Developing appropriate decision making criteria, such as when to buy, lease or rent an asset, when an asset should be retired/replaced and whether an asset is over or underutilized will help mitigate the risk of not having the optimal mix of assets to deliver service in the most efficient and cost effective manner.

The recently implemented Route Patrol Manager solution has the capacity to become a more efficient and effective tool to help manage the City's ability to comply with legislative requirements for patrolling and correcting deficiencies in municipal highways. Further work will be required to determine how this system can be leveraged with the work being performed to source a Corporate Asset/Maintenance Management (CAM) solution. System integration should be a key requirement to mitigate the risks associated with manual processes that can negatively impact the way we deliver services to the public. Management, with Council support,

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should continue to explore how integrating technology with business processes can improve the way we deliver service and enhance our ability to obtain usable data for analysis and management reporting, while giving equal consideration to the appropriate controls that may be required to mitigate both current and emerging risks.

We will follow up on the status of outstanding Management Action Plans related to this audit and will report the status to the Finance, Administration and Audit Committee.

BACKGROUND

The Roads Maintenance division, part of the Transportation Services, Parks & Forestry Operations Department, supports the Public Works Commission's responsibility for Transportation Management by maintaining roads and sidewalks throughout the City in accordance with the MMS (Municipal Act 2001, O. Reg. 239/02: Minimum Maintenance Standards for Municipal Highways) and Vaughan Council Policy.

Some of the activities include curb and sidewalk repair, ditch and culvert maintenance, litter and debris pick up, road repairs, asphalt patching, sign installation, street sweeping and winter maintenance.

The Roads Maintenance division is dedicated to achieving the highest quality standards in the maintenance of the City's road and sidewalk infrastructure in a fiscally and environmentally responsible manner while continually improving training and embracing new technologies.

OBJECTIVES AND SCOPE

The objective of the audit was to evaluate the adequacy and effectiveness of the internal controls, processes and procedures in place to mitigate the business risks associated with the Roads Maintenance division's summer maintenance programs.

The audit approach included data analyses of transactional and work order data, physical sampling of records, review of City policies and procedures and interviews with staff and management.

The audit scope included summer maintenance related activities that occurred in 2013 and 2014.

The audit scope did not include a review of the Roads Maintenance division's winter maintenance programs.

Auditors: Kevin Shapiro CIA, CFE, CRMA and Catherine Atkari CIA, CFE

Author: Kevin Shapiro CIA, CFE, CRMA

Director: Paul Wallis CPA, CMA, CIA, CISA, CRMA

INTERNAL AUDIT REPORT

AUDIT OF ROAD OPERATIONS

DETAILED REPORT

1. Occupational Health and Safety Training

The City has a Corporate Occupational Health and Safety policies and procedures manual that covers several topics including personal protective equipment, safe work practices and health & safety training. Human Resources also provide regular safety training sessions of general interest, such as Competent Supervisor Training, Traffic Protection and General WHMIS Training. According to the City's Employee Health & Safety Training procedure, each department is responsible for developing and implementing their own initial and specific hands-on operational and technical training programs.

The City's Health & Safety Record Keeping procedure outlines each department's responsibility for maintaining records of training including the name of the instructor, the name(s) of the employee(s) trained, the subject of the training, the date and duration of the training, the title of the lesson plan and reading materials that were used in training.

In reviewing the Road Maintenance division's processes for developing and delivering initial and specific hands-on training programs, it was observed that the Road Maintenance division does not have a dedicated staff resource to develop and provide training. Although new staff are trained by a supervisor, foreperson or other qualified staff prior to being allowed to participate in activities on their own, criteria has not been established to determine the appropriate amount and type of training required per activity and there is no formal testing of employees' level of readiness. An employee's readiness is based on the judgment of the individual conducting the training. As a result there is increased risk that the delivery of training may be inconsistent and staff may be allowed to perform an activity before sufficient training has been completed. This may increase the risk of workplace injuries or errors, which may compromise the health & safety of City staff and the general public.

We also found non-compliance to the City's Health & Safety Training Record Keeping procedures as management does not keep formal records in accordance with the policy for operational and specific hands-on training conducted in house. In addition, management does not formally track what activities each staff member is able to perform.

The Road Maintenance division maintains a database of employee participation in formal training programs conducted by third parties and keeps copies of certificates of completion on file. However, management does not receive a copy of related training materials for reference purposes. The absence of formal training records may hinder the City's ability to defend work place accident claims and increases the risk of non-compliance to occupational health and safety legislation and internal procedures and could result in fines or other sanctions.

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Recommendation

We recommend that management:

- Develop and implement formal initial and specific hands on training and testing programs for the use of the Road Maintenance division's equipment and activity processes.
- Ensure compliance with the City's Health & Safety Record Keeping procedures.

Management Action Plan

Management agrees with the recommendations.

Transportation Services management staff will develop formal training checklists for each job classification identifying competency levels with regard to:

- Tools, equipment, materials, methods, procedures and health and safety practices.

This will enable Supervisory staff to assess new and existing employees' competency prior to certifying staff sufficiently trained to undertake various road maintenance activities.

Formal records of staff training are currently being maintained in an Excel database developed by Transportation Services supervisory staff. The Audit team has acknowledged receipt and acceptance of the current training records maintained by Transportation Services - Roads.

Moving forward, all training records for Public Works staff in Transportation Services will be formally documented and maintained in a database currently maintained by the Supervisor Compliance & Training in Environmental Services, Public Works.

With the development and implementation of a corporate-wide training and development database sponsored by Human Resources, the goal is to consolidate all training records for Transportation Services in the corporate-wide training database.

With all future training programs, Transportation Services supervisory staff will obtain a copy of all training materials provided with the intention of building a library of training resource material for various forms of training. This will enable Supervisors and staff to access the training resource materials should it be necessary to refresh knowledge or implement internal training sessions.

For each training session attended by Transportation Services staff, a copy of the attendance sign-in sheet will be obtained and filed in the overall training database.

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2. *Implementation of the Route Patrol Manager System*

To meet the requirements for patrolling the City's road network under the province's Minimum Maintenance Standards (MMS), the Route Patrol Manager mobile patrol software solution was implemented in August 2013 for use by the Roads Maintenance Division. Public Works purchased the software with the intention of capturing data in real time utilizing GPS, transferring the data to the JDE Work Order System, and retrieving archival data for defense of claims related to liability, personal injury and public/private property damage. We identified several issues related to the implementation and use of this software.

The Route Patrol Manager (RPM) solution is not integrated with JDE. Public Works approached ITM for assistance in integrating the two solutions in May 2014. Public Works received an estimate from ITM, and determined that the cost of doing so was going to be too expensive. ITM suggested that Public Works submit requirements for inclusion in a future RFP for a corporate Asset/Maintenance Management solution. As a result, the current process has resulted in a duplication of effort as work orders related to patrolling activities must also be created, updated and closed in JDE.

Our review of compensating manual processes revealed that the frequency of road patrols does not always meet legislative requirements and no evidence could be provided to support that work orders related to the deficiencies noted in the Route Patrol System had been created in JDE and actioned by staff.

Currently, the RPM system is only being used in the Road Patrol vehicle and only these employees and one supervisor have been trained to use the system. According to the Road Maintenance Services Manager, the Road Patrol position and the duties performed by these individuals is legislated, which is why only these employees have been trained to use the system. However, road patrol activities may also be performed by other staff during the course of the day in other vehicles. Since these activities are not being captured in the RPM system there is increased risk of duplicated patrolling activities, incomplete data capture and non-compliance to provincial MMS patrolling requirements.

Although the RPM solution offers several reporting tools, they have yet to be fully explored by Roads Maintenance division staff for planning, monitoring or analytical purposes. As a result, the system is currently underutilized, which increases the risk that business objectives will not be achieved. This may have a significant impact on performance management including work order prioritization, data accuracy, cost effectiveness, efficiency and service delivery.

Recommendation

We recommend that management:

- Investigate the feasibility from both a risk and cost perspective of integrating the Route Patrol software with the Corporate Asset/Maintenance Management (CAM) solution when developing requirements for the CAM project.

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- Ensure that the frequency of road patrols meets legislative requirements, data/documentation is retained to support compliance and oversight processes are developed to monitor performance.
- Ensure that deficiencies noted in the RPM system are actioned per legislative requirements, data/documentation is retained to support compliance and oversight processes are developed to monitor performance.
- Investigate the feasibility from both a risk and cost perspective of implementing the Route Patrol software solution in all vehicles where patrolling activities may be occurring.
- Examine the reporting tools that are available in the RPM system and determine the information required so that processes related to data analytics, monitoring and reporting can be developed to help management assess whether business objectives related to patrol activities are being met.

Management Action Plan

Management agrees with the recommendations.

Corporate Asset Management + ICI (Innovation and Continuous Improvement) will develop requirements for a corporate Computer Maintenance Management System (CMMS) that will incorporate integration with other solutions, such as Route Patrol Manager. Such integrations will be explored in detail after the improved work order processes have been implemented.

Supervisory staff will review road patrol data on a weekly basis to ensure frequency and documentation of patrols in Route Patrol Manager (RPM) is maintained to meet legislative requirements. All data/documentation will be retained in electronic format in RPM to support compliance with patrolling requirements. Where electronic data entry is not possible due to intermittent RPM system issues, manual reporting will be conducted to ensure continuity of patrol data documentation meeting legislative requirements.

Supervisory staff will review electronic road patrol data and the corresponding work order management process on a weekly basis to ensure RPM work orders are entered into the JD Edwards work order system to meet legislative requirements. Once field work or repairs are completed, JD Edwards work orders will be closed by Dispatch staff, followed by the closing of associated RPM work orders by Transportation Services staff. All data/documentation will be retained in electronic format to support compliance with legislated patrolling requirements and repair completion timeframes. Where electronic data entry is not possible during road patrols due to intermittent RPM system issues, manual reporting will be conducted and information will be provided to Dispatch staff for creation of JD Edwards work orders.

Transportation Services supervisory staff have implemented training for specific staff who will undertake patrol activities during the day shift. This process will utilize the electronic road patrol hardware/software during the day when the equipment would otherwise sit idle.

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This initiative will also contribute significantly to supporting compliance with legislated patrolling frequency requirements.

In cooperation with the Senior Manager of Strategic Planning, Manager of Roads Operations and Roads supervisory staff will investigate reporting options to determine best tools to support management business objectives through monitoring and data analysis.

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3. *Work Order Administration*

The Roads Maintenance division is responsible for correcting deficiencies in Municipal Highways based on the standards outlined in MMS. The Public Works Administration Dispatch team is responsible for maintaining the work order information related to these deficiencies in the JDE system on behalf of the Roads Maintenance Division. This includes notifying staff of new deficiencies, creating new work orders, updating existing work orders and closing work orders.

We identified three issues:

- Work order data is not being categorized in a manner which will allow management to determine whether road deficiencies are being corrected as per MMS legislated time performance parameters. In addition, performance parameters established by management are not aligned with the MMS parameters for all applicable work order job categories.
- Data integrity issues, caused by data entry errors, have affected the reported onsite work dates and the work order completion dates for over 3,000 closed 2014 Roads Maintenance division work order transactions.
- There is no formal data analysis, monitoring and reporting on work order data.

These issues pose significant risks to the City. Data integrity issues increase the risk that work order information may not be reliable for decision making purposes. Performance parameters that are not aligned with MMS increases the risk of non-compliance to legislative requirements for rectifying road deficiencies. The absence of formal data analysis, monitoring and reporting on work order data increases the risk that business objectives will not be achieved, which may have a significant impact on performance management and service delivery.

Recommendation

We recommend that management:

- Determine the type of work order information that all Public Works divisions require and how it should be captured and classified so that staff will have the ability to analyze the data to verify compliance with legislative requirements and internal performance metrics.
- Establish formal review and approval processes for work order data entry to ensure data accuracy.
- Assign resources in the organization to determine and perform the type of data analytics, monitoring and reporting that is required to assist with decision making and evaluating whether business objectives are being met.

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Management Action Plan

Management agrees with the recommendations.

Corporate Asset Management is working with ICI on improved future state work order processes, which will be supported by a Computer Maintenance Management System (CMMS), either new or re-configured. The future state CMMS will support compliance with legislative requirements, as well as performance management and asset life cycle planning. The future state processes will incorporate formal approval and review of work orders, while minimizing duplicate data entry.

In cooperation with the Supervisor of Public Works Administration, the Manager of Roads Operations will review the Minimum Maintenance Standards (MMS) requirements as they relate to road maintenance activities to ensure individual categories are created for each road classification in the Case Tracking System (CTS) (e.g. Pot Hole Class 1 Road, Pot Hole Class 2 Road, etc.). A review of the maximum repair thresholds in the CTS will also be conducted to ensure the timeframe to complete repairs aligns with the MMS requirements. For road maintenance activities that do not fall under the MMS, similar repair thresholds will be developed to help ensure the timeframe to complete repairs falls within established limits. Overall, this process will enable more detailed tracking of performance metrics related to road maintenance activities and demonstrate compliance with MMS requirements.

With the assistance of the Supervisor of Public Works Administration, the Public Works Dispatch team will receive training to ensure staff develop/refine their procedures for creating/updating work orders in CTS to aid in improving overall consistency of data tracking and minimize errors. The Supervisor of Public Works Administration will also develop a monitoring/review process to periodically review the work of staff who create/update work orders.

The Manager of Roads Operations and Roads supervisory staff will work with the Asset Management Specialist in the review and analysis of data to identify trends, ensure work order activities are being completed within established thresholds and produce information/reporting to support and confirm Transportation Services business objectives. Further internal discussions regarding the data analytics and reporting function responsibility in Transportation Services, Parks and Forestry Operations will help clarify the staff assigned to this role.

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4. *Inspections*

The Roads Maintenance division uses internal staff and third party contractors to maintain roads, curbs and sidewalks in accordance with MMS and the City's quality standards.

A good inspection process supports maintenance activities by verifying the quality and completeness of the work prior to closing the work order. For work performed by external contractors, the inspection provides additional support for the approval of invoices.

The Roads Maintenance division does not have a formal process in place for inspecting completed jobs and any inspections that do occur are not documented in a consistent manner. This increases the risk of overpaying for goods/services that may not have been performed or for work that did not meet the contracted or legislated specifications.

Recommendation

We recommend that management:

- Develop and implement a formal inspection process to verify the quality and completeness of assigned work to ensure it meets the contracted or legislated specifications.

Management Action Plan

Management agrees with the recommendations.

A number of initiatives will be introduced with respect to the contract inspection role to enhance staff oversight related to quality assurance and completeness of assigned work and compliance with contracted or legislated specifications. As a first step, inspection staff will utilize a bound journal to document daily activities in the performance of their quality assurance role. To aid in the documentation process, an inspection checklist has been developed outlining key inspection data or criteria to be documented during each site visit to help improve the completeness of overall documentation by Transportation Services staff.

To support the written documentation by staff, date-stamped photos of individual work locations capturing before and after conditions will be stored electronically with file names indicating date, map block and municipal address.

To further improve the quality assurance process, random material samples will be requested by City staff and completed by a specialized material testing company to ensure compliance with material specification criteria. All testing sample locations will be recorded and identified by date, map block and municipal address.

While conducting routine road patrol, Patrol staff will document the satisfactory completion of work orders (i.e. identified deficiencies) by City staff and contractors.

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5. *Vehicles, Motorized Equipment and Inventory Use*

The Roads Maintenance division uses various types of vehicles, motorized equipment and inventory in order to complete their work order assignments. The Fleet division maintains records of Roads Maintenance division vehicles and motorized equipment including their serial numbers and maintenance schedules, and determines each asset's life expectancy and replacement date.

The Roads Maintenance division is responsible for the acquisition, storage and use of their vehicles, equipment and inventory.

We reviewed processes related to the procurement, use and tracking of these items and identified that there are currently no corporate wide criteria in place for evaluating:

- The optimal mix of these assets to deliver service in the most efficient and effective manner.
- The decision to buy, lease or rent an asset.
- When an asset should be retired/replaced.
- If an asset is over or underutilized.

As a result, there is increased risk that decision making related to the purchase, use and distribution of vehicles, machinery, equipment and inventory is not appropriate or consistently applied across the City, resulting in increased financial costs.

We also observed that Roads Maintenance division employees are able to purchase smaller motorized equipment and there is currently no formal mechanism in place to inform the Fleet Division of these purchases. Several pieces of smaller equipment were located in the Work Yards that have not been inventoried by the Fleet division and have not had their maintenance requirements assessed. This may increase the risk of these items failing prematurely due to lack of maintenance, acquiring items that may not have been required, and potential loss or misappropriation of these items.

There is no corporate wide perpetual inventory management system in place to assist the organization with the management of the inventory cycle and the Roads Maintenance division does not have any formal processes in place to adequately govern the acquisition, use and distribution of their inventory. This increases the risk of error, potential stock overages/shortages and loss or misappropriation of inventory.

Recommendation

We recommend that management:

- Develop and approve a comprehensive, corporate wide strategic policy to govern the acquisition, use and distribution of vehicles, machinery, equipment and inventory.

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- Examine and invest in the appropriate people, processes and technologies to govern processes related to the strategy, with a strong focus toward efficiency and effectiveness in service delivery with equal consideration given to the appropriate controls that may be required to mitigate both current and emerging risks.

Management Action Plan

Management agrees with the recommendations.

The current Fleet Policy was last updated in 2004; it provides a general framework to govern the use of vehicles and equipment. The policy is in the process of being updated; the update includes the segregation of usage and management policies. The first is a Fleet Usage Policy identifying licensing, highway traffic act responsibilities, training, Commercial Vehicle Operator's Registration (CVOR) implications, etc. The second is the Fleet Management Policy, a new policy identifying the process to acquire vehicles and equipment, funding, replacement and lifecycle management. It will also define Fleet Management Services as the stewards of the fleet vehicles and equipment. Long range plans include a process by which an acquisition of additional vehicles and equipment and the retention of underutilized vehicles and equipment will require a business case to be submitted and approved through the budgeting process.

The tools required to address the above policies are either in place or will be in place shortly. These would include adding telematics to the GPS solution currently existing in Public Works. The addition of the Fleet requirements to the CMMS will aid in the long range asset planning of the fleet assets. Strategic acquisitions for the types of vehicles and equipment to be procured need to allow for flexibility within the operation. For example the type of pick-up trucks needed across the operation, acquiring versatile sidewalk maintenance machines that allow for multiple functions to be performed throughout the year.

Fleet has hired a driver trainer to ensure proper training is provided, specifically in the realm of daily maintenance performed by operators. This will increase utilization and decrease downtime for repairs. This includes proper circle checks (paperless), greasing the equipment, operating the equipment within proper operating limits and identifying under or over utilized vehicles and equipment. All of this information will feed into a computerized maintenance management system that will allow for trend analysis and identify ideal lifecycles for vehicles and equipment.

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6. *Purchasing, Project Management and Contract Administration*

Appropriate purchasing arrangements are not in place for seven of the eleven external vendors we reviewed and processes related to project management and contract administration, such as monitoring actual spend to budget, are not working effectively.

Examples include:

- Purchase orders have not been setup in JDE for vendors sourced through a cooperative purchase agreement with York Region.
- Vendors are being paid through cheque requisitions despite having purchase orders set up to manage their use.
- Public Works spent approximately \$15,000 on culvert supplies in 2014. However, all of this work was sourced to one vendor and paid through low value purchases (LVP) without acquiring bids from other vendors.
- Actual payments made to two vendors were greater than the approved contract amounts. Staff requested a change order to increase the contract amount for one of these vendors, but this was done after the original contracted amount had already been exceeded.

Issues related to purchasing, project management and contract administration are not unique to the Roads Maintenance division and were identified throughout the organization as part of the P2P organizational review.

The absence of appropriate purchasing arrangements with external vendors increases the risk that the City may be overpaying for goods/services and/or receiving substandard quality. In addition, a perception of improper purchasing practices can harm the City's reputation.

Recommendation

We recommend that management:

- Initiate a requisition in JDE to set up purchase orders for vendors sourced through a cooperative purchase agreement with York Region.
- Ensure vendors are not paid through cheque requisitions or any other means when purchase orders are present.
- Ensure an open, fair and transparent process is implemented to source vendors for culvert supplies.
- Enhance oversight over project management and contract administration processes to minimize the risk of budget overruns or delays in project completion.

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Management Action Plan

Management agrees with the recommendations.

Purchase orders have been created for all vendors sourced through York Region Cooperative contract (Equipment Registry) to ensure consistency of payment processes.

Purchase orders have been created for all contracts currently administered by Transportation Services. Any new vendors will also have purchase orders created to ensure consistency of payment processes.

A quote has been issued for the supply and delivery of culvert materials. Once the contract has been awarded to the successful bidder, culvert materials will only be sourced through the approved vendor.

Manager of Roads Operations will participate in a working group involving representation from other commissions/departments, including ICI staff, with the goal of developing corporate contract administration guidelines and training requirements. Once established, these contract administration guidelines and requirements will be rolled out to Transportation Services staff involved in contract oversight and quality assurance.

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7. Policies & Procedures

A review of the Roads Maintenance division procedure content revealed that sections outlining staff accountability and responsibilities were absent from most procedures. As a result, it is not always clear who the information and procedures are targeted to and who is accountable and responsible for performing and ensuring the duties are completed, which could increase service delivery risks.

Management has acknowledged the need to revisit their existing procedure documents to ensure that they are appropriate and up to date to help ensure consistency between the Work Yards and among projects.

Recommendation

We recommend that management:

- Update the Roads Maintenance division's procedure content to provide more clarity on roles, responsibilities and staff expectations.

Management Action Plan

Management agrees with the recommendations.

Transportation Services staff are currently reviewing and updating the section's Operating Procedures Manual outlining work activity methods for all road maintenance functions. Each activity method will include step by step procedures for accomplishing a specific task, and the documentation will further outline the role of each job classification involved in the completion of a specific activity.

To further reinforce the methodology documented in the Operating Procedures Manual, supervisory staff will regularly review random activity methods with staff as a training and reinforcement tool. Transportation Services supervisory staff will ensure the Operating Procedures Manual is available to staff at all times for reference or review.