MEMORANDUM

DATE: May 27, 2009

TO: The Honorable Members, Board of Supervisors

FROM: Nathaniel P. Ford, Sr.
Executive Director/CEO

SUBJECT: Management Audit of the SFMTA Proof of Payment Program

The San Francisco Municipal Transportation Agency (SFMTA) is in receipt of the May 27, 2009 Management Audit of the SFMTA Proof of Payment Program prepared by the San Francisco Budget Analyst. Attached is an Executive Summary and responses to the 76 recommendations outlined in the Management Audit. While the SFMTA appreciates the efforts of the Budget Analyst and acknowledges that useful information was contained throughout the document, I strongly encourage refinements to future management audits that will yield an overwhelming cost-value added to the audited City departments.

The recommendations are as follows:

- Entry and exit interviews with the Department Head of the audited department;
- Mutually agreed upon formulas and calculations by the Budget Analyst and the Department prior to commencing with the auditing process; and
- A minimum 90-day Departmental review of the Budget Analyst's findings and response preparation.

I look forward to working with the Board of Supervisors as the SFMTA continues to make significant advancements towards enhancing San Francisco's transportation network.

cc: Mayor Newsom
SFMTA Board of Directors

SFMTA RESPONSE TO BOARD OF SUPERVISORS BUDGET ANALYST AUDIT
Proof of Payment Program

Executive Summary

SFMTA Overview

The San Francisco Municipal Transportation Agency (SFMTA) manages a ground-transportation system encompassing pedestrians, bicycles, transit, taxis, parking and traffic. As the steward of the City's *Transit First* policy, the SFMTA is proud that for a city of its size, San Francisco has a high number of walkers, bicyclists and transit customers. Increasing the use of all green modes to protect the environment and to ensure The City's sustainability for future generations is one of the primary goals of the SFMTA.

Transit

Known as Muni, the City's transit system is one of the oldest in the nation, dating back to the mid-19th Century. It currently is ranked as the eighth largest North American transit operation with approximately 700,000 daily boardings on a fleet of over 1,000 vehicles.

Muni operates the following vehicles:

- 495 motor coaches using biodiesel (including 86 hybrids);
- 351 electric trolley coaches;
- 151 light rail vehicles;
- 40 cable cars; and
- 31 historic streetcars

Muni provides service within a quarter of a mile of all residents and includes 14 miles of transit-only lanes and 74.9 miles of rail tracks including light rail, cable car and streetcar.

Taxi

Taxi regulation in San Francisco falls under the SFMTA as of March, 2009. Taxi regulation supports the *Transit First* policy by ensuring taxis conform to clean vehicle standards, operate safely and are available to serve San Francisco residents and visitors.

- 1,456 Total Permits
- 32 Authorized Color Schemes
- 10 Dispatch Service Permits

Parking and Traffic

Parking and Traffic plans and implements San Francisco's traffic engineering, parking regulation and enforcement as well as the pedestrians, bicycle and better streets programs. It establishes traffic and on-street parking regulations that further San Francisco's *Transit First* policy.

The SFMTA manages:

- 946 miles of lane striping
- 1,156 traffic signals
- 200,000 signs
- 1,157 signalized intersections
- 24,000 parking meters
- 208 miles of City streets with bike lanes or enhancements
- 130 school crossings with adult crossing guards.

Parking Enforcement

The primary goal of parking enforcement is to ease traffic congestion and to promote parking turnover throughout the City by enforcing regulations and directing traffic as well as monitoring parking at metered parking spaces across the City. Parking enforcement also has oversight of the Residential Parking Permit areas and removal of abandoned vehicles and vehicles blocking driveways. Finally, any maybe most importantly, parking enforcement improvise the speed and reliability of Muni by controlling traffic and double parking along transit routes.

Off Street Parking

Off Street Parking oversees 40 City-owned parking garages and lots with 15,130 spaces including spaces for car sharing and electric-charging stations. These facilities offer parking options for those who choose to use their cars and revenues from the facilities are used to fund transit operations.

Audit - General Comments

As requested by Supervisor Bevan Dufty on June 10, 2008, the Board of Supervisors' Budget Analyst was asked to audit the SFMTA Transit Proof of Payment (POP) program The purpose of the audit as stated by the Budget Analyst was to evaluate the effectiveness and efficiency of the program in accordance with Government Auditing Standards, 2007 Revision. The scope of this effort was to evaluate the program's planning and evaluation; staff deployment; internal controls related to citations, passenger service reports, staff incident reports; and "other issues" related to fare enforcement.

The SFMTA welcomed the audit as an opportunity to evaluate the effectiveness of a relatively new program which began in 2000. While the audit findings highlighted and affirmed many of the known issues associated with the POP program and presented numerous useful recommendations, many of the recommendations are based on outdated statistics and comparisons with transit agencies that do not operate in comparable service environments. Additionally, the audit's main reference source was the Federal Transit Administration (FTA) sponsored Transit Cooperative Research Program (TCRP-80), published in 2002 which was more than seven years ago.

It is understandable that the audit was performed from a financial focus given the Budget Analyst's expertise. However, balancing the financial viewpoint with operational and industry expertise would have been more beneficial to target the recommendations and provide additional value. After all, the purpose of a POP program clearly has multiple objectives of equal weight including, but not limited to: increased customer service; improved safety; less fare evasion and better compliance; improved transit speed and reliability related to on-time performance. Both the direct and indirect benefits of the POP program should be assessed to truly determine the success of the program and unfortunately the audit did not accomplish this goal. Furthermore, most enforcement programs are not evaluated on financial returns but on operational and public service returns. Hence, the SFMTA's POP program should have been evaluated on the aforementioned.

In summary, while the SFMTA appreciates the efforts of the Budget Analyst the Agency believes that the audit and recommendations do not consider the entirety of the direct and indirect costs and benefits of the program and instead narrowly focuses on specific fiscal criteria. We hope that in future efforts of this nature; expertise in transit operations, transit industry practices, customer service as well as financial expertise is used to complete value-added audits.

Audit Specific Comments

The following summary outlines SFMTA's specific comments on the audit:

Fare Evasion Rates

As per the findings of the Budget Analyst the SFMTA fare evasion rate is 2.4% based upon ([warnings + citations] divided by contacts) and falls within acceptable TCRP-80 ranges from 1.5% - 3.0%. In comparison, the David Binder Research report, dated June 13, 2006, found the fare evasion rate in the Muni system to be 10.5% and a 7.5% on the J,K,L,M & N light rail lines which included both underground and surface stops. The SFMTA is also in the midst of a study which will survey customers on buses and the F-Market historic streetcar line to determine fare evasion rates on these vehicles. With over 8,000 customers surveyed to date, partial results indicate that the fare evasion rate is within

several percentage points of the rate identified in the 2006 study, but this estimate may change as more sampling is completed.

POP Productivity Measurements and Staffing Needs

The SFMTA Enforcement staff contacted the five transit agencies cited in the audit. The transit officials (ranging from Security Chiefs to Field Operations Managers to Statistical Analysts) with whom we spoke provided recent data which differed from the data provided by the Budget Analyst.

The Budget Analyst related to SFMTA Security staff that they only compared those transit agencies that responded to their requests for information, rather than selecting transit agencies which are more similar to Muni. The transit agencies used for comparison were not similar in urban configuration, service model and ridership as outlined in Appendix A.

There are significant differences between Muni and the systems used for comparison. For example, Dallas Area Rapid Transit (DART) spans six counties and 700 square miles. Muni provides transit service in one county spanning 49 square miles. Most other transit properties provide a mix of urban and suburban transit service, while Muni provides service strictly in an urban setting. The Muni system is accessible approximately every two blocks within San Francisco making it easier for fare evaders to board and disembark quickly while other systems travel much longer distances between transit stops allowing for more comprehensive checking for fare evaders. Back door boarding is a known practice throughout the Muni bus network due to the vast number of customers utilizing our transit vehicles. The front doors of our buses could not accommodate the flow of boarding customers solely when there are customers needing to disembark as well, especially on articulated buses and buses traveling on our more popular routes. Additionally, the transit system provides significant service for special events including major league sporting events, concerts, outdoor festivals, etc. most weekends which requires a different level of enforcement than commuter systems.

The five transit agencies surveyed by the Budget Analyst all have more resources than that of the SFMTA, e.g., TFIs, security guards, and sworn law enforcement officers for fare enforcement. Hence, these agencies have a significant law enforcement component that supports fare enforcement, even though their ridership is significantly less than Muni's ridership.

Moreover, when compared to the five transit agencies, the SFMTA's TFIs issue three to four times as many fare evasion citations, despite having far fewer staff as shown in the two following tables.

Table 1

Table 1 shows that the monthly citations issued per TFI far exceeds the number issued by the other agencies referenced in the Budget Analyst's audit.

Monthly Citation Issuance Comparison

Agency	Total Fare Evasion Citations Written Per Month	Total Fare Enforcement Staff	Monthly Citations Per Fare Enforcement Staff
SFMTA	**3,500**	**46**	**76.09**
Denver RTD	631	179	3.53
Portland TriMet	1,440	83	17.35
Utah (UTA)	1,000	57	17.54
Dallas (DART)	1,500	225	6.67
San Diego (MTS)	1,583	145	10.92

Table 2 shows the TFIs issue more citations per one million passengers in comparison to the five transit agencies referenced in the Budget Analyst's audit.

Table 2

Comparison of Citations Issued per 1M Passenger Trips

Transit Agency	Number of Fare Evasion Citations Per Month	Number of Warnings Per Month	Number of Passenger Trips Per Year [1]	Total Annual Number of Citations Per 1M Passenger Trips [2]
Muni (LRV Only)	**3,500**	**2,600**	**48,889,600**	**859.08**
Muni (Total Annual Ridership)	**3,500**	**2,600**	**221,213,200**	**189.86**
Denver RTD	631	3,273	89,214,900	84.87
Portland TriMet	275	912	103,637,300	31.84
Dallas (DART)	1,000	500	63,047,600	190.33
San Diego (MTS - LRV only)	1,583	Unavailable	36,054,600	526.87
San Diego (MTS - Total Annual Ridership)	1,583	Unavailable	65,707,800	289.10
Utah (UTA - LRV Only)	400	Unavailable	13,949,000	344.11
Utah (UTA - Total Annual Ridership)	400	Unavailable	39,554,700	121.35

Note: San Diego MTS is the Parent agency for San Diego Transit Corp (Bus - 29,653,200 annual riders in 2008) and San Diego Trolley (LRV - 36,054,600 annual riders in 2008)
[1] From 2008 APTA Annual Ridership Statistics
[2] Formula of Calculation is Number of Fare Evasion Citations Per Month X 12 Months / Annual Passenger Trips X 1,000,000

The Budget Analyst's audit report indicates TFI inspection and productivity rates are below the TCRP-80 recommended acceptable ranges. SFMTA disagrees

with the methodology utilized by the Budget Analyst in calculating the inspection rate as shown on page 2-7, Table 2.2 of the audit report. Our calculations contained below demonstrate the inspection rate and productivity rates are within TCRP-80 acceptable ranges:

Table 3

Inspection Rate

Inspection Rate = Inspections / Ridership

Inspections Per Year[1]	LRV Ridership Per Year [2]	Inspection Rate	Comments
4,295,828	42,229,441	10.17%	LRV Only (minus F-Line)

Table 4

Productivity Rate

Productivity Rate = Inspection Rate X Daily Ridership / # of TFI's [3]

Inspection Rate	Daily Ridership	# of TFI's	Productivity Rate[3]	Comments
10.2%	138,531	30.0	469.6200	LRV Only Ridership, Using Number of TFIs from Budget Analyst
10.2%	138,531	28.0	503.2925	Using Number of TFI's (28) as estimated by SFMTA Finance Per Day, Including SP, VA, FH, etc.

[1] Inspections = Customer Contacts

[2] This is Total LRV Ridership Per Year minus the F-Line annual Ridership (6,660,159) From NTD (No POP on F-Line)

[3] Reasonable Productivity Rate Range is 400 to 700 Inspections Per TFI Per Day (Page 2-3 in BOS BA Draft Audit)

The TCRP-80 study the indicated of the 13 transit agencies studied inspections rates ranged from 6% to 42% with most systems falling with the 15% - 30% range for an average of 26%. The TCRP-80 study states:

> *"There is **no** specific formula for establishing a reasonable inspection rate. However, based on existing SSFC experience, agencies introducing new systems **might** consider inspection rates on the order of 15% to 25%, and in doing so, can expect to experience evasion rates on the order of 1.5% to 3%"*

The Budget Analyst's reports calculated the POP inspection rate at 7.4% (Table 2.2, page 23) we believe the correct inspection rate to be 10.2%. While the TCRP-80 study suggests a higher inspection rate, the study does not make a recommendation of optimum performance it is only stating the averages found across very diverse systems. In addition, the Budget Analyst's calculation of the POP programs productivity rate is understated. They reported an average of 331 daily inspections per TFI, while we believe the average productivity rate to be 469 daily inspections per TFI as detailed in the previous.

Transit Fare Inspector Staffing

It is important to consider and compare the number of fare evasion enforcement personnel per every one million passenger trips for the agencies compared in this study. As demonstrated in Table 5 below our ratio of Fare Inspector personnel to passenger trips is at the low end of the scale.

Table 5

Fare Evasion Enforcement Staffing per 1 Million Passenger Trips

Agency	Staffing Makeup			Total Fare Enforcement Staffing	Passenger Trips Per Year [1]	Security Staff Per 1,000,000 Passenger Trips
	Transit Fare Inspectors	Law Enforcement	Security Guards			
SFMTA (LRV Only Ridership)	**46 TFI, 6 Sups**	**14 SFPD (MRT)**	**No Guards**	**46**	**48,889,600**	**0.94**
SFMTA (Total Annual Ridership)	**46 TFI, 6 Sups**	**14 SFPD (MRT)**	**No Guards**	**46**	**221,213,200**	**0.21**
Denver RTD	9	70 PD	100 Armed Guards	179	89,214,900	2.01
Portland TriMet	30	53 PD	No Guards	83	103,637,300	0.80
Dallas (DART)	31 TFI, 8 Sups	190 PD	No Guards	225	63,047,600	3.57
San Diego (MTS - LRV Only Annual Ridership)	30 TFI, 8 Sups		115 Armed Guards	145	36,054,600	4.02
San Diego (MTS - Total Annual Ridership)	30 TFI, 8 Sups		115 Armed Guards	145	65,707,800	2.21
Utah (UTA - LRV Only Annual Ridership)		40 PD	17 Guards	57	13,949,000	4.09
Utah (UTA - Total Annual Ridership)		40 PD	17 Guards	57	39,554,700	1.44

[1] From 2008 APTA Annual Ridership Statistics

Additional Benefits of Fare Inspections

The Budget Analyst did not acknowledge additional services provided by Fare Enforcement staff. It is important to mention that Fare Enforcement personnel bring a uniformed presence on transit in addition to providing crime deterrence and customer service. San Francisco transit customers expect SFMTA to provide effective fare enforcement on all transit modes, so that everyone pays their share and protects one of The City's most valuable assets. While the SFMTA POP personnel are not sworn law enforcement officers, the uniform presence of POP staff does deter criminal activity. TFIs will take appropriate safe actions, as trained, when necessary. Such examples are included below:

1. A TFI was approached by a customer who stated that a young adult on a light rail vehicle (LRV) had a gun. The customer provided a detailed description to the TFI. The TFI called Central Control to request police assistance. The LRV was held at the next station until the San Francisco

Police Department (SFPD) arrived which resulted in an arrest of the armed offender before anyone on-board was harmed.

2. TFIs were approached by a female customer exiting an LRV stating an intoxicated female customer was out of control and attempted to snatch her baby from her arms. The TFIs boarded the LRV, located the suspect and asked her to exit the LRV. One of the TFIs called Central Control to request police assistance. While waiting for SFPD, the customer attempted to assault the TFIs, but they maintained a safe distance. SFPD arrived and arrested the woman for public intoxication and attempted kidnapping.

3. A TFI witnessed a low vision customer walk off a boarding platform and fall under a train coupler onto the tracks. The TFI acted swiftly by stopping the LRV doors from closing and then was able to pull the customer to safety before the LRV closed its doors and departed the station.

4. A TFI witnessed a customer fall down the stairs at a subway station and hit his head. The TFI stayed with the customer until medical assistance arrived on the scene to assess the situation.

5. On New Year's Eve a TFI found a 12 year-old child separated from his family. The TFI was able to locate his parents at another station and escorted the child to reunite with his family.

6. A TFI was notified by the parents of a 5 year-old child that their child had not disembark from an LRV with them. The LVR subsequently left the station with their child still on board. The TFI immediately notified Central Control and had the LRV held at the next station for inspection. Unfortunately the child had exited without the Train Operator's knowledge. The TFI went to the next station to look for the child and found him on the mezzanine level near the Station Agent's booth and escorted the child back on the LRV to be reunited with his parents.

7. A TFI at the Powell station was checking for POP and citing a customer, when another customer shouted there is a man down who needed assistance. He immediately observed the man had no pulse and was not breathing. He began administering CPR while his partner called Central Control for medical assistance. Before medical assistance arrived the gentleman responded to the CPR administered and began breathing on his own. The gentleman was transported by the paramedics to the hospital for further medical treatment.

POP on the Buses

It is well known that there is a need to address the high level of fare evasion on the Muni bus fleet as the lack of POP on the buses is the one of the highest complaints SFMTA's receives from customers. It is the intent of the Agency to implement a pilot POP program on the rubber tire fleet and subsequently on SFMTA's historic streetcar line. Through the implementation of a pilot program the Agency will have the ability to assess the feasibility of a rubber tire fleet POP program and any operational issues associated with efficient boarding and disembarking, as well as impacts attributed to Muni's on-time performance through data collection during the pilot phase. Once this information is obtained an in-depth analysis will be done to identify the facets of a program should the pilot's findings indicated a permanent program is warranted.

Furthermore, best practices suggest when a new initiative is undertaken a pilot program provides a level of understanding that is required to develop viable strategies, goals and operational objectives. Without a pilot effort, the development of strategies, goals and operational objectives often do not add value.

Conclusion

In sum, the SFMTA appreciates Supervisor Dufty's request to evaluate the POP program as well as the efforts of the Budget Analyst. The audit and the recommendations include useful information; however, the audit would have been more valuable if it was conducted with a full understanding of transit operations, Muni's service environment and customer service.

***Appendix A** (From 2008 APTA Public Transportation Ridership Report)*

Rank	Agency, State	Total Annual Ridership	LRV Only Annual Ridership
1	New York MTA, NY	3,205,422,600	
2	Chicago, IL	526,336,500	
3	Los Angeles MTA, CA	495,925,900	
4	Wash DC WMATA	428,904,700	
5	Boston MBTA, MA	384,735,900	
6	Philadelphia, PA	329,863,900	
7	Newark NJ	265,605,700	
8	**SFMTA, CA**	**221,213,200**	**48,889,600**
9	Atlanta, GA	158,590,900	
10	Seattle, WA	122,616,400	
11	BART, CA	117,171,200	
12	Miami, FL	115,813,200	
13	Baltimore, MD	105,205,800	
14	Portland, OR	103,637,300	35,772,900
15	Long Island NY	103,215,100	
16	Houston, TX	96,813,800	
17	Denver, CO	89,214,900	20,617,500
18	New York Metro North, NY	83,611,800	
19	Minneapolis, MN	81,853,000	
20	Jersey City, NJ	78,672,500	
21	Chicago Metra, IL	77,166,900	
22	AC Transit, CA	72,346,000	
23	Orange County, CA	69,508,800	
24	Pittsburgh, PA	68,524,800	
25	Las Vegas, NV	68,351,900	
26	Dallas, TX	65,988,100	19,826,500
27	San Diego RTD, CA	65,707,800	36,054,600
28	Cleveland, OH	57,287,100	
29	Saint Louis, MO	55,949,100	
30	Milwaukee, WI	52,106,400	
31	Phoenix PTD	49,518,260	
32	San Antonio, TX	46,980,700	
33	VTA, CA	46,643,200	
34	Fort Lauderdale, FL	41,978,900	
35	Arlington Heights, IL	40,510,700	
36	Salt Lake City (Utah UTA), UT	39,554,700	13,949,000
37	Detroit, MI	38,741,700	
38	Austin, TX	38,140,700	
39	Garden City, NY	33,027,600	
40	Rockville, MD	29,110,200	
41	Buffalo, NY	28,379,100	
42	Orlando, FL	26,898,200	
43	Charlotte, NC	26,366,500	
44	Hartford, CT	26,227,700	
45	Hampton Roads, VA	25,101,300	
46	Cincinnati, OH	21,592,500	
47	Tucson, AZ	21,015,300	
48	New York City DOT, NY	20,750,300	
49	Kansas City, MO	17,187,000	
50	Sacramento, CA	17,169,800	