



# Evaluating Bus Stop Removals in Queens using a Data-Driven Approach to Accessibility

Version 1.1      12 Jan 2026

**Jack Nierenberg**

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Version 1.1

Published 12 January 2026

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# Executive Summary

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As part of the Queens Bus Network Redesign, fully implemented as of August 2025, the Metropolitan Transportation Authority (MTA) eliminated nearly 1,800 bus stops across the borough. Although the MTA's intention behind these bus stop cuts was to improve bus speeds, public comments and prior analysis show that they have come at a significant cost for riders with disabilities and/or other mobility conditions. Additionally, some stops were also removed near essential origins and destinations, and others that were removed contained bus shelters with seating. Currently, the MTA is in its six-month review period for the redesign, but there's no indication that these costs for mobility-impaired riders will be addressed. Failure to address these gaps during this review window risks permanently disenfranchising thousands of transit-dependent residents and could result in non-compliance with the Americans with Disabilities Act. This project serves as an independent audit of the redesign, addressing the MTA's lack of thorough existing conditions studies of each bus stop that was kept, added, or removed in the plan.

To quantify the impacts of bus stop eliminations on riders, the Bus Stop Accessibility Index (BSAI) was developed. The BSAI rates each stop's accessibility by assessing and weighting a variety of observational factors regarding the stops and their surroundings, such as the presence of a bus shelter, the stop's proximity to essential origins and destinations, and environmental conditions at and around the stop that affect one's ability to get to/from the stop and on/off a bus. By assessing these factors against Census tract-level demographic data, areas are identified where people with disabilities bear the greatest burden from the stop removals.

Key findings thus far:

- Three routes have been analyzed, and nine Census tracts have been identified for prioritized stop restoration due to high concentrations of people with disabilities, as well as the locations and conditions of eliminated and intact bus stops.
- The data suggest that the MTA lacked a standardized, accessibility-driven method of determining and executing its bus stop eliminations across each route in the Queens bus network.

This project is ongoing, but its goals are to prioritize bus stops to be restored using a data-driven approach that centers the needs of Queens's most dependent riders. It will also provide the MTA (and other transit agencies) with a general framework for determining bus stop spacing and evaluating such efforts that centers accessibility, inclusivity, and ethics.



# Passengers United

We are a grassroots nonprofit in New York City and the Tri-State Area that advances true equity, accessibility, safety and sustainability in our public transportation. By elevating the voices of underserved and disenfranchised commuters, and, with empathy, research, education, proactive leadership and coalition building, we strive to bridge the gaps in access and representation across communities and improve the quality of life for everyone.

Learn more about us at  
**[passengersunited.org](https://passengersunited.org)**

**Additionally, you can follow us on social media:**

Facebook: [/PassengersUnitedAdvocacy](https://www.facebook.com/PassengersUnitedAdvocacy)

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YouTube: [@PassengersUnited](https://www.youtube.com/PassengersUnited)

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# Introduction

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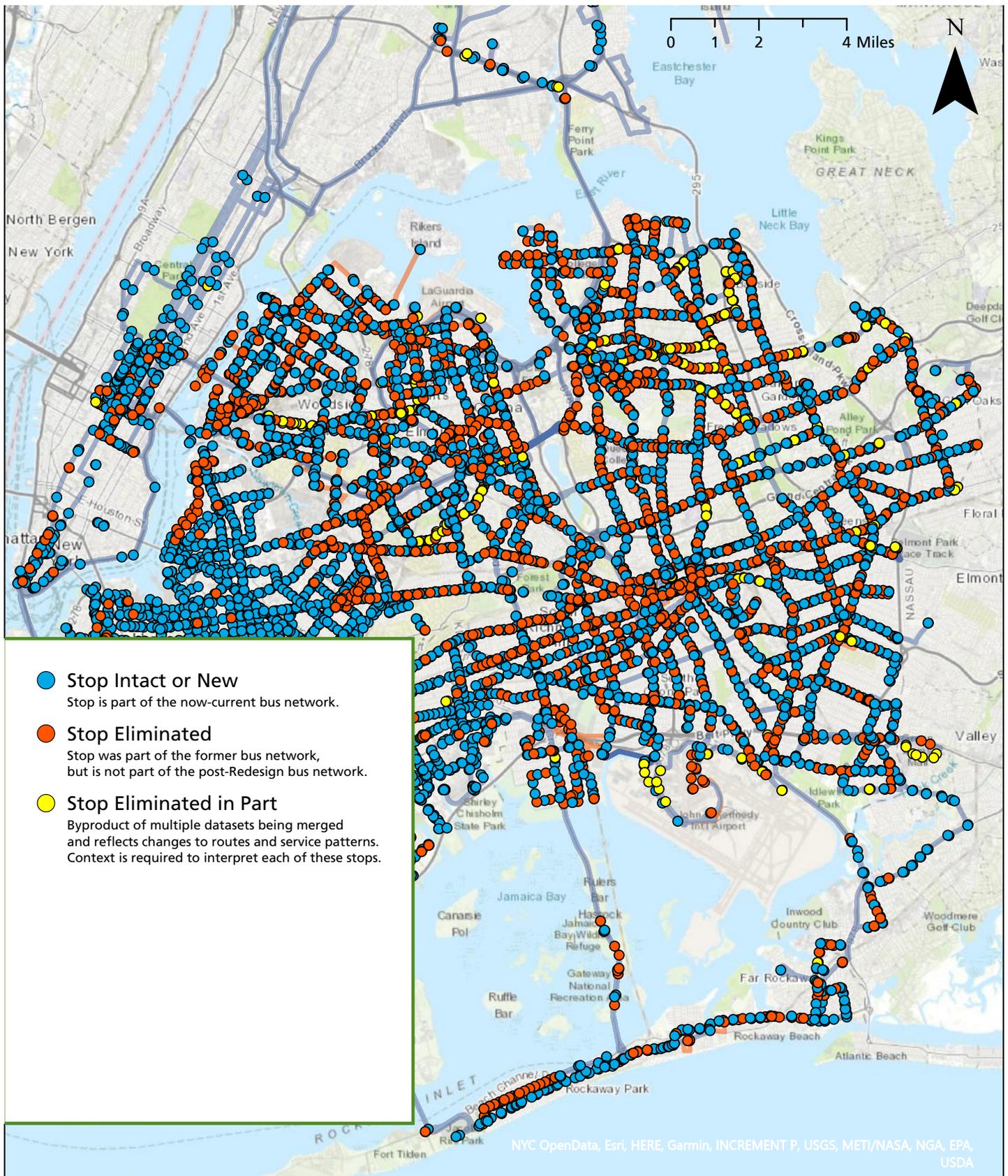
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A few months ago, the MTA launched its Queens Bus Network Redesign plan with the promises of “faster travel, more reliable travel, better connections, [and] ease of use,” according to MTA Chair and CEO Janno Lieber (CBS, 2022). This came after similar redesign efforts in the Bronx and Staten Island.

As part of the Bronx Bus Network Redesign, which was implemented three years earlier, nearly 400 bus stops were eliminated across the borough. In Queens, nearly 1,800 were eliminated. According to the MTA, this “bus stop balancing” was intended to increase overall bus speeds and improve the reliability of service by matching the stop spacing to that of other bus systems across the world. However, public feedback, as well as Passengers United’s analysis of both the Bronx and Queens plans, confirms that this has come at a cost for riders with mobility issues, including older adults, people with disabilities, and others with conditions that make it difficult or impossible to walk.

In addition to longer walking distances (more on that on page 8), many must also traverse narrow, uneven, poorly-maintained, or otherwise inaccessible sidewalks to get to and from their bus stops. At the same time, numerous stops that were removed were in front of essential services, such as grocery stores, schools, and healthcare facilities, and some others had bus shelters with seating inside them. This has raised suspicion among many bus riders, as well as myself and my team, about whether the MTA’s planning team conducted existing conditions studies for each bus stop that was eliminated in the redesign.

The MTA is currently in its six-month review period for the redesign, but once that is over, it will release its evaluation of the plan, effectively concluding work on the Queens bus network. In the MTA’s Six-Month Evaluation for the Bronx Bus Network Redesign, the MTA centered its “successes” of the plan on bus speed averages, which hardly indicate how the redesign has affected riders directly. The MTA will likely do the same for Queens. That is why any effort to remedy these consequences for the borough’s most dependent riders must be done urgently.



➊ 1 All bus stops in Queens.

# The First- and Last-Mile Problem

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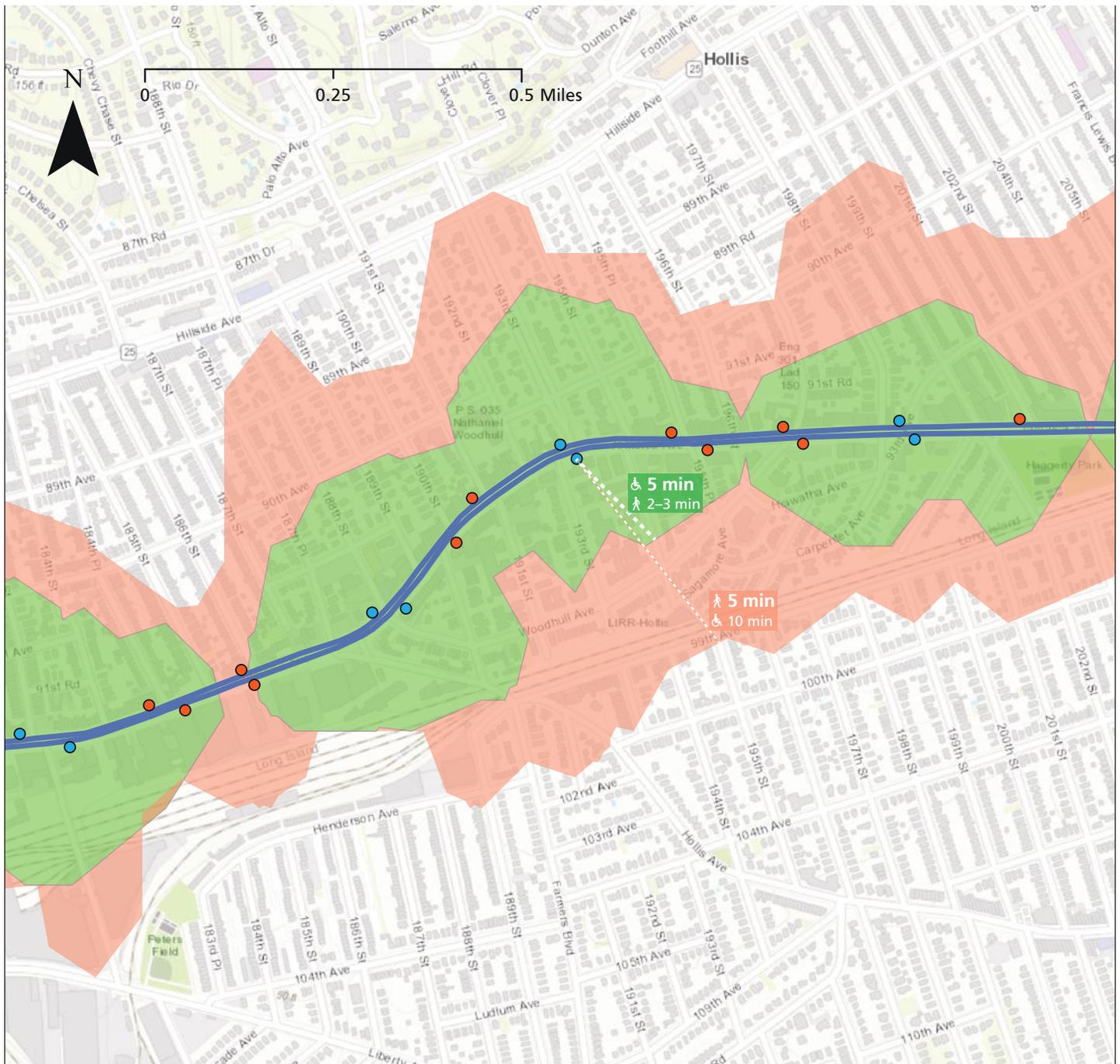
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The **first-mile connection** is the leg of a transit trip between your origin and your origin transit stop (where you enter the transit system). The **last-mile connection** is the leg of a transit trip between your destination transit stop (where you get off and exit the transit system) and your destination. For many, bus stop eliminations increase riders' first-mile and last-mile distances and, in turn, travel times. However, the extent to which they increase is not uniform for everyone.

In a preliminary study last year, I used Google Maps' route calculation tools to determine, using a case study from the Bronx Bus Network Redesign, whether stop eliminations have a disproportionate impact on mobility-impaired riders' first- and last-mile travel times. Using a constant speed of 3 mph for able-bodied riders and 1.5 mph for mobility-impaired riders (both of which are within the range of several mean speeds for various conditions, as calculated by Dewar (2002, as cited in Federal Highway Administration, 2006)), I found that, for some, the first- and last-mile travel times increased upwards of double the amount it did for able-bodied riders.

I replicated this analysis using ArcGIS Pro's network analysis tools to demonstrate how stop removals impact riders' first-mile and last-mile travel times in Queens. Figure 2 shows this analysis using the same constant speeds: 3 mph for able-bodied riders and 1.5 mph for mobility-impaired riders. In some instances, the stop eliminations dramatically increased first- and last-mile distances and travel times enough to create substantial gaps in access to bus service for mobility-impaired riders.

The MTA makes no mention of riders' first- and last-mile connections in its official documents for the Queens Bus Network Redesign. But they are crucial for assessing the redesign's impacts on accessibility. This study factors in not only the bus stops themselves but also the areas immediately around the stops, as well as essential origins and destinations. All of these are part of the first- and last-mile connections. Several studies, including those by Sisk et al. (2022) and Firestine & Murrell (2024), among others, suggest a correlation between transit dependency, access to transit, and food insecurity. The same can be inferred for access to healthcare. That makes such an analysis of each stop, the origins and destinations around it, and the conditions that affect people's ability to get there all the more important.



2 First/last-mile increases shown using a 5-minute walkshed (able-bodied and mobility-impaired) from intact stops. This is a simplification; the actual impacts on first/last-mile distances and travel times are subjective for each person.

# Project Overview

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Based on conversations my team has had with state legislators' offices in the borough, I have launched an initiative to collect and analyze accessibility data for each bus stop in the Queens bus network. The objective of this project is to gain a more comprehensive understanding of the impacts that the bus stop eliminations in the Queens Bus Network Redesign have had on the accessibility of bus stops, first- and last-mile connections, and, in turn, the bus network. This is done using a clear metric that combines both quantitative and qualitative analysis (both of which are critical for this project). In doing so, I aim to determine two things:

1. Whether the stops that were removed were more or less accessible than the ones that were kept intact; and
2. Which stops should be prioritized to be restored based on the greatest need for riders.

This project is centered around a working dataset that contains every bus stop in the Queens bus network, as well as information about each stop. Due to the complexities of the Queens bus network, I had to merge multiple Global Transit Feed Specifications (GTFS) datasets, both from the current (as of September 2025) and former (as of January 2025) networks. The GTFS data include two identifiers for each bus stop: the Stop Name, which typically consists of the two intersecting streets the stop is at, and the Stop ID, which is a six-digit code unique for each stop. The Stop ID is also used to retrieve bus arrival information on the MTA's Bus Time system. From there, I added the Borough the stop is located in, the Subagency (New York City Transit or MTA Bus Company — it's a complicated history), the Stop Status (Intact/New or Eliminated), as well as the latitude and longitude, which are necessary for the stop to be mapped using geographic information system (GIS) software.

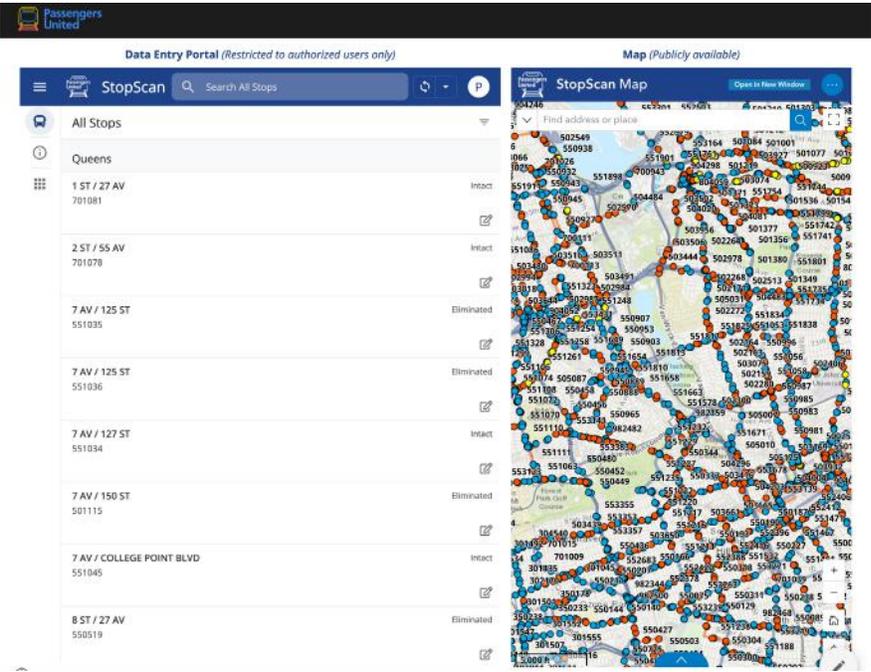
The remaining fields are to be entered by volunteers trained to collect data for this project. These include the:

- Stop Direction (the cardinal direction the bus is traveling at the stop);
- Stop Side (the location of the stop relative to its associated intersection, which is *near-side*, *far-side*, or *mid-block*);
- Route(s) that serve the stop;
- Questions pertaining to the Bus Stop Accessibility Index; and
- Questions concerning how the data are collected to ensure reliability and transparency.

# StopScan

StopScan was created to streamline the data collection and entry process for volunteers. StopScan is a web application that allows volunteers to easily locate their stops, enter data directly into the dataset, and access project resources, all from one place. No need for a desktop computer or experience with raw datasets — StopScan allows volunteers to contribute from anywhere on their devices (including smartphones), provided they can connect to the internet. This allows for volunteers to gather data in real time from bus stops without having to complete additional steps afterwards. Later in the process, a print and digital “Transfer Form” was created to expand access to the project, particularly for those unable to log onto StopScan’s data entry portal directly.

In addition to the Data Entry Portal and the Map, StopScan includes direct links to both versions of the Transfer Form. A handbook with detailed instructions for each step of the data collection and entry process is also embedded in StopScan. Nonetheless, volunteers are trained to use all data entry methods.



Scan or click on this QR code to check out StopScan for yourself! All features *except* the Data Entry Portal are available to the public.

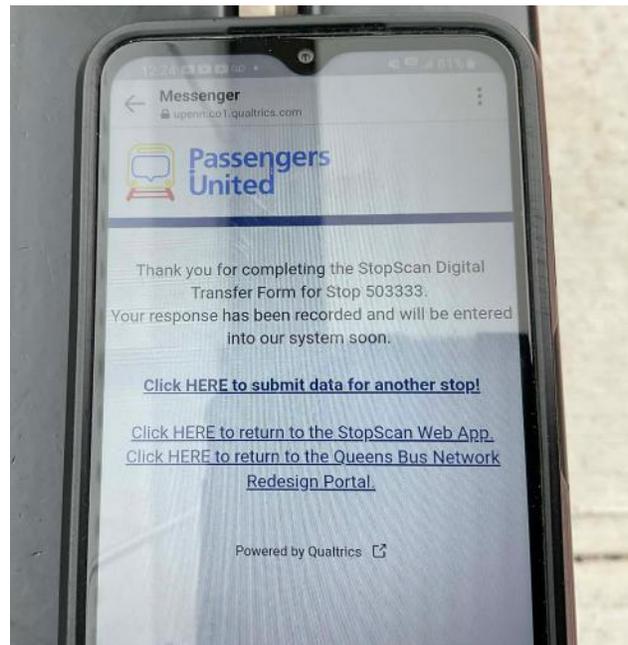
3 StopScan.

# Bus Stop Accessibility Index

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The Bus Stop Accessibility Index (BSAI) is at the heart of the data collection and analysis processes. It is comprised of eight key questions that require close, careful observations for each, and specific criteria to be met to answer a certain way. For most of the BSAI questions, volunteers are also to include clarifying information to put their yes/no answers into context. The BSAI serves as a measure to quantify the accessibility of bus stops while also blending the quantitative and qualitative components of the data. Both the quantitative and qualitative components are vital for the analysis.

For the purposes of this project, I have defined **accessibility** to include the following: 1) one’s ability to walk (or roll) to or from a bus stop and/or an essential origin, destination, or transfer opportunity, so they can access it; 2) one’s ability to wait at the stop with ease, and 3) one’s ability to board or alight a bus, so they can access both the bus and the destinations it will bring them to. In a sense, my definition of accessibility also includes **mobility**, which, as Hanson (2017) defines it, is “the ability to move between different activity sites (e.g. from home to grocery store)” (p. 18). This definition of accessibility was instrumental in developing the BSAI and its associated criteria.



4 StopScan Transfer Form on smartphone in the field. The qualitative component for each BSAI question is entered slightly differently on the Transfer Form than in the Data Entry Portal.

# BSAI Questions

## 1 Stop Accommodations

Does the stop have a bus shelter with a bench?

### Instructions and Criteria

If the stop has *both* a bus shelter and a bench, answer Yes.

If the stop has neither or it has a bench but no shelter or a shelter but no bench, answer No.

***Leaning benches DO NOT count as benches.***

### If Yes

Continue to BSAI Question 2.

### If No

Explain whether the stop has a shelter but no bench, a bench but no shelter, or neither.

## 2 Subsidized and Supportive Housing

Is the stop within 1 block of a public housing project, homeless shelter, nursing home, or assisted living facility?

### Instructions and Criteria

Only consider the block that the stop is on, which includes both sides of the street.

If ANY of these are present, answer Yes.  
If NONE are within 1 block of the stop, answer No.

### If Yes

Indicate exactly what and where it is.

If it is on the other side of the street, make sure to also explain the following: what are the means to crossing the street (e.g. a crosswalk), how busy the road is, and what features the crosswalk has (e.g. pedestrian signals, tactile paving, etc.).

### If No

Continue to BSAI Question 3.

### 3 Essential Services and Transit Connections

Is the stop within 1 block of an essential service, such as a school, grocery store, medical/healthcare facility (including pharmacies), bank, place of worship, senior/community center, or center for people with disabilities? Also, is the stop within 1 block of a transfer opportunity for a non-parallel bus route, subway stop, or commuter rail station?

#### Instructions and Criteria

Only consider the block that the stop is on, which includes both sides of the street.

If ANY of these are present, answer Yes.  
If NONE are within 1 block of the stop, answer No.

#### If Yes

Indicate exactly what and where it is.

If it is on the other side of the street, make sure to also explain the following: what are the means to crossing the street (e.g. a crosswalk), how busy the road is, and what features the crosswalk has (e.g. pedestrian signals, tactile paving, etc.).

If the transit connection is a subway or commuter rail station, also include whether the station is underground, elevated, or at-grade (at surface level), as well as what ADA-accessible means of entry/exit are, if any (such as elevators or ramps).

#### If No

Continue to BSAI Question 4.

### 4 Width of Sidewalk At Stop

Is the sidewalk AT THE STOP wide enough for someone with a disability or mobility impairment (regardless of whether they rely on a mobility device) to easily traverse it (more than 1 meter or 1 square block wide)?

#### Instructions and Criteria

Look at the stop itself. You can gauge the boundaries of the stop in two ways:  
1) If there is a bus pad (a concrete pad placed in front of the stop to withstand the constant starting and stopping of the buses), the bus stop extends the length of the bus pad.  
2) If there is not a bus pad, the stop extends about 50–100 feet before the bus stop sign.

How wide is the sidewalk at the stop? The minimum width for a sidewalk to be ADA-compliant is 36 inches (or 1 meter), but that can be estimated based on the number of flags (squares) wide the sidewalk is. Generally speaking, if the sidewalk is more than 1 flag wide, the sidewalk is wide enough to be ADA-compliant. Still, use your judgment.

If the sidewalk at the stop is ADA-compliant, answer Yes.  
If it is too narrow, answer No.

#### If Yes

Continue to BSAI Question 5.

#### If No

Continue to BSAI Question 5.

## 5 Width of Sidewalk Surrounding Stop

Is the sidewalk ON THE BLOCK SURROUNDING THE STOP wide enough for someone with a disability or mobility impairment (regardless of whether they rely on a mobility device) to easily traverse it (more than 1 meter or 1 square block wide)?

### Instructions and Criteria

Same as Question 4, but instead of looking at the stop, look at the sidewalk around the stop. This includes the remaining stretch of the block the stop is on, and, if the stop is at an intersection, the stretch of the same block that extends down the perpendicular street. DO NOT include the sidewalk on the opposite side of the street.

If the sidewalk surrounding the stop is ADA-compliant, answer Yes.

If it is too narrow, answer No.

### If Yes

Continue to  
BSAI Question 6.

### If No

Continue to  
BSAI Question 6.

## 6 Condition of Sidewalk

Is the sidewalk at the stop, on the block surrounding the stop, and/or the crosswalk necessary to access the stop even, level, and well-maintained?

### Instructions and Criteria

For this question, consider ALL of the above locations and factors. You already indicated the width of the sidewalk in Questions 4 and 5.

For this question, look for unevenness in the sidewalk, slants noticeably beyond the limit for ADA-compliance (2% the width of the sidewalk), cracks in the sidewalk, as well as other non-temporary obstructions or hazards that could impact one's ability to traverse the sidewalk, especially if they have greater mobility needs. If crossing the street is necessary to access the stop and/or the facilities/services/connections mentioned in Questions 2 and/or 3, look at the condition of the crosswalk and determine whether there's anything that could hinder one's ability to cross the street, particularly someone with greater mobility needs.

If you find that ANY OF THE ABOVE are uneven or in poor condition, answer No.  
If ALL are even, level, and well-maintained, answer Yes.

### If Yes

Continue to  
BSAI Question 7.

### If No

Explain where and  
what it is.

## 7 Easy Boarding

Does the stop have enough room for the bus to board as close to the curb as possible and, when necessary, deploy the ramp onto the sidewalk for riders with mobility devices to get on or off without their path being obstructed?

### Instructions and Criteria

This question is self-explanatory, but make sure to read it closely. Look for anything that could prevent the bus from approaching the curb or force riders to step down onto the street to board the bus. Also, look for anything at/around the curb that could pose an obstruction for riders using the ramp to board/alight the bus. Also consider anything at/around the curb that could block someone from exiting the bus through the rear door(s).

If you find any of the above, answer No. Otherwise, if the stop does have enough room for buses to board as close to the curb as possible and, when necessary, deploy the ramp onto the sidewalk for riders with mobility devices to get on or off without their path being obstructed, answer Yes.

### If Yes

Continue to BSAI Question 8.

### If No

Explain what it is and how it impacts riders.

## 8 Immediate Obstructions and Safety Hazards

Is the stop placed in an unsafe location (e.g. in a driveway, in a spot that requires you to cross a driveway, bike lane, or busy road to get to it, no proper lighting at night, etc.)

### Instructions and Criteria

Consider anything about the stop and its surroundings that could pose an obstruction or safety hazard for riders, such as the above factors.

If there are any, answer Yes.  
If there aren't any, answer No.

### If Yes

Explain what it is and what its implications are for riders. Make sure to explain this one in proper detail.

### If No

Continue to the Last Steps questions.

# Accessibility Rating

Once the BSAI questions are answered, StopScan automatically calculates and generates an Accessibility Rating. This is a number from 0 to 10 (0 being the least accessible and 10 being the most accessible), and it is determined by a formula that weighs each BSAI question and its answer based on the implications of its associated factor for riders. Because this step is automatically done, the risk of confirmation bias distorting the analysis is minimized, as no one volunteer can rate a stop as they please. Table 1 shows how each BSAI question is weighted in the formula.

## 1 BSAI Formula

Starting value: 5	If Yes	If No
BSAI Question 1: Stop Accommodations	+1 Add 1	-1 Subtract 1
BSAI Question 2: Subsidized and Supportive Housing	+1	0 No change
BSAI Question 3: Essential Services and Transit Connections	+1	0
BSAI Question 4: Width of Sidewalk At Stop	+0.5	-0.5
BSAI Question 5: Width of Sidewalk Surrounding Stop	+0.5	-0.5
BSAI Question 6: Condition of Sidewalk	+1	-1
BSAI Question 7: Easy Boarding	0	-1
BSAI Question 8: Immediate Obstructions and Safety Hazards	-1	0



# Phase 1 High-Priority Routes

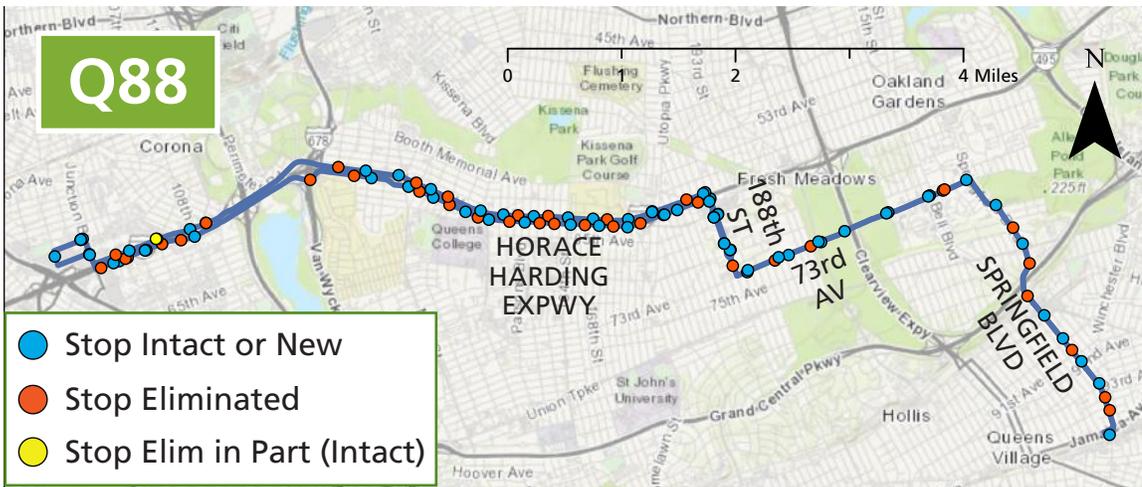
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Because of the massive scope of this project (nearly 6,000 stops across the largest borough in New York City), I decided to begin by designating a few routes as “high-priority” based on public comments submitted to the MTA during the planning process (which I obtained through a Freedom of Information Law request), as well as observations my team and I made in the field. Data will continue to be collected, but these routes (and route sections) have been designated as high-priority and, for that reason, are being analyzed first.

Keep in mind that, in Figures 5, 6, and 7, the red stops have been eliminated. The blue and yellow stops are intact on these routes.

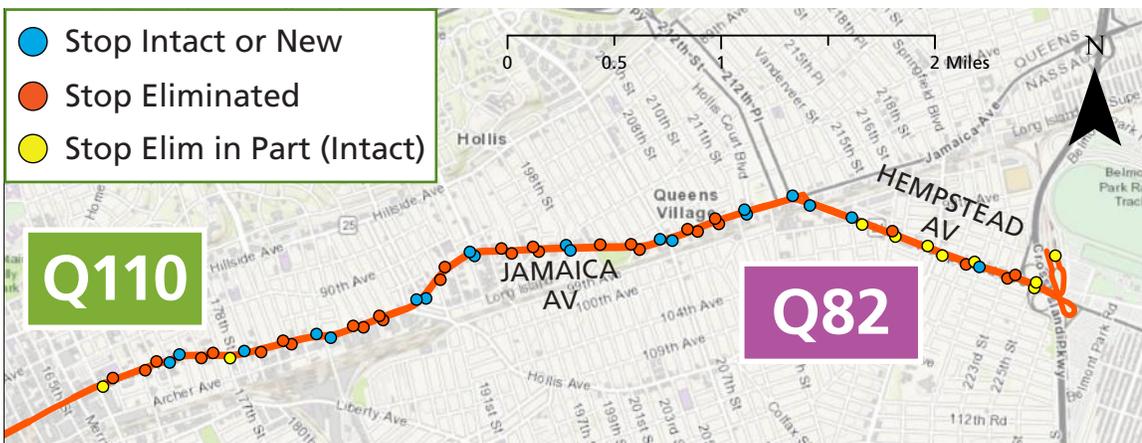
- Q88** **Queens Center Mall ↔ Queens Village**  
Local via Horace Harding Expressway, 188th Street, 73rd Avenue, and Springfield Boulevard
- Q110** **Jamaica ↔ Floral Park**  
Local via Jamaica Avenue  
*Section analyzed: Jamaica Avenue between 168th Street and 212th Place*
- Q82** **Jamaica ↔ Belmont Park/UBS Arena**  
Rush via Hillside Avenue, 212th Street/212th Place, and Hempstead Avenue  
*Section analyzed: Hempstead Avenue between Jamaica Avenue and Belmont Park/UBS Arena (formerly part of the Q110)*
- Q10** **Kew Gardens ↔ JFK Airport**  
Rush via Lefferts Boulevard, Rockaway Boulevard, and 130th Street
- Q80** **Kew Gardens ↔ JFK Airport**  
Local via Lefferts Boulevard  
*Formerly a branch of the Q10*



5 Q88 High-Priority Route overview.



For the full list of Q88 stops, scan or click on this QR code or go to the Appendix, page 38.



6 Q82/Q110 High-Priority Section overview.



For the full list of Q110 and Q82 Phase 1 stops, scan or click on this QR code or go to the Appendix, page 43.



7 Q10/Q80 High-Priority Routes overview.



For the full list of Q10 and Q80 stops, scan or click on this QR code or go to the Appendix, page 47.

## 2 Accessibility Rating Benchmarks and Individual BSAI Questions by High-Priority Route

	Q88	Q110/Q82	Q10/Q80
<b>Total stops collected</b>	<b>91</b> 55 intact + elim in part ("intact") 36 eliminated	<b>60</b> 32 intact + elim in part ("intact") 28 eliminated	<b>70</b> 46 intact  24 eliminated
<b>Accessibility Rating &gt; 5</b> Rating = 6, 7, 8, 9, or 10	<b>48</b> 35 intact 13 eliminated	<b>31</b> 16 intact 15 eliminated	<b>32</b> 23 intact 9 eliminated
<b>Accessibility Rating &gt; 7</b> Rating = 8, 9, or 10	<b>16</b> 14 intact 2 eliminated	<b>9</b> 8 intact 1 eliminated	<b>12</b> 10 intact 2 eliminated
<b>Accessibility Rating &lt; 3</b> Rating = 0, 1, or 2	<b>6</b> 2 intact 4 eliminated	<b>2</b> 1 intact 1 eliminated in part	<b>13</b> 9 intact 4 eliminated
<b>Stop has a bus shelter with a bench</b>	<b>25</b> 22 intact 3 eliminated	<b>14</b> 12 intact 2 eliminated	<b>18</b> 16 intact 2 eliminated
<b>Stop is within 1 block of subsidized/supportive housing.</b>	<b>15</b> 11 intact 4 eliminated	<b>1</b> 1 eliminated	<b>8</b> 5 intact 3 eliminated
<b>Stop is within 1 block of at least 1 essential service and/or transit connection.</b>	<b>40</b> 31 intact 9 eliminated	<b>49</b> 25 intact 24 eliminated	<b>58</b> 38 intact 20 eliminated
<b>Sidewalk at the stop is wide enough to be ADA-compliant.</b>	<b>86</b> 53 intact 33 eliminated	<b>58</b> 30 intact 28 eliminated	<b>47</b> 32 intact 15 eliminated
<b>Sidewalk around the stop is wide enough to be ADA-compliant.</b>	<b>63</b> 38 intact 25 eliminated	<b>57</b> 29 intact 28 eliminated	<b>42</b> 27 intact 15 eliminated
<b>Sidewalk and/or crosswalk necessary to access the stop is even, level, and well-maintained.</b>	<b>62</b> 40 intact 22 eliminated	<b>29</b> 15 intact 14 eliminated	<b>34</b> 22 intact 12 eliminated
<b>Bus can approach the curb, easily board, and deploy the wheelchair ramp without being obstructed.</b>	<b>82</b> 51 intact 31 eliminated	<b>48</b> 26 intact 22 eliminated	<b>50</b> 32 intact 18 eliminated
<b>No immediate obstructions or safety hazards concerning the stop's location.</b>	<b>55</b> 36 intact 19 eliminated	<b>46</b> 22 intact 24 eliminated	<b>39</b> 27 intact 12 eliminated

### 3 Accessibility Rating Statistics by High-Priority Route

	Q88	Q110/Q82	Q10/Q80
<b>Total stops collected</b>	<b>91</b> 55 intact + elim in part ("intact") 36 eliminated	<b>60</b> 32 intact + elim in part ("intact") 28 eliminated	<b>70</b> 46 intact  24 eliminated
<b>Mean Accessibility Rating</b>	<b>5.659341</b> intact: 6.254545 eliminated: 4.75	<b>5.75</b> intact: 5.8125 eliminated: 5.678571	<b>4.971429</b> intact: 5.152174 eliminated: 4.625
<b>Median Accessibility Rating</b>	<b>6</b> intact: 7 eliminated: 5	<b>6</b> intact: 5.5 eliminated: 6	<b>5</b> intact: 5.5 eliminated: 4
<b>Mode</b>	<b>7</b> intact: 7 eliminated: 5	<b>5</b> intact: 9 eliminated: 5	<b>4</b> intact: 6 eliminated: 4
<b>Minimum</b>	<b>1</b> intact: 1 eliminated: 1	<b>0</b> intact: 0 eliminated: 3	<b>0</b> intact: 0 eliminated: 1
<b>Maximum</b>	<b>10</b> intact: 10 eliminated: 9	<b>9</b> intact: 9 eliminated: 9	<b>10</b> intact: 10 eliminated: 8
<b>Standard Deviation</b>	<b>2.055993</b> intact: 1.955223 eliminated: 1.887932	<b>1.936492</b> intact: 2.388649 eliminated: 1.278123	<b>2.576209</b> intact: 2.756547 eliminated: 2.203012

The results thus far are limited, but, based on Tables 2 and 3 alone, the following conclusions can be drawn:

- All of these high-priority routes saw cuts in bus stops within one block of essential origins and destinations.
- The share of stops with bus shelters cut is low on these high-priority routes, but the share of stops that had shelters previously was already low.
- For the whole bus network, there is no clear correlation between the stops that were eliminated and their Accessibility Ratings.
- Stops were not consolidated in a uniform manner across these routes.
- The variance in the results reflects differences in the neighborhoods these routes serve — for example, the Q110 runs along a commercial corridor with wider sidewalks, while the Q88 primarily runs through more suburban and residential areas with fewer commercial establishments. Therefore, it is critical to consider the context for each stop when interpreting these data and drawing conclusions from them.

# Census Tracts

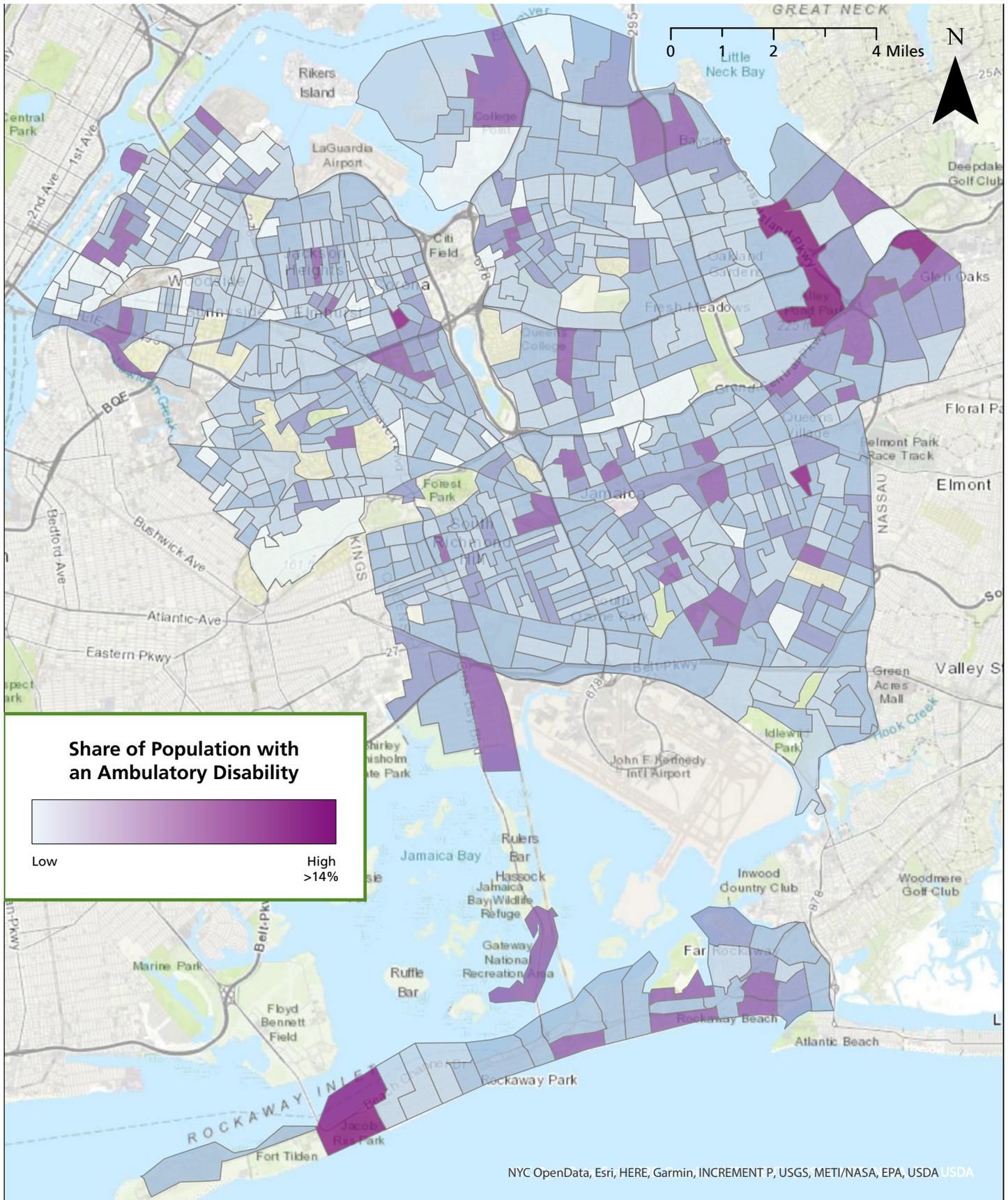
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Census tracts are similar to ZIP codes — much like ZIP codes are small geographies that make it easier to deliver mail to the right place, Census tracts are small geographies that allow us to analyze Census data at a local scale. Defined by the United States Census Bureau, Census tracts are typically smaller than ZIP codes and, in the case of Queens, typically extend just a few blocks in each direction and contain only a few bus stops. They do not necessarily define neighborhoods, but they are typically used to assess historical patterns, make future projections, and help guide planning decisions. Their sizes are small enough to show the characteristics and internal variation of the populations within them, but large enough to have a meaningful population size.

For the next part of this analysis, I incorporated demographic data from the American Community Survey (ACS), a detailed survey administered by the U.S. Census Bureau, to gain a greater understanding of the populations affected by the stop removals in each Census tract, specifically those who are transit-dependent and may have difficulty getting around. In addition to basic demographic information, such as age, race, and income, I also included commuting patterns (whether they are transit-dependent) and disability status, as those surveyed recorded them. Disability data are broken down by type, which includes hearing impairments, vision impairments, cognitive impairments, ambulatory difficulties, difficulties with self-care, and difficulties with living independently. As ambulatory (or mobility) disability data are the most relevant for this analysis, they are a leading factor, along with the bus stop data collected, in determining where to prioritize bus stop restorations. Figure 8 shows the share of individuals with ambulatory disabilities in each Census tract.

The data used are the 2019–2023 ACS 5-Year Estimates, which were the most recent and reliable data available at the time of analysis. These were gathered through `tidycensus`, an R package that facilitates the retrieval and formatting of Census data.



8 Share of Queens population with an ambulatory disability by Census tract.

In addition to ambulatory disability data, I also considered the following categories as secondary factors:

- **Dependency on public transit** as a means of commuting.
- **Median age** — older median ages hint at potentially older populations.
- **Median income** — a determinant of whether other, more expensive transportation options, like taxis and for-hire vehicles, are financially viable as accessible alternatives to buses.
- **Other disability types: hearing, vision, cognitive, self-care, and independent living** — all of these have a bearing on one’s ability to get to/from bus stops and on/off buses.

The ACS data for the Census tracts along the Phase 1 high-priority routes were then merged with our collected bus stop data, which includes both the overall Accessibility Ratings and the specific answers to each BSAI question. Out of the 98 Census tracts along these routes:

**22**

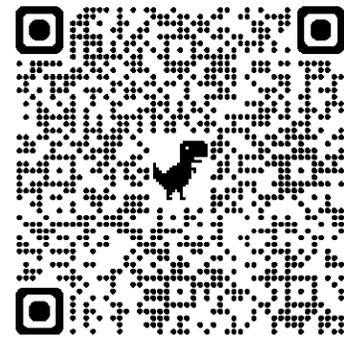
have at least 8% of population with ambulatory disability

**15**

have at least 25% of population transit-dependent

**18**

of those 22 had at least one stop eliminated



Scan or click on this QR code to view the full data for each Census tract!

From there, the first step to determine which stops to restore is to first consider which Census tracts to prioritize. All of the aforementioned factors are considered and weighted in this step, but the most dominant factors are:

- **Ambulatory disability** (ACS)
- **Transit dependency** (ACS)
- **Accessibility Rating** (BSAI)
- **BSAI Questions 4, 5, 6, and 8** — most directly tied to the first- and last-mile problem

It is important to consider that ACS data only reflect respondents’ answers to the survey. Because not everyone with a disability self-identifies as such when responding, the actual numbers and percentages are likely higher than the data show. Underestimation is also prevalent in several other ACS metrics, including transit dependency.

# Priority Areas

## Legend

Stop Status	Accessibility Rating	Sidewalk	Immediate Safety Hazard
 Intact	 0, 1, or 2	 Sidewalk at and around stop narrow and uneven	
 Eliminated	 3 or 4	 Sidewalk at or around stop narrow and uneven	
 Eliminated in part (Intact on these High Priority routes)	 5 or 6	 Part(s) of sidewalk narrow	
	 7 or 8	 Part(s) of sidewalk uneven	
	 9 or 10		

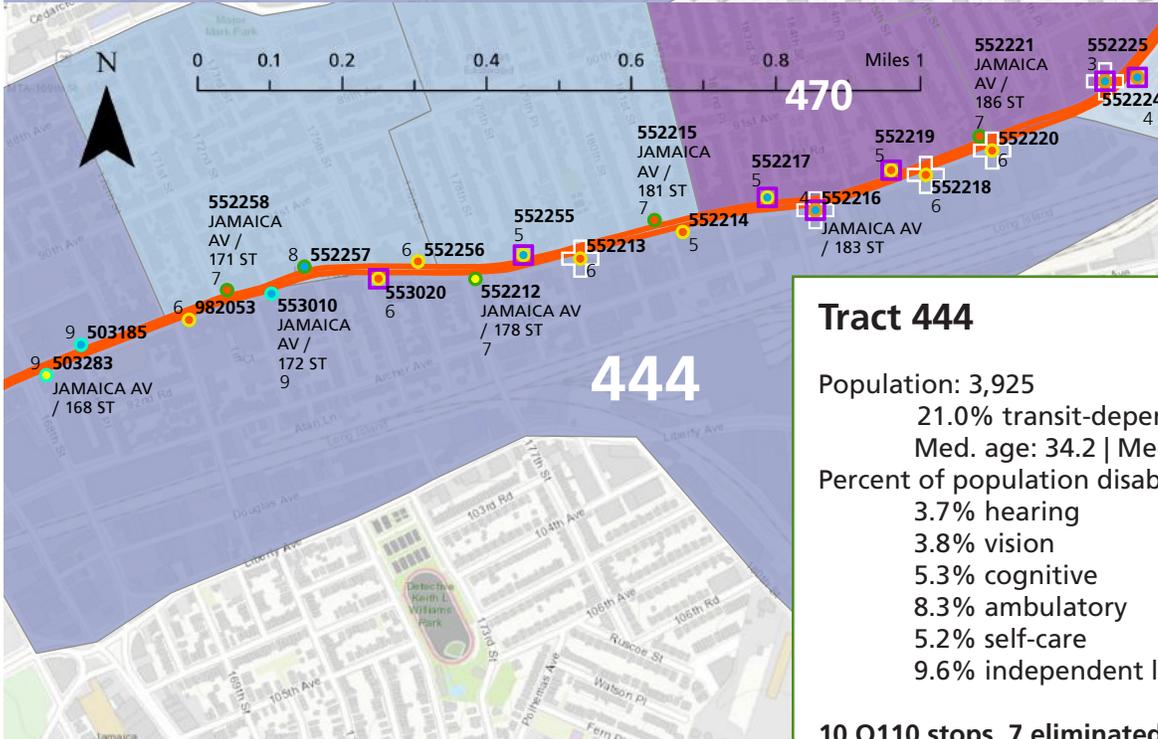
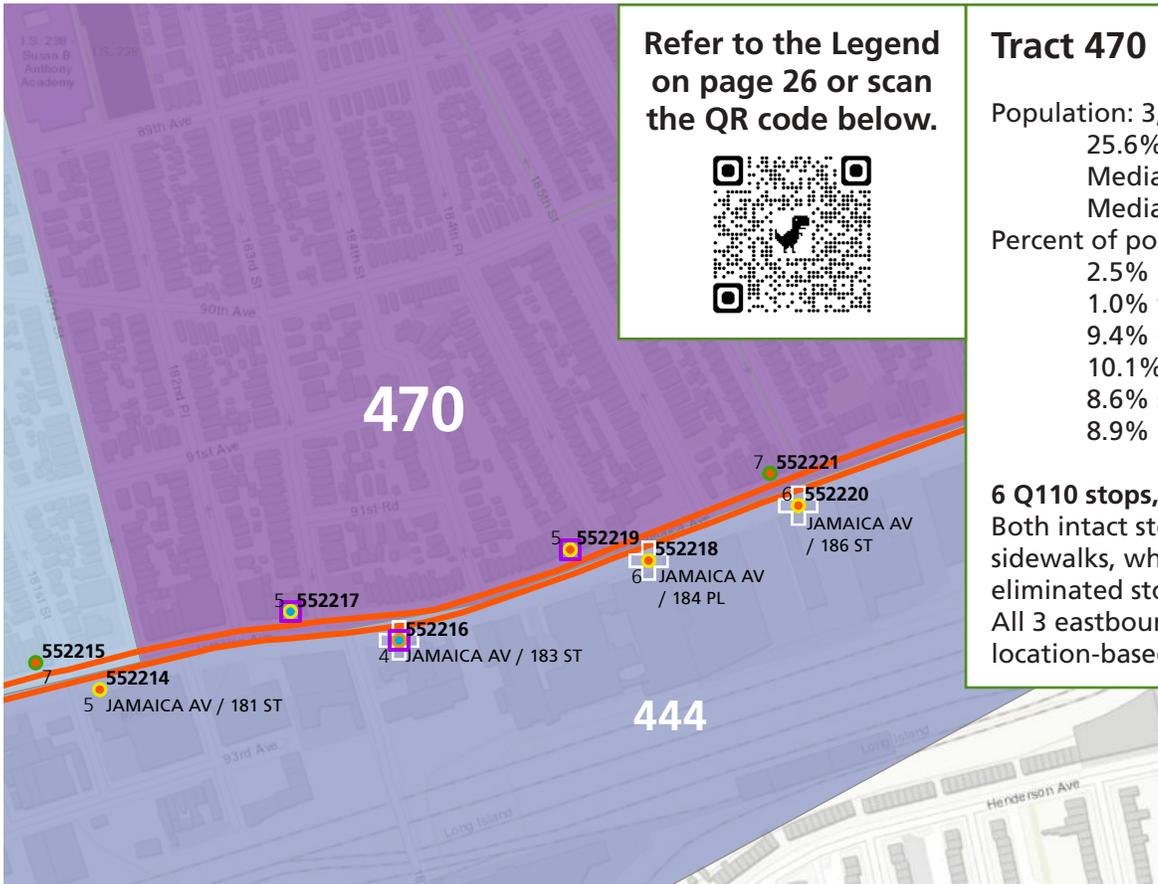
Refer to the Legend on page 26 or scan the QR code below.



### Tract 470

Population: 3,341  
 25.6% transit-dependent  
 Median age: 47.1  
 Median income: \$77,045  
 Percent of population disabled:  
 2.5% hearing  
 1.0% vision  
 9.4% cognitive  
 10.1% ambulatory  
 8.6% self-care  
 8.9% independent living

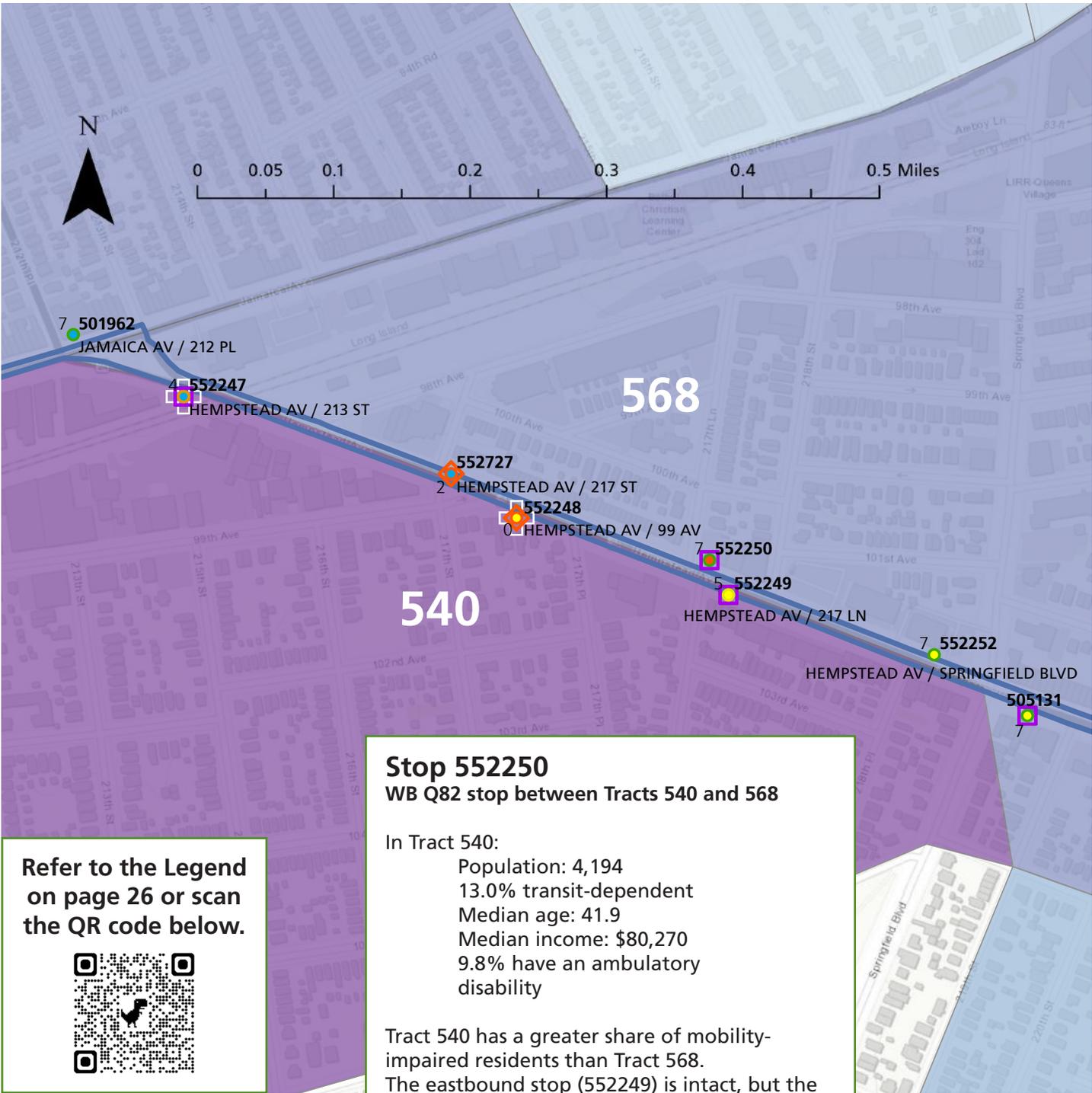
**6 Q110 stops, 4 eliminated**  
 Both intact stops have uneven sidewalks, while 3 of the 4 eliminated stops do not.  
 All 3 eastbound stops have location-based safety risks.



### Tract 444

Population: 3,925  
 21.0% transit-dependent  
 Med. age: 34.2 | Med. income: \$44,805  
 Percent of population disabled:  
 3.7% hearing  
 3.8% vision  
 5.3% cognitive  
 8.3% ambulatory  
 5.2% self-care  
 9.6% independent living

**10 Q110 stops, 7 eliminated**  
 3 are shared with Tract 470.  
 Accessibility ratings are fairly similar for intact and eliminated stops.  
 West of Tract 470, 1 elim. stop was in an unsafe location and 1 elim. stop had uneven sidewalks.



**Stop 552250**  
**WB Q82 stop between Tracts 540 and 568**

In Tract 540:  
 Population: 4,194  
 13.0% transit-dependent  
 Median age: 41.9  
 Median income: \$80,270  
 9.8% have an ambulatory disability

Tract 540 has a greater share of mobility-impaired residents than Tract 568. The eastbound stop (552249) is intact, but the westbound stop (552250) was eliminated. Westbound stop Acc. Rating = 7; eastbound stop Acc. Rating = 5. The westbound stop had a shelter with a bench. Sidewalks are uneven at both the westbound and eastbound stops.

Refer to the Legend on page 26 or scan the QR code below.



## Tract 1227.02

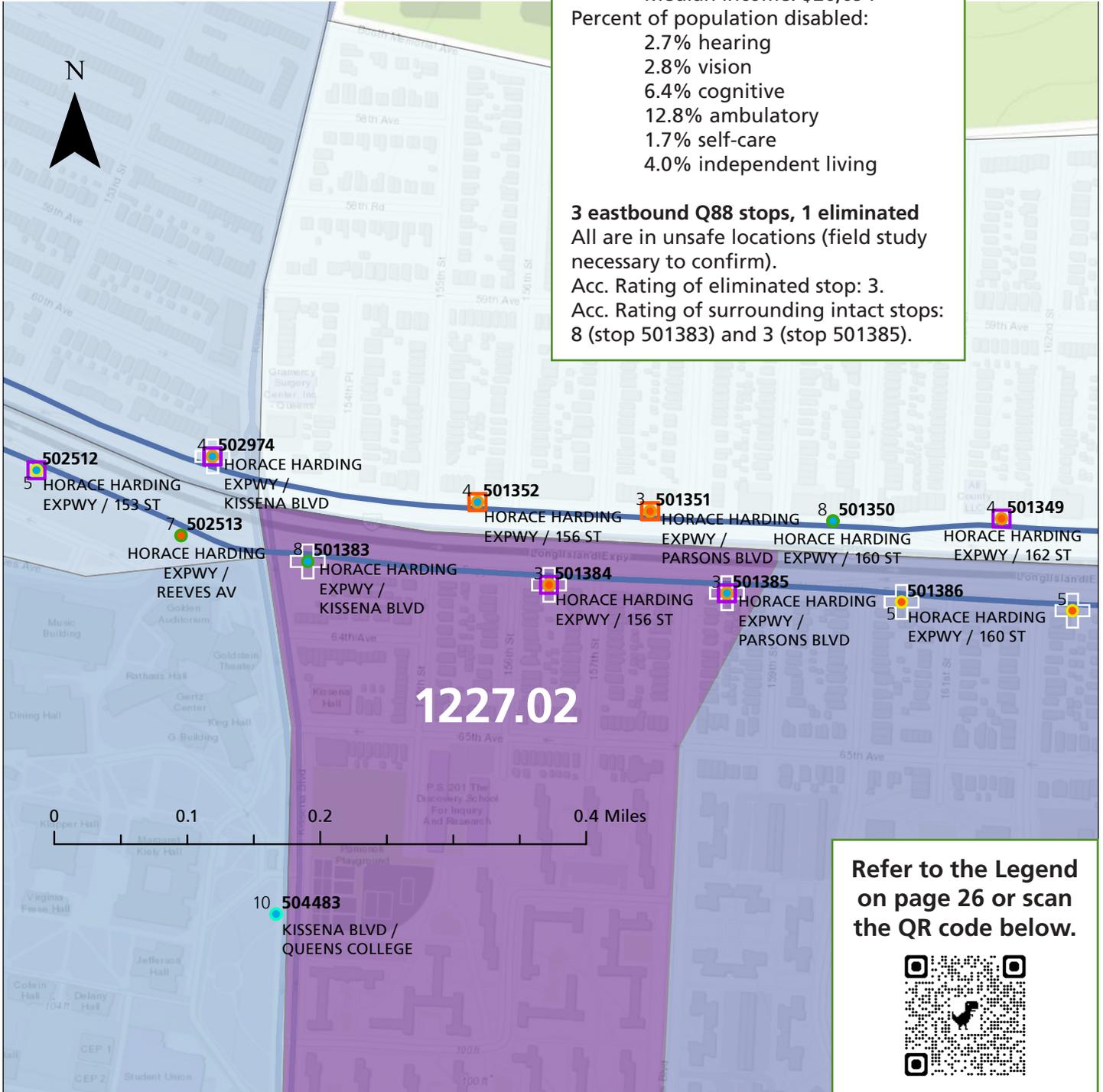
Population: 6,665  
15.9% transit-dependent  
Median age: 37.9  
Median income: \$26,694  
Percent of population disabled:  
2.7% hearing  
2.8% vision  
6.4% cognitive  
12.8% ambulatory  
1.7% self-care  
4.0% independent living

### 3 eastbound Q88 stops, 1 eliminated

All are in unsafe locations (field study necessary to confirm).

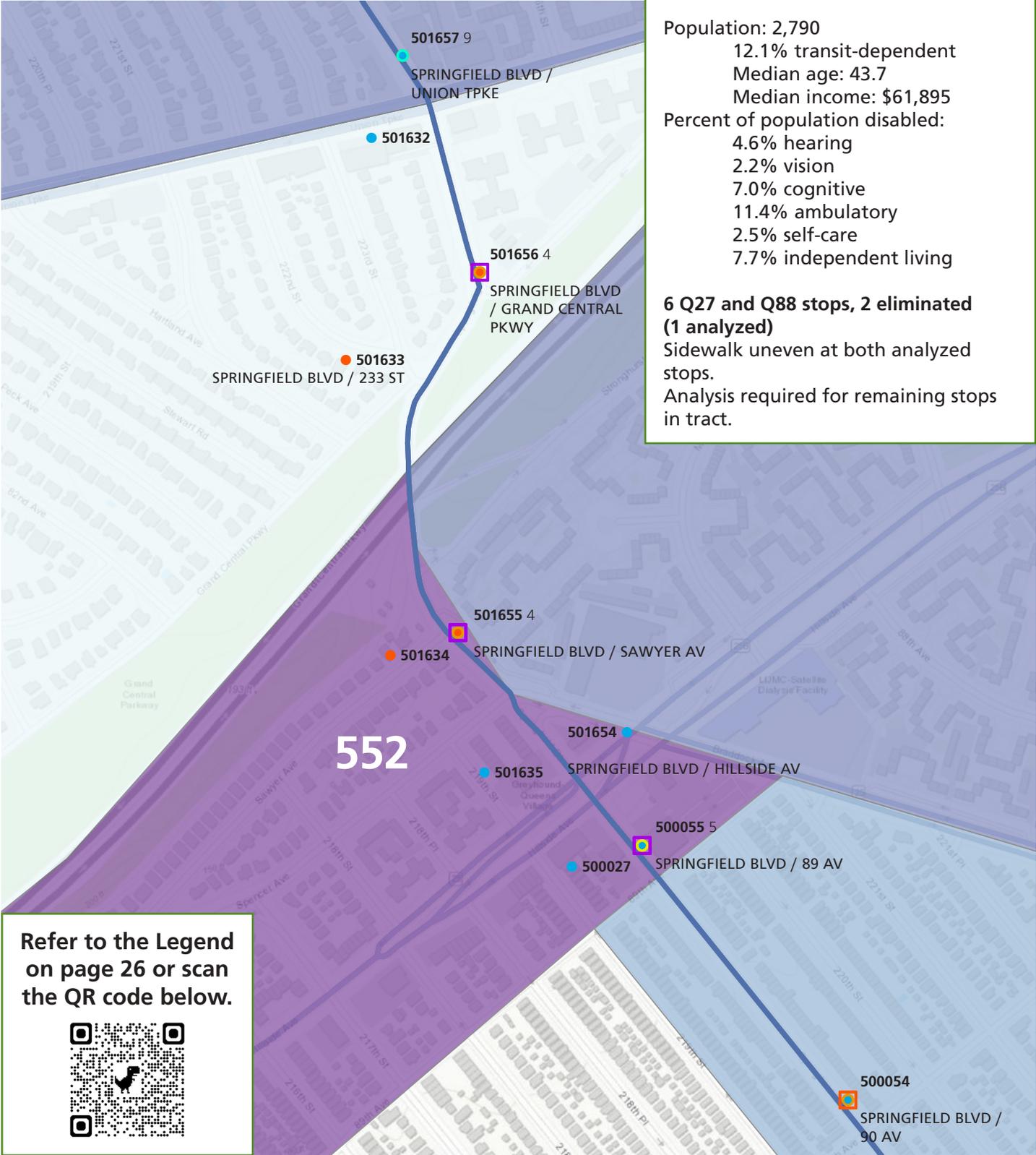
Acc. Rating of eliminated stop: 3.

Acc. Rating of surrounding intact stops:  
8 (stop 501383) and 3 (stop 501385).



Refer to the Legend on page 26 or scan the QR code below.





### Tract 552

Population: 2,790  
 12.1% transit-dependent  
 Median age: 43.7  
 Median income: \$61,895  
 Percent of population disabled:  
 4.6% hearing  
 2.2% vision  
 7.0% cognitive  
 11.4% ambulatory  
 2.5% self-care  
 7.7% independent living

**6 Q27 and Q88 stops, 2 eliminated (1 analyzed)**  
 Sidewalk uneven at both analyzed stops.  
 Analysis required for remaining stops in tract.

552

Refer to the Legend on page 26 or scan the QR code below.



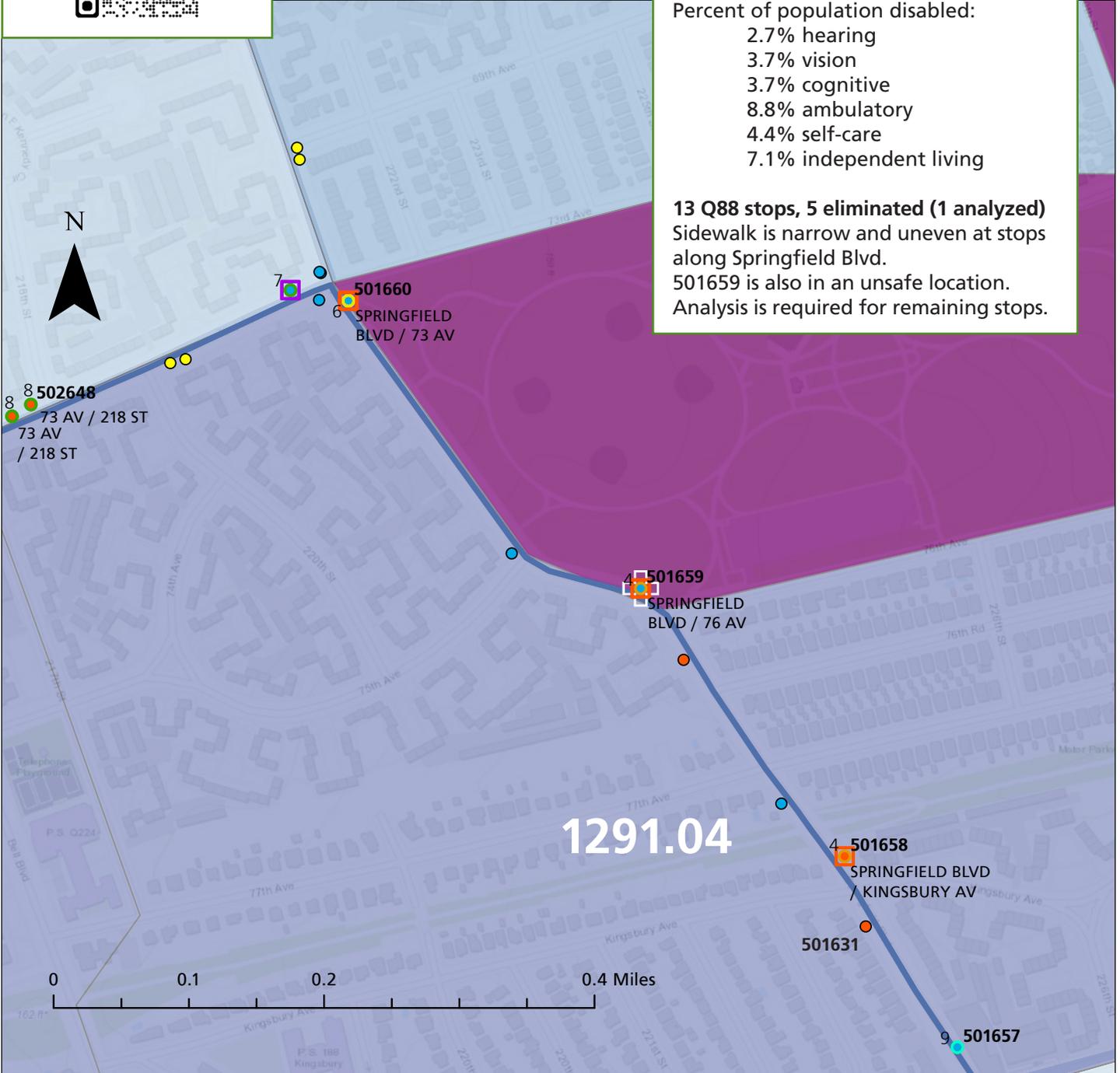
Refer to the Legend on page 26 or scan the QR code below.

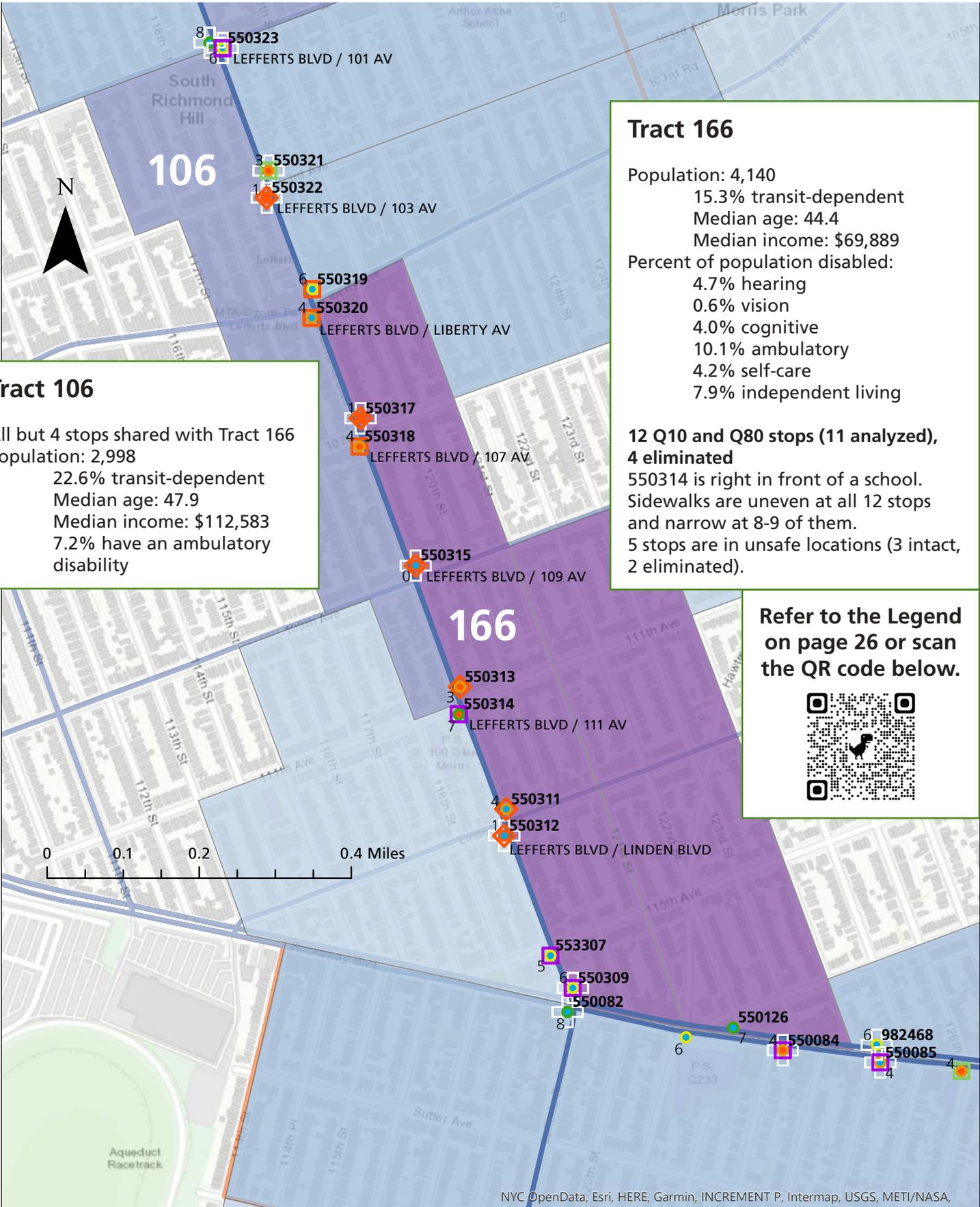


**Stops 501658 and 501631**  
 NWB and SEB Q27 and Q88 stops

In Tract 1291.04:  
 Population: 4,397  
 11.1% transit-dependent  
 Median age: 42.5  
 Median income: \$109,891  
 Percent of population disabled:  
 2.7% hearing  
 3.7% vision  
 3.7% cognitive  
 8.8% ambulatory  
 4.4% self-care  
 7.1% independent living

**13 Q88 stops, 5 eliminated (1 analyzed)**  
 Sidewalk is narrow and uneven at stops along Springfield Blvd.  
 501659 is also in an unsafe location.  
 Analysis is required for remaining stops.





**Tract 106**

All but 4 stops shared with Tract 166  
 Population: 2,998  
 22.6% transit-dependent  
 Median age: 47.9  
 Median income: \$112,583  
 7.2% have an ambulatory disability

**Tract 166**

Population: 4,140  
 15.3% transit-dependent  
 Median age: 44.4  
 Median income: \$69,889

Percent of population disabled:  
 4.7% hearing  
 0.6% vision  
 4.0% cognitive  
 10.1% ambulatory  
 4.2% self-care  
 7.9% independent living

**12 Q10 and Q80 stops (11 analyzed), 4 eliminated**  
 550314 is right in front of a school.  
 Sidewalks are uneven at all 12 stops and narrow at 8-9 of them.  
 5 stops are in unsafe locations (3 intact, 2 eliminated).

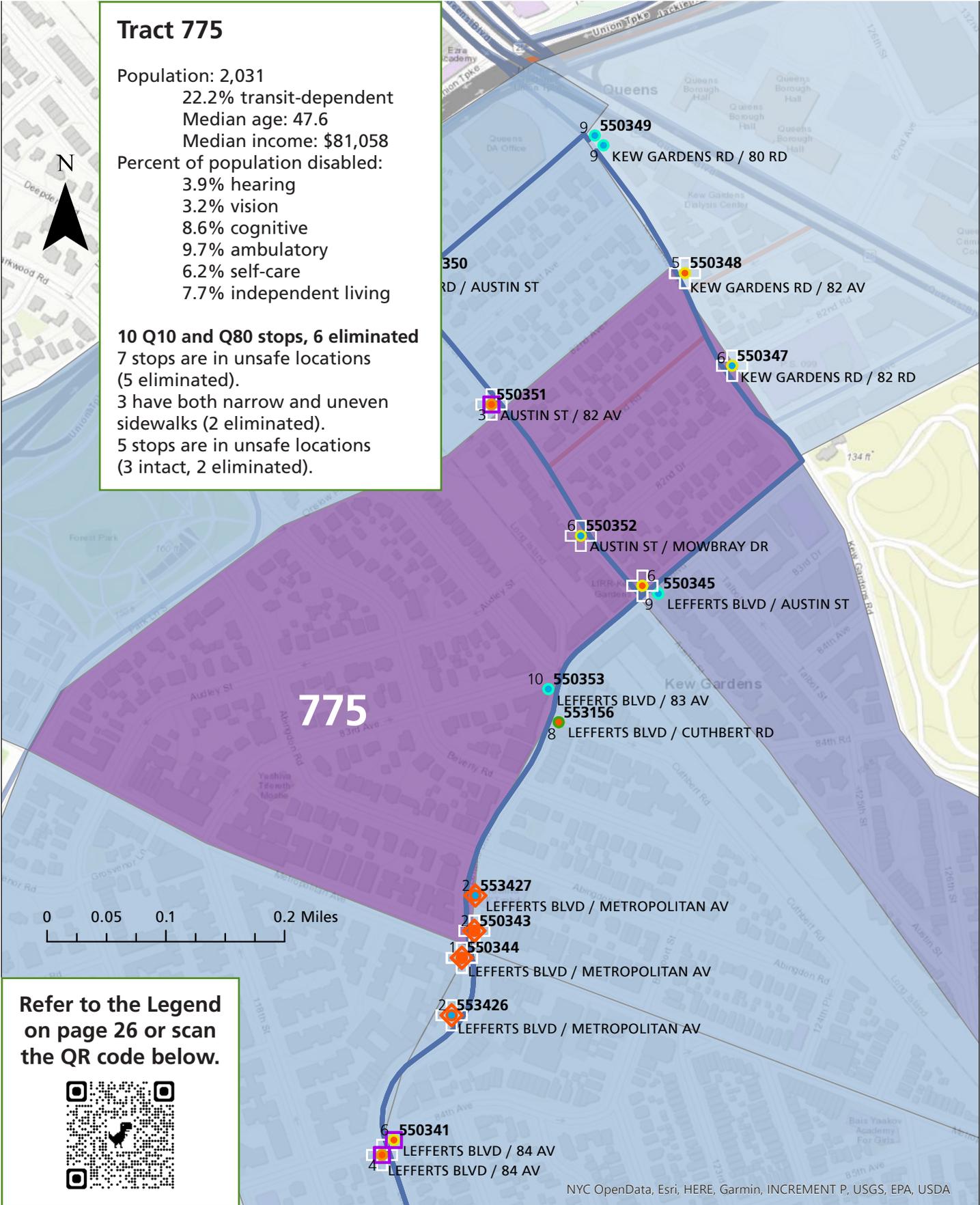
**Refer to the Legend on page 26 or scan the QR code below.**

NYC OpenData, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA,

## Tract 775

Population: 2,031  
 22.2% transit-dependent  
 Median age: 47.6  
 Median income: \$81,058  
 Percent of population disabled:  
 3.9% hearing  
 3.2% vision  
 8.6% cognitive  
 9.7% ambulatory  
 6.2% self-care  
 7.7% independent living

**10 Q10 and Q80 stops, 6 eliminated**  
 7 stops are in unsafe locations  
 (5 eliminated).  
 3 have both narrow and uneven  
 sidewalks (2 eliminated).  
 5 stops are in unsafe locations  
 (3 intact, 2 eliminated).



Refer to the Legend on page 26 or scan the QR code below.



NYC OpenData, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

# Conclusion and Next Steps

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The Queens Bus Network Redesign, while intended to improve service and speed up buses, has created significant access gaps for mobility-impaired riders. This project serves as an independent audit, using the Bus Stop Accessibility Index (BSAI) to assess these impacts through a data-driven approach centered on equity and inclusion.

Our findings confirm that the MTA's bus stop balancing was not implemented with a standardized, accessibility-focused methodology. Across the high-priority routes studied in Phase 1 of this project, stops near essential origins and destinations were eliminated, often without a clear correlation to both their Accessibility Ratings and the results for each BSAI factor. The variance in results across different neighborhoods underscores the need for context-specific analysis that considers local populations, particularly those who are transit-dependent or have ambulatory disabilities.

At this point in this project, the data collection process is still ongoing — more stops and routes in Queens will be entered soon. Thus far, our analysis has identified nine specific Census tracts where high concentrations of people with disabilities bear the greatest burden from these stop eliminations. **While restoring bus stops across Queens is necessary, equitable restorations must be prioritized in these high-need areas to address civil rights concerns and ensure the MTA meets its legal obligation for service equity and accessibility under the ADA.**

For this effort to provide lasting benefit for riders, the following actions are critical:

- Conduct additional field studies in the prioritized Census tracts to verify conditions and, in the process of determining specific stops to be restored, ensure any previous safety hazards at eliminated stops are addressed and mitigated.
- Refine the BSAI as the project continues so that it better reflects how the conditions of each stop, as well as their proximity to essential origins and destinations, affect riders.

Looking forward, I hope for the BSAI (or a similar but equally effective method) to be used by transit planners to evaluate the implications of bus stop eliminations and factor them into plans, such as bus network redesigns, *before* they come to fruition.

# References and Notes

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**Census tables:**

B03002: Hispanic or Latino Origin by Race

B11001: Household Type (Including Living Alone)

B25002: Occupancy Status

B08006: Sex of Workers by Means of Transportation to Work

S1810: Disability Characteristics

B17010: Poverty Status in the Past 12 Months of Families by Family Type by Presence of Related Children Under 18 Years by Age of Related Children

**Note:**

The data are current as of December 26, 2025. More data are in the process of being entered into the system and will be analyzed as they come in.

**Acknowledgments:**

I would like to extend my sincere thanks to my colleagues — Charlton D'souza, David Kupferberg, Joseph Morales, and Carina Nieves — for their continued help collecting data for this project. I am also grateful to Indrajeet Chavan, as well as Professors Summer Dong, Erick Guerra, and Shea O'Neill at the University of Pennsylvania, for their invaluable insights and technical expertise.

# Appendix:

## Full Stop Lists for Phase 1 Routes

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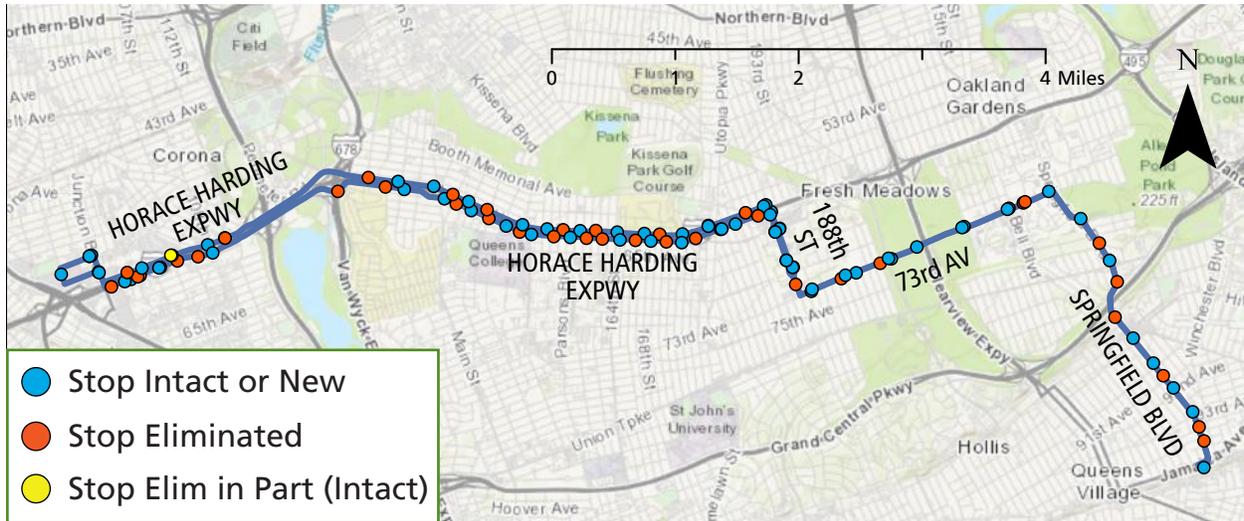
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The following pages show detailed stop lists for each of the Phase 1 high-priority routes. These lists are in stop order for each direction and include the Stop ID, Stop Name, Stop Direction, Stop Status, and Accessibility Rating. Note that, as of the release of this report, a few of the stops have not been assessed yet, but they are still included in these lists.

Q88 Stops	<b>38</b>
Q110 and Q82 Stops (High-Priority Section Only)	<b>43</b>
Q10 and Q80 Stops	<b>47</b>

## Queens Center Mall ↔ Queens Village

Local via Horace Harding Expressway, 188th Street, 73rd Avenue, and Springfield Boulevard



Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
505057	92 ST / 59 AV	E	Intact	7
502868	JUNCTION BLVD / 59 AV	SE	Intact	10
502869	HORACE HARDING EXPWY / JUNCTION BLVD	E	Eliminated	6
502870	HORACE HARDING EXPWY / 97 ST	E	Intact	9
502871	HORACE HARDING EXPWY / 98 ST	E	Eliminated	5
502872	HORACE HARDING EXPWY / 99 ST	E	Intact	8
502873	HORACE HARDING EXPWY / 102 ST	E	Eliminated	1
502874	HORACE HARDING EXPWY / YELLOWSTONE BLVD	E	Eliminated	5
505071	HORACE HARDING EXPWY / 108 ST	E	Intact	8
502876	HORACE HARDING EXPWY / COLLEGE POINT BLVD	E	Eliminated	6
502877	HORACE HARDING EXPWY / 134 ST	E	Eliminated	2
502878	HORACE HARDING EXPWY / 136 ST	E	Intact	5
502880	HORACE HARDING EXPWY / MAIN ST	E	Intact	6
502509	HORACE HARDING EXPWY / 146 ST	E	Eliminated	6
502510	HORACE HARDING EXPWY / 148 ST	E	Intact	5

Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
502511	HORACE HARDING EXPWY / 150 ST	E	Eliminated	5
502512	HORACE HARDING EXPWY / 153 ST	E	Intact	5
502513	HORACE HARDING EXPWY / REEVES AV	E	Eliminated	7
501383	HORACE HARDING EXPWY / KISSENA BLVD	E	Intact	8
501384	HORACE HARDING EXPWY / 156 ST	E	Eliminated	3
501385	HORACE HARDING EXPWY / PARSONS BLVD	E	Intact	3
501386	HORACE HARDING EXPWY / 160 ST	E	Eliminated	5
501387	HORACE HARDING EXPWY / 162 ST	E	Eliminated	5
501388	HORACE HARDING EXPWY / 164 ST	E	Intact	7
501389	HORACE HARDING EXPWY / 166 ST	E	Eliminated	5
501390	HORACE HARDING EXPWY / 168 ST	E	Intact	7
501391	HORACE HARDING EXPWY / 170 ST	E	Eliminated	3
501392	HORACE HARDING EXPWY / 172 ST	E	Intact	6
501393	HORACE HARDING EXPWY / 64 AV	E	Eliminated	9
501394	HORACE HARDING EXPWY / UTOPIA PKWY	E	Intact	8
501395	HORACE HARDING EXPWY / 183 ST	E	Intact	7
501396	HORACE HARDING EXPWY / 186 ST	E	Eliminated	6
501397	188 ST / HORACE HARDING EXPWY	S	Intact	7
501398	188 ST / 64 AV	S	Intact	7
501399	188 ST / 186 LN	S	Intact	7
501400	188 ST / 186 LN #2	S	Eliminated	7
502623	73 AV / 189 ST	E	Intact	7
502624	73 AV / 192 ST	E	Eliminated	7
502625	73 AV / 194 ST	E	Eliminated	6
502626	73 AV / 196 ST	E	Intact	7
502627	73 AV / 197 ST	E	Eliminated	4
502628	73 AV / 199 ST	E	Eliminated	5

Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
502629	73 AV / FRANCIS LEWIS BLVD	E	Intact	5
502630	73 AV / HOLLIS HILLS TERR	E	Intact	
502631	73 AV / 210 ST	E	Intact	
502632	73 AV / 213 ST	E	Eliminated	
502633	73 AV / BELL BLVD	E	Intact	
502634	73 AV / 220 ST	E	Eliminated	
502635	73 AV / SPRINGFIELD BLVD	E	Intact	
501628	SPRINGFIELD BLVD / 75 AV	SE	Intact	
501629	SPRINGFIELD BLVD / 76 AV	SE	Eliminated	
501630	SPRINGFIELD BLVD / 77 AV	SE	Eliminated	
501631	SPRINGFIELD BLVD / KINGSBURY AV	E	Eliminated	
501632	SPRINGFIELD BLVD / UNION TPKE	S	Intact	
501633	SPRINGFIELD BLVD / 223 ST	S	Eliminated	
501634	SPRINGFIELD BLVD / SAWYER AV	SE	Eliminated	
501635	SPRINGFIELD BLVD / HILLSIDE AV	SE	Eliminated	
500027	SPRINGFIELD BLVD / 89 AV	SE	Eliminated	
500028	SPRINGFIELD BLVD / 90 AV	SE	Intact	
500029	SPRINGFIELD BLVD / 91 AV	SE	Eliminated	
500030	SPRINGFIELD BLVD / 92 AV	SE	Intact	
500031	SPRINGFIELD BLVD / 93 AV	SE	Intact	
500032	SPRINGFIELD BLVD / 94 AV	S	Eliminated	
500033	SPRINGFIELD BLVD / 94 DR	S	Eliminated	
500034	SPRINGFIELD BLVD / JAMAICA AV	S	Intact	
500298	AMBOY LN / JAMAICA AV	S	Intact	
503212	AMBOY LN / SPRINGFIELD BLVD	N	Intact	7
500049	SPRINGFIELD BLVD / 94 DR	N	Eliminated	4
500050	SPRINGFIELD BLVD / 94 AV	N	Eliminated	3

Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
500051	SPRINGFIELD BLVD / 93 AV	N	Intact	4
500052	SPRINGFIELD BLVD / 92 AV	NW	Intact	5
500053	SPRINGFIELD BLVD / 91 AV	NW	Eliminated	7
500054	SPRINGFIELD BLVD / 90 AV	NW	Intact	3
500055	SPRINGFIELD BLVD / 89 AV	NW	Intact	5
501654	SPRINGFIELD BLVD / HILLSIDE AV	NW	Intact	
501655	SPRINGFIELD BLVD / SAWYER AV	NW	Eliminated	4
501656	SPRINGFIELD BLVD / GRAND CENTRAL PKWY	N	Eliminated	4
501657	SPRINGFIELD BLVD / UNION TPKE	N	Intact	9
501658	SPRINGFIELD BLVD / KINGSBURY AV	NW	Eliminated	4
501659	SPRINGFIELD BLVD / 76 AV	NW	Intact	4
502947	73 AV / SPRINGFIELD BLVD	W	Intact	7
502648	73 AV / 218 ST	W	Eliminated	8
502649	73 AV / BELL BLVD	W	Intact	5
502650	73 AV / 213 ST	W	Eliminated	6
502651	73 AV / 210 ST	W	Intact	6
503983	73 AV / CLEARVIEW EXPWY	W	Intact	4
502653	73 AV / FRANCIS LEWIS BLVD	W	Intact	9
502654	73 AV / 197 ST	W	Eliminated	4
502656	73 AV / 195 ST	W	Intact	6
502657	73 AV / 193 ST	W	Eliminated	5
502658	73 AV / 190 ST	W	Intact	4
501338	188 ST / 69 AV	N	Intact	7
501339	188 ST / 64 AV	N	Intact	7
501340	188 ST / HORACE HARDING EXPWY	N	Intact	9
501341	HORACE HARDING EXPWY / 188 ST	W	Intact	7
501342	HORACE HARDING EXPWY / 185 ST	W	Eliminated	5

Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
501343	HORACE HARDING EXPWY / 183 ST	W	Intact	7
504031	HORACE HARDING EXPWY / 175 PL	W	Intact	9
501345	HORACE HARDING EXPWY / FRESH MEADOW LN	W	Intact	5
501346	HORACE HARDING EXPWY / 170 ST	W	Eliminated	5
501347	HORACE HARDING EXPWY / 168 ST	W	Intact	2
501348	HORACE HARDING EXPWY / 164 ST	W	Intact	6
501349	HORACE HARDING EXPWY / 162 ST	W	Eliminated	4
501350	HORACE HARDING EXPWY / 160 ST	W	Intact	8
501351	HORACE HARDING EXPWY / PARSONS BLVD	W	Eliminated	3
501352	HORACE HARDING EXPWY / 156 ST	W	Intact	4
502974	HORACE HARDING EXPWY / KISSENA BLVD	W	Intact	4
502975	HORACE HARDING EXPWY / 150 ST	W	Eliminated	1
502976	HORACE HARDING EXPWY / 148 ST	W	Intact	4
502977	HORACE HARDING EXPWY / 146 ST	W	Eliminated	1
502978	HORACE HARDING EXPWY / MAIN ST	W	Intact	9
502979	HORACE HARDING EXPWY / 136 ST	W	Intact	1
502980	HORACE HARDING EXPWY / LAWRENCE ST	W	Eliminated	3
502982	HORACE HARDING EXPWY / WALDRON ST	W	Eliminated	6
502983	HORACE HARDING EXPWY / 108 ST	W	Intact	5
502984	HORACE HARDING EXPWY / WESTSIDE AV	W	Eliminated	4
502985	HORACE HARDING EXPWY / OTIS AV	W	Intact	7
502986	HORACE HARDING EXPWY / 99 ST	W	Intact	7
502987	HORACE HARDING EXPWY / 99 ST	W	Eliminated	6
504987	HORACE HARDING EXPWY / JUNCTION BLVD	W	Intact	
551311	57 AV / JUNCTION BLVD	W	Intact	8
804060	92 ST / 59 AV	W	Intact	7

# Q110

## Jamaica ↔ Floral Park

Local via Jamaica Avenue

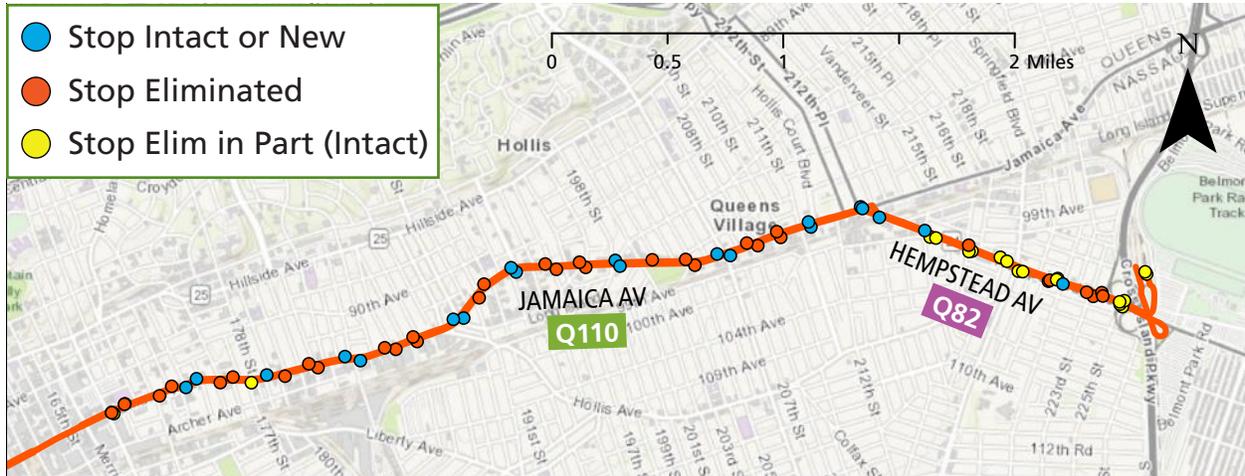
Phase 1 section: Jamaica Avenue between 168th Street and 212th Place

# Q82

## Jamaica ↔ Belmont Park/UBS Arena

Rush via Hillside Avenue, 212th Street/212th Place, and Hempstead Avenue

Phase 1 section: Hempstead Avenue between Jamaica Avenue and Belmont Park/UBS Arena (formerly part of the Q110)



Route	Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
Q110	503283	JAMAICA AV / 168 ST	E	Intact	6
Q110	982053	JAMAICA AV / 170 ST	E	Eliminated	2
Q110	553010	JAMAICA AV / 172 ST	E	Intact	7
Q110	553020	JAMAICA AV / 175 ST	E	Eliminated	7
Q110	552212	JAMAICA AV / 178 ST	E	Intact	6
Q110	552213	JAMAICA AV / 179 PL	E	Eliminated	7
Q110	552214	JAMAICA AV / 181 ST	E	Eliminated	4
Q110	552216	JAMAICA AV / 183 ST	E	Intact	7
Q110	552218	JAMAICA AV / 184 PL	E	Eliminated	9
Q110	552220	JAMAICA AV / 186 ST	E	Eliminated	7
Q110	552224	JAMAICA AV / 188 ST	E	Intact	5
Q110	552226	JAMAICA AV / 190 ST	E	Eliminated	4

Route	Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
Q110	552228	JAMAICA AV / 193 ST	E	Intact	6
Q110	552230	JAMAICA AV / 195 PL	E	Eliminated	6
Q110	552232	JAMAICA AV / WOODHULL AV	E	Eliminated	4
Q110	553310	JAMAICA AV / CARPENTER AV	E	Intact	6
Q110	552235	JAMAICA AV / 204 ST	E	Eliminated	3
Q110	552237	JAMAICA AV / FRANCIS LEWIS BLVD	E	Intact	7
Q110	552239	JAMAICA AV / 208 ST	E	Eliminated	4
Q110	552241	JAMAICA AV / 210 ST	E	Eliminated	5
Q110	552243	JAMAICA AV / HOLLIS COURT BLVD	E	Intact	5
Q110	552245	JAMAICA AV / 212 ST	E	Eliminated	
Q82	552247	HEMPSTEAD AV / 213 ST	E	Intact	5
Q82	552248	HEMPSTEAD AV / 99 AV	E	Intact	5
Q82	552249	HEMPSTEAD AV / 217 LN	E	Intact	7
Q82	505131	HEMPSTEAD AV / SPRINGFIELD BLVD	E	Intact	3
Q82	500120	HEMPSTEAD AV / 220 ST	E	Eliminated	6
Q82	701055	HEMPSTEAD AV / 221 ST	E	Intact	7
Q82	500121	HEMPSTEAD AV / 223 ST	E	Eliminated	3
Q82	500122	HEMPSTEAD AV / 225 ST	E	Intact	6
Q82	553437	BELMONT PARK RACETRACK / UBS ARENA	W	Intact	8
Q82	500123	HEMPSTEAD AV / 225 ST	W	Intact	7
Q82	500124	HEMPSTEAD AV / 224 ST	W	Eliminated	4
Q82	500125	HEMPSTEAD AV / 221 ST	W	Intact	9
Q82	552252	HEMPSTEAD AV / SPRINGFIELD BLVD	W	Intact	3
Q82	552250	HEMPSTEAD AV / 217 LN	W	Eliminated	5
Q82	552727	HEMPSTEAD AV / 217 ST	W	Intact	5
Both	501962	JAMAICA AV / 212 PL	W	Intact	7
Q110	552244	JAMAICA AV / HOLLIS COURT BLVD	W	Intact	5

Route	Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
Q110	552242	JAMAICA AV / 210 ST	W	Eliminated	5
Q110	552240	JAMAICA AV / 208 ST	W	Eliminated	6
Q110	552238	JAMAICA AV / FRANCIS LEWIS BLVD	W	Intact	7
Q110	552236	JAMAICA AV / 204 ST	W	Eliminated	5
Q110	552227	JAMAICA AV / 201 ST	W	Eliminated	5
Q110	553038	JAMAICA AV / 198 ST	W	Intact	5
Q110	553124	JAMAICA AV / 197 ST	W	Eliminated	5
Q110	552231	JAMAICA AV / 195 PL	W	Eliminated	7
Q110	552229	JAMAICA AV / 193 ST	W	Intact	5
Q110	552253	JAMAICA AV / 191 ST	W	Eliminated	9
Q110	552225	JAMAICA AV / 188 ST	W	Intact	7
Q110	552221	JAMAICA AV / 186 ST	W	Eliminated	6
Q110	552219	JAMAICA AV / 184 PL	W	Eliminated	7
Q110	552217	JAMAICA AV / 183 ST	W	Intact	9
Q110	552215	JAMAICA AV / 181 ST	W	Eliminated	9
Q110	552255	JAMAICA AV / 179 ST	W	Intact	4
Q110	552256	JAMAICA AV / 176 ST	W	Eliminated	9
Q110	552257	JAMAICA AV / 173 ST	W	Intact	4
Q110	552258	JAMAICA AV / 171 ST	W	Eliminated	0
Q110	504384	JAMAICA AV / 170 ST	W	Eliminated	
Q110	503185	JAMAICA AV / 168 PL	W	Intact	3



**Kew Gardens ↔ JFK Airport**

Rush via Lefferts Boulevard, Rockaway Boulevard, and 130th Street  
*Phase 1 section: Jamaica Avenue between 168th Street and 212th Place*



**Kew Gardens ↔ JFK Airport**

Local via Lefferts Boulevard  
*Formerly a branch of the Q10*



Route	Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
Both	982159	KEW GARDENS RD / 80 RD	N	Intact	9
Both	550350	80 RD / AUSTIN ST	S	Intact	1
Both	550351	AUSTIN ST / 82 AV	S	Eliminated	3
Both	550352	AUSTIN ST / MOWBRAY DR	E	Intact	6
Both	550353	LEFFERTS BLVD / 83 AV	S	Intact	10
Both	550344	LEFFERTS BLVD / METROPOLITAN AV	N	Eliminated	1
Both	553426	LEFFERTS BLVD / METROPOLITAN AV	S	Intact	2
Both	550342	LEFFERTS BLVD / 84 AV	S	Eliminated	4
Both	550340	LEFFERTS BLVD / 85 AV	S	Intact	6
Both	550338	LEFFERTS BLVD / HILLSIDE AV	S	Eliminated	7
Both	550336	LEFFERTS BLVD / JAMAICA AV	S	Intact	9

Route	Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
Both	550334	LEFFERTS BLVD / 89 AV	S	Intact	7
Both	550332	LEFFERTS BLVD / 91 AV	S	Eliminated	7
Both	550354	LEFFERTS BLVD / ATLANTIC AV	S	Intact	7
Both	550328	LEFFERTS BLVD / 95 AV	S	Eliminated	4
Both	550324	LEFFERTS BLVD / 101 AV	S	Intact	8
Both	550322	LEFFERTS BLVD / 103 AV	S	Eliminated	1
Both	550320	LEFFERTS BLVD / LIBERTY AV	S	Intact	4
Both	550318	LEFFERTS BLVD / 107 AV	S	Eliminated	4
Both	550316	LEFFERTS BLVD / 109 AV	S	Intact	
Both	550314	LEFFERTS BLVD / 111 AV	S	Eliminated	7
Both	550312	LEFFERTS BLVD / LINDEN BLVD	S	Intact	1
Both	553307	LEFFERTS BLVD / 115 AV	S	Intact	5
Q10	550083	ROCKAWAY BLVD / 121 ST	E	Intact	6
Q10	550084	ROCKAWAY BLVD / 122 PL	E	Eliminated	4
Q10	550085	ROCKAWAY BLVD / 124 ST	E	Intact	4
Q10	550086	ROCKAWAY BLVD / 126 ST	E	Eliminated	4
Q10	550087	ROCKAWAY BLVD / 128 ST	E	Intact	1
Q10	553219	130 ST / SUTTER AV	S	Intact	
Q10	553220	130 ST / 133 AV	S	Intact	
Q10	553221	130 ST / 135 AV	S	Intact	
Q10	553276	S CONDUIT AV / 130 ST	S	Intact	8
Q10	553403	134 ST / 149 AV	S	Intact	4
Q10	553146	134 ST / 150 AV	S	Intact	0
Q10	553411	134 ST / 155 AV	S	Intact	0
Q10	503793	130 PL / BERGEN RD	S	Intact	5
Q80	550306	LEFFERTS BLVD / 133 AV	S	Eliminated	
Q80	550304	LEFFERTS BLVD / 135 AV	S	Intact	4

Route	Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
Q80	550300	LEFFERTS BLVD / 150 AV	S	Intact	4
Both	982006	LEFFERTS BLVD / AIRTRAIN STATION	S	Intact	9
Q80	550299	LEFFERTS BLVD / 150 AV	N	Intact	
Q80	550303	LEFFERTS BLVD / 135 AV	N	Intact	6
Q10	982467	134 ST / 155 AV	N	Intact	4
Q10	550289	134 ST / 150 AV	N	Intact	0
Q10	550290	150 AV / 149 AV	N	Intact	8
Q10	550291	150 AV / 131 ST	N	Eliminated	4
Q10	550292	130 ST / 150 AV	N	Intact	3
Q10	550293	130 ST / 135 AV	N	Intact	5
Q10	553217	130 ST / 133 AV	N	Intact	
Q10	553218	130 ST / SUTTER AV	N	Intact	
Q10	550123	ROCKAWAY BLVD / 128 ST	W	Intact	5
Q10	550124	ROCKAWAY BLVD / 127 ST	W	Eliminated	7
Q10	982468	ROCKAWAY BLVD / 125 ST	W	Intact	6
Q10	550126	ROCKAWAY BLVD / 122 ST	E	Intact	7
Both	550309	LEFFERTS BLVD / ROCKAWAY BLVD	N	Intact	6
Both	550311	LEFFERTS BLVD / LINDEN BLVD	N	Intact	4
Both	550313	LEFFERTS BLVD / 111 AV	N	Eliminated	3
Both	550315	LEFFERTS BLVD / 109 AV	N	Intact	0
Both	550317	LEFFERTS BLVD / 107 AV	N	Eliminated	1
Both	550319	LEFFERTS BLVD / LIBERTY AV	N	Intact	6
Both	550321	LEFFERTS BLVD / 103 AV	N	Eliminated	3
Both	550323	LEFFERTS BLVD / 101 AV	N	Intact	6
Both	550327	LEFFERTS BLVD / 95 AV	N	Eliminated	5
Both	550329	LEFFERTS BLVD / 94 AV	N	Intact	7
Both	550331	LEFFERTS BLVD / 91 AV	N	Eliminated	7

Route	Stop ID	Stop Name	Direction	Stop Status	Acc. Rating
Both	550333	LEFFERTS BLVD / 89 AV	N	Intact	5
Both	550335	LEFFERTS BLVD / JAMAICA AV	N	Intact	
Both	550337	LEFFERTS BLVD / HILLSIDE AV	N	Eliminated	8
Both	550339	LEFFERTS BLVD / 85 AV	N	Intact	5
Both	550341	LEFFERTS BLVD / 84 AV	N	Eliminated	6
Both	553427	LEFFERTS BLVD / METROPOLITAN AV	N	Intact	2
Both	553156	LEFFERTS BLVD / CUTHBERT RD	N	Eliminated	8
Both	550345	LEFFERTS BLVD / AUSTIN ST	N	Intact	9
Both	550347	KEW GARDENS RD / 82 RD	W	Intact	6
Both	550348	KEW GARDENS RD / 82 AV	W	Eliminated	5
Both	550349	KEW GARDENS RD / 80 RD	S	Intact	9