



**A Report to the
Audit Committee**

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Metropolitan
Nashville
Office of
Internal Audit

Metropolitan Transit Authority Revenue Collection Process

March 1, 2018

EXECUTIVE SUMMARY

March 1, 2018



Why We Did This Audit

The audit was initiated due to the importance of ensuring all revenue collections are managed and are available for public mobility services.

What We Recommend

- Ensure evidence exists that employees agree on amounts of cash collections when custody changes.
- Maintain a listing of assets with advertising and reconcile it to the spreadsheet submitted by the advertising sales contractor.
- Implement automatic passenger counters as a control against fare evasion.

Audit of the Metropolitan Transit Authority Revenue Collection Process

BACKGROUND

The Metropolitan Transit Authority is a component unit of the Metropolitan Nashville Government that provides public transportation to Nashville citizens and visitors.

The Metropolitan Transit Authority generates revenue from bus fares, advertising sales, and rental income from parking and Dunkin Donuts at Music City Central, the downtown Nashville transit station. Operating and non-operating revenue was \$15.3 million for fiscal year 2017.

OBJECTIVES AND SCOPE

The objectives of this audit are to determine if:

- Cash receipts are complete and accurate.
- Cash receipts are deposited within two business days.
- Responsibilities for invoicing, handling, recording, and reconciliation of cash receipts are segregated.
- Cash receipts are secured.

The scope of this audit was limited to operating, and non-operating revenues generated by the Metropolitan Transit Authority for fiscal years 2017 and 2016. The audit did not include operating assistance from local, state, and federal grants.

WHAT WE FOUND

Cash receipts are accurate and deposited timely. Responsibilities are segregated, but controls could be strengthened around custodial transfers of cash receipts within the Music City Central ticket window.

Implementation of additional management controls to gauge the completeness of advertising sales and passenger counts could enhance the revenue collection process.

GOVERNANCE

The Metropolitan Transit Authority is overseen by a five-member Board of Directors. The Chief Executive Officer of the Metropolitan Transit Authority reports directly to the Board of Directors and is charged with the managerial duties of the entire transit system. The Chief Executive Officer position is the only Metropolitan Nashville Government held position at the Metropolitan Transit Authority; all other employees are employed by the Davidson Transit Organization.

The Metropolitan Transit Authority has a Chief Financial Officer, Chief Development Officer, and Director of Customer Service who are responsible for making operational decisions, policies, and procedures for the portions of the revenue cycle under their area of responsibility.

FINANCIAL BACKGROUND

Operating and non-operating revenues generated by the Metropolitan Transit Authority represented approximately 18 percent of total revenues in fiscal year 2017. The remaining revenue categories related to government assistance and capital contributions. A breakdown of revenues and capital contributions for fiscal years 2015 through 2017 are presented in Exhibit 1 below.

Exhibit 1 – Revenues and Capital Contributions by Fiscal Year

Revenue Type	FY 2015	FY 2016	FY 2017
Full Adult Fares	\$7,653,314	\$6,701,476	\$6,475,636
Discount of Ticket Sales	(2,415)	(2,809)	(4,529)
Senior Citizen Fares	1,248,739	1,392,442	1,418,670
Student Fares	1,770,112	1,470,420	1,359,142
AccessRide Revenue	871,450	879,160	858,157
Contract Services – Bus	1,635,327	1,690,648	1,693,752
Contract Services – Regional Transportation Authority Management	780,000	780,000	803,400
Advertising Revenue	690,960	1,140,723	1,007,653
Total Operating Revenues	\$14,647,487	\$14,052,060	\$13,611,880
Miscellaneous Income: Interest	\$5,288	\$1,905	\$994
Miscellaneous Income: Non-Transportation	130,670	270,325	162,143
Rental Revenue	977,776	993,346	953,687
Amortized Rental Revenue	590,004	590,004	590,004
Other Receipts	10,251	39,671	-
Total Non-Operating Revenues	\$1,713,989	\$1,895,251	\$1,706,828
Total Government Assistance	\$43,470,266	\$47,268,602	\$49,283,039
Total Capital Contributions	\$28,252,441	\$18,442,390	\$19,058,834
Total Revenue and Capital Contributions	\$88,084,183	\$81,658,303	\$83,660,582

Source: Metropolitan Transit Authority's Sage Accounting Software

Bus Fare Collection Process

Passengers purchasing tickets on buses will insert their cash into the farebox upon entering the bus. Cash is deposited into a secure cashbox within the farebox. After each trip, the bus will return to the lot and go through a probing process to empty the receipts from the cashbox. A data probe is used to

transfer ridership and revenue data from the farebox to the GENFARE information system. Once the transfer is complete, the farebox will open, and the cashbox can be removed. The cashbox is then inserted into a vault, which removes cash and coins from the cashbox into a secure bin within the vault. Each day, an armored car service will remove the cash receipts from the vault, count the receipts, and make the deposit with the bank. On a daily and monthly basis, cash receipts counted by the armored car service are reconciled to the revenue data transferred from the farebox.

In addition to fare purchased on buses, passengers can purchase fare media from the Music City Central ticket window and ticket vending machines. Checks for rental income, bulk sales, advertising sales, and other miscellaneous payments will be mailed directly to the Metropolitan Transit Authority administration building.

OBJECTIVES AND CONCLUSIONS

1. *Are cash receipts reported by the Metropolitan Transit Authority complete and accurate?*

Generally, yes. Controls are in place to ensure fare revenue and contract revenue are accurate. Daily and monthly deposits are reconciled to farebox revenue data to ensure all funds are deposited into the bank. Contract payments from the contractors located at Music City Central were complete and accurate. The advertising contractor is submitting payments and documentation per the established contract. However, the Metropolitan Transit Authority should implement controls to ensure the completeness of advertising revenue. (See Observation B.) In addition, controls should be established to protect against fare evasion. (See Observation C.)

2. *Are cash receipts deposited within two business days?*

Yes. Fifty-six out of 59 (95 percent) of reviewed cash receipts were deposited within two business days of receipt. All reviewed cash receipts were deposited into the bank.

3. *Are responsibilities for invoicing, handling, recording, and reconciliation of cash receipts segregated?*

Yes. Duties for invoicing, handling, recording, and reconciliation of cash receipts are segregated. However, both employees should agree on cash balances when cash receipts pass from one employee to another. (See Observation A.)

4. *Are cash receipts secured?*

Yes. Cash receipts are secured from receipt until deposit into the bank.

AUDIT OBSERVATIONS

Internal control helps entities achieve important objectives and sustain and improve performance. The Committee of Sponsoring Organizations of the Treadway Commission (*COSO*), *Internal Control – Integrated Framework*, enables organizations to effectively and efficiently develop systems of internal control that adapt to changing business and operating environment, mitigate risks to acceptable levels, and support sound decision making and governance of the organization. The audit observations listed are offered to assist management in fulfilling their internal control responsibilities.

Observation A – Custody of Cash Transfers

If miscounted or misappropriated cash receipts were to occur, it would be difficult to determine the specific responsible employee or employees because cash is transferred without employees acknowledging cash custody transfers. Customer Care Department representatives at the Music City Central ticket sales window reconcile their cash receipts to fare media sold at the end of each shift and place the daily receipts into a drop safe. The next day, the Customer Care Department lead representative opens the safe and accepts custody of cash receipts without written acknowledgment from the employee placing the prior day cash receipts in the drop safe.

During the audit period, log sheets were not maintained acknowledging custody transfers to a third party representative responsible for transporting deposits to the bank. The Customer Care Department – Ticket Sales Procedure states this representative should sign a log sheet before receiving the daily deposit on behalf of the Customer Care Department. Since July 2017, documentation showed the third party representative signed for deposit pick-ups.

Criteria:

- *COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.*
- *State of Tennessee, Division of Municipal, Internal Control and Compliance Manual, June 2010, Title 5 – Control Activities, Chapter 14 – Revenues / Receivables General Procedures states: “...when cash is transferred from one employee to another, the cash should be counted by both employees at the same time.”*

Recommendations for management of the Metropolitan Transit Authority to:

1. Ensure evidence exists that customer service representatives agree on the amounts of cash collections transferred between employees.
2. Perform a smart safe implementation cost-benefit analysis for the deposit of daily collections in the Customer Care Department.
3. Establish a retention schedule and maintain the Deposit Pick-Up Log Sheet for the specified period.

Observation B – Advertising Contract Monitoring

Management monitoring for completeness of advertising revenue could be improved. Advertising revenue represents 7 percent of the Metropolitan Transit Authority operating revenue for fiscal year 2017.

Monthly a Microsoft Excel spreadsheet containing the advertising client, order identification, description (bus, bench, or shelter), the timeframe of advertising, the number of each transit product line sold, total advertising sale, and the amount due to the Metropolitan Transit Authority is provided by the contractor responsible for advertising sales. However, there is no procedure to reconcile the contents of this spreadsheet with the installation of advertising associated with Metropolitan Transit Authority's assets.

Criteria:

COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

Recommendations for management of the Metropolitan Transit Authority to:

Maintain an independent listing of Metropolitan Transit Authority assets with advertising. Periodically reconcile the internal listing to the monthly spreadsheet submitted by the advertising contractor.

Observation C – Fare Evasion

Controls are not in place to protect against fare evasion, which is defined as passengers riding on Metropolitan Transit Authority buses without a valid ticket. Ridership and revenue data is captured by the farebox when a rider inserts cash or uses a ticket or pass. If a passenger somehow bypasses the farebox, it would not come to the attention of Metropolitan Transit Authority management.

Management is currently working towards the use of automatic passenger counters on buses, but the implementation has yet to take place. Once in place, the ridership totals from the automatic passenger counters can be compared to the ridership totals from the fareboxes as a detective control against fare evasion.

Criteria:

COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

Recommendation for management of the Metropolitan Transit Authority to:

Continue working towards the implementation of automatic passenger counters. Periodically reconcile automatic passenger counts to farebox ridership totals.

GOVERNMENT AUDITING STANDARDS COMPLIANCE

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 observations and conclusions based on our audit objectives.

METHODOLOGY

To accomplish our audit objectives, we performed the following steps:

- Interviewed key personnel within the Metropolitan Transit Authority.
- Reviewed and analyzed documentation for compliance with the Tennessee Code Annotated, Metropolitan Nashville Code of Laws, and other applicable laws, regulations, and policies.
- Evaluated internal controls currently in place.
- Performed high-level analytics on fare box cash receipts and ridership data.
- Reviewed sample selections to determine the effectiveness of internal controls.
- Considered risk of fraud, waste, and abuse.

AUDIT TEAM

Seth Hatfield, CPA, CIA, CFE, In-Charge Auditor

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February 27, 2018

Mr. Mark Swann
Metropolitan Auditor
Office of Internal Audit
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Mark Swann
Dear Mr. Swann,

First we would like to thank you for the report you have provided looking at all aspects of Nashville MTA's revenue collection process. We are always looking for recommendations and ways to improve our internal processes, especially as it relates to our revenues. Your department's insights and observations will be very helpful in improving our revenue collection process. The appropriate people in Nashville MTA have reviewed your department's audit report and have accepted all but one of your recommendations. We have provided a response to your findings and have established a timeline for corrective action.

We look forward to working with your department further regarding this matter.

Sincerely,

A handwritten signature in blue ink that reads "Steve Bland".

Stephen G. Bland
Chief Executive Officer

APPENDIX A – MANAGEMENT RESPONSE AND CORRECTIVE ACTION PLAN

We believe that operational management is in a unique position to best understand their operations and may be able to identify more innovative and effective approaches, and we encourage them to do so when providing their response to our recommendations.

Recommendation	Concurrence and Corrective Action Plan	Proposed Completion Date
<i>Recommendation for management of the Metropolitan Transit Authority to:</i>		
<p>A.1 - Ensure evidence exists that customer service representatives agree on the amounts of cash collections transferred between employees.</p>	<p>Accept. Owner – Zeda Riggs We accept this recommendation and will perform a cost benefit analysis to determine the best solution for documenting cash transferring between employees, specifically supervisors and customer care representatives. Depending on the cost benefit, this be addressed by adding an additional supervisor to help cover all Customer Care shifts seven days a week or install a smart safe that is being addressed in Recommendation A.2 below.</p>	6/30/18
<p>A.2 - Perform a smart safe implementation cost-benefit analysis for the deposit of daily collections in the Customer Care Department.</p>	<p>Accept. Owner – Zeda Riggs We accept this recommendation and will perform a cost benefit analysis for implementing a smart safe process. This could possibly be accomplished through an existing contract with our armored car service. We will have the analysis done by June 30, 2018.</p>	6/30/18
<p>A.3 - Establish a retention schedule and maintain the Deposit Pick-Up Log Sheet for the specified period.</p>	<p>Accept. Owner – Al Marashi We accept this recommendation. The Deposit Pick-up Log will be maintained in Customer Care at Music City Central on a rolling two-year basis and will be reviewed quarterly by MTA’s Revenue Audit Analyst for completeness and accuracy.</p>	02/28/18
<p>B.1 - Maintain an independent listing of Metropolitan Transit Authority with advertising. Periodically reconcile the internal listing to the monthly report submitted by the advertising contractor.</p>	<p>Accept. Owner – Jason Minser We accept this recommendation. We are updating our transit stop report that tracks when advertising is added or removed from our buses, vans, shelters, or buildings. Once complete, we will reconcile this report on a monthly basis to the monthly revenue report submitted by our advertising contractor.</p>	04/30/18

APPENDIX A – MANAGEMENT RESPONSE AND CORRECTIVE ACTION PLAN

Recommendation	Concurrence and Corrective Action Plan	Proposed Completion Date
<p>C.1 - Continue working towards the implementation of Automatic Passenger Counters. Periodically reconcile automatic passenger counts to farebox ridership totals.</p>	<p>Reject. Owner – Al Marashi</p> <p>While we accept, in principle, the concept of implementing processes to identify possible fare evasion, we do not believe automatic passenger counters (APC) are accurate enough to identify possible fare evasion. It would also be difficult to reconcile to fare box data. APCs are primarily used for ridership counts reported to the Federal Transit Administration through the National Transit Database. They are also useful in designing new routes or making changes to existing routes by analyzing where riders get on and off.</p> <p>While MTA does have some fare evasion controls in place, we continue to consider some other ideas. Current processes include that the operator inspects the fare of each passenger boarding the vehicle and then follows designated operating procedures if a passenger fails to pay the appropriate fare (including escalation to road supervision and Metro Police as required). In addition to a visual display (OCU) that indicates to the operator whether a valid fare has been paid, there is an audible sound to provide a secondary confirmation or warning to the operator that a valid fare was or was not paid.</p> <p>MTA is also currently testing, through its sister agency, the Regional Transportation Authority of Middle Tennessee (RTA), the use of a third party vendor to have secret riders observe all processes on random RTA bus routes to insure adherence to fare rules as well as several other areas of interest. MTA will be evaluating the effectiveness of this program and possibly implement the same project on MTA buses which would include observation of riders boarding the bus and any possible fare evasion.</p>	<p>09/30/18</p>