Agenda

- Project background
- Corridor design
- Traffic analysis
- CB 5 design details
- Bus service planning
- Project timeline / Next steps
Project background
SBS Corridors

June 2008  Fordham Rd (Bx12)
Oct 2010  1st/2nd Ave (M15)
Nov 2011  34th St (M34/34A)
Sept 2012  Hylan Blvd (S79)
2013  Webster Ave (Bx41)
2013  Nostrand Ave (B44)
2013/14  LaGuardia Airport (M60)
Features of Select Bus Service (SBS)

- Bus lanes
- Faster fare collection
- Bus signal priority
- Branding
- Passenger info
- Stations
SBS Results

**Speed:** 15-20% faster

**Ridership:** 5-10% increase in first year

**Customer Satisfaction:** over 95% satisfied or very satisfied

**Safety:** 1st and 2nd Avenues saw a 21% reduction in traffic injuries in sections with full design treatments
The Webster Avenue corridor

- Based on the existing Bx41 route that carries over 20,000 daily riders
- 5.3 miles from The Hub to Williamsbridge
- Within a 10-minute walk of the corridor:
  - 200,000 residents
  - 71% of households do not own a car
  - 61% of residents commute by transit
Community outreach process

- Community Advisory Committee (CAC) meetings:
  1. February 6, 2012
  2. May 2, 2012
  3. September 27, 2012

- Public open houses
  1. May 16, 2012
  2. January 8, 2013

- Door-to-door surveys of local businesses and institutions

- Stakeholder meetings and presentations
Community Input

Top priorities:
1. Bx41 bus service
2. Pedestrian safety
3. Curb access and parking
4. Accommodating future development
Project goals

1. Speed buses and improve reliability
2. Improve safety for all corridor users
3. Support community needs
SBS Overview

- **Bx41 LTD → Bx41 SBS**
- 4 miles of offset bus lanes with bus bulb stations
- For the entire route:
  - Off-board fare collection
  - Low-floor buses
  - Station and bus branding
  - Transit signal priority
  - Pedestrian safety improvements
SBS Pre-Payment (like the Bx12)

How do you pay?
1. Before you board, dip your MetroCard at the MetroCard machine or insert coins into the coin machine located on the sidewalk
2. Take your proof of payment receipt
3. Enter through the front or rear door of bus - no need to show the receipt to the driver

How is it enforced?
- NYCT inspector teams conduct random checks of buses
- $100 fine for not having a receipt
- Fare evasion declined on the Bx12 and M15 after pre-payment was introduced
Corridor Design
Existing conditions
Proposed design

Webster Avenue / E 167th Street
Proposed design

- Pedestrian neckdowns
- SBS Station / Bus Bulb
- Pedestrian refuge islands and greening
- Transit Signal Priority
- Left-turn Bay
- Offset bus lanes

Webster Avenue / E 167th Street
Benefits of proposed design

1. Offset bus lanes improve bus speed
2. Bus bulbs allow for high-quality SBS stations
3. Maintains curbside access and parking
Benefits of proposed design

4. Curb extensions and medians improve pedestrian safety

5. Addresses speeding and vehicle safety issues

6. Maintains appropriate traffic flows and circulation
SBS Bus Stations – Bus Bulbs

Example: M15 SBS, 1\textsuperscript{st} Ave/1\textsuperscript{st} St Station
SBS Bus Stations - Curbside

Example: Bx12 SBS, Fordham Rd / Webster Av Station
Pedestrian safety elements

Neckdown / curb extension

Pedestrian refuge / Median
Traffic Analysis
Existing Traffic Conditions

- Overall, corridor moves very well
- Congestion at selected intersections
  - E Fordham Rd
  - E Gun Hill Rd
  - Cross Bronx Expressway
Webster Ave SBS traffic changes

Capacity reductions
- Replace one general travel lane with a bus lane in each direction

Capacity improvements
- Right-turn bays reduce blockages at busy intersections
- Lengthening left-turn bays creates more storage space
- Banning left-turns at key intersections reduces conflicts and opens up additional signal time for other congested movements
- More signal time for key thru or left-turning movements
- Updated curb regulations and offset bus lanes reduce double parking
Projected Traffic Conditions

- Small changes along the majority of the corridor
- Overall traffic levels are still very good
- Improvements at major intersections
  - E Fordham Rd
  - Cross Bronx Expressway

Legend:
- Level of service - Webster Avenue
  - A-B: less than 20s delay
  - C-D: 20-44s delay
  - D-E: 45-79s delay
  - F: 80s or more delay
- Improvement: 10s+ delay decrease
- Decline: 10s+ delay increase

Project design:
- SBS in Bus Lane
- SBS in Mixed Traffic
CB5 Design Details
SBS in CB5

- 3 station pairs
- 2013 Implementation
  - Offset bus lanes
  - Off-board fare collection
  - Traffic operational improvements
  - Selected pedestrian islands / medians
- 2014-2015
  - Bus bulbs
  - Additional capital construction items
Dual right-turning lanes better accommodate the high vehicle volumes accessing the CBE.

Eliminate local bus stops under the CBE.

Convert Ittner Place to one-way to improve access onto the CBE.

SB Bus-Only Queue Jump allows buses to get ahead of traffic where there is no bus lane.
Banning left-turns at the CBE on-ramp simplifies operations at this very congested intersection. NB vehicles are rerouted to Ittner Pl.

Dual right-turning lanes better accommodate the high vehicle volumes accessing the CBE

Convert Ittner Place to one-way to improve access onto the CBE

SB Bus-Only Queue Jump allows buses to get ahead of traffic where there is no bus lane
E Tremont Av - Safety analysis

Vehicle / Pedestrian Crashes

Diagram represents crashes where police reports were available for analysis

2006-2010
- 78 crashes; 18% involved pedestrians
- Avg 16.8 injuries/year
- Left-turns account for 21% of known crashes (9% boro-wide)

Pedestrian safety
- Most crashes occur in the east crosswalk
- SB left-turn is the biggest problem
E Tremont Av - Safety analysis

Vehicle / Vehicle Crashes

Diagram represents crashes where police reports were available for analysis

2006-2010
- 78 crashes; 18% involved pedestrians
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Vehicle safety
- Left-turns cause largest number of vehicle crashes
- Rear-end crashes likely due to left turn conflicts

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**E Tremont Av - Traffic operations**

- **Simplify Valentine Avenue Design**
- **New signalized pedestrian crossings**
- **New signalized intersection**
- **Convert E 178 St to WB one-way** to allow rerouted SB left-turns to access E Tremont Ave

- **Lengthened Left-Turn Bay** creates more storage space

- **Banned SB left-turns** improve intersection safety. Saved signal time goes to NB Webster Ave. Vehicles rerouted via E 178 St
E Tremont Av - SBS Stations

2013
- SB SBS station relocated north of intersection (near other bus stops)
- NB SBS station at existing LTD stop
- Relocate Bx40/42 and Bx36 bus stops to Valentine Av
- Create pedestrian areas with temporary paint treatment
- New midblock pedestrian crossings
- Construct bus bulbs
- Extend medians on Webster Av

2014-2015
- Build pedestrian areas in concrete
E 180 St - SBS Stations

2013
- SB SBS station at existing LTD stop location
- NB SBS station relocated adjacent to Western Beef supermarket

2014-2015
- Bus bulbs at SBS bus stops
E Fordham Rd - Traffic operations

Lengthened Left-Turn Bays
create more storage space for heavy left-turning volumes

NB and SB right-turn bays
add storage space for turning vehicles and keep the bus lane clear

Banned EB and WB left-turns
simplify intersection operations and improve pedestrian safety.
Saved signal time goes to Webster Ave
E Fordham Rd - SBS Stations

2013
- SBS stations at existing LTD stop locations
- No NB SBS stop at existing E 189th LTD stop
- Extend concrete pedestrian refuges on Fordham Road

2014-2015
- Bus bulbs at SBS bus stops
Bus Service Changes
Existing bus services

- **Webster Avenue**
  1. Bx41 LTD
  2. Bx41 Local
  3. Bx55 (Limited) north of Fordham Plaza

- **Third Avenue**
  1. Bx15 (Local)
  2. Bx55 (Limited)
Proposed bus services

- **Webster Avenue**
  1. Bx41 SBS
  2. Bx41 Local
  3. SBS to LaGuardia Airport

- **Third Avenue**
  1. Bx15 Local
  2. Bx15 LTD
Webster Avenue

- **Bx41 LTD → Bx41 SBS**
  - ½ mile stop spacing
  - Service will run frequently all day

- **Bx41 Local**
  - No change to stop spacing
  - Service every ~10 minutes

- **Off-board fare collection** (like the Bx12 SBS on Fordham Road)
Third Avenue

- **Bx15 Local**
  - Local stops:
    - The Hub ↔ Fordham Plaza

- **Bx15 LTD**
  - Local stops:
    - Harlem 125th St ↔ The Hub
  - Limited stops:
    - The Hub ↔ Fordham Plaza

- All Third Avenue bus service ends at Fordham Plaza
Project Timeline / Next Steps
Project timeline

2013: Roadway markings and transit service
- Winter 2013: Finalize street geometry
- Spring 2013: Install bus lanes and priority treatments
- Summer 2013: Start of Service
- Fall 2013: Engineering Design for bus bulbs and other capital elements
- Winter 2013: Install bus lanes and priority treatments
- 2014-2015: Bus bulbs and other capital construction
- Engineering Design for bus bulbs and other capital elements
- Construction

Ongoing: Community outreach
- Meetings with Community Boards to discuss 2013 Implementation Plan
- Public Open House to present 2013 Implementation Plan before start of service
- Community meetings to discuss capital work and construction schedules
2013 Implementation

Late March – May

- Milling & Paving
- Lane markings
- Red bus lane paint
- Selected pedestrian islands / medians

June

- Install fare machines
- Bus stop changes
- Selected curb regulation changes
- **Start of Service at the end of the month**

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