



2012 Bus Lane Camera Enforcement Update Report

Introduction

New York City has the highest bus ridership in the United States, with over three million passenger trips made daily. However, New York also has the slowest bus speeds in the country, with buses averaging under eight miles per hour—and even slower speeds in congested areas and at busy times of day. As part of efforts to improve bus service, the New York City Department of Transportation (DOT), working closely with the Metropolitan Transportation Authority (MTA) and MTA New York City Transit (NYCT), has installed bus lanes around the city to allow buses to keep moving on congested streets. These bus lanes rely on enforcement of traffic rules to be clear of other traffic, and therefore effective at improving bus speeds.

In the summer of 2010, New York City and the MTA were given legislative authorization to begin operating a camera-based bus lane enforcement system. The authorizing legislation allows camera-based enforcement on specifically named Select Bus Service (SBS) corridors in each borough of New York City, and also names specific restrictions regarding the time, day of week, and methods of enforcement. Based on this authority, the City and the MTA initiated implementation of a camera-based enforcement system beginning in November, 2010.

This report gives a basic overview of the implementation of the camera-based enforcement system, including the outreach and education completed in advance of beginning a system, and also discusses the results of the demonstration program in terms of bus speeds and reliability.

Outreach and Education

Prior to implementing the camera enforcement program, DOT and NYCT conducted a joint outreach and public education campaign to raise awareness of bus lanes and make sure that the rules of bus lanes are clear to the public. Bus lanes can be used by non-bus vehicles for several purposes, including making the next legal right turn, and accessing the curb (in most locations, expeditious pickups and drop-offs of passengers are allowed in the bus lane).

NYCT conducted bus and subway ad and media campaigns to raise bus lane awareness, beginning in 2010 with the start of SBS on the M15 in Manhattan. At the same time, DOT distributed a brochure to drivers, bus riders, and community stakeholders along Select Bus Service corridors. The brochure, available at www.nyc.gov/buslanes, has been translated into the top six most common languages spoke in New York City; all information in the brochure is also available by calling 311. In addition, DOT and the New York City Taxi and Limousine Commission continually work together to educate taxi and livery drivers, including direct messaging to drivers and fleet owners. DOT has also worked with the New York Police Department, AAA, the Motor Trucking Association, and local Business Improvement Districts to educate the public about bus lane rules.

Camera Operations

Under the City's traffic rules, bus lanes in New York City can be legally used by non-bus vehicles for a number of purposes, including making the next legal right turn, accessing the curb, or to avoid an emergency vehicle. As a result, the camera enforcement system needs to be able to differentiate between these legal activities and illegal uses of the bus lane before issuing violations. The systems therefore rely on the use of recorded video that is reviewed by trained camera operators before a violation is issued.

Two types of violation monitoring equipment have been used to date. DOT has implemented a fixed location camera system. In the fixed system, two cameras are mounted above the bus lane. One camera provides a high quality view of the rear of a vehicle, clearly showing the vehicle's license plate, but not showing the driver of the vehicle. The second camera provides a wider angle view of the street, clearly showing both potential actions in the bus lane, and also showing other activity on the street that might have forced a vehicle to use the bus lane. As of this report, fixed location cameras have been installed at 20 locations along the First Avenue/Second Avenue SBS corridor, the 34th Street SBS corridor, and the Fordham Road SBS corridor. The total cost of this system is \$2,597,817 in capital costs, and \$860,747 in operating costs.

The second system that has been used has been a NYCT pilot for on-bus mobile cameras. For the mobile camera system, equipment was installed on buses that could read the rear license plates of vehicles stopped in the bus lane as the bus passes the vehicle, and use GPS to mark that location. However, to issue a violation under this system, two buses must observe the same vehicle stopped at the same GPS location. This ensures that violations are not issued to vehicles making an expeditious drop-off in the bus lane. Additionally, because this system records only standing violations, it does not duplicate the fixed camera system, which captures primarily driving in the bus lane violations. Mobile cameras have been used on up to six buses to date, only on the First Avenue/Second Avenue SBS corridor. The up to date cost of the pilot is \$505,251.03, not inclusive of NYCT internal support costs.

Program Results: Violations and Adjudication

Under the bus lane camera enforcement program, notices of liability are sent out by DOT and by NYCT, depending on whether the violation was recorded under the fixed location or mobile camera program respectively. These notices of liability include information about the date, time and location of the violation, a photo of the vehicle recorded, and a link to a website with a personalized PIN that allows the video of the violation to be viewed. The notices of liability are then sent to the New York City Department of Finance (DOF) for adjudication. DOF adjudicates all traffic violations for the City, and has developed a high quality process to adjudicate the violations identified through the bus lane camera program.

From April 1, 2011 through March 31, 2012, 73,160 violations were recorded by the bus lane camera enforcement system, and an equal number of notices of liability were issued. A monthly breakdown of these violations is provided in Table 1.

Table 1: Monthly breakdown of violations recorded by the bus lane camera enforcement system

Month	Camera Violations Issued
April 2011	5,529
May 2011	8,177
June 2011	8,922
July 2011	5,850
August 2011	6,018
September 2011	5,748
October 2011	5,669
November 2011	5,283
December 2011	6,309
January 2012	5,388
February 2012	5,322
March 2012	4,945
Total	73,160

Of the 73,160 notices of liability issued in the April 2011-March 2012 period, a total of 10,328 (14%) were challenged by recipients, and needed to go through the full adjudication process. Of these challenges, 1,739 (17% of challenged notices, or 2% of total notices of liability) were found not guilty.

The total amount of revenue collected as a result of violations issued by the program in the April 2011-March 2012 period was \$7,567,882.94, or about \$103 per violation issued. This figure includes the base fine of \$115, and includes both late payment penalties, and violations dismissed or otherwise not paid to date. Based on the authorizing legislation, adjudication is allowed only by the City, and therefore the full amount of this revenue is realized by the City.

Program Results: Bus Service

The Select Bus Service program has been a huge success, with all three SBS routes implemented to date showing substantial increases in both speed and ridership; Select Bus Service is the brand name used by NYCT for services operated under the Bus Rapid Transit demonstration program. These speed enhancements rely in part on a well-enforced set of bus lanes, as is provided by the bus lane camera enforcement system. A detailed report on the effect of Select Bus Service, including current ridership statistics, is provided in Table 2.

Table 2: Results of the implementation of Select Bus Service

Route	Increase in Bus Speed	Increase in Ridership	Increase in Reliability**	2012 Ridership (Average Weekday)
Bx12 SBS	20%	10%	28%	29,821
M15 SBS	15%	10%	65%	34,738
M34/A SBS*	23%	12%	73%	19,709

* "Before" period is from 2008, before bus lanes were installed on the majority of the corridor

**Based on customer perceptions of service frequency recorded in NYCT before and after surveys; number is % of interviewed riders that perceive more frequent service, less the percentage that perceive less frequent service.

Between surveys, actual service frequency had only minimal changes, so the perceived increase in frequency reflects buses more evenly spaced.

Source: NYCT