

THOMAS P. DINAPOLI
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ALBANY, NEW YORK 12236

STATE OF NEW YORK
OFFICE OF THE STATE COMPTROLLER

September 22, 2015

Mr. Thomas F. Prendergast
Chairman and Chief Executive Officer
Metropolitan Transportation Authority
347 Madison Avenue
New York, NY 10017

Re: MTA/NYC Transit - Trash Can Free
Stations Pilot Program
Report 2014-S-29

Dear Mr. Prendergast:

Pursuant to the State Comptroller's authority as set forth in Article X, Section 5 of the State Constitution and Section 2803 of the Public Authorities Law, we audited the Metropolitan Transportation Authority: New York City Transit - Trash Can Free Stations Pilot Program. The audit covered October 2011 to October 2014.

Background

The Metropolitan Transportation Authority's (MTA) New York City Transit (Transit) provides rapid transit services. The subway has a daily ridership of 5.5 million. It has a fleet of more than 6,300 subway cars, which operate along 660 miles of track, 24 hours a day, seven days a week.

Transit's Department of Subways (Subways) engages in several activities to maintain station cleanliness. It cleans station platforms, mezzanines, and other areas. It removes and disposes of 14,000 tons of trash from the subway annually, and it cleans and removes trash from the track areas. Subways' Station Environment and Operations (SEO) is responsible for station cleaning, station maintenance, and refuse collection for Transit's 468 subway stations throughout Brooklyn, the Bronx, Manhattan, and Queens. Trash collected is bagged and stored in refuse storage rooms and platform housings. However, trash storage capacity is limited and may result in the overflow being left in "exposed bags" on platforms until collected by refuse trains or collection trucks. Unsightly and malodorous exposed refuse bags negatively impact the customer experience.

In October 2011, Transit's SEO began the "Trash Can Free Stations Pilot Program" (or Pilot Program) to reduce refuse in the City's subway system by removing the garbage cans from the platforms at selected stations. SEO's objective was to solve the problem "of poor customer

experience of exposed garbage bags in stations and eliminate the accompanying presence of rodents.” Transit began the pilot at two stations, 8th Street on the R line and Flushing-Main Street on the number 7 line (Phase I). Subsequently, SEO expanded the Pilot Program twice, as follows:

- Eight additional stations, chosen to represent average-sized stations both elevated and underground, were added in September 2012 (two in each of the Bronx, Manhattan, Brooklyn, and Queens) as Phase II; and
- In July 2014, an additional 29 locations on the J and M lines were added (Phase III). All 29 stations are elevated.

Results of Audit

There were significant limitations in Transit’s efforts and methods to evaluate the progress of the Pilot Program. Consequently, it was unclear whether the Pilot Program sufficiently achieved its stated goals to improve customer experience and reduce the rodent population, and whether it should have been expanded. In addition, Transit did not post outreach notices, explaining and promoting the Pilot Program in many of the Pilot Program’s selected stations.

Evaluation of Pilot Program Phases

Pilot testing, a small scale implementation of a potential solution, allows an agency to assess the effectiveness of the solution before making changes on a larger scale. Perhaps the most important part of the pilot project is evaluation. A carefully constructed pilot project will make provisions for an objective review of the results and an assessment as to how to proceed with potential expansion. The basic criteria against which pilot test results should be evaluated is its progress towards stated goals. Ultimately, the pilot test should help achieve the goal as stated in the project memo and serve as a baseline against which future improvements can be measured. A formal approach to quantitative and qualitative analysis of the pilot project should be built into the pilot project plan and should include an initial baseline analysis.

The stated purpose of the Pilot Program was to improve customer experience by minimizing the number of exposed trash bags at stations and controlling the rodent population in the subways. However, Transit used different metrics as criteria to evaluate the results of the three phases of the Pilot Program. (See Exhibit A, page 8.)

In February 2012, the MTA reported the results of Phase I as mixed and expanded the Pilot Program to collect more data. Phase II was scheduled to last six months, and eight stations were added in September 2012. Among the criteria the MTA laid out for evaluation of the Pilot Program were pre- and post-pilot implementation customer surveys. However, customer survey results were not included in SEO’s evaluation of Phase II. In fact, customer input was not used to evaluate either Phase I or Phase II. Because customer experience (the totality of a customer’s engagement with a provider) is often assessed through customer perceptions, the absence of customer feedback limited Transit’s ability to determine if the Pilot Program sufficiently achieved the stated goal of improving customer experience.

Moreover, based on the data provided by Transit in Phase I, it is unclear if the strategy of removing the trash cans was successful in reaching the Pilot Program's goals of decreasing exposed trash bags and eliminating the accompanying presence of rodents. For Phase II, it is also unclear if the strategy of removing trash cans was successful in reaching the Pilot Program's goal of decreasing exposed trash bags. In addition, the MTA provided data on rodents that showed a decrease in activity at only one station and no change at the other nine stations.

Further, in 2011, during the initiation of Phase I, the MTA increased the number of garbage trains during the day to pick up excess exposed trash bags that were not collected during the previous evening. As a result, Transit reported that the number of exposed trash bags throughout the system fell significantly, as one would have reasonably expected, thus complicating Pilot Program evaluation during both Phase I and II of the Pilot Program, and perhaps compromising the validity of the evaluation results.

Also, instead of focusing on exposed trash bags, the evaluation of the Pilot Program focused on other metrics. For Phase I, SEO reported a 67 percent reduction in the number of trash bags collected at Flushing - Main Street station (from 39 to 13 bags a day) and a 50 percent reduction in trash bags collected at 8th Street station (from 6 to 3 bags a day) from October 7, 2011 to January 23, 2012. For Phase II, SEO found for the period September 2, 2012 to August 31, 2013 the average number of bags collected from the platform was reduced from 6.2 to 2.1 (or 66 percent) a day.

However, because trash collected is bagged and stored in refuse storage rooms and platform housings, total bags does not equate to exposed bags. In addition, the same SEO analysis indicates that the average number of bags of trash collected biweekly from the tracks went up at the Phase I and II stations from 10.9 to 11.2 bags (or 3.2 percent). Also, the MTA reported that the average number of track fires at these stations increased from 2.1 to 2.8 (or 33 percent) during Phase II. Further, Passenger Environment Scores for the cleanliness of the subway initially fell, before ultimately rebounding to pre-Pilot Program levels.

SEO did report on the control of the rodent activity in both Phase I and Phase II. However, the design of the Pilot Program did not lend itself to an evaluation of whether removing trash cans decreased rodent activity. SEO Phase I data showed that the Pilot Program had no impact on the rodent activity at the original Program stations (Flushing-Main Street and 8th Street). Moreover, when the Pilot Program was expanded, baseline data on the stations included in Phase II showed that nine of the 10 stations were already at the lowest rating for rodent activity, and therefore, it was unlikely that significant improvement could be made at those stations. At the remaining station, the activity level was rated at 5 on a scale of 1 (low) to 10 (high). Nonetheless, SEO claimed an overall reduction of 28.6 percent in Phase II of the Pilot Program.

Further, the New York City Department of Health and Mental Hygiene's (DOHMH) rodentologist, who the MTA consulted about the Pilot Program, stated that he believed the Pilot Program would have minimal impact on the number of rodents in the system. DOHMH worked with Transit in 2008-10 to study the rat population issue in the city. At that time, a DOHMH official concluded that Transit did not manage its refuse problem well, primarily because refuse rooms at

some locations were not adequately secured, and they provided a readily available source of food for the rats. However, because the Pilot Program includes a large number of elevated stations and rodents usually burrow or remain on the ground, rodents are unlikely to frequent the above ground stations included in the pilot.

Pilot programs are usually for a finite period of time, with a decision on whether to implement the program or not when the trial period ends. The initial Pilot Program ran for about four months, from October 2011 to February 2012, before Transit recommended adding stations. Phase II added eight stations in September 2012, with a plan to run the Pilot Program for three months. Phase III added 29 elevated stations in July 2014, with no stated time frame. The Pilot Program's stated purpose was to improve customer experience by reducing exposed trash bags and eliminate the accompanying presence of rodents. However, when the Program is evaluated against that goal, it is unclear if sufficient justification existed to expand it.

Pilot Program Station Outreach

In a January 2014 presentation, Transit officials indicated that it had launched a marketing campaign in support of the Pilot Program. Public announcements on Transit's website indicated that signs would be posted notifying station users of the Program that would remove trash cans from the platforms.

We visited 10 of the 39 Pilot Program stations, from August to October of 2014, to observe the conditions of those stations. We found that notices were posted at just three stations. Notices posted at two of these stations were located where riders could not easily see them. We observed other notices announcing events, such as service changes, and "Do Not Litter" and "No Smoking" signs to be more prominently placed throughout the stations. Five of the seven stations that did not have signs were added to the Pilot Program in July 2014.

In response to our preliminary findings, Transit indicated that new notices have been posted at all Pilot Program stations indicating that the cans have been removed and asking customers for their cooperation. However, we revisited 18 pilot stations in March and April 2015 and found that two stations still did not have signs posted.

Recommendations

1. Objectively review the results of the Pilot Program, focusing on originally stated purposes and objectives. Assess performance against those purposes and determine whether to continue the program. Consult with the MTA Board regarding impact on riders.

(In reply to our draft audit report, MTA officials stated that although the MTA is not tracking exposed bags directly, it is counting the number of bags collected and this supports the overall purpose to minimize exposed bags and control the rodent population. In addition, officials stated that the decrease in trash collected at the trash can free pilot stations has allowed the MTA to reduce the frequency of refuse pickups at Pilot Program stations and pick up trash more quickly at stations where there are exposed bags.)

Auditor's Comments: The MTA's response did not include any specific measureable results for the Pilot Program, although it has been one year since it added 29 stations (in July 2014). In addition, the MTA claims the Pilot Program has allowed it to reduce the frequency of pickups at Program stations. However, we reviewed the scheduled refuse pickups at the 10 stations in the Program for the longest period (2 since 2011 and 8 since 2012), and based on the scheduled pickups for August 2013 and August 2014, there was no discernible difference in the number of pick-ups at these 10 stations.

2. Develop clear measurable goals and measures of success before deciding to extend or expand the Pilot Program. Establish and use appropriate data collection and evaluation measures. Report on results within a definitive time period (e.g., two months) of the end of the evaluation period.

(In reply to our draft report, MTA officials stated that the criteria used to measure the success of the Pilot were appropriate and measurable. They added that they will continue to report results of the current or an expanded Pilot in a timely manner.)

Auditor's Comments: The MTA's response is not only contradictory but illogical. Specifically, MTA officials state that "the results of the Pilot do support the stated purpose to improve customer experience in stations by **minimizing exposed trash bags** (emphasis added)." However, according to the MTA, they did not evaluate if the number of exposed trash bags at each of the trash can free pilot stations decreased during this pilot - they only evaluated this issue system wide. The MTA claims it did not evaluate this data because it could not separate the impact of the Pilot from other initiatives. Yet by failing to examine this information the MTA cannot demonstrate that the Pilot minimized exposed trash bags at these stations. Specifically, the MTA had no quantitative assessment of the extent of the exposed trash bag problem prior to the Pilot, and consequently, it could not meaningfully assess the extent to which the Pilot reduced the amount of exposed trash bags at certain time intervals after the Pilot went into effect.

Additionally, it is unclear how the MTA knows that customer experience improved because they did not perform the customer survey that was promised as part of the evaluation process. In a recent announcement, the MTA did finally solicit customer opinion stating, "Of course, your opinion is very important to us. Please tell us what you think." However, this was after they expanded the Pilot Program twice. Moreover, it is unclear how the MTA will evaluate the information provided. If, for example, all the customers who respond tell the MTA that they are dissatisfied with the Pilot, how will this information impact future expansion? The MTA does not make this clear. A critical part of a well-constructed pilot is that an objective evaluation process be in place before the data is collected. If the MTA can simply disregard any criteria or data that does not support the position they wish to take, how objective is the process?

Finally, in its recent announcement, the MTA indicated that the Pilot Program was a success because it decreased trash at stations. However, this was not the problem the Pilot was originally established to solve. A presentation to the Board's Transit and Bus Committee in October 2011 (see Exhibit B, pages 9 and 10) shows that "exposed garbage" was the issue. The

MTA subsequently affirmed this in February 2012 (see Exhibit C, pages 11 and 12). While the two are logically related, decreasing trash bags does not necessarily decrease the number of exposed bags, or improve customer experience - the goals of the Pilot. This is because trash bags are stored in refuse storage rooms so that customers may not even be aware that the trash is being stored at the station.

3. Prominently post notices at all stations selected for the Pilot Program announcing the change and periodically remind customers of the stations with no trash cans.

(In reply to the draft report, MTA officials stated that signs were posted at all Pilot Program stations prior to removal of the cans letting customers know what was happening and why. Officials added that signs were subsequently posted indicating the cans were removed and thanking customers for their cooperation. Officials also indicated that missing signs will be replaced as soon as possible.)

Audit Scope, Objective and Methodology

The objective of our audit was to determine if MTA / Transit officials effectively evaluated the various Phases of the Trash Can Free Stations Pilot Program, intended to improve cleanliness of stations and reduce the rodent population. The audit covered the period October 2011 to October 2014.

To accomplish our objective, we reviewed Transit's policies, procedures, and guidelines related to station cleanliness. We reviewed Transit's presentations and data related to the Pilot Program. We also interviewed Transit officials and employees to obtain an understanding of the internal controls relevant to the Pilot Program. We visited various station platforms to observe the condition of the refuse rooms and containment bins. We also visited 10 of the 39 stations in the Pilot Program over a period of six weeks during August and October of 2014.

We conducted our 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 objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

In addition to being the State Auditor, the Comptroller performs certain other constitutionally and statutorily mandated duties as the chief fiscal officer of New York State. These include operating the State's accounting system; preparing the State's financial statements; and approving State contracts, refunds, and other payments. In addition, the Comptroller appoints members to certain boards, commissions, and public authorities, some of whom have minority voting rights. These duties may be considered management functions for purposes of evaluating organizational independence under generally accepted government auditing standards. In our opinion, these functions do not affect our ability to conduct independent audits of program performance.

Reporting Requirements

We provided a draft copy of this report to MTA officials for their review and formal comments. Their comments were considered in preparing this final report and are attached in their entirety at the end of this report. In their response, MTA officials disagreed with our conclusions regarding the reporting of the results of the Trash Can Free Stations Pilot Program. Our rejoinder to certain MTA comments is included in the report's State Comptroller's Comment.

Within 90 days after final release of this report, as required by Section 170 of the Executive Law, the Chairman and Chief Executive Officer of the Metropolitan Transportation Authority shall report to the Governor, the State Comptroller, and the leaders of the Legislature and fiscal committees, advising what steps were taken to implement the recommendations contained herein, and where recommendations were not implemented, the reasons why.

Major contributors to this report were Robert Mehrhoff, Erica Zawrotniak, Adrian Wiseman, Aurora Caamano, and Yulia Moroz.

We wish to thank the management and staff of the Metropolitan Transportation Authority - New York City Transit for the courtesies and cooperation extended to our auditors during this audit.

Very truly yours,

Carmen Maldonado
Audit Director

cc: M. Fucilli, MTA Auditor General
D. Jurgens, Audit Director
NYS Division of the Budget

Exhibit A

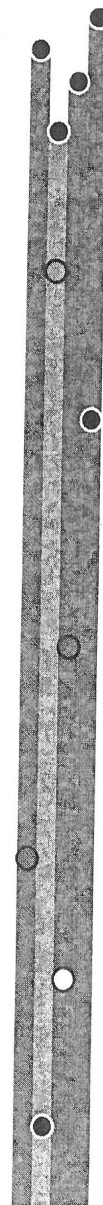
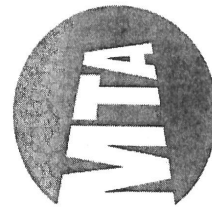
Trash Can Free Stations Pilot Program Summary By Phase (I - III)

Phase I					
	Metric	Pilot	Desired Result	Measured	Actual Result
October 2011	*Exposed Bags on Station Platforms	Yes	Decrease	No	Values at start of Phase I were not provided
	*Rodent Activity	Yes	Decrease	No	Not Provided
February 2012	*Exposed Bags on Station Platforms	Yes	Decrease	No	Not provided
	*Rodent Activity	Yes	Decrease	Yes	No Noticeable Change
	Customer Experience	Yes	Improve	No	Not Provided
	Trash Bags Collected	No	Not Applicable	Yes	Decrease
	Trash Bags Collected on Track Bed	No	Not Applicable	Yes	Mixed
	Fires	No	Not Applicable	Yes	No Increase
Phase II					
September 2012 - August 2013	*Exposed bags on Station Platforms	Yes	Decrease	No	Not Provided
	*Rodent Activity	Yes	Decrease	Yes	Mixed
	Customer Experience	Yes	Improve	No	No Surveys Provided
	Trash Bags Collected	No	Not Applicable	Yes	Decrease
	Trash Bags Collected on Track Bed	No	Not Applicable	Yes	Increase
	Fires	No	Not Applicable	Yes	Increase
Phase III					
July 2014 -	*Exposed Bags on Stations Platforms	Yes	Decrease	No Information	No information reported out on Phase III as of June 2015 Board meetings
	*Rodent Activity	Yes	Decrease	No Information	
	Customer Experience	Yes	Improve	No Information	
* Stated purpose of Pilot Program.					
Metrics reported on, but not part of pilot.					

Improving Station Refuse Collection

Transit
Committee Meeting

October 2011



Overflow of refuse in stations has been a challenge

Observations

- Unsightliness and malodor of trash bags stored on platforms
- Customer complaints of encounters with rodents
- Presence of refuse creates a health and safety hazards

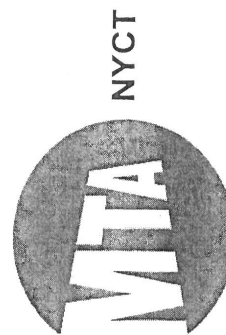
Problem to be solved

How do we minimize poor customer experiences of exposed garbage in stations and eliminate the accompanying presence of rodents?



Station Environment & Operations

TRASH CAN FREE STATION PILOT
February 23, 2012



Background

- Implemented Trash Can Free Station Pilot at 2 stations in October 2011:
 - 8 Street Station (R line)
 - Main Street Station (7 line)
- Purpose: Improve customer experience
 - Minimize exposed trash bags on stations
 - Control rodent population in the subway system

Agency Comments

2 Broadway
New York, NY 10004
212 878-7000 Tel

Thomas F. Prendergast
Chairman and Chief Executive Officer



Metropolitan Transportation Authority

State of New York

August 4, 2015

Ms. Carmen Maldonado
Audit Director
The Office of the State Comptroller
Division of State Government Accountability
59 Maiden Lane - 21st Floor
New York, NY 10038-4651

Re: Draft Report #2014-S-29 (MTA – NYC Transit: Trash Can Free Stations Pilot Program)

Dear Ms. Maldonado:

This is in reply to your letter requesting a response to the above-referenced draft report.

I have attached for your information the comments of Carmen Bianco, President, NYC Transit, which address this report.

Sincerely,

A handwritten signature in blue ink, appearing to read "T.F.P.", with a horizontal line extending to the left and a vertical line extending downwards.

Thomas F. Prendergast
Chairman and Chief Executive Officer

c: Donna M. Evans, MTA Chief of Staff
Michael J. Fucilli, Auditor General, MTA Audit Services

Attachments

The agencies of the MTA

MTA New York City Transit
MTA Long Island Rail Road

MTA Metro-North Railroad
MTA Bridges and Tunnels

MTA Capital Construction
MTA Bus Company

Memorandum



New York City Transit

Date July 20, 2015

To Thomas F. Prendergast, Chairman and Chief Executive Officer

From Carmen Bianco, President, NYC Transit

Re **New York State Comptroller's Request for Response to the Audit Report
MTA-NYC Transit - Trash Can Free Station Pilot Draft Report (2014-S-29)**

New York City Transit has reviewed the Office of the State Comptroller's Draft Audit Report on Trash Can Free Stations Pilot Program (2014-S-029). The objective of the audit was "to determine if MTA/Transit officials effectively evaluated the various Phases of the Trash Can Free Station Pilot Program, intended to improve cleanliness of stations and reduce the rodent population."

Below is a summary of the New York City Transit's response to the Office of State Comptroller's draft audit results and recommendations.

As stated in our December 31, 2014 response to the State Comptroller's preliminary audit report of the Trash Can Free Stations Pilot Program (the Pilot), the various phases of the Pilot were effectively evaluated and the results of the Pilot do support the stated purpose to improve the customer experience in stations by minimizing exposed trash bags and controlling the rodent population in the subway. We disagree with the result of the audit as described on page two of the draft report, which states: a) that it was unclear whether the Pilot Program achieved its stated goals to improve customers' experience and b) that Transit did not post outreach notices, explaining and promoting the Pilot Program.

- a) Results indicate that the Pilot did contribute to improving the customer experience in stations given the significant reduction in trash at the Pilot stations after the removal of cans. The main criterion used in the evaluation of the Pilot (amount of trash bags removed) was the most objective criterion/metric available to determine the effectiveness of this Pilot. The reduction in trash in these stations reduced the number of bags to be stored and, consequently, improved the customer experience by reducing the potential bags visible to customers as well as the potential food available to rodents. Additionally, the significant reduction in trash reduced the need for trash pickups in the Pilot stations, which also freed up personnel for deployment at other stations and improved the customer experience for our system as a whole. The criterion proposed by the audit (number of exposed bags at each station) is not an effective measure to evaluate this Pilot given the number of initiatives underway at the same time as the Pilot to reduce

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Comment

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*See State Comptroller's Comment, page 17.

the exposed bags at stations. Although this criterion is not an effective measure to evaluate the Pilot, it may be noted however that the number of exposed bags improved system wide over the course of the Pilot. We disagree with the report Exhibit which designates 'exposed bags' as a metric and 'trash bags collected' as not applicable. To the contrary, New York City Transit management sees 'trash bags collected' as a more accurate measure of the impact of this program, and that the results of the Pilot support the stated purpose to improve the customer experience.

- b) The fact that the audit found notices announcing the Trash Can Free Stations Pilot Program at only 10 of the 39 stations does not mean that the NYC Transit never posted such notices. Notices were posted at all Pilot stations as part of a marketing campaign at the start of the Pilot. However, by the time of the audit, which was 6 months later, some of the posters were damaged and removed and not replaced. New posters were created and posted since then.

Recommendation #1: Objectively review the results of the Pilot Program, focusing on originally stated purposes and objectives. Assess performance against those purposes and determine whether to continue the program. Consult with the MTA Board regarding impact on riders.

As stated in our December 31, 2014 response to the preliminary audit report, the Trash Can Free Station Pilot was and is currently being assessed by the criteria listed on page three of the February 23, 2012 presentation; primarily by the amount of trash generated in a station. Although this criterion does not track exposed bags directly, it does support the stated overall purpose to minimize exposed trash bags at stations and control the rodent population in the subway system. The less trash generated in the stations, the fewer the bags to be stored, collected and potentially exposed to the customers. This also reduces the food available to rodents which, in turn, translates to fewer rodents and a better customer experience. Moreover, the decrease in trash collected at the trash can-free-pilot stations has allowed us to reduce the frequency of refuse pickups at these stations and correspondingly has permitted us to pick up trash more quickly at stations where there are exposed bags. We will continue to inform the MTA Board regarding the progress of the Trash Can Free Station Pilot.

Recommendation #2: Develop clear measurable goals and measures of success before deciding to extend or expand the Pilot Program. Establish and use appropriate data collection and evaluation measures. Report on results within a definitive time period (e.g., two months) of the end of the evaluation period.

We believe the criteria we used to measure the success of the Pilot were appropriate and measurable. We will continue to report results of the current or an expanded Pilot Program in a timely manner.

Recommendation #3: Prominently post notices at all stations selected for the Pilot Program announcing the change and periodically remind customers of the stations with no trash cans.

Notices were posted at all Pilot stations prior to the removal of the cans letting our customers know that the cans were going to be removed and the reasons why they were going to be removed. These notices have since been replaced with new notices at all Pilot stations indicating that the cans have been removed and asking the customers for their cooperation. We will strive to replace any missing notice as soon as possible.

cc: P. Cafiero
M. Chubak
P. Fleuranges
J. Leader
L. Tandler

(SVP #03071015)

State Comptroller's Comment

1. As shown by Exhibit B (pages 9 and 10) from a presentation by MTA officials to the Board's Transit and Bus Committee (Committee) in October 2011, the goal of the pilot was to determine "How do we minimize poor customer experiences of exposed trash." Also, in a February 2012 presentation to the Committee (see Exhibit C, pages 11 and 12), MTA officials stated that a purpose of the Pilot Program was to "Minimize exposed trash bags on stations." As such, evidence of reductions in the "number of exposed bags" would be expected to be part of the evaluation of the program's success.