SUBJECT: Audit Report 2007-03 – Public Works – Pavement Cuts (CM07020) (City Wide)

RECOMMENDATION:

(a) That Report CM07020 respecting Audit Report 2007-03, Public Works – Pavement Cuts, be received; and

(b) That the management actions plans as detailed in Appendix “A” of Report CM07020 be approved and the General Manager of Public Works and the General Manager of Finance and Corporate Services direct the appropriate staff to have the plans implemented.

Ann Pekaruk
Director, Audit Services
City Manager's Office

EXECUTIVE SUMMARY:

The 2007 Internal Audit work plan approved by Council included the audit of the administration of pavement cuts. The results of the audit are included in a formal audit report containing observations, recommendations and management responses, attached as Appendix “A” of Report CM07020.

BACKGROUND:

The Public Works Department issues excavation permits to private contractors who need to cut existing roads for various projects as well as approving municipal consent applications for underground utility installations or repairs.
BACKGROUND: (Continued)
The City hires an independent contractor through a tender process for the restoration of these road cuts and minor roadway repair or replacement. A City inspector determines the limits of restoration before the contractor carries out the work. Upon completion of the restoration, the City generally invoices the excavation permit holder for the cost of the restoration plus an overhead charge.

In 2006, over 500 excavation permits were issued with the total cost of restoration of pavement cuts at over $800,000. Approximately $670,000 was recorded as recoverable revenue with the balance charged to an internal account.

The audit work commenced in January and was completed in March, 2007. The audit assessed whether current processes were in compliance with relevant legislation and City policies and procedures and whether controls in place were sufficient to ensure the completeness, accuracy and validity of the amounts paid, invoiced and adjusted. Areas of improvement in regard to financial and administrative controls as well as effective and efficient operations were identified.

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

ANALYSIS/RATIONALE:
The audit resulted in the issuance of a formal audit report containing observations, recommendations and management responses, attached as Appendix “A” of Report CM07020.

The main areas for improvement noted in the audit report include:

- Updating of procedures, processes and forms;
- Stricter controls over adjustments including appropriate documentation and approvals;
- Adequate processes for dealing with overdue accounts and write-offs;
- Review of the functionality of the GeoMedia system (database used to track excavation permits);
- Training for staff using the GeoMedia system;
- Accounting processes (reconciliations, use of appropriate accounts);
- Updating of information on bonded contractors on a regular basis; and
- Co-ordination of payments to the City contractor and recoveries from permit holders.

Management and staff have already taken action or have agreed to take measures in the near future in order to implement all of the eighteen (18) formal recommendations. Specific action plans can be found in the attached audit report.

ALTERNATIVES FOR CONSIDERATION:
Not applicable.
FINANCIAL/STAFFING/LEGAL IMPLICATIONS:

Financial
Additional revenues will be realized from the charging of permit fees to gas and electricity companies now allowed under the regulations of the Municipal Act. Stronger controls over adjustments and recovery of restoration costs from third parties may result in less costs being absorbed internally.

Staffing
None.

Legal
None.

POLICIES AFFECTING PROPOSAL:
None.

RELEVANT CONSULTATION:
The attached report includes management action plans which reflect the responses of staff in the Budgets & Finance Division in the Corporate Services Department and the Capital Planning & Implementation Division of the Public Works Department responsible for the administration of pavement cuts.

CITY STRATEGIC COMMITMENT:
By evaluating the “Triple Bottom Line”, (community, environment, economic implications) we can make choices that create value across all three bottom lines, moving us closer to our vision for a sustainable community, and Provincial interests.

Community Well-Being is enhanced. ☐ Yes ☑ No

Environmental Well-Being is enhanced. ☐ Yes ☑ No

Economic Well-Being is enhanced. ☑ Yes ☐ No

City Council’s strategic commitment to “Best Practices – Best Value” under “A City That Spends Wisely and Invests Strategically” is addressed through audits and reviews and their subsequent follow up to ensure controls are in place to protect the assets of the City and promote efficient, effective and economic services and programs.

Does the option you are recommending create value across all three bottom lines? ☐ Yes ☑ No

Do the options you are recommending make Hamilton a City of choice for high performance public servants? ☐ Yes ☑ No

:dt
Attachment
## Appendix “A” to Report CM07020

### CITY OF HAMILTON

### INTERNAL AUDIT REPORT 2007-03

### PUBLIC WORKS - PAVEMENT CUTS

<table>
<thead>
<tr>
<th>#</th>
<th>OBSERVATIONS OF EXISTING SYSTEM</th>
<th>RECOMMENDATION FOR STRENGTHENING SYSTEM</th>
<th>MANAGEMENT ACTION PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Pavement Cuts Policies &amp; Procedures</strong>&lt;br&gt;It was noted during the audit that the procedures pertaining to pavement cuts were out-of-date. Specifically, “Procedures for the Installation of Utilities on Road Allowance” were developed before amalgamation in 2000 and the “Road-Cut Contract Procedures” are also several years old. A number of changes have taken place during the past few years and the procedures have not been correspondingly updated.&lt;br&gt;When these outdated procedures are referred to during daily operations, it could cause confusion and misunderstanding which could lead to errors and inefficiency.</td>
<td>That the pavement cut procedures be reviewed and updated to reflect changes that have taken place. In the future, the procedures should be reviewed annually to ensure they are kept up to date.</td>
<td>Agreed. Construction: The pavement cut procedures followed by the Contract Inspector will be reviewed and updated by the end of June 2007 and will be reviewed on an annual basis. Surveys/Tech Services: The pavement cut procedures will be reviewed annually and comments provided for inclusion in the Road Use By-law.</td>
</tr>
<tr>
<td>2</td>
<td><strong>Municipal Consent Application Form</strong>&lt;br&gt;A Municipal Consent (MC) is required for underground utility installation or repairs. At the time of audit, it was noted that in a randomly selected sample of MC Application Forms (the Form), the Form was not up-to-date. It was addressed to the “Regional Municipality of Hamilton-Wentworth” and a few terms and conditions on the Form (such as the signing authority requirements) are no longer applicable.&lt;br&gt;As a result of the continued inclusion of obsolete clauses, the Form’s legality might be diminished. If there was a dispute over the project approved under the Form, the City’s ability to hold the MC holder responsible could be challenged.</td>
<td>That the Municipal Consent Application Form be reviewed and updated in accordance with the process and conditions currently in place.</td>
<td>Agreed. Surveys/Tech Services: A new MC form is now in place. All utilities implemented this practice as of April 2007.</td>
</tr>
<tr>
<td>3</td>
<td><strong>Excavation Permit</strong>&lt;br&gt;An Excavation Permit (EP) is required for utility and underground infrastructure projects on road allowances. An EP can only be issued to MC holders or bonded contractors (i.e. pre-approved contractors with valid bonds and insurance).&lt;br&gt;It was noted during the audit that the EP’s issued to the MC holders were completed by the Public Utilities Coordinator (PUC) and were not signed by the MC holders. Also, some EP’s issued to the bonded contractors by the Technical Services Assistant (TSA) were not signed by the bonded contractors due to the changes subsequent to the issuance of the original EP’s.&lt;br&gt;Without binding signatures on the EP’s, the MC holders or the bonded contractors might attempt to evade their responsibilities if anything were to go wrong with the road cuts they performed. As a consequence, it would create additional work resolving the controversy and put the City at risk of covering the costs of necessary repairs.</td>
<td>That no EP be issued without a valid signature from the MC holder or bonded contractor.</td>
<td>Agreed. Surveys/Tech Services: At the last Utilities Co-ordinating Committee, all members were informed of this issue. Methods are being developed to ensure all forms and permits are signed by the applicant. Implementation date of June 2007 is expected.</td>
</tr>
</tbody>
</table>
## OBSERVATIONS OF EXISTING SYSTEM

### Adjustment Process

When an EP holder disputes an amount invoiced, a meeting will be arranged at which the TSA, the Contract Inspector (CI), and the EP holder will discuss the questioned restoration cost in detail. Once an adjustment is warranted, the TSA prepares a Request for Adjustment (RFA) and also a Request for Journal (RFJ) if a portion of the adjusted amount is charged to the Annual Minor Construction (AMC) account or other City departments. The RFA is required to be signed by the TSA, the Senior Project Manager (SPM), Survey and the Project Manager (PM), Construction.

At the time of audit, inadequate backup was attached to the RFA's selected for testing. The TSA simply used a photocopy of the original work sheet (WS) and manually changed the dollar amounts without further approval. Backup is evidence for valid transactions. The use of improper backup leaves room for mistakes, errors or improper adjustments.

There was also one incident in which the TSA contacted the Accounts Receivable Clerk directly to cancel invoices instead of requesting adjustments by way of a formal process through Finance & Administration (F&A). When the normal adjustment process is not being followed, inappropriate adjustments could be processed.

Further, a few overdue balances from 2001 for one bonded contractor were determined uncollectible, adjusted and charged to the AMC account. In this case, the City ended up absorbing the cost through its minor construction costs rather than recording the uncollectible as a bad debt expense.

### RECOMMENDATION FOR STRENGTHENING SYSTEM

That the CI note the amount to be adjusted on the original WS and a copy of this revised WS be attached to the related RFA as supporting documentation. The PM should ensure that the attached backup (i.e. revised WS) has been authorized by the CI (through original signature) before signing off the RFA.

That all adjustments go through F&A using the RFA form. No adjustments should be directly requested by the TSA through Accounts Receivable.

That corporate procedures pertaining to write-offs be followed when overdue balances are determined uncollectible after necessary and possible follow ups have been performed. The AMC account should not be used to record bad debt expenses.

That restrictions on issuing new EP's be considered if a bonded contractor has overdue balances outstanding for long periods of time.

### MANAGEMENT ACTION PLAN

Agreed. Surveys/Tech Services: A new procedure will be implemented for the 2007 construction season. The following workflow change is proposed:
- copy and retain original worksheet;
- mark original with adjusted values;
- date and sign amended WS; and
- submit as per RFA process.

Agreed. This is effective immediately.

Agreed. F&A will work with the Accounts Receivable and CPI staff to develop a process to review outstanding payments and determine a course of action for any delinquent accounts. The expected completion date is July 31, 2007.

Alternative to be considered. F&A and CPI staff will undertake a review to determine if procedure should be changed to secure letters of credit or certified cheques in lieu of bonds. This will be completed by December 31, 2007.
<table>
<thead>
<tr>
<th>#</th>
<th>OBSERVATIONS OF EXISTING SYSTEM</th>
<th>RECOMMENDATION FOR STRENGTHENING SYSTEM</th>
<th>MANAGEMENT ACTION PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td><strong>GeoMedia Database Review</strong></td>
<td>That training be arranged for the employees currently using GeoMedia to ensure that they have a clear understanding about the functioning and required processes in GeoMedia.</td>
<td>Agreed. Training for employees using GeoMedia will be provided by the 4th quarter, 2007.</td>
</tr>
<tr>
<td>5.</td>
<td>GeoMedia is a database used to track the status of the EP’s issued, including the dates and details of issuance, completion and restoration. It was noted during the audit that one of the staff who works extensively with GeoMedia had limited understanding of some of its commonly used functions resulting in errors, extra work and inefficiency. A few defects were also discovered in the applications currently available in GeoMedia. For example, an EP previously entered in GeoMedia can be completely deleted from the database with no audit trail. As a result, the tracking purpose of GeoMedia can be compromised. The EP could be deleted intentionally or by accident without being noted. Also, some of the dates entered in GeoMedia were found logically incorrect. Specifically, a few EP’s have a restoration date earlier than the cut completion date or a restoration start date later than the restoration end date. The lack of proper field checks leaves room for errors which would misrepresent the EP’s status and create additional work for clarification and correction.</td>
<td>That the functionality of GeoMedia be reviewed for potential improvement. For example, permanent deletion of any EP’s previously entered in GeoMedia needs to be disallowed. A field check should be added to ensure the dates entered are chronologically reasonable. The back-end database requires review. Any redundant columns should be removed or left blank instead of being manually filled in.</td>
<td>Agreed. Surveys/Tech Services: System is under development to address any security and database issues. The expected delivery date is May 2007.</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Documentation &amp; Referencing</strong></td>
<td>That the rest of the EP’s be referenced to either the primary EP or the WS in GeoMedia when multiple EP’s are combined.</td>
<td>Agreed. Surveys/Tech Services: This issue is being addressed in the redevelopment project noted above. All EP’s will link to a WS in the system.</td>
</tr>
<tr>
<td>6.</td>
<td>EP’s with the same holder name for locations in close proximity are sometimes compiled into one worksheet. However, only one EP (primary EP) is referenced to the worksheets while the other related EP’s bear no cross-referencing in GeoMedia or on file copies. At the time of audit, changes to an EP previously issued (such as cancellation, change of EP holder, etc.) were not always noted in GeoMedia or on the EP copy on file. The reasons for the changes were not always documented either. There should be an adequate paper trail to support the processes followed. Insufficient documentation and references can result in additional work for any investigations or follow ups that may have to be done. They can also lead to undetected errors or be used to cover mistakes.</td>
<td>That any changes to an EP previously issued be noted both in GeoMedia and on the EP copy on file. Any supporting documentation explaining the reasons for the changes should be attached to the EP copy on file.</td>
<td>Agreed. This will be implemented by July 2007.</td>
</tr>
<tr>
<td>#</td>
<td>OBSERVATIONS OF EXISTING SYSTEM</td>
<td>RECOMMENDATION FOR STRENGTHENING SYSTEM</td>
<td>MANAGEMENT ACTION PLAN</td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------</td>
<td>-----------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Reconciliation</strong>&lt;br&gt;At the time of audit, various account reconciliations (e.g. total amount paid versus total amount recovered, total amount paid in the ledger versus total amount paid per payment schedules, etc.) were not completed adequately or on a regular basis.&lt;br&gt;As a consequence, errors or questionable transactions would not be identified in a timely manner. This would result in the reconciliation process in the following periods being more cumbersome and time consuming.</td>
<td>That account reconciliations be performed by F&amp;A staff on a regular basis. These processes should include reconciliation between the construction cost account and revenue accounts, the revenue accounts and the overhead accounts and the total amount paid to the Contractor in the general ledger versus the year-to-date total of all the Progress Payment Certificate (PPC) issued.</td>
<td>Agreed. This is already in place for 2007.</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Bonded Contractor List</strong>&lt;br&gt;Except for EP’s issued under a Municipal Consent, an EP can only be issued to a bonded contractor who has been pre-approved with a satisfactory bond and insurance. The F&amp;A group is responsible for contacting the bonded contractors for renewal of their bonds and insurance, updating the list of bonded contractors and distributing it to the individuals involved in the process.&lt;br&gt;The most updated list provided during the audit included contractors whose bonds or insurance had expired.&lt;br&gt;As a result, there is risk that an EP could be issued to an ineligible private contractor who does not have a valid bond or insurance. Without a valid bond, it would be difficult for the City to recover the restoration cost if the EP holder fails to perform or pay. Without valid insurance, the City could be held liable if there are problems with the excavation or restoration.</td>
<td>That the list of bonded contractors be reviewed and updated by F&amp;A staff on a monthly basis. Those contractors whose bonds or insurance are expiring should be contacted for renewal before the expiry day. Those contractors who fail to provide current bond and insurance documentation ought to be taken off the list immediately.</td>
<td>Agreed. Process is already in place by F&amp;A staff to track and record all expirations dates and follow up. Any difficulties securing renewals are forwarded to CPI staff for their information and assistance as needed to obtain updates.</td>
</tr>
<tr>
<td>9.</td>
<td><strong>Finance &amp; Administration Procedures</strong>&lt;br&gt;At the time of audit, the F&amp;A staff had only a few written procedures developed to cover the financial process of pavement cut payment, invoicing and adjustment.&lt;br&gt;When there are no complete procedures to refer to, the employee currently carrying on the process relies on personal understanding and experience, which could be incorrect or inconsistent. It is also problematic and inefficient for the successor to commence his/her duties within a short period of time.</td>
<td>That procedures pertaining to the entire process of pavement cut payment, invoicing and adjustment be documented and retained in the F&amp;A area. These procedures should be reviewed annually to ensure that they remain current and are appropriately and consistently applied.</td>
<td>Agreed. F&amp;A already has developed a process for procedure documentation, retention and regular updates for the entire F&amp;A section. Pavement Cut procedures were delayed due to staff turnover but are on schedule for completion by June 1, 2007.</td>
</tr>
<tr>
<td>#</td>
<td>OBSERVATIONS OF EXISTING SYSTEM</td>
<td>RECOMMENDATION FOR STRENGTHENING SYSTEM</td>
<td>MANAGEMENT ACTION PLAN</td>
</tr>
<tr>
<td>----</td>
<td>---------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>10</td>
<td><strong>Accounting Process for Adjustments</strong></td>
<td>That no adjustments to pavement cut billings be posted by F&amp;A staff unless the RFA is signed appropriately as required.</td>
<td>Agreed. F&amp;A will return all RFA’s that do not bear the correct signatures. This point will be included in the F&amp;A procedure by June 1, 2007.</td>
</tr>
<tr>
<td></td>
<td>During the audit, several issues regarding the accounting process for adjustments were identified. Included in this list are:</td>
<td>That the correct accounts related to adjustments be clarified with the staff. The Business Administrator (BA) should ensure the appropriateness of the accounts used before approving the journal entries in PeopleSoft.</td>
<td>Agreed. F&amp;A will review account structure for the pavement cuts with CPI staff so both areas are in agreement with the accounts being used. The review is expected to be completed by September 2007 and implemented through the 2008 budget process.</td>
</tr>
<tr>
<td></td>
<td>• adjustments posted in PeopleSoft without all the required signing authorities; and</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• journal entries regarding adjustments to Annual Minor Construction posted against a revenue account instead of the Construction Cost account, resulting in overstated revenue and Construction Cost accounts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The departure from the required procedures and the usage of incorrect accounts could result in misleading financial information or improper adjustments.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td><strong>Process of Payment &amp; Recovery</strong></td>
<td>That the documents supporting the process of payment (to the Contractor) and recovery (invoicing the EP holders and charging the internal department accounts) be forwarded to F&amp;A staff concurrently.</td>
<td>Agreed. CPI staff will co-ordinate the payment and RFI information being submitted to F&amp;A for processing effective immediately.</td>
</tr>
<tr>
<td></td>
<td>Pavement cuts are restored by an independent contractor (Contractor) hired by the City through an annual tender process. The City pays the Contractor first when the restoration is completed and then bills the EP holders for the restoration cost plus overhead charges.</td>
<td>That F&amp;A staff investigate any discrepancies noted between the total amount to be paid and the total amount to be recovered before processing payments and recoveries.</td>
<td>Agreed. Submission of the documents as noted above will allow F&amp;A to action this recommendation immediately.</td>
</tr>
<tr>
<td></td>
<td>At the time of audit, the payments to the Contractor and invoices to the EP holders were processed separately and with irregular timing differences. Confusion and inefficiencies resulting from this current process were noted during the audit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consequently, it has been time consuming for F&amp;A staff to reconcile the total amount paid to the Contractor to the total amount recovered either externally (EP holders) or internally (AMC or other City departments). Thus, errors or questionable transactions might not be identified.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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 and can address them, as necessary.

1. Currently, when a Progress Payment Certificate (PPC) is received by F&A staff, the total amount to be paid is allocated to a few selected accounts (such as Construction Cost account & Annual Minor Construction (AMC) account) in PeopleSoft. As the allocation is manually calculated based on limited information from the payment schedule attached to the PPC, the process is time consuming and the amounts calculated could be incorrect.

   It is recommended:
   That, as part of the process of payment and recovery, the total amount to be paid be posted to the Construction Cost account during the payment process and then the total amount to be recovered internally (according to the Request for Journal prepared by the Technical Services Assistant) be adjusted from the Construction Cost account to the appropriate accounts during the process of recovery. Consequently, accuracy and efficiency of the payment and recovery processes as well as the reconciliation process would be improved.

   Management Response:
   F&A will take this recommendation under advisement and review it further with staff in May, 2007.

2. During the audit, it was noted that Ontario Regulation 244/02 under the Municipal Act, 2001, which had disallowed charging gas and electricity companies for EP’s issued to them, had been amended to now (December, 2006) allow for the charging of permit fees. Upon communication of this observation to staff, such companies were notified that, starting 2007, they would be charged the appropriate fees.

   Without regular reviews of legislation pertinent to this subject area, this additional source of revenues might have gone unrealized.

   It is recommended:
   That regulation updates pertinent to pavement cuts be reviewed on a timely basis and any required changes be implemented accordingly.

   Management Response:
   Surveys/Tech Services: Regulatory change is reviewed by Legal Services. They will be advised of the legislation that applies to this area for future correspondence.

3. It was noted that the staff person responsible for approving adjustments used inconsistent signatures. He confirmed the authenticity of these signatures but acknowledged that his signature does vary from time to time. Signatures are used to validate the individual’s approvals for certain transactions and thus consistency needs to be maintained.

   It is recommended:
   That a specimen signature for the Technical Services Assistant be set up and maintained.

   Management Response:
   Surveys/Tech Services: Agreed. This will be done immediately.
4. Often road damage is incurred when developers carry out construction work, especially in an “in fill lot” (i.e. an empty lot where the owner wishes to bring the services in from the street). Even though an approach is normally built, the sidewalk adjacent to the approach is very likely to be damaged as a result of the usage of heavy trucks or equipment. Currently, no deposit is held for possible road damages when the building permit is issued. As a result, it would be difficult to obtain payment for restoration costs from the developers after the road is damaged. Consequently, the City has absorbed a considerable amount of the restoration costs in this regard.

It is recommended: That the possibility of requiring a deposit for possible road damages at the time of the building permit application be discussed with the division issuing the permit. It would help in reducing the time spent on collecting restoration costs from the developers and improving the prospect of recovery rather than cost absorption by the City.

Management Response: Surveys/Tech Services: This item is being reviewed with the Planning Department to ensure suitable funds are held for damages. Alternately, a charge back system is being considered in the event there are no funds retained. A decision on a methodology is expected by September 2007 for implementation in the 2008 budget process.

5. Before initiating the payment process in PeopleSoft, the account allocation of the total amount to be paid is recorded in a Purchase Order Distribution Form (the Form) by F&A staff. Instances were noted in which the printed copy of the Form did not represent the actual amounts posted in PeopleSoft. When an account balance reached the budget, no more transactions to that particular account were added in the non-printed area of the Excel Form, only accessible to the employee preparing the Form. This could result in misleading information and a lack of adequate paper trail, causing confusion. Any budget overruns would not be noticed on a timely basis.

It is recommended: That the actual amounts posted to each account in PeopleSoft be shown on the Form.

Management Response: F&A will take this recommendation under advisement and review it further with staff in May, 2007. However, it should be noted that this document is for F&A purposes only to enable reconciliation of actual payment distribution against original Purchase Order distribution.