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February 28, 2012

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SUBJECT: Audit Report of Building and Equipment Services Department/San Antonio Police Department Cruiser Management Program

Mayor and Council Members:

We are pleased to send you the audit report of the Building and Equipment Services Department/San Antonio Police Department Cruiser Management Program. This audit began in January 2011 and concluded with an exit meeting with department management in January 2012. Management's verbatim response is included in Appendix H of the report. Both the Building and Equipment Services and San Antonio Police Departments should be commended for their cooperation and assistance during this audit.

The Office of the City Auditor is available to discuss this report with you individually at your convenience.

Respectfully submitted,

Kevin W. Barthold, CPA, CIA, CISA
City Auditor
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CITY OF SAN ANTONIO
OFFICE OF THE CITY AUDITOR



Audit of
Building and Equipment Services Department and
San Antonio Police Department
Cruiser Management Program

Project No. AU11-013

February 28, 2012

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

Executive Summary

As part of our annual Audit Plan, we conducted an audit of the Public Works Department's Fleet Services Division. While the initial audit objective focused primarily on the City fleet maintenance program, the Public Works Department and San Antonio Police Department (SAPD) agreed to a more focused objective of evaluating marked police vehicle (cruiser) management.

On October 1, 2011, as part of a management reorganization, Fleet Services was reorganized into a new City department, the Building and Equipment Services Department. Consequently, our recommendations are made to the Director of Building and Equipment Services and the SAPD Police Chief.

The audit objective, conclusions, and recommendations follow:

Are the City's marked police vehicles adequately managed?

Yes, overall, the City's marked police vehicles are adequately managed given current policies. However, SAPD could improve its fleet management by:

- Decommissioning police cruisers at 100,000 miles (or more) rather than at 70,000 miles.
- Purchasing and maintaining a sufficient stock of computer equipment on-hand for new vehicle preparation.

We found Fleet Services initiated preventative maintenance (PM) actions in a timely manner (**see Appendix A**). However, Fleet Services could improve SAPD vehicle availability by:

- Moving select maintenance operations to Fleet Service Centers rather than performing all maintenance at the downtown Police Garage.
- Raising the PM mileage intervals from 3,000 to 5,000 miles as recommended by the Ford Motor Company.

We also found Fleet Central Parts could improve its performance by strengthening its inventory parts management.

Finally, the development of a Service Level Agreement (SLA) between Fleet Services and SAPD would strengthen their relationship by identifying roles and agreed-upon responsibilities related to police vehicle management.

Overall, we made five recommendations to Building and Equipment Services to strengthen its maintenance program and four recommendations to SAPD to enhance marked vehicle management.

Management's verbatim response is in Appendix H on page 19.

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Background

Fleet Services (hereafter referred to as “Fleet”), a division within the City’s Building and Equipment Services Department (formally a division of the Public Works Department), is responsible for acquiring, maintaining, decommissioning, and remarketing the City’s 4,750-vehicle fleet, valued at approximately \$200 million. Fleet’s overall budget for Fiscal Year 2011 was about \$36 million.¹

To meet its responsibilities for maintaining City vehicles, Fleet has established seven service centers. Two of the centers are located downtown (Police Garage and Central Shop) while the others are situated throughout the City. The seven centers service the following vehicle workload:²

Location	# Vehicles	Vehicle Type
Police Garage	1,500	Emergency services vehicles (marked/unmarked)
Central Shop	1,200	Sedans and light duty vehicles
4 Truck Centers	1,400	Medium duty trucks (primarily garbage trucks)
Heavy Equip. Shop	<u>650</u>	Heavy duty trucks/equipment
Total	<u>4,750</u>	

Fleet also manages a central parts store that provides support to the Police Garage, Central Shop, and other service centers. As of June 30, 2011, Fleet’s Central Parts Store maintained on-hand parts valued at approximately \$240,000 per FASTER.³

SAPD management conveyed to the City Auditor’s Office that there were too few marked cruisers available for use at the various police substations for many shifts. This situation could potentially impact the safety of the City’s citizens. Consequently, this audit focused on police cruiser life cycle events that reduce availability.

As of May 19, 2011, the SAPD had an inventory of 666 marked police cruisers. The bulk of these vehicles are assigned to SAPD’s six substations located throughout the City. The remaining vehicles are assigned to various SAPD bureaus and divisions that provide support to the City, such as the Homicide, Traffic Control, and Crime Response Units. Fleet provides maintenance and performs repairs on SAPD’s police cruisers based on internally developed standards, policies, and procedures. Also, SAPD’s vehicles are retired at 70,000 miles in compliance with the current collective bargaining agreement between the City of San Antonio and the San

¹ The Balanced Operating and Capital Budget for Fiscal Year 2011 adopted by City Council

² <http://www.sanantonio.gov/publicworks/fleet/index.asp>

³ Fleet uses FASTER, a real-time application, for managing its vehicle fleet. FASTER includes data on vehicle history, maintenance, parts management, technician labor, and vehicle replacement.

Antonio Police Officers' Association (effective October 1, 2009 through September 30, 2014). In addition, Fleet retires police cruisers that have not reached 70,000 miles, after 5 years of service (i.e. Fleet retires cruisers at 70,000 miles or 5 years, whichever comes first). The average age of a police cruiser at retirement is currently about 32 months (2 years, 8 months).

SAP is the City's accounting system and is used by Fleet and SAPD to initiate purchase transactions, accept/validate receipt of services, and process payments.

Audit Scope and Methodology

The audit scope included selected aspects of SAPD marked cruiser acquisition and maintenance and generally covered transactions processed between October 2006 and March 2011. In some cases, however, more current data was used to meet the audit objectives. This audit did not include a review of SAPD unmarked vehicles (e.g. administrative, seized), SAPD trucks/vans/motorcycles, Aviation Department police vehicles, or Parks and Recreation Department police vehicles.

We interviewed Fleet, SAPD, and contract personnel to obtain an understanding of the maintenance lifecycle of police cruisers, the policies and procedures used for fleet management, and methods used to monitor contract compliance and performance. We benchmarked other city/county fleet management policies concerning frequency of services and acquisition/decommission processes. We reviewed relevant documentation, such as contracts, City administrative directives, and department policies and procedures. We reviewed source documents that included contract invoices, contractor work orders, SAPD vehicle work requests, and inventory count sheets. We observed the Central Parts Store's June 2011 quarterly physical inventory. Also, to determine whether new replacement cruisers were timely prepared, we analyzed SAPD work order data and contractor work order data and computed vehicle flow time for each segment of vehicle preparation.

We relied on computer-processed data in Fleet's FASTER system to determine the lifecycle of police vehicles, frequency of and parts used in maintenance transactions, quantity of obsolete vehicle parts, maintenance costs charged to City departments, and extent of inventory adjustments processed. Our reliance was based on performing direct tests of 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 audit from January 2011 to October 2011 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 audit results and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our audit results and conclusions based on our audit objectives. Our audit included tests of management controls that we considered necessary under the circumstances.

Audit Results and Recommendations

A. Police Cruiser Lifecycle

The SAPD decommissions police cruisers when they reach 70,000 miles (or 5 years in age, whichever comes first), which is earlier than necessary. The current collective bargaining agreement requires the SAPD to decommission police cruisers at 70,000 miles.

As of May 19, 2011, Fleet had 666 police cruisers in service. All but 8 of these vehicles are Ford Crown Victoria models. **Better engine design, higher quality parts, and manufacturing improvements have greatly increased the useful life of these Ford Crown Victoria police cruisers.**⁴ Today's police cruiser is built for heavy-duty use and is designed specifically to meet the demands and unique requirements of law enforcement. Among other enhancements, late model heavy-duty Crown Victoria police cruisers are built with the following:⁵

- high-performance powertrains
- rear axles equipped with a synthetic lubricant
- high-output alternators which provide additional electrical power
- heavy duty suspension components that contribute to stability and road handling capability
- heavy duty steering gear including extra control shock absorbers and heavy duty front and rear stabilizer bars
- engine oil coolers to maintain [normal] engine oil temperatures
- external transmission and power steering coolers
- heavy duty steel wheels
- speed-rated radial tires specifically made for police use
- heavy duty front disc brake pads and anti-lock brakes
- heavy duty seats with integrated anti-stab plates

Our Survey of Public Sector Fleets (**see Appendix B**) shows that only 1 of 21 organizations, Culver City, CA – fleet of 25 vehicles, decommissioned its vehicles with as few miles as San Antonio. We also found that 16 of 21 government organizations drove their police cruisers at least 100,000 miles prior to decommissioning them. Moreover, 7 of these organizations retained their police vehicles for 120,000 miles or longer.

Decommissioning police cruisers prior to their useful life results in high replacement costs which are currently \$22,348 for each vehicle and up to an additional \$17,000 for new ancillary equipment such as light bars, computers, and radars (**see Appendix C**).

⁴ <http://www.auto-facts.org/replacementmileage.html>

⁵ <http://www.motorcraftservice.com/pubs/content/~WOBCRO/~MUS~LEN/41/11croog2e.pdf>

The City's Office of Innovation & Reform (OIR) conducted its own analysis of Fleet operations. One objective of the analysis was to calculate the optimum replacement point for police cruisers based on depreciation, resale value, and maintenance and repair costs. OIR's evaluation of 434 recently (October 2009 through November 30, 2011) decommissioned police cruisers disclosed that, on average, cruisers were driven about 25,000 miles per year and have an optimum replacement point at the end of year 4, or approximately 100,000 miles. As shown in **Table 1** below, average annual lifecycle costs are at their lowest point at the end of year 4.



Table 1. Innovation & Reform's Police Cruiser Equivalent Annual Cost by Lifecycle

For lifecycle purposes, police cruiser costs consist of replacement lease costs and operating costs. As shown in **Table 2** below, if the decommission point is raised to 100,000 miles, annual lease costs (equivalent to depreciation costs) would decrease substantially due to extending the vehicle's useful life from about 36 to 48 months according to the OIR study. At the same time; however, operating costs, primarily repair and maintenance costs, would increase slightly.

OIR's Cost Comparison	75,000 Miles	100,000 Miles	Auditor Computed Savings
Estimated Vehicle Lifecycle (in months)	36	48	
Replacement Prices	\$24,984	\$25,608	
Resale Value	\$7,139	\$6,071	
Annual Replacement Lease Costs	\$5,948	\$4,884	\$1,064
Lifetime Operating Costs ⁶	\$15,791	\$23,582	
Annual Operating Costs	\$5,264	\$5,895	(\$631)
Total Savings per Vehicle			\$433
Crown Victoria Fleet Size			658
Total Estimated Fleet Annual Savings (Savings/Vehicle * Fleet Size)			\$284,914

Table 2. Innovation & Reform/Auditor Cruiser Lifecycle Cost Comparison

⁶ Operating costs include repair, maintenance, accident, and capital costs in the OIR study.

The City could reduce annual vehicle costs by at least \$284,000 as shown above in **Table 2**. This amount is considered very conservative, and we believe the actual cost savings would be substantially greater.

In summary, we believe our conclusions, when combined with Office of Innovation & Reform's police cruiser lifecycle analysis, provide a sound basis for SAPD to extend the cruiser lifecycle.

During the audit, several concerns were raised by management about increasing the decommissioning mileage above 70,000 miles. SAPD and Fleet personnel believed this increase would result in higher maintenance costs and an overall reduction in the vehicle's safety condition. Relating to the concern of higher maintenance costs, OIR's study showed that costs do not spike upwards as police vehicles age. Relating to safety, taking Fleet's concerns at face value would mean 16 of the 21 government organizations we contacted (including San Diego, CA; Phoenix, AZ; and Fort Worth, TX) are placing their police officers in harm's way every day by requiring their police vehicles be driven 100,000 miles or more. While we note management's concerns, neither SAPD nor Fleet personnel could provide data to substantiate their position. Rather, our survey provides evidence that government organizations routinely operate their vehicles with longer lives.

Looking Forward

Ford Motor Company has discontinued its Crown Victoria line of police cruisers and will offer its all new "Police Interceptor" as part of its 2013 model lineup.⁷ However, its new Interceptor will not be available until mid to late 2012, after the point when SAPD requires replacements. Consequently, to bridge the gap, SAPD and Fleet conducted operational testing of several potential replacements and selected the Chevrolet Tahoe as the replacement. Whether SAPD decides to convert its entire fleet from Crown Victorias to Chevrolet Tahoes will be decided after the Ford Police Interceptor is made available for testing later in 2012.

The Chevrolet Tahoe Police Patrol Vehicle (PPV) is designed for police work including high speed emergency vehicle operations. According to the 2011 vehicle technical manual,⁸ the Tahoe PPV comes with the following enhancements:

- A computerized 4-wheel disc anti-locking brake system
- An enhanced calibration 6-speed automatic transmission with overdrive
- A 100-amp ignition-controlled main power supply
- 140-mile per hour certified speedometer and Driver Information Center
- 5-star front and side crash test rating
- Heavy duty engine, transmission and auxiliary air-to-oil power steering
- Electronic stability enhancement system

⁷ <http://www.ford.com/fordpoliceinterceptor/>

⁸ <http://www.gmfleet.com/pdf/Tahoe+2WD.PDF>

We realize Fleet and SAPD have no historical maintenance or resale value data to determine the optimum vehicle replacement point for the Chevrolet Tahoe (PPV). Accordingly, we believe a pilot program identifying a small number of vehicles, using at least 100,000 miles as the decommissioning interval, and tracking/monitoring the lifecycle costs could provide the data necessary to support a more informed replacement point determination.

Recommendations: The Police Chief, in coordination with Fleet, should:

A.1. Decommission Crown Victoria police cruisers no sooner than 100,000 miles or 7.5 years, whichever occurs first.

A.2. After receipt of the Chevrolet Tahoe police vehicles, identify a limited number (40-45, for example) for a pilot program that increases the lifecycle to at least 100,000 miles/7.5 years. These vehicles should be closely monitored for any significant changes in maintenance costs or safety condition. At the end of the pilot program, SAPD/Fleet management should use the data to make a more informed lifecycle/replacement decision.

B. Scheduled Preventative Maintenance

Fleet schedules preventative maintenance (PM) on marked police cruisers every 3,000 miles rather than every 5,000 as recommended by the manufacturer's maintenance guidelines.

As of May 19, 2011, Fleet had 658 late model Ford Crown Victoria police cruisers in service, of which 569 (about 85 percent) are models 2008 and newer. For all newer Crown Victoria patrol vehicles (2008 models and newer), the Ford Motor Company scheduled maintenance guide recommends oil and oil filter changes be performed every 7,500 miles under normal driving conditions, and every 5,000 miles under special operating conditions, such as those encountered by patrol vehicles⁹ (**see Appendix D**).

Fleet management was aware of the manufacturer's maintenance guidelines, but believed SAPD vehicles operated in special or stressed operating conditions (e.g., extreme heat, prolonged idling, etc.) and required more frequent maintenance. Manufacturer's guidelines state the 5,000 miles are a combination of mileage and idling time (1 hour of idling equals 33 miles). However, FASTER, Fleet's system used to track, schedule, and monitor the SAPD patrol vehicle fleet, only tracks odometer readings (mileage) and does not have the ability to track or incorporate idle time to schedule PM. Consequently, Fleet schedules vehicles for PM at 3,000 miles, regardless of the idle time incurred. However, Fleet uses synthetic-blend motor oil which ostensibly extends PM intervals, prolongs the life of the engine, and offers better performance in extreme temperatures.

⁹ https://www.fleet.ford.com/maintenance/owners_manuals/results.asp

Increasing the PM mileage requirement in line with manufacturer guidelines would reduce the number of times PM would normally be performed by 9 (i.e., from 23 to 14) over the life of the vehicle, resulting in decreased costs of \$270 per vehicle ($9 * \$30/PM = \270) over the 70,000-mile life of the vehicle. Maintenance costs would be reduced by over \$153,000 ($\$270/vehicle * 569$ vehicles) over the life of the current late model Crown Victoria fleet. Also, in support of COSA's sustainability or "Green" efforts, reducing the PM frequency will save almost 36,000 quarts of oil.¹⁰ More importantly, assuming no less than 2 hours maintenance turnaround time, reducing the PM frequency will increase patrol vehicle availability by at least 10,000 hours.^{11,12}

Recommendation: The Building and Equipment Services Director should change the preventative maintenance standard from 3,000 to 5,000 miles as recommended by the manufacturer.

C. Preventative Maintenance – Transportation of Vehicles

SAPD cruisers are out of service anywhere from one to three shifts for simple preventative maintenance work (e.g., oil changes) which Fleet requires be performed at the downtown Police Garage.

We determined that when maintenance on a police vehicle is not completed until after 4:30PM,¹³ the vehicle is not returned to its assigned police substation until the following day. Further, we found that 951 out of 3,742 (about 25 percent), of all patrol vehicles serviced from January 1 through May 23, 2011, were not completed until after 4:30 p.m. and, therefore, presumably not returned to their assigned police substations until the next day. On several evenings during the audit we noted more than 10 vehicles whose maintenance was completed, yet would not be returned to the police substations and available for use until the following day.

To increase SAPD fleet availability, certain limited preventative maintenance, such as oil changes, chassis lubrication, tire pressure check, and visual inspections, could be performed at Fleet's outlying service centers or police substations (see **Appendix E** for a map) rather than at the downtown Police Garage. For example, basic preventative maintenance could be performed at Fleet's Northwest Service Center, less than half-mile from the West Police substation, rather than driving the vehicle over 13 miles (one-way) to the downtown Police Garage. Decentralizing preventative maintenance work out to remote Fleet service centers would reduce vehicle downtime, keeping more police vehicles available for use.

¹⁰ 569 vehicles * 9 less oil changes * 7 quarts per oil change = 35,847 quarts

¹¹ 569 vehicles * 9 less oil changes * 2 hours = 10,242 hours

¹² If decommissioning mileage increased to 100,000 miles (Audit Results A), maintenance costs would be reduced by almost \$239,000 over the life of the current late model Crown Victoria Fleet; oil usage would be reduced by over 55,000 quarts, and downtime reduced by over 15,000 hours.

¹³ The Police Garage has two shifts: 6:30 a.m. – 3:15 p.m., and 3:15 p.m. – 12 a.m.

Fleet management believed performing all maintenance on the SAPD fleet at the downtown Police Garage was more efficient and, if moved to the remote service centers, could impact support provided to non-SAPD vehicles at those centers.

We discussed two potential solutions to this issue with management. One solution was to perform certain preventative maintenance at Fleet service centers; the other was to institute a mobile maintenance team that would perform certain preventative maintenance at police substations.

Recommendation: The Building and Equipment Services Director should develop and implement alternative methods, such as those mentioned above, for providing basic preventative maintenance to reduce SAPD patrol vehicle downtime.

D. Police Cruiser Make-Ready Process

The police cruiser make-ready (i.e., the process of preparing a new vehicle for use)/decommission process is not efficient.

We reviewed the number of police cruisers Fleet placed in service from January 1 through May 23, 2011. We determined that the average number of days elapsed from the time a police cruiser is delivered to Fleet by the vendor to when it is placed in service was 175 days (just under 6 months); the number of days ranged from 35 to 374. The number of days required to complete the make-ready work on a new police cruiser ranged from 32 days to just over 40 days.

The make-ready process for police cruisers is somewhat complex, requiring numerous activities and action from multiple organizations (**see Appendix F** for a graphic depiction of the make-ready process). First, new vehicles are received and stored at Brooks City Base. Vehicles are then taken to a contractor who only affixes SAPD decals. Next, vehicles are moved to the Police Garage where in-house Fleet maintenance technicians install push bumpers and other ancillary equipment. Vehicles are then moved to a different contractor who installs emergency lights, flashers, and radar. Next, vehicles are returned to the Police Garage to await installation of computer equipment (modem, charger, and antenna). When computer equipment becomes available, vehicles are returned to the second contractor who performs the computer peripheral equipment installation (docking station, charger, modem, etc.). The vehicle is then taken to SAPD headquarters for computer installation and testing. From there, the vehicles are returned to the Police Garage where cages (a security partition between the front and rear seats) are installed. Lastly, SAPD employees perform a final outfitting and inspection prior to placing the cruiser in use.

The vast majority of new SAPD police cruisers are outfitted with equipment (e.g., light bar, push bumper) from vehicles being decommissioned. To prepare the new replacement vehicle, a vehicle to be decommissioned and the new replacement

vehicle are both transported to a local contractor where equipment is stripped from the decommissioned vehicle and installed on the replacement vehicle. At the time of our audit, two decommissioned vehicles were required to equip a new replacement vehicle, computer equipment from one vehicle and non-computer equipment from another vehicle. For example, in mid-February 2011 all equipment except the computer equipment was stripped off one vehicle (unit #7570) and installed in a new replacement vehicle (unit #7703). Not until March 9, 2011 did the needed computer equipment become available (from unit #7152) for installation in the new replacement vehicle (unit #7703).

These delays occur mainly because the SAPD does not maintain a sufficient stock of new equipment on-hand to facilitate and expedite the make-ready process; the equipment for new cruisers must be stripped from cruisers being decommissioned.

Delays also occur because the current process requires new vehicles be transported between numerous City and vendor locations for make-ready preparations as mentioned above (see **Appendix F**).

An inefficient make-ready process results in reduced fleet availability and may negatively impact public safety.

Possible solutions to the current process include:

- Perform all make-ready tasks, including computer equipment installation, internally at one location (e.g. Brooks City Base) without using vendors.
- Contract with a single vendor to perform all make-ready tasks.

As mentioned above, the Ford Crown Victoria has been discontinued and SAPD selected the Chevrolet Tahoe as its interim replacement. As a result, some of the equipment currently installed in the City's cruisers may not be re-useable in the new Chevrolet Tahoe, resulting in the City potentially having to acquire new equipment. With that in mind, in the future when the SAPD needs new cruisers, the City should consider contracting with an auto dealership to purchase cruisers already equipped with push bumpers, light bars, cages, et cetera to simplify and shorten the make-ready process.¹⁴

Recommendation: The Police Chief should:

D.1 Coordinate with Fleet to procure, when appropriate, a stock of new police cruiser equipment.

D.2 In coordination with Fleet, re-engineer the make-ready process as discussed above to minimize the time required to equip a new cruiser.

¹⁴ The City of Austin, Texas currently purchases police cruisers from an auto dealership completely outfitted except for decals and computers which the Austin Police Department installs internally; no vendors are used in their make-ready process.

E. SAPD Fleet Contract Payments

SAPD personnel did not validate contract work performed on police cruisers by a local contractor, nor did they properly approve the contractor's invoices prior to payment.

Our analysis of three¹⁵ judgmentally selected invoices submitted for payment by a contractor that performs police cruiser make-ready work disclosed that contract work valued at \$25,603 could not be validated because the City's associated work orders could not be located. Further, none of the invoices had been approved by SAPD prior to payment. Our analysis of the three invoices disclosed only minor billing errors.

In the end, SAPD could not reconcile the work order requests submitted to the contractor with the invoices submitted by the contractor after work completion. Without a complete reconciliation of SAPD work order requests to contractor invoices, COSA cannot be assured all work is properly performed and at the correct contractual prices.

This occurred because SAPD did not have adequate processes in place for reviewing and approving invoices before they are paid. During the audit, SAPD developed a work order reconciliation and payment approval process to validate the accuracy of contractor invoices; consequently, we make no recommendation.

F. Service Level Agreements

Fleet had not established a service level agreement (SLA) with the SAPD for police vehicle management.

SLAs are living documents and valuable tools that can be used to identify, document, communicate, and manage expectations. Typical fleet SLAs include provisions for:

- Services to be provided
- Agreed-upon vehicle downtime and fleet availability standards
- Maintenance time estimates, charges and fees
- Vehicle work priorities
- Metrics and evaluation criteria for services and availability
- Conflict prevention/resolution steps
- Identification of responsibilities (for both parties)
- Service reporting
- Effective dates and revision procedures

¹⁵ Three of 24 invoices (\$65,808 of \$133,676) submitted by the contractor for payment during FY 2011 were selected for review.

Fleet had discussed developing an agreement with SAPD; however no action had been taken as of the date of this report. Without an SLA, service expectations may not be met, police cruisers may not be available, and public safety may suffer.

Recommendation: The Building and Equipment Services Director should develop a service level agreement with the SAPD for police vehicle management.

G. Central Parts Inventory Management

Fleet has not fully developed policies and procedures for Central Parts inventory management.

We determined that obsolete vehicle parts were unnecessarily maintained and quarterly physical inventory procedures were not adequate.

G.1 Obsolete Parts. A reconciliation of on-hand parts and related usage data disclosed no activity since January 1, 2010 for 181 line items (5,400 parts) valued at over \$16,000. Also, of the 181 line items, 65 had no activity in over 5 years. Retaining parts no longer needed results in inventories taking longer to perform, obsolete parts taking up valuable storage space, and overstated inventory book values.

G.2. Physical Inventories. During Fleet's 3rd quarterly (June 2011) inventory count, we noted \$12,000 in parts had not been counted and non-stocked parts valued at \$4,400 were not inventoried. Also, the count sheets for the inventory showed differences valued at \$17,000 that were not adjusted in Faster. These inventory management weaknesses occurred because Fleet has not fully developed and implemented policies and procedures for managing vehicle parts.

Inadequate inventory procedures result in inaccurate inventory records and financial reporting.

Recommendation: The Building and Equipment Services Director should fully develop and document inventory parts management policies and procedures.

G.1. Obsolete parts should be physically removed from inventory, disposed of properly (e.g., returned to vendors for credit), and records properly adjusted.

G.2. Inventory procedures should be expanded to include physical counts of all storerooms, timely inventory adjustments, and an inventory of both stocked and non-stocked parts.

This concludes the Audit Results and Recommendations. Management's responses to the observations are in **Appendix H**.

Appendix A – Patrol Vehicle Preventative Maintenance “A” Induction Time

Induction Time*	PMA ONLY (a)	PMA+ (b)
Induction within 30 minutes	29.6%	20.2%
Induction within 30-60 minutes	16.9%	12.4%
-- Total induction within 1 hour	46.5%	32.6%
Induction within 1-2 hours	19.0%	21.1%
Induction over 2 hours	34.5%	46.3%
Population of PM Actions	972	1,511

*Induction time is measured from when the vehicle arrives at the Fleet Police Garage and a work order is opened (vehicle is available for service) to when a mechanic starts to charge labor hours.

(a) PMA Only is defined as basic preventative maintenance only (i.e. oil change, inspection, etc.). Total cost (parts & labor) is less than \$50.

(b) PMA+ is defined as basic preventative maintenance plus additional maintenance/repair actions. Total cost (parts & labor) is more than \$50.

Source: FASTER

Scope: January 1, 2010 – May 24, 2011

Appendix B – Survey of Public Sector Fleets¹⁶

No.	City/County Organization	Number of Marked Vehicles	Vehicle Model	Decommission Mileage or Time (whichever occurs first)
	San Antonio, TX	658¹⁷	Crown Victoria	70,000/5 years (a)
1	Culver City, CA ⁺	25	Crown Victoria	70,000/3 years
2	Austin, TX ⁺	1,100	Crown Victoria	80,000 (b)
3	Manatee Co, FL ⁺	400	Crown Victoria	90,000 (b)
4	Troy, MI ⁺	60	Crown Victoria/Charger	90,000 (a)
5	Concord, NC ⁺	150-200	Impala	90,000/6 years
6	Columbus, OH ⁺	150-200	Crown Victoria	100,000
7	Dallas, TX	1,000+	Charger/Impala	100,000/3 years
8	San Diego, CA ⁺	600	Crown Victoria	100,000
9	Houston, TX	1,800	Crown Victoria/Charger/Impala	100,000/4 years (b)
10	Portland, OR ⁺	300+	Crown Victoria	100,000/5 years
11	San Bernardino Co, CA ⁺	325	Crown Victoria	100,000 (b)
12	Palm Beach Co, FL ⁺	1,200-1,300	Crown Victoria	100,000 (b)
13	Phoenix, AZ	1,000	Crown Victoria/Tahoe/Impala	100,000
14	Denver Police Dept, CO	675	Crown Victoria	110,000/7 years
15	Fresno, CA ⁺	300-325	Crown Victoria/Charger	120,000/7 years
16	Fort Worth, TX ⁺	600+	Crown Victoria	120,000
17	Sarasota Co, FL ⁺	280	Impala	125,000/5 years
18	Maricopa Co, AZ	275	Crown Victoria/Charger	125,000
19	Polk Co, FL ⁺	150-200	Crown Victoria/Impala	125,000/5 years (b)
20	Fort Lauderdale, FL ⁺	225-250	Crown Victoria	125,000/7 years (b)
21	Fayetteville, AR ⁺	33	Crown Victoria	150,000
⁺ Top 20 of <i>Government Fleet</i> Magazine's "100 Best Fleets" (2010 and 2011)				
(a) Decommission mileage is established in a Collective Bargaining Agreement.				
(b) At designated mileage, a complete inspection is performed. Vehicle condition determines status.				

¹⁶We contacted each organization from the top 20 list of "100 Best Fleets" as awarded by Government Fleet Magazine for 2010 and 2011. The results above represent data from the 16 organizations that responded back, and who also maintain police vehicles. Additionally, we selected cities from the United States that had driving conditions similar to those in San Antonio.

¹⁷ The City also has 8 non-Crown Victoria marked vehicles including 2 Ford Mustangs, 4 Dodge Chargers, and 2 Chevrolet Camaros, for a total of 666 marked police cruisers.

Appendix C – 2011 New Patrol Vehicle Costs

2011 Police 4-door sedan, Crown Victoria (basic)		\$22,348
Add Equipment:		
LED Light Bar, Speaker & Bracket, Siren	\$2,400	
800 Mhz Radio Charger	1,698	
Vehicle Equipment Console	500	
Hand-Held Spotlight	20	
Push Bumper	175	
Aluminum Flare Box	92	
Mobile Data Terminal (Laptop)	6,521	
Radar Control Device	3,250	
Headlight Flashers	37	
Rear Deck LED Flashers	325	
Shot Gun/Rifle Mounting Cage	460	
Rifle/Shotgun Rack for Cage	275	
Decals & Markings	375	
Fire Extinguisher	24	
Crime Scene Tape	11	
Personal Protective Equipment Kit	12	
Vehicle Spill Kit	16	
Equipment Installation(Vendor - \$880; in-house - \$200)	1,080	
Total Equipment		<u>\$17,271</u>
Grand Total - New Patrol Vehicle Costs		<u>\$39,619</u>

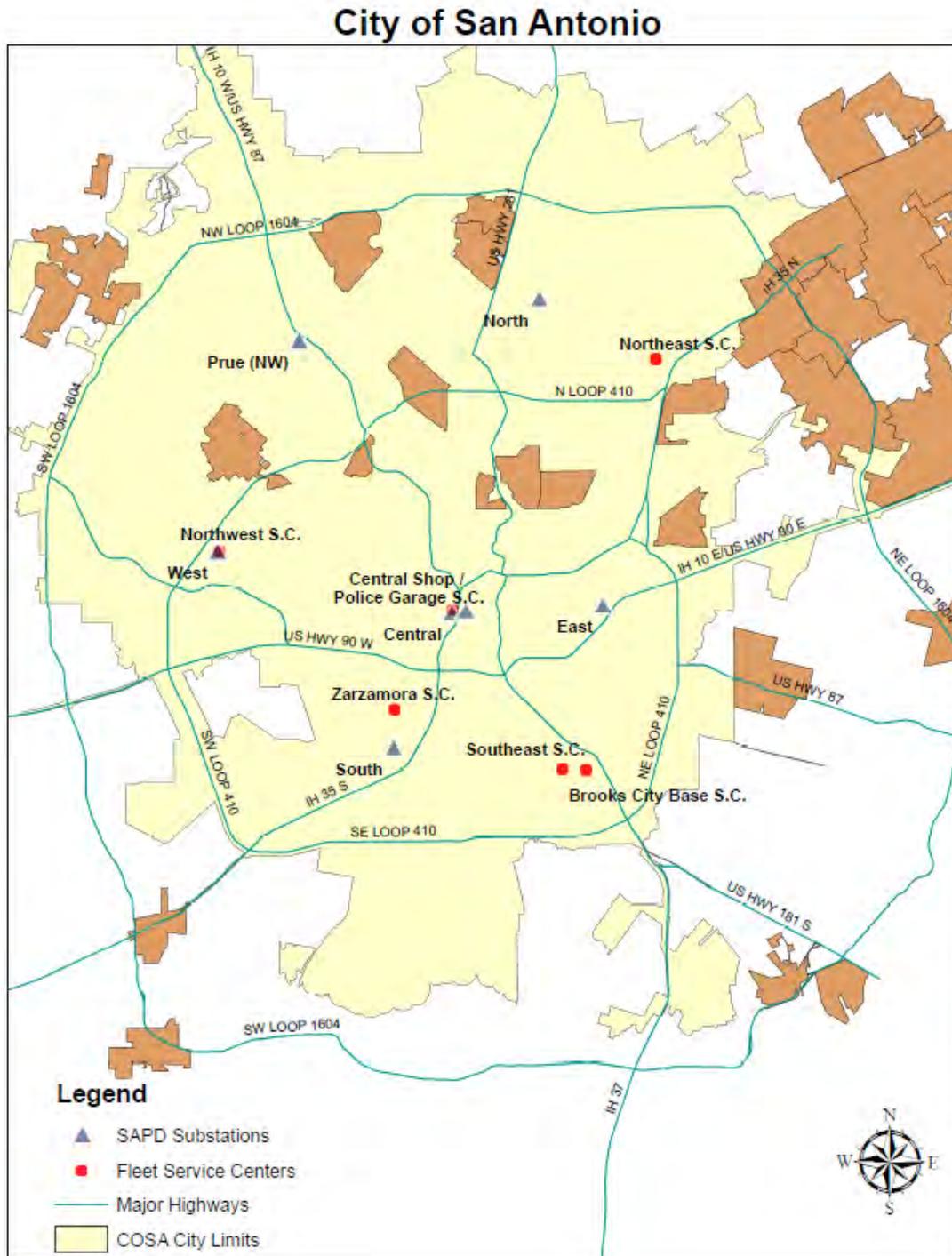
Appendix D – Manufacturer Recommended PM Intervals for Crown Victoria

Model Year	Number of Crown Victoria Patrol Vehicles Maintained by Fleet (as of May 19, 2011)	Recommended PM Interval (Miles) Under Normal Driving Conditions	Recommended PM Intervals (Miles) Under Special Operating Conditions
2005	9	5,000	3,000
2006	60	5,000	3,000
2007	20	5,000	3,000
2008	128	7,500	5,000
2009	230	7,500	5,000
2010	191	7,500	5,000
2011	<u>20</u>	7,500	5,000
Total	<u>658</u>¹⁸		

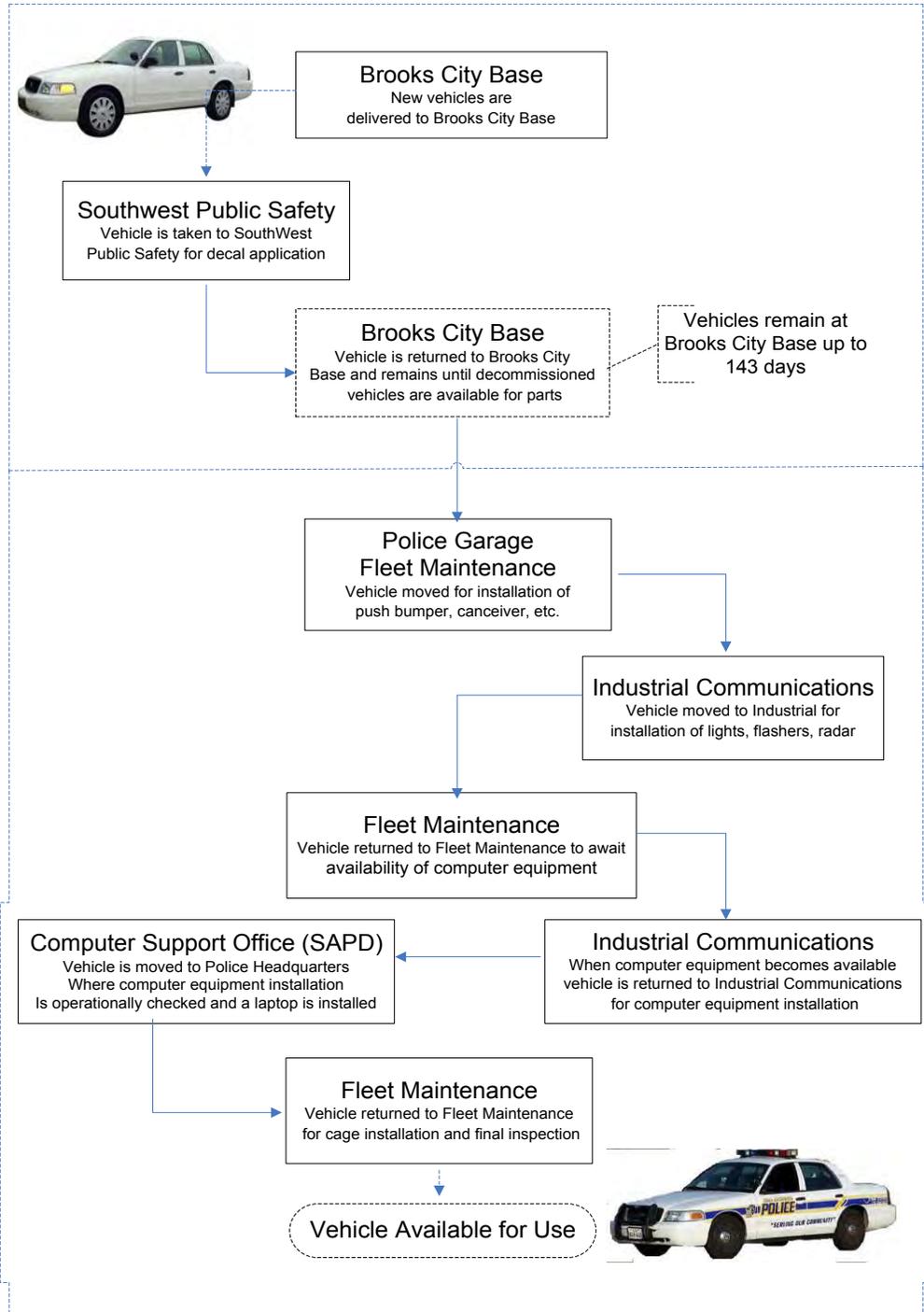
Source: Scheduled Maintenance Guide, Ford Motor Company, Years 2005-2011

¹⁸ The City also has 8 non-Crown Victoria marked vehicles including 2 Ford Mustangs, 4 Dodge Chargers, and 2 Chevrolet Camaros, for a total of 666 marked police cruisers.

Appendix E – Police Substation & Fleet Service Center Map



Appendix F – Police Cruiser Make-Ready Process



For FY 2011, acquisition/delivery date to in-service date averaged 175 days: 143 days storage at Brooks + 32 days for vehicle preparation.

Appendix G – Staff Acknowledgement

Mark Bigler, CPA-Utah, CISA, CFE, Audit Manager
Phillip Gaddy, CPA, Auditor in Charge
Celia Gaona, CIA, CFE, CISA, Auditor
Alejandro Valadez, CISA, CBRM, CBRA, Auditor

Appendix H – Management Response



CITY OF SAN ANTONIO

SAN ANTONIO TEXAS 78283-3966

January 20, 2012

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

RE: Management's Corrective Action Plan for the Audit, BES/SAPD Cruiser Management Program

The Building and Equipment Services and San Antonio Police Departments have reviewed the audit report and developed the Corrective Action Plans below corresponding to report recommendations.

Recommendation					
#	Description	Audit Report Page	Accept, Partially Accept, Decline	Responsible Person's Name/Title	Completion Date
A	<p>Police Cruiser Decommissioning</p> <p>Recommendation: The Police Chief, in coordination with Fleet, should:</p> <p>A.1. Decommission Crown Victoria police cruisers no sooner than 100,000 miles or 7.5 years, whichever occurs first.</p> <p>A.2. After receipt of the Chevrolet Tahoe police vehicles, identify a limited number (40-45, for example) for a pilot program that increases the lifecycle to at least 100,000 miles/7.5 years. These vehicles should be closely monitored for any significant changes in maintenance costs or safety condition. At the end of the pilot program, SAPD/Fleet management should use the resulting information to make a more informed decision.</p>	3	ACCEPT	William McManus, Police Chief, SAPD	10/1/2014
<p>Action plan:</p> <p>The Office of Management and Budget (OMB) conducted a financial review of the City's fleet in 2011 and recommended extending the police cruiser replacement lifecycle from 70,000 miles or 5 years to 70,000 miles or 7 years. This recommendation was based on the current mileage restriction contained in the Collective Bargaining Agreement (CBA) between the City and the San Antonio Police Officers' Association. Based on current depreciation, repair, and maintenance cost experience for police cruisers, OMB also concluded that the City could realize additional efficiencies by increasing the mileage requirement. SAPD and BES management agree that further review of this issue is warranted; however, the current CBA does not expire until 9/30/2014. The item will be included in negotiations for the next CBA. The CBA precludes conducting pilot test, but all maintenance for the first increment of Tahoe police vehicles will be tracked and documented so that it can be used to make future decisions on optimal decommissioning timing.</p>					

Appendix H – Management Response (continued)

Recommendation					
#	Description	Audit Report Page	Accept, Partially Accept, Decline	Responsible Person's Name/Title	Completion Date
B	<p>Scheduled Preventative Maintenance</p> <p>Recommendation: The Building and Equipment Services Director should change the preventative maintenance standard from 3,000 to 5,000 miles as recommended by the manufacturer.</p>	6	ACCEPT	Jorge A. Perez, Director, Building & Equipment Services	7/31/2013
<p>Action plan:</p> <p>The manufacturer's guidelines recommend that basic PM service for Police Interceptor vehicles to be performed at 5,000 mile intervals which is determined by odometer miles plus an idling miles equivalency (33 miles per 1 hour of idling).</p> <p>BES will track oil change intervals on police interceptors equipped with idle time meters over the next 90-120 days utilizing the manufacturer's recommended formula. The baseline data obtained during this timeframe will be reviewed and used in determining the best method for scheduling PM service and comply with the manufacturer's recommended interval.</p>					
C	<p>Preventative Maintenance – Transportation of Vehicles</p> <p>Recommendation: The Building and Equipment Services Director should develop and implement alternative methods for providing basic preventative maintenance to reduce SAPD patrol vehicle downtime.</p>	7	ACCEPT	Jorge A. Perez, Director, Building & Equipment Services	SEE BELOW
<p>Action plan:</p> <p>The SAPD will modify the work schedules for some of its Fleet Services staff to ensure that fewer patrol vehicles are left at the downtown Police garage/Central Shop when preventative maintenance is completed after 4:30 p.m. (March 31, 2012)</p> <p>SAPD and BES staff will work jointly during the FY 2013 budget process to develop options for alternative methods to provide preventative maintenance that will reduce vehicle downtime to include mobile PM services at service centers/substations or decentralizing fleet functions (January 1, 2013). In the event proposals are not funded, the two departments will continue to explore other options.</p>					
D	<p>Police Cruiser Make Ready Process</p> <p>Recommendation: The Police Chief should:</p> <p>D.1 Coordinate with Fleet to procure, when appropriate, a stock of new police cruiser equipment.</p> <p>D.2 In coordination with Fleet, re-engineer the make-ready process to minimize the time required to equip a new cruiser.</p>	8	<p>ACCEPT</p> <p>ACCEPT</p>	William McManus, Police Chief, SAPD	<p>4/30/2012</p> <p>1/1/2013</p>

Appendix H – Management Response (continued)

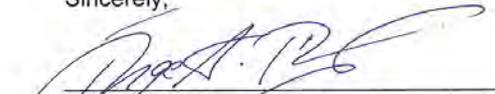
Recommendation					
#	Description	Audit Report Page	Accept, Partially Accept, Decline	Responsible Person's Name/Title	Completion Date
<p>Action plan:</p> <p>In coordination with BES staff, SAPD has already initiated a program to have 15 new patrol vehicles prepared for immediate replacement of decommissioned vehicles. These vehicles will be completely outfitted with all necessary equipment to preclude the current lag time incurred to transfer equipment from an old vehicle to a new one. In addition, SAPD will coordinate with Purchasing to improve the make-ready process by minimizing the number of external contractors (2 contractors and 3 separate contracts) involved. SAPD and BES staff will work jointly during the FY 2013 budget process to develop options for a possible "one-stop-shop" operation where much of the make-ready process—to include any contractor operations—would take place, thereby eliminating much of the down-time currently incurred from moving the vehicles to and from multiple locations. If the "one-stop" concept is not funded, the two departments will continue to explore other options to simplify the process.</p>					
E	<p>SAPD Fleet Contract Payments</p> <p>Recommendation: None</p>	10			
<p>Action plan: N/A</p>					
F	<p>Service Level Agreements</p> <p>Recommendation: The Building and Equipment Services Director should develop a service level agreement with the SAPD for police vehicle management.</p>	10	ACCEPT	Jorge A. Perez, Director, Building & Equipment Services	3/1/2012
<p>Action plan:</p> <p>SAPD and BES will jointly develop and execute a service level agreement which will be in-place by March 1, 2012.</p>					
G	<p>Central Parts Inventory Management</p> <p>Recommendation: The Building and Equipment Services Director should fully develop and document inventory parts management policies and procedures.</p> <p>G.1. Obsolete parts should be physically removed from inventory, disposed of properly (e.g., returned to vendors for credit), and records properly adjusted.</p> <p>G.2. Inventory procedures should be expanded to include physical counts of all storerooms, timely inventory adjustments, and an inventory of both stocked and non-stocked parts.</p>	11	ACCEPT	Jorge A. Perez, Director, Building & Equipment Services	6/1/2012
			ACCEPT		6/1/2012

Appendix H – Management Response (continued)

Recommendation					
#	Description	Audit Report Page	Accept, Partially Accept, Decline	Responsible Person's Name/Title	Completion Date
	<p>Action plan:</p> <p>BES has a review underway of its current processes and is developing a new Policy and Procedures manual which will incorporate the findings of this audit and be complete by June 2012.</p>				

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

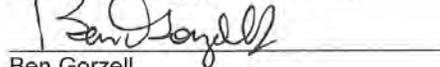
Sincerely,



 Jorge A. Perez
 Director
 Building and Equipment Services

2/17/12

 Date



 Ben Gorzell
 Chief Financial Officer
 City Manager's Office

2/17/12

 Date



 William McManus
 Police Chief
 San Antonio Police Department

2/16/12

 Date



 Erik Walsh
 Deputy City Manager
 City Manager's Office

2/17/12

 Date