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# **CITY OF SAN ANTONIO**

## **OFFICE OF THE CITY AUDITOR**



Audit of Public Works Department

Equipment Inventory Management

Project No. AU20-034

January 7, 2021

Kevin W. Barthold, CPA, CIA, CISA  
City Auditor

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## Executive Summary

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As part of our annual Audit Plan approved by City Council, we conducted an audit of the Public Works, specifically equipment inventory management. The audit objectives, conclusions, and recommendations follow:

### **Determine if Public Works is managing equipment inventory to include purchasing, warehousing, and usage.**

Public Work's has adequate procedures for the purchase of equipment inventory. Specifically, prices match contract terms, p-cards are appropriately managed, and goods are shipped to a valid City of San Antonio location. In addition, contracts are effectively acquired per administrative directives. However, Public Works' standard policies and procedures governing the inventory management process need improvement. In addition, controls related to maintaining documentation for the receiving process are not adequate. Also, the records for inventory stored in Public Works warehouses were inaccurate. Additionally, non-consumable materials and supplies cannot always be tracked from purchase to usage. Finally, monitoring for appropriate warehouse and system access could be improved.

We recommend that the Director of Public Works should:

- Update procedures to encompass the full inventory management process
- Maintain receiving documentation, and where feasible, centralize the receipt of purchases.
- Ensure accurate and timely documentation of inventory received and removed from stock.
- Centralized documentation related to the receipt, tracking, and issuance of inventory items, where appropriate.
- Establish controls to ensure that appropriate inventory can be tracked from purchase to usage.
- Work with Finance to ensure consistent monitoring of SAePs roles for appropriate segregation of duties.
- Ensure unnecessary badge access is removed. In addition, implement procedures to periodically review access to the inventory warehouse.

Public Works Management agreed with the audit findings and has developed positive action plans to address them. Management's verbatim response is in Appendix B on page 8.

# Table of Contents

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Executive Summary .....	i
Background.....	1
Audit Scope and Methodology .....	2
Audit Results and Recommendations .....	4
A. Purchasing.....	4
B. Inventory Management Policies and Procedures.....	4
C. Material Assignment .....	5
D. Inappropriate Access.....	6
Appendix A – Staff Acknowledgement.....	7
Appendix B – Management Response.....	8

## Background

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On February 27, 2020 the Transportation and Capital Improvements (TCI) Department was reorganized into two departments, the Transportation Department and the Public Works Department.

The Public Works Department provides infrastructure maintenance services such as pothole repairs, traffic signal and traffic sign maintenance, ensures proper storm water drainage, and street markings. They also plan maintenance through the establishment of a 5-year rolling Infrastructure Management Program (IMP) adopted each year during the annual budget process. In the IMP, roads, alleys, drainage, sidewalks, etc. are identified to be repaired over the course of the next five years.

To facilitate this work, Public Works manages a stock of equipment, supplies, and materials for use by Public Works employees. Equipment is held primarily at the Northwest Service Center (NWSC) and the Southwest Service Center (SWSC) and managed by a Stock Control Supervisor and 3 stock clerks. Their responsibilities include purchases of inventory, receiving purchases, keeping inventory records up to date and accurate, issuing equipment to Public Works staff, obtaining repair services as needed, and disposing of malfunctioning equipment.

Equipment is supplied for Storm Water Operations, Signs and Traffic Operations, Pothole Patrol, Vegetation, Tunnels, and other Public Works divisions. Types of equipment, supplies, and materials includes quick concrete, batteries, adapters, cables, poles, paint, sign materials, wood, clothing such as vests and boots, chainsaws, and shovels. Inventory is managed and controlled via excel spreadsheets and is a shared responsibility between Public Works Divisions.

Purchases occur to replenish inventory and to purchase items needed in the field. Purchases primarily occur via annual contracts, of which Public Works has approximately 81. Management of contracts is a shared responsibility between Public Works and COSA's Procurement Division. Public Works staff can sign out equipment, supplies and materials, for use in operations with supervisor approval.

Public Works has approximately \$1.2 million of inventory in stock.

## Audit Scope and Methodology

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The audit scope was FY2018 – FY2020 and included equipment, supplies, and materials below the capital asset threshold.

In order to gain an understanding of the areas audited, we reviewed administrative directives, purchasing contracts, conducted interviews with relevant personnel, reviewed inventory reports, and reviewed SAP reports and transactions.

Testing criteria included the City of San Antonio's (COSA's) Procurement Policy and Procedures Manual, Public Works inventory processes and procedures, and relevant administrative directives.

For testing, we verified that catalog prices in Vrooz, COSA's procurement management system, matched contract prices; P-Cards are appropriately managed; segregation of duties is appropriate; the receiving process is adequate; inventory is accurate, secured, and accounted for when utilized; materials and tools are signed out established per procedures; and access to the inventory spreadsheet is controlled.

We determined that the following internal control components were significant to the audit objective. Significant internal control components and principles include the following:

Component	Principle
Monitoring Activities	The organization selects, develops, and performs ongoing and/or separate evaluations to ascertain whether the components of internal control are present and functioning.
Control Activities	The organization selects and develops control activities that contribute to the mitigation of risks.
	The organization selects and develops general control activities over technology to support the achievement of objectives.
Information & Communication	The organization internally communicates information necessary to support the functioning of internal control.
	The organization communicates with external parties regarding matters affecting the functioning of internal control.

We relied on computer-processed data in the SAP, SAePS, and Wells Fargo to review and confirm purchases within our scope. Our reliance was based on performing direct tests on the data rather than evaluating the system's general and application controls. We do not believe that the absence of testing general and application controls had an effect on the results of our audit.

We conducted this performance audit in accordance with generally accepted government auditing standards. 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.

# Audit Results and Recommendations

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## A. Purchasing

Public Works purchasing procedures are adequate. We reviewed 50 equipment, supply, and material items and confirmed prices matched their respective contracts. In addition, p-card purchases are appropriately managed, including approval, allowability, and supporting documents. Further, goods purchased are appropriately shipped to a COSA location. We reviewed 2700 transactions between FY2019 – June 2020 and verified goods were shipped to a valid location. In addition, contracts are effectively acquired. We reviewed purchases for a two-year period and found contracts for purchases within COSA guidelines were obtained.

### Recommendation

None.

## B. Inventory Management Policies and Procedures

Public Works standard operating procedures over the inventory management process needs improvement. Standard operating procedures have been established for warehouse processes. However, equipment, supplies, and materials managed outside of the warehouse system do not have formal policies and procedures governing their use. Formal policies and procedures help to standardize processes associated with the receipt, tracking of stored inventory, issuance, and maintenance of accurate inventory records.

Lack of comprehensive standard operating procedures can contribute to the inefficient and ineffective management of inventory. In addition, inaccurate inventory records may result in ineffective decision making and increases the risk of loss or misappropriation of equipment, supplies, and materials.

Current standard operating procedures has contributed to inconsistent documentation related to the receiving process and inaccurate inventory tracking records.

### Receiving Process

Public Works is not adequately maintaining receiving documentation. We reviewed the receipt of a sample of 29 purchases of equipment, supplies, and materials. However, Public Works was unable to provide receiving documents for 8 purchases. Public Works receives materials in a variety of locations to include a warehouse or project site location in order to efficiently conduct maintenance, repair, and construction work. Stamped and signed receiving documents provides verification that materials, supplies, and equipment have been received and are in

the correct quantity.

### **Inventory Accuracy**

Inventory records are not accurate. We conducted an inventory of 66 items at the Northwest & Southwest Service Centers. Of the 66 items, 31 did not match their respective inventory spreadsheets.

Public Works procedures include a full annual inventory and periodic inventories throughout the year. In addition, staff must consistently update the inventory spreadsheet for each purchase and issuance in a timely manner.

The overall inventory procedures are decentralized and documented separately which is not efficient. For example, Public Works is currently managing inventory at two warehouses manually using three excel spreadsheets. Additionally, there are several storage areas assigned to various supervisors or maintained outdoors, of which the inventory is inconsistently accounted for. Controls over inventory, to include issuance of materials, are insufficient to ensure accurate stock levels are accurately documented.

### **Recommendation**

The Public Works Director should update procedures to encompass the full inventory management process and strengthen controls over inventory to include:

- Maintaining receiving documentation, and where feasible centralize the receipt of purchases.
- Ensure accurate and timely documentation of inventory received and removed from stock
- Centralized documentation related to the receipt, tracking, and issuance of inventory items, where appropriate.

### **C. Material Assignment**

Some materials and supplies cannot always be tracked from purchase to usage. While consumable supplies such as gloves, goggles, nuts, bolts, etc. do not necessarily require individual tracking, non-consumable materials and supplies should be accounted for from purchase to usage. Materials and supplies can be obtained from the inventory warehouses, from supervisor storage areas, or directly from the vendor. After materials have been obtained from one of these sources, its usage is tracked using various methods depending upon the Public Works Division.

However, non-consumable materials are not assigned to a specific job when they are obtained from the inventory warehouse or storage areas but are rather assigned to a work order and accounted for after a job is completed. Because materials can



come from multiple sources, controls to determine what materials are on hand and what jobs those materials have been assigned to are insufficient.

While not feasible in the short term, Public Works should establish controls to ensure that non-consumable inventory can be tracked from purchase to job assignment, to usage, which could include utilizing a unified work order system. This could improve tracking for materials used, overall supply chain management, and improve monitoring while reducing the risk of misappropriation and potential waste.

## **Recommendation**

The Public Works Director should establish controls to ensure that appropriate inventory can be tracked from purchase to usage.

## **D. Inappropriate Access**

### **D.1 Segregation of Duties**

One Public Works employee had both the shopper and approver roles in SAePS. Per Administrative Directive 1.6, internal controls should be established to ensure that there is proper segregation of duties. However, due to insufficient monitoring, one staff member obtained both the roles. Inappropriate segregation of duties increases the risk of unallowable transactions conducted by employees.

### **D.2 Badge Access**

Access to the Northwest Service Center (NWSC) inventory warehouse is excessive. Six individuals who do not require access have access to the warehouse. Administrative Directive 8.7 requires providing reasonable assurance that assets are safeguarded. Access into the NWSC warehouse had not been periodically reviewed. Excessive access increases the risk of loss, theft, or misuse of assets.

## **Recommendations**

The Public Works Director should:

D1 Work with Finance to ensure consistent monitoring of SAePs roles for appropriate segregation of duties.

D2 Ensure unnecessary badge access is removed. In addition, implement procedures to periodically review access to the inventory warehouse.

## **Appendix A – Staff Acknowledgement**

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Baltazar Vargas, CIA, CFE, Audit Manager  
Nastasha Leach, CIA, CGAP, Auditor in Charge  
Sophia Konstantinidis, Auditor

## Appendix B – Management Response



### CITY OF SAN ANTONIO

SAN ANTONIO TEXAS 78283-3966

December 17, 2020

Kevin W. Barthold, CPA, CIA, CISA  
City Auditor  
San Antonio, Texas

RE: Management's Corrective Action Plan for Public Works Equipment Inventory Management

The Public Works Department has reviewed the audit report and has developed the Corrective Action Plans below corresponding to report recommendations.

Recommendation					
#	Description	Audit Report Page	Accept, Decline	Responsible Person's Name/Title	Completion Date
1	<b><u>Inventory Management Policies and Procedures</u></b> Update procedures and establish controls to: <ul style="list-style-type: none"><li>• Maintain receiving documentation</li><li>• Ensure accurate and timely documentation of inventory received and removed from stock</li><li>• Centralize documentation related to receipt, tracking, and issuance of inventory items, where appropriate</li></ul>	4	Accept	Christie Chapman, Assistant Director	March 1, 2021
<b><u>Action plan:</u></b>  Standard operating procedures will be improved to address securing and maintaining the receiving documentation in a specified location and to reiterate that Public Works will not accept equipment, supplies or materials without receiving documents. Public Works will notify vendors moving forward that Public Works will not accept equipment, supplies or materials without receiving documents. In addition, a timeline will be specified in the standard operating procedures for routine, frequent inventory spot checks and biannual full inventory checks. Training will be conducted to ensure staff understands the updated procedures. Public Works will also complete research, to include working with other City departments, on potential inventory management systems to fund and implement moving forward.					

Recommendation					
#	Description	Audit Report Page	Accept, Decline	Responsible Person's Name/Title	Completion Date
2	<p><b><u>Material Assignment</u></b></p> <p>Establish controls to ensure appropriate inventory can be tracked from purchase to usage.</p>	5	Accept	Christie Chapman, Assistant Director	March 1, 2021
<p><b><u>Action Plan:</u></b></p> <p>Currently, and prior to the audit, the Public Works Streets and Storm Water Divisions use a Daily Work Report (DWR) system that successfully tracks non-consumable materials from purchase to usage. The Public Works Traffic Division staff will be trained to begin using this existing DWR system so non-consumable traffic inventory can be tracked from purchase to usage. This will also ensure that inventory usage processes are consistent across all Public Works operating divisions.</p>					
3	<p><b><u>Inappropriate Access</u></b></p> <ul style="list-style-type: none"> <li>Work with Finance to ensure consistent monitoring of SAePS roles for appropriate segregation of duties</li> <li>Ensure unnecessary badge access is removed. In addition, implement procedures to periodically review access to the inventory warehouse.</li> </ul>	6	Accept	Christie Chapman, Assistant Director	March 1, 2021
<p><b><u>Action Plan:</u></b></p> <p>Standard operating procedures will be improved to ensure periodic review of SAePs roles, the segregation of duties and warehouse badge access. Training will be completed to ensure staff understands the updated procedures.</p> <p>The approver role was removed for the one Public Works employee with both the shopper and approver role in SAePs. Public Works staff also confirmed there were no approvals granted by that employee in SAePs. Also, warehouse access was removed for those six individuals identified as no longer needing access. Public Works has provided the City's security access team with the name of three points of contact allowed to request access to the warehouse (Department Fiscal Administrator, Fiscal Manager, Stock Control Supervisor). All other requests for access to the warehouse will be rejected by the security access team and referred to the Public Works points of contact.</p>					

We are committed to addressing the recommendations in the audit report and the plan of actions presented above.

Sincerely,

  
Razi Hosseini, P.E., R.P.L.S.  
Director / City Engineer  
Public Works Department

12/17/2020  
Date

  
Roderick Sanchez  
Assistant City Manager  
City Manager's Office

12-22-20  
Date