New York City Select Bus Service

New York City Transit

BRT Background

- MTA New York City Transit:
  - Operator of New York City's public transit system
  - Part of Metropolitan Transportation Authority (New York State)
  - Over 5.3 million subway and 2.2 million bus trips per day
- New York City Department of Transportation:
  - Operator of New York City's 6,000 miles of streets, 787 free bridges, 12,000 traffic lights, and the Staten Island Ferry
- Agency partnership key to project success

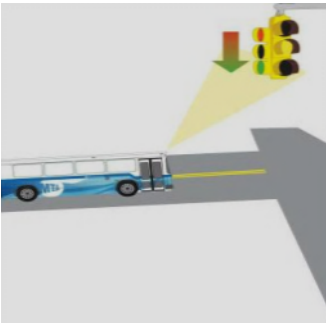# BRT Corridors In Progress

Legend:
- Existing Select Bus Service Route
- Planned Select Bus Service Route

Map labels: Bronx, WEBSTER, FORDHAM RD / PELHAM PKWY, Manhattan, 34th ST, LA GUARDIA, 1ST / 2ND AVE, Queens, NOSTRAND AVE, Brooklyn, Staten Island, HYLAN BLVD

Features of Select Bus Service

Bus Lanes

Branding

Off Board Fare Collection

Passenger Info

Bus Signal Priority

Stations & Bus Bulbs

SBS
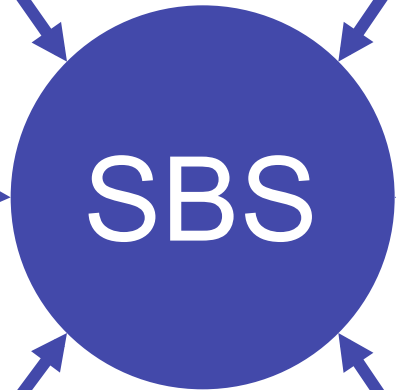
Sources of Bus Delay
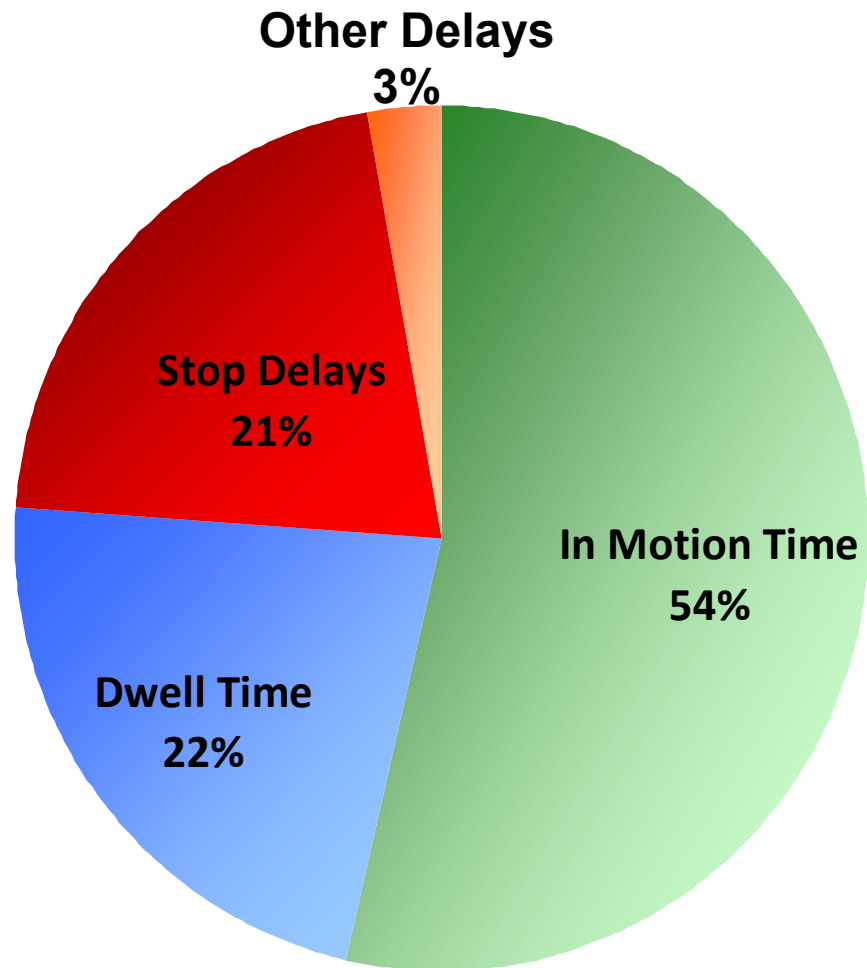
Bus Lanes

- **Installed by NYCDOT**
- **Painted red for visibility**
- **Both curb side and off set, depending on street width**
- **Strictly enforced**

Bus Lanes - Enforcement

- **Bus Lane Video Cameras**

- **Additional NYPD Enforcement**

- **Extensive Education Campaign**

Bus Lane Enforcement - Cameras

- Approved in 2010 - First cameras installed by NYCDOT November 2010

- Cameras currently operating on First Avenue/Second Avenue, 34th Street, Fordham Road

- ~250 violations captured per day at 20 locations

- Adding additional locations, upcoming corridors

SBS Bus Stations & Bus Bulbs

- **Feature of most SBS routes**
- **Allow level boarding**
- **Speeds wheelchair boarding**
- **Saves about 4-5 seconds at each station**

Pre-Payment/Off Board Fare Collection

- **Payment system allows full integration with NYCT subway and bus network**
- **No fares collected on board**
- **$100 fare evasion fine**
- **Random enforcement by NYCT Eagle Team**

Signal Priority

- **On two SBS routes only:**
  - **Bx12 SBS in the Bronx - 20 signals**
  - **M34 SBS in Manhattan - at 7th Avenue**

- **Field testing on M15 SBS to determine optimal communication mode, hardware configuration and TSP specifications**

- **NYCDOT and NYCT secured Federal funding for the bus-related components of TSP**

Improved Total Running Times

Average Total Running Time Improvement about 20%

M 15
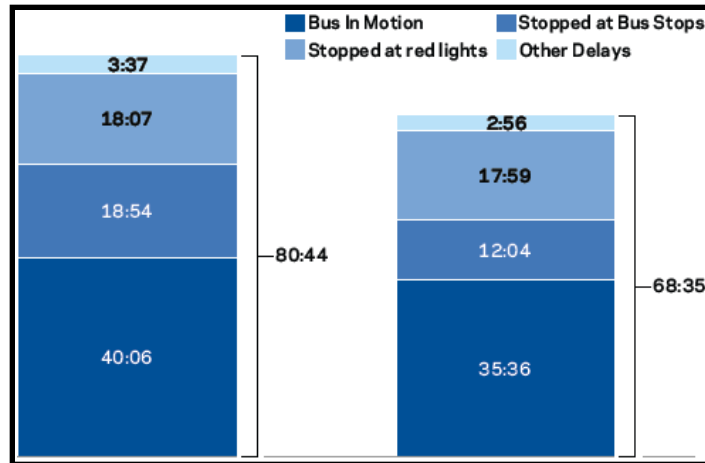
M 34
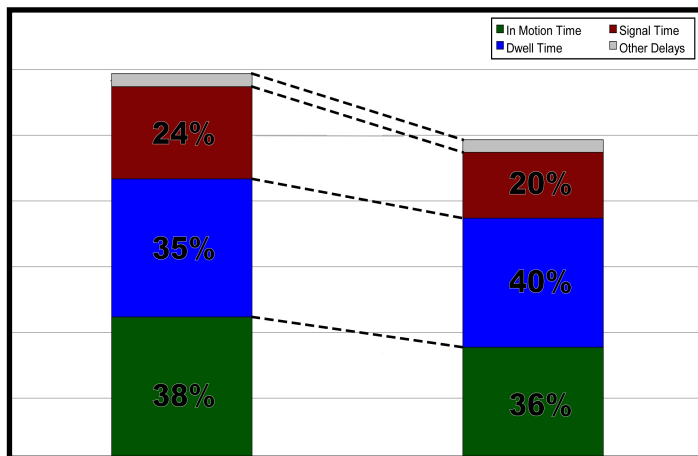
Bx 12
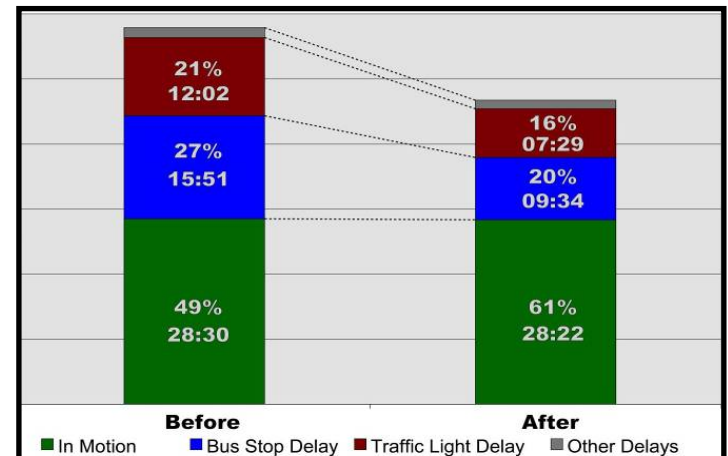
Manual Data Input for Time & Delay
Developed for Geary BRT in San Francisco

IVN Data Analysis for Time & Delay
Intelligent Vehicle Network

Bus events are logged with time and location

Potential of IVN Data Analysis Program

- Central computer (IVN) logs "events" like door openings or dwells

- Working toward:
  - Automate data import of IVN bus logs
  - Extracting records indicating each instance bus makes in-service stop or other event
  - Calculate running time and delays matching dwells and other events to bus stop locations, traffic signal locations, etc.