TO: Chair and Members Audit and Administration Committee  
WARD(S) AFFECTED: CITY WIDE

COMMITTEE DATE: February 3, 2010

SUBJECT/REPORT NO:  
Audit Report 2009-11 - Parking Revenues (AUD10007) (City Wide)

SUBMITTED BY:  
Ann Pekaruk  
City Manager's Office

PREPARED BY:  
Ann Pekaruk 905-546-2424 x4469

SIGNATURE:

RECOMMENDATION:

(a) That Report AUD10007 respecting Audit Report 2009-11, Parking Revenues, be received; and

(b) That the management action plans as detailed in Appendix “A” of Report AUD10007 be approved and the General Manager of Planning and Economic Development direct the appropriate staff to have the plans implemented.

EXECUTIVE SUMMARY

The 2009 Internal Audit work plan approved by Council included an audit of parking revenues to assess the processes for collection, depositing, recording and monitoring of parking fees from meters, pay and display machines and pay on foot equipment. In 2008, annual revenues from parking operations amounted to over $5 million, excluding City paid employee parking and employee payroll deductions for parking space.

Although good processes exist over many of the areas relating to cash and its handling, several recommendations to strengthen controls further resulted from the audit. In addition, some recommendations to improve upon systems access, credit card payment processing and the soundness of sorting equipment were also made.
The results of the audit are presented in a formal report containing observations, recommendations and management responses attached as Appendix “A” of Report AUD10007.

Alternatives for Consideration – Not Applicable

**FINANCIAL / STAFFING / LEGAL IMPLICATIONS** (for Recommendation(s) only)

**Financial:** Properly securing and balancing parking permit revenues collected along with oversight by management reduce the risk and possibility of the misappropriation of funds.

**Staffing:** If the recommendation to make payment of parking fees available by credit card in surface lots is adopted, there is a potential for increased staffing. However, the implementation of this recommendation has been put on hold for the time being by the division.

**Legal:** None.

**HISTORICAL BACKGROUND** (Chronology of events)

The audit fieldwork was completed in September, 2009. The results of this audit are attached as Appendix “A” of Report AUD10007.

The Audit and Administration Committee receives and approves final audit and review reports as part of its responsibilities for the oversight of governance and control.

**POLICY IMPLICATIONS**

None.

**RELEVANT CONSULTATION**

The attached report includes management action plans which reflect the responses of management and staff responsible for the administration of the parking revenues in the Planning and Economic Development Department.
The City of Hamilton’s parking operations are administered by the Parking and By-law Services division of the Planning and Economic Development Department. Parking revenues, amounting to over $5 million in 2008, are received from on-street parking meters, off-street pay-and-display machines and parking meters, pay-on-foot machines (Convention Centre) and longer term parking permits. Revenue is also received from parking tickets, advertising, City paid employee parking and employee payroll deductions for parking space, all of which fall outside the scope of this audit. About 70% of parking revenue is generated from off-street parking lots and the two parking garages (Convention Centre and York Parkade) while the balance comes mainly from on-street parking meters. Revenue is received in the form of coins, bills and debit card and credit card payments.

The audit assessed the adequacy and effectiveness of the system of internal controls over the collection, banking and recording of parking revenues. Recommendations were made to improve controls, protect cash assets and promote accountability.

A formal audit report containing observations, recommendations and resulting management action plans was issued and is attached as Appendix “A” of Report AUD10007. Eighteen (18) recommendations were included in the Report and Addendum as follows:

- Restrictive endorsement of post-dated cheques.
- Balancing of permit revenues received and recorded in the Class point-of-sale system to amounts recorded in the MAPPS application to ensure completeness and accuracy.
- Review of voided transactions in the Class point-of-sale system for frequency, legitimacy of reason and staff responsible.
- Development of a bank deposits daily tracking sheet to trace bank deposits to the bank statement and the monthly review and approval, in writing, by the Supervisor of Parking Revenues.
- Reconciliation of the cash clearing account on a quarterly basis.
- Finalization of all cash handling and administrative procedures and their communication to staff in a reasonable timeframe.
- Review and initialling as written evidence of such review of exception and performance reports by management.
• Review of staff/user access granted to the MAPPS system (access granted only to those who require access, i.e. job responsibility); security assessment regarding cardholder information for PCIDSS compliance; and the changing of user passwords on a regular and timely basis.

• Replacement or repair of the coin sorter and consultation with other City departments regarding the possibility of a centralized cash counting operation.

• Elimination of post-dated cheques through the activation of a pre-authorized debit system.

• Retention of supporting documentation from customers for declined credit card payments and the filing of the information in a secure area.

• Investigation of making payments of parking fees available by credit card in surface lots where the volume and value of the transactions is warranted.

Management and staff have agreed to or have already taken actions to implement all of the formal recommendations. Specific action plans can be found in the attached audit report.

**ALTERNATIVES FOR CONSIDERATION:**

(include Financial, Staffing, Legal and Policy Implications and pros and cons for each alternative)

Not Applicable.

**CORPORATE STRATEGIC PLAN** (Linkage to Desired End Results)


**Financial Sustainability**

• Delivery of municipal services and management capital assets/liabilities in a sustainable, innovative and cost effective manner

**APPENDICES / SCHEDULES**

Appendix “A” to Report AUD10007

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## OBSERVATION OF EXISTING SYSTEM

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<td>1.</td>
<td><strong>Restrictive Endorsement of Post-dated Cheques</strong>&lt;br&gt;Post-dated cheques received from customers in respect of monthly parking permits are not restrictively endorsed upon initial receipt. The cheques are kept in a safe, sometimes for several months, and are only restrictively endorsed on the day that the cheques are processed for deposit.&lt;br&gt;The risk of cheques being fraudulently negotiated is increased when they are kept for lengthy periods without being restrictively endorsed. While the existing physical security over the custody of post dated cheques may be sufficiently strong, the restrictive endorsement of cheques at the time of initial receipt is a vital preventive control that provides added security.</td>
<td>That post-dated cheques be restrictively endorsed by Customer Service Representatives at the time that they are initially received from the customer.</td>
<td>Agreed. Post-dated cheques are now restrictively endorsed at the time they are received.</td>
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<td>2.</td>
<td><strong>Parking Permit Revenues/Voided Transactions</strong>&lt;br&gt;Monthly parking permit revenues are processed through the Municipal Automated Parking Permit System (MAPPS). A significant portion of the revenue is received by Customer Service Representatives (CSR) in the form of cheques and cash.&lt;br&gt;It was noted that daily permit revenues are not balanced to a report generated from MAPPS that provides a listing of permits processed as well as a summary of funds received. Although the MAPPS system has the functionality to produce such a report, daily permit revenues are only balanced to a Drawer Balance Report produced from the Class point-of-sale system and to a printed batch of MAPPS invoices that are not sequentially pre-numbered and thus are not adequately accounted for. As such, there is no assurance regarding the completeness and accuracy of amounts banked or revenues recorded in the general ledger.&lt;br&gt;The above risk is compounded by the fact that payments from customers are accepted and receipted by a Customer Service Representative who also prints the permit, updates the Class system and balances daily proceeds to Class reports. Neither the CSR nor the Revenue Control Clerk, who checks the CSR’s work, verifies the daily proceeds against a report from MAPPS before depositing the funds.&lt;br&gt;Further, it is also possible that a transaction processed in Class could be voided without detection as nobody reviews the Class system for voided transactions.&lt;br&gt;The combination of all the issues identified above can result in a high risk of misappropriation of funds.</td>
<td>That, to ensure completeness and accuracy of permit revenues, daily permit revenues recorded in the Class point-of-sale system be balanced back to a report generated from the MAPPS system summarizing the funds collected for the permits.&lt;br&gt;That a Revenue Control Clerk periodically review the voided transactions in the Class system for frequency, legitimacy of reason and staff responsible.</td>
<td>Agreed. Procedures will be amended pending modifications to the MAPPS system. Expected completion date – 4th quarter 2009. Agreed. The Revenue Control Clerk now reviews voided transactions as part of the current procedures.</td>
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## 3. Daily Tracking of Bank Deposits

A significant portion of revenues handled by the Hamilton Municipal Parking Service’s (HMPS) is in the form of cash and cheques. Daily, after HMPS staff has counted and balanced cash collected from permits, parking meters, pay-and-display and pay-on-foot machines, a contracted armoured car carrier picks up the funds for deposit into the City’s bank account. The armoured car carrier is required to deposit the funds within four (4) business days. It is, therefore, vital that the bank statement be checked frequently to verify that funds are being deposited within the stipulated time and to identify and address any discrepancies. It was observed that bank deposits are only traced to the bank statement at the end of the month. As such, there is a risk that missing deposits, banking errors and other discrepancies may not be detected in a timely manner.

Bank deposit slips collected by the carrier are recorded in a log book and later matched with bank-stamped deposit slips as confirmation that the funds were delivered to the bank. This method of tracking deposits however does not verify that the correct amounts were credited to the City’s bank. In addition, because boxed coins, which are the bulk of coin room deposits, are not physically deposited to the bank (carrier directs account credit), there is no bank-stamped deposit slip or other form of bank documentation confirming that funds were credited. Without tracing the deposit slips to the bank statement, there is no assurance that the funds were credited in a timely manner or in the correct amounts.

Ensuring that funds had been deposited in tact and in a timely manner through daily scrutiny should be considered a best practice based on the City’s past experience with coin deposits.

A review of several deposits made in 2009 indicated that funds picked up by the armoured car carrier are generally being credited within the stipulated 4 business days.

### Recommendation for Strengthening System

That the Supervisor of Parking Revenues develop a bank deposits daily tracking sheet and assign a member of her staff to trace bank deposits to the bank statement on a daily basis.

That, at the end of each month, the Supervisor of Parking Revenues review and approve, in writing, the bank deposit tracking sheet.

### Management Action Plan

Agreed. The tracking sheet and tracing of the bank deposits to the bank statement will be implemented immediately.

Agreed. The review and approval in writing of the bank deposit tracking sheet by the Supervisor of Parking Revenues will be implemented immediately.
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<td>4.</td>
<td><strong>Reconciliation of the Cash Clearing Account</strong></td>
<td>That, on a quarterly basis, the Supervisor of Parking Revenues perform a reconciliation of the cash clearing account to provide a breakdown of the reconciling items.</td>
<td>Agreed. The Supervisor of Parking Revenues will perform a reconciliation of the cash clearing account on a quarterly basis. To be implemented in 2010.</td>
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<td></td>
<td>Although cash and cheque deposits are traced to the bank statement once every month, the general ledger cash clearing account is only reconciled at the end of the year. The cash clearing account is the general ledger account through which the HMPS records daily revenues to clear all the bank deposits made during the month. When the cash clearing account is only reconciled once annually, accounting errors and misallocations may not be discovered for several months and the task of reconciliation/clearing to zero becomes more onerous and time consuming. For example, at the end of April and May 2009, the cash clearing account had unreconciled credit balances arising from unrecorded revenues amounting to $516,796 and $310,383 respectively. The revenues have however since been recorded.</td>
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<td>5.</td>
<td><strong>Written Procedures</strong></td>
<td>That the Manager of Parking Operations ensure that procedures are finalized and communicated to staff within a reasonable time.</td>
<td>Agreed. The finalization of the procedures is on-going project with no final deadline.</td>
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<td></td>
<td>Management is in the process of developing procedures that provide guidance to staff on Hamilton Municipal Parking Service’s various processes including cash handling and administration. As at the end of August 2009, of the sixty-five (65) procedures that were under development, only four (4) had been completed and approved by the Manager of Parking Operations. Without documented procedures there is a risk of inconsistencies and errors in the processing of transactions. In addition, should the experienced members of staff leave employment, it may be difficult to ensure uninterrupted and consistent service delivery.</td>
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<td>6.</td>
<td><strong>Review and Oversight</strong></td>
<td>That management review (and initial as written evidence of such review) pertinent reports to monitor key performance indicators and exceptions.</td>
<td>Agreed. First, a review to determine the necessity or benefit of this recommendation will be completed by 2nd quarter 2010. Although some reports are periodically used when irregularities are identified in order to resolve issues, there has not been an issue of oversight to make this a practice. Workloads will dictate the necessity of adding this to the procedures.</td>
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<td>While the several parking information systems in use at the HMPS have the functionality to generate management reports for use in reviewing exceptions and monitoring performance, such reports are generally not produced for review by management. For example, reports from MAPPS, a system from which parking permits are generated, that show the number of permits printed and funds received are not reviewed by management to ensure the accuracy of amounts deposited to the bank. As well, reports from the ZEAG parking system that provide information about waived parking fees and unmatched credit cards are not printed for regular review by management.</td>
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### Observation of Existing System

<table>
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<tr>
<th>#</th>
<th>Access to the MAPPS System</th>
<th>Recommendation for Strengthening System</th>
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| 7 | **a)** Of the 27 employees with access to MAPPS, 19 have level three access that enables them to view various reports including credit cardholder information. While level three access does not automatically grant users access to cardholder information without special permission, it is important that management ensures that the privacy of cardholders' information is protected. This is particularly important given the new Payment Card Industry Data Security Standards (PCIDSS) which require organizations to guarantee the privacy of cardholder information that they collect. Specifically, PCIDSS require data such as customers' credit card numbers, expiry dates and cardholders' names to be protected from unauthorized access. The standards also require organizations to do an annual assessment to evaluate their level of compliance.  
  
  **b)** Eight (8) of the 27 users have administrator access which allows them unlimited access, enabling them to grant and modify users' accesses, override transactions and define reports. Usually, such access is restricted to a minimal number of selected people in management and technical support staff in Information Services.  
  
  **c)** Two (2) Revenue Control Clerks (RCCs) responsible for processing monthly credit card payments and post dated cheques from reports generated from the MAPPS system are also able to create, add and modify customers' records. The two RCCs also have administrator privileges that enable them to override records and re-define system codes. Such broad access granted to individuals who also process payments weakens the system on internal control. Considering that over $50,000 is processed as post-dated cheques and pre authorized credit card payments every month, it is important that responsibilities be adequately segregated and access levels be matched with staff's levels of responsibility.  
  
  **d)** The MAPPS system does not periodically prompt users for password changes. As a result, passwords have remained unchanged since 2007 when the system was first installed. Password security could be compromised if passwords are not changed on a regular basis potentially leading to unauthorized access to the system and processing of fraudulent or improper transactions. | That the Supervisor of Parking Revenues, in conjunction with Information Services, review users' access to customers' confidential information to ensure that access is granted only to those users whose job responsibilities require such access.  
  
  That Information Services or a designate carry out a security assessment to evaluate HMPS' level of compliance with PCIDSS.  
  
  That the Supervisor of Parking Revenues review staff access privileges to ensure that administrator access is only granted to members of staff whose responsibilities require them to manage the system.  
  
  That management, in conjunction with Information Services, review staff access levels to the MAPPS system to ensure that access is commensurate with each user's job responsibilities.  
  
  That the Supervisor of Parking Revenues ensure that user passwords are changed on a regular and timely basis. | Agreed. A review has already resulted in some changes to access. Only 14 computers have access to MAPPS with various security levels. The details of security access will be undertaken in the new year. Currently, the system records who and when any changes are made providing a trail should the system be compromised.  
  
  Agreed. Information Systems will be contacted to request a security assessment as part of the review noted above.  
  
  Agreed. This matter will be reviewed by the Manager and Supervisor of Parking Revenues by the 4th quarter 2009.  
  
  Agreed. A review of staff access levels will commence immediately.  
  
  Agreed. Staff have been instructed to change their passwords until a formal policy is written and adopted. The intent is to build the system to automatically prompt staff to change their passwords. |
ADDENDUM

The following items were noted during the course of the audit. Although they do not present internal control deficiencies, they are indicated in this Addendum so management is aware of the issues, risks and inefficiencies and can address them appropriately.

1. Mechanical Condition of the Coin Sorter
   The coin sorter which is used to sort and count over $3 million in coin revenues received from the City’s parking meters, pay-and-display and pay-on-foot machines appears to have a mechanical defect. Ten cent coins (dimes) are directed to the pennies bag without being counted, resulting in artificial cash surpluses. It is believed that the mechanical defect might be due to the age of the coin sorter whose continued use has resulted in some calibrations shifting from the original factory specifications. There is therefore a risk that as the machine continues to age, the mechanical defects will worsen and the magnitude of errors might increase. Presently, the counting errors amount to less than $500 a month or 0.20% of monthly coin revenues and are accounted for as cash surpluses.

   **It is recommended:**
   That management continue to track cash surpluses arising from missorted coins and closely monitor the coin sorter’s mechanical condition. Depending on its condition, management should make a decision to repair or replace the coin sorter.

   **Management Response:**
   Agreed. The process to purchase a new sorter is currently being conducted.

   **That, should management decide to replace the coin sorter, consultations be had with other City departments and divisions regarding the possibility of centralizing cash counting operations and purchasing a higher capacity coin sorter and wrapper capable of handling larger volumes.**

   **Management Response:**
   Agreed. Previously, other City departments/divisions were consulted and there was no interest expressed for their cash counting. Further, there are physical space and staff workload limitations. As well, adding larger volumes of money may increase the risk for misappropriation of theft.

2. Payment for Monthly Parking Permits
   Customers wishing to purchase monthly parking permits may pay for the following months’ permits by post-dated cheques or by pre-authorizing charges to their credit cards. Although the MAPPS system has the capability to process pre-authorized debits to a customer’s chequing account, this functionality has not been activated. A pre-authorized debit system would be an added convenience for the customers and a more efficient method of payment processing for staff. In addition, provided there is adequate security over customers’ information, the risk associated with keeping post-dated cheques would be eliminated.

   **It is recommended:**
   That management activate the pre-authorized debit system in MAPPS and eliminate the acceptance of post-dated cheques.

   **Management Response:**
   Agreed. This process is currently under review for consideration of implementation in 2010.
3. **Declined Credit Card Payments at Parking Garages**

At the Convention Center and York Boulevard parking garages, when a credit card customer uses an invalid card to enter the garage, the card is only declined upon exit necessitating the customer to pay cash or use a different credit card. Declined credit card numbers are recorded by the cashier in a Special Occurrence Report which is used by a Revenue Control Clerk to clear the declined card from the ZEAG system. Upon clearing the credit card from the ZEAG system, the Special Occurrence Report is immediately shredded, eliminating both the electronic record in ZEAG as well as the hard copy supporting document. With no trail left of the transaction, it is no longer possible to review the transaction for validity.

**It is recommended:**

*That the Special Occurrence Report be retained as supporting documentation. It should be filed in a secure room where other credit card information is kept.*

**Management Response:**

*Agreed. This recommendation will be implemented immediately.*

*That management investigate the cost, benefits and efficiency issues in making payment of parking fees available by credit card in surface lots where volume and value of transactions warrant such action. Technology with instantaneous real time (on line) processing of credit cards is recommended to reduce the risk of declined credit card payments.*

**Management Response:**

*Agreed, in principle. Although this matter has been reviewed and it has been determined that there is no business case to implement the recommendation at this time due to the capital cost, additional work and the potential increase in staffing outweighing the benefit, the option will continue to be reviewed from time to time.*