Woodhaven / Cross Bay Boulevard (Q52/53)
Presentation to Community Board 9 | June 9, 2015
Presentation outline

1. Project background
2. Proposed corridor design
3. Traffic analysis
4. Proposed SBS route and stations
5. Project benefits
Project background
Project background

Congested Corridor Study

• Initial safety and traffic improvements on Woodhaven Blvd 2011-2013
• 2014-2015 bus and safety improvements
• Long-term recommendation for Select Bus Service and capital project

Bus Rapid Transit (BRT) Phase II Plan

• Woodhaven Blvd identified as priority transit corridor at Public Meeting
• Chosen as a Phase II Select Bus Service (SBS) Corridor
Select Bus Service (SBS) is New York City’s brand name for a package of improvements that result in faster and more reliable service on high-ridership bus routes.

There are seven SBS routes currently operating in NYC.
Select Bus Service Features

- Improved fare collection
- Bus lanes
- Transit signal priority
- Passenger Information
- Stations & Amenities
- Branding
Select Bus Service Results

**Faster Bus Service**
Speeds have increased by 15-23%

**Popular**
Customer satisfaction of 95%+

**Increased Ridership**
Trips increased by 10%

**Safer Roadways**
Crashes reduced by over 20%

**Proven Success**
7 SBS routes in operation, carrying over 200,000 passengers daily
Woodhaven / Cross Bay SBS corridor

• Based on the existing Q52/53 LTD bus route
• 30,000 daily bus riders
• 14 miles long from Woodside to the Rockaways
• Within a 15-minute walk of the corridor:
  – 400,000 residents
  – 43% of households do not own a car
  – 60% of residents commute by transit
Community outreach process

Community Advisory Committee

Public Open Houses and Workshops

Community Board Meetings

Stakeholder Meetings
Community feedback

1. **Bus service** is unreliable and slow during rush hour
2. **Transit improvements** are needed to better serve customers, especially in the Rockaways
3. **Pedestrian crossings** are long and dangerous
4. **Congestion** leads to long and difficult trips for buses and drivers
5. **Changing road widths and configurations** make the corridor difficult to navigate
Transit

• On an average weekday, over **3,100 Q52/53 trips** start in CB9
• One-way travel time can vary by up to 30 minutes (varies between 55 and 85 minutes)
• Q53 LTD buses are stopped almost half of the time

![Pie chart showing the percentage of time spent in motion, stopped at bus stops, and at red lights.](chart.png)

*All Q53 Northbound Trips*

![Image of Q53 LTD buses at a bus stop.](bus_stop.png)

![Image of Q53 LTD buses in traffic.](traffic.png)
Safety

• Vision Zero Priority Corridor
  – Over 3,000 injuries (2009-13)
  – 22 fatalities (17 ped) (2009-13)
    • 9 fatalities (6 ped) in CB9
• Difficult pedestrian crossings
• Challenging roadway geometry
Safety – Jamaica Av intersection

• 175’ wide curb-to-curb, 11 lanes of traffic
• 3rd busiest Q52/53 bus stop; 3,627 daily bus boardings (Q11/21/52/53); 4,500 daily J/Z subway riders
• Over 900 pedestrian crossings in the PM peak hour
• Corridor safety analysis (2008-2012 safety data):
  – #1 intersection for pedestrian / bicycle crashes (32)
  – #2 intersection for crash-related injuries (170)
• 4 fatalities since 2009, all of them pedestrians
Traffic

• High traffic speeds along some portions of the corridor
• Congestion is concentrated at key points
• Traffic flow is uneven ("hurry up and wait")
Traffic – bottlenecks

- Pinch-points on the corridor limit capacity; merging at bottlenecks is inefficient and unsafe
- Curbside activity and double parking reduce capacity of 4th travel lane
Project goal

Transform Woodhaven and Cross Bay Boulevards into a complete street where:

• Buses operate quickly and reliably
• Bus customers safely and easily access bus stations
• Pedestrians are comfortable walking on and crossing the street
• Drivers get where they need to go at a reasonable and safe speed
Design timeline

- Develop draft corridor design plan based on chosen design concept
- Public design workshops and stakeholder meetings
- Refine draft design through community feedback, technical analysis, and transportation goals for NYC
Proposed Corridor Designs
Screening process

Develop 3 Design Ideas

- Concept 1: Offset Bus Lanes
- Concept 2: Main Road Bus Lanes
- Concept 3: Median Bus Lanes

Choose a preferred corridor design

Concept 2: Main Road Bus Lanes for Woodhaven Boulevard
Summary of chosen concept

Main Road Bus Lanes

• Significant transit improvement
• Most potential for pedestrian and safety improvements
• Calmed service roads provide vehicle accessibility for local businesses and residences
• Organizes thru and local vehicle travel
Corridor design summary

- **Roosevelt Av / Broadway Av**
  - No bus lanes
  - Improved curbside bus stops

- **Queens Blvd and Hoffman Dr**
  - Designated bus-only station areas
  - Improved bus stops / transfers

- **Woodhaven Blvd**
  - Main road bus lanes
  - All buses use median stations

- **Cross Bay Blvd (north of 165 Av)**
  - Offset bus lanes
  - SBS buses stop at bus bulbs
  - Local buses stop at the curb

- **Broad Channel / Rockaways**
  - No bus lanes
  - Targeted transit priority treatments
  - Improved curbside bus stops
Existing conditions - Woodhaven Blvd

- Long pedestrian crossing distance with no refuge
- Left turns create congestion and safety issues
- Wide roadway encourages speeding
- Bus stops lack amenities
- All lanes are mixed traffic; lack of organization
Proposed design - Woodhaven Blvd

- Calmed service roads with parking
- Curbside bus lanes in the mainline roadway
- SBS stations and Local bus stops on side median
- Medians with pedestrian refuges and greening
- Separates local and thru traffic
Proposed design - Woodhaven Blvd

- **All buses** stop at median stations
- **Right turns** from the service road
- **Buses and thru traffic** in the main roadway
- **Slip openings** allow vehicles to move between the main road and the service road
- **Left turns** at designated left-turn bays
- **Local access and parking** in the service roads

*Sample plan for illustrative purposes*
Typical median station

2nd mid-block station access point (where feasible)

station access from intersection crosswalk

fencing / screen

Local / Express Boarding Area

Maneuvering space

SBS Boarding area
Example median stations

- Avinguda Diagonal, Barcelona, Spain
- Pelham Parkway, Bronx
- EL Grant Highway, Bronx
Potential station amenities

- Trees and greening
- Benches and seating
- Public art
- Real-time information
- Shelters / fencing / windscreens

Philadelphia, PA – 33rd & Dauphin Bus Loop (source: SEPTA)

San Bernardino, CA – Bus rapid transit station (source: Architectural Record)
Traffic analysis
Traffic analysis

• Analysis assumes all traffic that uses Woodhaven and Cross Bay Boulevards today will continue to do so (no assumed mode shift)
• Level of service and traffic delay calculations at all major intersections
• Traffic simulation model of Woodhaven Blvd between 68th Rd and 86th Rd
Proposed design - traffic benefits

• 3 lanes continuously along corridor reduces merging/diverging behavior
• Banning key left turns (particularly Union Turnpike SB) helps thru traffic flow
• Longer left-turn bays where left turns are allowed keep turns out of thru traffic
• More consistent roadway design allows for better traffic signal timing and coordination
• Service road design separates thru traffic from local access / parking
Traffic simulation model

- During the concept screening analysis, initial results showed improved travel times due to signal timing improvements and traffic organization.
- Revised model is currently in development based on draft plans and community feedback.
SBS Route and Stations
Proposed SBS Stations

Changes from the Q52/Q53 LTD stops:

• SBS stops at 91 Av instead of Atlantic Av (local bus will still stop at Atlantic Av)

• New stop at 101 Av

• New stop at Pitkin Av

• Consolidated SBS stops in Broad Channel and the Rockaways
Proposed bus stops in CB9
Fare collection

Q52/53 SBS
• Off-board fare collection
• Fare machines at every SBS stop
• Pay with a Metrocard or with coins (just like any NYC bus)
• Customers can board at any door

Local / Express Buses
• Pay on the bus (same as today)
• Will have separate bus stop poles from the Q52/53 SBS
Project benefits
Project benefits

Faster bus service – bus only lanes and off-board fare collection will making riding the Q52/Q53 25-35% faster

Improved bus stops – new median bus stations and bus bulbs featuring shelters, seating, and real-time bus arrival signs

Better connections to the subway and other bus routes at key transfer points
Project benefits

**Simpler, safer streets** – new roadway design will organize local and thru traffic and shorten pedestrian crossings

**Greener, resilient streets** – New trees and medians add greening to the corridor and improve stormwater retention

**Traffic flow** – a consistent roadway design with improved traffic signal timing will reduce bottlenecks and create a more predictable driving experience
Next steps

- **Spring 2015**: Present draft plans at public design workshops and stakeholder meetings to get feedback
  - Draft plans are available on the project website (nyc.gov/brt) for further comment

- **Summer 2015**: Refine design plans based on community feedback and further technical review

- **Fall 2015**: Transfer project to NYC Dept. of Design and Construction for Final Design and engineering
For more information, please visit the project website www.nyc.gov/brt or contact brt@dot.nyc.gov

Thank you!
Cross Bay Boulevard

Three travel lanes in each direction with shared left-turn lanes; option to look at 2 lanes plus left-turn bays based on traffic analysis

draft layout / design under development