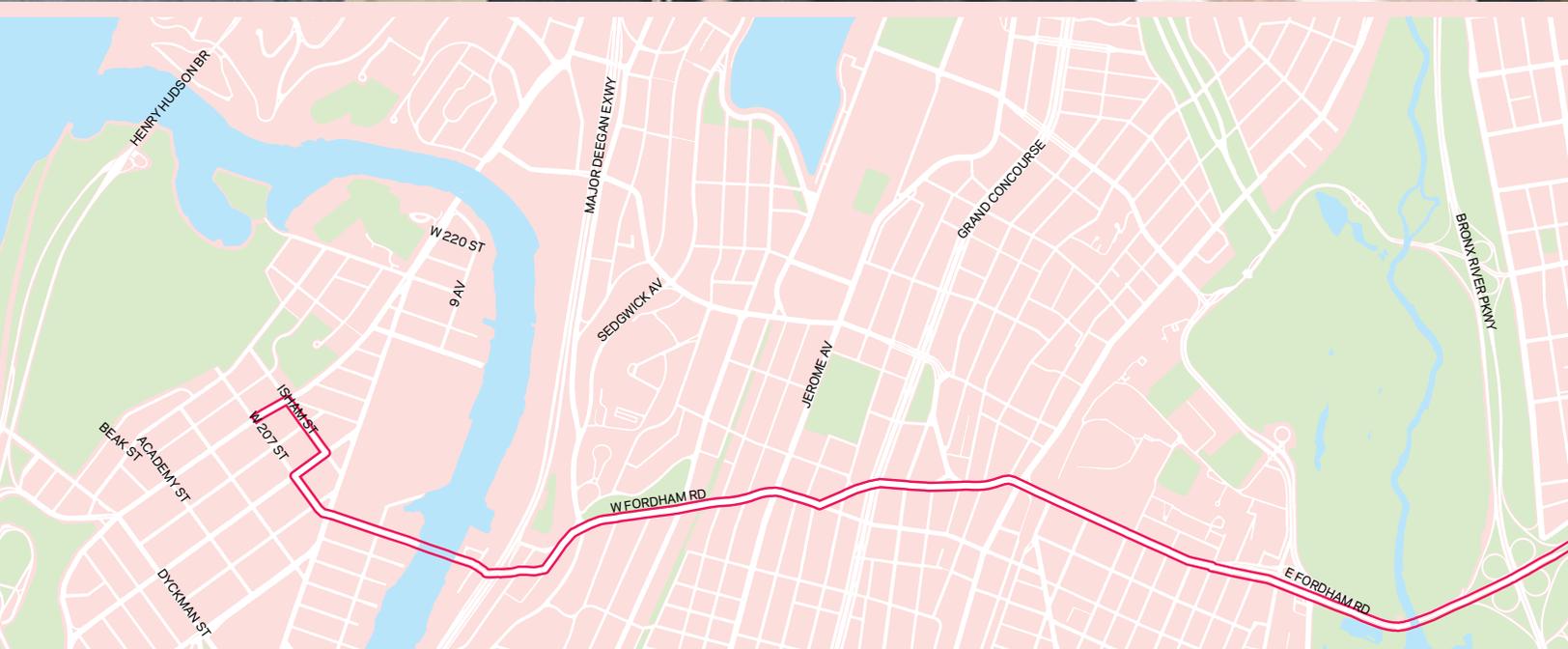


Fordham Road Select Bus Service



Purpose

- Improve speed and reliability for bus riders
- Make bus service more attractive to customers
- Demonstrate feasibility and benefits of Select Bus Service (SBS) on a major transportation corridor

Outreach

- NYC Bus Rapid Transit (BRT) study undertaken by City, State and New York City Transit (NYCT) in 2004 included three rounds of borough-level briefings on BRT needs and potential corridors and two rounds of public workshops in each borough
- Fordham Road selected as one of five pilot locations
- DOT met at least twice with each of the six community boards crossed by this corridor
- DOT worked with the Fordham Road Business Improvement District (BID) to address issues related to curbside parking and deliveries

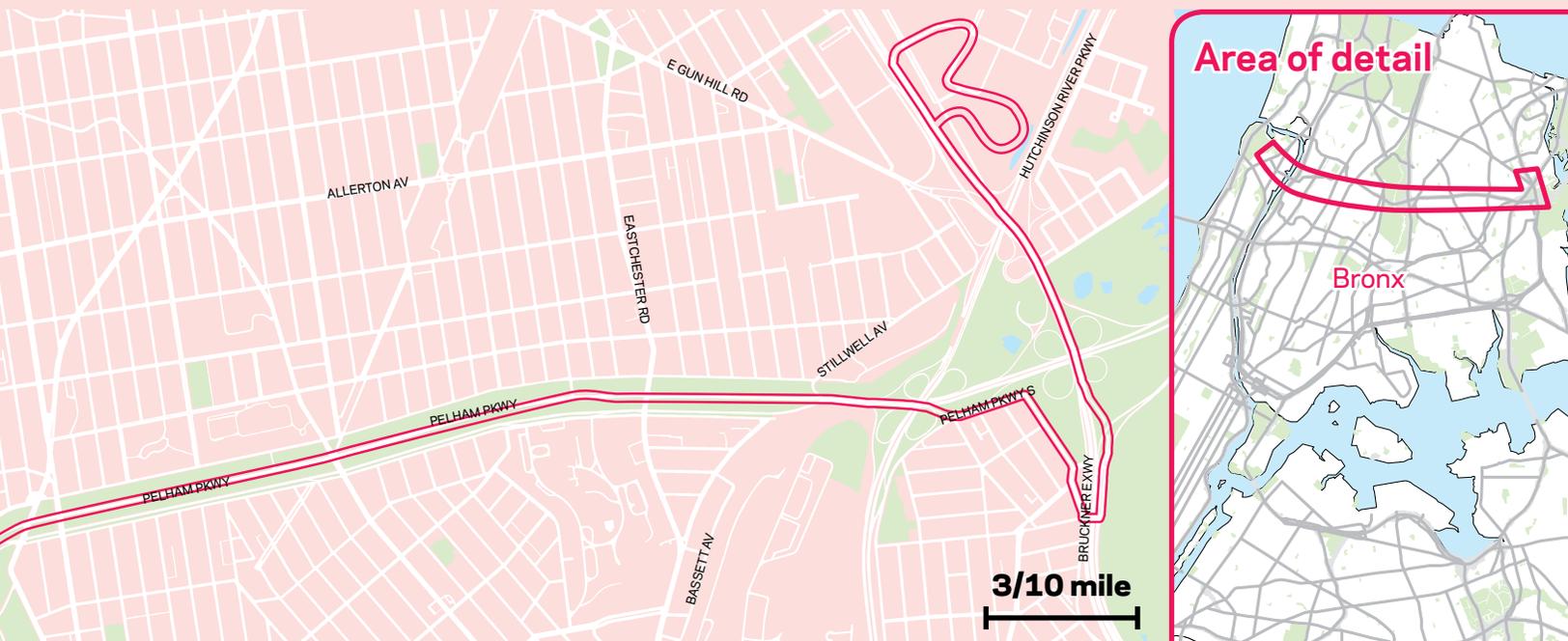
Approach

- DOT installed dedicated bus lanes in both directions on Fordham Road; bus lanes will also be installed during the future reconstruction of Pelham Parkway
- DOT re-timed traffic signals and implemented Transit Signal Priority (TSP), which provides buses with extended green lights or green lights as buses approach key intersections board
- NYCT implemented off-board fare collection
- DOT introduced midday “delivery windows” on retail sections of Fordham Road

Results

- 19% reduction in travel time along the corridor
- 32% increase in weekday ridership over the Limited Service bus it replaced
- 98% of bus customers surveyed described themselves as “satisfied” or “very satisfied” with the new service
- Demonstrated feasibility and benefits of SBS

The Bx12 Select Bus Service runs along Fordham Road between Co-Op City and the Inwood neighborhood of upper Manhattan. This busy east-west route is home to regional destinations like Fordham University, the Bronx Zoo, and the New York Botanical Garden as well as the Fordham Road Business District, one of the busiest commercial centers in the Bronx. The roadway is also key for transportation connectivity—it passes seven subway stations serving eight lines and two MTA Metro-North commuter stations, as well as intersecting several major highways.



Most major roads and all subway lines in the Bronx are oriented north-south to facilitate travel to the commercial hub of Manhattan. As a result, major east-west roads in the Bronx such as Fordham Road and Pelham Parkway are heavily used for travel across the borough and experience significant levels of congestion. Congestion along the Fordham Road retail corridor, combined with heavy ridership, created problems of reliability and speed of the Bx12 bus route. Most notable were long dwell times at stations and delays from congestion and traffic signals. Before Select Bus Service (SBS) service the Bx12 traveled at approximately 8 m.p.h.

Fordham Road and Pelham Parkway thus became a focus of the joint NYCBRT study undertaken by DOT, MTA New York City Transit (NYCT) and New York State Department of Transportation (NYSDOT), which began in 2004. During the course of the NYCBRT study, these agencies met with the borough boards in each borough twice, and held two rounds of public workshops during corridor selection process. The outcome of these consultations and the agencies' evaluations of potential corridors from throughout the city was the selection of Fordham Road as one of five initial BRT pilot corridors.

Following the selection of the five corridors, DOT and NYCT met twice with each of the six community boards along the corridor to discuss the project and receive feedback on plans for the new service. DOT and NYCT also worked closely with the Fordham Road Business Improvement District (BID) and individual businesses to address delivery and curbside parking needs.

The final plan became the first implementation of the City's BRT program, which has been branded as Select Bus Service (SBS). The Fordham Road SBS

combines DOT and NYCT actions to improve bus speeds and reliability and passenger comfort and convenience.

The key features implemented by DOT were dedicated bus lanes and Transit Signal Priority (TSP). DOT also installed dedicated curbside bus lanes along Fordham Road using new, high visibility treatments including terra cotta colored lane markings and extra large signs over the roadway. DOT also re-timed traffic signals along the route to improve overall traffic flow and deployed TSP to reduce the amount of time that buses spend at red lights. The TSP technology uses radio signals from the bus to inform the traffic signal controller that a bus is approaching. While maintaining safe operation for all traffic and pedestrians, the traffic signal controller can modify the signal to stay green longer or make the light turn green quicker. Once the bus has passed through the intersection the instructions to provide the bus priority are cancelled.

NYCT deployed off-board fare collection for the first time in New York City. Passengers dip their MetroCard or pay with coins using machines installed at the bus stations and obtain a ticket, and can then board in the front or rear door. Roving fare inspectors patrol the route to conduct random ticket checks and issue summonses to passengers who have not paid.

DOT also created two-hour "delivery windows" in the bus lanes to permit commercial deliveries in the late morning and early afternoon. Delivery windows were set up in consultation with the BID and local businesses. DOT also added metered parking on side streets in the Belmont section to replace parking restricted due to the bus lane.



Fordham Road SBS features the first use of off-board fare collection in New York City.

Bx 12 SBS Ridership

	Type	Weekday*	Saturday	Sunday
Before	Local	19,688	18,398	23,023
	Limited	24,999	11,491	0**
	Total	44,687	29,889	23,023
After	Local	16,756	11,577	8,935
	SBS	33,006	22,298	16,436
	Total	49,762	33,875	25,371
% Change	Local	-15%	-37%	-61%
	SBS	32%	94%	N/A
	Total	11%	13%	10%

* Average weekday ridership and revenue is adjusted to account for the number of school days and to allow for a comparison between years. Actual average weekday ridership was 44,175 for October 2007 and 48,510 for October 2008.

** There was no Sunday Limited service prior to SBS implementation

The bus lanes, off-board fare collection and signal work led to a 19% reduction in bus travel times, a reduction of 11 minutes.

DOT and NYCT deployed specially trained teams of Customer Ambassadors at SBS stations during the first month of service to help explain pre-boarding fare collection and answer riders' questions.

Project evaluation focused on bus travel times, bus ridership and bus customer opinions of the changes. The combination of bus lanes, off-board fare collection and signal work led to a 19% reduction in bus travel times along the entire corridor, a reduction of 11 minutes. The average Bx12 commuter saves about two days annually in total travel time as a result of the project. The greatest improvements came in reduced dwell time at stations (40% reduction) and at traffic signals (38% reduction). Although "In Motion" time did not decrease, the benefit of the bus lane shows in the reduction in time spent at red lights, as buses are able to reach the intersection quickly, rather than waiting through multiple light cycles.

At the same time that bus ridership in the Bronx was declining, ridership on the Bx12 increased overall, and many riders switched from the local service to the new SBS. Average weekday ridership on the Bx12 (including local, limited and SBS) increased 11% from 44,687 to 49,762. Weekend ridership showed a similar increase. On weekdays, ridership on the new SBS was 32% higher as compared with Limited service it replaced.

Bus riders were highly enthusiastic about SBS. In a market research survey conducted by NYCT after the SBS implementation, 98% of riders surveyed said they were either "satisfied" or "very satisfied" with the new service.

Bx 12 Time Delays

	Before	After	Time	% Change
In Motion	28:30	28:22	-00:08	0%
Dwell Time	15:51	09:34	-06:17	40%
Time at red lights	12:02	07:29	-04:33	38%
Other Delays	01:31	01:19	-00:12	13%
Total	57:54	46:44	-11:10	19%

Project implemented in June 2008



Off-board fare collection and entry through rear doors decreased dwell time by 40%.