

# **CITY AUDITOR'S OFFICE**



## **AUDIT OF PUBLIC WORKS – TRAFFIC ENGINEERING FIELD OPERATIONS Inventory Management and Damage/Loss Reporting**

**Report No. CAO 1503-1011-07**

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**CITY AUDITOR**

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**AUDIT OF PUBLIC WORKS –  
TRAFFIC ENGINEERING FIELD OPERATIONS  
Inventory Management and Damage/Loss Reporting  
CAO 1503-1011-07**

**BACKGROUND**

The Traffic Engineering Field Operations Section (TEFO) is within the Traffic Engineering Division of the Public Works Department of the city of Las Vegas (city). Under the direction of the Public Works Director, TEFO is managed by the City Traffic Engineer and the Assistant Traffic Manager. There are approximately 68 employees within TEFO.

TEFO is comprised of the following four work units:

- Roadway and Area Lighting
- Traffic Signal Repair and Operations
- Traffic Signal Construction and Maintenance
- Traffic Signing and Marking

The *Roadway and Area Lighting Unit* oversees installation, repairs, and maintenance of lighting in city streets, parks, trails, parking lots, landscape, and sports fields. There are approximately 57,000 of these lights in the city.

The *Traffic Signal Repair and Operations Unit* oversees the repair and operations of city traffic signals and flashers, as well as other intelligent transportation systems. There are approximately 808 traffic signals and flashers in the city.

The *Traffic Signal Construction and Maintenance Unit* oversees the testing, construction, and maintenance of traffic signals, flashers, and other intelligent transportation systems.

The *Traffic Signing and Marking Unit* oversees the replacement, maintenance, and installation of traffic signs and pavement markings. Many signs used by the city are fabricated in the East Service Yard sign shop. There are approximately 65,000 traffic signs in the city.

TEFO's operations are currently run out of three different locations including the city's East Service Yard at Bonanza and Mojave (East Yard), the West Service Yard at Cheyenne and Buffalo (West Yard), and the Traffic Signal Shop at 28<sup>th</sup> and Charleston (Signal Shop). Maintenance, repair, and replacement parts (maintenance and repairs inventory) are stored at all three of these locations. This inventory consists of a variety of items including street and traffic lights and poles, traffic signal control systems, street marking materials, signage materials, and various parts and supplies for the installation, maintenance, and repair of these items (e.g., wire, paint, adhesives, etc.).

## **OBJECTIVES**

The audit objectives were to:

- Evaluate the adequacy of the management controls over inventory and the inventory purchasing process.
- Evaluate the adequacy of the management controls over the safeguarding of inventory, equipment, and supplies.
- Evaluate the adequacy of TEFO's methodology for reporting damage and losses of city property to the city's Department of Human Resources.

## **SCOPE AND METHODOLOGY**

The scope of this audit was limited to TEFO's operations. The scope of our work on internal control was limited to the controls within the context of the audit objectives and the scope of the audit. The last fieldwork date of this audit was April 4, 2011.

Our audit methodology included:

- Research of applicable policies and procedures,
- Interviews of city personnel,
- Observations of work processes, and
- Analysis of available data.

We conducted this performance audit in accordance with generally accepted government auditing standards except for the requirement for an external peer review every three years. 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.

The exception to full compliance is because the City Auditor's Office has not yet undergone an external peer review. However, this exception has no affect on the audit or the assurances provided.

## **CONCLUSIONS, FINDINGS, AND RECOMMENDATIONS**

Our audit identified issues TEFO management should address to improve controls over inventory management and damage/loss reporting. These issues are summarized below following each related objective:

***Objective: Evaluate the adequacy of the management controls over inventory and the inventory purchasing process.***

TEFO does not utilize a perpetual inventory tracking system for its maintenance and repairs inventory. TEFO should at a minimum establish a limited perpetual inventory tracking system for selected inventory based on criteria established by management. Inventory purchasing decisions need to be more coordinated among TEFO's locations and its purchasing methodology and procedures need to be documented. (Finding #1)

TEFO needs to improve how it conducts and documents its annual physical inventory counts and use the information gathered to evaluate the adequacy of its inventory levels, identify inventory trends and irregularities, and develop future inventory purchasing strategies. (Finding #2)

TEFO needs to begin cross-training additional employees on the skills required to operate the sign shop and document procedures followed in sign fabrication. (Finding #7)

***Objective: Evaluate the adequacy of the management controls over the safeguarding of inventory, equipment, and supplies.***

TEFO needs to complete an evaluation of its inventory organization and storage practices and address the identified concerns. In addition, an evaluation should be completed of old and recycled inventory and a program should be implemented for documenting this inventory. Damaged, obsolete, earlier generation, and recycled inventory that is no longer needed should be identified and disposed of. (Finding #3)

TEFO needs to improve the physical security over its inventory by utilizing city authorized padlocks, documenting its security policies, documenting which employees have access to its secured inventory storage areas, and completing walkthroughs of these areas to identify any security concerns or deficiencies. (Finding #4)

TEFO needs to improve the physical security over its valuable tools and equipment by implementing an identification and tracking program. (Finding #5)

***Objective: Evaluate the adequacy of TEFO's methodology for reporting damage and losses of city property to the City's Department of Human Resources.***

TEFO needs to improve its damage/loss reporting process by documenting procedures addressing how TEFO employees are to comply with the guidelines within the city's Safety Loss Control Manual. TEFO also needs to begin reporting damage/losses from acts of nature and graffiti as required by Human Resources. (Finding #6)

TEFO needs to document and implement procedures for ensuring that burdened labor rates are being used with TEFO damage/loss claims and that material costs in the work order system are

current. TEFO also needs to re-evaluate the adequacy of the vehicle use rates being used with damage/loss claims. (Finding #6)

Further information on these issues is contained in the sections below. While other issues were identified and discussed with management, they were deemed less significant for reporting purposes.

## **1. INVENTORY MANAGEMENT**

### **Criteria**

Per the United States Government Accountability Office (U.S. GAO):

*Proper inventory accountability requires that detailed records of produced or acquired inventory be maintained, and that this inventory be properly reported in the entity's financial management records and reports. Physical controls and accountability reduce the risk of (1) undetected theft and loss, (2) unexpected shortages of critical items, and (3) unnecessary purchases of items already on hand. These controls improve visibility and accountability over the inventory, which help ensure continuation of operations, increased productivity, and improved storage and control of excess or obsolete stock. (GAO-02-447G Executive Guide, Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property, p.5)*

*The lack of reliable information impairs the government's ability to (1) know the quantity, location, condition, and value of assets it owns, (2) safeguard its assets from physical deterioration, theft, loss, or mismanagement, (3) prevent unnecessary storage and maintenance costs or purchase of assets already on hand, and (determine the full costs of government programs that use these assets. (GAO-02-447G Executive Guide, Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property, p.6)*

### **Condition**

#### *Inventory Tracking and Records*

TEFO does not use a perpetual inventory tracking system for its maintenance and repairs inventory. Therefore, the only record of inventory on-hand is the results of the annual physical inventory count. The lack of current and reliable inventory information impairs management's ability to effectively manage the inventory. In addition, the lack of this information can create inefficiencies for employees in trying to identify what inventory is on-hand. Other city departments with maintenance and repair operations have implemented perpetual inventory tracking systems for their operations.

*Purchasing Methodology and Procedures*

While the city has various purchasing policies and procedures, TEFO has not documented its internal purchasing methodology and procedures to be followed by its employees. TEFO purchasing decisions are typically made by senior staff members at each TEFO location based on various factors including observed quantities on-hand at each respective location, immediate needs, historical quantities purchased, and available funds. Under TEFO's current organizational structure, the three locations operate relatively independent of each other with limited coordination on inventory purchases.

**Cause**

- Lack of use of a perpetual inventory system.
- Lack of documented internal purchasing methodology and procedures
- Limited coordinated purchasing decisions between locations.

**Effect**

- Management's ability to effectively manage the inventory is impaired.
- Inefficiencies in trying to identify what inventory is on-hand.
- Potential for unexpected shortages of critical items or unnecessary purchases of items already on hand.
- Potential for undetected theft or loss.

**Recommendations**

- 1.1 TEFO management should evaluate and document the cost and benefits of implementing a perpetual inventory system for the maintenance and repairs inventory.
- 1.2 While adoption of a full perpetual inventory may not be practical or cost effective for TEFO at this time, TEFO management should at a minimum implement a limited perpetual inventory tracking system for selected inventory based on established criteria. Management should consider tracking frequently used inventory, higher-valued inventory, and/or inventory with significant lead times.
- 1.3 TEFO management should document their purchasing methodology and procedures and distribute them to employees with purchasing responsibility.
- 1.4 TEFO management should document and implement procedures that promote increased coordination in inventory purchasing decisions between senior staff members at TEFO's three locations.

## **2. ANNUAL PHYSICAL INVENTORY COUNTS**

### **Criteria**

Per the United States Government Accountability Office (U.S. GAO):

*Establishing and documenting policies and procedures are essential to an effective and reliable physical count. Policies and procedures demonstrate management's commitment to the inventory physical count process and provide to all personnel clear communication and comprehensive instructions and guidelines for the count. Establishing written policies and procedures helps ensure consistent and accurate compliance and application needed to achieve high levels of integrity and accuracy in the physical count process. Policies and procedures also become the basis for training and informing employees.*

*Well-documented physical count policies and procedures typically pertain to all aspects of the physical count process, including the activities or tasks that take place before, during, and after the physical count. Documented policies and procedures generally include everything an employee needs to know to complete the requirements of a specific task for the physical count. (GAO-02-447G Executive Guide, Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property, p. 16)*

*Evaluating the results of the physical count is essential to an accurate and effective physical count process. The evaluation of the results gives management the necessary information for measuring the effectiveness of (1) the physical count and (2) corrective actions or improvements to the inventory process and system. Evaluation includes measuring the results of the count, communicating the results, and modifying existing policies and procedures. (GAO-02-447G Executive Guide, Best Practices in Achieving Consistent, Accurate Physical Counts of Inventory and Related Property, p. 55)*

### **Condition**

The Department of Finance (Finance) requests that TEFO complete a physical count of its maintenance and repairs inventory at the end of every fiscal year for financial reporting purposes. Deficiencies were noted in how this physical inventory count is being conducted and documented as follows:

- The Traffic Signal Construction and Maintenance Unit did not complete a physical inventory count of its maintenance and repairs inventory for the fiscal year ended June 30, 2010.
- Physical inventory count policies and procedures have not been documented for utilization by staff members in conducting the inventory. Therefore, no formal direction is provided on the following areas:
  - The period in which the inventory should be conducted.
  - The employees that should be involved and their roles and responsibilities.

- Inventory to be included and excluded in the count.
- Handling of inventory received or used during the count.
- The methodology for making count estimates where required (e.g., sign film rolls, wire).
- The methodology to be followed in valuing the inventory.
- The count sheets from the physical inventory conducted for the fiscal year ended June 30, 2010 did not include the following information:
  - The date(s) of the count
  - Identification of employees who completed the count
  - Specific storage locations of the inventory
  - Identification of items where estimates were made
- While the physical inventory counts are summarized and forwarded to Finance, TEFO management does not currently utilize the results for evaluation of the maintenance and repairs inventory (e.g., analysis of inventory levels, identification of inventory trends and irregularities).

### **Cause**

- The focus of past physical inventory counts has been exclusively on gathering information for Finance.
- Lack of formalized physical inventory count procedures.
- Lack of formalized procedures to analyze the results of the physical inventory counts.

### **Effect**

- Potential for inaccurate, incomplete, and inconsistent physical inventory counts.
- Inventory levels may not be adequately evaluated to avoid shortages of critical items or unnecessary purchases of items already on hand.
- Inventory trends and irregularities may not be identified.

### **Recommendations**

- 2.1 TEFO management should document and implement annual physical inventory count procedures to be followed by their employees. Consideration should be given to the deficiencies identified during the audit when developing these procedures.
- 2.2 TEFO management should implement procedures to ensure that annual physical inventory counts are completed for all of the work units.
- 2.3 TEFO management should expand the information required to be documented on the count sheets during the physical inventory to include the date(s) of the count, the employee(s) performing the count, the specific location of the inventory, and identification of estimates made.

- 2.4 Upon implementation of a full or partial perpetual inventory system, TEFO management should use the results of the physical inventory counts to adjust the perpetual inventory records as needed and research the cause of any identified differences.
- 2.5 TEFO management should document and implement procedures to complete at a minimum an annual evaluation of its inventory including an evaluation of the adequacy of the inventory levels and the identification of any unusual trends or irregularities. This information should also be used in developing future inventory purchasing strategies.

### **3. INVENTORY STORAGE**

#### **Criteria**

Operational efficiencies are achieved when inventory is stored in a manner that facilitates timely identification and accessing of parts for use in repairs and maintenance operations. Inventory should also be properly safeguarded against damage or improper exposure to the elements.

The city's *Safety Loss Control Manual* states that "*occupants of City buildings shall make periodic inspections to keep hazards at a minimum in work areas and public facilities. Following is a general list of items that should be inspected...Proper storage of materials.*"

#### **Condition**

TEFO's maintenance and repair inventory is stored at the East and West Yards and at the Signal Shop. While much of TEFO's inventory is designed to withstand the weather and is stored outside, certain inventory must be protected from the elements and/or requires additional security. This inventory is stored inside the service and sign shops, storage sheds, shipping containers, or under a patio covered gated area at the West Yard.

During my observations of TEFO's maintenance and repairs inventory, the following concerns were noted:

- TEFO has a minimal amount of indoor and covered inventory storage space at its service shops and yards which creates challenges for staff members in adequately organizing certain inventory.
- Employees must periodically spend time searching the service yards to determine if they have the required parts for a repair project.
- Upon observation of the maintenance and repairs inventory at the service yards, certain inventory appeared to be unorganized, in damaged containers, inadequately stored, and/or of questionable value.
- TEFO regularly brings in salvageable inventory parts from the field to be re-used in its operations when needed (recycled inventory). This recycled inventory is being stored in various areas at the service yards. No record is maintained of this inventory and there is no formal evaluation of when to dispose of these items.

- TEFO stores some earlier generation inventory that is no longer available from suppliers. No records are maintained of this inventory and there is no formal evaluation of when to dispose of these items.
- The partially covered gated storage area at the West Yard appears to be inadequate for properly protecting certain inventory from the weather as evidenced by water stained and damaged boxes, standing water following a storm due to the lack of a drain, and high stacked boxes exposed to the wind. This storage area was initially designed for exclusive use by one work unit but is now being used by three different work units.
- A shipping container being used for inventory storage only had one door which creates inefficiencies for employees when needing to access inventory at the back of the container.

### **Cause**

- Lack of a documented inventory storage organization methodology.
- Limited indoor or covered inventory storage space.
- Lack of a formal process for tracking earlier generation and recycled inventory and for evaluating when to dispose of this inventory.

### **Effect**

- Inefficiencies in employee time spent to identify inventory on-hand.
- Valuable storage space may be occupied by unneeded inventory.
- Potential safety hazard from improperly stored inventory items.

### **Recommendations**

- 3.1 TEFO management should complete an evaluation of the adequacy of the inventory organization and storage practices being followed at the service yards (including earlier generation and recycled inventory) and address the identified concerns.
- 3.2 TEFO management should implement a program for documenting the earlier generation and recycled inventory. This could be completed in conjunction with the annual physical inventory count.
- 3.3 TEFO management should document and implement procedures to conduct at a minimum an annual walkthrough of its inventory to identify damaged, obsolete, earlier generation, and recycled inventory that is no longer needed and any inventory storage deficiencies. This procedure could be completed in conjunction with the annual physical inventory count.

## **4. INVENTORY SECURITY**

### **Criteria**

Inventory should be properly secured and safeguarded against theft.

### **Condition**

While TEFO's three locations of operations are gated with restricted access to city employees, there is still the risk of internal theft. The East and West Yards are at a greater risk of internal theft without detection than the Signal Shop due to the larger number of employees and different departments that access these yards.

The following inventory security deficiencies were identified:

- TEFO has not documented its inventory security policies and procedures.
- While the sheds and shipping containers that are used for inventory storage at the East and West Yards are padlocked, there is no master listing of the employees who have been given keys to these padlocks.
- One of the sheds at the East Service Yard was secured with a double padlocked gate and barbed wire. Despite the appearance of security, this shed was accessed with ease with a simple push on the gate. In addition, padlocks to a gated inventory storage area were observed to be unlocked during the day on two separate occasions.
- Per the city locksmith, TEFO is using non-city authorized padlocks for securing a variety of inventory storage areas (e.g., sheds, gated areas, and shipping containers). The keys for these padlocks are easily duplicated and there is no assurance that only authorized users are accessing the inventory areas. In addition, the use of unauthorized padlocks could hinder access to the areas by the fire department. The city locksmith recommends that only city authorized padlocks be used as the keys for these locks cannot be duplicated, are limited in their distribution, and are controlled by the city's locksmith shop.

### **Cause**

- Lack of documented inventory security policies and procedures.
- Lack of adequate evaluation of inventory safeguarding and security measures.

### **Effect**

- Lack of assurance that inventory storage areas are only being accessed by TEFO employees.
- Inadequate security over padlocked storage areas with use of unauthorized padlocks.

## **Recommendations**

- 4.1 TEFO management should document and implement inventory security policies and communicate these policies to employees.
- 4.2 TEFO management should document which employees have access to the various inventory storage areas.
- 4.3 TEFO management should replace all unauthorized padlocks used in inventory storage areas with padlocks authorized by the city locksmith.
- 4.4 TEFO management should document and implement procedures to conduct at a minimum an annual walkthrough of its inventory storage areas to identify security concerns and deficiencies. This procedure could be completed in conjunction with the annual physical inventory.

## **5. SAFEGUARDING OF TOOLS AND EQUIPMENT**

### **Criteria**

Tools and equipment should be safeguarded from unauthorized use and theft.

### **Condition**

TEFO uses various tools and equipment in conjunction with their operations. Efforts have been made by staff members to place more valuable/desirable tools and equipment in secured closets or cabinets. The following concerns were identified upon observation of these areas:

- No formal records of who has access to these areas are maintained.
- No formal records of valuable tools and equipment are maintained.
- No periodic inventory of valuable tools and equipment is completed and documented.
- There have been past incidents of theft of valuable tools and equipment.

### **Cause**

- Lack of a formalized program for tracking valuable tools and equipment.

### **Effect**

- Lack of assurance that valuable tools and equipment are adequately safeguarded from theft.

## Recommendations

- 5.1 TEFO management should identify and document which tools and equipment they deem to be valuable (i.e., requiring a higher level of security and monitoring).
- 5.2 TEFO management should begin maintaining records of valuable tools and equipment. The tools and equipment records should include at a minimum a description of each item, serial or identification numbers, and the storage location of the items. Consideration should be given to retaining a photo of each item.
- 5.3 TEFO management should conduct an evaluation of the adequacy of the storage areas where the valuable tools and equipment are being stored, document which employees have access to these areas, and review the appropriateness of this access.
- 5.4 TEFO management should document and implement procedures for securing and tracking its valuable tools and equipment and conducting periodic verifications of the existence of these items.

## 6. DAMAGE AND LOSS REPORTING

### Criteria

The city's *Safety Loss Control Manual* (approved and adopted by the City Council on February 2, 2011, Chapter 7, Section 2) states the following:

***Damage Loss Reports*** – *Recovery of City property damaged by a third party is an important factor in reducing expenses of the Department for repair or replacement of damages. Therefore, all Departments are responsible for reporting any damage or loss of City property to Insurance Services Division. A City of Las Vegas Equipment Damage or Loss Report form must be submitted to Insurance Services Division, accompanied by a Deputy City Marshal's Event Number and a quote from a vendor for replacement. Note: Deputy City Marshals are not required to file an event number in cases involving lost cellular telephones, radios or graffiti. Once the claim is processed, a check will be issued to the vendor for replacement. Insurance Services Division will **normally** replace losses under the following circumstances:*

- *A non-preventable vehicular accident.*
- *Stolen and/or vandalized City property or equipment*
- *Acts of nature (on a case by case basis)*

### Condition

TEFO completes and submits a paper form known as the *Equipment Damage or Loss Reports* (damage/loss reports) to the city's Insurance Services Risk Management Division of Human

Resources (Human Resources) when city lighting, traffic signals, or signage are damaged in a vehicle accident. Human Resources uses this information to seek reimbursement for repair costs incurred (including labor, material, and vehicle use) from third parties or insurance companies. While the city has general guidelines in its *Safety Loss Control Manual* on the submittal of damage/loss reports to Human Resources, TEFO has not documented how its staff members are to comply with these guidelines.

The city's *Safety Loss Control Manual* states that "*all Departments are responsible for reporting any damage or loss of City property to Insurance Services Division.*" In addition, the manual states that Insurance Services will normally replace losses for "stolen and/or vandalized city property or equipment" and "acts of nature". While TEFO submits damage/loss reports for damage or loss to city assets caused by a vehicle, TEFO is not currently submitting damage/loss reports for graffiti repairs or acts of nature. Per discussions with Human Resources personnel, these losses should be reported.

TEFO management must currently record information on the damage/loss reports that is already captured in the work order system (Hansen) and accessible by Human Resources. This creates unnecessary work for TEFO staff members.

In a review of a sample of TEFO damage/loss claims, the following issues were noted:

#### *Labor Rate*

A fully burdened labor rate (wages and benefits) was not always used by Human Resources in subrogating TEFO labor costs to third parties due to an incorrect system generated report being used. During the course of the audit, a new report was created for use by Human Resources to correct this issue.

#### *Material Costs*

TEFO maintains a listing of material costs within the work order system (Hansen). These costs are included in damage/loss reports used by Human Resources. Upon review of the process by which these costs are updated, we found the following:

- Approximately 61% of the material costs have not been updated since January 2009.
- Approximately 31% of the costs have not been updated since 2007.
- A couple work units failed to provide all required cost information to the employee with responsibility for updating the work order system.
- No formalized procedures exist on the process to be followed for updating the material costs within the work order system.

### *Vehicle Use Rates*

The methodology for the current vehicle rates per hour being used for TEFO damage/loss claims is not documented. While an evaluation of vehicle costs was not completed, these rates do not appear to be adequate to properly compensate the city for all of the costs associated with the use of city vehicles (e.g., maintenance, repairs, fuel, tires, etc.). A comparison of these hourly rates to a schedule of rates used by the Federal Government to compensate contractors for vehicle use during disasters and emergencies (*FEMA's Schedule of Equipment Rates*) showed significant differences. For example, the city uses \$4 per hour for its use of a pickup truck while the FEMA schedule recommends rates of \$14 to \$30 per hour depending on the capacity of the pickup truck. The city uses \$8 per hour for its use of a dump truck while the FEMA schedule recommends rates of \$35 to \$105 per hour depending on the size and capacity of the dump truck. Similar differences exist with the other standard vehicle rates being used by the city.

### **Cause**

- Lack of internal documented procedures on how TEFO complies with the city's damage/loss reporting requirements.
- Redundant information on damage/loss claims is being reported to Human Resources.
- Incorrect system cost reports were being used by Human Resources for capturing the fully burdened labor rate for employees.
- Lack of formalized procedures for updating material costs in the work order system.
- The adequacy of the vehicle rates per hour has not been recently evaluated or updated.

### **Effect**

- Lack of full compliance with the city's damage/loss reporting requirements.
- Inefficiencies created in having to manually document damage/loss information on the damage/loss report that is already captured in the Hansen system.
- The material costs included in damage/loss claims may not be current.
- The vehicle rates per hour being used in TEFO damage/loss claims do not appear to reflect actual costs.

### **Recommendations**

- 6.1 TEFO management should document and implement procedures addressing how TEFO employees are to comply with the damage/loss reporting guidelines within the city's *Safety Loss Control Manual*.
- 6.2 TEFO management should begin reporting damage and losses from acts of nature and graffiti to Human Resources and document this requirement in its procedures.

- 6.3 TEFO management should work with Human Resources in eliminating having to manually report damage/loss information that is already captured in the Hansen system.
- 6.4 TEFO management should follow-up with Human Resources to ensure they are using the correct system reports for capturing the fully burdened labor rate for damage/loss claims.
- 6.5 TEFO management in consultation with the city's Fleet Services division should re-evaluate the adequacy of the vehicle use rates currently being used for damage/loss reporting. FEMA's Schedule of Equipment Rates used by the Federal Government should be considered for use as a benchmark reference. The vehicle use rate methodology should be documented for future reference.
- 6.6 TEFO management should document and implement procedures to annually review the adequacy of the vehicle rates being used and verify that these rates and the fully burdened labor rates are being used with TEFO damage/loss claims.
- 6.7 TEFO management should document and implement procedures for updating the material costs within the work order system. These procedures should include at a minimum an annual review by management of the material listing within the work order system to ensure that the information is complete and that the costs are current.

## **7. SIGN SHOP CONTINGENCY PLAN**

### **Criteria**

Reliance on a single individual in an organization's operations creates a risk of loss of valuable information and technical expertise if that individual separates from employment or has an extended leave of absence from work.

### **Condition**

TEFO relies on one of its Signing and Marking Technicians who has been with the city for over 30 years for the fabrication of most of the street signage for the city. This job requires specific expertise in utilizing a variety of tools and computer software. Limited cross training has been completed with this position.

### **Cause**

- Reliance on existing employee without adequate cross-training.

**Effect**

- Potential for loss of significant knowledge base if the employee has an extended leave of absence from work or separates from employment.

**Recommendations**

- 7.1 TEFO management should begin cross-training additional employees on the skills required to operate the sign shop.
- 7.2 TEFO management should document the procedures followed within the sign shop for the fabrication of signage. This documentation should include information on the use of equipment and software.

## **MANAGEMENT RESPONSES**

### **1. INVENTORY MANAGEMENT**

#### **Recommendation 1.1**

TEFO management should evaluate and document the cost and benefits of implementing a perpetual inventory system for the maintenance and repairs inventory.

#### **Management Action Plan**

Traffic Engineering Field Operations currently uses no perpetual inventory system, but does extensively use Hansen's Customer Service, Work Order, and Asset modules to track its performance during the course of its operations. Accordingly, since this enterprise-wide software program is already being used for asset management and costing purposes, it seems a logical fit to expand to the "Inventory" module already within Hansen. Therefore, though other inventory programs may be reviewed for their acceptability with regards to costs and benefits, TEFO management will primarily focus its evaluation of the costs and benefits associated with using Hansen when implementing its perpetual inventory system.

#### **Estimated Date of Completion**

January 1, 2012

#### **Recommendation 1.2**

While adoption of a full perpetual inventory may not be practical or cost effective for TEFO at this time, TEFO management should at a minimum implement a limited perpetual inventory tracking system for selected inventory based on established criteria. Management should consider tracking frequently used inventory, higher-valued inventory, and/or inventory with significant lead times.

#### **Management Action Plan**

Dependent upon the outcome of the previous item (1.1), TEFO management will implement the use of either Hansen or another computerized program to track the disposition of higher value inventory items, items with greater risk of loss, and items procured for specific project and/or use. The items to be tracked will be those located in the shops or in the yards that have been procured by the City, but have yet to be deployed for use at a specific location.

### **Estimated Date of Completion**

July 1, 2012

### **Recommendation 1.3**

TEFO management should document their purchasing methodology and procedures and distribute them to employees with purchasing responsibility.

### **Management Action Plan**

TEFO management will focus on greater centralization of its procurement decisions, and has already taken some steps to this end. First of all, much of the physical operations of the division have been relocated and centralized at the West Service Center, which has already created an environment for better communication between those individuals with procurement responsibilities. Additionally, purchasing responsibilities shall be limited to provide better oversight of buying decisions. As such, specific individuals will be made responsible for procurement of specific assets to be used by TEFO. Finally, TEFO management will develop a handbook that defines both specific as well as general procurement and purchasing guidelines. This handbook will build upon the City's Purchasing & Contracts requirements, as it relates specifically to the needs of the TEFO organization. This handbook will be distributed to all staff, and will formally document the processes and methodologies that shall be undertaken by all staff when procuring goods or services during the course of performing his or her respective duties.

### **Estimated Date of Completion**

July 1, 2012

### **Recommendation 1.4**

TEFO management should document and implement procedures that promote increased coordination in inventory purchasing decisions between senior staff members at TEFO's three locations.

### **Management Action Plan**

With some changes that have recently occurred, such as the consolidation of its operations and relocation of most of its staff to the West Service Center, as well as proposed organizational changes to its supervisory structure, TEFO management will be integrating greater centralization of the division's procurement decisions into its operations. These procedures shall be documented in the handbook noted within the response in item 1.3.

**Estimated Date of Completion**

July 1, 2012

**2. ANNUAL PHYSICAL INVENTORY COUNTS**

**Recommendation 2.1**

TEFO management should document and implement annual physical inventory count procedures to be followed by their employees. Consideration should be given to the deficiencies identified during the audit when developing these procedures.

**Management Action Plan**

TEFO has performed annual physical inventory counts in conjunction with the Finance Department's requirements in mid-June every year. As such, this process will be documented and formalized, and coupled with any perpetual inventory system that has been chosen to be employed for use by the division as noted in item 1.1 and 1.2. These procedures shall be documented in the handbook noted within the response in item 1.3.

**Estimated Date of Completion**

July 1, 2012

**Recommendation 2.2**

TEFO management should implement procedures to ensure that annual physical inventory counts are completed for all of the work units.

**Management Action Plan**

TEFO management will require submission of the annual physical counts to the Assistant Traffic Manager for review and approval for all work units. They will be performed by the appropriately designated and trained employee with the adequate level of responsibility, then compiled and forwarded to the Finance Department as a single submission only after this action. These new procedures shall be documented in the handbook noted within the response in item 1.3.

**Estimated Date of Completion**

April 1, 2012

### **Recommendation 2.3**

TEFO management should expand the information required to be documented on the count sheets during the physical inventory to include the date(s) of the count, the employee(s) performing the count, the specific location of the inventory, and identification of estimates made.

#### **Management Action Plan**

TEFO management will create a new inventory count sheet to be used during all annual physical counts. This sheet will include the date(s) of the count, the employee(s) performing the count, the specific location of the inventory, and identification of estimates made. The process used to determine asset valuation of the inventory shall be identified for division-wide uniformity, as well. These new procedures shall be documented in the handbook noted within the response in item 1.3.

#### **Estimated Date of Completion**

April 1, 2012

### **Recommendation 2.4**

Upon implementation of a full or partial perpetual inventory system, TEFO management should use the results of the physical inventory counts to adjust the perpetual inventory records as needed and research the cause of any identified differences.

#### **Management Action Plan**

TEFO management will use its newly-implemented perpetual inventory system that resulted from the evaluation completed in item 1.1 and 1.2, and integrate the annual physical count data into the reconciliation process. A formalized internal audit process to resolve differences or similarities between the data gleaned through the annual physical count, and that inventory used throughout the year during the course of TEFO's operations shall be developed and implemented.

#### **Estimated Date of Completion**

July1, 2012

### **Recommendation 2.5**

TEFO management should document and implement procedures to complete at a minimum an annual evaluation of its inventory including an evaluation of the adequacy of the inventory levels and the identification of any unusual trends or irregularities. This information should also be used in developing future inventory purchasing strategies.

### **Management Action Plan**

TEFO management plans to use the data gained from the annual reconciliation process, and the associated formalized internal audit process to objectively evaluate procurement processes, adjust future purchasing amounts, address better security measures, develop greater loss mitigation efforts, or revise sustained inventory levels, based on actual data as opposed to individual judgment.

### **Estimated Date of Completion**

July 1, 2012

## **3. INVENTORY STORAGE**

### **Recommendation 3.1**

TEFO management should complete an evaluation of the adequacy of the inventory organization and storage practices being followed at the service yards (including earlier generation and recycled inventory) and address the identified concerns.

### **Management Action Plan**

With the recent relocation of the division, TEFO management will perform a formalized evaluation of inventory organization. Stored assets that need more secure storage or better protection from the elements shall be relocated accordingly. Documentation providing an authorized “*Inventory Location Plan*” shall be developed and updated as needs change.

### **Estimated Date of Completion**

April 1, 2012

### **Recommendation 3.2**

TEFO management should implement a program for documenting the earlier generation and recycled inventory. This could be completed in conjunction with the annual physical inventory count.

### **Management Action Plan**

TEFO management will perform a formalized evaluation of its legacy inventory components which are still needed because standing assets remain in the field that require maintenance, and a supplier is no longer available for procuring replacement parts. Once complete, management will formally evaluate the inventory storage practices associated with these earlier-generation or

recycled assets. These assets will ultimately be part of TEFO's documentation as defined in the new "*Inventory Location Plan*." Alterations to this plan shall be developed and updated as needs change.

### **Estimated Date of Completion**

April 1, 2012

### **Recommendation 3.3**

TEFO management should document and implement procedures to conduct at a minimum an annual walkthrough of its inventory to identify damaged, obsolete, earlier generation, and recycled inventory that is no longer needed and any inventory storage deficiencies. This procedure could be completed in conjunction with the annual physical inventory count.

### **Management Action Plan**

TEFO management will create an administrative policy for treatment of legacy equipment. Part of this policy shall define when the recycled assets are no longer required to remain in the division's inventory for maintenance purposes. Additionally, management will mandate staff to perform a formalized evaluation of all legacy inventory components as part of the annual inventory process in mid-June. Ultimately, the location of these assets will be part of TEFO's "*Inventory Location Plan*." Alterations to this plan shall be developed and updated as needs change.

### **Estimated Date of Completion**

July 1, 2012

## **4. INVENTORY SECURITY**

### **Recommendation 4.1**

TEFO management should document and implement inventory security policies and communicate these policies to employees.

### **Management Action Plan**

TEFO management will create a formal document referred to as its "*Asset Control Manual*" which defines inventory security policies, and once complete, the document will be distributed to all staff. Adherence to the policies shall be made mandatory.

**Estimated Date of Completion**

April 1, 2012

**Recommendation 4.2**

TEFO management should document which employees have access to the various inventory storage areas.

**Management Action Plan**

TEFO management will create a formal document referred to as its “*Asset Control Manual*” which defines who has access, at what facility, and at what level this access includes. Furthermore, though some the areas containing TEFO’s inventory assets can limit access division staff only, some of the areas do not currently offer this possibility. As funding becomes available in the future, consideration should be made in the City’s Capital Project Program to provide better security with greater restrictions for non-authorized individuals. This will include installing additional storage buildings, pavement, fences, gates, locks, and block walls.

**Estimated Date of Completion**

July 1, 2012

**Recommendation 4.3**

TEFO management should replace all unauthorized padlocks used in inventory storage areas with padlocks authorized by the city locksmith.

**Management Action Plan**

TEFO management will meet with Detention & Enforcement staff, and will coordinate with the locksmiths so they can procure the appropriate number of authorized padlocks to replace all of those that are currently being used. Once procured, the padlocks will be installed by TEFO staff.

**Estimated Date of Completion**

October 1, 2011

**Recommendation 4.4**

TEFO management should document and implement procedures to conduct at a minimum an annual walkthrough of its inventory storage areas to identify security concerns and deficiencies. This procedure could be completed in conjunction with the annual physical inventory.

### **Management Action Plan**

TEFO management will implement a procedure to perform a formalized evaluation of its inventory storage areas to identify security concerns and deficiencies, as part of the annual inventory process in mid-June. Documentation of the procedure shall be part of the formal document defining inventory security policies as noted in item 4.1, which will be referred to as TEFO's "*Asset Control Manual*."

### **Estimated Date of Completion**

April 1, 2012

## **5. SAFEGUARDING OF TOOLS AND EQUIPMENT**

### **Recommendation 5.1**

TEFO management should identify and document which tools and equipment they deem to be valuable (i.e., requiring a higher level of security and monitoring).

### **Management Action Plan**

TEFO management will create a formal document referred to as "*Asset Control Manual*" containing a listing of tools and equipment considered to be of sufficient value or at greater risk of loss. These will be those assets requiring a higher level of security and more frequent monitoring.

### **Estimated Date of Completion**

April 1, 2012

### **Recommendation 5.2**

TEFO management should begin maintaining records of valuable tools and equipment. The tools and equipment records should include at a minimum a description of each item, serial or identification numbers, and the storage location of the items. Consideration should be given to retaining a photo of each item.

### **Management Action Plan**

TEFO management will create a formal document referred to as "*Asset Control Manual*" containing a not only a list, but also a photo of tools and equipment considered to be of sufficient value or of greater risk of loss. The assets will include a description of each item, serial number, City identification numbers, and the location the item is stored when not in use.

**Estimated Date of Completion**

April 1, 2012

**Recommendation 5.3**

TEFO management should conduct an evaluation of the adequacy of the storage areas where the valuable tools and equipment are being stored, document which employees have access to these areas, and review the appropriateness of this access.

**Management Action Plan**

TEFO management will create a formal document referred to as an “*Asset Control Manual*” defining who has access to tools and equipment, at what storage area, and at what level this access includes. With the recent consolidation of most of TEFO’s staff to the West Service Center, much of this issue has already been resolved, but some further enhancements to facilities could be made to improve access and security to authorized staff. Therefore, as funding becomes available in the future, consideration should be made in the City’s Capital Expenditure Program to provide better security with greater restrictions for non-authorized individuals. This will include installing additional storage buildings, pavement, fences, gates, locks, and block walls. Additionally, the locksmiths in the Detention & Enforcement Department have recommended the installation of a badge access system to verify appropriate access as the best method to effectively secure and safeguard TEFO tools and equipment. Consideration should be given to fund such an investment.

**Estimated Date of Completion**

April 1, 2012

**Recommendation 5.4**

TEFO management should document and implement procedures for securing and tracking its valuable tools and equipment and conducting periodic verifications of the existence of these items.

**Management Action Plan**

TEFO management will create a formal document referred to as “*Asset Control Manual*” defining its procedures for securing and tracking its valuable tools and equipment and in the manual periodic verifications of the presence of these items in the proper location by the appropriate staff will be mandated.

**Estimated Date of Completion**

April 1, 2012

## **6. DAMAGE AND LOSS REPORTING**

### **Recommendation 6.1**

TEFO management should document and implement procedures addressing how TEFO employees are to comply with the damage/loss reporting guidelines within the city's *Safety Loss Control Manual*.

#### **Management Action Plan**

TEFO management will create a formal document referred to as "*Damage Loss Handbook*" defining how TEFO staff is to comply with the damage/loss reporting guidelines within the city's *Safety Loss Control Manual*. This document will be created in conjunction with Human Resources Insurance Service Division staff.

#### **Estimated Date of Completion**

January 1, 2012

### **Recommendation 6.2**

TEFO management should begin reporting damage and losses from acts of nature and graffiti to Human Resources and document this requirement in its procedures.

#### **Management Action Plan**

TEFO management has met with Human Resources Insurance Service Division staff to determine the best approach for achieving this recommendation. Since this will likely include well over 400 to 500 instances of such acts per month, it was agreed (by mutual consent) that a monthly report retrieving Work Order data directly from Hansen will be created. This report will be run, and sent to Human Resources at the end of each month noting losses from acts of nature and graffiti. This procedure will be noted in the newly developed "*Damage Loss Handbook*."

#### **Estimated Date of Completion**

January 1, 2012

### **Recommendation 6.3**

TEFO management should work with Human Resources in eliminating having to manually report damage/loss information that is already captured in the Hansen system.

### **Management Action Plan**

TEFO management has met with Human Resources Insurance Service Division staff, and has created a viable process for achieving this recommendation. TEFO staff is already testing this process for adequacy. Once this testing has been completed to the satisfaction of Human Resources and Public Works, the outcome will be noted in the newly developed “*Damage Loss Handbook*.”

### **Estimated Date of Completion**

January 1, 2012

### **Recommendation 6.4**

TEFO management should follow-up with Human Resources to ensure they are using the correct system reports for capturing the fully burdened labor rate for damage/loss claims.

### **Management Action Plan**

TEFO management has met with Human Resources Insurance Service Division staff, and has verified they are using the correct system reports for capturing the fully burdened labor rate for damage/loss claims. A new Hammer Launch report was created by Public Work’s Senior Technical Systems Analyst, and has been provided to Human Resources for their use. This report captures the fully burdened labor rate as provided by the Finance Department. This process will be noted in the newly developed “*Damage Loss Handbook*.”

### **Estimated Date of Completion**

January 1, 2012

### **Recommendation 6.5**

TEFO management in consultation with the city’s Fleet Services division should re-evaluate the adequacy of the vehicle use rates currently being used for damage/loss reporting. FEMA’s Schedule of Equipment Rates used by the Federal Government should be considered for use as a benchmark reference. The vehicle use rate methodology should be documented for future reference.

### **Management Action Plan**

TEFO management has met with Human Resources Insurance Service Division staff and they have agreed to support this recommendation when billing subrogation parties. After approval by Vehicle Service management, TEFO staff will modify the charge rates used for vehicles within

Hansen, utilized in the Damage Reports sent by TEFO to Insurance Services. The source of these rates will be noted in the newly developed “*Damage Loss Handbook*.”

**Estimated Date of Completion**

January 1, 2012

**Recommendation 6.6**

TEFO management should document and implement procedures to annually review the adequacy of the vehicle rates being used and verify that these rates and the fully burdened labor rates are being used with TEFO damage/loss claims.

**Management Action Plan**

TEFO management will create a formal document referred to as the “*Damage Loss Handbook*.” As part of this document, procedures will be identified as to how TEFO will verify and review the adequacy of the vehicle rates on a yearly basis as defined in FEMA’s Schedule of Equipment Rates used by the Federal Government. This annual process for validating the fully burdened labor rates will be part of the document, as well.

**Estimated Date of Completion**

January 1, 2012

**Recommendation 6.7**

TEFO management should document and implement procedures for updating the material costs within the work order system. These procedures should include at a minimum an annual review by management of the material listing within the work order system to ensure that the information is complete and that the costs are current.

**Management Action Plan**

As part of the “*Damage Loss Handbook*,” TEFO management will document and implement procedures for updating the material costs within the Hansen work order system. It will be noted in the document that an annual review by management will be part of this procedure. This will include reviewing the material listing within the Hansen work order system, and verifying the adequacy of costs and types of materials entered.

**Estimated Date of Completion**

January 1, 2012

## **7. SIGN SHOP CONTINGENCY PLAN**

### **Recommendation 7.1**

TEFO management should begin cross-training additional employees on the skills required to operate the sign shop.

#### **Management Action Plan**

TEFO management will develop a formal rotational process designed to train numerous Signing & Marking Technicians regarding the operation of the sign manufacturing function. The tasks related to these functions are already part of the Signing & Marking Technician classification specification, and the formal rotational process will be a voluntary rotation among this level employee that will adhere to the LVCEA rules associated with such actions.

#### **Estimated Date of Completion**

October 1, 2011

### **Recommendation 7.2**

TEFO management should document the procedures followed within the sign shop for the fabrication of signage. This documentation should include information on the use of equipment and software.

#### **Management Action Plan**

The necessary documentation needed for the fabrication of signage will be an integral part of the formal rotational process implemented by TEFO management which has been developed to train Signing & Marking Technicians. As staff is rotated into the sign production shop to more fully learn all operations of the sign manufacturing function, they will be required to document what they learn while in training. These individual reports will be compiled with knowledge held by the current individual already performing the function, and used to create a manual defining the procedures followed within the sign shop for the fabrication of signage.

#### **Estimated Date of Completion**

July 1, 2012