# Where Should NYC Build BRT?

## A Transparent Technical Review

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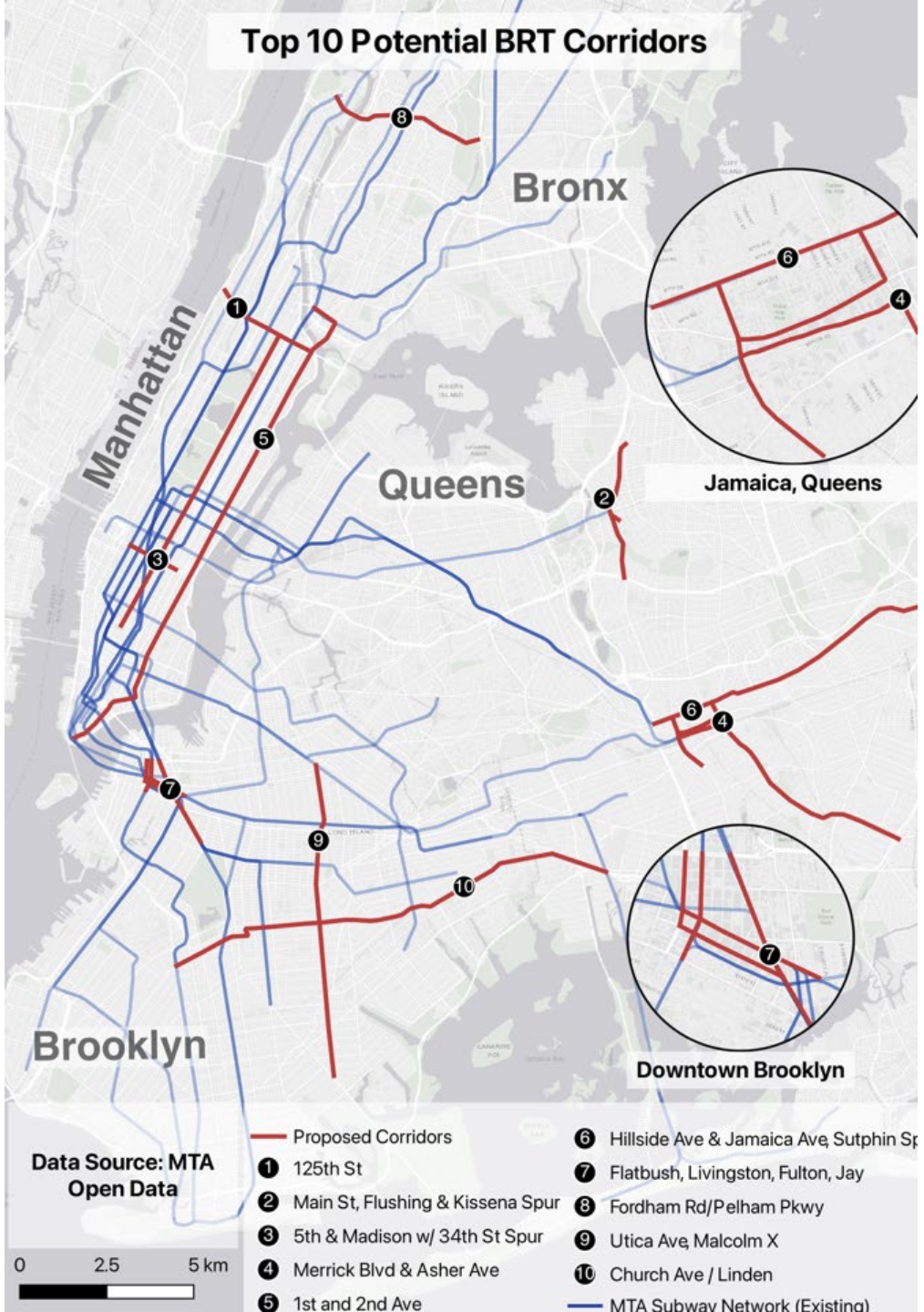
**People-Oriented Cities**




THE NEW YORK COMMUNITY TRUST

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**July 2025**

# The NYC Streets Plan stated:

*"The City could work with the MTA to plan—and fund—the next generation of major transit investments, including subway, rail, and bus rapid transit (BRT)."*

Decisionmakers often express a willingness to develop a "True BRT" in New York City, but the question is "Where?"

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# Why this report?

- Before we can answer ‘where’, we have to clarify ‘what’.
  - What is the difference between SBS, Bus Priority Corridors, and BRT?
- Then, how well have NYC DOT & MTA been prioritizing their SBS and Bus Priority Corridors?  Do they make sense for BRT?
- If NYC builds a full BRT, where should it go?

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# BRT: Is it a route or a corridor?

In many US cities, BRT is thought of as a route type. All priority measures are applied specifically to one bus route.


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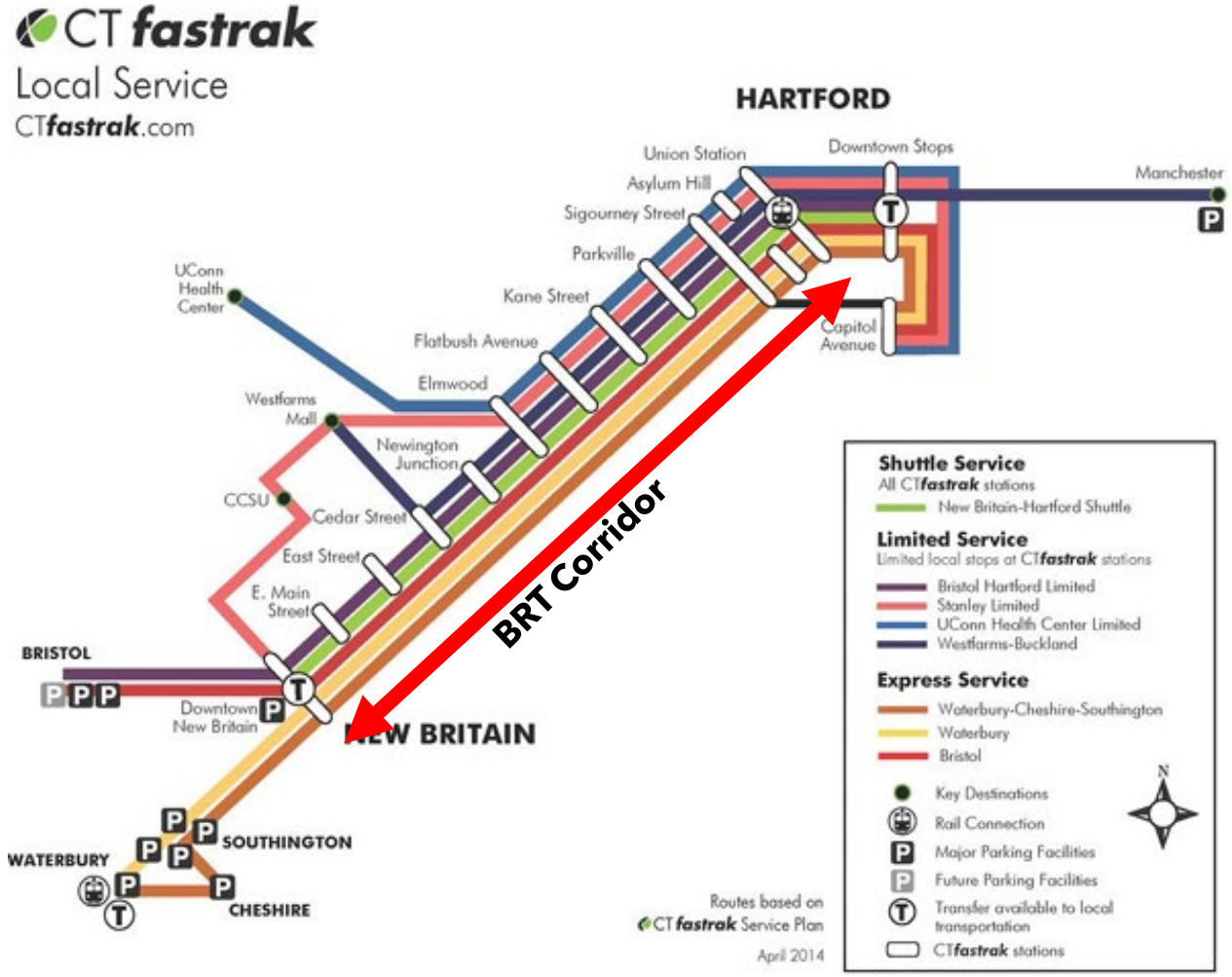
# BRT: Is it a route or a corridor?

BRT at its best refers to a corridor with specific bus priority measures.*

A BRT corridor may include – and benefit – many different routes.




Example: Ctfastrak, Hartford, CT

*at least 2 miles

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# Is SBS BRT?


SBS was a ***route designation***. The bus route made fewer stops, had pre-paid all-door boarding. There were also dedicated lanes, but only on part of the route, and many BRT features were missing.

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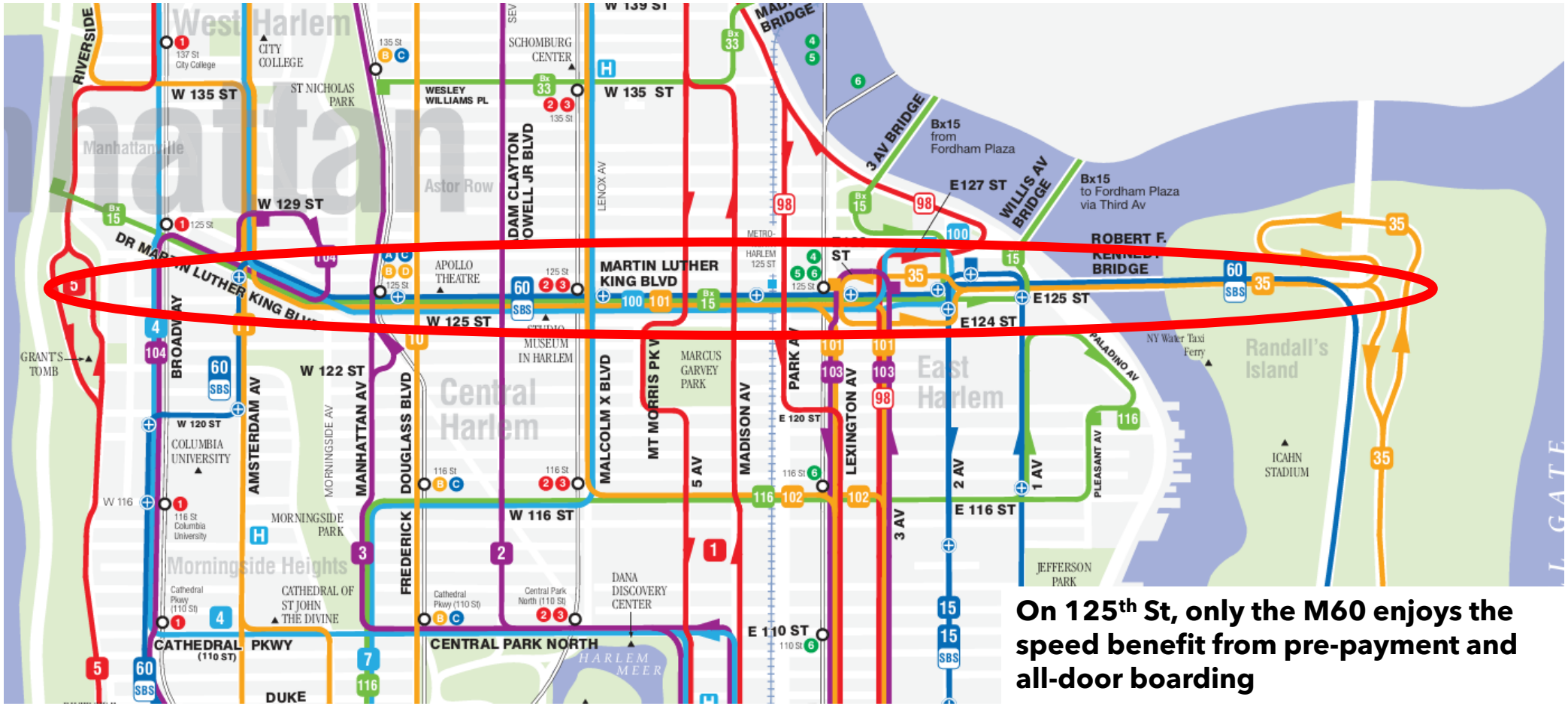
# Is SBS a route or a corridor?




**On 125th St, only the M60 enjoys the speed benefit from pre-payment and all-door boarding**

All-door boarding was done through proof-of-payment rather than all-door boarding stations. Other bus routes on the corridor did not have all-door boarding, though they also used the bus lanes. There were not enough BRT measures on the corridor to designate it as a "BRT corridor".

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# Effectiveness of SBS

While a BRT corridor need not run the full length of any given route, it should be located on the part of the route where the highest volume of bus passengers are facing significant delays.

In SBS, often  significant areas of delay were missed. Priority measures brought some time savings but could have gone farther.

This became NYC's BRT-Lite brand.


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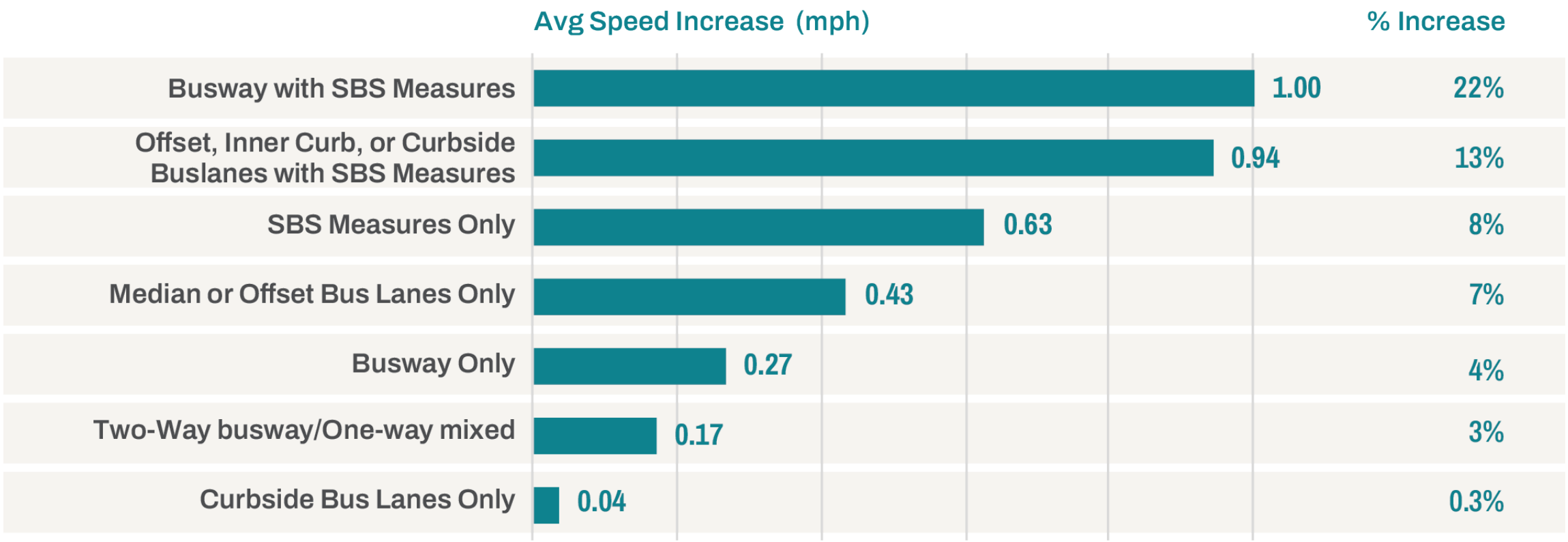
# Effectiveness of SBS




The speed improvements on SBS routes therefore did not measure up to the likely speed gains from full BRT on the corridor.

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# BRT Network Planning in NYC Historically

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# SBS as a Network of Bus Routes

The initial selection of SBS routes was based on:

- Highest demand bus routes
- Road width
- One in each borough
- Minimal subway overlap

Demand has changed somewhat since the SBS corridors were originally identified, with huge drops in bus ridership on many lines.

- 9 of the top demand bus routes today are SBS routes
- 2 are planned SBS or XT routes (Flatbush & Church Ave)
- 1 was a planned SBS route but not implemented (Northern Blvd)
- 1 is on the same road as a different SBS route (M101/M60)
- 1 overlaps the subway substantially (Grand Concourse)
- The rest are on narrow roads.

| Rank | Route | 2023 Ridership | Primary Streets | SBS Route (Y/N) |
|---|---|---|---|---|
| 1 | M15 Lcl/SBS | 32,298 | 1st & 2nd Ave | ✓ |
| 2 | Q58 | 21,774 | Grand Ave, College Point Ave/Sanford Ave, 108th St | X |
| 3 | B6 | 19,045 | Bay Parkway | X |
| 4 | Bx12 Lcl/SBS | 18,388 | Fordham Rd | ✓ |
| 5 | B82 Lcl/SBS | 18,080 | Kings Highway, Flatlands | ✓ |
| 6 | Q27 | 17,180 | Kissena Blvd | X |
| 7 | B44 Lcl/SBS | 17,121 | Bedford/Rogers/Nostrand | ✓ |
| 8 | B46 Lcl/SBS | 17,091 | Utica, Malcolm X | ✓ |
| 9 | Q65 | 16,031 | 162nd, Sanford Ave, College Blvd | X |
| 10 | Q25 | 15,017 | Kissena Blvd, Archer Ave, Jamaica Ave | X |
| 11 | B41 | 14,595 | Flatbush | X |
| 12 | Q10 | 14,434 | Lefferts | X |
| 13 | Q44-SBS | 14,247 | Main St Flushing,Sutphin Ave, Hillside Ave | ✓ |
| 14 | B35 | 14,171 | Church Ave | X |
| 15 | Q46 | 13,841 | Union Turnpike | X |
| 16 | M14 Lcl/SBS | 13,626 | 14th St | ✓ |
| 17 | M101 | 13,509 | Amsterdam Ave/125th St | X |
| 18 | Bx1/2 | 13,117 | Grand Concourse | X |
| 19 | M86-SBS | 13,016 | 86th St Manhattan | ✓ |
| 20 | Q23 | 12,569 | 108th St | X |
| 21 | Q52/53 Lcl/SB | 12,458 | Woodhaven | ✓ |
| 22 | B1 | 11,628 | 86th St Brooklyn | X |
| 23 | B8 | 11,549 | 18th Ave/Ave. D | X |
| 24 | Q66 | 11,430 | Northern Blvd | X |
| 25 | Q17 | 11,219 | Kissena Blvd, Horace Harding, 188th, Hillside | X |

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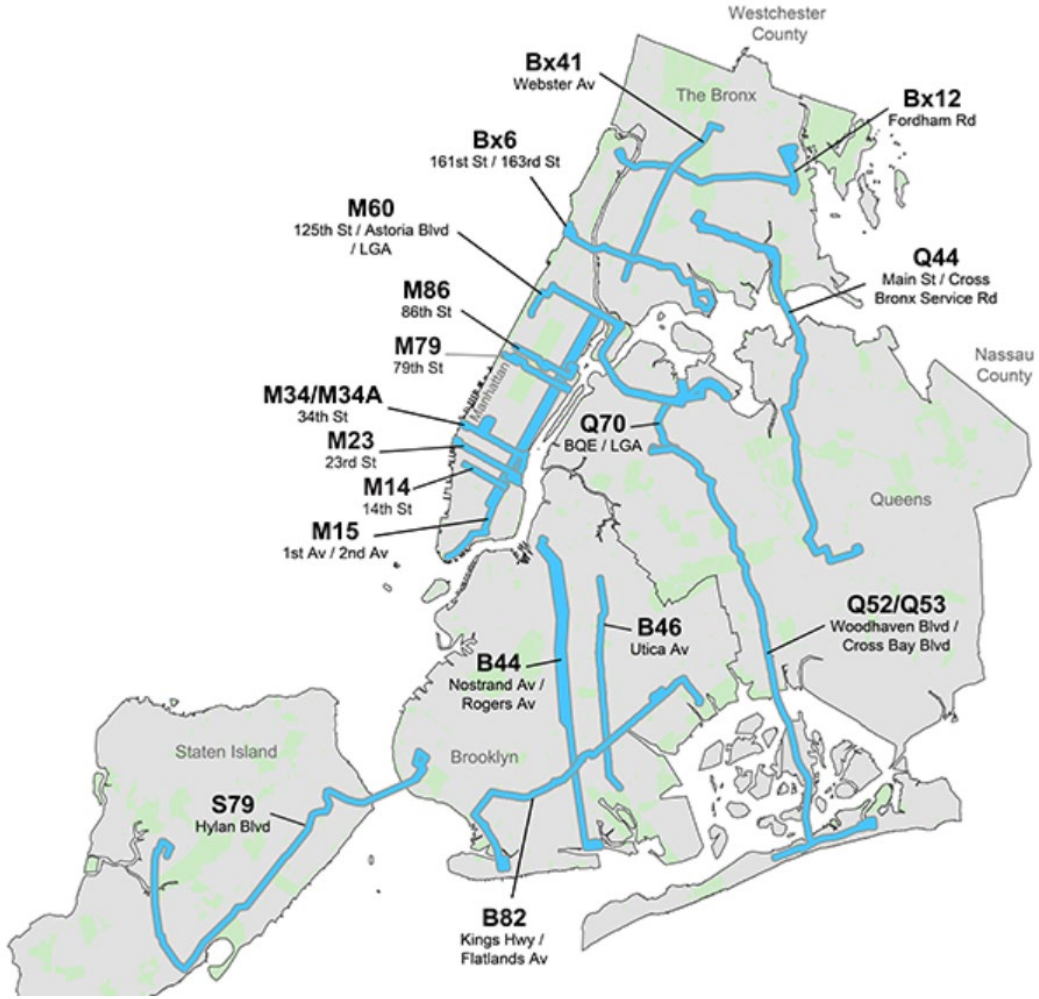
# SBS as a Network of Routes

Originally, 23 SBS ***routes*** were identified. By the time the MTA stopped adding SBS routes, 17 had been implemented.

These routes formed something of a ***network*** with the subway system.

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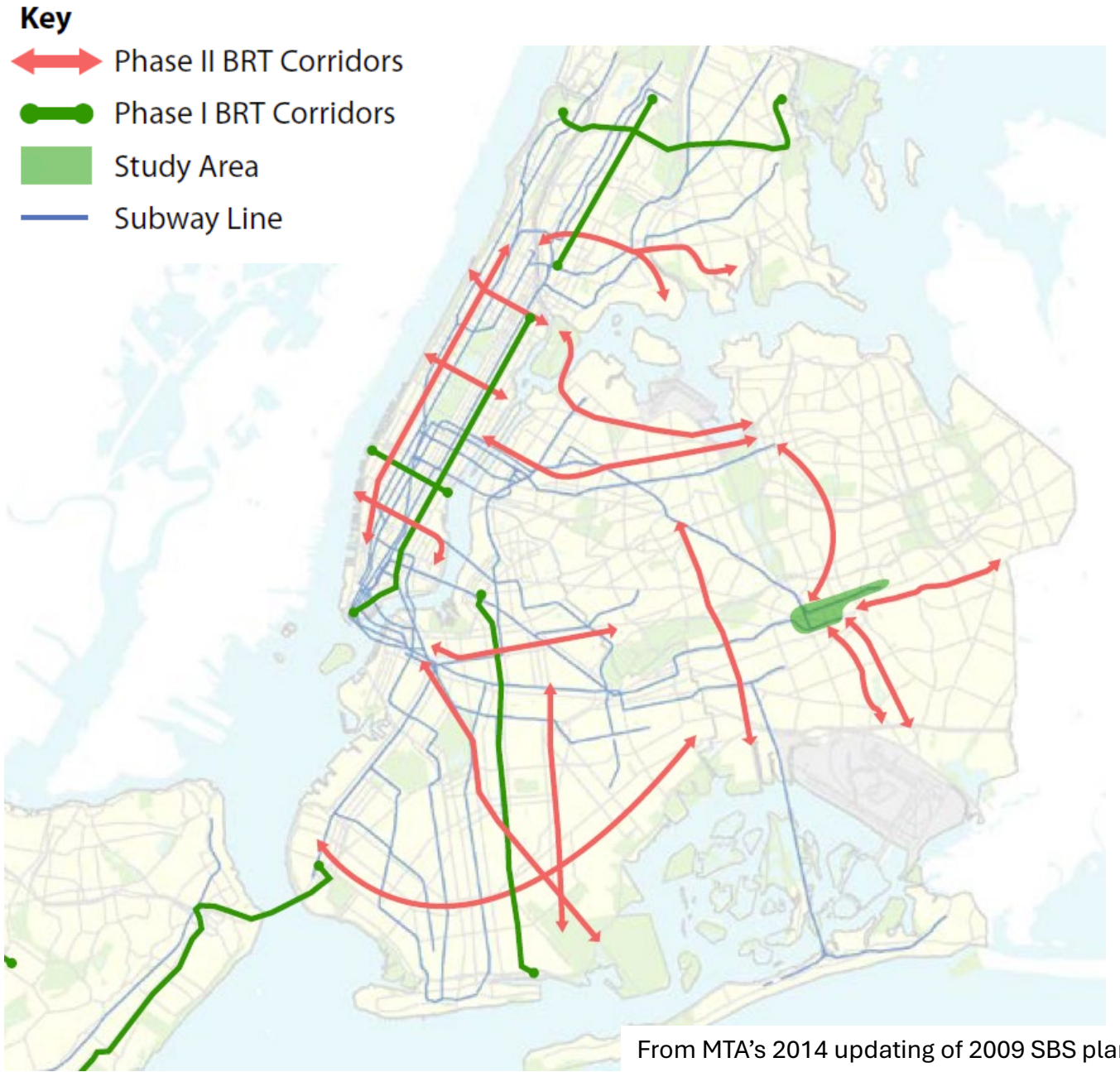
# SBS Implementation Status




From MTA's 2014 updating of 2009 SBS plan

By 2015, the 6 Phase 1 SBS ***routes*** were complete. There was one in each borough.

By 2019, most of the Phase 2 SBS ***routes*** were also done.

By then, the MTA was no longer talking about 'routes', it was talking about 'BRT Corridors.'

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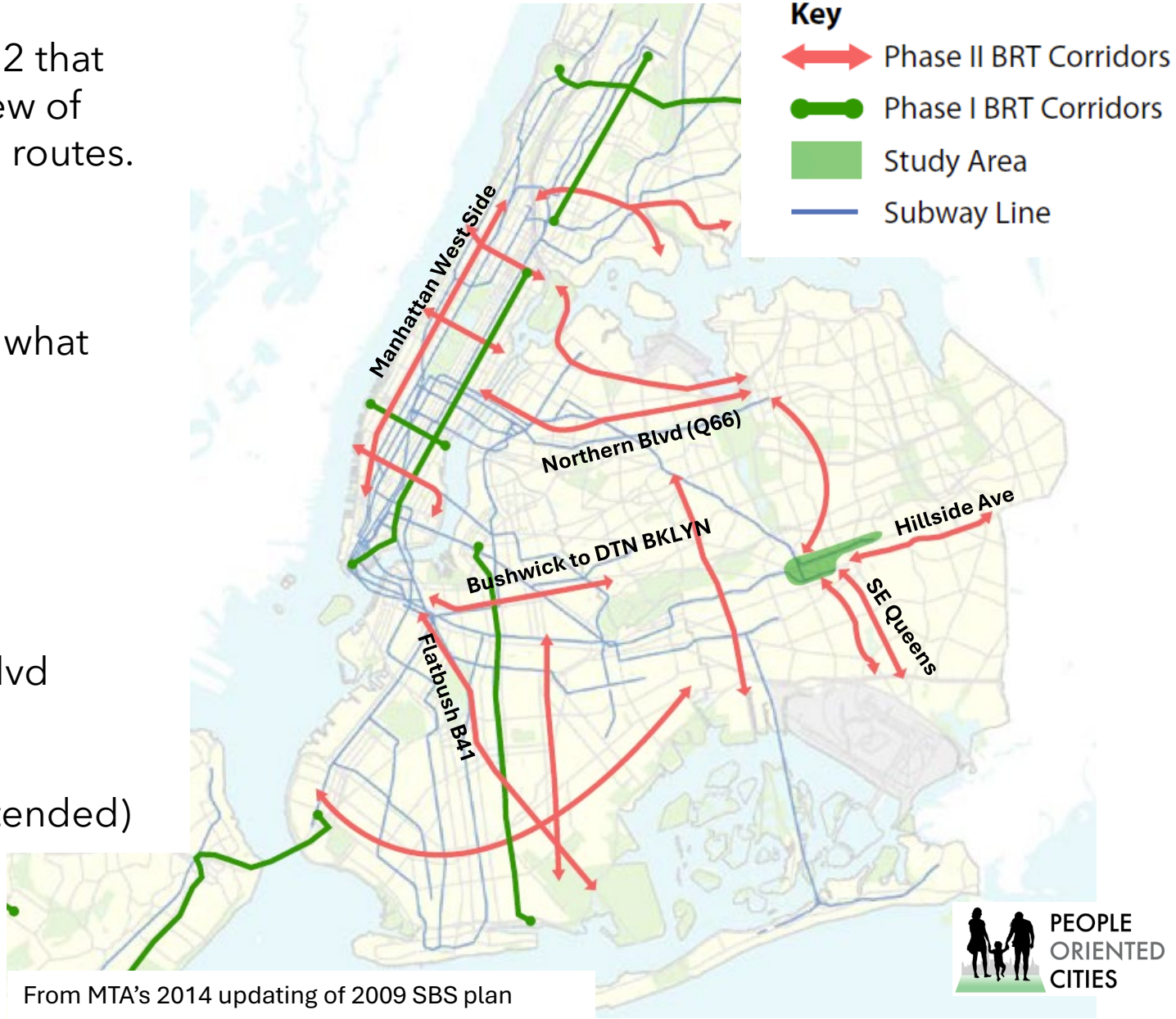
# From Routes to Corridors

Of the 6 original SBS Routes identified for Phase 2 that had still not been implemented in 2019, only a few of them were associated with specific high demand routes.

- **Hillside Ave** (Lots of routes)
- **Bushwick to Downtown Brooklyn** (not clear what routes)
- **Flatbush Ave:** B41 LTD
- **Manhattan West Side:** Possibly M11
- **Southeast Queens:** Sutphin Blvd & Merrick Blvd (many routes)
- **Northern Boulevard to Manhattan:** (Q66 extended)




From MTA's 2014 updating of 2009 SBS plan

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# SBS in the Comptroller's Report

2025 Comptroller's report calls for completing all incomplete SBS routes.

Of the identified corridors, only Flatbush and Church/Linden were clearly associated with specific 'routes.'

The rest are clus

They also showe
service connecti

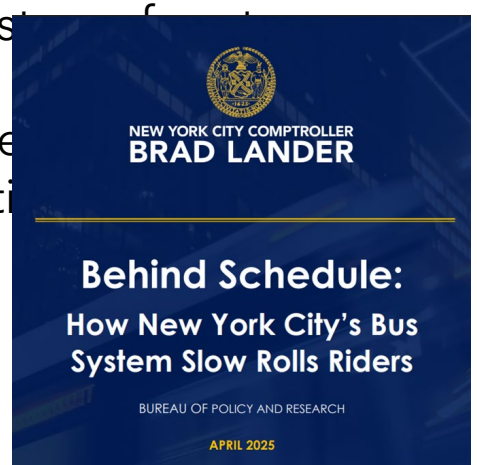
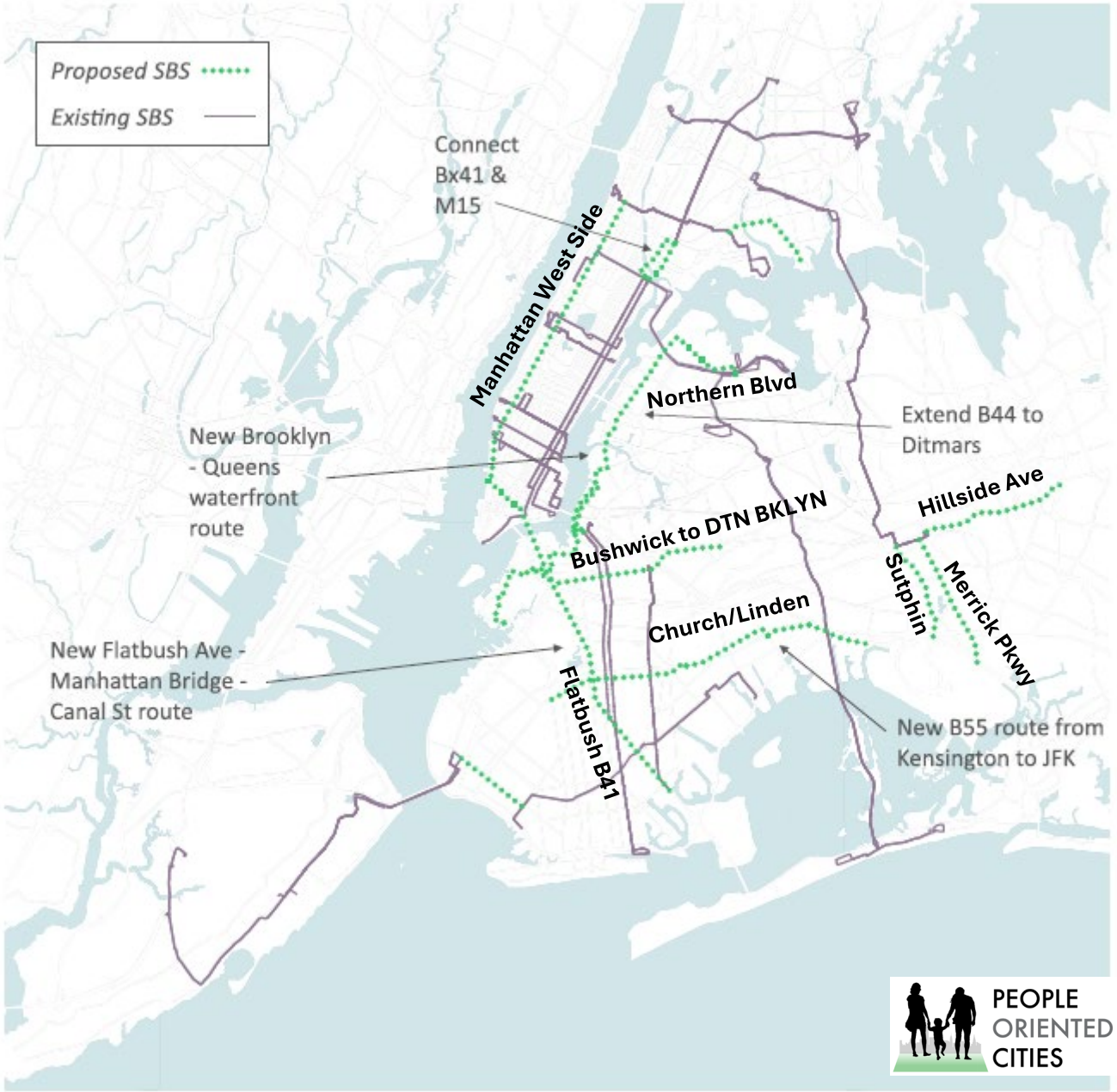



Figure 3: Proposed and existing SBS routes



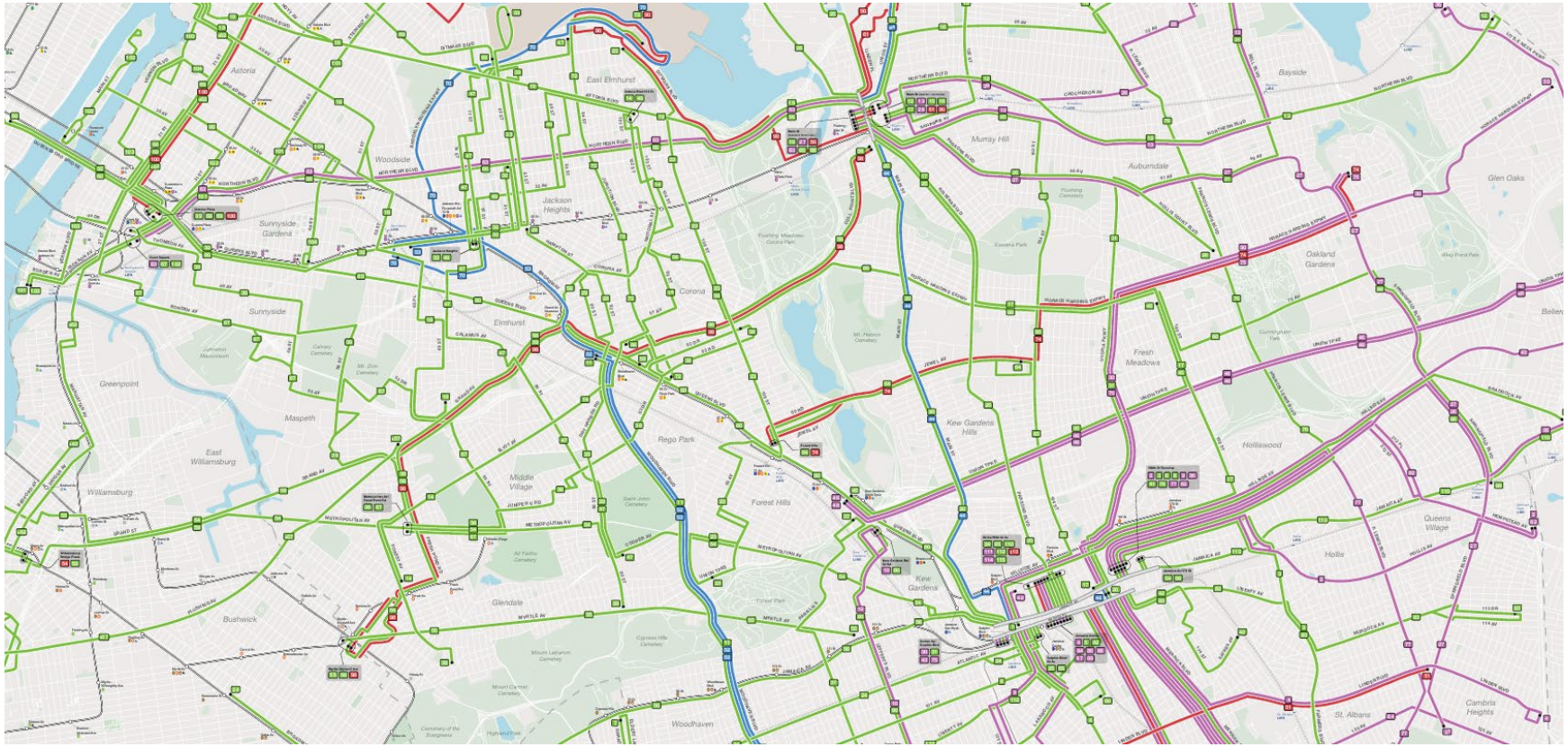
# SBS and the Network Redesign

After 2019, MTA and NYC DOT shifted their bus program away from SBS and towards:

- Bus Network Redesign
- Bus Priority Corridors

How do these two programs relate to each other?

**Queens Network Redesign**

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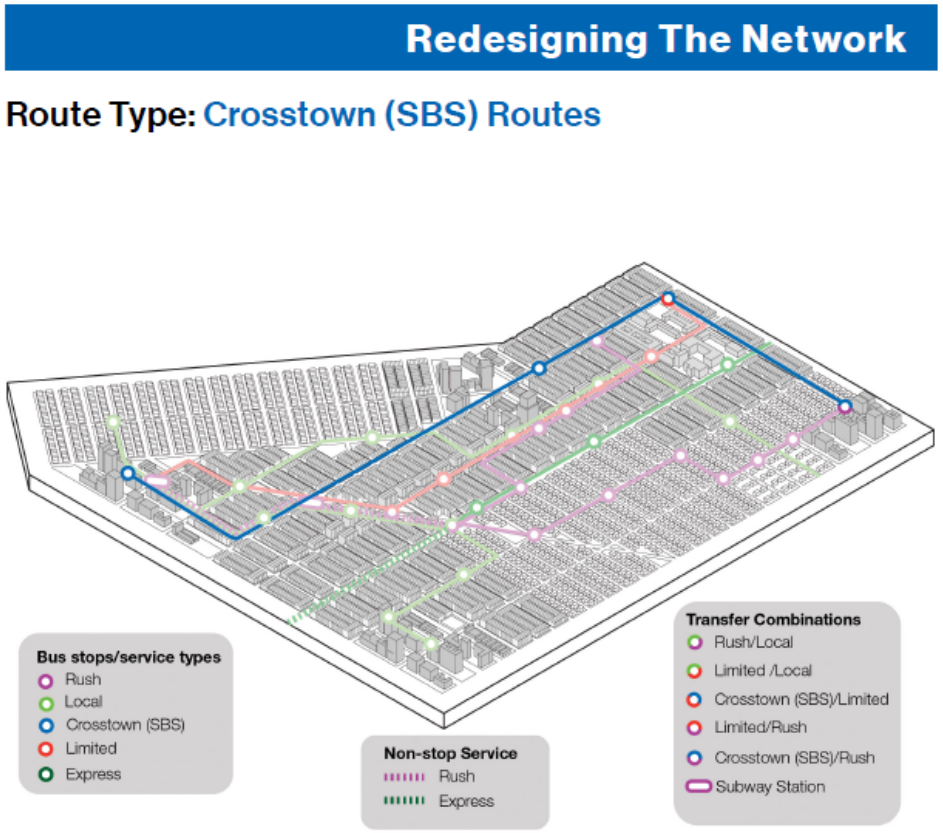
# SBS and Network Redesign

In the Brooklyn Bus Network Redesign, SBS is cobranded with a new route type called Crosstown (XT).

This is a **service** designation.

No specific bus priority measures are associated with this service designation.




The purpose of Crosstown (SBS) routes is to connect across the city as fast as possible between several important destinations, serving high-ridership, high-density corridors. To easily recognize these routes on a map, they are shown in a blue color. These routes have the widest bus stop spacing and all-day frequent service (between 6:00 AM and 8:00 PM on weekdays). Combined with Limited routes, they form a high-frequency core network. The average distance between stops on Crosstown (SBS) routes is approximately a 1/2-mile (2,640 feet).



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# SBS and Network Redesign

The B41 on Flatbush, where there are current bus priority plans, is listed as a ‘crosstown’ rather than an ‘SBS’ route. There is some confusion here.

**Introducing The New Network**

**Route Improvement Summary Table**

| Proposed Route | More direct routing | New con-nections | Improved stop spacing | Improved frequency | Fewer route patterns | Avoids narrow streets | Improved ADA access | Priority Corridor |
|---|---|---|---|---|---|---|---|---|
| B1 | | | X | | | | | |
| B3 | | | X | | | | | |
| B4 | X | | X | | | | X | X |
| B5 LTD | X | X | X | | | X | | X |
| B6 | X | | X | | | X | | X |
| B6 LTD | X | | X | | | X | | X |
| B7 | | X | X | | | | | |
| B8 | X | | X | X | | | | X |
| B9 | | | X | X | | | | X |
| B10 LTD | X | X | X | | | X | X | X |
| B11 | X | | X | | | | | X |
| B12 | | | X | X | | | | X |
| B13 | X | X | X | X | | X | | |
| B14 | | X | X | X | | | X | X |
| B15 | X | X | | | X | | | X |
| B16 | X | X | X | X | | X | X | X |
| B17 | X | | X | X | X | X | | X |
| B20 Rush | X | | X | X | X | X | | X |
| B25 | | | X | | | | | X |
| B26 Rush | X | X | X | X | | | X | X |
| B27 | | | X | | | | | X |
| B31 | | | X | | | | | |
| B35 | | X | X | X | X | | | X |
| B36 | | | X | | | | | X |
| B37 | | | X | | | | | |
| B38 | | | X | | X | X | | X |
| B39 | | | | | | | | |
| B40 Rush | | | X | | | | | X |
| B41 | X | | X | | X | | | X |
| B41 XT | X | | X | | X | | | X |
| B42 | | | X | | | | | X |
| B43 | | | X | | | | | X |
| B44 | X | | X | X | | | | X |
| B44 SBS | | X | X | X | | | X | X |
| B45 | | X | X | | | X | | X |
| B46 | | | X | | | | | X |
| B46 SBS | | | | X | | | | X |

XT refers to a Crosstown route (see page 29)

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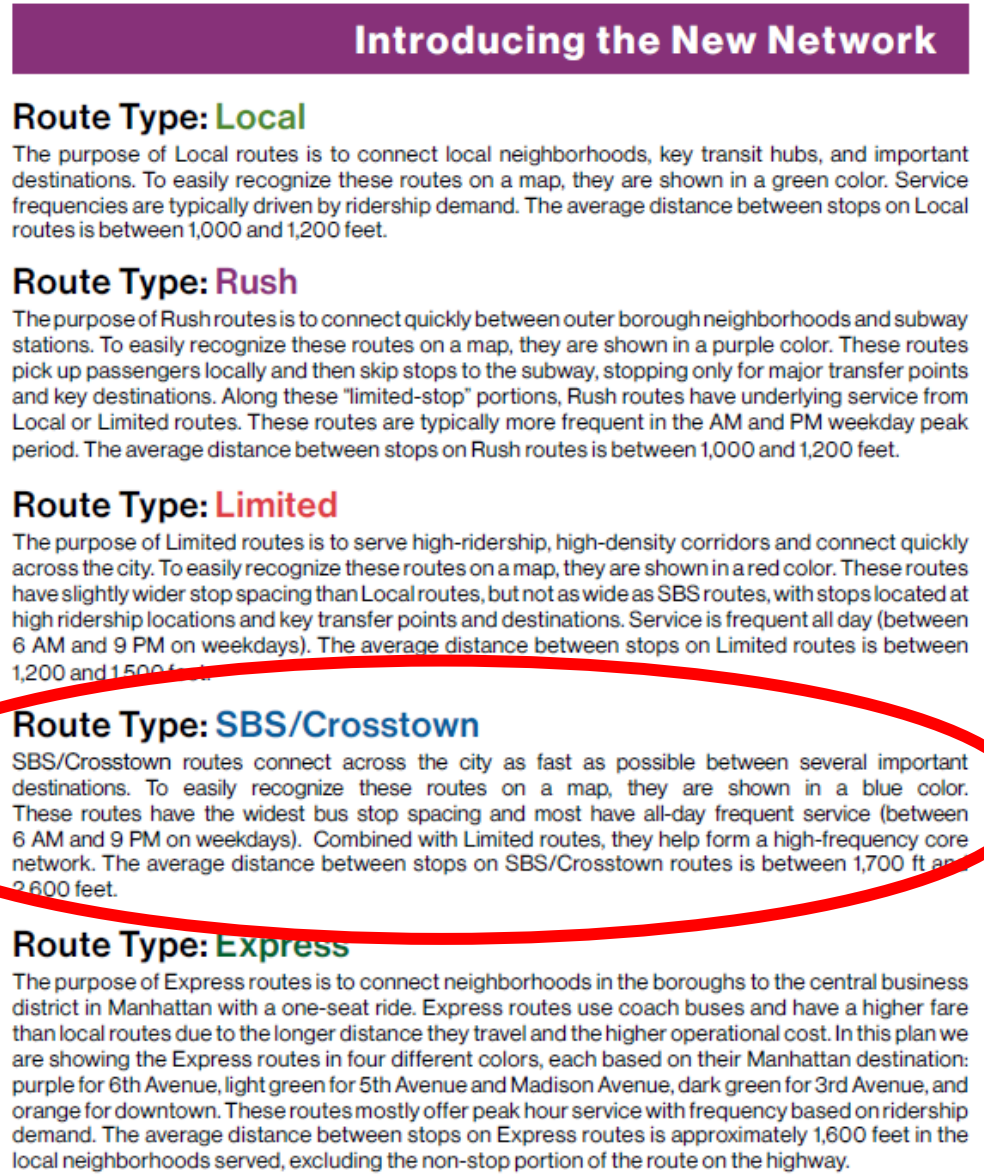
# SBS and Network Redesign

The Queens Bus Network Redesign had a similar problem, but MTA removed 'Crosstown' from the list of route types in Queens, following our comments. They retained the SBS route designation on existing SBS routes, but downgraded other planned new SBS routes to 'Limited' routes.

**So what is SBS anymore?**



## Introducing the New Network

### Route Type: Local

The purpose of Local routes is to connect local neighborhoods, key transit hubs, and important destinations. To easily recognize these routes on a map, they are shown in a green color. Service frequencies are typically driven by ridership demand. The average distance between stops on Local routes is between 1,000 and 1,200 feet.

### Route Type: Rush

The purpose of Rush routes is to connect quickly between outer borough neighborhoods and subway stations. To easily recognize these routes on a map, they are shown in a purple color. These routes pick up passengers locally and then skip stops to the subway, stopping only for major transfer points and key destinations. Along these "limited-stop" portions, Rush routes have underlying service from Local or Limited routes. These routes are typically more frequent in the AM and PM weekday peak period. The average distance between stops on Rush routes is between 1,000 and 1,200 feet.

### Route Type: Limited

The purpose of Limited routes is to serve high-ridership, high-density corridors and connect quickly across the city. To easily recognize these routes on a map, they are shown in a red color. These routes have slightly wider stop spacing than Local routes, but not as wide as SBS routes, with stops located at high ridership locations and key transfer points and destinations. Service is frequent all day (between 6 AM and 9 PM on weekdays). The average distance between stops on Limited routes is between 1,200 and 1,500 f

### Route Type: SBS/Crosstown

SBS/Crosstown routes connect across the city as fast as possible between several important destinations. To easily recognize these routes on a map, they are shown in a blue color. These routes have the widest bus stop spacing and most have all-day frequent service (between 6 AM and 9 PM on weekdays). Combined with Limited routes, they help form a high-frequency core network. The average distance between stops on SBS/Crosstown routes is between 1,700 ft and 2,600 feet.

### Route Type: Express

The purpose of Express routes is to connect neighborhoods in the boroughs to the central business district in Manhattan with a one-seat ride. Express routes use coach buses and have a higher fare than local routes due to the longer distance they travel and the higher operational cost. In this plan we are showing the Express routes in four different colors, each based on their Manhattan destination: purple for 6th Avenue, light green for 5th Avenue and Madison Avenue, dark green for 3rd Avenue, and orange for downtown. These routes mostly offer peak hour service with frequency based on ridership demand. The average distance between stops on Express routes is approximately 1,600 feet in the local neighborhoods served, excluding the non-stop portion of the route on the highway.

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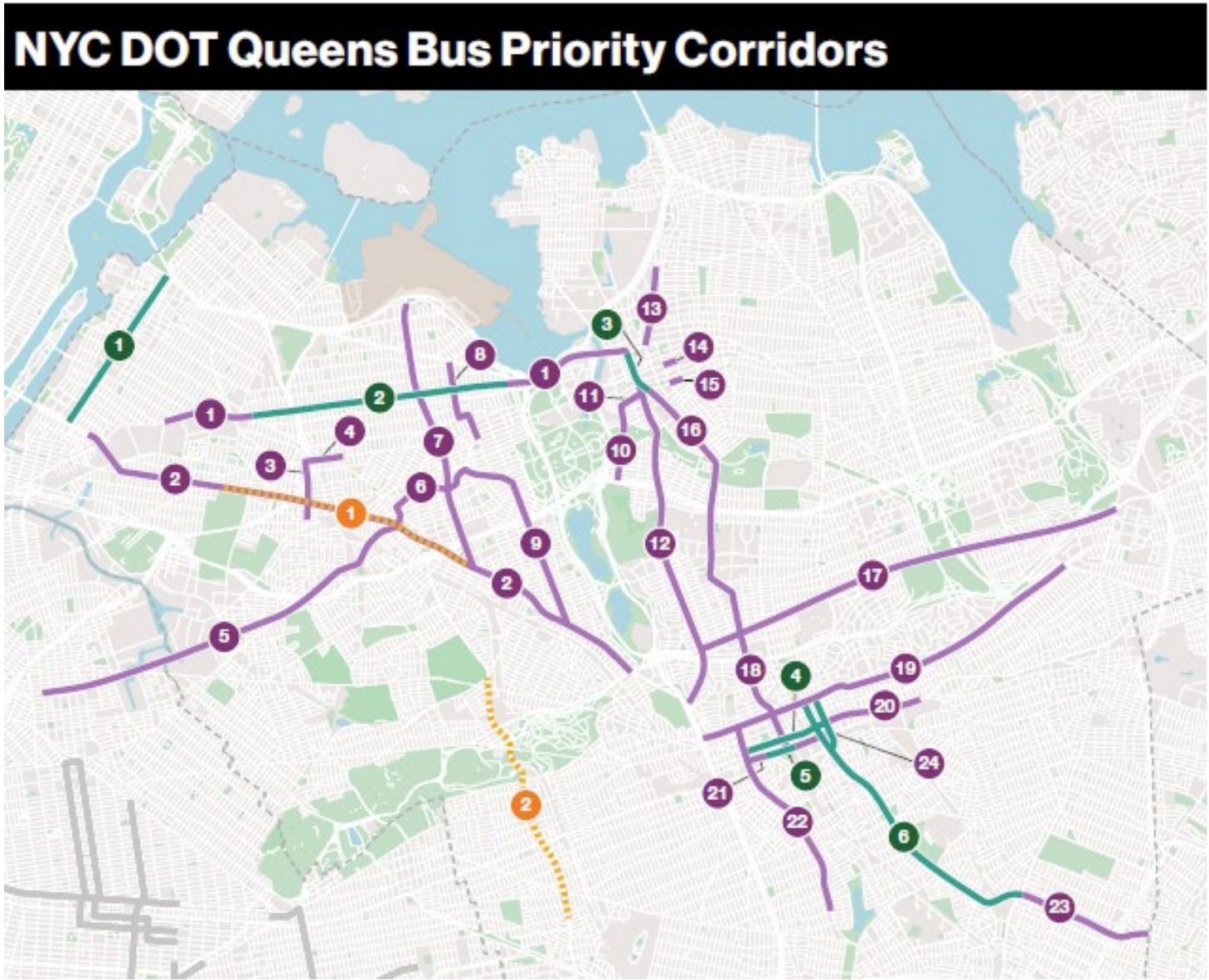
# Bus Priority Corridors: Queens Example

Starting in 2019, NYC DOT and the MTA stopped focusing bus priority measures only on SBS routes.  Bus priority corridors and SBS services were de-linked.

MTA and DOT identified a set of bus priority *corridors* in the Queens Bus Network Redesign.

These priority corridors bear no relation to the SBS Routes.

Many are too short to be 'corridors.'

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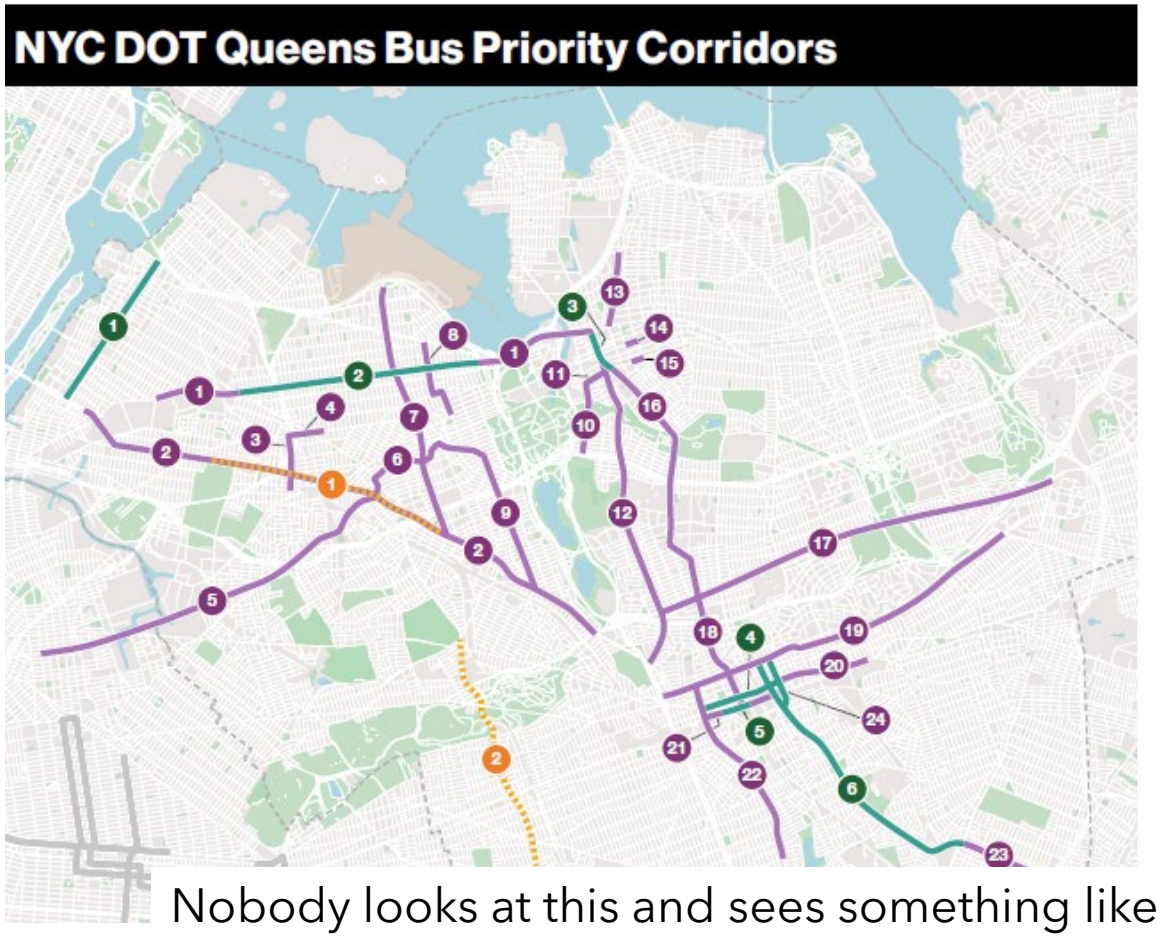
# Bus Priority Corridors: Queens Example

While in 2014 the proposed 'BRT Corridors' formed something of a network with the Subway system…

The 2024 the 'Bus Priority Corridors' were bits and pieces of roads where bus priority measures would be useful, but the 'network' element is lost.




Nobody looks at this and sees something like an extension to the subway map.

# Bus Priority Corridors: Queens Example

| Queens Corridors: MTA (Priority Order) |
|---|
| Northern Blvd Ext. |
| Queens Blvd |
| 69th St. Jackson Heights |
| Roosevelt Ave. Jackson Heights |
| Grand Ave. |
| Corona Ave/Broadway |
| Junction Blvd/94th St. |
| 102nd st/37th Ave/104th St. |
| 108th St. |
| College Pt W/Stanford Ave |
| Main St. Flushing |
| Union St. |
| Roosevelt Ave. E |
| Sanford Ave. E. |
| Kissena Blvd/Parsons Blvd |
| Union Turnpike |
| Parsons Blvd |
| Hillside Ave |
| Jamaica Ave Ext. |
| Archer Ave Ext. |
| Sutphin Ave Ext. S. |
| Merrick Blvd Ext. |

Of the Queens bus priority corridors currently identified, only 3 (highlighted in blue) have SBS routes operating on them.

The remaining corridors will be used by Local, Rush, or Limited routes under the Network Redesign

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# Bus Priority Corridors

Bus Priority Corridors were prioritized based on the following criteria:

- Demand for bus service
- Bus performance
- Feasibility of implementing new street treatments including traffic levels and street widths
- The corridor's role in the transit network
- Neighborhood demographics and equity metrics

Reasonable criteria!
This came from the NYC Streets Plan of 2019 and was reiterated in the Queens Bus Network Redesign. However, no weighting on the criteria or transparent analysis was publicly released. Further, the 2025 update to the Streets Plan includes projects listed as completed that are not included in the original Street Plan. Nor do the future projects listed on DOT's website fully match those laid out in the original Streets Plan, and the reasons for the changes are never explained.

This report tries to make these and other criteria more transparent **so they can be discussed by stakeholders.**

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# Busways

NYC DOT started a Busway program in 2019.

- These were short segments of roads with lots of delay.
- They were turned into exclusive streets for buses and trucks.
- These were well targeted, but they didn't address one of the main cause of delay which was boarding delay.

Busways are different from BRT corridors mainly because they are short segments of overlapping bus routes.  They do not form part of a rapid transit network.


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# Busways


## Busways built since 2019:

- 14th St, Manhattan
- Jay St, Downtown Brooklyn
- Main Street, Flushing, Queens
- 181st St, Manhattan
- Jamaica Ave, Jamaica, Queens
- Archer Ave, Jamaica, Queens
- Livingston St, Downtown Brooklyn (2-way buses, 1 lane mixed traffic)

## Busway that already existed:

- Fulton Mall

## Busways under discussion

- 34th Street

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# Busways


There is a need for more dramatic BRT-type interventions in some short segments where a lot of bus routes converge.

They should be a target for BRT measures, but do not necessarily need to be a full busway.

Emphasis should be on simultaneously improving the public space!

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# BRT Corridor Prioritization: A Technical Perspective

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# How should BRT corridors be prioritized by the next administration?


Our last report recommended:

- Return to an approach where corridor-level bus priority measures form critical links in a rapid transit network. This will involve upgrade some corridors that already have SBS services and bus priority measures to full BRT
- Implement full BRT measures on short critical segments of high bus demand and major delay (mostly the busways).

Now we take this a few steps further.

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# Where should BRT corridors be prioritized?

1. Current demand
2. Includes highest volume links
3. Constructability (road width)
4. Serves affordable housing
5. Network (compliments the subway system)
6. Potential travel time savings
7. Cross section (easy to implement central median alignment)
8. Service Pattern (SBS, Limited, or Rush routes)
9. Political issues: (For discussion!)

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# Potential BRT Corridors with the Highest Existing Demand

| Corridor | Section | Borough | # of Routes | Total Ridership |
|---|---|---|---|---|
| 5th Ave & Madison | 125th St. - 8th St. | M | 7 | 47,560 |
| 1st and 2nd Avenue | Houston St. to 125th St. | M | 2 | 32,298 |
| Kissena Blvd/Parsons Blvd | Main St Flushing to Archer Ave | Q | 3 | 31,009 |
| 3rd and Lexington | 59th St. - 96th St. | M | 3 | 29,056 |
| Grand Ave/Coronoa | Metropolitan to 108 St. | Q | 2 | 27,413 |
| Flatbush, Livingston | Livingston to Grand Army Plaza | B | 3 | 25,694 |
| 125th St | 2nd Ave to Morningside Ave | M | 3 | 25,240 |
| Main St, Flushing | 38th St to Kissena | Q | 3 | 24,504 |
| Hillside Ave | Queens Blvd - Springfield Blvd | Q | 7 | 23,247 |
| Merrick Blvd/189th | Hillside Ave to Belt Parkway | Q | 6 | 21,885 |
| Flatlands, Kings Highway | Ralph Ave to Gateway Center | B | 2 | 21,084 |
| Fordham Rd/Pelham Pkwy | Inwood to Coop City | Bx | 1 | 18,388 |
| Nostrand/Bedford | Ave Z/Ocean Pkwy-Williamsburg | B | 2 | 17,121 |
| Utica Ave, Malcolm X | Broadway to Kings Plaza | B | 2 | 17,091 |
| Bay Parkway/Cropsey Ave | Ave J-Shore Parkway; Bay Pkwy - 26th Ave | B | 2 | 17,045 |
| 9th/10th Ave | 14th St - 125th St | M | 2 | 15,774 |
| Lefferts | Kew Gardens - JFK | Q | 1 | 14,434 |
| Church Ave | McDonald Ave - JFK | B | 1 | 14,171 |
| Union Turnpike | Queens Blvd - Lake Success | Q | 1+ Express | 13,841 |
| 14th St, C & D | 14th, Ave C/D to Canal | M | 2 | 13,626 |
| Queens Blvd | Queensboro Bridge - Jamaica | Q | 7 | 13,618 |
| Northern Blvd | 59th St Man - Bayside | Q | 1 | 13,338 |
| Grand Concourse | Jerome Ave - E. 38th St | Bx | 2 | 13,117 |
| 86th St | West End Ave - East End Ave | M | 1 | 13,016 |
| 108th St | Queens Blvd - LGA | Q | 1 | 12,569 |

## Top 25 'Potential BRT Corridors' based on:

- Sections of road at least 1.9 miles* in length
- The highest volume of bus passengers (all the routes using the corridor)

* 1.9 Miles is defined by the BRT Standard. The metric is international so it is based on 3km.

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# Highest Demand Manhattan

1. Fifth & Madison
2. 1st & 2nd Ave
4. 3rd & Lexington
7. 125th St
16. 9th & 10th Ave.
20. 14th & Ave C/D
24. 86th St.

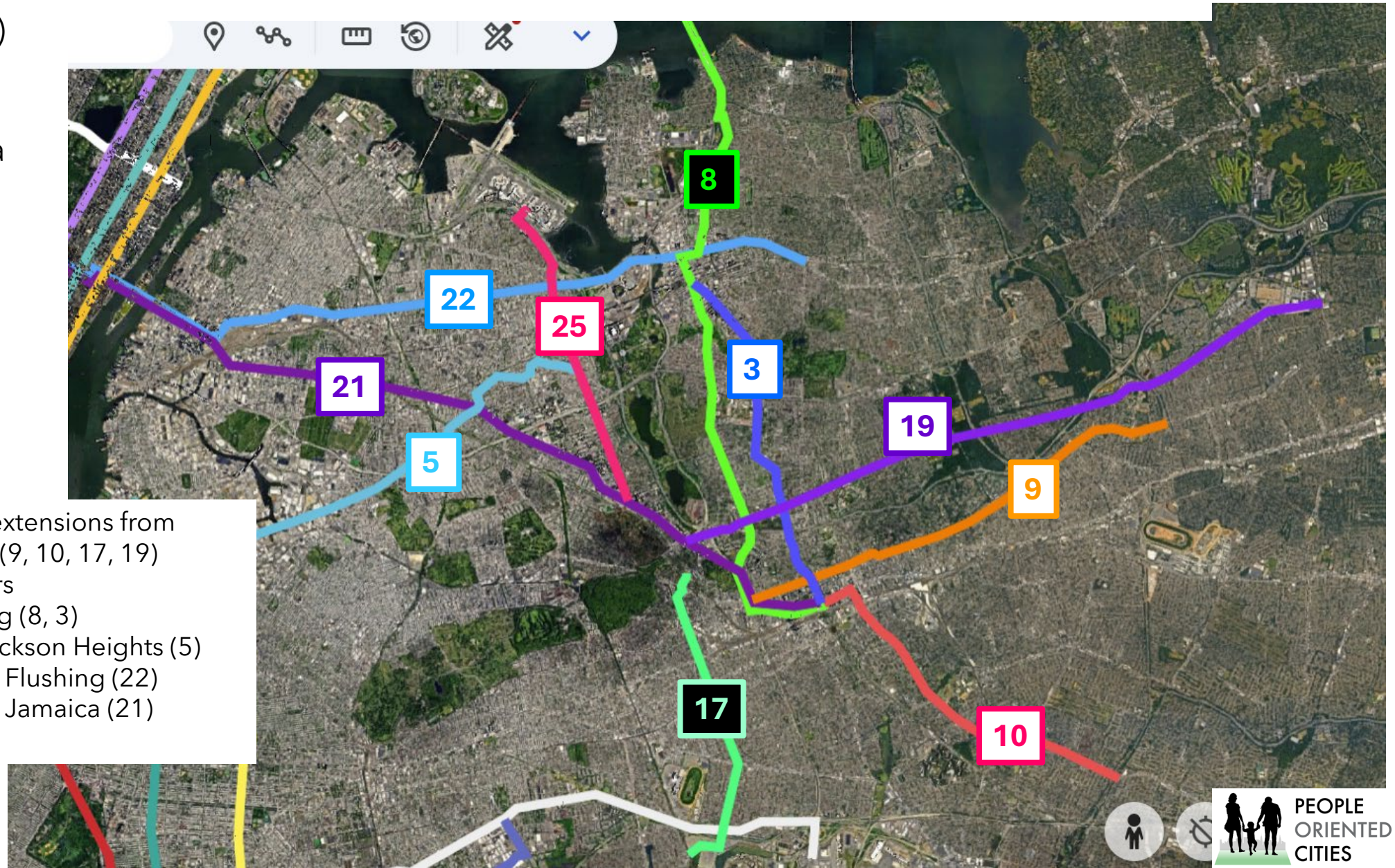
4 of these are N-S arterials (1, 2, 4, 16)
Three are popular Crosstown buses. (7, 20, 24)
An SBS service already runs down 2, 7, 20, and 24.

# Highest Demand Queens

(Number shows rank)

3. Kissena Blvd
5. Grand Ave/Corona
8. Main St
9. Hillside Ave
10. Merrick Pkwy
17. Lefferts Blvd
19. Union Turnpike
21. Queens Blvd
22. Northern Blvd
25. 108th St.

- Four of these are subway extensions from Jamaica or Kew Gardens: (9, 10, 17, 19)
- Five serve popular OD Pairs
  - Jamaica to Flushing (8, 3)
  - Williamsburg to Jackson Heights (5)
  - Long Island City to Flushing (22)
  - Long Island City to Jamaica (21)
- One is an SBS Route (8).

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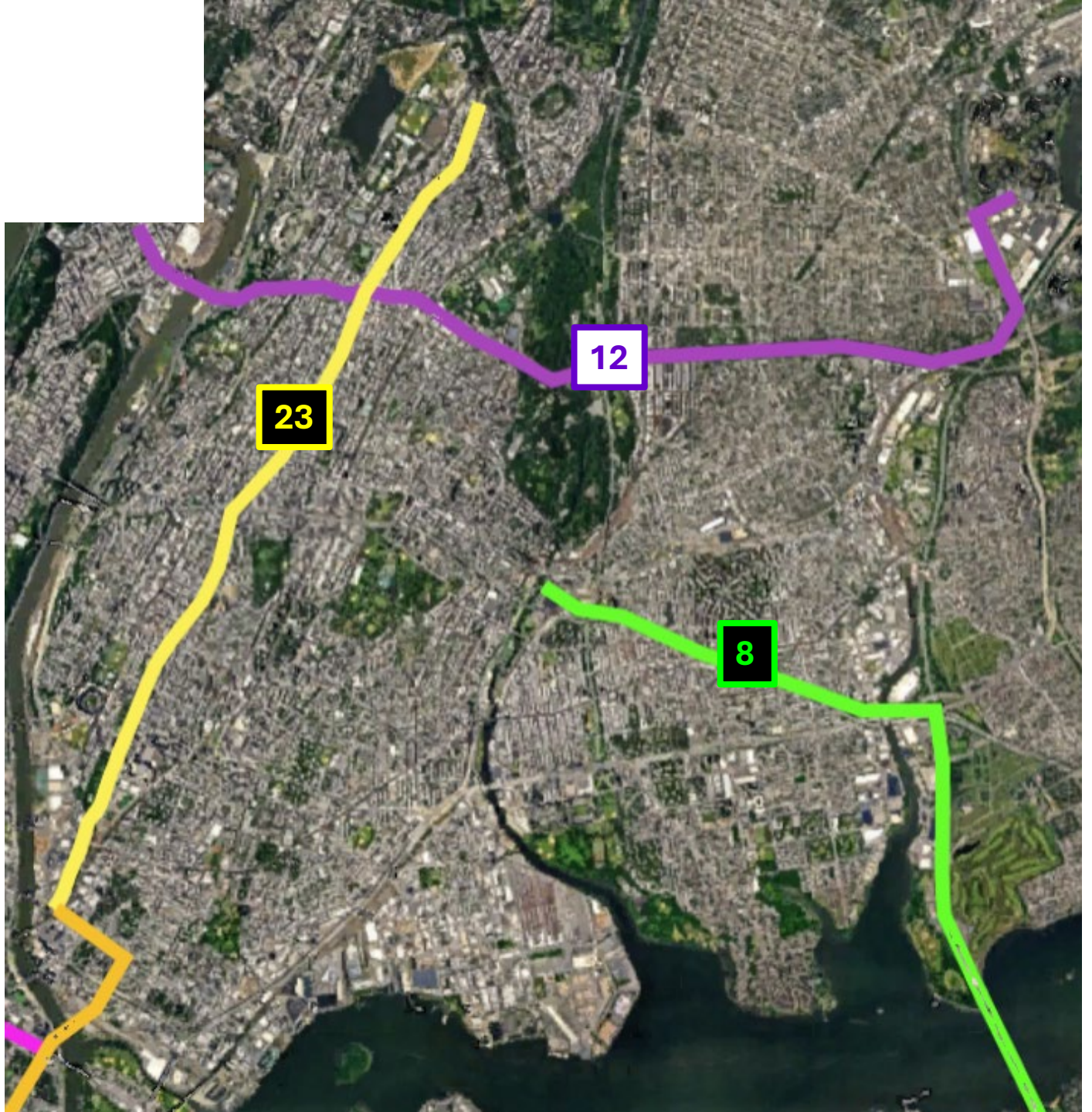
# Highest Demand Bronx

(Number shows rank)

8. (Main St Flushing Extension)
12. Fordham Rd/Pelham Parkway
23. Grand Concourse

- One is a North – South Arterial (23)
- One is a major East-West arterial (12)
- One is the interborough connection to Flushing and Jamaica (8)
- One is already an SBS Route (12)



# Highest Demand: Brooklyn

(Number shows rank)

6. Flatbush
11. Kings Highway/Flatlands
13. Nostrand/Bedford
14. Utica/Malcolm X
15. Bay Parkway/Copsey
18. Church Ave/Linden

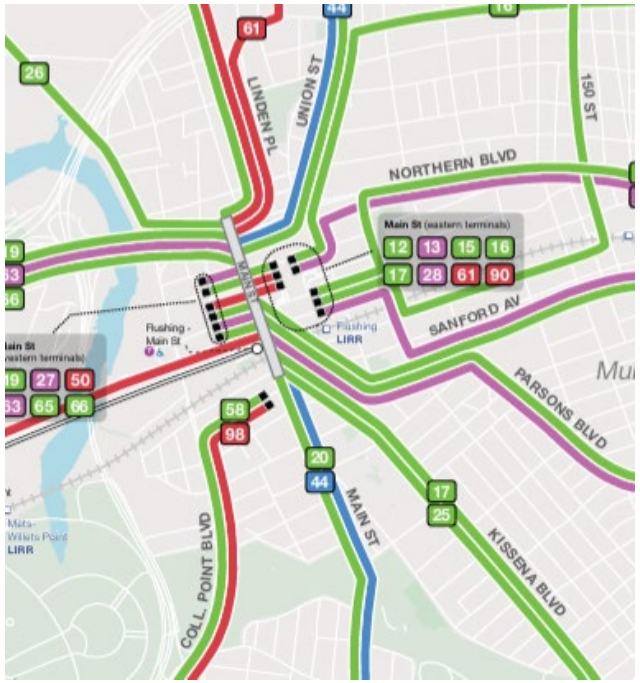
3 are popular North – South Arterials (6, 13, 14)
2 are major East-West arterials that provide circumferential connections to the subway (11, 18)
1 is a subway extension (15)
3 already are SBS routes (11, 13, 14,)

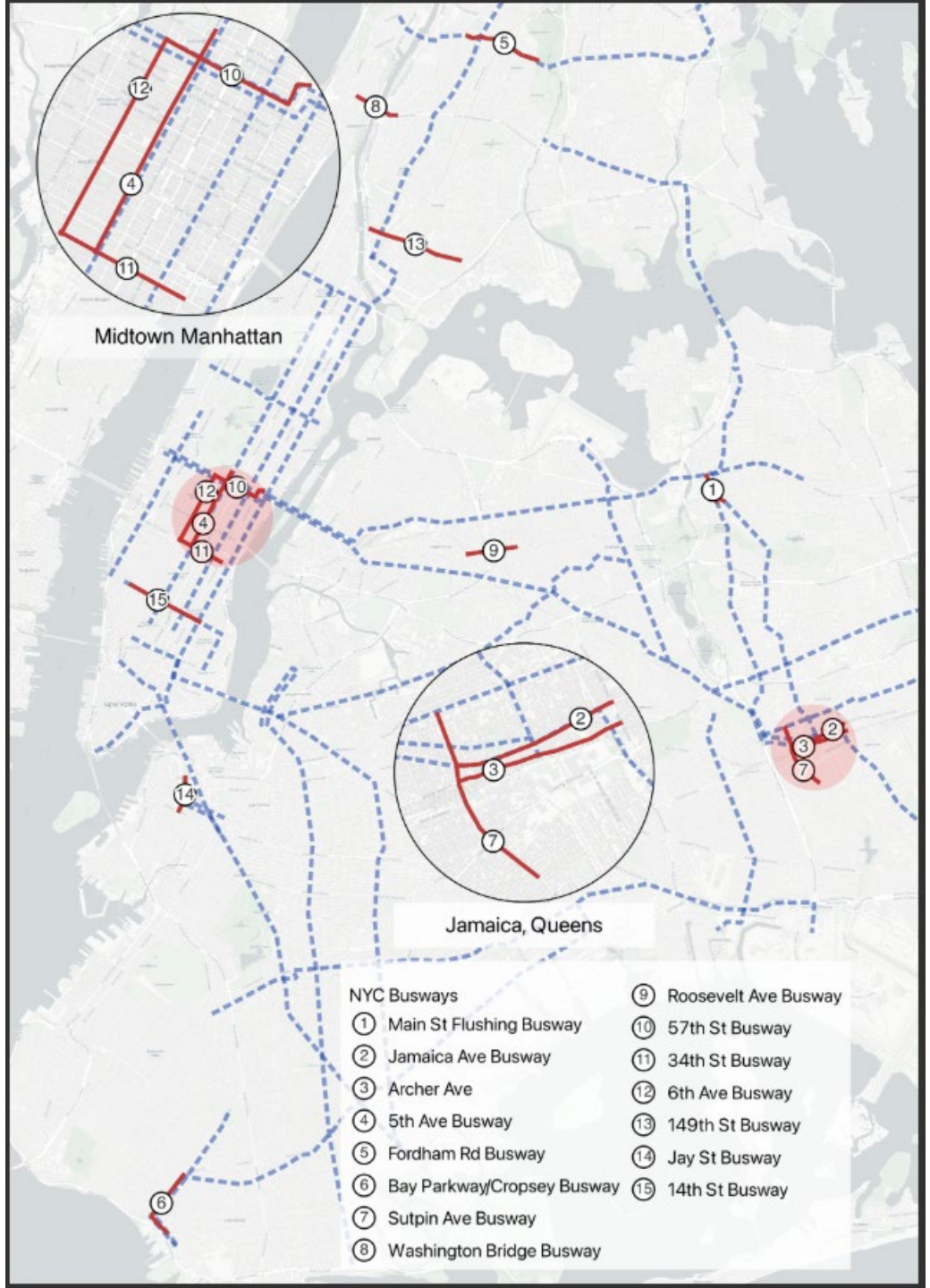
# Includes Highest Volume Links

On many corridors, there is a short section with very high volumes of buses.

This is usually where many routes overlap.

Full BRT measures in these segments would bring huge benefits



# Includes Highest Volume Links

| Corridor | Section | Borough | # Routes | Daily Ridership |
|---|---|---|---|---|
| Main St, Flushing | 38th St to Kissena | Q | 14 | 101,573 |
| Jamaica Ave | Sutphin Blvd - 169th | Q | 13 | 88,982 |
| Archer Ave | LIRR Jamaica - Merrick Blvd | Q | 14 | 68,928 |
| Kissena Blvd/Parsons Blvd | Main St Flushing to Archer Ave | Q | 3 | 48,189 |
| 5th Ave | 59th - 34th St | M | 5 | 47,560 |
| Fordham Rd/Pelham Pkwy | Southern Blvd-Grand Concoure | Bx | 7 | 37,557 |
| Bay Parkway/Cropsy | Cropsey to Kings Highway | B | 2 | 37,125 |
| Sutphin Blvd | Hillside Ave to 109th | Q | 5 | 36,926 |
| Washington Bridge, 181st | Broadway to EL Grant Highway | M | 5 | 30,862 |
| Livingston | Court St - Flatbush | B | 4 | 28,108 |
| Fulton Mall | Court to Flatbush | B | 4 | 26,712 |
| Roosevelt Ave Jackson Heights | 69th St - 82nd St | Q | 4 | 26,036 |
| 149th St. | Prospect Ave - Major Deegan | Bx | 3 | 25,731 |
| 57th St. | 11th - York | M | 3+express | 20,804 |
| 6th Ave. | 31st - 44th | M | 3+express | 19,473 |
| Jay St. | Livingston - Tillary | B | 4 | 18,356 |
| 34th St. | 6th Ave to 2nd Ave | M | 1+express | 16,623 |
| 14th St. | 3rd Ave to 8th Ave | M | 2 | 13,686 |

**Orange color indicates it is already a busway**

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# Includes Highest Volume Links

| Corridor | Section | Borough | # Routes | Daily Ridership | Points for MCA |
|---|---|---|---|---|---|
| Main St, Flushing | 38th St to Kissena | Q | 14 | 101,573 | 10 |
| Jamaica Ave | Sutphin Blvd - 169th | Q | 13 | 88,982 | 9 |
| Archer Ave | LIRR Jamaica - Merrick Blvd | Q | 14 | 68,928 | 7 |
| Kissena Blvd/Parsons Blvd | Main St Flushing to Archer Ave | Q | 3 | 48,189 | 5 |
| 5th Ave | 59th - 34th St | M | 5 | 47,560 | 5 |
| Fordham Rd/Pelham Pkwy | Southern Blvd-Grand Concoure | Bx | 7 | 37,557 | 4 |
| Bay Parkway/Cropsy | Cropsey to Kings Highway | B | 2 | 37,125 | 4 |
| Sutphin Blvd | Hillside Ave to 109th | Q | 5 | 36,926 | 4 |
| Washington Bridge, 181st | Broadway to EL Grant Highway | M | 5 | 30,862 | 3 |
| Livingston | Court St - Flatbush | B | 4 | 28,108 | 3 |
| Fulton Mall | Court to Flatbush | B | 4 | 26,712 | 3 |
| Roosevelt Ave Jackson Heights | 69th St - 82nd St | Q | 4 | 26,036 | 3 |
| 149th St. | Prospect Ave - Major Deegan | Bx | 3 | 25,731 | 3 |
| 57th St. | 11th - York | M | 3+express | 20,804 | 2 |
| 6th Ave. | 31st - 44th | M | 3+express | 19,473 | 2 |
| Jay St. | Livingston - Tillary | B | 4 | 18,356 | 2 |
| 34th St. | 6th Ave to 2nd Ave | M | 1+express | 16,623 | 2 |
| 14th St. | 3rd Ave to 8th Ave | M | 2 | 13,686 | 1 |

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# Road width on potential BRT Corridors

Streets need to be:

- 2-way streets with >/= 100 feet width, or
- 1-way streets with >/= 80 feet width, or
- Narrower streets with a parallel street running the full length of the corridor

Corridors that do not meet these criteria have been dropped from further analysis. (shown in grey to the right)

Roads with parallel streets have the option of diverting traffic to a parallel street. (this will become important later)

| Corridor | Width (feet) | 1-way or 2-way | Parallel Street (Y/N) |
|---|---|---|---|
| 5th Ave & Madison | 80 | 1 | Y |
| 1st and 2nd Avenue | 100 | 1 | Y |
| Kissena Blvd/Parsons Blvd | 80 | 2 | N |
| 3rd and Lexington | 80 | 1 | Y |
| Grand Ave/Coronoa | 80 | 2 | N |
| Flatbush, Livingston | 100 | 2 | N |
| 125th St | 100 | 2 | Y |
| Main St, Flushing | 100 | 2 | N |
| Hillside Ave | 115 | 2 | N |
| Merrick Blvd/189th | 100 | 2 | N |
| Flatlands, Kings Highway | 100 | 2 | N |
| Fordham Rd/Pelham Pkwy | 100 | 2 | N |
| Nostrand/Bedford | 80 | 1 | Y |
| Utica Ave, Malcolm X | 100 | 2 | Y |
| Bay Parkway/Cropsey ave | 90 | 2 | N |
| 9th/10th Ave | 100 | 1 | Y |
| Lefferts | 80 | 2 | N |
| Church Ave | 80 | 2 | Y |
| Union Turnpike | 90 | 2 | N |
| 14th St, C & D | 100 | 2 | Y |
| Queens Blvd | 200 | 2 | N |
| Northern Blvd | 100 | 2 | N |
| Grand Concourse | 180 | 2 | N |
| 86th St, Manhattan | 100 | 2 | Y |
| 108th St, Queens | 80 | 2 | N |

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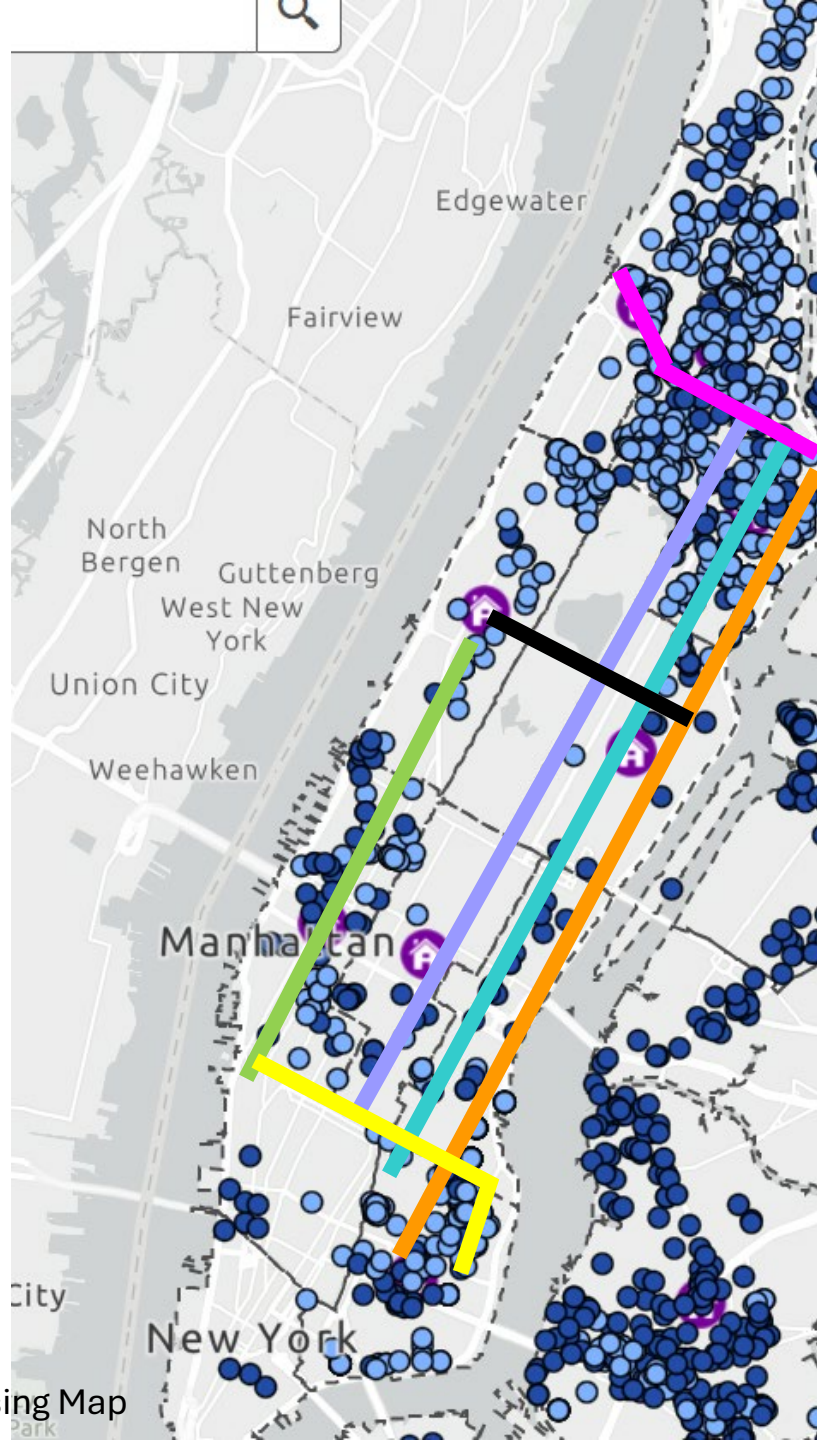
# Serves Affordable Housing
## Manhattan

New and existing affordable housing is a good proxy for both equity and future demand growth.

Of the high-demand corridors, these areas are served by (in rank order):

- 125th St
- 9th/10th
- 3rd/Lex
- 1st/2nd Aves
- 5th/Madison


2024 HPD Affordable Housing Map

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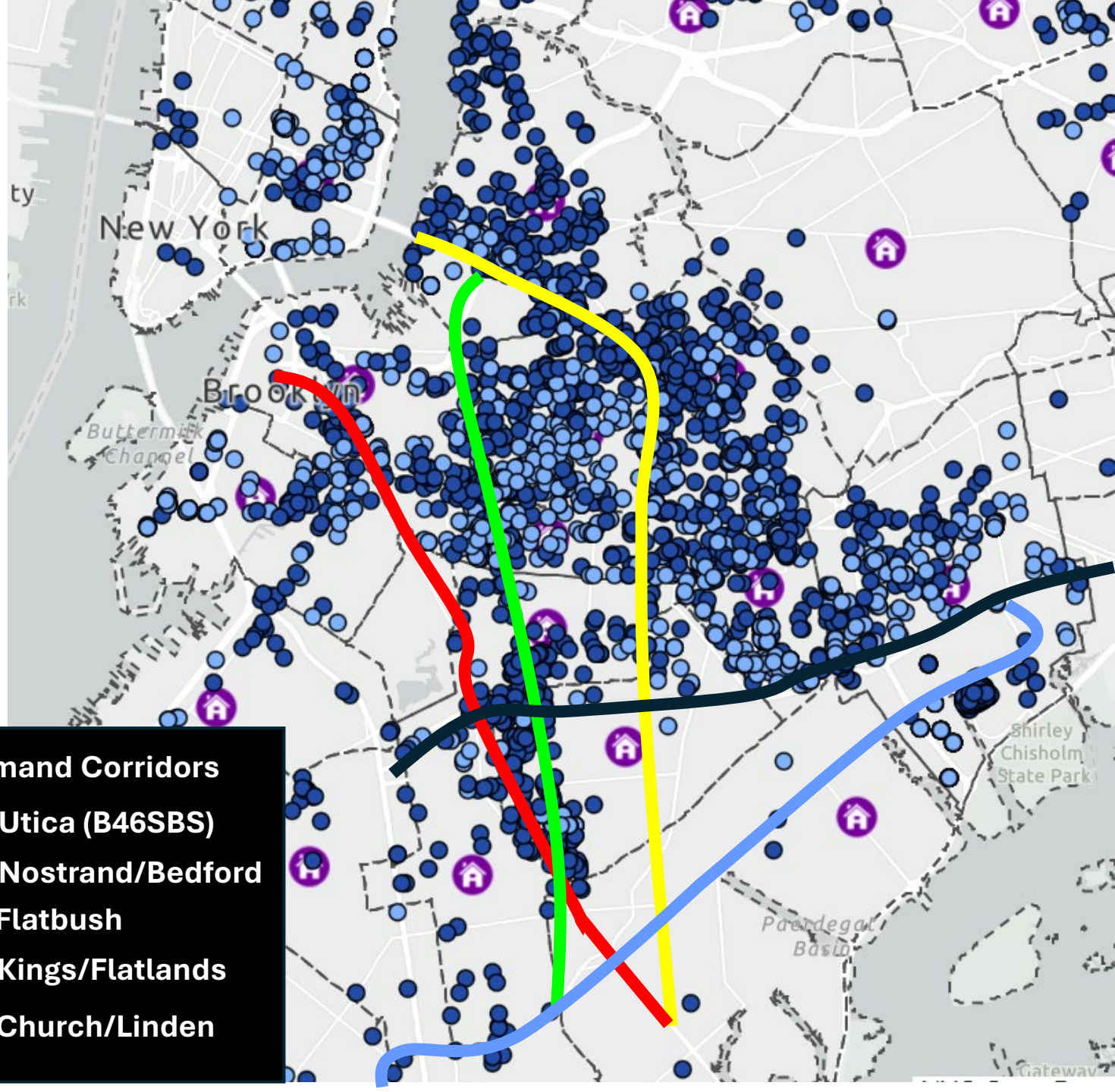
# Serves Affordable Housing
## Brooklyn

Of the high-demand corridors, these areas are served by (in rank order):

- Nostrand/Bedford
- Utica
- Flatbush
- Church/Linden
- Kings/Flatlands

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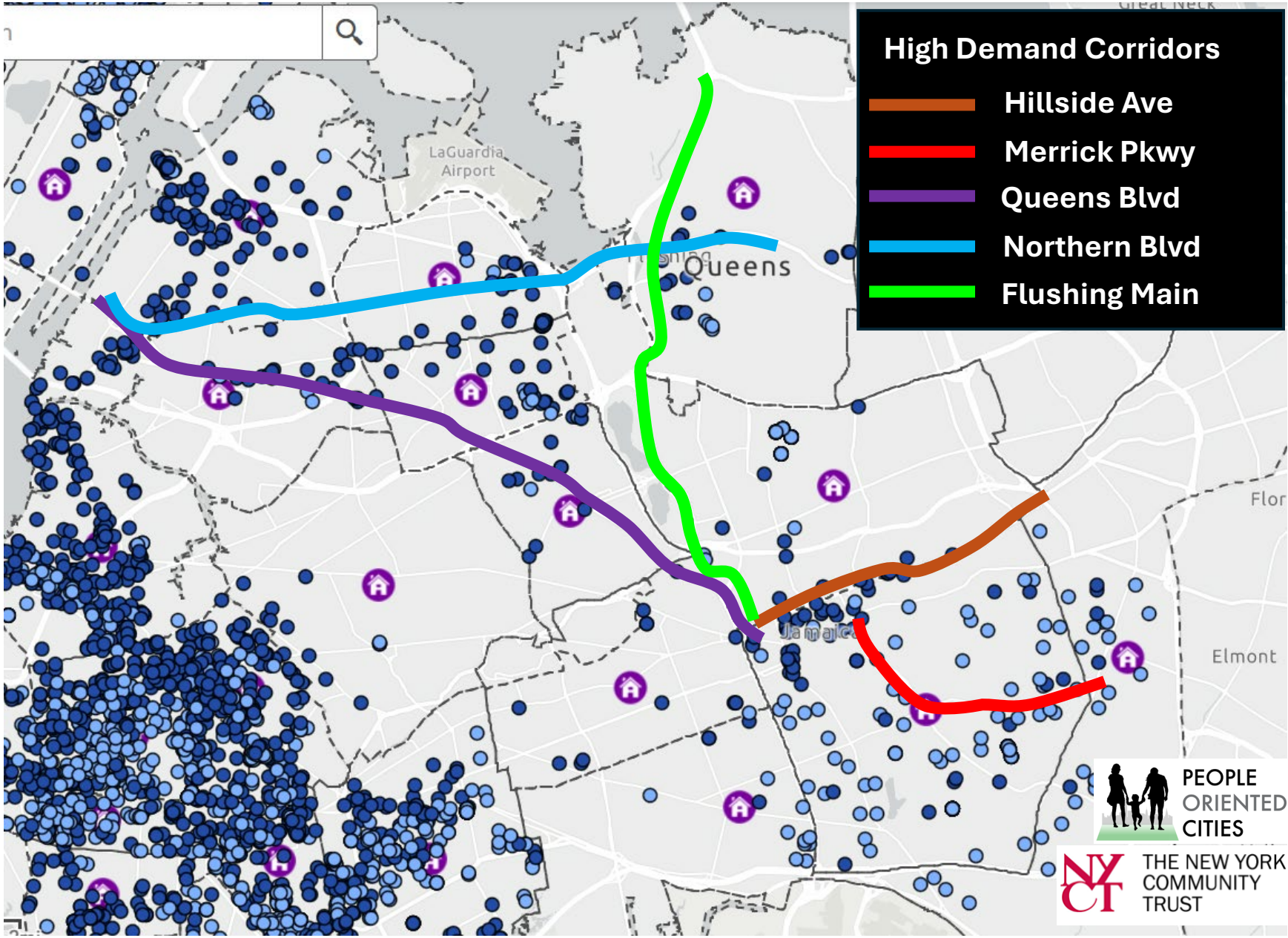
# Serves Affordable Housing Queens

Of the high-demand corridors, affordable housing areas are best served by (in rank order):

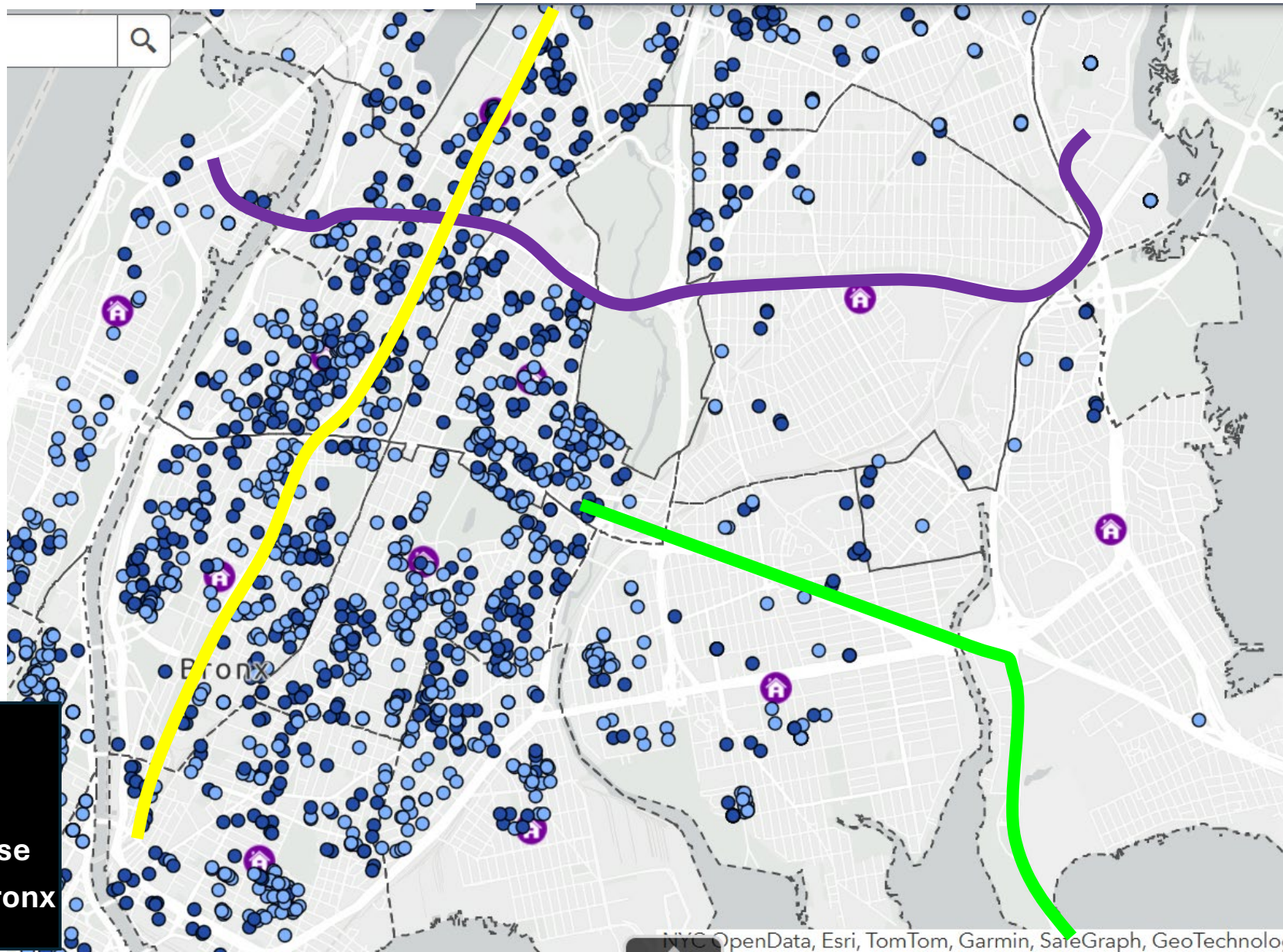
- Hillside
- Merrick
- Northern Blvd
- Queens Blvd



# Serves Affordable Housing
## Bronx

Of the high-demand corridors, these areas are served by (in rank order):

- Grand Concourse
- Fordham Rd

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# Potential BRT Corridors Ranked by How Well They Serve Affordable Housing

| Corridor | Affordable Housing Overlap |
|---|---|
| 125th St | 5 |
| Nostrand/Bedford | 5 |
| Grand Concourse | 5 |
| Utica Ave, Malcolm X | 4 |
| Church Ave | 4 |
| 1st and 2nd Avenue | 3 |
| Flatbush, Livingston | 3 |
| Hillside Ave | 3 |
| Fordham Rd/Pelham Pkwy | 3 |
| 9th/10th Ave | 3 |
| 14th St, C & D | 3 |
| 3rd and Lexington | 2 |
| Merrick Blvd/189th | 2 |
| Queens Blvd | 2 |
| Northern Blvd | 2 |
| 5th Ave & Madison | 1 |
| Main St, Flushing | 1 |
| Flatlands, Kings Highway | 1 |
| 86th St, Manhattan | 1 |

Serves Primarily Affordable Housing Areas
Serves Extensive Affordable Housing Areas
Connects Extensive Affordable Housing to Employment Centers
Connects Some Affordable Housing to Employment Centers
Primarily Serves Middle Class or Affluent Areas

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# Network Effects
## Manhattan

1st & 2nd Ave complete the 2nd Ave Subway

A 9th & 10th Ave corridor to 72nd St completes the west side service grid

125th & 86th provide missing crosstown links to the rapid transit network

5th & Madison and 3rd & Lex are close to the 4,5,6 but that line is very crowded.

14th St. overlaps the L Train, but the service turns south to provide access to dense housing on Aves C & D.

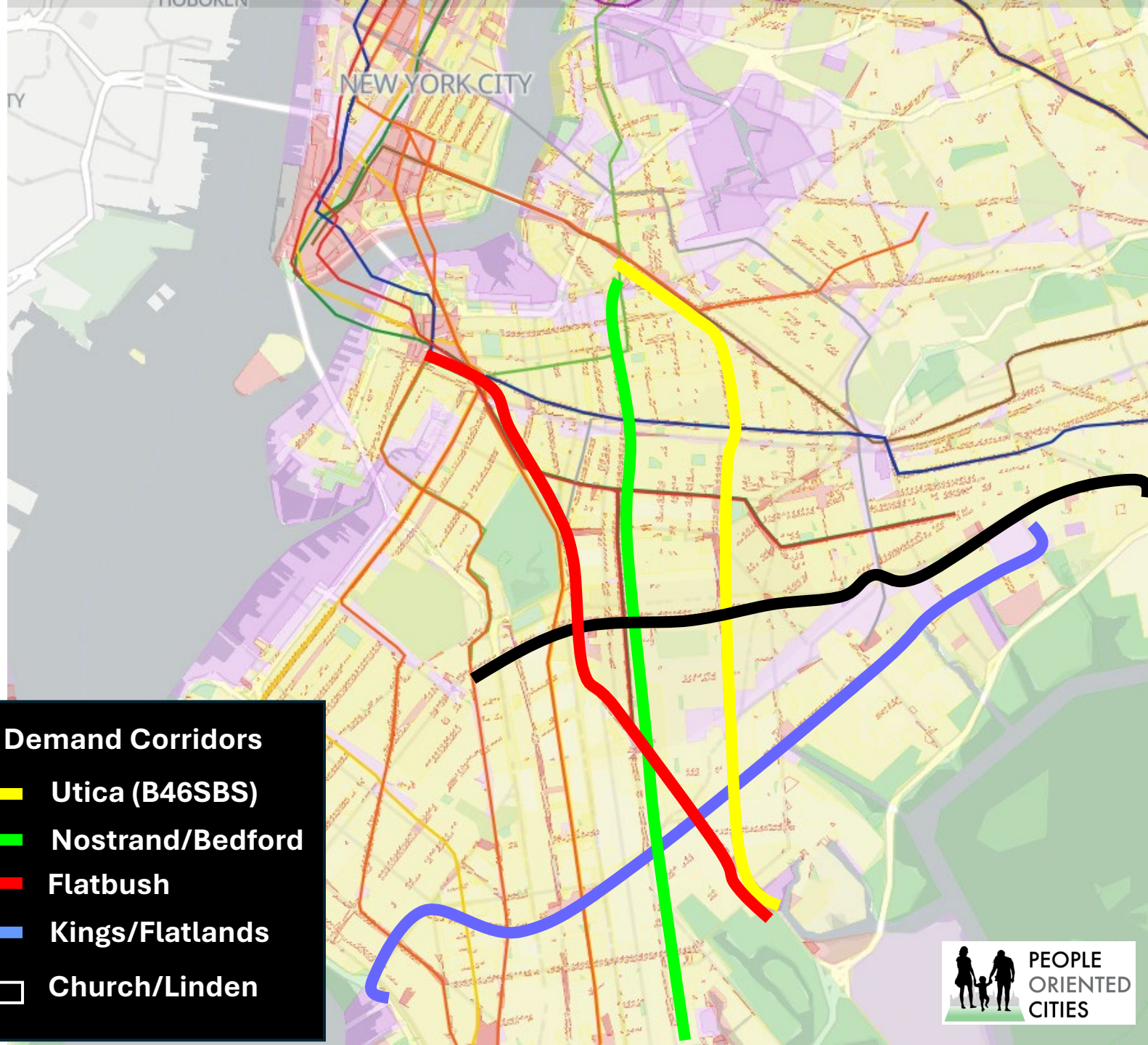
# Network Effects
## Brooklyn

Utica completes a missing link in the subway network.

Outer Flatbush complements the subway, the inner part overlaps.

Nostrand connects Williamsburg to Central Brooklyn but partially overlaps the subway.

Church/Linden and Kings/Flatlands complement the subway network but miss some connections.



# Network Effects

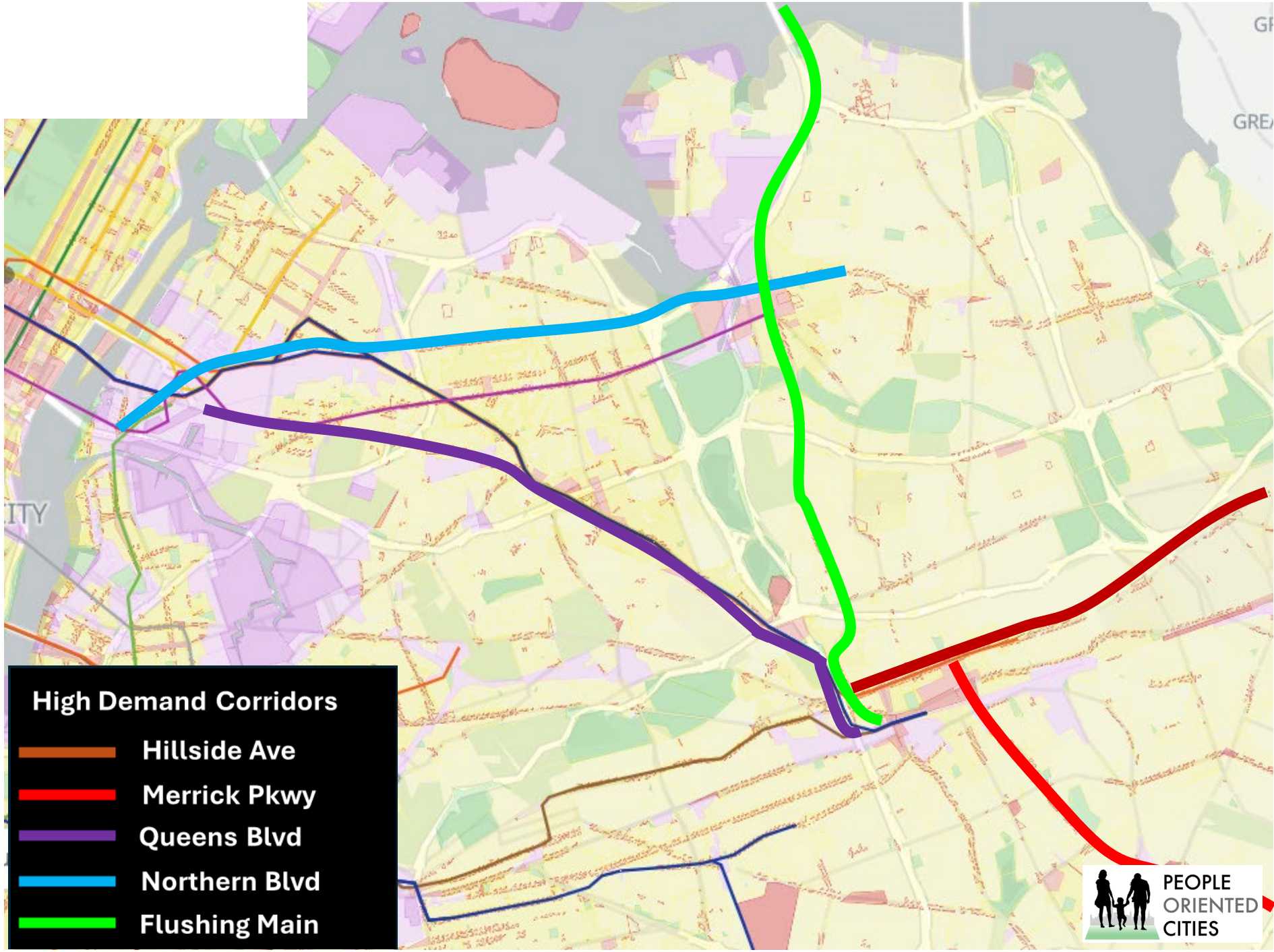
## Queens

Flushing Main provides critical missing link between Jamaica and Flushing subway termini

Northern Blvd links Flushing & Jackson Heights to LIC but parallel to 7 train.

Merrick and Highland Blvd are subway extensions.

Lefferts fills a gap in the transit grid.



# Network Effects

## Bronx

# Network Effects
## Corridor Ranking

| Corridor | Network Score |
|---|---|
| 125th St, | 5 |
| Main St, Flushing, | 5 |
| Merrick Blvd/189th, | 5 |
| Flatlands, Kings Highway | 5 |
| Fordham Rd/Pelham Pkwy, | 5 |
| Utica Ave , Malcolm X | 5 |
| Church Ave | 5 |
| 86th St, Manhattan | 5 |
| Hillside Ave, | 4 |
| 1st and 2nd Avenue, | 3 |
| 9th/10th Ave | 3 |
| Flatbush, Livingston | 3 |
| Nostrand/Bedford | 3 |
| Queens Blvd | 3 |
| Northern Blvd | 3 |
| 5th Ave & Madison | 2 |
| 14th St, C & D | 2 |
| Grand Concourse | 1 |
| 3rd Ave, Lexington | 1 |

5 Fully Overlaps the Subway
4 Mostly Overlaps the Subway
3 Partially Oerlaps the Subway
2 Fills Some Gaps in the Subway
1 Fills an Important Gap in the Sub

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# Potential Speed Increase with Full BRT
## Corridor Ranking

Methodology for calculating potential speed increase (segment-level) as follows:

- Begin with free-flow car speed measured at 3am
- Add 12s fixed dwell time per stop
- Add 0.3s per passenger boarding
- Subtract from existing bus speed on that segment

This assumes that the BRT measures will remove congestion-related delay and boarding-related dwell time.

| Corridor | Potential Speed Increase (mph) |
|---|---|
| Church Ave | 8.97 |
| 125th St | 7.29 |
| Fordham Rd/Pelham Pkwy | 6.8 |
| 1st and 2nd Avenue | 6.6 |
| 3rd & Lex | 5.85 |
| 9th & 10th Ave | 5.74 |
| Grand Concourse | 5.71 |
| Northern Boulevard | 5.7 |
| Merrick Blvd/189th | 5.42 |
| Flatbush | 4.94 |
| Nostrand/Bedford | 4.9 |
| 86th St, Manhattan | 4.33 |
| 5th Ave & Madison | 4.2 |
| Queens Boulevard | 3.875 |
| Main St, Flushing | 3.55 |
| 14th St | 3.25 |
| Flatlands, Kings Highway | 3.01 |
| Hillside Ave | 1.81 |

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# Potential Speed Gain

**Hillside Ave** already has reasonably high speed. Planned "Rush" route will eliminate stops and related delay.

**Main St. Flushing & Kings Hwy** already have offset bus lanes and reasonably high speeds except on and approaching the busway.

**Church Ave, 125th St, Fordham Rd, 1st/2nd Ave, Utica** have significant potential time savings, due to high volumes of boarding passengers.

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# Service Type
## Corridor Ranking

BRT works best with SBS, Limited, or Rush routes.

- SBS = 5 pts
- Limited & Rush = 4 pts

BRT doesn't work well with Express routes: makes few stops on the BRT corridor -> little time savings benefit from BRT stations.

BRT doesn't work well with Local routes: too many stations to build, a lot of delay related to the stops.

- Express = 1 pt
- Local = 1 pt

| Corridor | Route Type(s) | | Score |
|---|---|---|---|
| 1st and 2nd Avenue | SBS | Lcl | 5 |
| 125th St | SBS | Lcl | 5 |
| Main St, Flushing | SBS | Lcl | 5 |
| Fordham Rd/Pelham Pkwy | SBS | Lcl | 5 |
| Flatbush | SBS | Lcl | 5 |
| Utica Ave, Malcolm X | SBS | Lcl | 5 |
| Flatlands, Kings Highway | SBS | Lcl | 5 |
| 86th St, Manhattan | SBS | - | 5 |
| Nostrand/Bedford | SBS | Lcl | 5 |
| Church Ave/Linden | SBS | Lcl | 5 |
| 14th St | SBS | Lcl | 5 |
| Merrick Blvd/189th | Rush | Lcl | 4 |
| Hillside Ave, | Rush | Lcl | 4 |
| Northern Boulevard | Rush | Lcl | 4 |
| Grand Concourse | Ltd | Lcl | 4 |
| 5th & Madison | Lcl | Exp | 1 |
| Queens Boulevard | Exp | Lcl | 1 |
| 5th & Madison | Exp | Lcl | 1 |
| 3rd & Lex | Lcl | - | 1 |
| 9th & 10th Ave | Lcl | - | 1 |

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# Cross Section Type

BRT is harder to design on 1-way streets.

While there are plenty of BRTs with sections on 1-way streets, there is no clearly preferable central-median alignment alternative.

| Corridor | 2-way or 1-way | Score |
|---|---|---|
| Hillside Ave | 2 | 5 |
| 125th St | 2 | 5 |
| Merrick Blvd/189th | 2 | 5 |
| Main St, Flushing | 2 | 5 |
| Fordham Rd/Pelham Pkwy | 2 | 5 |
| Flatbush | 2 | 5 |
| Utica Ave, Malcolm X | 2 | 5 |
| Flatlands, Kings Highway | 2 | 5 |
| 86th St, Manhattan | 2 | 5 |
| Church Ave/Linden | 2 | 5 |
| Northern Boulevard | 2 | 5 |
| Grand Concourse | 2 | 5 |
| Queens Blvd | 2 | 5 |
| 14th St | 2 | 5 |
| 1st and 2nd Avenue | 1 | 1 |
| Nostrand/Bedford | 1 | 1 |
| 3rd & Lexinton | 1 | 1 |
| 5th & Madison | 1 | 1 |
| 9th & 10th Ave | 1 | 1 |

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# Multicriteria Analysis
## Corridor Rankings

| Rank | Corridor | Corridor Ridership | Includes High Demand Links | Network | Road Width | Affordable Housing Overlap | Potential Speed Increase | 2-way or 1-way | Route Type | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 125th St | 17 | 3 | 5 | 5 | 5 | 7 | 5 | 5 | 52 |
| 2 | Main St, Flushing & Kissena Spur | 16 | 10 | 5 | 5 | 1 | 4 | 5 | 5 | 51 |
| 3 | 5th & Madison w 34th St Spur | 32 | 5 | 2 | 3 | 1 | 4 | 1 | 1 | 49 |
| 4 | Merrick Blvd & Archer Ave | 15 | 7 | 5 | 5 | 2 | 5 | 5 | 4 | 48 |
| 5 | 1st and 2nd Avenue | 22 | 1 | 3 | 6 | 3 | 7 | 1 | 5 | 47 |
| 6 | Hillside Ave & Jamaica Ave | 15 | 7 | 4 | 6 | 3 | 2 | 5 | 4 | 46 |
| 7 | Flatbush, Livingston, Fulton, Jay | 17 | 3 | 3 | 5 | 3 | 5 | 5 | 5 | 46 |
| 8 | Fordham Rd/Pelham Pkwy | 12 | 4 | 5 | 3 | 3 | 7 | 5 | 5 | 44 |
| 9 | Utica Ave, Malcolm X | 11 | 1 | 5 | 5 | 4 | 6 | 5 | 5 | 43 |
| 10 | Church Ave / Linden | 9 | 1 | 5 | 2 | 4 | 9 | 5 | 5 | 40 |
| 11 | Flatlands, Kings Highway | 14 | 1 | 5 | 3 | 1 | 3 | 5 | 5 | 37 |
| 12 | Grand Concourse | 9 | 1 | 1 | 6 | 5 | 6 | 5 | 4 | 36 |
| 13 | 3rd & Lex | 19 | 3 | 1 | 3 | 2 | 6 | 1 | 1 | 36 |
| 14 | 86th St, Manhattan | 9 | 1 | 5 | 5 | 1 | 4 | 5 | 5 | 35 |
| 15 | Nostrand/Bedford | 11 | 2 | 3 | 3 | 5 | 5 | 1 | 5 | 35 |
| 16 | Northern Boulevard | 9 | 1 | 3 | 5 | 2 | 6 | 5 | 4 | 34 |
| 17 | 14th St | 9 | 1 | 2 | 5 | 3 | 3 | 5 | 5 | 34 |
| 18 | 9th & 10th | 11 | 1 | 3 | 6 | 3 | 6 | 1 | 1 | 31 |
| 19 | Queens Blvd | 9 | 1 | 3 | 6 | 2 | 4 | 5 | 1 | 30 |

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# Possible Missing Links

The following inter-borough BRT links don't currently exist and are worth considering:

- **Flatbush BRT** over **Manhattan Br**, across **Canal Street**
- **1st & 2nd Ave**, across the **Willis/3rd Ave Bridge**, joining with **Webster/Melrose** in the Bronx where the Bx41-SBS runs, or the Grand Concourse.
- **Utica Ave**:
  - Over the **Williamsburg Br**, across **Houston St**; or
  - Along the **Brooklyn Waterfront**
- **Northern Blvd**, over the **Queensboro Bridge** to **57th St**
- **Bedford/Nostrand**, extended to the **Williamsburg Waterfront**


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# Top 10 Potential BRT Corridors


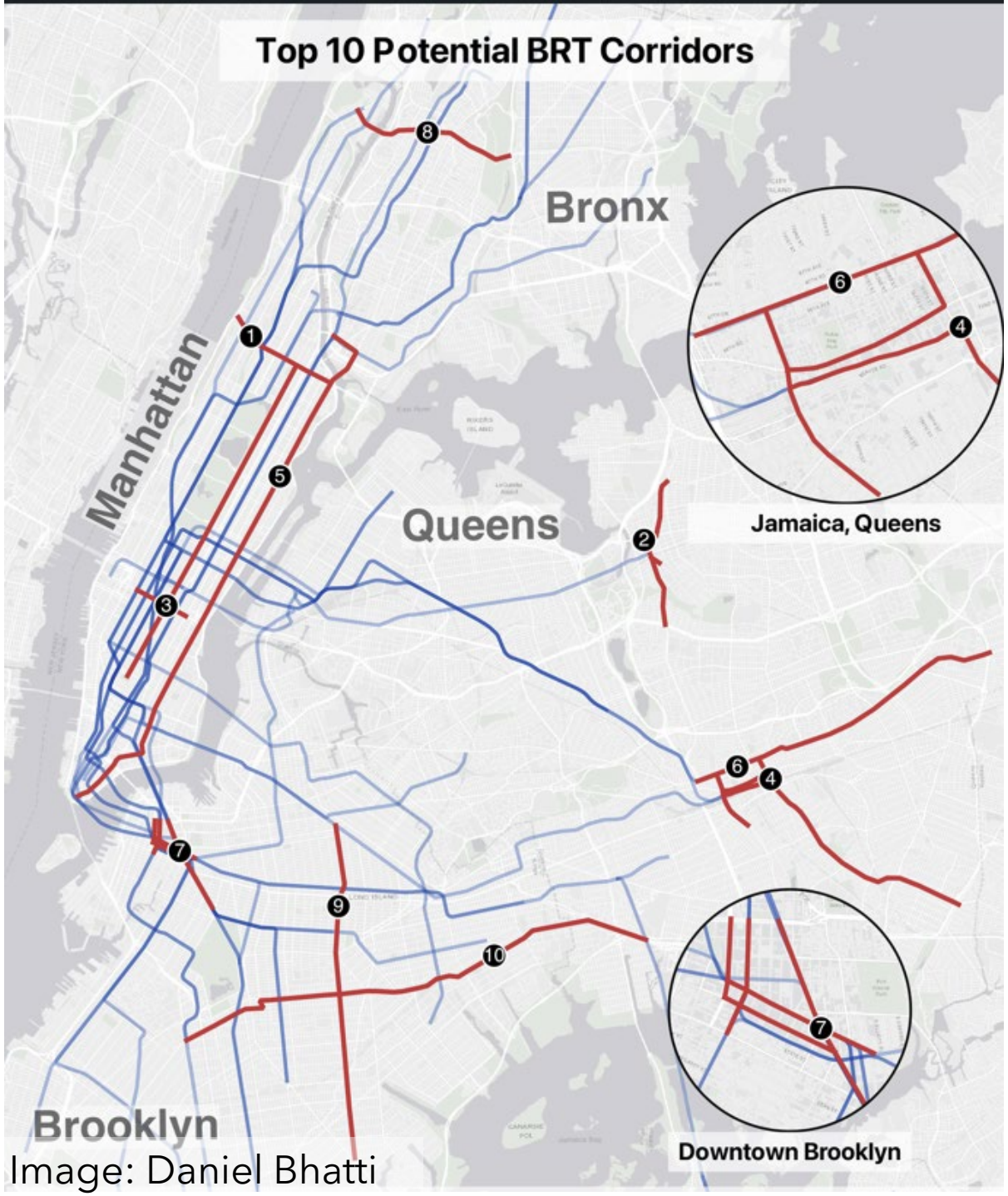


Image: Daniel Bhatti

# Potential BRT Corridors: 11-19


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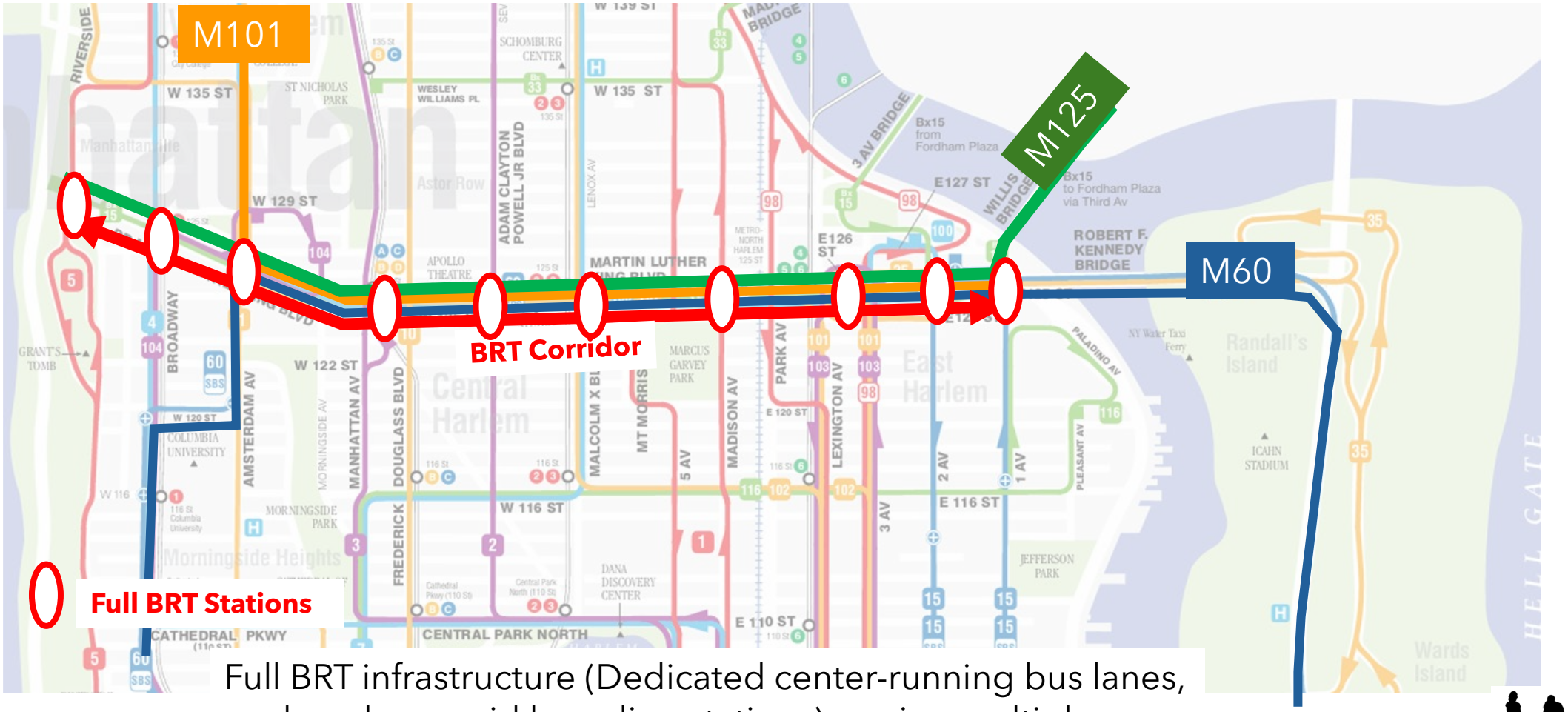
Data Source: MTA Open Data

0 2.5 5 km

- Proposed Corridors
- 11 Flatlands, Kings Highway
- 12 Grand Concourse
- 13 3rd & Lex
- 14 86th St, Manhattan
- 15 Nostrand/Bedford
- 16 Northern Boulevard
- 17 14th St
- 18 9th & 10th
- 19 Queens Blvd
- MTA Subway Network (Existing)

Image: Daniel Bhatti

# BRT Corridor 1: 125th St. St




Full BRT infrastructure (Dedicated center-running bus lanes, enclosed pre-paid boarding stations) serving multiple routes & completing the subway grid.

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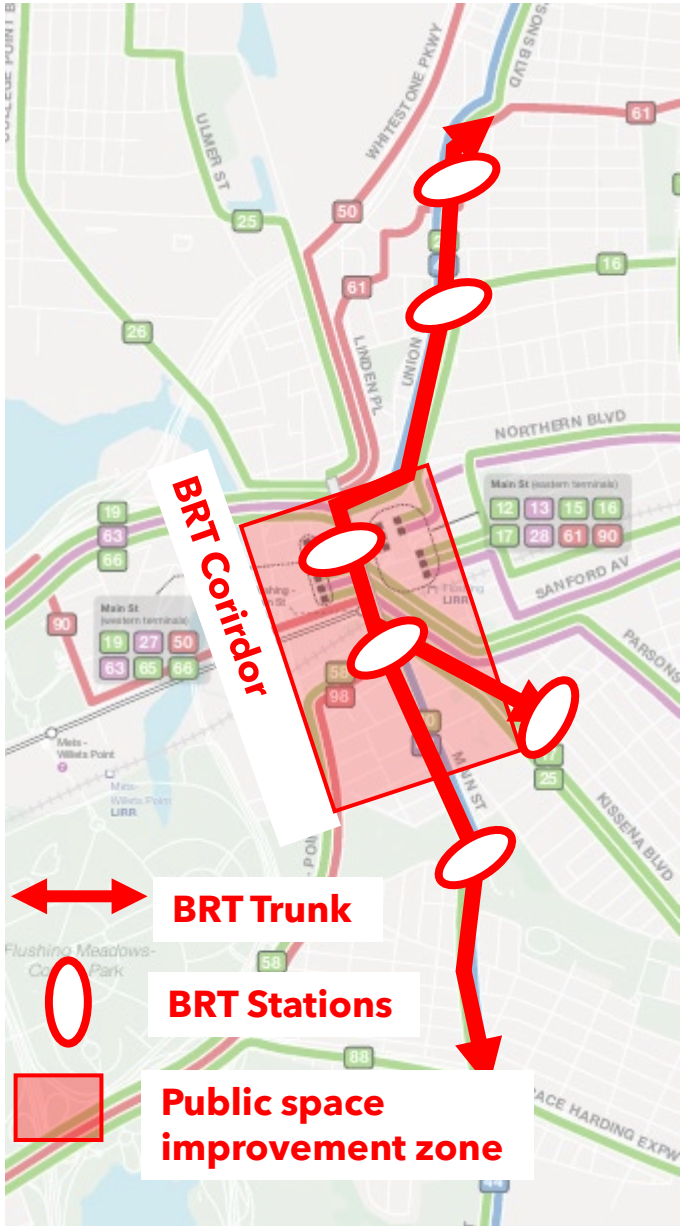
# BRT Corridor 2

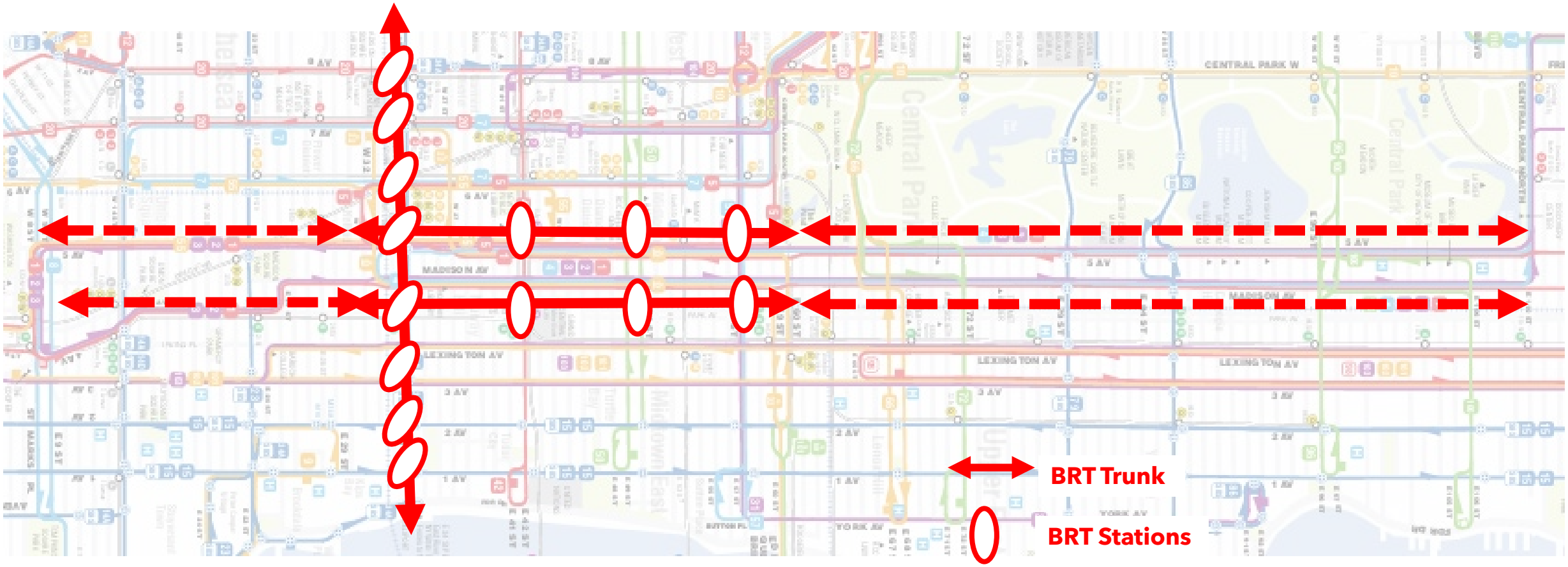
## Main Street, Flushing

Phase 1 would cover the Q44 SBS routes through Flushing but all other route would be allowed to use the BRT infrastructure.

Possible Extension to Jamaica and Bronx in the future.

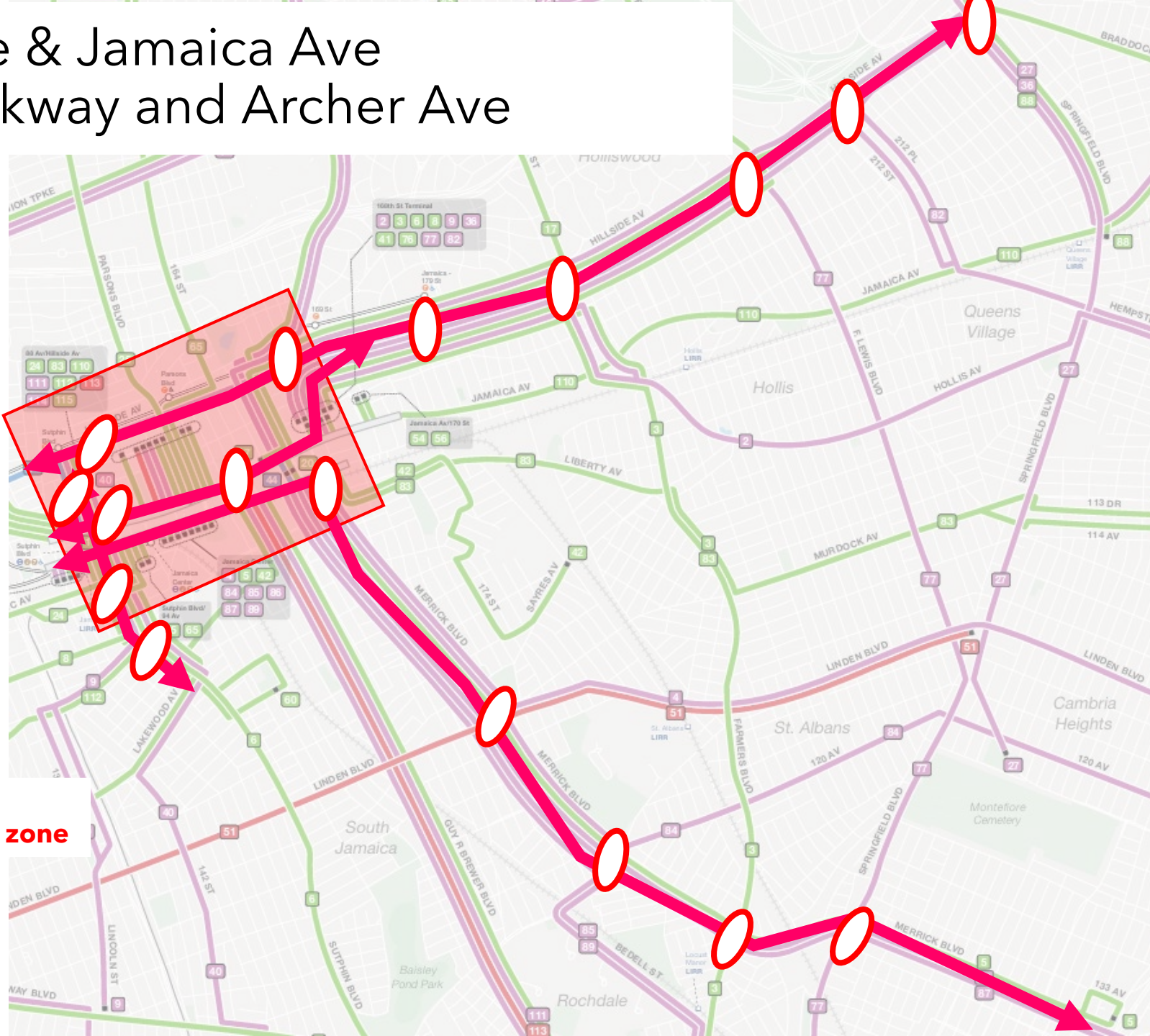


# BRT Corridor 3: 5th & Madison w/ 34th St. Spur




Critical point:
Current proposals for a 5th Avenue Busway/Pedestrian
Zone needs to be designed for a very high volume of buses

# BRT Corridor 4: Hillside Ave & Jamaica Ave
# BRT Corridor 6: Merrick Parkway and Archer Ave



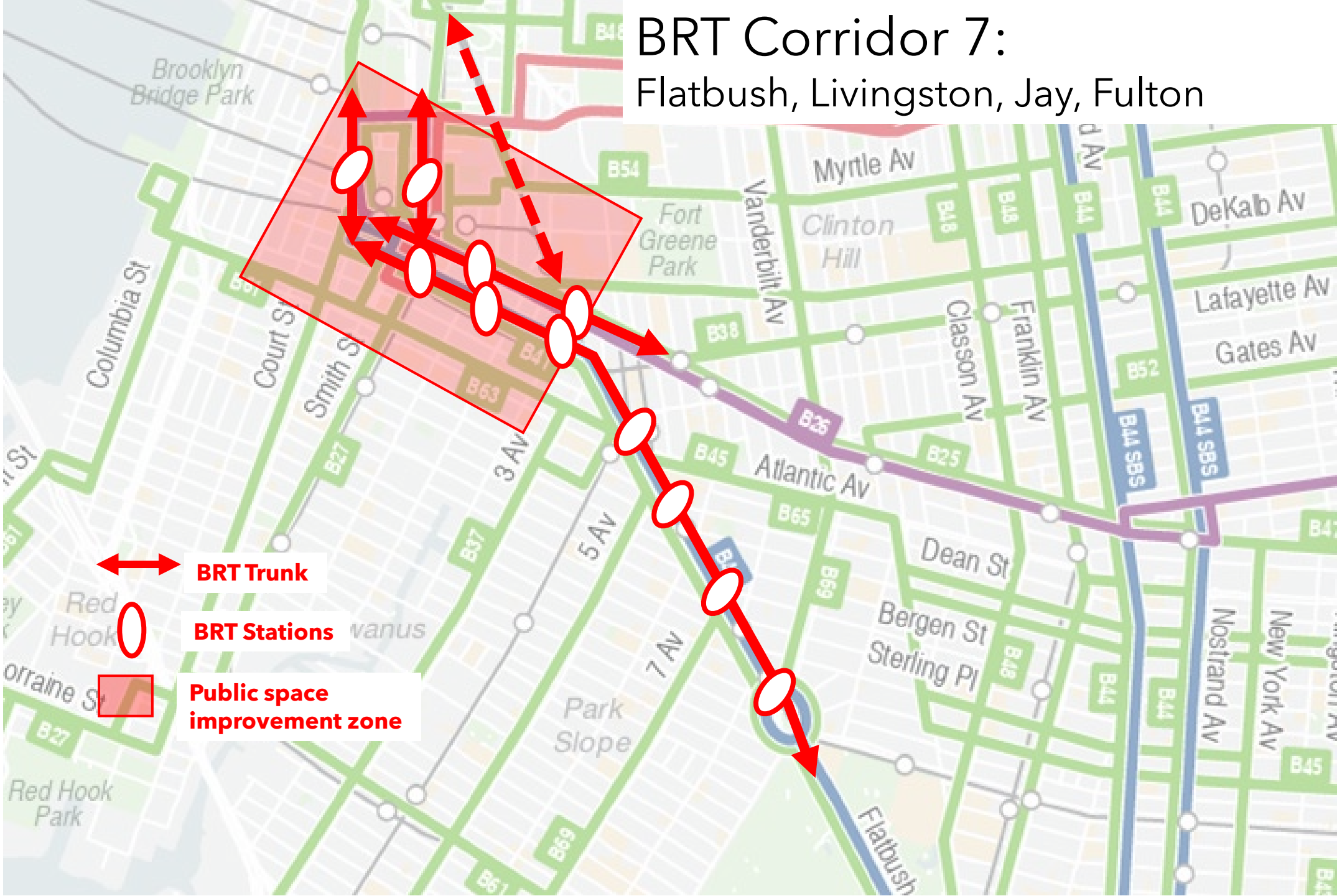

**BRT Trunk**

**BRT Stations**

**Public space improvement zone**

# BRT Corridor 7:

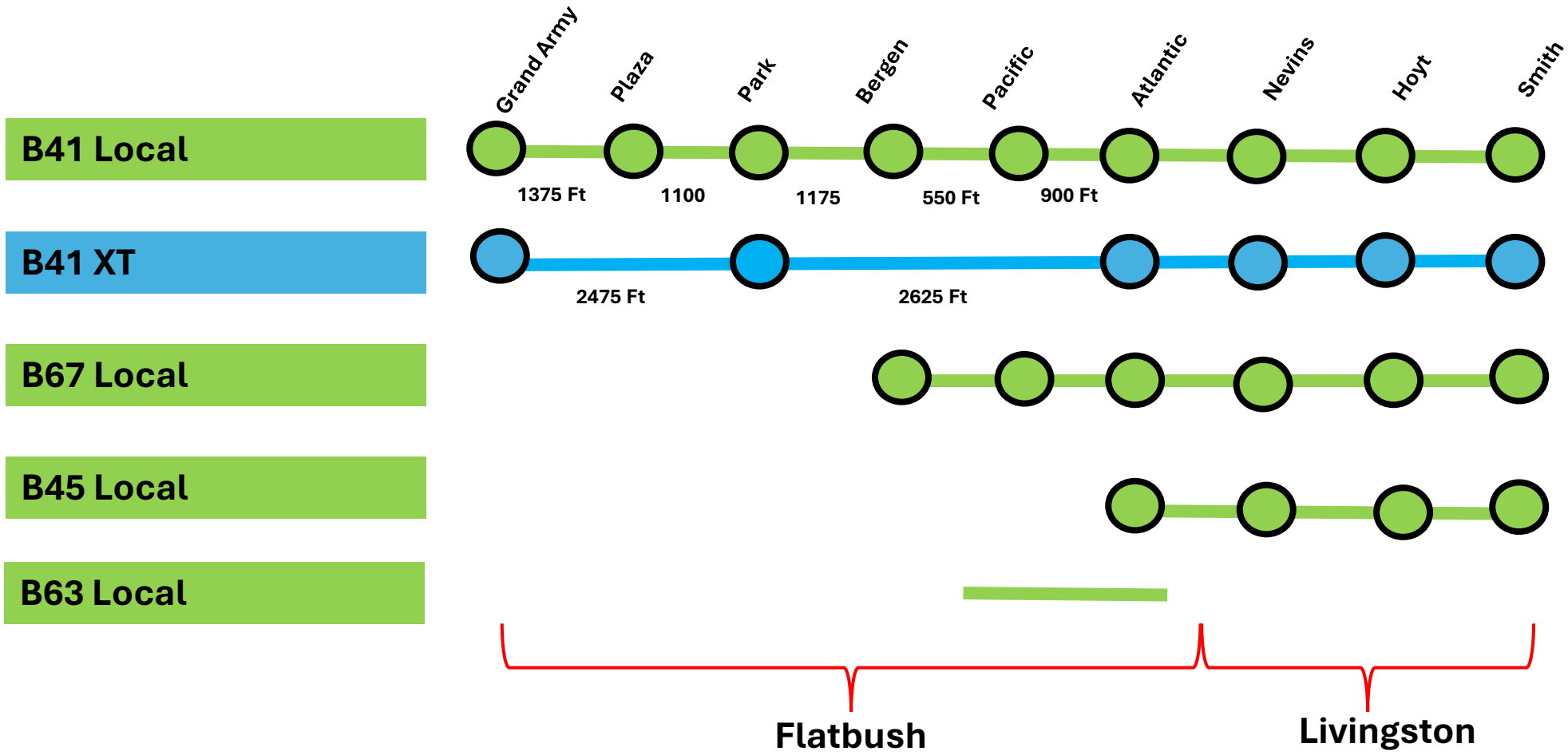
## Flatbush, Livingston, Jay, Fulton



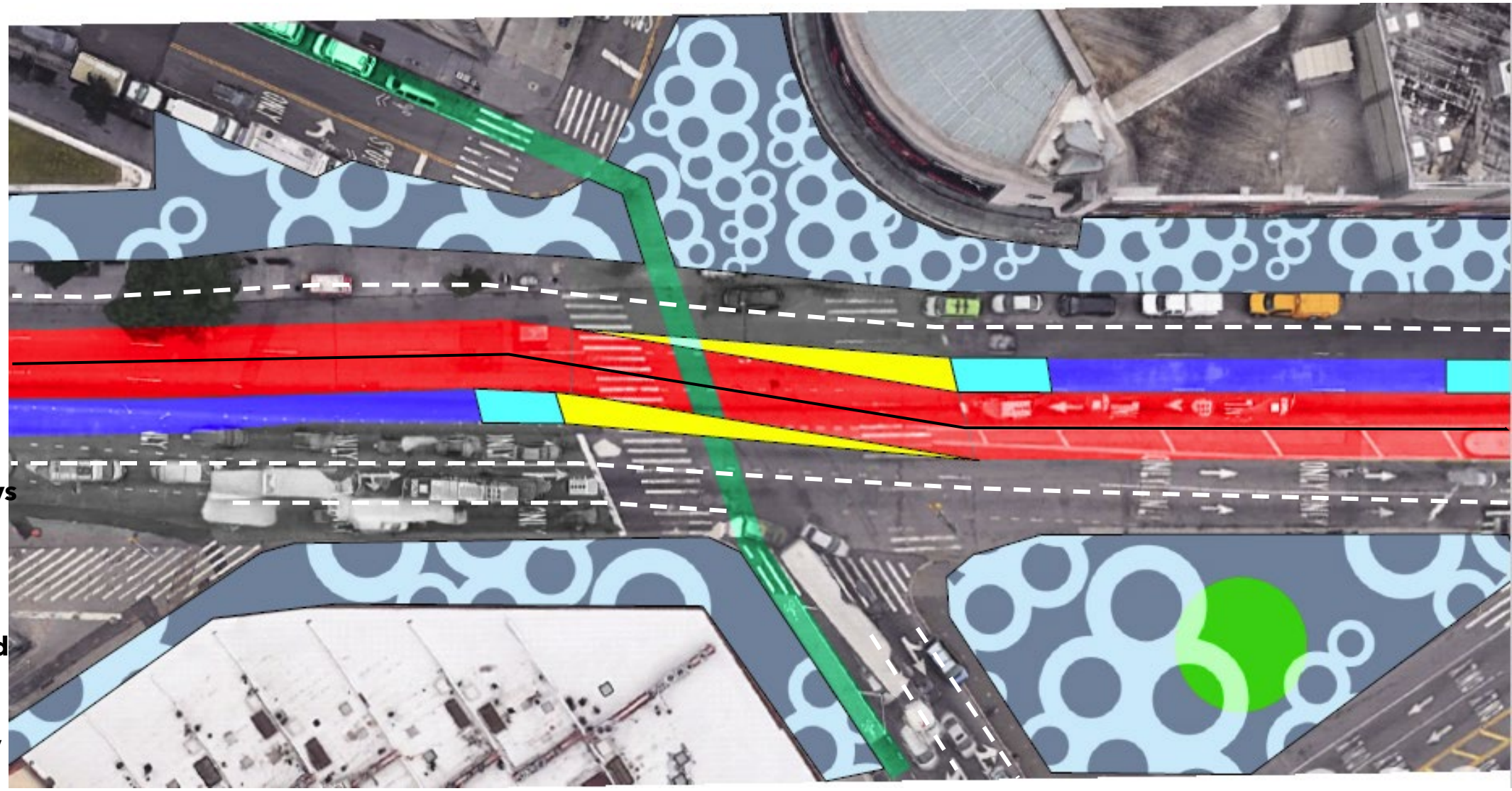
# BRT Corridor 7: Flatbush, Livingston, Jay, Fulton

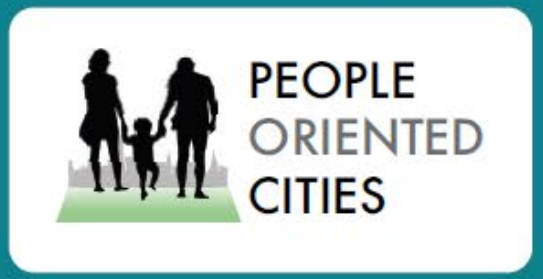
Current Service Plan as per the Brooklyn Network Redesign

The local stops do not work well with BRT in this case. We suggest removing two of the stops (Pacific definitely, Grand Army maybe, consolidate park and Bergen)



The public space around the BRT corridor should be simultaneously improved. Why not turn the skylight over the Atlantic station (green circle) into a proper skylight with some architectural merit? The extension of the Ashland 2-way bikeway should be shown.



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