

# **Change Order Audit**

**August 2014**

**City Internal Auditor's Office  
City of College Station**

File#: 14-01

## *Why We Did This Audit*

This audit was conducted per direction of the City of College Station Audit Committee. The Audit Committee requested assurance services in regards to:

1. compliance with relevant change order statutes, policies, and procedures,
2. controls against change order fraud and abuse, and
3. the appropriateness of change orders that occurred in 2013.

## *What We Recommended*

- All change orders should have the approval of the contract manager and the contract manager's supervisor or superior.
- All changes to a purchase order should be documented.
- Greater emphasis should be placed on negotiating change order prices.
- The ethics hotline should be made available to vendors and vendor employees.

## **Audit Executive Summary: Change Orders**

### ***What We Found***

Overall the change order processes at the City of College Station appear to be running efficiently and effectively. But, as always, there is room for improvement.

We found that the city is mostly compliant with the relevant statutes, policies, and procedures for change orders. There were not any material changes to purchases, change order forms were being appropriately used, and price increases did not exceed the limits. However, we also found that approval practices for change orders needed to be strengthened.

We found the controls against change order fraud and abuse to be moderately strong. All change orders appear to be justified, and we found that the controls over change order prices appear to be sufficient. However, we also found that documentation needs to be improved, greater emphasis on negotiation would be beneficial, and the city's ethics hotline should be made available to vendors and vendor employees.

We did not find any change orders that should not have been approved.

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# Change Order Audit

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## Introduction

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The Office of the City Internal Auditor conducted this performance audit of change orders pursuant to Article III Section 30 of the College Station City Charter, which outlines the City Internal **Auditor's** primary duties.

A performance audit is an objective, systematic examination of evidence to assess independently the performance of an organization, program, activity, or function. The purpose of a performance audit is to provide information to improve public accountability and facilitate decision-making. Performance audits encompass a wide variety of objectives, including those related to assessing program effectiveness and results; economy and efficiency; internal control; compliance with legal or other requirements; and objectives related to providing prospective analyses, guidance, or summary information. A performance audit of change orders was included in the fiscal year 2014 audit plan based on direction given by the Audit Committee.

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## Background

As an organization, the City of College Station had over \$80 million worth of purchase orders in 2013. Relevant to this audit, these purchases can be divided into one of two categories:

1. **Competitively bid purchases.** This generally includes purchases of materials, general services, and construction contracts.
2. **Non-bid purchases.** This generally includes professional service contracts.

For various reasons, **the city's** purchases sometimes need to be changed after the purchase has been finalized. A change order is a change to one of these purchases.

**Depending on the situation, the term "change order" can have slightly varying** definitions. For the purposes of this audit, a change order is anything that is counted as **a change in the city's** electronic financial system. Therefore change orders can range from large monetary changes that affect the original contract down to very minor administrative changes that are only fixing a typo.

Change orders should be considered a part of doing business. They allow the city to adapt to changing situations and to correct for errors that will inevitably occur. In fact, if the city never had any change orders, this would be a major red flag.

Change orders can occur for a variety of reasons. These reasons can be broken down into two broad categories: (1) contractual changes, and (2) administrative changes. In this audit, we have further broken down contractual changes into the sub-categories: true-ups, changes in specifications, substantive errors, changes in external conditions, and changes in law.

**True-ups** (41.7%)<sup>1</sup>. The majority of change orders that we investigated were caused by true-ups. These changes occur because it is often difficult to predict with perfect accuracy how much of a good or service will be required. For example, if constructing a mile-long brick wall, it would be difficult to determine exactly how much mortar will be required. Therefore the original contract contains a reasonable estimate, and a change order is subsequently executed to true-up the estimates with the actuals. It should be noted that during these true-ups unit prices do not change, only the quantities.

In this category we also included corrections of reasonable assumptions. For example, before construction begins, engineers must often test the ground for foundation issues. It would be unreasonable to test every piece of dirt in the area; so instead, they test multiple locations and assume the nearby ground will be similar. On occasion it is discovered that the nearby ground is not similar, and changes have to be made to account for it.

These types of change orders are the most common. They also reduce the financial risks caused by uncertainty.

**Change in specifications** (26.7%). Changes in specifications occurred when the city decided to change what it wanted to order after the purchase had been finalized. For the change to be considered a change in specifications, the change must have been initiated by the city while the contractor still had the ability to deliver on the original contract. An example of a change in specifications that occurred in the city is for one of **the city's mowing contracts**. The city made a contract for several of its fields to be mowed. **Due to staffing changes a few of the city's internal mowing positions** were eliminated, so the city changed the specifications on its mowing contract to cover the additional fields that had previously been mowed internally.

While changes in specifications are not necessarily abnormal, they are a type of change that is at relatively high risk of abuse. This is because a large change in specifications could constitute a material change, which is prohibited by state law.

**Substantive error** (15.0%). Substantive errors occurred when a city employee made a mistake that had to be fixed by changing the original contract. For example, if an employee mistakenly ordered the wrong item, the original contract would have to be changed to swap in the correct item.

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<sup>1</sup> As will be explained in the scope section, the change orders selected for this audit were not selected randomly. Therefore, the relative frequency of the different types of changes are unlikely to be reflective of overall trends throughout the city.

On a related note, the question sometimes arises of whether the city or the contractor should pay for the costs of an error. For professional services and construction contracts the general rule is that the city, as owner, must pay for the cost of an error even when the contractor was the one who made the mistake. While perhaps surprising, this is a **rule that's** practiced throughout the country. For the most part, the only time the **contractor must pay for an error is if the contractor was not exercising "reasonable and ordinary care and diligence" when the error occurred.** This standard accepts that mistakes will occur, and will generally only hold the contractor liable when the mistake was the result of negligence or intentional misconduct.

The fact that employees occasionally make errors should not be a major cause for concern; however, because the correction of a substantive error could constitute a material change, these change orders must be examined closely.

**Administrative changes** (11.7%). Administrative changes occur when a change must be made to the purchase documentation, but the contract itself does not change. An example of this would be if a purchase had an incorrect account number. In this case a change order would be initiated to correct the error, but the contract itself would not change. Administrative changes are of relatively low risk.

**Change in external conditions** (3.3%). Changes in external conditions were events that occurred outside the control of either the city or the contractor, but affected the ability of either party to deliver on the contract. An example of this could be if a change in market conditions led to a scarcity of red bricks. A change order might then be required to allow for the use of grey bricks. Change orders caused by a change in external conditions are of a moderate level of risk.

**Change in law** (1.7%). Changes in law are a type of change in external conditions, but are unique enough to warrant its own category. An example of how a change in law could result in a change order is building codes. A change in the building codes could require changes to a construction contract. Change orders caused by a change in law are of moderately low risk.

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## Audit Objectives

This report answers the following questions:

- Is the City of College Station compliant with the relevant statutes, policies, and procedures regarding change orders?
- Does the City of College Station have sufficient controls against change order fraud and abuse?
- Were there any change orders that should not have been approved or executed?

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## Scope and Methodology

This audit was conducted in accordance with government auditing standards, which are promulgated by the Comptroller General of the United States, with the exception of an external peer review.<sup>2</sup> Audit fieldwork was conducted from May 2014 through August 2014.

The scope of review included purchase orders that:

1. Occurred in calendar year 2013,
2. had a value greater than \$50,000, and
3. had change orders that cumulatively increased the value of the original purchase order.

In 2013 there were 198 purchase orders that were worth more than \$50,000. Table 1 shows how change orders affected these 198 purchase orders:

**Table 1:** Purchase orders worth more than \$50,000<sup>3</sup>

<b>PO Category</b>	<b>Count of POs</b>	<b>Percentage</b>
No change orders	124	63%
Changes increased PO value	40	20%
Changes did not change PO value	14	7%
Changes decreased PO value	20	10%
<b>Totals:</b>	<b>198</b>	<b>100%</b>

This audit investigated the forty purchase orders that had an increase in value.

Additionally, some purchase orders within the scope of this audit had multiple change orders, and some of those change orders decreased the value of the purchase order (even though cumulatively the change orders increased the overall purchase order value). In this audit, individual change orders that did not increase the value of the purchase order were generally given less scrutiny than the ones that increased it.

It should also be noted that this was a change order audit and not a purchasing audit. A few aspects of this audit required us to investigate some aspects of purchasing; but we only investigated so far as was relevant to change orders. For example, in this audit we often needed to verify whether a contract was bid; but we did not actually audit the competitive bidding process.

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<sup>2</sup> Government auditing standards require audit organizations to undergo an external peer review every three years.

<sup>3</sup> This data is for purchase orders that occurred in calendar year 2013. The data is accurate as of 4-29-2014.

This audit's scope was limited to the above stated criteria in order to ensure the audit would be completed in a timely manner.

The methodology used to complete the audit objectives included:

- Reviewing the work of auditors in other jurisdictions and researching professional literature to identify: (1) applicable laws and regulations, (2) change order best practices, and (3) common forms of change order fraud or abuse.
- Reviewing applicable policies and procedures.
- In-depth interviews with all contract managers and department directors overseeing the purchase orders **within this audit's scope**.
- Review and analysis of all relevant documentation and data regarding the change orders investigated for this audit.



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# Analysis and Recommendations

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## Compliance with Policies & Procedures

The City's policies and procedures regarding change orders are found in the purchasing manual. These policies reflect the statutes described in the Texas Local Government Code<sup>4</sup>. Relevant to this audit, there are four requirements for change orders laid out in the purchasing manual: (1) material changes in scope, quantities, or related work may not be made; (2) change orders must be properly approved; (3) a change order form must be filled out for all written contract documents; and (4) certain change orders may not have their prices increased by more than 25 percent.

### No Material Changes Occurred

Material changes, defined as "substantial revisions," are impermissible because the bidding process "requires that all bidders be placed upon the same plane of equality and that they each bid upon the same terms and conditions involved in all the items and parts of the contract, and the proposal specify as to all bids the same or substantially similar specifications."

We found no instances of material changes to the city's contracts.<sup>5</sup>

### Approval Practices for Change Orders Should Be Strengthened

***Policies and Procedures regarding change order approvals are sufficient.*** A basic control for preventing fraud, waste, or abuse at any organization is the requirement that expenditures be approved. Ideally, the individual doing the approving will meet two basic requirements:

1. The approver is a superior of the employee requesting the expenditure. This helps ensure that the approver has the power to deny approval if necessary.
2. The approver has sufficient knowledge regarding the expenditure to determine whether the expenditure is appropriate. The approver should be determining whether the change itself is appropriate, as well as whether the cost of the change is appropriate.

The approval policies laid out in the City of College Station's purchasing manual meet both of the above stated criteria. The city's approval requirements for change orders

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<sup>4</sup> § 252

<sup>5</sup> However, it should be noted that the scope of this audit focused on change orders that *increased* the value of the purchase order. Therefore, we did not investigate whether there were material changes in change orders that decreased the value of the purchase order.

vary slightly depending on the type of contract<sup>6</sup>, but the requirements are basically as follows:

- When the original contract amount plus all change orders is \$50,000 or less the City Manager or his designee may approve the change order, provided the change order does not increase the total amount set forth in the contract to more than \$50,000.
- When the change order is for more than \$50,000 or it results in a revised total contract amount that exceeds \$50,000, the change order must be approved by City Council.
- For professional services contracts, when the sum of all change orders exceed 25 percent of the original contract, the City Council must approve the change orders.

In the above stated requirements, when the purchasing manual states “City Manager or his designee” the city generally follows the approval criteria laid out in the change order routing procedures shown in the table below:

**Table 2:** Change Order Routing Procedures

<b>Change orders of \$0.01 to \$2,999.99</b>	<b>Change orders of \$3,000.00 to \$50,000.00</b>	<b>Change orders greater than \$50,000.00</b>
1. A/E Consultant (if applicable) 2. Contractor 3. Contract manager 4. Public Works Director (if applicable) 5. Department Director	1. A/E Consultant (if applicable) 2. Contractor 3. Contract manager 4. Public Works Director (if applicable) 5. Department Director 6. Chief Financial Officer 7. City Manager	1. A/E Consultant (if applicable) 2. Contractor 3. Contract manager 4. Public Works Director 5. Department Director 6. Chief Financial Officer 7. City Manager 8. Legal 9. City Council

***Not all change orders were properly approved.*** In this audit we did not find adequate evidence of supervisor approval for 26 percent of the change orders we investigated. These deficiencies were all related to change orders that did not require city council approval. The cause of these non-approvals is that the Finance department had generally been allowing these types of change orders to take place upon the sole request of the contract manager. (This, of course, does not necessarily mean that the **contract manager’s supervisor did not know about the change order**, it only means that **we don’t have evidence that it was approved.**)

Early on in this audit the Finance department recognized this as a control weakness and going forward has committed to ensure that supervisors have approved all change orders and to retain documentation of this approval prior to performing the change.

<sup>6</sup> The purchasing manual divides contracts into four kinds: (1) materials, equipment, supplies or other commodities, (2) general services, (3) professional services, and (4) construction contracts.

**Recommendation 1:** At a minimum, all change orders should have the approval of the contract manager and the contract manager's supervisor or superior. Before executing a change order, Finance should ensure these approvals have been obtained, and should retain documentation of this approval.

The strictness of these approval controls may vary depending on the amount at risk. For small change orders it is probably sufficient to simply make sure that the contract manager's supervisor has been copied on the email request. When large amounts are at risk Finance may want to enter more formal approval processes.

**Consolidated change order risk.** Split change orders occur when a change order is divided into multiple change orders in order to avoid approval requirements. For example, if there is a \$50,000 approval threshold, a \$52,000 change order might be divided into two \$26,000 change orders in order to avoid the approval process set off by crossing the \$50,000 threshold. Such actions are signs of lax controls and procedures regarding change orders and are a major red flag for change order abuse.

Among the change orders investigated in this audit we found no incidents of split change orders. However, we found one instance of a consolidated change order that had substantially the same effect.

Consolidating change orders is a common practice and is not usually a cause for concern. It is only a cause for concern when *both* of the following conditions are met:

1. The items in the change order are not directly related to each other. I.e. there are parts of the change order that would have occurred regardless of the other changes in the change order.
2. The consolidation of the change order results in avoiding an approval threshold.

In this audit we found one instance where both of these conditions were met. Purchase Order 130498 was a materials purchase with a change order that totaled \$966.25.

However, the individual changes within the purchase order were as follows:

1. -\$1,980.00 - Removal of line item G-1 due to a bid mistake. The bid was mistakenly awarded to this bidder, and had to be removed in order to be given to the correct bidder.
2. -\$1,239.50 – Removal of line item G-6 due to a bid mistake. The bid was mistakenly awarded to this bidder, and had to be removed in order to be given to the correct bidder.
3. +\$4,185.75 – This line item was added because the original winner of the bid proved unable to fulfill the bid. This vendor had the next lowest bid, and so was subsequently awarded it.

The above three changes are not directly related to each other. Item 3 would have occurred regardless of whether Items 1 and 2 occurred. But by consolidating these

changes, the change order fell below the \$3,000 approval threshold when Item 3 on its own would have been above the threshold.

In this specific incident we found no evidence of fraud or abuse, and this one isolated incident is not a cause for concern. We mention this only as a reminder of the potential risks associated with consolidating change orders when there are unrelated changes and the consolidation results in missing approval thresholds.

### **Change Order Forms Are Being Appropriately Used**

The purchasing manual states that “[a] change order form must be filled out for all written contract documents.” Furthermore, all change orders to written contracts must follow the purchasing manual’s routing procedures. The change order routing procedures indicate who must approve the change orders. (These procedures are shown on Table 1.)

We found that all of the change orders that needed a change order form had properly completed the form.

### **Price Increases Did Not Exceed Limits**

Both Texas law and the purchasing manual state that purchases obtained through competitive bidding may not have changes that exceed 25 percent of the original amount.

We did not find any competitively bid purchases with change orders that exceeded 25 percent.

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## **Risks of Fraud or Abuse**

Abuse of the change order system generally comes in one of two forms: (1) change orders that are unjustified or unnecessary, or (2) inflated change order prices.

### **Change Orders Were Justified, But Documentation Should Be Improved**

One way that the change order system can be abused occurs when an employee colludes with a vendor to purchase goods or services that are not actually needed.

***All change orders increasing the value of the purchase order appear to be justified.*** In this audit we did not find any instances of clearly unjustified change orders. However, it should be noted that in many cases we do not have the technical expertise to personally determine whether a change order is necessary (e.g. engineering, mechanics, etc.). In those situations we had to rely on the expert testimony of the contract manager and his or her supervisors in affirming the need for the change order.

This fact further highlights the need for strong approval controls in the city. Given the **city's diverse services and activities, there are often a limited number of employees** within the organization who have the necessary expertise to understand whether certain change orders are fully justified. As such, it is crucial that change orders not be executed until they have been reviewed by a supervisor with sufficient knowledge and expertise to justifiably approve the change.

**Change order documentation should be improved.** An important financial control for change orders is proper documentation. When an organization has strong documentation controls, it can account for every change, why it occurred, and who was responsible. With these strong controls, if an individual commits fraud, he or she is more likely to be caught. Weak documentation controls could make it more difficult to detect fraud.

At the City of College Station, many of these controls are built into the city's **electronic** financial system. In regards to change orders, one of the most important built-in controls is the change count. This is a count of every time a change has been made to the purchase order in the system. It even counts minor changes, such as date changes or corrections to typos. Significantly, this number cannot be edited. This security control makes surreptitious alterations of a purchase order more difficult, since it makes it difficult to hide the fact that a change occurred.

However, this security control will lose much of its effectiveness if the city does not document the reason for each change that is counted. This is because the lack of documentation creates an environment wherein there are many innocent change orders that are difficult to explain. This in turn increases the risk of fraud because unexplained and inappropriate changes will be more difficult to detect.


In the City of College Station, there are two separate places the city documents the **reasons for changes**. The first is in the "remarks" section within the financial system, as shown in Figure 1.

**Figure 1:** Purchase Order Remarks Documentation in the City's Financial System

	Remark
Print	Terms, Conditions, Pricing and Specifications of
Cancel	Bid 13-052, Contract 13-189 shall apply to
Exit	this purchase order.
Refresh	Dates: May 1, 2013 - April 30, 2014
Vendor Inquiry	Council Approved April 25, 2013 Item 2c
Rec./Inv Com...	Change Order 1: Increase line 9, decrease line 10
Encumbrance...	See change order 1 for details. HMP 6-7-13
Check inq	Change Order 2: Remove 1022 Crested Point, Add
Req. X-ref	Weed Control at USC on Graham Rd, Add City
	Cemetery Mowing.
	Council Approved July 25, 2013 Item 2e

The second is printed on the updated purchase order form, which is uploaded to laserfiche, as can be seen in Figure 2.

**Figure 2:** Purchase Order Form in Laserfiche



**City of College Station  
Purchase Order**

1101 Texas Avenue P O Box 9960  
College Station, Texas 77842-0960  
(979) 764-3555 Fax: (979) 764-3899  
www.cstx.gov

2

Purchase Order No.
130723
Above number must appear on all correspondence
Date
05/03/13

CHANGE #: 2  
45970 DATE CHG: 07/30/13

VENDOR

SHIP TO

CITY OF COLLEGE STATION  
300 KRENEK TAP ROAD  
SECOND FLOOR  
COLLEGE STATION, TX 77842

DELIVER BY	F.O.B.	TERMS	ACCOUNT NO.	PROJECT NO.	REQ. NO.	BID NO
05/30/14	DESTINATI	NET/30	SEE BELOW			

LINE	QUANTITY	UOM	DESCRIPTION	UNIT COST	EXTENSION
			***** CHANGE ORDER *****		
			Change Order 1: Increase line 9, decrease line 10 See change order 1 for details. HMP 6-7-13 Change Order 2: Remove 1022 Crested Point, Add Weed Control at USC on Graham Rd, Add City Cemetery Mowing. Council Approved July 25, 2013 Item 2e		

**NOTICE TO VENDOR:** To insure prompt payment mail invoice in duplicate and copy of paid freight bill to be included if invoicing for prepaid freight. Mail invoice to Attn: Accounting Department, P. O. Box 9973, College Station, Texas 77842-0973. The City of College Station is exempt from Federal, State, and Local taxes. Federal No. Is 1-74-6000534-5.

<b>GRAND TOTAL</b>	
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**PURCHASING AGENT**

In this audit we found that 33 percent<sup>7</sup> of the changes counted in the financial system do not have the reason for the change documented either in the financial system or on the purchase order form on laserfiche. However, it should be noted that the vast majority of these undocumented changes appear to be minor changes that do not affect **the purchase order's** dollar value, or are final changes that are closing-out the purchase order. Additionally, we found that when documentation does exist, it is sometimes insufficient.

Purchase Order 130362, which was for medical and dental insurance, is an example of why strong documentation is important. This purchase order lists 6 changes, but the only documentation we could find can be seen below in Figure 3.

**Figure 3:** Purchase Order 130362 Remarks

Remark
RFP 12-062
⤵ Stop Loss approved by Council 12/13/12 (2e)
Change Order 1 - correct account number on line 2
⤵ Increased lines 1-5 per ██████'s e-mail request on 1/27/2014. Resulting BPO amount should be the final amount for 2013 expenditures.

From the information given in the remarks, the first arrow explains change order 1; but it is unclear which change number the second arrow is associated with. We also do not know by how much the purchase order has changed.

After working through **the financial system's audit trail**, we were able to piece together the following table of what occurred on this change order described in Table 3 below.

**Table 3:** Changes Made to Purchase Order 130362

Change No.	Post Date	Balances	Change Amount	% Change
0	1/18/2013	\$ 6,628,627.00	n/a	n/a
1	3/18/2013	\$ 6,628,627.00	\$ -	0.0%
2	1/21/2014	\$ 6,589,008.15	\$ (39,618.85)	-0.6%
3	1/21/2014	\$ 6,652,895.70	\$ 63,887.55	1.0%
4	1/27/2014	\$ 6,803,386.17	\$ 150,490.47	2.3%
5	6/06/2014	\$ 6,803,386.17	\$ -	0.0%
6	6/06/2014	\$ 6,803,382.51	\$ (3.66)	0.0%

From this data, it appears that the second arrow **is for change 4. While there's no documentation for changes 5 and 6 (which occurred on the same day) it's likely these changes are associated with the closing of the purchase order.** Changes 2 and 3 (which occurred on the same day) are not at all clear. Because they are posted within a week

<sup>7</sup> This is 33% of the change orders within the scope of this audit, not 33% of change orders throughout the city.

of change 4, it's possible they are associated with change 4 in some way; but it appears more likely that they were changed for another reason that is not documented.

**Recommendation 2:** Any time a change occurs on a purchase order that will result in the financial system counting a change, Finance should document the change. The documentation should at the minimum state the change number it is associated with and the amount the purchase order has changed. For the very small changes, such as fixing typos, the city should still document the reason for the change, but can keep the documentation minimal—such as only a **short note in the "remarks" section** in the financial system. For purchase orders that increase the value of the purchase order, documentation showing proper approvals should also be retained.

### **Change Order Controls for Pricing Appear Sufficient**

Because change orders do not have to undergo competitive bidding, some vendors may be tempted to abuse the change order process by submitting inflated change order price proposals. There are three primary practices for reducing the risk of inflated change order prices: (1) establish terms in the original contract for how change order pricing will be handled, (2) manage and review change order costs, and (3) negotiate.

***When reasonable, change order prices are established in the original contracts.*** The preferred method for pricing change orders is to have the prices already established in the original contract. However, while this is ideal, it is not always practical since many change orders are not reasonably foreseeable.

Generally, change order prices can be established in the original contract in one of two ways. The first occurs when the contract states that if the city decides to go ahead with a certain change order, it will cost a specified amount.

The second method is to have **the contract's original pricing as a guide, but not necessarily as the specific price to be used.** Using unit prices from the original bid or from other recent bids as the basis for pricing change orders is usually appropriate; but it may be inappropriate when significant changes in market prices have occurred, or the location, timing, nature, or conditions of the work is substantially different. For example, if the city is paying a company for lawn mowing services, the unit prices could be used as a guide for how much to pay if the city decides to hire the company to mow other similar areas. However, using the same unit prices would probably be inappropriate for areas that are not similar, e.g. an empty field and a cemetery.

In this audit we found that about two-thirds of the change orders investigated had the pricing for the change order included in the original contract. We found no instances where a change order price clearly should have been included in the original contract, but was not.



**Management and review of change order costs appear sufficient.** In order to prevent against inflated prices, it is important that contract managers perform detailed reviews of change order prices. There are two aspects to these reviews:

1. *All* contract managers should be performing detailed reviews of pre-established change order costs. This includes comparing change order prices against the original contract prices, or to the schedules of units, rates or values, vendor invoices, price indices, or other sources that are pre-established by contract. Such reviews help ensure the additional charges are reasonable and conform to the contract conditions.
2. Contracts that do not have an Architecture & Engineering (A&E) firm helping to oversee the contract should also make sure the organization is not paying too much for labor, materials, equipment and markups. In situations where an A&E firm is being used, the city need only spot-check the scrutiny provided by the A&E firm.

*Review of pre-established prices.* It appears that review of pre-established change order prices is sufficient. We found evidence that detailed reviews are occurring. For example, on Purchase Order 140178, a Public Works purchase order, we found the contract manager communicating to the vendor in an e-mail: **"This cost seems reasonable if it includes all the work needed per the drawing from the engineer. However, before approving, can we see a cost breakdown with a little more detail to make sure everything is covered?"** A more detailed proposal was subsequently supplied. In our own review of pre-established prices we found no errors.

*Review of new change order prices.* Due to time constraints we could not personally make a determination as to whether specific change order prices for labor, materials, equipment, and markups were reasonable. However we did interview the contract managers to determine the depth of their change order price reviews. Assuming contract managers are following the procedures they say they are following, review of new change order prices are sufficient. However, we found one case in which the price review was probably insufficient. In this purchase order (130738) the vendor's submitted price had consolidated materials, labor and equipment into a single line item, and the reviewer did not ask for a more detailed price submission before approving.

In situations where an A&E firm is employed, we found that spot-checks are occurring.

### **Greater Emphasis On Negotiation May Be Needed**

When possible, contract managers should be negotiating the prices of change orders. However, it should be noted that negotiating change orders can be difficult for the city because it has substantially less bargaining power than the contractor. This is because

with change orders, the city is locked into the vendor working on the original contract. This unequal bargaining power gives vendors the ability to potentially inflate change **order prices up to the point of the city's cost** of changing vendors.

About one-third of the change orders we investigated had aspects that could have been negotiated. However, during the course of this audit we found little evidence that these change orders were negotiated. There appears to be two primary causes for this lack of negotiation. The first is the previously mentioned lack of bargaining power. The second is that the negotiation of change order prices does not appear to be an emphasized practice in the city, which results in most contract managers not considering it when they are reviewing costs.

**Recommendation 3:** The city should place a greater emphasis on negotiating change order prices.

We do not necessarily recommend that negotiation be attempted on every single change order. However, we do recommend that more emphasis be placed on negotiation so that contract managers will feel a greater obligation to attempt negotiation in situations where it may be beneficial.

### **The Ethics Hotline Should Be Made Available to Vendors**

Best practices recommend establishing hotlines for vendors and their employees to report waste and fraud. These hotlines are a cost effective tool for timely identification of issues, and should be widely communicated to everyone involved in a project.

The city currently subscribes to a hotline where city employees can report instances of fraud, waste, or abuse. However, in the past this hotline has not been made available to vendors or vendor employees.

The most difficult part of making the hotline available to vendor employees is informing the front line vendor employees that the hotline exists. After discussion with city staff, some ideas included:

1. ***Placing in the bid documents information regarding the ethics hotline, and requiring that the vendor inform its employees about the ethics hotline.*** The advantage of this method is that it is relatively simple to execute. A disadvantage is that it only applies to contracts that were bid.
2. ***Placing in the contract information regarding the ethics hotline, and requiring that the vendor inform its employees about the ethics hotline.*** The advantage to this method is that it will apply to most vendors. The

disadvantage is that changing the form contracts would cost substantially more time and effort than updating the bid documents.

3. **Place signs or posters at construction sites.** This could be particularly effective at construction sites such as buildings or parks. It would be less feasible for constantly moving construction sites, like roads.
4. **Direct communication with vendor employees.** The advantage to this method is that it would ensure that the employees most likely to be aware of fraudulent activity are also aware of the ethics hotline. The disadvantage is that it could strain the relationship between the contract manager and the vendor.

**Recommendation 4:** Information regarding the city's fraud hotline should be distributed to vendors and vendor employees.

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## Summary of Audit Recommendations

1. All change orders should have the approval of the contract manager and the contract manager's supervisor or superior. Before executing a change order, Finance should ensure these approvals have been obtained.
2. Any time a change occurs on a purchase order that will result in the city's financial system counting a change, Finance should document the change. The documentation should at the minimum state the change number it is associated with and the amount the purchase order has changed. For purchase orders that increase the value of the purchase order, documentation showing proper approvals should also be retained.
3. The city should place a greater emphasis on negotiating change order prices.
4. Information regarding the city's fraud hotline should be distributed to vendors and vendor employees.

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## Appendix A: Single Page Change Order Approval Aide

This document is intended to help members of the City Council know where to focus their attention during the change order approval process. Because all change orders are different, this aide will not by itself determine whether a change order should be approved; instead it is designed to help Council Members gather relevant information before deciding whether to approve a change.

1. **What is the reason for the change?** Depending on the reason for the change order, Council Members may want to consider applying varying levels of scrutiny.
  - Higher scrutiny:
    - If the contractor is unchanged in its ability to deliver on the contract, but the city has changed what it wants.
  - Medium scrutiny:
    - If the change was caused by an error and the contract must now be changed.
    - If the change is due to factors outside the control of the city and contractor.
    - If the contract change is to true-up estimates or to correct for reasonable assumptions.
  - Lower scrutiny:
    - If a change in the law limited **the contractor's ability to fulfill the contract.**
    - If an administrative change occurred that did not result in a change to the contract.
2. **Are there previous changes? What's the total percent change in price for all changes?** If it is more than 20 percent, give extra scrutiny.
3. **Is the change order needed?** Is the proposed change order necessary for meeting the original contract's purpose? What would happen if the change was rejected?
4. **Review the cost of the changes.** In most situations Council Members must depend on the expertise of city staff in determining whether the cost of a change order is reasonable. If Council members wish **to verify staff's due diligence**, questions should focus on:
  - Which prices were pre-established in the contract? How detailed was the review and comparison of change order prices against the pre-established prices?
  - Which prices had to be determined outside the contract? How much negotiation occurred? How many people reviewed the final price, and how detailed were the price reviews by each person? Were the costs of labor, materials, equipment and markups reviewed? How were the costs determined to be reasonable?

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## Appendix B: Management Responses to the Audit Recommendations

To: Kelly Templin, City Manager  
From: Jeff Kersten, Assistant City Manager  
Date: September 10, 2014  
Subject: Performance Audit: Change Order Recommendations and Management Responses

Staff agrees with the recommendations from the Internal Auditor's Office, however, we thought it would be appropriate to provide some general background on the types and nature of changes that can occur on City purchase orders:

- The scope of this audit included change orders with written contracts and those with **purchase orders serving as the contract. With the City's current financial system (Sungard)**, every contract (construction services, professional services, general services) has a corresponding purchase order, but not every purchase order has a written contract. A purchase order with attached PO terms serves as the contract for the purchase of goods and commodities.
- There are two primary categories of change orders:
  - Contractual change orders – changes that occur after the contract is awarded when the plans, specifications, costs, quantities or delivery time changes from the original approved contract; or
  - Administrative changes – these changes do not impact the contract and/or PO terms. Examples of these may include a change in the account number, inverting the unit cost and total cost in order to make progress payments, or correcting a typo.
- It is also important to note that the Sungard financial system provides an audit trail of every change that occurs on the purchase order, regardless of whether it is administrative or contractual change. The audit trail may be cumbersome to follow, but it provides the individual that made the change, the date of the change and automatically numbers every change(s).
- Also worth mentioning is the new Tyler MUNIS financial system will allow better documentation to be attached directly to the records. Therefore, staff will be able to attach change order forms, emails or any other relevant documentation directly to each change occurring.

Following are staff responses to the recommendations:

**Auditor Recommendation 1.** All change orders should have the approval of the contract manager and the contract manager's supervisor or superior. Before executing a change order, Finance should ensure these approvals have been obtained.

**Management Response:** *Staff agrees. Currently, written change order forms are required for written contracts with the contractor's signature, the project manager, the department director and depending on the amount, City Manager or City Council approval. The approval process on change orders to purchase orders is less formal, however, since the beginning of this audit, staff has been more diligent in requiring supervisor approval on requested changes. Staff will revise the current policies and procedures and develop any approval forms as needed. The new MUNIS financial*

*system will provide for an electronic approval workflow that will be used when the system is implemented.*

**Auditor Recommendation 2.** Any time a change order occurs on a purchase order that will result in the City's financial system counting a change, Finance should document the change. The documentation should at the minimum state the change number it is associated with and the amount the purchase order has changed. For purchase orders that increase the value of the purchase order, documentation showing proper approvals should also be retained.

**Management Response.** *Staff agrees. Sometimes the audit trail in the financial system is difficult to follow. Staff will document each change order by number with a corresponding reason for the change. If the change results in an increase, staff will also document the approval(s). Again, the new MUNIS financial system will provide for an electronic approval workflow that will be used when the system is implemented.*

**Auditor Recommendation 3.** The city should place a greater emphasis on negotiating change order prices.

**Management Response.** *Staff agrees. Every effort should be made to confirm that change order prices are fair and reasonable.*

**Auditor Recommendation 4.** Information regarding the City's fraud hotline should be distributed to vendors and vendor employees.

**Management Response.** *Staff will place information regarding the fraud hotline in all bid documents. The bid documents typically become part of the contract documents, if applicable. When developing the new purchase order form in Tyler MUNIS, staff will see if it is feasible to add the fraud hotline to this form which will reach more vendors than just those vendors awarded bids/contracts.*