March 18, 2013

Audit Committee
The Honorable Mayor Kim McMillan
City Council Members
Mike Baker, Interim Director of Building and Codes
Clarksville, Tennessee 37040

<u>Executive Summary of the Buildings and Codes Permit Audit</u>

The following is an executive summary of the findings and management's comments in response to the findings related to the internal audit report on the Permit Process at Building and Codes. The full audit report is attached and contains additional details about the findings and recommendations as well as more background information.

<u>Objectives of the audit</u>
The specific audit objectives were:
- To determine if the internal control systems for permitting, inspection, and data management processes are adequately designed and operating effectively.
- To determine if the permitting process complies with City Code and other regulations.
- To review the processes noted above for possible improvements in efficiency and/or effectiveness.

<u>Brief Background</u>
The Building and Codes Department is responsible for an important aspect of public safety with oversight of construction for all structures (residential, commercial and multi-family) built within the City. The Department manages the process by requiring that certain pre-construction prerequisites be met, including drawing reviews, and by issuing various permits and conducting timely on-site inspections. The Department issues Certificates of Occupancy when all inspection phases are completed and accepted.

<u>Highlights of Statistical Information</u>
Building permit revenue has steadily increased from $646,932 in 2009 to $1,165,638 in 2012.

<u>Results of the Audit:</u>
1. Our tests of and inquiries about the internal control system revealed the following:
   - Key support documentation is missing from some case files.

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- **The master checklist for case files does not include all items that should be documented in each file.**
- **Manually written receipts are not reconciled to bank deposits.**
- **Permit fees are sometimes not calculated correctly or consistently.**
- **The database management software does not provide the reporting and tracking capability to adequately manage the permitting/inspection functions.**

Our recommendations and other information relating to these internal control weaknesses can be found in findings 1, 2, 3, and 5.

2. Our inquiries and research regarding compliance with City Code and other regulations revealed the following conditions:
   - **The validation required by City Code Section 4-203 of the square footage of a random sample of 20% of contractors' building permits is not being performed.**
   - **City Code has two separate sections that specify where the placement of fire hydrants should be relative to multi-family dwellings. The Code sections give conflicting specifications.**
   - **City Code reference to commercial building permit fees is not accurate and needs updating.**

   Our recommendations and other information relating to these compliance issues with City Code can be found in findings 4 and 6. We found no other instances of noncompliance.

3. In regard to possible improvements for efficiency or effectiveness the auditors made the following recommendations:
   - **In order to eliminate duplicate effort and increase control over the permitting process, Building and Codes management should implement the Munis permitting module as soon as possible.**
   - **In order to have access to all the information they need to effectively manage the permitting and inspection processes, Building and Codes management should work with the City's Information Technology Department and/or Tyler Software to develop standardized reports that will provide them with the monitoring information they need.**
   - **In order to proactively address hindrances to goals being met and transactions not being handled in a timely and appropriate manner, Building and Codes management should perform periodic self-assessment sessions with input from employees.**
   - **In order to help assure that the intent of Code Section 4-203 is addressed and permit fees reflect the combined cost of the permitting process, Building and Codes management should confer with other supporting departments to determine amounts for input into developing a breakeven analysis tool that will facilitate the tracking of expenses compared to permit fees.**

Building and Codes management agrees with all of the audit findings and intends to implement all recommendations.

If you have any questions about the audit, the findings, or the recommendations please contact me at 648-6106.

Respectfully,

Lynn Stokes
Director of Internal Audit

cc: Charlie Koon, Chief of Staff
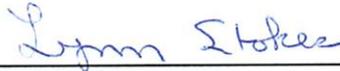   Debra Frazier, Interim Director of Finance

THE CITY OF

CLARKSVILLE
TENNESSEE'S TOP SPOT

Internal Audit Report

Audit Title:	**Building Permit Process Audit**
Department:	**Building and Codes**
Audit Period:	**July 2010 - June 2012**

CITY OF CLARKSVILLE
Building and Codes Department
Building Permit Process Audit
AUDIT # 1304

R Manley
_____
Robin Manley - Auditor

Lynn Stokes
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Lynn Stokes - Audit Director

December 15, 2012
_____
Date

CITY OF CLARKSVILLE
INTERNAL AUDIT REPORT
Building and Codes
Building Permit Process
July 2010 to June 2012

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Internal Audit Report

Origin of the Audit

This audit was conducted as a part of the annual audit plan approved by the Audit Committee for the fiscal years 2012 and 2013.

Audit Objectives

The specific audit objectives were:
- To determine if the internal control systems for permitting, inspection, and data management processes are adequately designed and operating effectively.
- To determine if the permitting process complies with City Code and other regulations.
- To review the processes noted above for possible improvements in efficiency and/or effectiveness.

Scope and Methodology of the Audit

The audit covered the time period from July 2010 to June 2012. Evidence to support our conclusions was gathered from inquiries of management and staff as well as examination of source documentation and tests of the controls surrounding the permitting, inspection and data management processes.
In conducting data tests the auditor stratified the Building and Codes building permit transactions for the audit period into four distinct subgroupings based on structure type and year. The auditor then judgmentally selected a sample size of fifteen transactions within each subgroup for test work resulting in a total sample size of 60 transactions out of a total population of 2,574 transactions. The samples were selected using a random number generator. Sample sizes selected for testing are shown below:

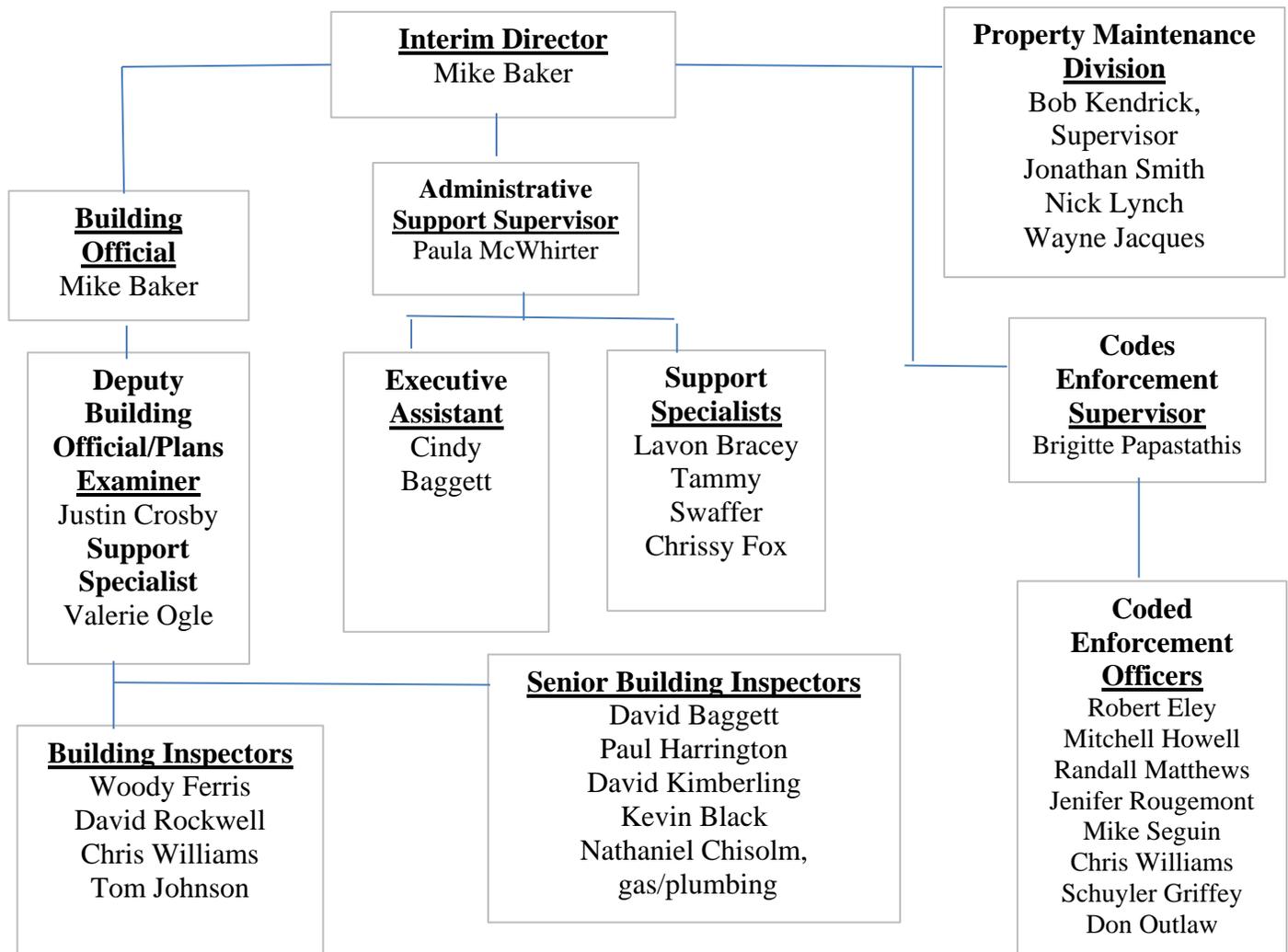| Structure Type	Total Number of Transactions	Construction Value for Permits for Total Trans	Sample Size	Construction Value for Permits for Sample
Residential FY 2011	947	$102,375,140	15	$1,485,720
Residential FY 2012	646	$67,539,310	15	$1,471,141
Commercial FY 2011	445	$91,915,308	15	$8,474,067
Commercial FY 2012	536	$101,395,115	15	$5,563,683

Statement of Auditing Standards

We conducted this audit in accordance with generally accepted government auditing standards except for the peer review. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

The Building and Codes Department promotes public safety by requiring building permits, conducting timely inspections of residential and commercial structures, and issuing Certificates of Occupancy when all inspection phases are completed and accepted.

The following chart illustrates the Department organizational structure. There are three divisions: administrative, construction, and codes enforcement.

Interim Director
Mike Baker

Property Maintenance Division
Bob Kendrick, Supervisor
Jonathan Smith
Nick Lynch
Wayne Jacques

Building Official
Mike Baker

Administrative Support Supervisor
Paula McWhirter

Deputy Building Official/Plans Examiner
Justin Crosby
Support Specialist
Valerie Ogle

Executive Assistant
Cindy Baggett

Support Specialists
Lavon Bracey
Tammy Swaffer
Chrissy Fox

Codes Enforcement Supervisor
Brigitte Papastathis

Coded Enforcement Officers
Robert Eley
Mitchell Howell
Randall Matthews
Jenifer Rougemont
Mike Seguin
Chris Williams
Schuyler Griffey
Don Outlaw

Senior Building Inspectors
David Baggett
Paul Harrington
David Kimberling
Kevin Black
Nathaniel Chisolm, gas/plumbing

Building Inspectors
Woody Ferris
David Rockwell
Chris Williams
Tom Johnson

Statistical Information

The chart below shows residential and commercial building permit revenue for years 2009 – 2012. The revenue curve directly correlates to the number of building permits that are issued for the period.

Building Permit Revenue
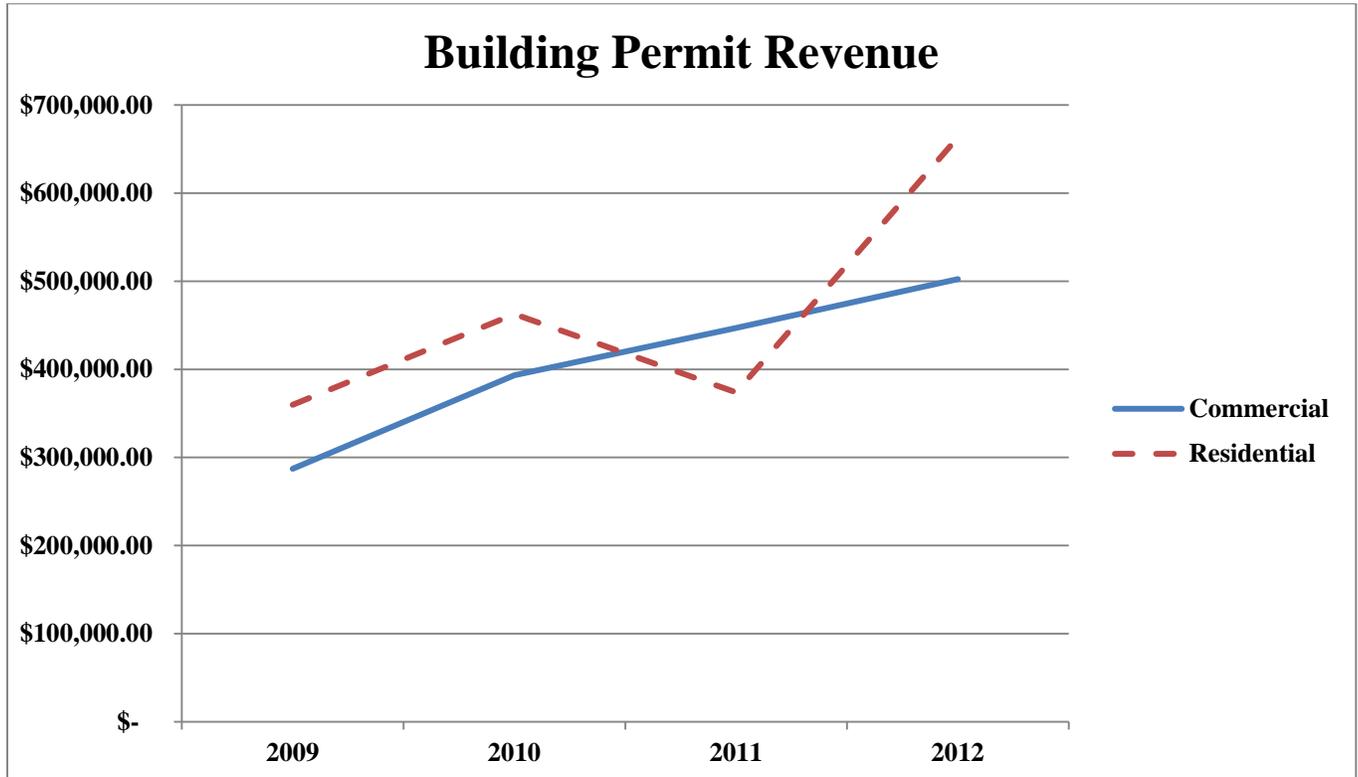
Permit Revenue by Year				
	2009	**2010**	**2011**	**2012**
Commercial	$287,199	$393,367	$446,873	$502,372
Residential	$359,733	$462,759	$373,760	$663,266
Total	$646,932	$856,126	$820,633	$1,165,638

Noteworthy Accomplishments

The Department has a same day turn around policy for inspections which provides speedy service to contractors in the community.

Results of Audit

Auditor testing, research and analysis revealed the following findings and recommendations:

1. <u>**Some permit folders do not contain key support documentation or a master control check-off list.**</u>

   <u>**Criteria:**</u> **Effective control over the permitting process requires that a method be established to ensure that building permits are not issued until all pre-permitting conditions have been met. Additionally, there should be a method in place to ensure that all post-permitting inspections have taken place before the Certificate of Occupancy is issued.**

   <u>**Condition:**</u> **The Building and Codes Department has an informal policy that requires placing documentation in the case file showing that pre-permitting conditions have been met. There is no master control list to document completion of pre-permitting criteria. The Department has a post-permitting master control list of required inspections that are supposed to be completed and initialed off on by an inspector before a Certificate of Occupancy is issued. Related paperwork and emails are supposed to be retained in the file folders to document compliance and related issues. Our testing revealed that 48 out of 61 permit files tested were lacking documentation or proper staff sign-off.**

   <u>**Cause:**</u> **The lack of documentation may be due to weak oversight or to a misunderstanding on the part of those charged with the responsibility.**

   <u>**Effect:**</u> **The lack of adequate documentation and control could lead to confusion and inefficiencies. Permits may be issued or withheld erroneously.**

   <u>**Recommendation:**</u> **Develop a comprehensive master checklist that documents the completion of all pre-permitting and post-permitting requirements and inspections. Initial and date the requirements when they are met. Retain all supporting documentation in the permit folders including related emails and resolutions to issues. Folders should have a second review to ensure completeness and accuracy before Certificates of Occupancy are issued. Corrective action should be initiated immediately. Periodic staff meeting reminders or staff training will reinforce the goal of adequate record keeping.**

   <u>**Management Comments:**</u> **Management concurs with the Internal Auditor that there is a need for a comprehensive construction checklist to ensure necessary procedures/requirements are documented and reviewed prior to the completion of a project(s). Management also concurs that the importance of adequate record keeping will be reinforced along with periodic training/staff meetings.**

**Agree   X   Disagree   **

Corrective Action Plan: **Complete a checklist, both pre-construction and post-construction, to ensure all required paperwork has been submitted in an effort to ease the permitting process and to ensure code compliance and issuance of the Certificate of Occupancy.**

Projected Completion Date: **March 31, 2013 to include website information to applicants.**

Responsible Manager: **Justin Crosby, Deputy Building Official/Plans Examiner**

2. **Manually written receipts are not reconciled to bank deposits on a periodic basis.**

Criteria: **Manually written receipts should be periodically reconciled to bank deposits to ensure that all receipts have been deposited and accounted for.**

Condition: **Cash receipts are manually completed and issued to customers for such things as Board of Zoning letters and Certificates of Occupancy but there is no reconciliation of the receipts to bank deposit slips.**

Cause: **There is no procedure in place to perform such reconciliations.**

Effect: **The opportunity for fraud exists when no reconciliation is performed. Cash could be received, a manual receipt written and the money never deposited. This would not be discovered unless a reconciliation is performed between the manual receipts written and the bank deposit slips.**

Recommendation: **Discontinue manual receipting. Require all receipts to be electronically generated through Munis financial software. Reconcile the daily cash report to Munis financial software. Until manual receipting is discontinued, reconcile copies of the manual receipts in the receipt books with bank deposits to ensure all manually receipted cash has been deposited.**

Management Comments: **Management concurs with the Internal Auditors recommendation that manual receipting/permitting be discontinued requiring all receipts be electronically generated through the MUNIS financial software. It is important to note that all cash receipts/permits currently written/issued are pre-numbered and are entered into MUNIS and are attached to the copy of the MUNIS report that is retained in the Building & Codes Department. Any voided receipt(s) are retained in the receipt book as required and are also retained in the Building & Codes Department.**

**Agree   X   Disagree   **

Corrective Action Plan: Implement MUNIS Permitting/Receipt Software. Until manual receipting is discontinued copies of all cash receipts/permits will be attached to the copy of the MUNIS report/along with bank deposit that is delivered to Finance and Revenue.

Projected Completion Date: January 2014

Responsible Manager: Paula McWhirter, Administrative Support Supervisor

3. **Many permit fees contain calculation errors.**

   Criteria: Fees should be accurately and consistently calculated in accordance with City Code Section 4-203 and with the rates shown on the Department's website.

   Condition: We recalculated 2,808 permit fees for the audit period and found 240 errors in fees charged to customers.

   Cause: Fees are calculated manually and are sometimes calculated based on different interpretations of the law.

   Effect: Customers are at risk of being over or under charged for building permit fees. City government is at risk of losing customer and taxpayer confidence.

   Recommendation: Using a locked, electronic algorithm to perform the calculations would help ensure consistency and accuracy in the process. Management should provide written examples of how fees are calculated and make them available to both customers and employees. Employees should be trained on the proper interpretation of the law and how to calculate the fees.

   Management Comments: Management agrees that without the use of a locked electronic algorithm to perform calculations it does increase the margin of error of when calculated manually.

   Agree _____X_____   Disagree _____

   Corrective Action Plan: An electronic algorithm is currently in use by the Commercial Permitting Division and files are being reviewed for accuracy concerning information and fees. Examples are on the department's website for applicants to review.

   Projected Completion Date: Already implemented – December 1, 2012

   Responsible Manager: Justin Crosby, Deputy Building Official/Plans Examiner

4. The 20% random sample required in Code Section 4-203 which compares actual square footage on a builder's construction project before final inspection with permitted square footage is not being performed.

Criteria: City Code Section 4-203 requires the Building and Codes Department to validate a 20% random sample of each builder's building permits by comparing the actual square footage prior to final inspection to the permitted square footage as noted on the permit application.

Condition: Discussion with the Building Official revealed that the random sample verification was performed in the past but is not currently being done because few if any discrepancies were ever found. Contractors are currently operating on the honor system.

Cause: Although sample verifications were performed in the past, the Building Official was unaware of the City Code requirement.

Effect: The Building and Codes Department is not in compliance with this requirement in City Code.

Recommendation: The City Building and Codes Department should comply with City Code or have the Code amended to remove the requirement. An alternative procedure might be to use the data available on the Montgomery County Property Assessor's website to periodically validate the square footage for all structures. Any discrepancies between the permitted square footage and the final square footage could be charged to the contractor. Wording in City Code would also need to be amended in order to use this method of verification in place of the current Code requirement.

Management Comments: Due to a misinterpretation/misunderstanding of the City Code verification of square footage ceased.

Agree ____X_____   Disagree _____

Corrective Action Plan: Reincorporate Square footage verification and document the same.

Projected Completion Date: July 1, 2013

Responsible Manager: Mike Baker, Interim Director, Building and Codes

5. The current database software (Filemaker) is inefficient, error prone, un-reconcilable and is not integrated with the financial software.

Criteria: For good internal control, databases that track revenue generating items should be integrated with the financial software that is used to track the payments in order to avoid manual transfer of information from one system to another. Customer receipts should be generated from the financial software to provide good control over collections. All permit numbers should be

periodically reconciled to deposits to ensure that all permit payments have been deposited and that no permits have been issued without payments.

Condition: The following conditions exist with regard to the software used to track permits/inspections and related payments at the Building and Codes Department:

- Two separate computer based systems are used in the permitting/inspection process: one system (Filemaker) records permit and inspection activity while the second system (Munis) records financial activity.
- Similar data (i.e. permit numbers, contractor names, fee amount and effective date) is entered into both systems separately resulting in duplicate effort.
- Customer receipts are generated out of the Filemaker system and the information is manually transferred into the Munis system creating an internal control weakness over cash collections.
- Permit numbers in Filemaker have sequence gaps for various calendar year data because permits are entered into the system when application is made not when the permit is issued.
- Filemaker software doesn't produce reports that allow the reconciliation of the permits issued during a certain period of time to the cash collected for those permits.
- Filemaker doesn't produce reports that show permits/inspections by the status of the activity (open, closed, etc).
- Permit information tracked in Filemaker is not always up to date or accurate. Our tests of 25 permit file folders randomly selected from file drawers revealed that in 5 cases the information in Filemaker did not agree with the information in the folder.

Cause: Filemaker has been used for many years to track permits. Management did not realize inefficiency was occurring in data entry, that number gaps existed or that the manual transfer of information between systems created an internal control weakness.

Effect: City resources are being using inefficiently. Since the two systems are never reconciled errors can go unnoticed and operational statistics can be impacted. Decision making can be impacted. In addition, the opportunity for fraud exists.

Recommendation: Implement the Munis permit module. The City has already purchased the module and has provided sufficient budget for installation and training. This module will allow seamless integration with the financial module. It will foster good decision making by producing meaningful and accurate reports. It will eliminate the need for dual entry of data and strengthen the control over cash collections.

Implement a process to ensure that electronic records are updated as file folders are updated. A checkbox on the master checklist in each file indicating that the information has been entered into the computer is a simple way to accomplish this.

Management Comments: Management concurs with the Internal Auditors recommendation to implement the MUNIS permit module.

Agree _____X_____   Disagree _____

Corrective Action Plan: Implement the MUNIS Permitting/Receipting Software (Management has met with IT and the initial phase of the process has begun. Although there has been a slight setback in the projection date we are looking forward to implementing a system that will provide quality control and completely automate our permitting/inspection process.)

Projected Completion Date: January 2014

Responsible Manager: Mike Baker, Interim Director
Paula McWhirter, Administrative Support Supervisor

6. **City Code Title 4 (Building, Utility, and Housing Code) contains outdated information.**

Criteria: City Code requirements should be current, consistent and accurate.

Condition: The following inconsistencies or outdated information is contained in City Code Title 4:
- City Code Sections 4-102 and 4-202 provide conflicting information. Code Section 4-102 states that fire hydrants shall not be located further than 300 feet from any part of a multi-family dwelling. Code Section 4-202 states that fire hydrants shall not be located further than 400 feet from any part of a multi-family dwelling.
- City Code Section 4-203 states that commercial building permits fees are to be equal to those set forth in Section 108.1 of the 2009 International Building Code (IBC). That section of the IBC makes no mention of building permit fees. According to a Building and Codes Department official, current commercial building fees are based upon the 1997 Standard Building Code.

Cause: The reason there are two conflicting Code statues is unknown. Clarksville Fire and Rescue (CFR) makes its inspections based on Section 4-102 which means that hydrants are compliant with Section 4-202 as well.

According to a Department official, the reason the wrong reference is used in conjunction with commercial building fees is that when the transition was made from the 2003 IBC to the 2009 IBC the correct reference was not used.

Effect: Conflicting language could result in incorrect placement of fire hydrants. Inaccurate language could create a liability for the City.

Recommendation: The auditor recommends Title 4 Chapter 2 Section 4-202 of City Code be deleted to reflect what is currently being done in regard to fire hydrants and commercial building permit fees.

Management Comments: 1) Management agrees there is conflicting information in the City Code, Section 4-102 and 4-202. 2) Management agrees there is a discrepancy in City Code Section 4-203 relative to Commercial Building Permit fees and the 2009 International Building Code.

Agree _____X_____   Disagree _____

Corrective Action Plan: 1) City Code Sections 4-102 and 4-202 will be corrected upon review by the City Attorney and presented to the City Council. 2) The discrepancy in City Code Section 4-203 relative to Commercial Building Permit fees and the 2009 International Building Code will be corrected upon review by the City Attorney and presented to the City Council.

Projected Completion Date: July 2013

Responsible Manager: Mike Baker, Interim Director, Building and Codes

Other Recommendations

1. As Building and Codes management works with the IT Department to implement the Munis permitting module (planned for early spring 2013), it should identify the kinds of reporting information it needs in order to adequately track and assess the efficiency of the permitting process. The auditor recommends that management work with IT or Tyler Software to develop standard reports that can be used on an ongoing basis in order that information needed to manage the permitting process will be available to those charged with the responsibility.   This may mean spending extra money upfront to have the reports developed.

2. The auditor recommends that the Department periodically (at least annually) perform a self-assessment of internal controls.   This can be accomplished through staff meeting discussions about areas of weakness in the process that hinder goals from being met in a timely manner or transactions from being handled properly.

3. The auditor recommends using breakeven analysis at least bi-annually as a tool to determine if permit rates are adequate to cover operating costs since, according to Code Section 4-203, fees should reflect "the combined cost of building and development inspection services provided by the city offices of building and codes, street department and fire services".

Management Comments:
1) Management agrees and has met with the new IT Director and is working towards facilitating the Tyler Technology Permitting/Code Enforcement Software.
2) Management agrees.
3) Management agrees the permit rates should be adequate to cover the operating cost of the appropriate departments.

Agree _____X_____   Disagree _____

Corrective Action Plan:
1) **Applicable management staff has met with the new IT Director and is working towards facilitating the Tyler Technology Permitting/Code Enforcement Software.**

2) **The Building & Codes Department will initiate a self-assessment of internal controls. Building & Codes will organize staff meetings to discuss areas of strengths and weaknesses and continue to educate proper handling of receipts and transactions.**

3) **Building & Codes will make a concentrated effort to contact the appropriate departments involved in the inspection process and evaluate total operating cost for each department to perform its functions as related to the building process.**

Projected Completion Date:
1) January 2014
2) January 2014
3) January 2014

Responsible Manager: Mike Baker, Interim Director, Building and Codes

Subsequent Events

The IT manager in charge of the implementation of Munis software is on extended medical leave. As a result, there may be a delay in the implementation of the permitting module at Building and Codes Department.

Tyler software also has a shortage of personnel for the training of the implementation of Munis module. According to the City IT Department Tyler is not able to provide training until fall 2013.

Conclusions

The Building and Codes Department is responsible for an important aspect of public safety because it oversees residential and commercial construction that takes place within the City. The Department manages the process by requiring that certain pre-construction prerequisites be met, including drawing reviews, and by issuing various permits and conducting timely on-site inspections. The Department issues Certificates of Occupancy when all inspection phases are completed and accepted.

In accordance with our audit objectives we determined the following in regard to the permitting, inspection and data management processes at the Building and Codes Department:

- **Our tests of and inquiries about the internal control system revealed the following:**
  - **Key documentation is missing from some case files.**

- o The master checklist for case files does not include all items that should be documented in each file.
  - o Manually written receipts are not reconciled to bank deposits.
  - o Permit fees are sometimes not calculated correctly or consistently.
  - o The database management software does not provide the reporting and tracking capability to adequately manage the permitting/inspection functions.

  Our recommendations and other information relating to these internal control weaknesses can be found in findings 1, 2, 3, 5, and 6 above.

- Our inquiries and research regarding compliance with City Code and other regulations revealed the following conditions:
  - o The validation required by City Code Section 4-203 of the square footage of a random sample of 20% of contractors' building permits is not being performed.
  - o City Code has two separate sections that specify where the placement of fire hydrants should be relative to multi-family dwellings. According to the Fire Department Chapter 2 Section 4-202 of City Code should be deleted.
  - o City Code reference to the basis on which commercial building permit fees are calculated is not accurate.

  Our recommendations and other information relating to these compliance issues with City Code can be found in findings 4 and 6 above. We found no other instances of noncompliance.

- In regard to possible improvements for efficiency or effectiveness the auditors made the following recommendations:
  - o In order to eliminate duplicate effort and increase control over the permitting process, Building and Codes management should implement the Munis permitting module as soon as possible.
  - o In order to have access to all the information they need to effectively manage the permitting and inspection processes, Building and Codes management should work with IT or Tyler Software to develop standard reports that will provide them with the information they need.
  - o In order to proactively address hindrances to goals being met and transactions not being handled in a timely and appropriate manner, Building and Codes management should perform periodic self-assessments sessions with input from employees.
  - o In order to help assure that the intent of Code Section 4-203 is addressed and permit fees reflect the combined cost of the permitting process, Building and Codes management should develop a breakeven analysis tool that will facilitate the tracking of expenses compared to permit fees.

The auditor would like to thank the Building and Codes management and staff for their help and support during the performance of this audit. Their positive attitude facilitated the conduct of the audit and provides the necessary environment for process improvements to take place.

If further information about this audit is desired please contact Internal Audit at 931-648-6106.