Woodhaven / Cross Bay Boulevard (Q52/53)

Community Advisory Committee Meeting #3 | March 26, 2015

Agenda

Introductions

Presentation

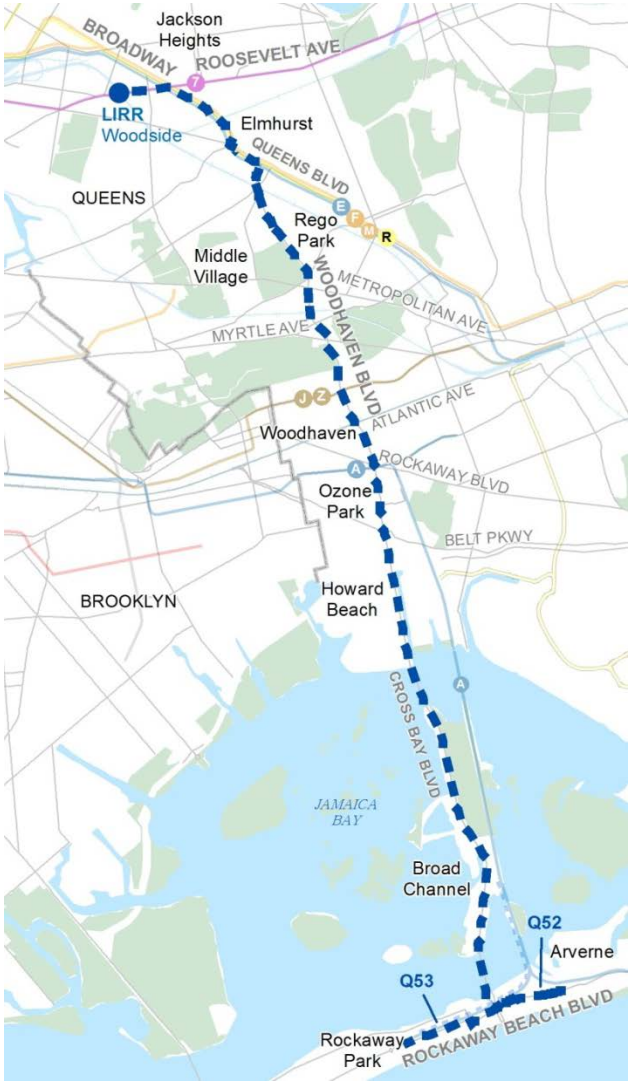
1. Woodhaven / Cross Bay Corridor
2. Design Concept Selection
3. Proposed Corridor Design
4. SBS Route and Stations
5. Next Steps

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

Community Advisory Committee

Public Open Houses and Workshops

Community Board Meetings

Stakeholder Meetings

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

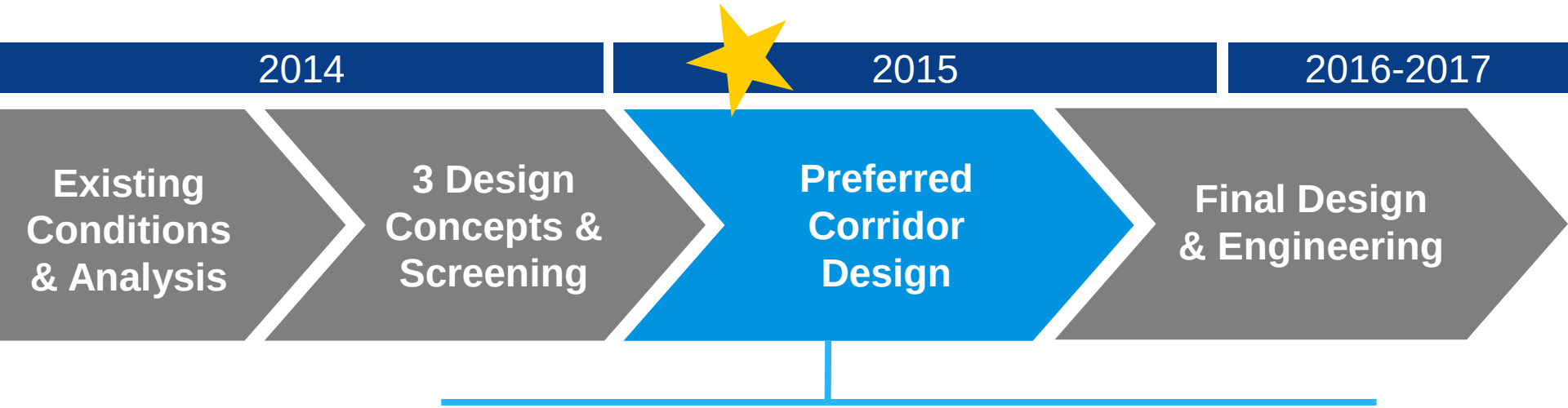
1. **Bus service** is unreliable and slow during rush hour
2. **Transit improvements** are needed to better serve customers, especially in the Rockaways
3. **Pedestrian crossings** are long and dangerous
4. **Congestion** leads to long and difficult trips for buses and drivers
5. **Changing road widths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

Design timeline



- 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

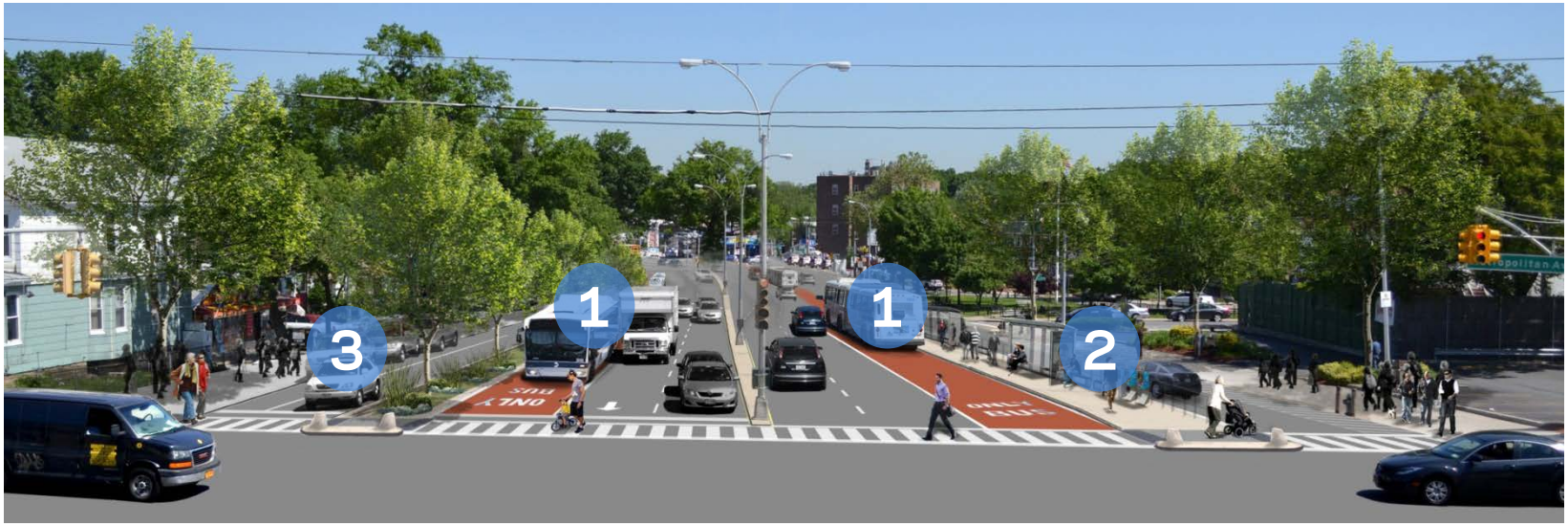
COMMUNITY INPUT

TECHNICAL ANALYSIS

Choose a preferred corridor design

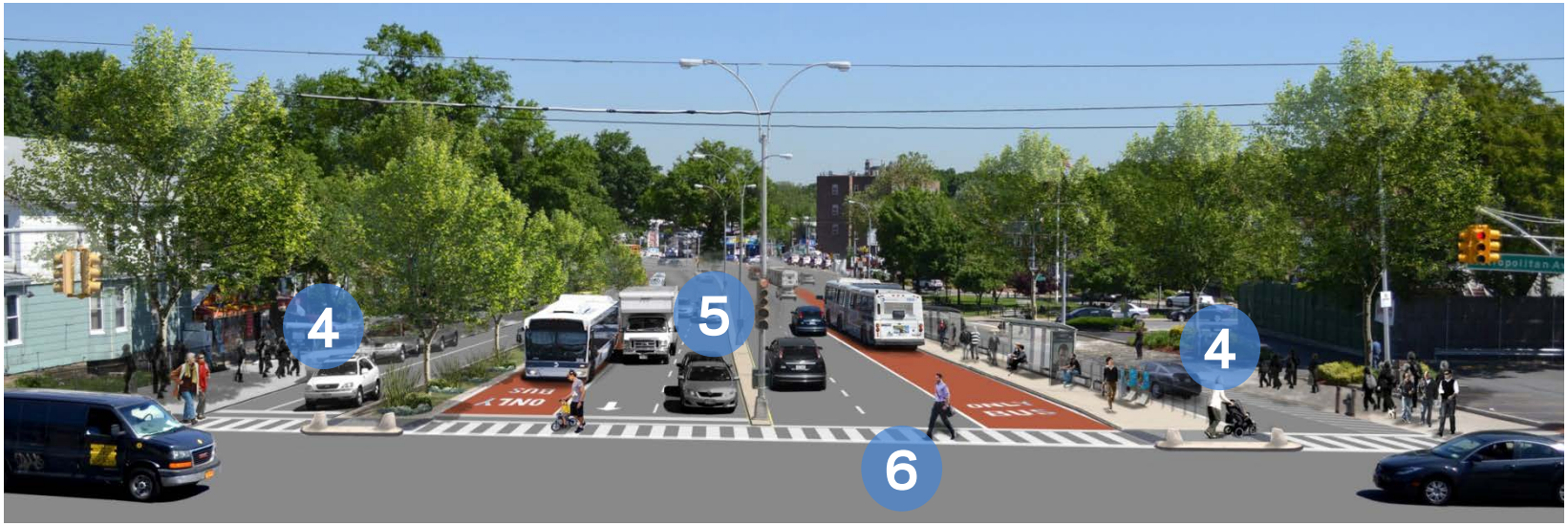
Concept 2: Main Road Bus Lanes

Features of Concept 2



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

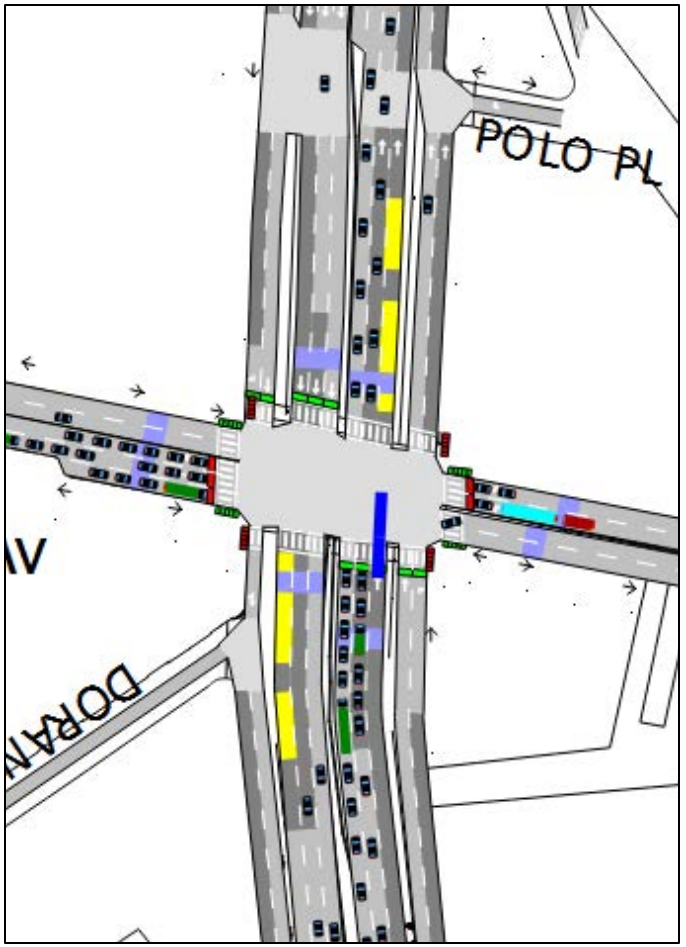
- Increases total pedestrian space at bus stops
- Shortens pedestrian crossing distances; adds refuges
- Improves overall street user experience
- Separates potential vehicle conflicts
- Encourages travel at the posted speed limit

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



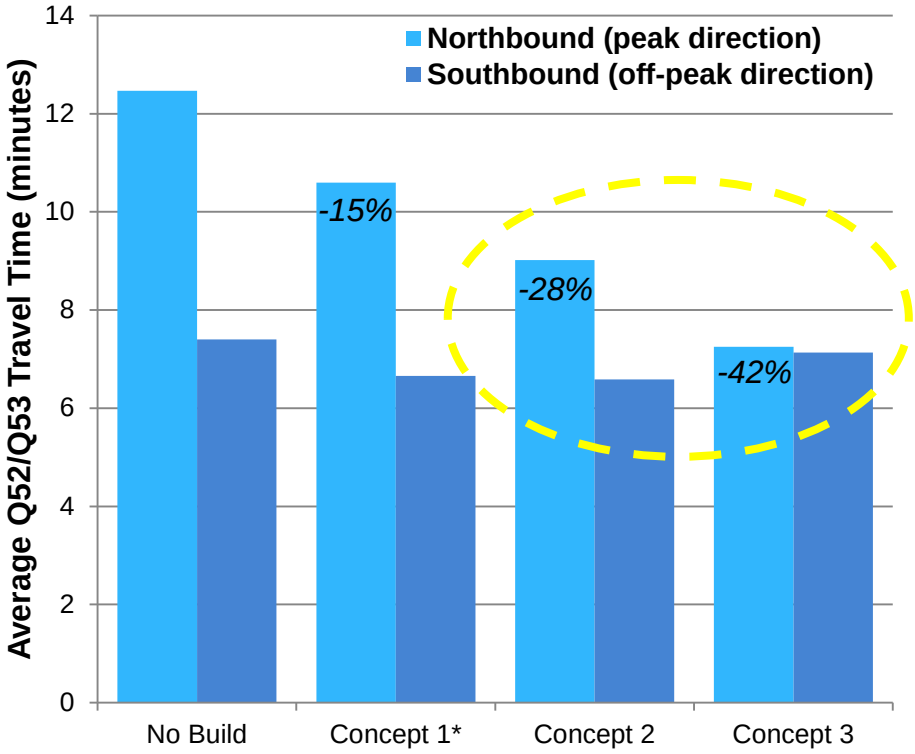
Screenshot of Woodhaven Blvd & Metropolitan Av Concept 2 AM Peak Period

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

Simulation Model Results – AM Peak

Woodhaven Blvd from Jamaica Av to Metropolitan Av



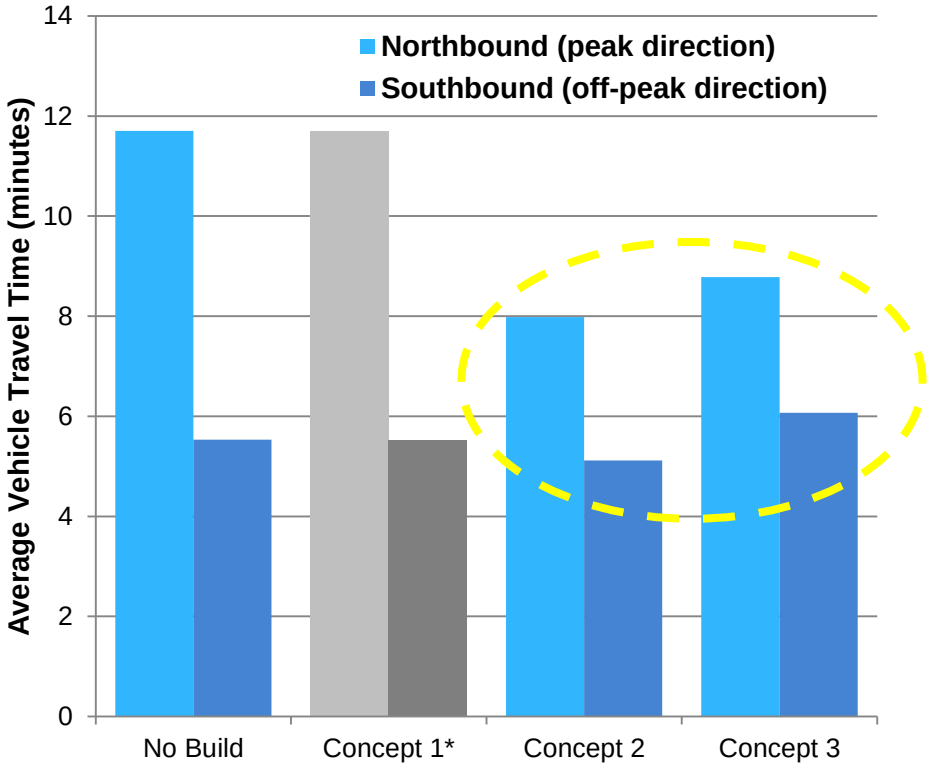
**Concept 1 results based on offset bus lane experience in NYC*

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

Proposed design - Woodhaven Blvd

Precedents

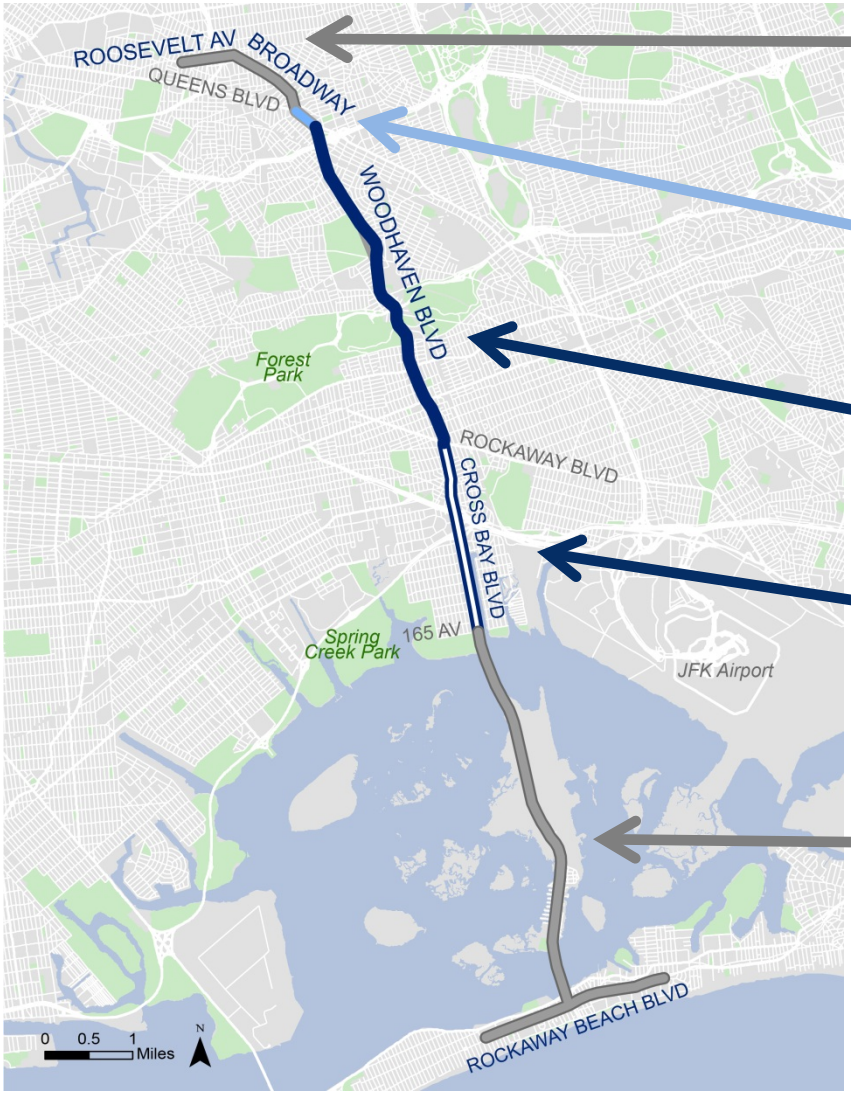
Pelham Parkway, Bronx

Kings Highway, Brooklyn


Renai Road, Taipei, Taiwan

Avinguda Diagonal, Barcelona, Spain

Corridor design summary

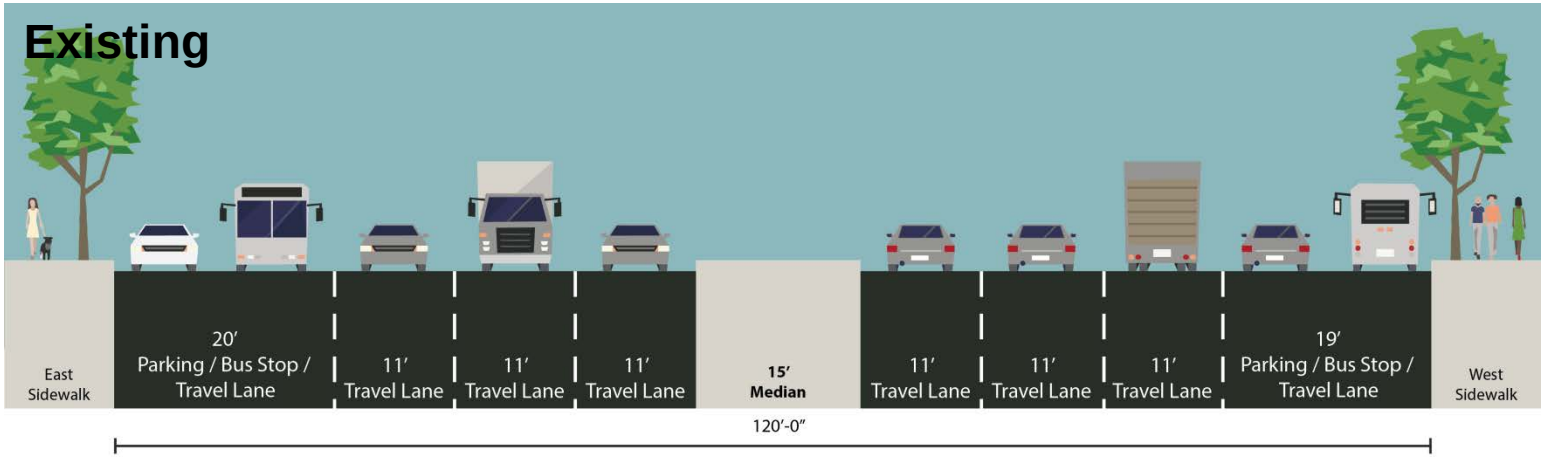


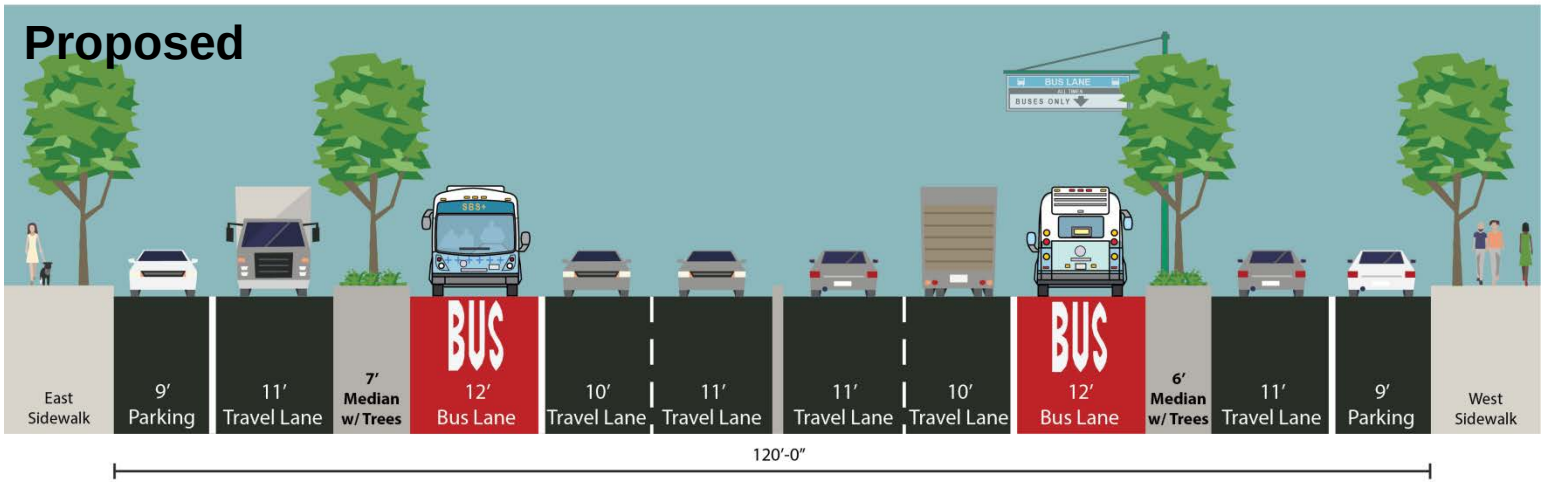
- **Roosevelt Av / Broadway Av**
  - No bus lanes
  - Improved curbside bus stops
- **Queens Blvd and Hoffman Dr**
  - Designated bus-only station areas
  - Improved bus stops / transfers
- **Woodhaven Blvd**
  - Main road bus lanes
  - All buses use median stations
- **Cross Bay Blvd (north of 165 Av)**
  - 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



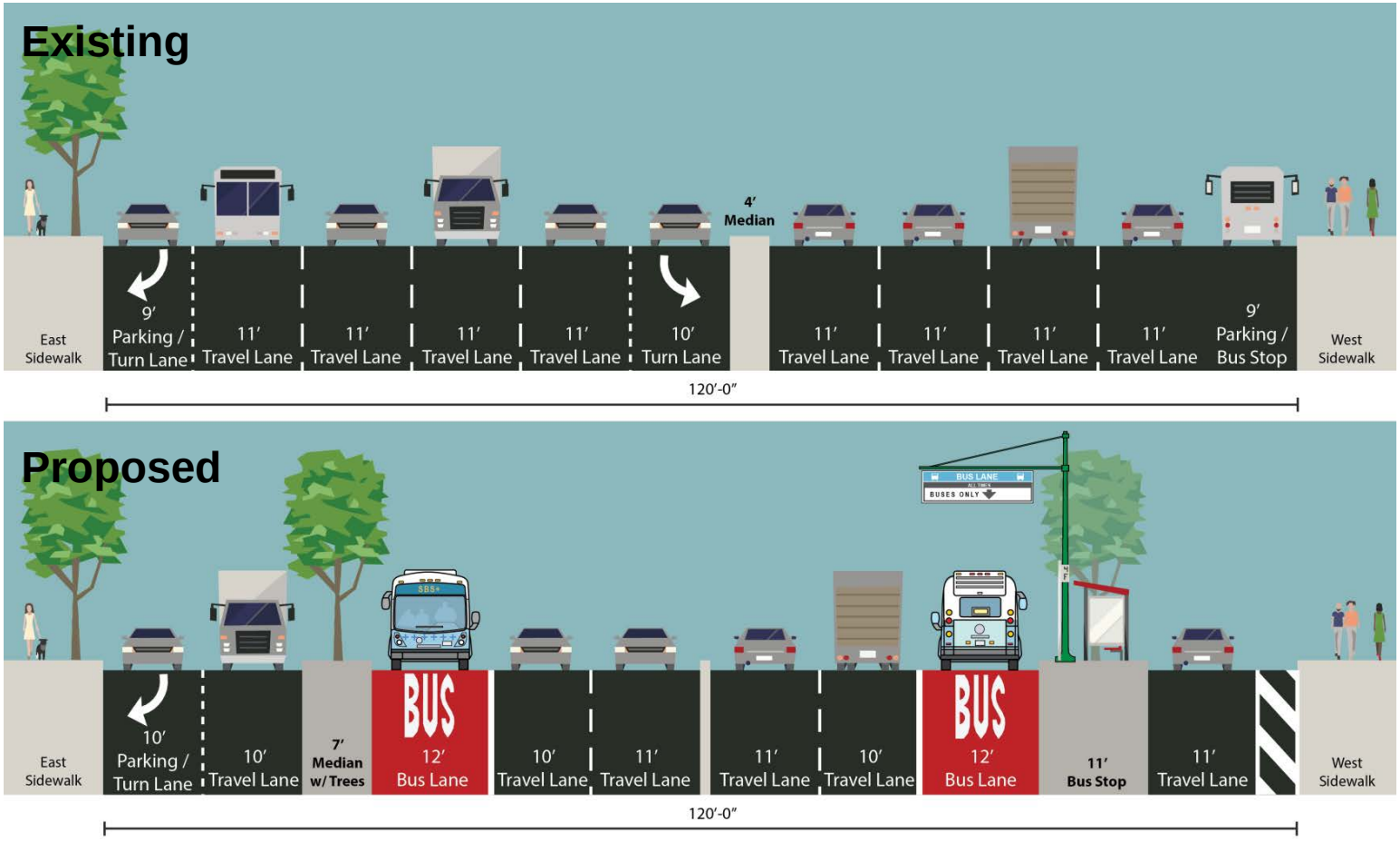


draft layout / design under development

Woodhaven Boulevard

Example 120' R.O.W. with station

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

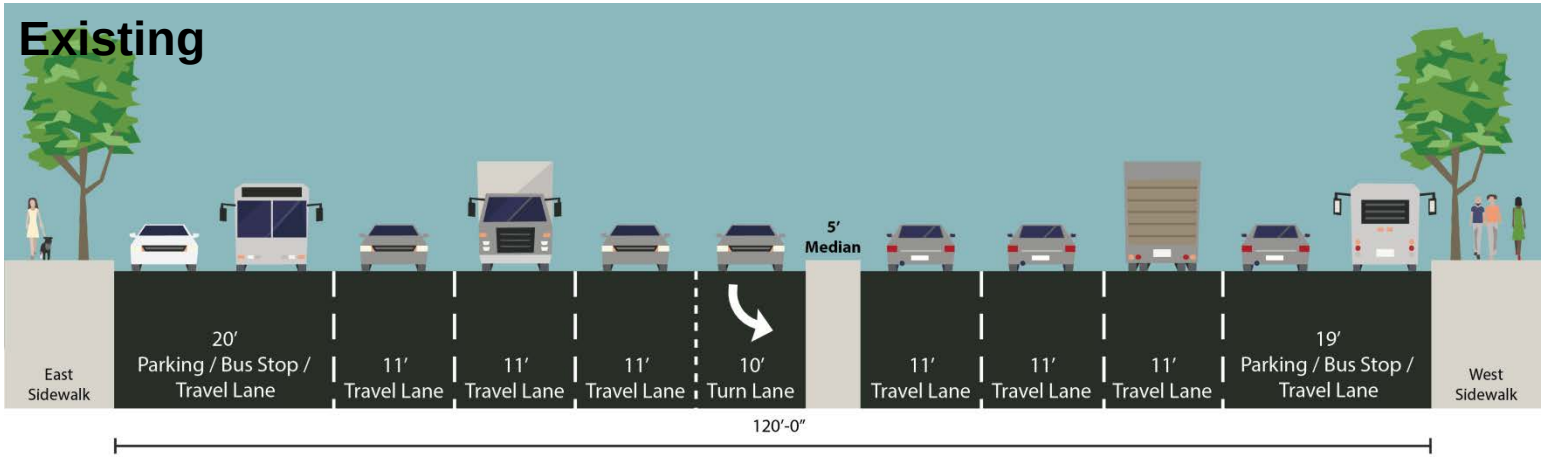


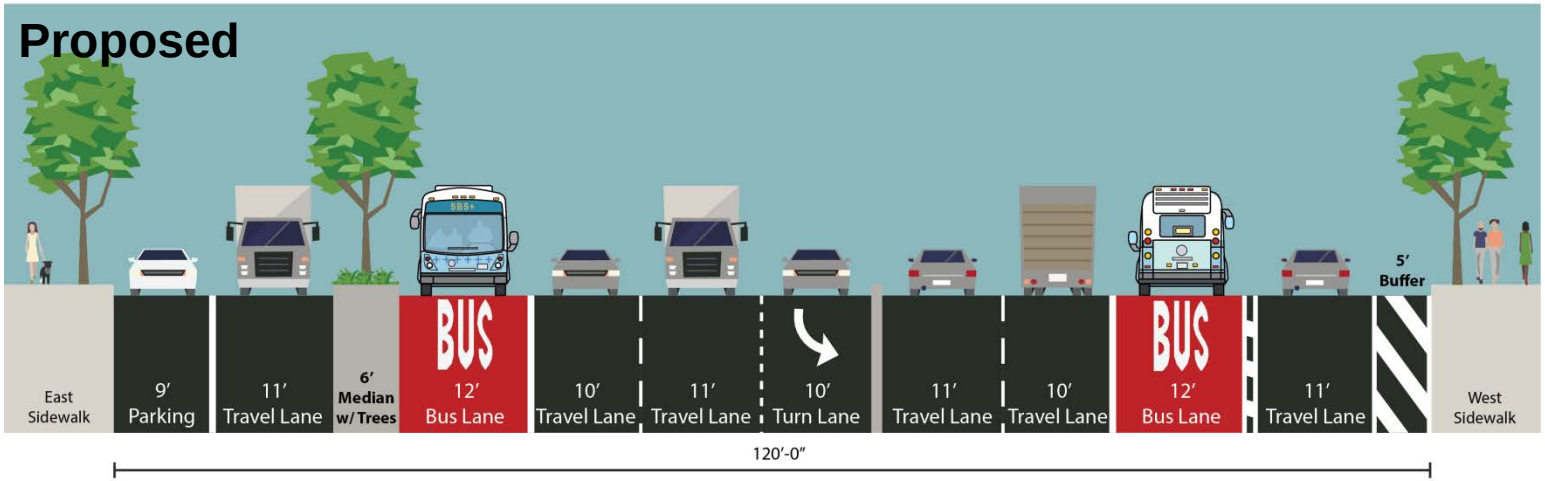
draft layout / design under development

Woodhaven Boulevard

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

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



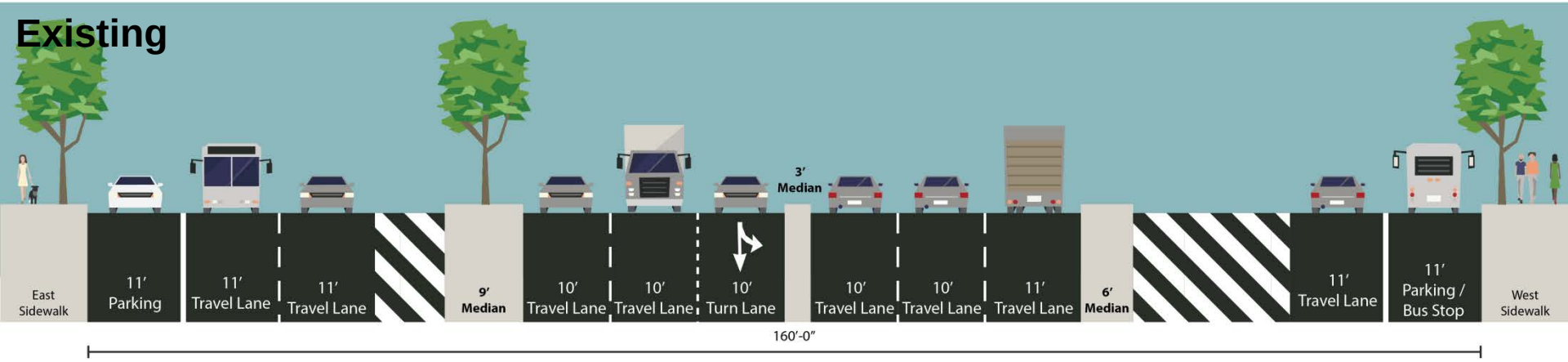


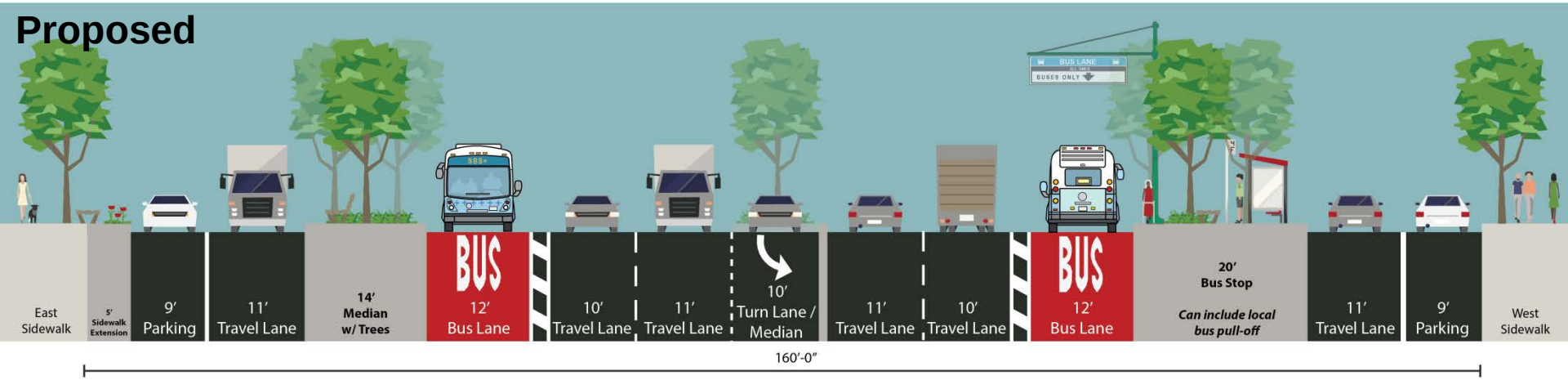
draft layout / design under development

Woodhaven Boulevard

Example 160' R.O.W.

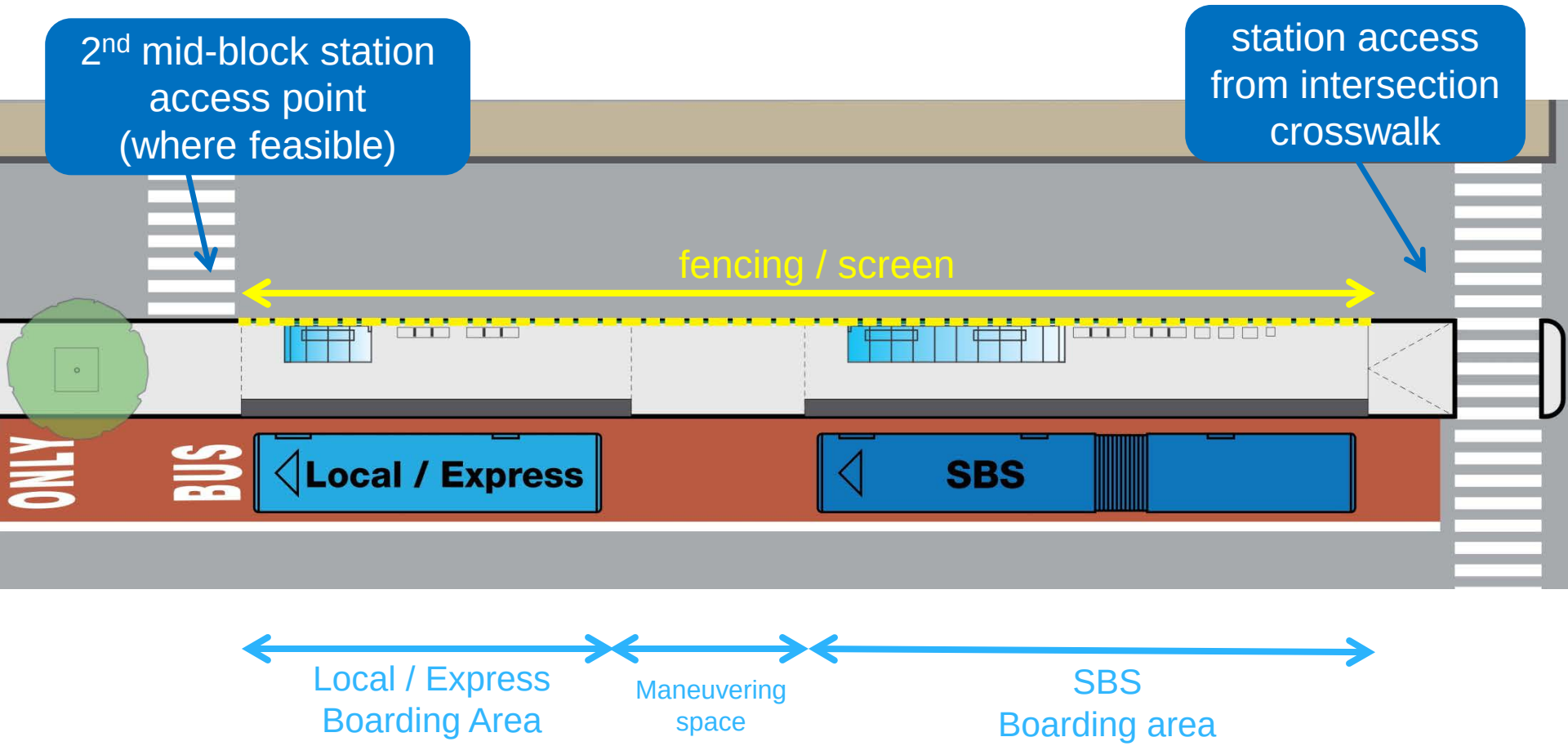
Example intersections: Woodhaven & 86th Road





draft layout / design under development

Typical median station layout



Example median stations

Avinguda Diagonal, Barcelona, Spain

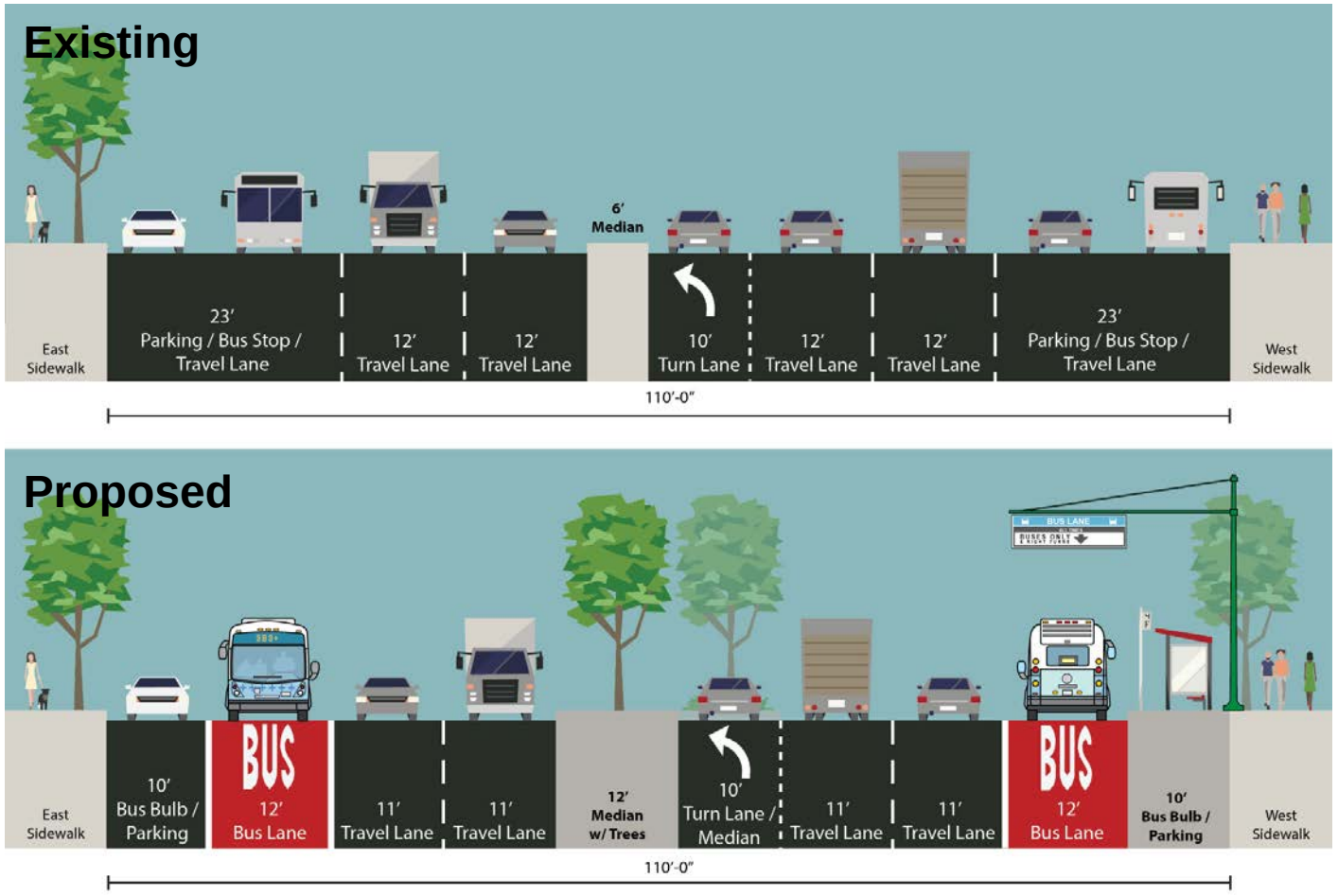
Pelham Parkway, Bronx

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

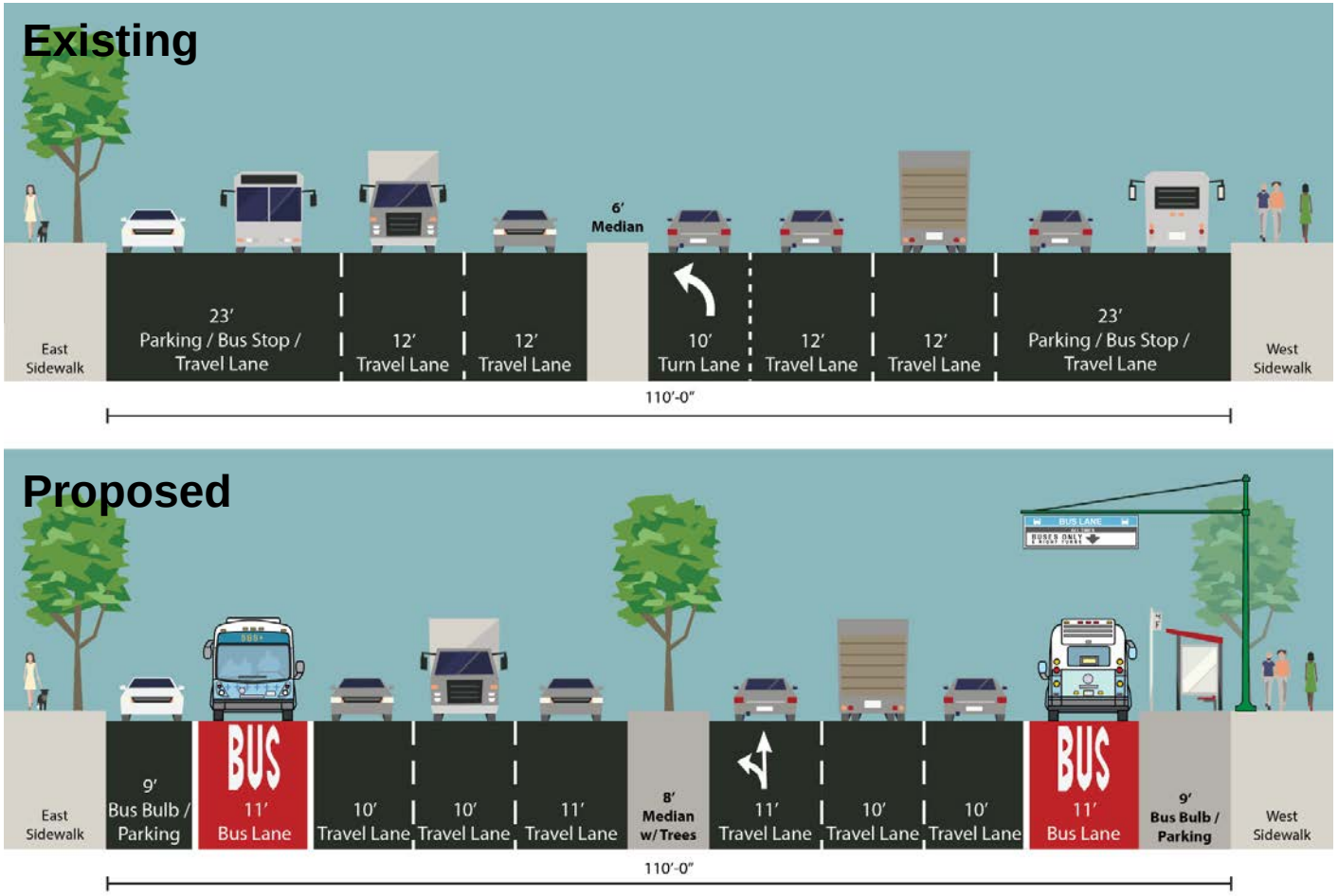


draft layout / design under development

Cross Bay Boulevard

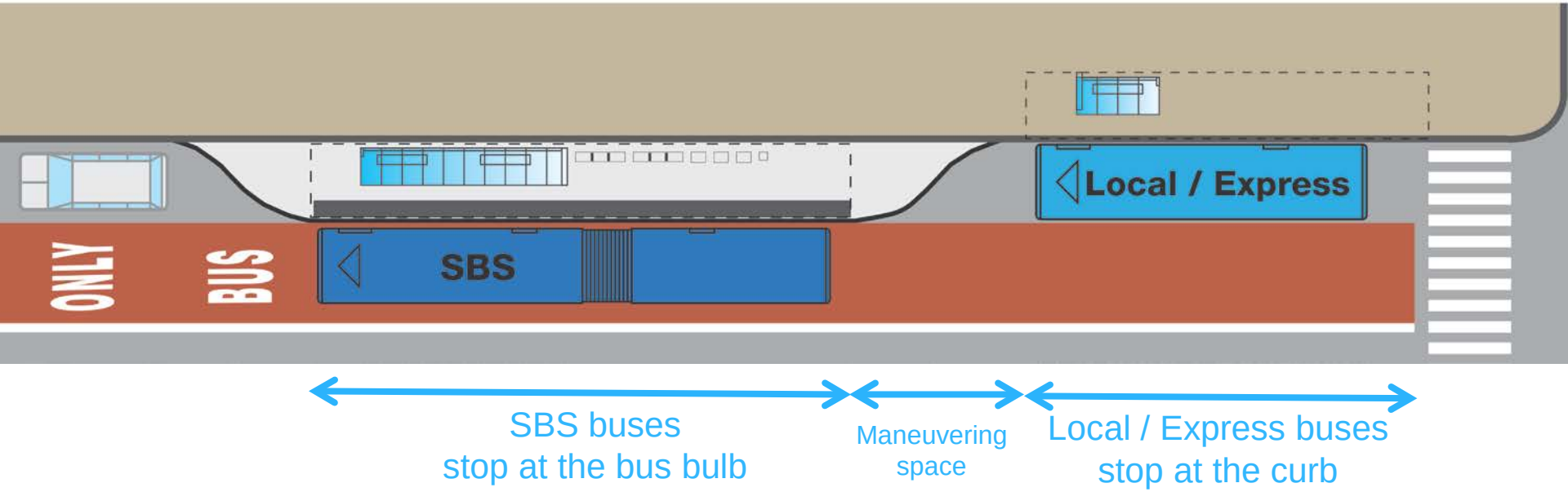
Option 2: Three travel lanes in each direction with shared left-turn lanes

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

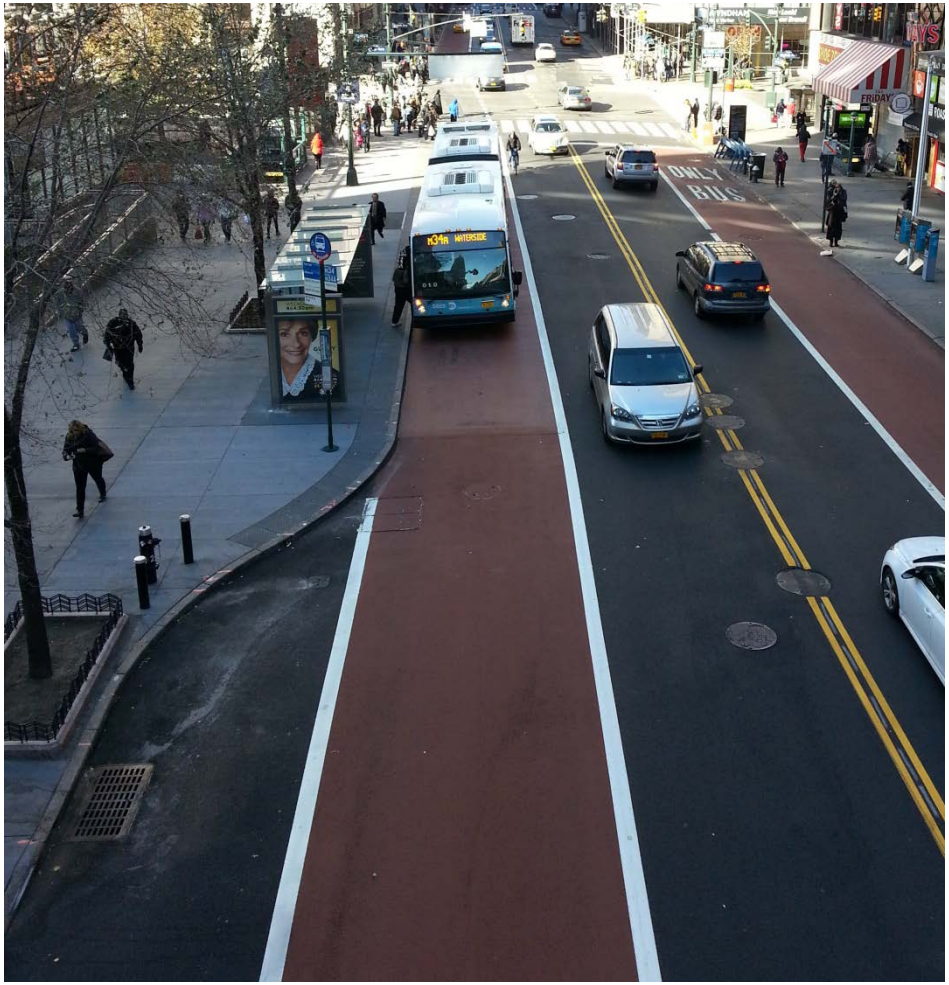


draft layout / design under development

Typical bus bulb layout



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

Brussels, Belgium *(source: Flickr Greg Raisman)*

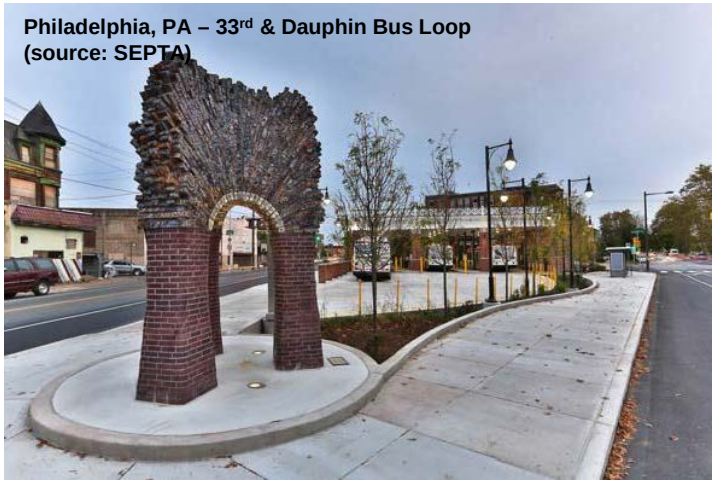
Eugene, Oregon *(source: the Transport Politic)*

Potential station amenities

trees and greening

real-time information

benches and seating



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

public art

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

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

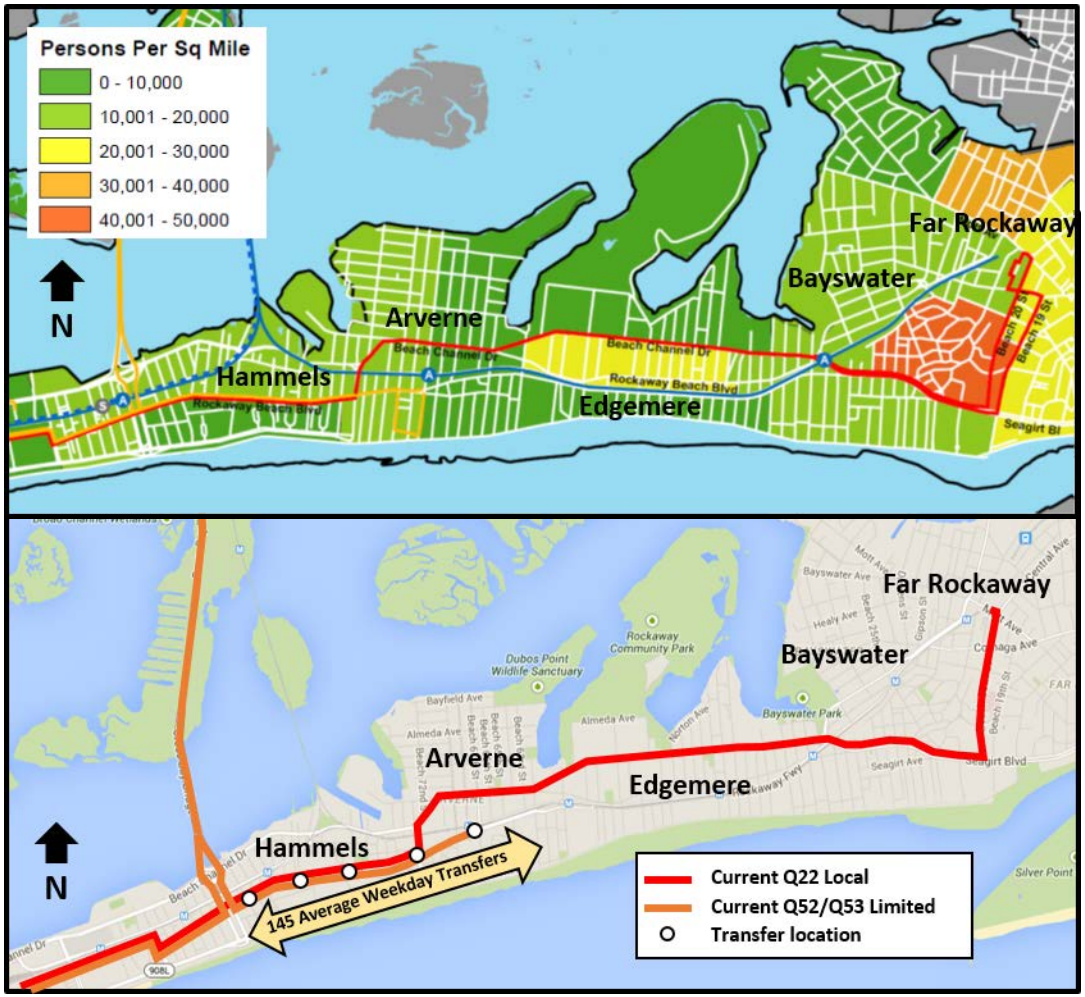
Q52 Extension Study

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 Queens Blvd to Union Tpke
- **Thursday April 23** – Woodhaven Blvd from Union Tpke to Rockaway Blvd
- **Wednesday April 29** – Cross Bay Blvd
- **Thursday April 30** – The Rockaways

Next: Group Discussion