Woodhaven / Cross Bay Boulevard (Q52/53)
Community Advisory Committee Meeting #3 | March 26, 2015
Agenda

Introductions

Presentation

1. Woodhaven / Cross Bay Corridor
2. Design Concept Selection
3. Proposed Corridor Design
4. SBS Route and Stations
5. Next Steps

Group Discussion
Woodhaven / Cross Bay Corridor
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

2014 Meetings
CAC #1 – February 12
Queens Metropolitan High School Meeting – March 11
Public Workshop #1 – April 23
CB10 Presentation – June 5
Public Workshop #2 – June 25
Rockaways Public Workshop – September 18
CAC #2 – October 22
Public Workshop #3 – November 5
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
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
• Develop draft corridor design plan based on chosen design concept
• Hold public design workshops and stakeholder meetings
• Refine draft design through community feedback, technical analysis, and transportation goals for NYC
Design Concept Selection
Screening process

Develop 3 Design Ideas

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

COMMUNITY INPUT

TECHNICAL ANALYSIS

Choose a preferred corridor design

Concept 2: Main Road Bus Lanes
1. Main road bus lanes improve bus speed and reliability; no conflicts with turning vehicles or parking
2. High-quality median bus stations for all buses
3. Medians shorten pedestrian crossing distances, provide refuges, and add greenery to the corridor
Features of Concept 2

4. Calm service roads for parking, deliveries, and local access trips
5. Main roadway for thru vehicle trips
6. Consistent roadway design for the entire corridor improves navigability
## Screening – community input

The concepts were presented at CAC Meeting #2 (Oct 22, 2014) and a Public Workshop (Nov 5, 2014). Below is a selection of the received comments:

### Concept 1
- Bus bulbs and bus lanes improve bus service
- Good design for Cross Bay Boulevard
- Median refuge improves pedestrian safety
- Too much free access for drivers to block bus lanes for right turns, deliveries, and finding parking
- Conflicts with driveways
- Less desirable for bus operations

### Concept 2
- Balances transit and pedestrian access
- Calms service roads and removes bike/bus conflict
- Creates comfortable and safe bus stations
- Keeps Woodhaven consistent with main and service roads
- Concerns about left turns bans
- Concerns about congestion, especially during rush hours

### Concept 3
- "Provides the most benefits to bus riders"
- Might have ability to get people of cars and on the bus
- Clearly defines where vehicles should travel on road
- Pedestrian safety concerns about the center bus lanes and median stations
- Too many passing lanes required for local bus stops at non SBS spots
- Potential loss of parking
Screening – technical analysis

Each concept was screened against multiple criteria in three main categories:

**Transit Operations**
- Improves bus travel time
- Improves bus reliability
- Benefits all buses along the corridor
- Minimizes vehicle obstructions in bus lane
- Maximizes ease of entering/exiting bus lanes where needed

**Safety & Pedestrian Amenities**
- Increases total pedestrian space at bus stops
- Shortens pedestrian crossing distances; adds refuges
- Improves overall street user experience
- Separates potential vehicle conflicts
- Encourages travel at the posted speed limit

**Traffic Mobility & Accessibility**
- Maintain appropriate traffic capacity along the Corridor
- Creates a consistent / easily navigable roadway
- Accommodates local traffic circulation
- Provides safe curbside & driveway access/egress
- Provides adequate parking/delivery space
Traffic model for screening

- Simulation model of Woodhaven Blvd between 68th Rd and 86th Rd
- 2017 traffic volumes
- Optimized signal timing for the peak direction
- Relative indicator of concepts – full modeling calibration and signal timing will be completed for the chosen concept
- Output: bus and general vehicle travel times
Traffic model - transit travel time

• Average travel time for Q52/53 buses
• Concept 2 performed well in peak direction (28%) and off-peak direction
• Concept 3 performed best with 42% improvement in peak direction

*Concept 1 results based on offset bus lane experience in NYC
Traffic model - vehicle travel time

- **Average travel time** for all vehicles
- **Peak direction**: Travel times improve under Concepts 2 and 3 due to signal timing improvements and traffic organization
- **Off-peak direction**: Travel times relatively unchanged

Simulation Model Results – AM Peak
Woodhaven Blvd from 68th Rd to 86th Rd

*Concept 1 was not modeled. Based on offset bus lane experience in NYC, traffic travel times expected to be relatively unchanged.*
Safety & pedestrian amenities

Concept 1

- Primarily uses existing roadway geometry
- Neckdowns and widened medians at station locations

Concept 2

- New service roads provide traffic calming, separate local and thru traffic, and shorten pedestrian crossings
- 2 or 3 pedestrian refuges at most locations; neckdowns where possible

Concept 3

- Separated NB and SB roadways
- Center median provides pedestrian refuge; neckdowns where possible
Summary of chosen concept

Main Road Bus Lanes

• Substantial 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
Proposed Corridor Designs
Existing conditions - Woodhaven Blvd

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

Pelham Parkway, Bronx

Kings Highway, Brooklyn

Renai Road, Taipei, Taiwan

Avinguda Diagonal, Barcelona, Spain
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
Woodhaven Boulevard

Example 120’ R.O.W.

Example intersections: Woodhaven & 63rd Rd, Woodhaven & 67th Ave

draft layout / design under development
Woodhaven Boulevard

Example 120’ R.O.W. with station

Example intersections: Woodhaven & Penelope Ave, Woodhaven & Metropolitan Ave

draft layout / design under development
Woodhaven Boulevard

Example 120’ R.O.W. with left-turn bay

Example intersections: Woodhaven & 64th Ave, Woodhaven & Cooper Ave

draft layout / design under development
Woodhaven Boulevard

Example 160’ R.O.W.

Example intersections: Woodhaven & 86th Road

Existing

Proposed

draft layout / design under development
Typical median station layout

- 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

White Plains Road, Bronx
Cross Bay Boulevard

Option 1: Two travel lanes in each direction with separate left-turn lanes

Example intersections: Cross Bay & 157 Ave, Cross Bay & 163 Ave

draft layout / design under development
Cross Bay Boulevard

Option 2: Three travel lanes in each direction with shared left-turn lanes

Example intersections: Cross Bay & 157 Ave, Cross Bay & 163 Ave

draft layout / design under development
Typical bus bulb layout

SBS buses stop at the bus bulb

Maneuvering space

Local / Express buses stop at the curb
Example bus bulb stations

34th Street, Manhattan

Nostrand Avenue, Brooklyn

1st Avenue, Manhattan
Traffic analysis

Traffic analysis for the proposed design is underway; it will help inform:

- Transit operations
- Signal timing
  - Longer pedestrian crossing times
  - More green time for Woodhaven / Cross Bay
- Need for left / right turning bays
Bus lanes

- Over 6 miles of continuous bus lanes
- Opportunity to explore unique treatments along Woodhaven Boulevard including:
  - Physical separation
    - Hard barriers
    - Soft barriers (e.g. rumble strips)
  - Bus lane materials
Potential station amenities

- trees and greening
  - Philadelphia, PA – 33rd & Dauphin Bus Loop (source: SEPTA)

- benches and seating
  - San Bernardino, CA – Bus rapid transit station (source: Architectural Record)

- public art
- real-time information
- shelters / fencing / windscreens
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
• Broad Channel and Rockaway stops to be discussed at upcoming workshop
Proposed SBS Route

Changes from the Q52/Q53 route:

• The SBS will use the viaduct over Atlantic Av (local bus will use service roads to access Atlantic Av)

• Q52 extension is under consideration
Q52 Extension Study

Q52 Limited operates between Elmhurst & Arverne

There have been community requests to extend the Q52 further east in the Rockaway Peninsula.
Q52 Extension Study

- MTA Bus is currently studying this request
- Analysis includes:
  - Origin / Destinations
  - Transfers
  - Trip Generators
  - Ridership
  - Q52/Q53 - Q22 Transfer Survey performed early March, 2015
Next Steps
Next steps

• **Today**: Discuss selected concept and gather initial feedback to refine design plans for upcoming public workshops

• **April 2015**: Present draft corridor design plans at a series of public design workshops

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

• **Fall 2015**: Transfer project to NYC Department of Design and Construction for Final Design and engineering
Public design workshops

- Opportunity to give feedback on block-by-block street designs and proposed Q52/53 SBS bus stops
- Each workshop will focus on the section of the corridor noted below; however, input on the entire corridor is welcome.
- **Thursday April 16** - Woodhaven Blvd from Union Tpke to Rockaway Blvd
- **Thursday April 23** – Woodhaven Blvd from Queens Blvd to Union Tpke
- **Wednesday April 29** – Cross Bay Blvd
- **Thursday April 30** – The Rockaways
Next: Group Discussion