

NYC Connected

May 2019

# Truth in Broadband: Public Wi-Fi in New York City

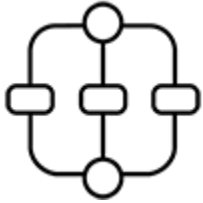


Mayor's Office of the  
Chief Technology Officer

## Acknowledgements

This report was developed by the New York City Mayor’s Office of the Chief Technology Officer in partnership with the Department of Information Technology and Telecommunications. We would also like to thank our colleagues at the Mayor’s Office of Data Analytics, New York City Cyber Command, Department for the Aging, Department of City Planning, Department of Parks and Recreation, Department of Youth and Community Development, and the New York City Housing Authority, as well as our partners at the Brooklyn Public Library, New York Public Library, and Queens Public Library. We also drew on expert information provided to us by the Wi-Fi Alliance through their response to our NYC Connected Citywide Broadband Request for Information; the Wi-Fi Alliance did not review the contents of the report and are not responsible for any of its conclusions or recommendations.

## The Goals of NYC Connected



### Ensure high-quality internet everywhere

We're working to guarantee high-quality service and continuous improvements are available to the entire city.



### Eliminate cost as a barrier to access

We're making internet service affordable to ensure all New Yorkers can access this essential utility.



### Make the internet a just and equitable platform

We're educating and engaging our communities to support equitable use of the internet and to address the complexities that come with its expansion – especially issues of privacy and net neutrality.

These goals require “Truth in Broadband” to equip New Yorkers with reliable, accessible information about the quality of their internet service, the options available to them, and how their services compare with the rest of the city.

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## Executive Summary

Free public Wi-Fi is a critical part of New York City's efforts to connect all New Yorkers with affordable, reliable broadband service and make New York the fairest big city in America. Under Mayor Bill de Blasio, the City has seen more than a tripling of the number of free public Wi-Fi access points, with major improvements in connection speed, reliability and privacy protections. This report focuses on Wi-Fi service that is provided to the public for free and is divided into two main discussion sections: Coverage and Standards.

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*The City has 20 different providers of free public Wi-Fi at 3,555 locations or "hotspots" distributed across the city, not including services provided on buses or ferries.*

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**Coverage:** The Coverage section describes a new approach to assessing the availability of free public Wi-Fi in New York City. The analysis focuses on four use cases of public Wi-Fi – *streets, open space, transit and public facilities* – and proposes a new metric and target for coverage for the streets use case. As discussed below, of neighborhoods<sup>1</sup> that have any area zoned for commercial use, 42 percent have at least one hotspot in a commercial area.<sup>2</sup>

**Standards:** The Standards section includes criteria that can differentiate one public Wi-Fi service from another with the goal of making all service in New York City consistent and high quality. The criteria are grouped into seven categories: *Free, Fast, Fair, Reliable, Up-to-Date, Accountable, and Secure*.

The framework of this report represents the first step towards a public Wi-Fi "master plan," to borrow a term from architecture and urban design, in that it lays out for the entire area within local government purview – public space in New York City – what kind of Wi-Fi the City wants to see and where the City wants to see it. It lays the foundation to further expand coverage, improve service, and enhance the user experience towards the goal of seamless, standardized, free Wi-Fi in a critical mass of New York City's public space.

The City will update data on free public Wi-Fi on NYC Open Data on a regular basis and will update its free public Wi-Fi standards and policies as needed. The Mayor's Office of the Chief Technology Officer and its City agency partners welcome feedback by email at [connected@cto.nyc.gov](mailto:connected@cto.nyc.gov).

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<sup>1</sup> This report uses Neighborhood Tabulation Area (NTA) as the "neighborhood" unit for all analyses. For more information on NTAs, see <https://www1.nyc.gov/site/planning/data-maps/open-data/dwn-nynta.page>.

<sup>2</sup> For the purpose of this analysis of Free Public Wi-Fi and based on guidance from the Department of City Planning (DCP), these areas are defined as those within the following zoning districts: C1, C2, C4, C5, and C6, including C1 and C2 commercial overlays mapped along corridors of residential districts. For more information, see <https://www1.nyc.gov/site/planning/zoning/districts-tools.page>. Because the commercial overlays regulate what is built within the lot lines and the public Wi-Fi access points are located in the public area of the sidewalk, we applied a 25 foot buffer to count access points as being "in" these areas. We did not include this buffer in calculating the square mileage of these corridors in each neighborhood.

## Introduction

Free public Wi-Fi is essential for a connected city and a basic ingredient in defining public space. A fast, free, safe Wi-Fi signal can be a reassuring amenity, the way good lighting or a place to sit can make a space feel welcoming. It can fill a gap in cellular phone coverage. For many New Yorkers and visitors, a hotspot is a vital link to the digital world.

In *One New York: The Plan for a Strong and Just City*, the City set a “goal of covering a critical mass of the City’s public spaces with free Wi-Fi by 2025.”<sup>3</sup> The City further committed to “support a seamless user experience across all five boroughs, leveraging LinkNYC and other wireless hotspots,” to “standardize the speed, security, interoperability, and price features across networks, and manage the technical integration between these networks.”<sup>4</sup>

Free public Wi-Fi can help New Yorkers who find the cost of mobile data to be a barrier to their use of the internet, or who may get cut off from service regularly when they hit their monthly limits. Community-based organizations and digital literacy providers that the Mayor’s Office of the Chief Technology Officer (MOCTO) has engaged have said they wish they knew where to find information on the location of hotspots citywide to share with their clients and constituents. Today, there is not much general knowledge about where to find free Wi-Fi – the only place the City provides this information in a comprehensive way is on the NYC Open Data Portal, [www.nyc.gov/opendata](http://www.nyc.gov/opendata), maintained by the Department of Information Technology and Telecommunications (DOITT) in partnership with the Mayor’s Office of Data Analytics (MODA).

The purpose of this report is to maximize the value of this critical resource by informing the public about what is available and coordinating service data and information from multiple sources, both public and private. The report focuses on Wi-Fi service that is provided to the public for free (hereinafter “public Wi-Fi” or “free public Wi-Fi”) and is divided into two main discussion sections: Coverage and Standards. The Coverage section describes a new approach to assessing the availability of free public Wi-Fi for all New Yorkers by defining “a critical mass of the City’s public spaces” and by establishing the baseline technical and policy standards that would allow for “a seamless user experience” across different public Wi-Fi systems. The Standards section includes criteria to differentiate one public Wi-Fi service from another with the goal of making all service in New York City consistent and high quality.

The Mayor’s Office of the Chief Technology Officer (MOCTO) will continue to work with the relevant stakeholders to refine and implement these standards. Comments from the public are welcome by email at [connected@cto.nyc.gov](mailto:connected@cto.nyc.gov).

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<sup>3</sup> *One New York: The Plan for a Strong and Just City* (hereinafter “OneNYC” or “OneNYC Report 2015”), 2015, available at [www.nyc.gov/onenyc](http://www.nyc.gov/onenyc).

<sup>4</sup> OneNYC Report 2015 at p. 110.

## Public Wi-Fi Systems in NYC

The City has 20 different providers of public Wi-Fi at 3,555 locations or “hotspots” distributed across the city, not including service provided on buses or ferries. These providers, listed in Table 1, vary widely in their speeds, privacy policies, time limits, advertisements and how they are financed. Some are provided as a gift to the public, a few are paid for by the City, and still others are provided as part of an agreement for the commercial use of public space. The City expects to continue to rely on private sector contributions as the primary means to support the provision of free public Wi-Fi. Therefore, the City needs standards and a coverage framework to mobilize private sector investments according to a public plan.

The New York City Zoning Resolution defines zones throughout the city, which determine what is permissible on a piece of property and how the land may be used.<sup>5</sup> Historically, these definitions have not incorporated free public Wi-Fi, even though the City has long sought to integrate it into public space. The City began introducing Wi-Fi into parks through public-private partnerships in 2002.<sup>6</sup> The New York City Economic Development Corporation (NYCEDC) has promoted Wi-Fi deployment in certain corridors.<sup>7</sup> The City’s public libraries, Department for the Aging, Department of Parks and Recreation, Department of Youth and Community Development and the New York City Housing

<b>Table 1: Public Wi-Fi Systems in New York City</b>	
<i><u>Provider Name</u></i>	<i><u># of Hotspots</u></i>
AT&T	27
AlticeUSA	237
Brooklyn Public Library	59
Bryant Park (Partner)	2
Charter (Spectrum)	343
Chelsea Wi-Fi	30
City Tech	11
Department for the Aging	151
Department of Parks and Recreation	28
Department of Youth and Community Development	28
Downtown Brooklyn Wi-Fi	100
Governors Island Wi-Fi (Fiberless)	30
Harlem Wi-Fi	128
LinkNYC (Citybridge)	1868
Manhattan Downtown Alliance Wi-Fi	36
New York City Housing Authority	42
New York Public Library	92
Queens Public Library	64
Queensbridge (Spot On Networks)	3
Transit Wireless	276

*Table 1: Public Wi-Fi Systems with number of hotspot locations in New York City. Sources: April 2019 Hotspot Data provided by DOITT; February 2019 City Administrative Data as analyzed by MOCTO. Note: provider names are non-abbreviated and include, in parentheses, provider listed on NYC Open Data.*

<sup>5</sup> For the text of the Zoning Resolution, see <https://www1.nyc.gov/site/planning/zoning/access-text.page>.

<sup>6</sup> See Jason Begay, “Escaping to Bryant Park, but Staying Connected to the Web,” *The New York Times*, July 3, 2002, available at <https://www.nytimes.com/2002/07/03/nyregion/escaping-to-bryant-park-but-staying-connected-to-the-web.html>.

<sup>7</sup> New York City Economic Development Corporation, “Expanded Public WiFi in NYC,” October 14, 2013, available at <https://www.nycedc.com/blog-entry/expanded-public-wifi-nyc>.



Authority all provide publicly-accessible facilities with free Wi-Fi access. DOITT has managed many efforts to expand Wi-Fi access, most notably through the City’s franchise agreements.

## Public Wi-Fi Coverage

In 2015, the City established a measure of Wi-Fi coverage based on the goal of a hotspot within an eighth of a mile of all New Yorkers’ homes.<sup>8</sup> The City has made progress on reaching this goal.<sup>9</sup> However, it does not accurately reflect the City’s public Wi-Fi deployment strategy nor the way New Yorkers actually use free public Wi-Fi. As discussed below, in this report we propose a new metric and target for coverage based on a particular use case – streets. This measure replaced the previous OneNYC indicator in *OneNYC 2050*.<sup>10</sup> MOCTO will continue to work with partners to establish specific metrics for the other use cases and, ultimately, to create a comprehensive indicator for neighborhoods that incorporates metrics for all use cases.

Wi-Fi is not a practical solution for public access everywhere across a city as large and physically diverse as New York City. The City prioritizes deployment with different approaches across four kinds of public spaces:

- Streets
- Open Space
- Transit
- Public Facilities

These areas correspond to different use cases based on whether the space is inside or outside and whether it is a destination itself or an area people pass through.

### A. Streets

Wi-Fi on city streets connects New Yorkers where they are, as they are moving through the day. It provides a critical waypoint for people without a reliable mobile connection, whether they cannot afford one or because they are visitors to New York. It can also serve a branding or placemaking purpose for a neighborhood or business district.

LinkNYC Wi-Fi serves people on city streets in commercial or mixed use corridors as part of a franchise agreement for “public communications structures.”<sup>11</sup> LinkNYC kiosks, like the one shown in Image 1, offer Wi-Fi, phone calls, phone charging and a tablet with access to the internet and City services for free.

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<sup>8</sup> OneNYC Report at p. 110.

<sup>9</sup> From 2015 to 2018, the percentage of New Yorkers with access to free public Wi-Fi (regardless of the category of Wi-Fi) within an eighth of a mile from home grew from 13.9% to 28%, as reported in the OneNYC Report and subsequent OneNYC progress reports, available at [www.nyc.gov/onenyc](http://www.nyc.gov/onenyc).

<sup>10</sup> *OneNYC 2050: Building A Strong And Fair City*, April 2019, available at [https://onenyc.cityofnewyork.us/wp-content/uploads/2019/04/J\\_Full\\_OneNYC\\_2050\\_Report\\_190422\\_1015am-compressed.pdf](https://onenyc.cityofnewyork.us/wp-content/uploads/2019/04/J_Full_OneNYC_2050_Report_190422_1015am-compressed.pdf).

<sup>11</sup> For more information on LinkNYC, see <https://www1.nyc.gov/site/doitt/initiatives/linknyc.page>.



*Image 1: A LinkNYC kiosk provides free Wi-Fi, device charging and a connected tablet on Fulton Street in Brooklyn.*

Free public Wi-Fi on city streets also comes to New Yorkers as gifts from businesses, business groups or philanthropists. This is the case for Chelsea Wi-Fi, City Tech, Downtown Brooklyn Wi-Fi, Harlem Wi-Fi and Manhattan Downtown Alliance Wi-Fi. Some of these projects have received financial support from the City. Physically, these systems involve small pieces of equipment attached to street light poles or buildings in a concentrated area. An example of one such deployment is shown in Image 2.

The priority for city streets is serving pedestrian corridors – zones of commercial activity in each neighborhood that attract the greatest numbers of people and local businesses. Every neighborhood should have at least one pedestrian corridor with at least one hotspot, though the ideal deployment would cover every corridor with continuous coverage, which could require hotspots every 150-300 feet depending on physical conditions.

Of the 195 neighborhoods<sup>12</sup> that have any area zoned for commercial use, 81 neighborhoods, or 42 percent, have at least one hotspot in a commercial area.<sup>13</sup> This is a more accurate indicator of the state of public Wi-Fi deployment than the one included in past OneNYC plans and progress reports and replaces that indicator in the 2019 plan.<sup>14</sup> The City has grown this figure from six percent in 2015 due to the launch of LinkNYC. Figure 1 is a map of free public Wi-Fi hotspots in pedestrian corridors across all five boroughs in New York City.



*Image 2: A Wi-Fi access point attached to a street pole on West 112th Street in Harlem.*

<sup>12</sup> This report uses Neighborhood Tabulation Area (NTA) as the “neighborhood” unit for all analyses. For more information on NTAs, see <https://www1.nyc.gov/site/planning/data-maps/open-data/dwn-nynta.page>.

<sup>13</sup> For the purpose of this analysis of free public Wi-Fi and based on guidance from the Department of City Planning (DCP), these areas are defined as those within the following zoning districts: C1, C2, C4, C5, and C6, including C1 and C2 commercial overlays mapped along corridors of residential districts. For more information, see <https://www1.nyc.gov/site/planning/zoning/districts-tools.page>. Because the commercial overlays regulate what is built within the lot lines and the public Wi-Fi access points are located in the public area of the sidewalk, we applied a 25 foot buffer to count access points as being “in” these areas. We did not include this buffer in calculating the square mileage of these corridors in each neighborhood.

<sup>14</sup> See OneNYC at <https://onenyc.cityofnewyork.us>.

Neighborhoods without this type of service are generally in the outer areas of the Bronx, Brooklyn, Queens and Staten Island.

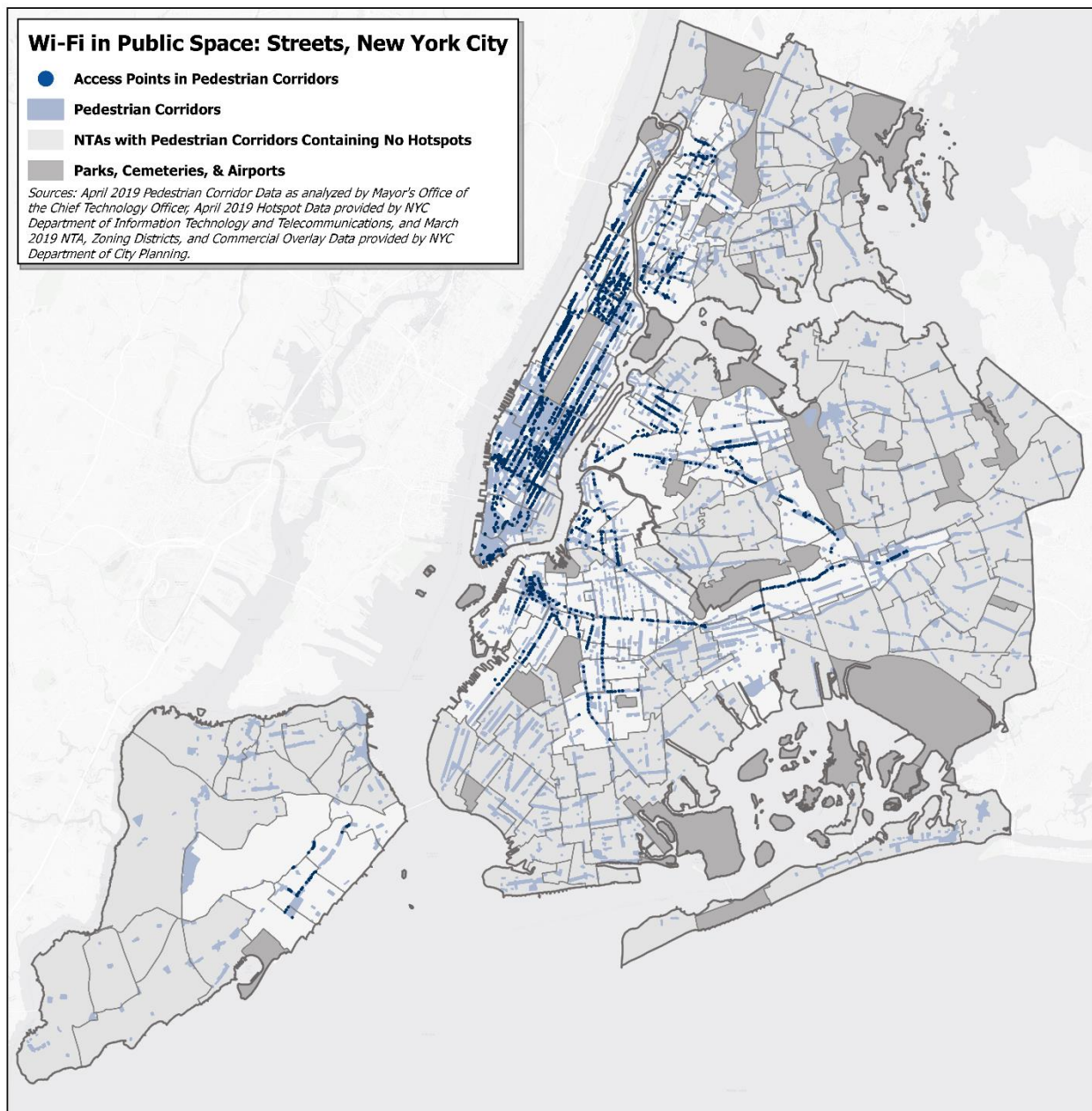


Figure 1: Map showing free public Wi-Fi access points in pedestrian corridors in New York City. See Appendix E for the number of Wi-Fi access points in pedestrian corridors. Sources: April 2019 Pedestrian Corridor Data as analyzed by MOCTO; April 2019 Hotspot Data provided by DOITT; and March 2019 NTA, Zoning Districts and Commercial Overlay Data provided by DCP.

The total number and density of Wi-Fi access points in pedestrian corridors varies widely in the 81 neighborhoods where they are found, as does the total area.<sup>15</sup> Figure 2 shows the relative density of access points in pedestrian corridors, which ranges from six to 779 per square mile. A table with the totals for each neighborhood is included in Appendix D. For the total number of access points by providers of Wi-Fi to the public in pedestrian corridors, see Appendix E.

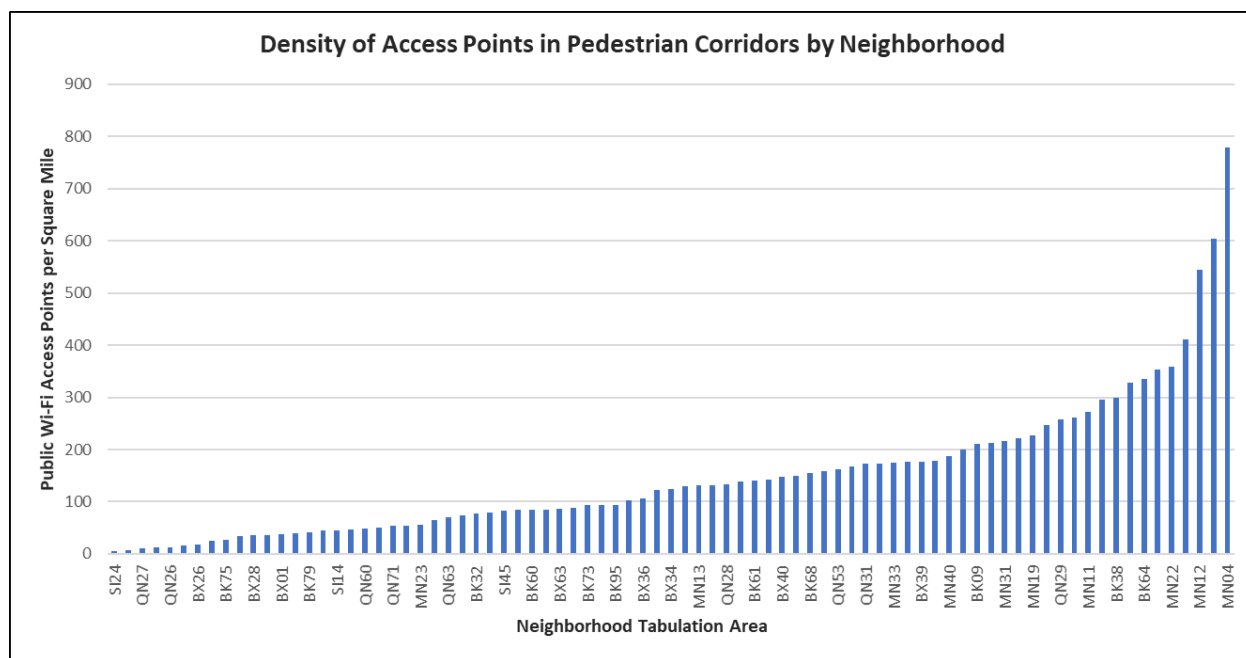


Figure 2: Graph showing the density of access points in pedestrian corridors by neighborhood, ranging from 6 per square mile to over 700 per square mile. Not all neighborhoods are shown. See Appendix D for complete neighborhood data. Sources: April 2019 NTA Pedestrian Hotspot Density Data as analyzed by MOCTO; April 2019 Hotspot Data provided by DOITT; and March 2019 NTA Data provided by DCP.

## B. Open Space

Open space includes parks and plazas. Wi-Fi in parks can provide a public safety benefit in areas where cellular phone service may be limited. It can be a useful amenity in areas designed for people to spend leisure time, an enhancement with wayfinding help, and a source of historic, architectural, or cultural information about the area. As with streets, the focus for coverage can be specific points in particular parks, based on those potential uses.

Altice, AT&T and Charter have Wi-Fi hotspots in parks as gifts to the City.<sup>16</sup> Altice's and Charter's gifts are described in letters attached to their cable franchise agreements with the City that expire

<sup>15</sup> The measures included here are based on the square mileage of the land use zones. The zones are drawn to include buildings and private property. Because the Wi-Fi service is only intended to cover the public area of the sidewalks and streets, it would be more accurate to calculate density based on a linear measure. However, this unit of measure is not readily available.

<sup>16</sup> The Department of Parks and Recreation provides information about Wi-Fi in parks at <https://www.nycgovparks.org/facilities/wifi>.



in 2020.<sup>17</sup> AT&T has an agreement directly with the City's Department of Parks and Recreation (DPR). DPR, in collaboration with MOCTO and DOITT, is in the process of determining priority locations to expand or improve coverage as resources allow. DPR plans to develop a method for prioritizing parks and places within parks for Wi-Fi coverage by the end of 2019. Figure 3 is a map of Wi-Fi hotspots in public parks across all five boroughs and on Governors Island.

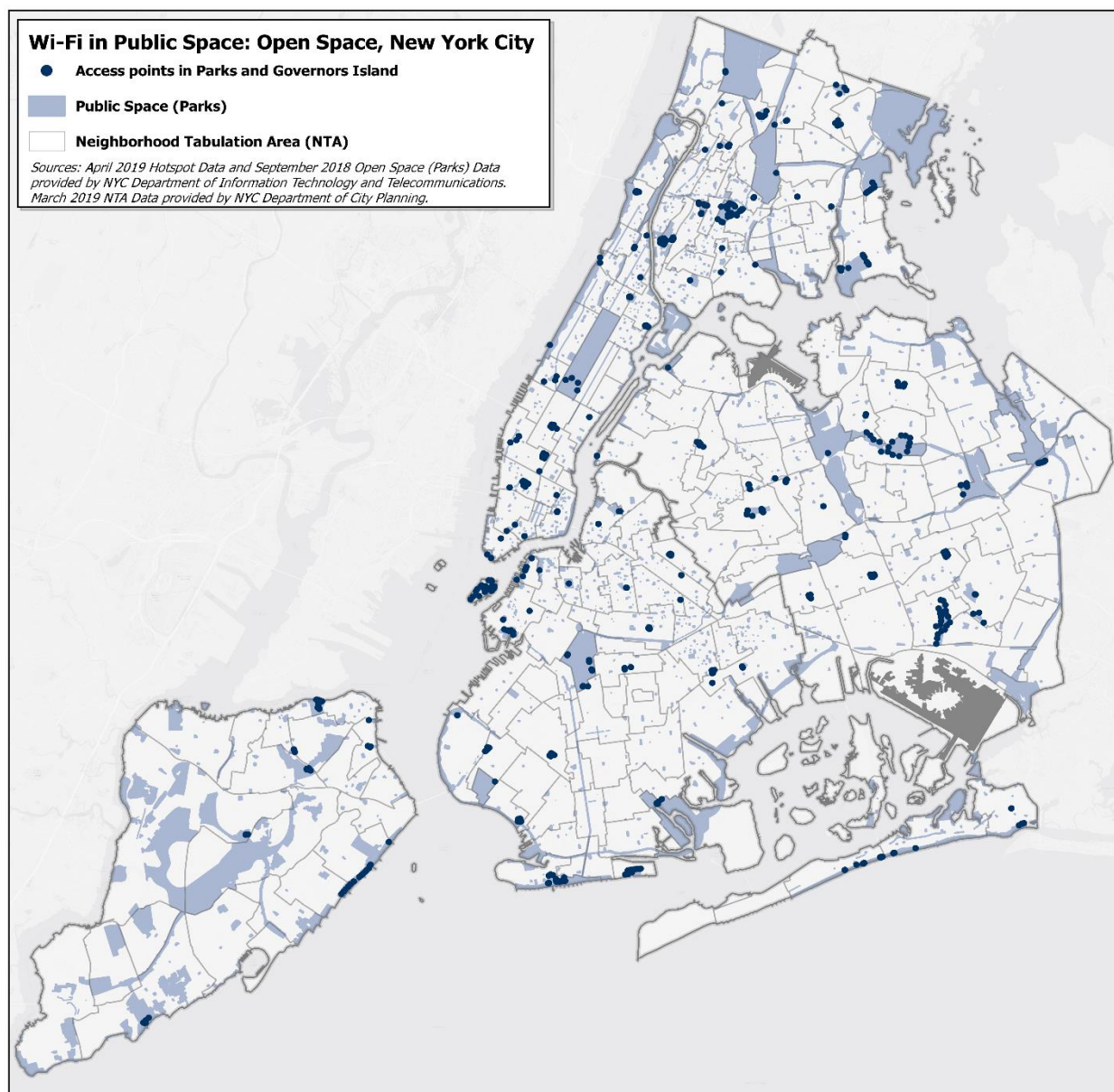


Figure 3: Map of Wi-Fi hotspots in public parks and Governors Island in New York City. See Appendix I for the number of Wi-Fi access points in public parks and Governors Island. Sources: April 2019 Hotspot Data and September 2018 Open Spaces (Parks) Data provided by DOITT and March 2019 NTA Data provided by DCP.

<sup>17</sup> DOITT letter to Cablevision Systems New York City Corporation Re: Public Projects in New York City, September 6, 2011, available at [https://www1.nyc.gov/assets/doitt/downloads/pdf/cablevision\\_franchise\\_letter\\_wi-fi.pdf](https://www1.nyc.gov/assets/doitt/downloads/pdf/cablevision_franchise_letter_wi-fi.pdf) and DOITT letter to Time Warner Entertainment Company, L.P. Re: Public Projects in New York City, September 6, 2011, available at [https://www1.nyc.gov/assets/doitt/downloads/pdf/time\\_warner\\_cable\\_franchise\\_letter\\_wi-fi.pdf](https://www1.nyc.gov/assets/doitt/downloads/pdf/time_warner_cable_franchise_letter_wi-fi.pdf).

Governors Island is an area of the city where Wi-Fi is essential for connectivity given the limited reach of cellular phone signals to the island, and a valuable amenity, helping visitors find their way around the 43 acres of open space that is accessible to the public from May 1<sup>st</sup> – October 31<sup>st</sup>. In 2017, the Trust for Governors Island (TGI) and MOCTO collaborated to bring Wi-Fi service to the island, which launched in June 2018 with 18 access points. TGI plans to increase the Wi-Fi service as the use of the island expands to year-round. As of April 2019, there are 30 access points on Governors Island. A table that includes the number of Wi-Fi access points for Governors Island and for public parks is in Appendix I.

### C. Transit

The majority of New Yorkers rely on public transit. Free Wi-Fi on subways, buses, and ferries and in stations, at stops and on docks is a vital contributor to keeping us all connected. The City worked with the Metropolitan Transit Authority (MTA) to bring Wi-Fi to every underground subway station and the MTA has begun introducing Wi-Fi service on buses.<sup>18</sup> The Staten Island Ferry, operated by the NYC Department of Transportation (DOT), has Wi-Fi service and NYC Ferry, operated by a private contractor, plans to bring Wi-Fi service to docks and ferries.<sup>19</sup>

### D. Public Facilities

The City has many facilities where it provides services to the public, either directly or through contracts with community-based organizations, including facilities where New Yorkers can enter to get free access to the internet on a computer. These computer centers are overseen by the New York City Housing Authority (NYCHA), Department of Youth and Community Development (DYCD), Department for the Aging (DFTA), Department of Parks and Recreation (DPR), and the City's three public library systems, Brooklyn Public Library, New York Public Library (with branches in the Bronx, Manhattan and Staten Island) and Queens Public Library. DYCD and DFTA provide the computer centers through a roster of nonprofit community-based organizations. A table with the number of computer centers for each oversight entity is in Appendix F.

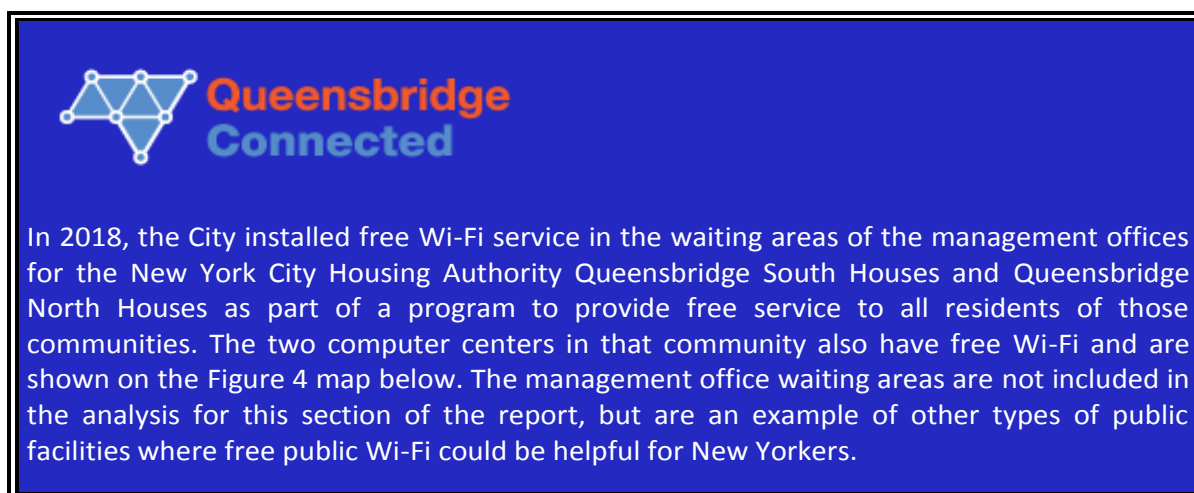


Image 3: Visitors to Governors Island see a splash page with helpful information when they use the public Wi-Fi now available on the island.

<sup>18</sup> Transit Wireless hotspots in subway stations are included on the NYC Open Data Portal, but the bus Wi-Fi service is not. For more information, see <https://transitwireless.com/frequently-asked-questions/> and [http://web.mta.info/nyct/service/wifi\\_usbPort\\_buses.htm](http://web.mta.info/nyct/service/wifi_usbPort_buses.htm).

<sup>19</sup> For more information, see <https://www.siferry.com/additional-information.html> and <https://www.ferry.nyc/>.

In total, 436 of the City’s public computer centers (PCCs) provide free public Wi-Fi access.<sup>20</sup> As indoor facilities, PCCs provide a place to use a personal computer or smartphone protected from the weather and away from the flow of pedestrians.<sup>21</sup> Moreover, these spaces generally offer a wide range of free supports for internet use, which may include knowledgeable staff, digital skills training, language and disability access tools, or varied digital and print resources.<sup>22</sup> Figure 4 is a map of the PCCs with Wi-Fi across all five boroughs. There are 175 neighborhoods with computer centers that have free public Wi-Fi access. Twenty neighborhoods either have a computer center without public Wi-Fi or do not have a computer center at all. A list of PCCs with Wi-Fi is in Appendix H of this report.



*Image 4: Queensbridge Connected is an example of another type of public facility where free public Wi-Fi is available.*

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<sup>20</sup> Access to 151 of these locations is restricted to those over 60 years old.

<sup>21</sup> Brooklyn Public Library has two locations that have Wi-Fi access points on the exterior of their building to serve public space. These access points are classified separately, as contributions to the other use cases identified in this report.

<sup>22</sup> NYC Mayor’s Office of the Chief Technology Officer. “Citywide Public Computer Centers.” NYC Open Data. Accessed May 13, 2019. Available at <https://data.cityofnewyork.us/Social-Services/Citywide-Public-Computer-Centers/cuzb-dmcd/data>.



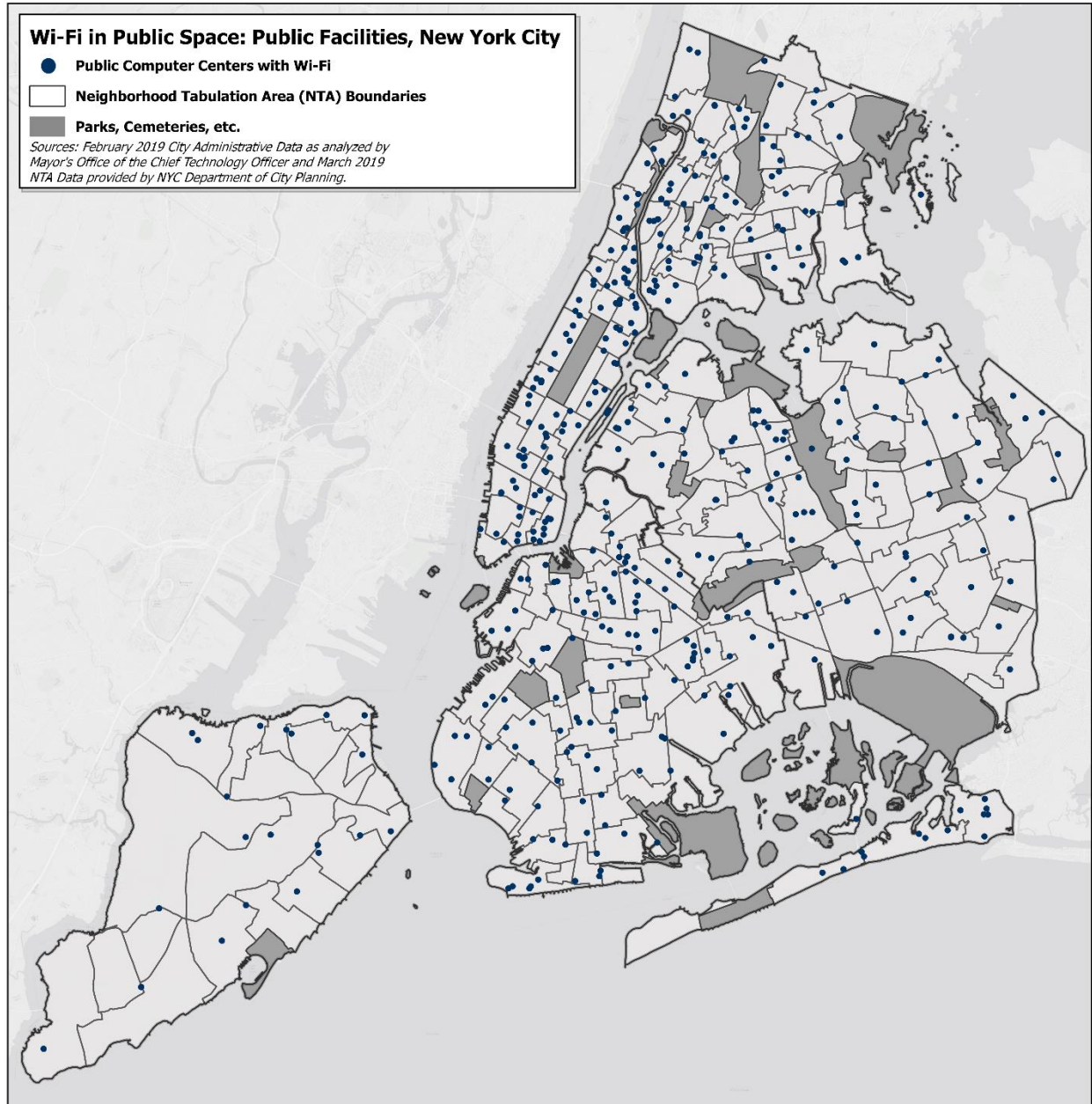


Figure 4: Map of Public Computer Centers with Wi-Fi in New York City. See Appendix H for a list of PCCs with Wi-Fi. Sources: February 2019 City Administrative Data as analyzed by MOCTO and March 2019 NTA Data provided by DCP.



## Public Wi-Fi Standards

New Yorkers should be able to rely on a baseline level of quality and consistent standards across all public Wi-Fi in the city. The City proposes to assess Public Wi-Fi according to seven key principles:

- Free
- Fast
- Fair
- Reliable
- Up-to-Date
- Accountable
- Secure

The City has worked with stakeholders and subject matter experts to apply these principles by identifying specific attributes that determine the quality of the user experience and the level of public benefit. These attributes or criteria can potentially be used as standards to evaluate existing or proposed Wi-Fi service. As described below, some criteria would be considered baseline, while other attributes would be indicative of a higher quality service. These criteria are published in this section as a first step in formalizing and developing the standards for use in policy, whether for a review of some existing Wi-Fi services or to guide decisions on future installations of public Wi-Fi. A chart that summarizes the proposed standards for Wi-Fi service provided for public use on City streets can be found in Appendix A.

These standards are intended to apply to commercial areas of City streets, and to inform public-private partnerships and franchise agreements. While many of the standards reflect best practice for any public Wi-Fi service, some use cases for public facilities, parks, or moving vehicles may not call for adherence to every standard. Furthermore, certain locations may be limited by the infrastructure of the surrounding area. On the other hand, the City may decide that some Wi-Fi services do not measure up sufficiently and should be discontinued, or at least should no longer be publicized as free public Wi-Fi on NYC Open Data.

### A. Free

Public Wi-Fi should be accessible by all New Yorkers, regardless of their means. This standard is based on three primary criteria:

1. Access is available at no cost – free – to all users;
2. There are no time restrictions on users' access to Wi-Fi networks (other than to the area or facility itself); and
3. The Wi-Fi network does not serve ads to users' devices as a requirement for access.

Public Wi-Fi can reach a higher standard by providing free devices for the public to use as well as free device charging.

## B. Fast

As a baseline standard for the speed of a connection, the Wi-Fi access point must have a broadband connection:

1. The Wi-Fi access point has a 25 megabits per second (Mbps) download and 3 Mbps upload connection to the internet.

This level is based on the City's use of the Federal Communications Commission (FCC)'s definition of broadband speed to measure baseline performance.<sup>23</sup> The speed for the user is determined by multiple factors in addition to the speed at the access point, including the number of simultaneous users, the quality of the user's device, other links in the path to the content on the internet and environmental conditions like radio frequency interference.

The City has introduced a higher level of service through LinkNYC, which has a standard of symmetric Gigabit speeds to the access point. The goal for the City should be to have all free public Wi-Fi with 1 Gbps internet connections, though in certain circumstances today this may not be feasible or even warranted depending on the use case or specific factors such as the usual number of simultaneous users. In the future, the City will have to incorporate other performance measures, such as packet loss and latency, into a more robust standard of performance.

## C. Fair

Public Wi-Fi should be accessible to all New Yorkers regardless of a user's reading level or the language users speak, and regardless of whether they have a disability. In practice, this means all public-facing documents, websites, and policies for Wi-Fi systems meet these criteria:

1. Written in plain language;
2. Available in the City's official languages; and
3. Accessible to people with disabilities.

These same materials can be made even more accessible with translation into additional languages, particularly in neighborhoods with high concentrations of residents who speak these languages. Note that the Wi-Fi provided in public facilities have physical space requirements for accessibility and are able to provide many additional types of resources, such as staff with language or cultural competencies and additional assistive tools and technologies.

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<sup>23</sup> See page 9, NYC Connected, "Truth in Broadband: Access and Connectivity in New York City," April 2018, available at <https://tech.cityofnewyork.us/wp-content/uploads/2018/04/NYC-Connected-Broadband-Report-2018.pdf>.

## D. Reliable

New Yorkers need to know that public Wi-Fi will deliver the content and services they need from the internet. For starters, that means being able to access any lawful website they wish. The City is committed to the principles of an Open Internet.<sup>24</sup> A public Wi-Fi connection should not block, throttle, or engage in paid prioritization in the provision of internet service. Note that this does not prohibit filtering harmful content to ensure a safe and secure environment for public use of the internet, though any such practices should be done in a transparent manner.

New Yorkers should also be able to count on a public Wi-Fi connection to work reliably, even in an emergency. This is measured in “uptime,” or the percentage of the time in, for example, a month that the network is operational and available to users. All networks, including public Wi-Fi networks, can experience unplanned outages for a variety of reasons including accidental infrastructure damage and weather, but a network that is frequently out of service loses its benefit to the public. On the other hand, some resilience measures can be expensive or complex, and should not be expected in the case of every gift to the public of free Wi-Fi service. The City will continue to monitor the industry for new cost-effective redundancy planning models and explore resilient technology options to adopt in the future.

Overall, these are the primary and additional criteria for reliability:

1. The Wi-Fi provider does not block or throttle lawful websites or applications. Providers that filter sensitive content do so according to clear and transparent filtering guidelines and to serve the public purpose of the service;
2. The Wi-Fi provider does not prioritize websites, apps, or types of content in exchange for compensation, a practice known as paid prioritization; and
3. A Wi-Fi access point should be operational at least 99 percent of the time each month.

As a higher standard, public Wi-Fi should have backup power at a critical number of access points in each neighborhood. Further, each access point with public-facing hardware should allow users to call emergency services and should have the ability to display NotifyNYC or other emergency notifications when issued. All providers of free Wi-Fi to the public should have a business continuity plan on file with DOITT. This higher standard acknowledges the critical importance of staying connected for communications and information in the event of a disaster.

**“More than ever, the resiliency of telecommunications services across the city, including wired and wireless telephone, video, and internet, will affect the city’s capacity to both respond to a major disruptive event and implement a coordinated recovery.”**

*One New York: The Plan for a Strong and Just City, 2015*

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<sup>24</sup> See News Release, “Mayors from Across the Country Join Mayor de Blasio in Signing the Cities Open Internet Pledge Dedicated to Protecting Net Neutrality”, NYC (Mar. 11, 2018), available at <https://www1.nyc.gov/office-of-the-mayor/news/130-18/mayors-across-country-join-mayor-de-blasio-signing-cities-open-internet-pledge>.

## E. Up-to-Date

The Wi-Fi industry is constantly improving the technology. As Wi-Fi technology evolves, the Wi-Fi Alliance periodically updates the technical standards upon which networks operate.<sup>25</sup> The Wi-Fi Alliance gives the standards generational numbers so users of Wi-Fi devices can know if their service is up-to-date.<sup>26</sup> Any Wi-Fi device can use any generation of Wi-Fi, but only the newest devices can take advantage of the most recent advances in Wi-Fi standards, which means recent versions of Wi-Fi can still be considered up-to-date for widespread use even if they are not the most advanced technology possible. Other Wi-Fi technologies or network architectures, in combination with up-to-date access points, enable additional functions, such as seamless hand-off between access points and the ability to use Wi-Fi for voice calls in place of a paid cellular connection. The City's proposed standard can be expressed through these criteria:

1. Access points are certified for Wi-Fi 4 (802.11n) or a newer standard;
2. Access points are capable of seamless hand-off to other access points;
3. Access points support voice calls over Wi-Fi; and
4. Automated firmware updates of access points and other devices.

Access points that are certified for Wi-Fi 5 (802.11ac) and Wi-Fi 6 (802.11ax) are a higher standard. New deployments should always use the most recent standard.

## F. Accountable

The City, through several of its agencies, has entered into various types of agreements for Wi-Fi service to the public. The terms and requirements also vary. These agreements may simply permit access to the public rights-of-way or to public resources like street light poles for the mounting of Wi-Fi access points. Other agreements may detail terms of service and bind providers to certain standards. In addition to these foundational agreements, the City relies on reports from public Wi-Fi providers to evaluate performance and inform long-term planning.

Over time, agreements with public Wi-Fi providers should be in a standard form and be publicly accessible. The reporting also should be in a standard and accessible format with a comprehensive set of performance metrics. A proposed set of metrics is included as Appendix G to this report.

As a measure of accountability, each public Wi-Fi system should meet the following criteria:

1. Public Wi-Fi is provided by the City, or is overseen or provided by an entity that has a contractual relationship with the City;
2. The agreement establishing the terms for the public Wi-Fi service is publicly accessible;
3. Providers report on their networks to the City at least monthly;

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<sup>25</sup> See Institute of Electrical and Electronics Engineers (IEEE) 802.11 wireless standards, *available at* [https://standards.ieee.org/standard/802\\_11-2012.html](https://standards.ieee.org/standard/802_11-2012.html).

<sup>26</sup> For more information, see <https://www.wi-fi.org/discover-wi-fi>.

4. Provider reports are in the City's standard format; and
5. The Wi-Fi system has technical support available by phone.

Where possible, to achieve a higher standard for accountability, public Wi-Fi agreements should use a consistent form and consistent language and the City should be able to access real-time information on network performance. Usage and status information should be available through an application programming interface or other standard interface that allows the public to know the status of a Wi-Fi access point in real-time. Providers should be actively accountable to users of a public Wi-Fi system through monthly performance reports and responding to problems, providing help troubleshooting when necessary via technical support call centers that should operate 24 hours a day, every day, with minimal hold times and short windows to close trouble tickets.

## G. Secure

All New York City residents and visitors should be safe and secure in their use of the City's public Wi-Fi as a baseline standard. Users of public Wi-Fi should never lose control of their data, give it up without consent, or find that their data has been compromised, used or sold for reasons they did not expect and affirmatively permit. To meet this condition a combination of policy and technology is required.

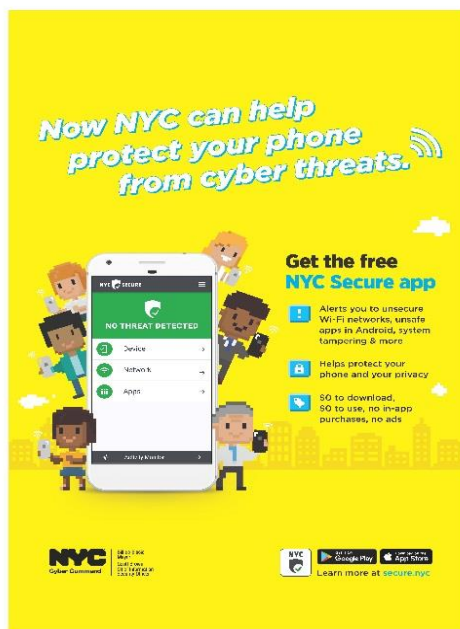


Image 5: NYC Secure app available for download on smartphones.

The City has identified specific practices to protect users' data and ensure they can browse safely, without having the privacy of their internet use or personal device compromised. This includes making it optional to have one's personal information collected by a provider, minimizing the data collected by a provider, implementing encrypted connections between users and the Wi-Fi access points, and ensuring network equipment's software is regularly updated and patched. New York City has committed to adopting methods across all of its public Wi-Fi networks to block malicious websites.<sup>27</sup> The City also provides a free smartphone app, NYC Secure, to alert users to unsecure Wi-Fi networks and certain other threats to their internet connection.<sup>28</sup>

<sup>27</sup> See Quad9 Blog entry, "Quad9 Enabled Across New York City Guest and Public WiFi", Quad9 (March 29, 2018), available at <https://www.quad9.net/quad9-enabled-across-new-york-city-guest-and-public-wifi/>.

<sup>28</sup> For more information on NYC Secure, see <https://secure.nyc>.

The City offers these criteria to determine that users are offered an appropriate level of data security in their use of free public Wi-Fi:

1. Providers' networks do not require any personally identifiable information from a user to allow log-in beyond what is technically necessary to operate and maintain a Wi-Fi network;
2. Users have meaningful and discrete control over whether and how their data is collected, used, and shared;
3. Encrypted connections to the Wi-Fi network are available to users on all major operating systems;
4. The Wi-Fi service utilizes Quad9 to prevent connections to dangerous sites that host malware or other online threats; and
5. The Wi-Fi equipment's firmware is regularly updated to ensure all security patches are installed.

A higher standard would include using encryption between their network and user devices by default, particularly where the technology supports this with minimal disruption to the user experience. If providers do collect or use users' data beyond what is technically necessary to operate and maintain the network, they should obtain opt-in consent for such collection and use. Also, in some settings, role-based access for users may be an appropriate method of improving overall security.

## Next Steps

The City will continue to develop these standards and the framework for coverage described in this report. The City will consider how to finalize public Wi-Fi standards and apply them to the extent feasible and consistent with the overall goal of maximizing benefit to the public. The following describes the next steps for City agencies in using these standards.

### A. Standards

- MOCTO will collect feedback on these standards from Wi-Fi providers, industry experts and other stakeholders.
- MOCTO and DOITT will collect the relevant agreements for the Free Public Wi-Fi systems and make available on one webpage.
- MOCTO and DOITT will assess current Wi-Fi systems according to the standards described in this report. Current providers will have an opportunity to comment on the standards or make improvements as part of a review of legacy systems. This review could also result in some services being discontinued or noted as non-standard in the City's assessment.
- MOCTO and DOITT will develop uniform contract language based on the policy standards discussed in this report and produce template agreements to improve future Wi-Fi deployments and increase quality and consistency.

- MOCTO will convene public computer center operators to improve coordination and share best practices for providing public Wi-Fi at public facilities, including a review of the criteria and standards discussed in this report.
- The City will review and update these standards on a regular basis to keep pace with developments in Wi-Fi technology and utilization.

## B. Coverage

- MOCTO and DCP will review other data sources to validate and prioritize the zone-based designations. Other data sources for pedestrian activity include DOT's Pedestrian Volume Study and transit use (subway station entrances and exits, number of bus stations).
- DPR, with the support of MOCTO and DOITT, will develop a coverage standard and prioritization method for Wi-Fi in parks and plazas.
- MOCTO will monitor information from the MTA and other sources for possible future evaluation of public Wi-Fi coverage across all modes of transit in New York City.
- MOCTO will work with public computer center operators to evaluate the feasibility of adding public Wi-Fi to additional locations and DOITT will examine the feasibility of expanding public Wi-Fi access to other kinds of City facilities that serve the public.
- MOCTO and DOITT will work with other key stakeholders to promote the expansion of free public Wi-Fi, consistent with the priorities of the Wi-Fi master plan. This will include a review of deployment and licensing procedures to facilitate more kinds of public-private partnerships and the development of a participatory budgeting template for public Wi-Fi. In the future, technology such as millimeter waves can be used to expand coverage of free public Wi-Fi at fiber capacity.

## C. Use

MOCTO has begun analyzing usage levels across different categories of public Wi-Fi. This is challenging because the reporting has not been consistent, both because different equipment may capture similar kinds of information in different ways and because not every agreement includes a reporting requirement. This can even complicate analysis just of LinkNYC usage data, since usage of Links can be impacted by the presence of other public Wi-Fi in the area. In addition, public Wi-Fi use varies throughout the day, throughout the week and, for exterior Wi-Fi, throughout the seasons, which makes it difficult to conduct an analysis without consistent data year to year. Further, any analysis of Wi-Fi use must hold user privacy as inviolable to prevent discouraging anyone from using public Wi-Fi.

- MOCTO will work with MODA to engage the public in the analysis of public Wi-Fi data.
- MOCTO will plan for a qualitative analysis to refine the premise of this report regarding use cases and to inform any approach to the quantitative data on Wi-Fi use generated by the equipment.



- MOCTO and DOITT improved the data on public Wi-Fi through the production of this report and will use this improved data to better promote the availability of this free resource.
- The City will continue to promote NYC Secure to protect New Yorkers from malicious activity via public Wi-Fi networks.
- DOITT will continue to evaluate the feasibility of a City-branded mobile application to effectuate seamless and secure transfers across Wi-Fi networks.

## Conclusion

Free public Wi-Fi is a critical part of the City's efforts to connect all New Yorkers with affordable, reliable broadband service and make New York the fairest big city in America.

The City remains committed to the goal of covering a critical mass of the City's public spaces with free Wi-Fi and will continue to use its franchise authority and partnerships with businesses and civic institutions to expand Wi-Fi access. For the first time with this report, New Yorkers have a specific definition of what that will look like and how these public and private efforts can prioritize the steps toward that goal.

Through LinkNYC, the City is overseeing the largest municipal expansion of free public Wi-Fi with the highest set of standards of any city in the world. The policy positions in this report capture the lessons of that deployment and mark a continuation of the City's effort to have all free public Wi-Fi in New York City meet or exceed the standards set with LinkNYC.

LinkNYC itself presents the opportunity for a seamless user experience across the five boroughs, but even at its maximum possible scale it will not reach all public spaces or satisfy all use cases. By applying the standards of this report, the City can deliver connectivity that is free, fair, fast, reliable, up-to-date, accountable, and secure in a consistent and transparent way.

With consistent, transparent, high standards and the continued advances in the Wi-Fi technical standard, the City can ensure that public Wi-Fi meets the needs of all New Yorkers to connect to information, services and each other everywhere they go throughout the city.

The City will update data on free public Wi-Fi on NYC Open Data on a regular basis and will update its free public Wi-Fi standards and policies as needed. MOCTO and our City agency partners welcome feedback by email at [connected@cto.nyc.gov](mailto:connected@cto.nyc.gov).



## Appendix A – Summary of Proposed Standards for Providers of Public Wi-Fi in NYC Streets

<b>NYC Free Public Wi-Fi: Proposed Standards for City Streets</b> <b>(prepared by the Mayor's Office of the Chief Technology Officer)</b>					
Baseline Standards					
<b>Free</b>	Free access to all users	No time restrictions on users' access to Wi-Fi networks (except to area or facility itself)	No ads for user access		
<b>Fast</b>	Broadband (25/3 Mbps) at each AP				
<b>Fair</b>	Public-facing documents, websites, policies are written in plain language	Available in multiple languages	Accessible to people with disabilities		
<b>Reliable</b>	No blocking	No throttling	No paid prioritization	Transparent filtering of harmful content	≥ 99% SLA
<b>Up-To-Date</b>	APs certified for Wi-Fi 4 (802.11n) or newer standard	APs capable of seamless handoff to other APs	Voice call support over Wi-Fi		
<b>Accountable</b>	Agreements in place	Publicly accessible	City- mandated standardized and accessible format for provider reporting, including performance metrics	≥ Monthly Reporting by providers	Wi-Fi Network has technical support available by phone
<b>Secure</b>	Users have meaningful and discrete control over whether (e.g., consent) and how their data is collected, used, shared, or disclosed	Requires no personal information for log-in, except what is technically necessary to operate the Wi-Fi network	Encrypted connections available to all users on all major operating systems	Use of Quad9	Regular updates of Wi-Fi equipment firmware to ensure all security patches are installed

## Appendix A – Summary of Proposed Standards for Providers of Public Wi-Fi in NYC Streets (continued)

<b>NYC Free Public Wi-Fi: Proposed Standards for City Streets</b> <b>(prepared by the Mayor's Office of the Chief Technology Officer)</b>					
<b>Additional Standards to indicate a higher level of service</b>					
<b>Free</b>	Free device charging available	Free device(s) available			
<b>Fast</b>	1 Gbps / AP	Latency guarantee	Packet loss guarantee	Capable of seamless handoff between APs	
<b>Fair</b>					
<b>Reliable</b>	Backup power at critical number of access points in each neighborhood	Emergency calling available at each AP with public-facing hardware	Display NotifyNYC/emergency notifications at each AP with public-facing hardware	Providers have a Business Continuity Plan on file with City	
<b>Up-To-Date</b>	Track Deployments of APs certified for Wi-Fi 5 (802.11ac) and Wi-Fi 6 (802.11ax) standards	All new deployments of Wi-Fi are certified for the most recent standard			
<b>Accountable</b>	Posted to OpenData	Real-time reporting to City / public	Standardized agreements	24/7 technical support with standards for customer service	
<b>Secure</b>	Encryption between Wi-Fi network and user devices	Opt-in consent for collection, use, disclosure of user data not necessary for the operation of the Wi-Fi network	AP endpoint compliance to prevent system hijacking	Access controls (e.g. firewalls) to prevent malicious access to Wi-Fi networks	

This chart summarizes proposed standards for Wi-Fi service provided for public use on City streets. The City welcomes feedback on these criteria by email to [connected@cto.nyc.gov](mailto:connected@cto.nyc.gov) and expects to adjust standards periodically as technology evolves.

## Appendix B – Definitions and Data Sources

This report relies on information that is publicly available on NYC Open Data.

DOITT documents the locations of most of the Wi-Fi systems discussed in this report in an open data file called NYC Wi-Fi Hotspot Locations.<sup>29</sup> The locations of these access points are reported to DOITT by the Wi-Fi providers. Some providers have agreements with the City requiring reporting of access point locations. Others have reported these locations to the City voluntarily. DOITT updates this file as necessary. The public facilities-based Wi-Fi systems discussed in this report are additionally documented as part of an open data file called Citywide Public Computer Centers. The locations of these facilities are reported to MOCTO by their oversight entity.<sup>30</sup>

Aside from the Wi-Fi hotspot locations, the background geographies include Neighborhood Tabulation Areas (NTAs),<sup>31</sup> Boroughs,<sup>32</sup> and zoning districts<sup>33</sup> provided by DCP. Locations of parks<sup>34</sup> and plazas<sup>35</sup> are provided by DOITT.

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<sup>29</sup> NYC Department of Information Technology and Telecommunications. “NYC Wi-Fi Hotspot Locations.” NYC Open Data. Accessed April 05, 2019. Available at <https://data.cityofnewyork.us/Social-Services/NYC-Wi-Fi-Hotspot-Locations/a9we-mtpn>.

<sup>30</sup> NYC Mayor’s Office of the Chief Technology Officer. “Citywide Public Computer Centers.” NYC Open Data. Accessed May 13, 2019. Available at <https://data.cityofnewyork.us/Social-Services/Citywide-Public-Computer-Centers/cuzb-dmcd/data>.

<sup>31</sup> NYC Department of City Planning, “NTA Map.” NYC Open Data. Accessed March 29, 2019. Available at <https://data.cityofnewyork.us/City-Government/NTA-map/d3qk-pfyz>.

<sup>32</sup> NYC Department of City Planning, “Borough Boundaries.” NYC Open Data. Accessed March 29, 2019. Available at <https://data.cityofnewyork.us/City-Government/Borough-Boundaries/tqmj-j8zm>.

<sup>33</sup> NYC Department of City Planning, “Georeferenced NYC Zoning Maps.” NYC Open Data. Accessed March 30, 2019. Available at <https://data.cityofnewyork.us/City-Government/Georeferenced-NYC-Zoning-Maps/mxbm-493w>.

<sup>34</sup> NYC Department of Information Technology and Telecommunications. “Open Space (Parks).” NYC Open Data. Accessed March 29, 2019. Available at <https://data.cityofnewyork.us/Recreation/Open-Space-Parks/g84h-ibjm>.

<sup>35</sup> NYC Department of Information Technology and Telecommunications. “Public Plazas.” NYC Open Data. Accessed March 29, 2019. Available at <https://data.cityofnewyork.us/Transportation/Public-Plazas/m4mp-ji5y>.

## Appendix C – Acronyms

<b>Acronym</b>	<b>Definition or Description of Acronym</b>
<b>AP</b>	Wi-Fi access point or hotspot
<b>DCP</b>	New York City Department of City Planning
<b>DOITT</b>	New York City Department of Information Technology and Telecommunications
<b>DOT</b>	New York City Department of Transportation
<b>DPR</b>	New York City Department of Parks and Recreation
<b>DFTA</b>	New York City Department for the Aging
<b>DYCD</b>	New York City Department of Youth and Community Development
<b>FCC</b>	Federal Communications Commission
<b>Gbps</b>	Gigabit(s) per second (1 Gbps = 1000 Mbps)
<b>Mbps</b>	Megabit(s) per second
<b>MOCTO</b>	New York City Mayor’s Office of the Chief Technology Officer
<b>MTA</b>	Metropolitan Transit Authority
<b>NTA</b>	Neighborhood Tabulation Area (There are 195 NTAs, each with its own two-letter/two-number designation; the two letters indicate the borough, e.g., BK, BX, MN, QN, SI)
<b>NYC</b>	New York City
<b>NYCEDC</b>	New York City Economic Development Corporation
<b>NYC3</b>	New York City Cyber Command
<b>NYCHA</b>	New York City Housing Authority

## Appendix D – Neighborhood Data, Pedestrian Corridors and Public Computer Centers

NTA Code	NTA Name	Pedestrian Corridor Area (in Square Miles)	Access Points in Pedestrian Corridor	Access Points per Square Mile of Pedestrian Corridors	Public Computer Centers with Wi-Fi
<b>Brooklyn</b>					
BK09	Brooklyn Heights-Cobble Hill	0.081	17	210	2
BK17	Sheepshead Bay-Gerritsen Beach-Manhattan Beach	0.2	0	0	3
BK19	Brighton Beach	0.039	0	0	3
BK21	Seagate-Coney Island	0.095	0	0	5
BK23	West Brighton	0.019	0	0	0
BK25	Homecrest	0.084	0	0	2
BK26	Gravesend	0.036	0	0	2
BK27	Bath Beach	0.06	0	0	1
BK28	Bensonhurst West	0.155	0	0	1
BK29	Bensonhurst East	0.094	0	0	2
BK30	Dyker Heights	0.068	0	0	2
BK31	Bay Ridge	0.143	0	0	5
BK32	Sunset Park West	0.089	7	78	2
BK33	Carroll Gardens-Columbia Street-Red Hook	0.072	6	84	3
BK34	Sunset Park East	0.111	0	0	1
BK35	Stuyvesant Heights	0.126	2	16	5
BK37	Park Slope-Gowanus	0.154	27	176	4
BK38	DUMBO-Vinegar Hill-Downtown Brooklyn-Boerum Hill	0.33	99	300	1
BK40	Windsor Terrace	0.025	0	0	1
BK41	Kensington-Ocean Parkway	0.032	0	0	0
BK42	Flatbush	0.118	6	51	7
BK43	Midwood	0.063	0	0	2

## Appendix D – Neighborhood Data, Pedestrian Corridors and Public Computer Centers (continued)

NTA Code	NTA Name	Pedestrian Corridor Area (in Square Miles)	Access Points in Pedestrian Corridor	Access Points per Square Mile of Pedestrian Corridors	Public Computer Centers with Wi-Fi
<b>Brooklyn (continued)</b>					
BK44	Madison	0.067	0	0	2
BK45	Georgetown-Marine Park-Bergen Beach-Mill Basin	BK45	0	0	1
BK46	Ocean Parkway South	0.015	0	0	0
BK50	Canarsie	0.098	0	0	2
BK58	Flatlands	0.139	0	0	3
BK60	Prospect Lefferts Gardens-Wingate	0.107	9	84	3
BK61	Crown Heights North	0.191	27	141	7
BK63	Crown Heights South	0.065	8	123	0
BK64	Prospect Heights	0.039	13	336	0
BK68	Fort Greene	0.097	15	154	2
BK69	Clinton Hill	0.079	8	102	3
BK72	Williamsburg	0.031	0	0	1
BK73	North Side-South Side	0.171	16	94	1
BK75	Bedford	0.146	4	27	5
BK76	Greenpoint	0.112	6	54	1
BK77	Bushwick North	0.082	0	0	2
BK78	Bushwick South	0.163	2	12	5
BK79	Ocean Hill	0.121	5	41	1
BK81	Brownsville	0.193	0	0	8
BK82	East New York	0.453	3	7	5
BK83	Cypress Hills-City Line	0.085	8	94	2
BK85	East New York (Pennsylvania Ave)	0.109	0	0	1
BK88	Borough Park	0.173	0	0	5
BK90	East Williamsburg	0.119	17	143	3
BK91	East Flatbush-Farragut	0.06	5	84	2
BK93	Starrett City	0.028	0	0	1

## Appendix D – Neighborhood Data, Pedestrian Corridors and Public Computer Centers (continued)

NTA Code	NTA Name	Pedestrian Corridor Area (in Square Miles)	Access Points in Pedestrian Corridor	Access Points per Square Mile of Pedestrian Corridors	Public Computer Centers with Wi-Fi
<b>Brooklyn (continued)</b>					
BK95	Erasmus	0.117	11	94	0
BK96	Rugby-Remsen Village	0.074	0	0	1
BK99	park-cemetery-etc-Brooklyn	0.00002	0	0	1
<b>Bronx</b>					
BX01	Claremont-Bathgate	0.053	2	38	2
BX03	Eastchester-Edenwald-Baychester	0.054	0	0	3
BX05	Bedford Park-Fordham North	0.092	12	130	3
BX06	Belmont	0.105	0	0	1
BX07	Bronxdale	0.05	0	0	3
BX08	West Farms-Bronx River	0.048	0	0	2
BX09	Soundview-Castle Hill-Clason Point-Harding Park	0.118	0	0	3
BX10	Pelham Bay-Country Club-City Island	0.065	0	0	2
BX13	Co-op City	0.234	0	0	2
BX14	East Concourse-Concourse Village	0.079	2	25	1
BX17	East Tremont	0.089	3	34	2
BX22	North Riverdale-Fieldston-Riverdale	0.038	0	0	3
BX26	Highbridge	0.054	1	18	4
BX27	Hunts Point	0.066	0	0	2
BX28	Van Cortlandt Village	0.028	1	36	3
BX29	Spuyten Duyvil-Kingsbridge	0.061	0	0	2
BX30	Kingsbridge Heights	0.045	10	221	0

## Appendix D – Neighborhood Data, Pedestrian Corridors and Public Computer Centers (continued)

NTA Code	NTA Name	Pedestrian Corridor Area (in Square Miles)	Access Points in Pedestrian Corridor	Access Points per Square Mile of Pedestrian Corridors	Public Computer Centers with Wi-Fi
<b>Bronx (continued)</b>					
BX31	Allerton-Pelham Gardens	0.065	0	0	1
BX33	Longwood	0.05	0	0	2
BX34	Melrose South-Mott Haven North	0.183	23	125	4
BX35	Morrisania-Melrose	0.083	3	36	3
BX36	University Heights-Morris Heights	0.056	6	106	4
BX37	Van Nest-Morris Park-Westchester Square	0.087	0	0	3
BX39	Mott Haven-Port Morris	0.114	20	176	6
BX40	Fordham South	0.054	8	148	1
BX41	Mount Hope	0.065	16	247	1
BX43	Norwood	0.075	0	0	3
BX44	Williamsbridge-Olinville	0.093	0	0	2
BX46	Parkchester	0.073	0	0	2
BX49	Pelham Parkway	0.043	0	0	2
BX52	Schuylerville-Throgs Neck-Edgewater Park	0.087	0	0	4
BX55	Soundview-Bruckner	0.068	0	0	0
BX59	Westchester-Unionport	0.047	0	0	1
BX62	Woodlawn-Wakefield	0.066	0	0	1
BX63	West Concourse	0.172	15	87	1
BX75	Crotona Park East	0.068	0	0	1
BX98	Rikers Island	0	0	0	0
BX99	park-cemetery-etc-Bronx	0.006	0	0	1



## Appendix D – Neighborhood Data, Pedestrian Corridors and Public Computer Centers (continued)

NTA Code	NTA Name	Pedestrian Corridor Area (in Square Miles)	Access Points in Pedestrian Corridor	Access Points per Square Mile of Pedestrian Corridors	Public Computer Centers with Wi-Fi
<b>Manhattan</b>					
MN01	Marble Hill-Inwood	0.11	0	0	2
MN03	Central Harlem North-Polo Grounds	0.129	53	411	10
MN04	Hamilton Heights	0.065	51	779	2
MN06	Manhattanville	0.066	14	212	1
MN09	Morningside Heights	0.061	37	604	5
MN11	Central Harlem South	0.158	43	272	3
MN12	Upper West Side	0.25	136	544	4
MN13	Hudson Yards-Chelsea-Flatiron-Union Square	0.718	94	131	5
MN14	Lincoln Square	0.275	38	138	6
MN15	Clinton	0.28	42	150	3
MN17	Midtown-Midtown South	0.896	117	131	5
MN19	Turtle Bay-East Midtown	0.449	102	227	4
MN20	Murray Hill-Kips Bay	0.264	78	296	2
MN21	Gramercy	0.136	48	354	2
MN22	East Village	0.148	53	359	3
MN23	West Village	0.403	22	55	4
MN24	SoHo-TriBeCa-Civic Center-Little Italy	0.516	24	47	3
MN25	Battery Park City-Lower Manhattan	0.476	38	80	2
MN27	Chinatown	0.352	14	40	3
MN28	Lower East Side	0.098	0	0	8
MN31	Lenox Hill-Roosevelt Island	0.194	42	217	6
MN32	Yorkville	0.148	13	88	2

## Appendix D – Neighborhood Data, Pedestrian Corridors and Public Computer Centers (continued)

NTA Code	NTA Name	Pedestrian Corridor Area (in Square Miles)	Access Points in Pedestrian Corridor	Access Points per Square Mile of Pedestrian Corridors	Public Computer Centers with Wi-Fi
<b>Manhattan (continued)</b>					
MN33	East Harlem South	0.097	17	175	4
MN34	East Harlem North	0.208	37	178	6
MN35	Washington Heights North	0.076	20	262	1
MN36	Washington Heights South	0.101	33	328	7
MN40	Upper East Side-Carnegie Hill	0.246	46	187	1
MN50	Stuyvesant Town-Cooper Village	0.02	0	0	0
MN99	park-cemetery-etc-Manhattan	0.004	0	0	0
<b>Queens</b>					
QN01	South Jamaica	0.081	0	0	2
QN02	Springfield Gardens North	0.078	0	0	3
QN03	Springfield Gardens South-Brookville	0.021	0	0	0
QN05	Rosedale	0.034	0	0	1
QN06	Jamaica Estates-Holliswood	0.045	0	0	1
QN07	Hollis	0.044	0	0	1
QN08	St. Albans	0.107	0	0	1
QN10	Breezy Point-Belle Harbor-Rockaway Park-Broad Channel	0.056	0	0	3
QN12	Hammels-Arverne-Edgemere	0.204	0	0	5
QN15	Far Rockaway-Bayswater	0.091	0	0	6

## Appendix D – Neighborhood Data, Pedestrian Corridors and Public Computer Centers (continued)

NTA Code	NTA Name	Pedestrian Corridor Area (in Square Miles)	Access Points in Pedestrian Corridor	Access Points per Square Mile of Pedestrian Corridors	Public Computer Centers with Wi-Fi
<b>Queens (continued)</b>					
QN17	Forest Hills	0.152	24	158	5
QN18	Rego Park	0.104	0	0	3
QN19	Glendale	0.054	0	0	1
QN20	Ridgewood	0.173	0	0	2
QN21	Middle Village	0.056	0	0	2
QN22	Flushing	0.278	0	0	4
QN23	College Point	0.034	0	0	1
QN25	Corona	0.045	0	0	2
QN26	North Corona	0.083	1	12	5
QN27	East Elmhurst	0.087	1	11	3
QN28	Jackson Heights	0.18	24	134	2
QN29	Elmhurst	0.113	29	257	2
QN30	Maspeth	0.06	0	0	2
QN31	Hunters Point-Sunnyside-West Maspeth	0.127	22	173	3
QN33	Cambria Heights	0.022	0	0	1
QN34	Queens Village	0.118	0	0	1
QN35	Briarwood-Jamaica Hills	0.077	0	0	1
QN37	Kew Gardens Hills	0.038	0	0	2
QN38	Pomonok-Flushing Heights-Hillcrest	0.045	0	0	1
QN41	Fresh Meadows-Utopia	0.062	0	0	2
QN42	Oakland Gardens	0.022	0	0	2
QN43	Bellerose	0.032	0	0	1
QN44	Glen Oaks-Floral Park-New Hyde Park	0.04	0	0	1

## Appendix D – Neighborhood Data, Pedestrian Corridors and Public Computer Centers (continued)

NTA Code	NTA Name	Pedestrian Corridor Area (in Square Miles)	Access Points in Pedestrian Corridor	Access Points per Square Mile of Pedestrian Corridors	Public Computer Centers with Wi-Fi
<b>Queens (continued)</b>					
QN45	Douglas Manor-Douglaston-Little Neck	0.052	0	0	3
QN46	Bayside-Bayside Hills	0.102	0	0	1
QN47	Ft. Totten-Bay Terrace-Clearview	0.051	0	0	2
QN48	Auburndale	0.038	0	0	1
QN49	Whitestone	0.067	0	0	1
QN50	Elmhurst-Maspeth	0.058	10	173	0
QN51	Murray Hill	0.081	0	0	1
QN52	East Flushing	0.026	0	0	1
QN53	Woodhaven	0.087	14	162	2
QN54	Richmond Hill	0.144	24	167	2
QN55	South Ozone Park	0.113	0	0	2
QN56	Ozone Park	0.054	0	0	1
QN57	Lindenwood-Howard Beach	0.064	0	0	1
QN60	Kew Gardens	0.103	5	49	0
QN61	Jamaica	0.402	18	45	2
QN62	Queensboro Hill	0.014	0	0	1
QN63	Woodside	0.071	5	71	1
QN66	Laurelton	0.042	0	0	1
QN68	Queensbridge-Ravenswood-Long Island City	0.013	0	0	5
QN70	Astoria	0.24	48	200	2
QN71	Old Astoria	0.112	6	53	2
QN72	Steinway	0.099	0	0	1
QN76	Baisley Park	0.067	0	0	2
QN98	Airport	0	0	0	0

## Appendix D – Neighborhood Data, Pedestrian Corridors and Public Computer Centers (continued)

NTA Code	NTA Name	Pedestrian Corridor Area (in Square Miles)	Access Points in Pedestrian Corridor	Access Points per Square Mile of Pedestrian Corridors	Public Computer Centers with Wi-Fi
<b>Queens (continued)</b>					
QN99	park-cemetery-etc-Queens	0.104	0	0	1
<b>Staten Island</b>					
SI01	Annadale-Huguenot-Prince's Bay-Eltingville	0.048	0	0	0
SI05	New Springville-Bloomfield-Travis	0.156	0	0	2
SI07	Westerleigh	0.11	0	0	1
SI08	Grymes Hill-Clifton-Fox Hills	0.03	0	0	0
SI11	Charleston-Richmond Valley-Tottenville	0.098	0	0	1
SI12	Mariner's Harbor-Arlington-Port Ivory-Graniteville	0.081	0	0	2
SI14	Grasmere-Arrochar-Ft. Wadsworth	0.045	2	45	2
SI22	West New Brighton-New Brighton-St. George	0.189	0	0	2
SI24	Todt Hill-Emerson Hill-Heartland Village-Lighthouse Hill	0.36	2	6	2
SI25	Oakwood-Oakwood Beach	0.063	4	64	0
SI28	Port Richmond	0.129	0	0	1
SI32	Rossville-Woodrow	0.016	0	0	1
SI35	New Brighton-Silver Lake	0.072	0	0	2

## Appendix D – Neighborhood Data, Pedestrian Corridors and Public Computer Centers (continued)

NTA Code	NTA Name	Pedestrian Corridor Area (in Square Miles)	Access Points in Pedestrian Corridor	Access Points per Square Mile of Pedestrian Corridors	Public Computer Centers with Wi-Fi
<b>Staten Island (continued)</b>					
SI36	Old Town-Dongan Hills-South Beach	0.096	7	73	1
SI37	Stapleton-Rosebank	0.226	0	0	1
SI45	New Dorp-Midland Beach	0.169	14	83	1
SI48	Arden Heights	0.017	0	0	0
SI54	Great Kills	0.154	0	0	2
SI99	park-cemetery-etc-Staten Island	0	0	0	0

Sources: April 2019 Pedestrian Corridor Data as analyzed by MOCTO; March 2019 NTA, Zoning Districts and Commercial Overlay Data provided by DCP; and February 2019 City Administrative Data as analyzed by MOCTO.

## Appendix E – Wi-Fi Access Points in Pedestrian Corridors by Provider

Public Wi-Fi Provider	# of Access Points in Pedestrian Corridors
Chelsea	8
Downtown Brooklyn	89
Harlem Wi-Fi	45
LinkNYC	1726
Manhattan Downtown Alliance	36
City Tech	11
<b>Total</b>	<b>1915</b>

*Sources: April 2019 Pedestrian Corridor Data as analyzed by MOCTO, April 2019 Hotspots Data provided by DOITT, and March 2019 NTA, Zoning Districts, Commercial Overlay Data provided by DCP.*

## Appendix F – Public Computer Centers with Wi-Fi by Oversight Entity

Public Computer Center Oversight Entity	# of Public Computer Centers with Wi-Fi
Brooklyn Public Library	59
Department for the Aging	151
Department of Parks and Recreation	28
Department of Youth and Community Development	28
New York City Housing Authority	14
New York Public Library	92
Queens Public Library	64
<b>Total</b>	<b>436</b>

*Source: February 2019 City Administrative Data as analyzed by MOCTO. Note: duplicate addresses for co-located Queens Public Library public computer centers have been removed for consideration as public Wi-Fi locations.*



## Appendix G – Potential Reporting Metrics for Providers of Free Wi-Fi to the Public

### A. Wi-Fi network information – Refreshed at least twice per year.

1. Access point inventory
  - a. MAC Address
  - b. Serial number
  - c. Location
    - i. Latitude & Longitude Coordinates, plus height
    - ii. Address, Building, Floor, Room #, etc.
  - d. Service Set Identifiers (SSIDs) – Names of the Wi-Fi networks available from each AP.
2. Received Signal Strength Indicator (RSSI) – Sample RSSI measurements should be recorded at least twice per year to ensure that the network is still performing as designed and to ensure that no coverage holes have developed.
3. Signal to Noise Ratio (SNR) – Difference between the received signal and the ambient noise floor measured at the Wi-Fi client. Sample SNR measurements should be recorded at least twice per year to ensure that the network is still performing as anticipated.

### B. Access point status – Actively monitored.

1. Throughput
  - a. Uplink
  - b. Downlink
2. Airtime/Channel Utilization or duty cycle
3. Retransmissions (“retries”)
4. Packet Loss – A measure of the difference between the packets sent from a remote endpoint and the packets received by the Wi-Fi client over the most recent 10-second interval (averaged across all clients connected to the AP) – often due to congestion.
5. Jitter – A variation in packet transit delay caused by queuing and contention on the path through the network. Jitter is critical for services such as real-time voice or streaming video. High levels of jitter can result in increased buffering (increasing latency) or discarded packets (resulting in lower quality).
6. Latency – An expression of how much time it takes for a packet of data to get from one designated point in the network to another.
7. Authentication Failure Rate – Failure of the client devices to successfully authenticate to the Wi-Fi local area network.

### C. Usage per access point – Recorded in hourly increments. Reported monthly.

1. Number of unique clients
2. Number of sessions
3. Total minutes / average per session
4. Total amount of data transmitted
  - a. Upload
  - b. Download
5. Types of client devices.

## Appendix H – Public Computer Centers with Wi-Fi

Oversight Entity	Location Name	Address
<b>Bronx</b>		
Department for the Aging	ARTURO SCHOMBURG NEIGHBORHOOD SENIOR CTR	1315 Franklin Avenue
Department for the Aging	BAY EDEN NEIGHBORHOOD SENIOR CENTER	1220 East 229th Street
Department for the Aging	BRONX HOUSE WEINBERG NEIGHBORHOOD CENTER	990 Pelham Parkway South
Department for the Aging	BRONX RIVER NEIGHBORHOOD SENIOR CENTER	1619 East 174th Street
Department for the Aging	BRONXWORKS INNOVATIVE SENIOR CENTER	80 East 181st Street
Department for the Aging	CONCOURSE PLAZA WELLNESS NC	900 Grand Concourse
Department for the Aging	COOP CITY NEIGHBORHOOD SENIOR CENTER	2049 Bartow Avenue
Department for the Aging	HEIGHTS NEIGHBORHOOD SENIOR CENTER	200 West Tremont Avenue
Department for the Aging	HOPE OF ISRAEL NEIGHBORHOOD SENIOR CTR	1068 Gerard Avenue
Department for the Aging	JAMES MONROE NEIGHBORHOOD SENIOR CENTER	1776 Story Avenue
Department for the Aging	KIPS BAY CASTLE HILL NEIGHBORHOOD SR CTR	625 Castle Hill Avenue
Department for the Aging	MELROSE MOTT HAVEN NEIGHBORHOOD SR CTR	372 East 152 Street
Department for the Aging	MITCHELL NEIGHBORHOOD SENIOR CENTER	188 Lincoln Avenue
Department for the Aging	MOSHOLU MONTEFIORE NEIGHBORHOOD SR CTR	3450 Dekalb Avenue
Department for the Aging	NEIGHBORHOOD SHOPP ISC	910 East 172nd Street
Department for the Aging	PSS ANDREW JACKSON NEIGHBORHOOD SR CTR	325 East 156th Street

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Bronx (continued)</b>		
Department for the Aging	PSS DAVIDSON NEIGHBORHOOD SENIOR CENTER	950 Union Avenue
Department for the Aging	PSS HIGHBRIDGE NEIGHBORHOOD SENIOR CENTE	1181 Nelson Avenue
Department for the Aging	PSS PARKSIDE NEIGHBORHOOD SENIOR CENTER	644 Adee Avenue
Department for the Aging	RAIN BOSTON ROAD NEIGHBORHOOD SENIOR CTR	2424 Boston Road
Department for the Aging	RAIN BOSTON SECOR NEIGHBORHOOD SR CTR	3540 Bivona Street
Department for the Aging	RAIN EASTCHESTER NEIGHBORHOOD SENIOR CTR	1246 Burke Avenue
Department for the Aging	RAIN GUNHILL NEIGHBORHOOD SENIOR CENTER	3377 White Plains Road
Department for the Aging	RAIN MIDDLETOWN NEIGHBORHOOD SENIOR CTR	3035 Middletown Road
Department for the Aging	RAIN PARKCHESTER NEIGHBORHOOD SENIOR CTR	1380 Metropolitan Avenue
Department for the Aging	RIVERDALE NEIGHBORHOOD SENIOR CENTER	2600 Netherland Avenue
Department for the Aging	RIVERDALE Y SENIOR CENTER	5625 Arlington Avenue
Department for the Aging	SISTER ANNUNCIATA BETHELL NBRHD SR CTR	243 East 204th St
Department for the Aging	SUE GINSBURG NEIGHBORHOOD CENTER	975 Waring Avenue

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Bronx (continued)</b>		
Department for the Aging	THOMAS GUESS NEIGHBORHOOD SENIOR CENTER	2070 Clinton Avenue
Department for the Aging	THROGS NECK NEIGHBORHOOD SENIOR CENTER	2705 Schley Avenue
Department for the Aging	Van Cortlandt Neighborhood Senior Center	3880 Sedgwick Avenue
Department for the Aging	William Hodson Neighborhood Senior Center	1320 Webster Avenue
Department of Parks and Recreation	Hunts Point	765 Manida Street
Department of Parks and Recreation	Owen Dolen	2551 Westchester Avenue
Department of Parks and Recreation	St. James	2530 Jerome Avenue
Department of Parks and Recreation	St. Mary's	450 St Ann's Avenue
Department of Parks and Recreation	West Bronx	1527 Jesup Avenue
Department of Parks and Recreation	Williamsbridge Oval	3225 Reservoir Oval East
Department of Youth and Community Development	Betances	465 St. Ann's Ave.
Department of Youth and Community Development	Butler	1368 Webster Avenue
Department of Youth and Community Development	Davidson	1221 Prospect Avenue
Department of Youth and Community Development	East 180th Monterey	2100 Monterey Avenue
Department of Youth and Community Development	Eastchester Gardens	3016 Yates Ave.
Department of Youth and Community Development	Gun Hill	745 Magenta Street
Department of Youth and Community Development	Highbridge Gardens	1155 University Avenue
Department of Youth and Community Development	Melrose	286 East 156th Street

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Bronx (continued)</b>		
Department of Youth and Community Development	Murphy	601 Crotona Park North
Department of Youth and Community Development	Parkside	2972 Bronx Park East
Department of Youth and Community Development	Pyramid Community Service Program	884 Washington Avenue
Department of Youth and Community Development	Saint Mary's Park	595 Trinity Avenue
Department of Youth and Community Development	Sedgwick	1553 University Avenue
Department of Youth and Community Development	Soundview	1680 Seward Ave.
New York City Housing Authority	East Side House Mitchel Community Center	210 Alexander Avenue
New York City Housing Authority	East Side House Patterson Community Center	340 Morris Avenue
New York City Housing Authority	Kips Bay Boys & Girls Club Castle Hill Unit	625 Castle Hill Avenue
New York City Housing Authority	Mckinley Community Center	751 East 161st Street
New York City Housing Authority	Millbrook Community Center	201 St. Ann's Avenue
New York City Housing Authority	S.E. Bronx Neighborhood Center	955 Tinton Avenue
New York City Housing Authority	Throggs Neck Community Center	550 Balcom Avenue
New York Public Library	Allerton	2740 Barnes Avenue
New York Public Library	Baychester	2049 Asch Loop North
New York Public Library	Belmont	610 East 186th Street
New York Public Library	Bronx Library Center	310 East Kingsbridge Road
New York Public Library	Castle Hill	947 Castle Hill Avenue
New York Public Library	City Island	320 City Island Avenue
New York Public Library	Clason's Point	1215 Morrison Avenue
New York Public Library	Eastchester	1385 East Gun Hill Road

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Bronx (continued)</b>		
New York Public Library	Edenwald	1255 East 233rd Street
New York Public Library	Francis Martin	2150 University Avenue
New York Public Library	Grand Concourse	155 East 173rd Street
New York Public Library	High Bridge	78 West 168th Street
New York Public Library	Hunt's Point	877 Southern Boulevard
New York Public Library	Jerome Park	118 Eames Place
New York Public Library	Kingsbridge	280 West 231st Street
New York Public Library	Melrose	910 Morris Place
New York Public Library	Morris Park	985 Morris Park Avenue
New York Public Library	Morrisania	610 West 169th Street
New York Public Library	Mosholu	285 East 205th Street
New York Public Library	Mott Haven	321 East 140th Street
New York Public Library	Parkchester	1985 Westchester Avenue
New York Public Library	Pelham Bay	3060 Middletown Road
New York Public Library	Pelham Parkway Van Nest	2147 Barnes Avenue
New York Public Library	Riverdale	5540 Mosholu Avenue
New York Public Library	Sedgwick	1701 Martin Luther King, Jr. Boulevard
New York Public Library	Soundview	660 Soundview Avenue
New York Public Library	Spuyten Duyvil	650 West 235th Street
New York Public Library	Throg's Neck	3025 Cross Bronx Expressway
New York Public Library	Tremont	1866 Washington Avenue
New York Public Library	Van Cortlandt	3874 Sedgwick Avenue
New York Public Library	Wakefield	4100 Lowerre Place
New York Public Library	West Farms	2085 Honeywell Avenue
New York Public Library	Westchester Square	2521 Glebe Avenue
New York Public Library	Woodlawn Heights	4355 Katonah Avenue
New York Public Library	Woodstock	761 East 160th Street
<b>Brooklyn</b>		
Brooklyn Public Library	Arlington	203 Arlington Avenue
Brooklyn Public Library	Bay Ridge	7223 Ridge Boulevard
Brooklyn Public Library	Bedford	496 Franklin Avenue
Brooklyn Public Library	Borough Park	1265 43rd Street

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Brooklyn (continued)</b>		
Brooklyn Public Library	Brighton Beach	202 Brighton Beach Avenue
Brooklyn Public Library	Brooklyn Heights	109 Remsen Street
Brooklyn Public Library	Brower Park	725 St. Marks Avenue
Brooklyn Public Library	Brownsville	61 Glenmore Avenue
Brooklyn Public Library	Bushwick	340 Bushwick Avenue
Brooklyn Public Library	Canarsie	1570-80 Rockaway Parkway
Brooklyn Public Library	Carroll Gardens	396 Clinton Street
Brooklyn Public Library	Central	10 Grand Army Plaza
Brooklyn Public Library	Clarendon	2035-39 Nostrand Avenue
Brooklyn Public Library	Clinton Hill	376-380 Washington Avenue
Brooklyn Public Library	Coney Island	1901 Mermaid Avenue
Brooklyn Public Library	Cortelyou	1305 Cortelyou Road
Brooklyn Public Library	Crown Heights	556-560 New York Avenue
Brooklyn Public Library	Cypress Hills	1197 Sutter Avenue
Brooklyn Public Library	Dekalb	790 Bushwick Avenue
Brooklyn Public Library	Dyker	8202 13th Avenue
Brooklyn Public Library	East Flatbush	9612 Church Avenue
Brooklyn Public Library	Eastern Parkway	1044-46 Eastern Parkway
Brooklyn Public Library	Flatbush	22 Linden Boulevard
Brooklyn Public Library	Flatlands	2061-65 Flatbush Avenue
Brooklyn Public Library	Fort Hamilton	9424 Fourth Avenue
Brooklyn Public Library	Gerritsen Beach	2784-2808 Gerritsen Avenue
Brooklyn Public Library	Gravesend	303 Avenue X
Brooklyn Public Library	Greenpoint	107 Norman Avenue
Brooklyn Public Library	Highlawn	1664 W. 13th Street
Brooklyn Public Library	Homecrest	2525 Coney Island Avenue
Brooklyn Public Library	Jamaica Bay	9727 Seaview Avenue
Brooklyn Public Library	Kensington	4211 18th Avenue
Brooklyn Public Library	Kings Bay	3650 Nostrand Avenue
Brooklyn Public Library	Kings Highway	2107 Ocean Avenue

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Brooklyn (continued)</b>		
Brooklyn Public Library	Leonard	81 Devoe Street
Brooklyn Public Library	Macon	365 Lewis Avenue
Brooklyn Public Library	Mapleton	1702 60th Street
Brooklyn Public Library	Marcy	617 DeKalb Avenue
Brooklyn Public Library	McKinley Park	6802 Hamilton Parkway
Brooklyn Public Library	Midwood	975 E. 16th Street
Brooklyn Public Library	Mill Basin	2385 Ralph Avenue
Brooklyn Public Library	New Lots	665 New Lots Avenue
Brooklyn Public Library	New Utrecht	1743 86th Street
Brooklyn Public Library	Pacific	25 Fourth Avenue
Brooklyn Public Library	Paerdegat	850 E. 59th Street
Brooklyn Public Library	Park Slope	431-441 Sixth Avenue
Brooklyn Public Library	Red Hook	7 Wolcott Street
Brooklyn Public Library	Rugby	1000 Utica Avenue
Brooklyn Public Library	Ryder	5902 23rd Avenue
Brooklyn Public Library	Saratoga	8 Thomas S. Boylan Street
Brooklyn Public Library	Sheepshead Bay	2636 E. 14th Street
Brooklyn Public Library	Spring Creek	121-43 Flatlands Avenue
Brooklyn Public Library	Stone Avenue	581 Mother Gaston Boulevard
Brooklyn Public Library	Sunset Park	5108 Fourth Avenue
Brooklyn Public Library	Ulmer Park	2602 Bath Avenue
Brooklyn Public Library	Walt Whitman	93 St. Edwards Street
Brooklyn Public Library	Washington Irving	360 Irving Avenue
Brooklyn Public Library	Williamsburgh	240 Division Avenue
Brooklyn Public Library	Windsor Terrace	160 E. 5th Street
Department for the Aging	ABE STARK NEIGHBORHOOD SENIOR CENTER	10315 Farragut Road
Department for the Aging	ALBANY NEIGHBORHOOD SENIOR CENTER	196 Albany Avenue
Department for the Aging	AMICO 59TH ST NEIGHBORHOOD SR CITIZENS CENTER	5901 13th Avenue



## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Brooklyn (continued)</b>		
Department for the Aging	BAY RIDGE NEIGHBORHOOD SENIOR CENTER	411 Ovington Avenue
Department for the Aging	BLENMAN NEIGHBORHOOD SENIOR CENTER	720 East New York Avenue
Department for the Aging	BORINQUEN PLZ NUTRITION NEIGHBORHOOD SC	80 Seigel Street
Department for the Aging	BROOKDALE NEIGHBORHOOD SENIOR CENTER	817 Avenue H
Department for the Aging	CCNS GLENWOOD NEIGHBORHOOD SENIOR CENTER	5701 Avenue H
Department for the Aging	CCNS NARROWS NEIGHBORHOOD SR CTR	933 54th Street
Department for the Aging	CCNS RIVERWAY INNOVATIVE SENIOR CENTER	230 Riverdale Avenue
Department for the Aging	CCNS ST CHARLES NEIGHBORHOOD SENIOR CENT	55 Pierrepont Street
Department for the Aging	COUNCIL CENTER FOR SENIOR CITIZENS NSC	1001 Quentin Road
Department for the Aging	CYPRESS HILLS FULTON ST NBH SR CTZ CTR	3208 Fulton Street
Department for the Aging	DORCHESTER NEIGHBORHOOD SR CITIZENS CTR	1419 Dorchester Road
Department for the Aging	GRACE AGARD HAREWOOD NEIGHBORHOOD SENIOR	966 Fulton Street
Department for the Aging	GRANT SQUARE NEIGHBORHOOD SENIOR CENTER	19 Grant Square

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Brooklyn (continued)</b>		
Department for the Aging	HABER HOUSE NEIGHBORHOOD SENIOR CENTER	3024 West 24th Street
Department for the Aging	HAZEL BROOKS NEIGHBORHOOD SENIOR CENTER	961 Ocean Avenue
Department for the Aging	HOMECREST BENSONHURST NEIGHBORHOOD SR CT	7907 New Utrecht Avenue
Department for the Aging	HOPE GARDENS MULTI SERVICE NSC	195 Linden Street
Department for the Aging	HUGH GILROY NEIGHBORHOOD SENIOR CENTER	447 Kingsborough 4th Walk
Department for the Aging	JAY-HARAMA NEIGHBORHOOD SENIOR CENTER	2600 Ocean Avenue
Department for the Aging	MANHATTAN BEACH NEIGHBORHOOD SENIOR CTR	60 West End Avenue
Department for the Aging	MARIA LAWTON NEIGHBORHOOD SENIOR CENTER	400 Hart Street
Department for the Aging	OCEAN PARKWAY NEIGHBORHOOD SENIOR CENTER	1960 East 7th Street
Department for the Aging	Park Slope Center for Successful Aging	463A 7th Street
Department for the Aging	PROSPECT HILL NEIGHBORHOOD SENIOR CTR	283 Prospect Avenue
Department for the Aging	QUINCY SENIOR RESIDENCE	625 Quincy Street
Department for the Aging	RED HOOK NEIGHBORHOOD SENIOR CENTER	120 West 9th Street

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Brooklyn (continued)</b>		
Department for the Aging	REMSEN NEIGHBORHOOD SENIOR CENTER	3304 Clarendon Road
Department for the Aging	RIDGEWOOD BUSHWICK ISC	9 Noll Street
Department for the Aging	RIDGEWOOD BUSHWICK NEIGHBORHOOD SC	319 Stanhope Street
Department for the Aging	ROUNDTABLE NEIGHBORHOOD SENIOR CENTER	1175 Gates Avenue
Department for the Aging	SENIOR ALLIANCE NEIGHBORHOOD SENIOR CTR (347-689-1840)	161 Corbin Place
Department for the Aging	SHEUER HOUSE OF CI NEIGHBORHOOD SR CTR	3601 Surf Avenue
Department for the Aging	SHORE HILL NEIGHBORHOOD SENIOR CENTER	9000 Shore Road
Department for the Aging	SR CITIZENS LEAGUE OF FLATBUSH NBH SR CT	870 Ocean Parkway
Department for the Aging	STUYVESANT HEIGHTS NEIGHBORHOOD SC	562-574 Madison Street
Department for the Aging	SUNSET PARK NEIGHBORHOOD SENIOR CENTER	4520 4th Avenue
Department for the Aging	TERESA MOORE NEIGHBORHOOD SENIOR CENTER	2702 Linden Boulevard
Department for the Aging	TILDEN NEIGHBORHOOD SENIOR CENTER	630 Mother Gaston Blvd
Department for the Aging	TOMPKINS PARK NEIGHBORHOOD SENIOR CENTER	550 Greene Avenue

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Brooklyn (continued)</b>		
Department for the Aging	Vandalia Neighborhood Senior Center	47 Vandalia Avenue
Department for the Aging	Willoughby Neighborhood Senior Center	105 North Portland Avenue
Department for the Aging	Young Israel Senior Services Neighborhood Senior Center	1694 Ocean Avenue
Department of Parks and Recreation	Brownsville	1555 Linden Boulevard
Department of Parks and Recreation	Fort Hamilton	9941 Fort Hamilton Parkway
Department of Parks and Recreation	McCarren	776 Lorimer Street
Department of Parks and Recreation	Red Hook	155 Bay Street
Department of Parks and Recreation	St. John's - Rm. 1	1251 Prospect Place
Department of Parks and Recreation	St. John's - Rm. 2	1251 Prospect Place
Department of Parks and Recreation	Sunset	4200 7th Avenue
Department of Youth and Community Development	Albany	164 Troy Avenue
Department of Youth and Community Development	Atlantic Terminal	501 Carlton Avenue
Department of Youth and Community Development	Boulevard	726 Stanley Avenue
Department of Youth and Community Development	Breukelen	715 East 105 Street
Department of Youth and Community Development	Brevoort	280 Ralph Avenue
Department of Youth and Community Development	Bushwick/Hylan	50 Humboldt St.
Department of Youth and Community Development	Carey Gardens	2315 Surf Avenue
Department of Youth and Community Development	Cooper Park	76 Kingsland Avenue
Department of Youth and Community Development	Farragut	228 York St.
Department of Youth and Community Development	Hope Gardens	422 Central Avenue
Department of Youth and Community Development	Independence Towers	114 Taylor Street

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Brooklyn (continued)</b>		
Department of Youth and Community Development	Ingersoll	177 Myrtle St.
Department of Youth and Community Development	Lafayette	442 Dekalb Avenue
Department of Youth and Community Development	Langston Hughes	301 Sutter Avenue
Department of Youth and Community Development	Marcus Garvey	20 Amboy Street
Department of Youth and Community Development	Marlboro	2298 West 8th St.
Department of Youth and Community Development	O'Dwyer Gardens	2945 West 33rd Street
Department of Youth and Community Development	Penn-Wortman (Pennsylvania Avenue- Wortman Ave)	895 Pennsylvania Avenue
Department of Youth and Community Development	Pink Houses	2702 Linden Blvd.
Department of Youth and Community Development	Saratoga Village	940 Hancock Street
Department of Youth and Community Development	Seth Low	137 Belmont Avenue
Department of Youth and Community Development	Sheepshead Bay	3679 Nostrand Avenue
Department of Youth and Community Development	Stuyvesant Gardens	214 Stuyvesant Avenue
Department of Youth and Community Development	Sumner	862 Park Ave.
Department of Youth and Community Development	Tilden	630 Mother Gaston Blvd.
Department of Youth and Community Development	Tompkins	736 Park Avenue
Department of Youth and Community Development	Unity Plaza	576 Blake Avenue
Department of Youth and Community Development	Van Dyke	392 Blake Avenue

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Brooklyn (continued)</b>		
Department of Youth and Community Development	Williams Plaza	323 Roebling Street
Department of Youth and Community Development	Williamsburg	195 Graham Avenue
Department of Youth and Community Development	Wyckoff Gardens	280 Wyckoff Street
New York City Housing Authority	Louis Armstrong Community Center	495 Gates Avenue
<b>Manhattan</b>		
Department for the Aging	ABSW NEIGHBORHOOD SENIOR CENTER	221 West 107th Street
Department for the Aging	AP RANDOLPH SENIOR CENTER	108 West 146th Street
Department for the Aging	ARC CENTRAL HARLEM SENIOR CENTER	120 West 140th Street
Department for the Aging	BEATRICE LEWIS	2322 3rd Avenue
Department for the Aging	Bethune Senior Center	1970 Amsterdam Avenue
Department for the Aging	CARTER BURDEN LUNCHEON CLUB NEIGHBORHOOD	351 East 74th Street
Department for the Aging	CARVER NEIGHBORHOOD SENIOR CENTER	55 East 102nd Street
Department for the Aging	CENTER ON THE SQUARE NEIGHBORHOOD SR CTR	20 Washington Square North
Department for the Aging	CENTRAL HARLEM KENNEDY SR CTR	34 West 134th Street
Department for the Aging	CITY HALL NEIGHBORHOOD SENIOR CENTER	100 Gold Street
Department for the Aging	CORSI HOUSE NEIGHBORHOOD SENIOR CENTER	307 East 116th Street
Department for the Aging	COTHOA LUNCHEON CLUB NEIGHBORHOOD SC	2005 Amsterdam Avenue

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Manhattan (continued)</b>		
Department for the Aging	DYCKMAN NEIGHBORHOOD SENIOR CENTER	3754 10th Avenue
Department for the Aging	FIND AID COFFEEHOUSE NEIGHBORHOOD SENIOR	331 West 42nd Street
Department for the Aging	FIND AID ISC	141 West 73rd Street
Department for the Aging	FIND CLINTON NEIGHBORHOOD SENIOR CENTER	530 West 55th Street
Department for the Aging	FIND WOODSTOCK NEIGHBORHOOD SENIOR CENTE	127 West 43rd Street
Department for the Aging	Frederick E. Samuel Senior Center	2401 Adam Clayton Powell Blvd
Department for the Aging	GOOD COMPANIONS NEIGHBORHOOD SENIOR CENT	334 Madison Street
Department for the Aging	JACKIE ROBINSON NEIGHBORHOOD SENIOR CTR	1301 Amsterdam Avenue
Department for the Aging	LAGUARDIA NEIGHBORHOOD SENIOR CENTER	280 Cherry Street
Department for the Aging	MOTT STREET NEIGHBORHOOD SENIOR CENTER	180 Mott Street
Department for the Aging	PSS HARLEM NEIGHBORHOOD SENIOR CENTER	18 Mt. Morris Park West
Department for the Aging	PSS MANHATTANVILLE SENIOR CENTER	530 West 133rd Street
Department for the Aging	RIVERSTONE SENIOR LIFE NEIGHBORHOOD SC	99 Fort Washington Avenue
Department for the Aging	ROOSEVELT ISLAND CARTER BURDEN NEIGHBORHOOD	564 Main Street

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Manhattan (continued)</b>		
Department for the Aging	SAGE INNOVATIVE SENIOR CENTER	305 Seventh Avenue
Department for the Aging	SAINT NICHOLAS SOCIAL CLUB	210 West 131st Street
Department for the Aging	Senior Planet Exploration Center	127 West 25th Street
Department for the Aging	SIROVICH ISC	331 East 12th Street
Department for the Aging	STANLEY ISAACS NEIGHBORHOOD SENIOR CTR	415 East 93rd Street
Department for the Aging	STEIN NEIGHBORHOOD SENIOR CENTER	204 East 23rd Street
Department for the Aging	THE CENTER AT THE RED OAK NEIGHBR SR CTR	135 West 106th Street
Department for the Aging	UJC ADULT LUNCHEON CLUB NEIGHBORHOOD SC	15 Bialystoker Place
Department for the Aging	University Settlement Neighborhood Senior Center	189 Allen Street
Department for the Aging	Visions Innovative Senior Center	135 West 23rd Street
Department for the Aging	West 65th Street Center	250 West 65th Street
Department for the Aging	YM YWHA Innovative Senior Center	54 Nagle Avenue
Department of Parks and Recreation	Alfred E. Smith	80 Catherine Street
Department of Parks and Recreation	Chelsea	430 W 25th Street
Department of Parks and Recreation	East 54th	348 E 54th Street
Department of Parks and Recreation	Gertrude Ederle	232 W 60th Street
Department of Parks and Recreation	Hamilton Fish	128 Pitt Street
Department of Parks and Recreation	Hansborough	35 W 134th Street
Department of Parks and Recreation	Highbridge	2301 Amsterdam Avenue
Department of Parks and Recreation	J. Hood Wright	351 Fort Washington Avenue
Department of Parks and Recreation	Jackie Robinson	85 Bradhurst Avenue
Department of Parks and Recreation	Pelham Fritz	18 Mount Morris Park West
Department of Parks and Recreation	Thomas Jefferson	2180 1st Avenue



## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Manhattan (continued)</b>		
Department of Parks and Recreation	Tony Dapolito	1 Clarkson Street
Department of Youth and Community Development	Campos Plaza	611 East 13th Street
Department of Youth and Community Development	Clinton	120 East 110th Street
Department of Youth and Community Development	Drew Hamilton	220 West 143rd Street
Department of Youth and Community Development	Dyckman	3782 Tenth Avenue
Department of Youth and Community Development	East River	404 East 105th Street
Department of Youth and Community Development	Grant	1301 Amsterdam Avenue
Department of Youth and Community Development	Johnson	1833 Lexington Ave./1829-1839 Lexington Avenue
Department of Youth and Community Development	Marble Hill	5365 Broadway
Department of Youth and Community Development	Polo Grounds	3005 Frederick Douglass Blvd
Department of Youth and Community Development	Riis	80 Avenue D
Department of Youth and Community Development	Robinson (Jackie Robinson)	110 East 129th Street
Department of Youth and Community Development	Two Bridges	286 South St.
New York City Housing Authority	Children's Aid Society Frederick Douglass Children's Ctr	885 Columbus Avenue
New York City Housing Authority	Goddard Riverside Community Center	647 Columbus Avenue
New York City Housing Authority	Gompers Community Center	80 Pitt Street
New York City Housing Authority	Harlem Children's Zone at St. Nicholas	2374 Frederick Douglass Boulevard
New York City Housing Authority	Hope Leadership Academy	1732 Madison Avenue

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Manhattan (continued)</b>		
New York City Housing Authority	Lincoln Square Neighborhood Center, Inc.	250 West 65th Street
New York City Housing Authority	Stanley M. Isaacs Neighborhood Community Center	1792 First Avenue
New York City Housing Authority	Strycker's Bay Neighborhood Council	696 Amsterdam Avenue
New York City Housing Authority	Washington Community Center	1775 Third Avenue
New York City Housing Authority	White Community Center	237 East 104th Street
New York City Housing Authority	YOTM Frederick Samuels Community Center	669 Lenox Avenue
New York Public Library	125th Street	224 East 125th Street
New York Public Library	53rd Street	18 West 53rd Street
New York Public Library	58th Street	127 East 58th Street
New York Public Library	67th Street	328 East 67th Street
New York Public Library	96th Street	112 East 96th Street
New York Public Library	Aguilar	174 East 110th Street
New York Public Library	Andrew Heiskell	40 West 20th Street
New York Public Library	Battery Park City	175 North End Avenue
New York Public Library	Bloomingdale	150 West 100th Street
New York Public Library	Chatham Square	33 East Broadway
New York Public Library	Columbus	742 10th Avenue
New York Public Library	Countee Cullen	104 West 136th Street
New York Public Library	Epiphany	228 East 23rd Street
New York Public Library	Fort Washington	535 West 179th Street
New York Public Library	George Bruce	518 West 125th Street
New York Public Library	Grand Central	135 East 46th Street
New York Public Library	Hamilton Fish	415 East Houston Street
New York Public Library	Hamilton Grange	503 West 145th Street
New York Public Library	Harry Belafonte 115th Street Library	203 West 115th Street
New York Public Library	Harlem	9 West 124th Street
New York Public Library	Hudson Park	66 Leroy Street
New York Public Library	Inwood	4790 Broadway
New York Public Library	Jefferson Market	425 Avenue of the Americas

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Manhattan (continued)</b>		
New York Public Library	Kips Bay	446 Third Avenue
New York Public Library	Macomb's Bridge	2650 Adam Clayton Powell Jr. Boulevard
New York Public Library	Mid- Manhattan	455 Fifth Avenue
New York Public Library	Morningside Heights	2900 Broadway
New York Public Library	Muhlenberg	209 West 23rd Street
New York Public Library	Mulberry Street	10 Jersey Street
New York Public Library	New Amsterdam	9 Murray Street
New York Public Library	New York Public Library for the Performing Arts	40 Lincoln Center Plaza
New York Public Library	Ottendorfer	135 Second Avenue
New York Public Library	Riverside	127 Amsterdam Avenue
New York Public Library	Roosevelt Island	524 Main Street
New York Public Library	Schomburg	514 Malcolm X Boulevard
New York Public Library	Science, Industry, and Business Library (SIBL)	188 Madison Avenue
New York Public Library	Seward Park	192 East Broadway
New York Public Library	St. Agnes	444 Amsterdam Avenue
New York Public Library	Stephen A. Schwarzman Bldg	476 Fifth Avenue
New York Public Library	Terence Cardinal Cooke-Cathedral Branch	560 Lexington Avenue
New York Public Library	Tompkins Square	331 East 10th Street
New York Public Library	Washington Heights	1000 St. Nicholas Avenue
New York Public Library	Webster	1465 York Avenue
New York Public Library	Yorkville	222 East 79th Street
<b>Queens</b>		
Department for the Aging	ALLEN COMMUNITY NEIGHBORHOOD SENIOR CTR	166-01 Linden Boulevard
Department for the Aging	BAYSIDE NEIGHBORHOOD SENIOR CENTER	221-15 Horace Harding Expressway
Department for the Aging	BROOKDALE NEIGHBORHOOD SENIOR CENTER (JASA)	131 Beach 19th Street

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Queens (continued)</b>		
Department for the Aging	CCNS CATHERINE SHERIDAN NSC	35-24 83rd Street
Department for the Aging	CCNS OZONE PARK NEIGHBORHOOD SENIOR CTR	103-02 101st Avenue
Department for the Aging	CCNS SEASIDE NEIGHBORHOOD SENIOR CENTER	320 Beach 94th Street
Department for the Aging	CCNS WOODHAVEN NEIGHBORHOOD SENIOR C	89-02 92st Street
Department for the Aging	Elmcor's Golden Phoenix Club One	98-19 Astoria Boulevard
Department for the Aging	Elmcor's Golden Phoenix Club Two	107-20 Northern Boulevard
Department for the Aging	ELMHURST JACKSON HEIGHTS NEIGHBORHOOD SC	75-01 Broadway
Department for the Aging	FLORENCE E. SMITH NEIGHBORHOOD SC	102-19 34th Avenue
Department for the Aging	FOREST HILLS NEIGHBORHOOD SENIOR CENTER	108-25 62nd Drive
Department for the Aging	HANAC HARMONY JVL ISC	27-40 Hoyt Avenue South
Department for the Aging	HANAC RAVENSWOOD NEIGHBORHOOD SENIOR CTR	34-35 12th Street
Department for the Aging	IPRE CORONA NEIGHBORHOOD SENIOR CENTER	108-74 Roosevelt Avenue
Department for the Aging	JSPOA THEODORA JACKSON NSC	92-47 165th Street
Department for the Aging	KCS CORONA NEIGHBORHOOD SENIOR CENTER	37-06 111th Street

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Queens (continued)</b>		
Department for the Aging	KCS FLUSHING NEIGHBORHOOD SENIOR CENTER	42-15 166th Street
Department for the Aging	MIDDLE VILLAGE NEIGHBORHOOD SENIOR CTR	69-10 75th Street
Department for the Aging	PETER CARDELLA NEIGHBORHOOD SENIOR CTR	68-52 Fresh Pond Road
Department for the Aging	POMONOK NEIGHBORHOOD SENIOR CENTER	67-09 Kissena Boulevard
Department for the Aging	QUEENS VALLEY NEIGHBORHOOD SENIOR CENTER	141-55 77th Avenue
Department for the Aging	QUEENSBRIDGE-RIIS NEIGHBORHOOD SC	10-25 41st Avenue
Department for the Aging	RAICES CORONA NEIGHBORHOOD SENIOR CENTER	107-24 Corona Avenue
Department for the Aging	REGO PARK NEIGHBORHOOD SENIOR CENTER	93-29 Queens Boulevard
Department for the Aging	ROBERT COUCHE NEIGHBORHOOD SENIOR CENTER	137-57 Farmers Boulevard
Department for the Aging	ROCHDALE NEIGHBORHOOD SENIOR CENTER	169-65 137th Avenue
Department for the Aging	ROCKAWAY BLVD NEIGHBORHOOD SENIOR CENTER	123-10 143rd Street
Department for the Aging	ROCKAWAY PARK NEIGHBORHOOD SENIOR CENTER	106-20 Shore Front Parkway

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Queens (continued)</b>		
Department for the Aging	SAMUEL FIELD NEIGHBORHOOD SENIOR CENTER	58-20 Little Neck Parkway
Department for the Aging	SELFHELP AUSTIN STREET NEIGHBORHOOD SC	106-06 Queens Boulevard
Department for the Aging	SELFHELP CLEARVIEW NEIGHBORHOOD SC	208-11 26th Avenue
Department for the Aging	SELFHELP INNOVATIVE SENIOR CENTER	45-25 Kissena Boulevard
Department for the Aging	SELFHELP LATIMER NEIGHBORHOOD SENIOR CTR	34-30 137th Street
Department for the Aging	SELFHELP MASPETH NEIGHBORHOOD SENIOR CTR	69-61 Grand Avenue
Department for the Aging	SNAP INNOVATIVE SENIOR CENTER	80-45 Winchester Boulevard
Department for the Aging	SUNNYSIDE COMMUNITY NEIGHBORHOOD SC	43-31 39th Street
Department for the Aging	THE YOUNG ISRAEL OF FOREST HILLS NSC	68-07 Burns Street
Department for the Aging	Wavecrest and S. Bayswater Neighborhood	2716 Healy Avenue
Department for the Aging	Woodside Neighborhood Senior Center	50-37 Newtown Road
Department of Parks and Recreation	Al Oerter	131-40 Fowler Avenue
Department of Parks and Recreation	ARROW	35-30 35th Street
Department of Parks and Recreation	Detective Keith Williams	106-16 173rd Street
Department of Parks and Recreation	Lost Battalion Hall	93-29 Queens Boulevard
Department of Parks and Recreation	Sorrentino	18-48 Cornaga Avenue
Department of Parks and Recreation	Vic Hanson	133-39 Guy R Brewer Boulevard
Department of Youth and Community Development	Astoria	4-05 Astoria Blvd
Department of Youth and Community Development	Beach 41st	426 Beach 40th Street

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Queens (continued)</b>		
Department of Youth and Community Development	Ocean Bay	57-10 Beach Channel Drive
Department of Youth and Community Development	Redfern	1544 Hassock St.
Department of Youth and Community Development	South Jamaica II	109-04 160th St.
Department of Youth and Community Development	Woodside	50-19 Broadway
New York City Housing Authority	Jacob A. Riis Neighborhood Settlement Community Center	10-25 41st Avenue
New York City Housing Authority	Queens Community Pomonok Center	67-09 Kissena Blvd
Queens Library	Arverne	312 Beach 54 Street
Queens Library	Astoria	14-01 Astoria Boulevard
Queens Library	Auburndale	25-55 Francis Lewis Boulevard
Queens Library	Baisley Park	117-11 Sutphin Boulevard
Queens Library	Bay Terrace	18-36 Bell Boulevard
Queens Library	Bayside	214-20 Northern Boulevard
Queens Library	Bellerose	250-06 Hillside Avenue
Queens Library	Briarwood	85-12 Main Street
Queens Library	Broad Channel	16-26 Cross Bay Boulevard
Queens Library	Broadway	40-20 Broadway
Queens Library	Cambria Heights	218-13 Linden Boulevard
Queens Library	Central Library	89-11 Merrick Boulevard
Queens Library	Central Library CLDC	89-11 Merrick Boulevard
Queens Library	Central Library JBA	89-11 Merrick Boulevard
Queens Library	Central Library YA	89-11 Merrick Boulevard
Queens Library	Corona	38-23 104 Street
Queens Library	Court Square	25-01 Jackson Avenue
Queens Library	Douglaston/Little Neck	249-01 Northern Boulevard
Queens Library	East Elmhurst	95-06 Astoria Boulevard

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Queens (continued)</b>		
Queens Library	East Flushing	196-36 Northern Boulevard
Queens Library	Elmhurst	86-07 Broadway
Queens Library	Elmhurst ALC	86-07 Broadway
Queens Library	Far Rockaway	1637 Central Avenue
Queens Library	Flushing	41-17 Main Street
Queens Library	Flushing ALC	41-17 Main Street
Queens Library	Flushing JBA	41-17 Main Street
Queens Library	Forest Hills	108-19 71 Avenue
Queens Library	Fresh Meadows	193-20 Horace Harding Expressway
Queens Library	Glen Oaks	256-04 Union Turnpike
Queens Library	Glendale	78-60 73 Place
Queens Library	Hillcrest	187-05 Union Turnpike
Queens Library	Hollis	202-05 Hillside Avenue
Queens Library	Howard Beach	92-06 156 Avenue
Queens Library	Jackson Heights	35-51 81 Street
Queens Library	Jackson Heights ALC	35-51 81 Street
Queens Library	Kew Gardens Hills	71-34 Main Street
Queens Library	Langston Hughes	100-01 Northern Boulevard
Queens Library	Laurelton	134-26 225 Street
Queens Library	Lefferts	103-34 Lefferts Boulevard
Queens Library	Lefrak City	98-30 57 Avenue
Queens Library	Long Island City	37-44 21 Street
Queens Library	Long Island City ALC	37-44 21 Street
Queens Library	Maspeth	69-70 Grand Avenue
Queens Library	McGoldrick	155-06 Roosevelt Avenue
Queens Library	Middle Village	72-31 Metropolitan Avenue
Queens Library	Mitchell-Linden	31-32 Union Street
Queens Library	North Forest Park	98-27 Metropolitan Avenue
Queens Library	North Hills	57-04 Marathon Parkway
Queens Library	Ozone Park	92-24 Rockaway Boulevard



## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Queens (continued)</b>		
Queens Library	Peninsula	92-25 Rockaway Beach Boulevard
Queens Library	Peninsula ALC	92-25 Rockaway Beach Boulevard
Queens Library	Pomonok	158-21 Jewel Avenue
Queens Library	Poppenhusen	121-23 14 Avenue
Queens Library	Queens Library for Teens	2002 Cornaga Avenue
Queens Library	Queens Village	94-11 217 Street
Queens Library	Queensboro Hill	60-05 Main Street
Queens Library	Queensbridge	10-43 41 Avenue
Queens Library	Rego Park	91-41 63rd Drive
Queens Library	Richmond Hill	118-14 Hillside Avenue
Queens Library	Ridgewood	20-12 Madison Street
Queens Library	Rochdale Village	169-09 137 Avenue
Queens Library	Rochdale Village ALC	169-09 137 Avenue
Queens Library	Rosedale	144-20 243 Street
Queens Library	Seaside	116-15 Rockaway Beach Boulevard
Queens Library	South Hollis	20401 Hollis Avenue
Queens Library	South Jamaica	108-41 Guy R. Brewer Boulevard
Queens Library	South Ozone Park	128-16 Rockaway Boulevard
Queens Library	St.Albans	191-05 Linden Boulevard
Queens Library	Steinway	21-45 31 Street
Queens Library	Sunnyside	43-06 Greenpoint Avenue
Queens Library	Whitestone	151-10 14 Road
Queens Library	Windsor Park	79-50 Bell Boulevard
Queens Library	Woodhaven	85-41 Forest Parkway
Queens Library	Woodside	54-22 Skillman Avenue
<b>Staten Island</b>		
Department for the Aging	CASSIDY COLES NEIGHBORHOOD SENIOR CENTER	125 Cassidy Place
Department for the Aging	JCC OF STATEN ISLAND INNOVATIVE SR CTR	1466 Manor Road

## Appendix H – Public Computer Centers with Wi-Fi (continued)

Oversight Entity	Location Name	Address
<b>Staten Island (continued)</b>		
Department for the Aging	JCC SOUTH SHORE NEIGHBORHOOD SENIOR CTR	1297 Arthur Kill Road
Department of Parks and Recreation	Faber	Richmond Terrace & Faber Street
Department of Parks and Recreation	Greenbelt	501 Brielle Avenue
Department of Youth and Community Development	Berry	211 Jefferson Street
Department of Youth and Community Development	Carter (Gerard Carter/Stapleton)	230 Broad Street
Department of Youth and Community Development	Mariner's Harbor	157 Brabant Street
Department of Youth and Community Development	Richmond Terrace	71 Jersey Street
Department of Youth and Community Development	South Beach	155 Norway Avenue
Department of Youth and Community Development	Todt Hill	255 Westwood Avenue
Department of Youth and Community Development	West Brighton I	230 Broadway
New York Public Library	Dongan Hills	1617 Richmond Road
New York Public Library	Great Kills	56 Giffords Lane
New York Public Library	Huguenot Park	830 Huguenot Avenue
New York Public Library	Mariners Harbor	206 South Avenue
New York Public Library	New Dorp	309 New Dorp Lane
New York Public Library	Port Richmond	75 Bennett Street
New York Public Library	Richmondtown	200 Clarke Avenue
New York Public Library	South Beach	21-25 Robin Road
New York Public Library	St. George	5 Central Avenue
New York Public Library	Stapleton	132 Canal Street
New York Public Library	Todt-Hill	2550 Victory Boulevard
New York Public Library	Tottenville	7430 Amboy Road
New York Public Library	West New Brighton	976 Castleton Avenue

Source: February 2019 City Administrative Data as analyzed by MOCTO. Note: duplicate addresses for co-located Queens Public Library public computer centers have been removed for consideration as public Wi-Fi Locations.

## Appendix I – Open Space Wi-Fi Access Points

Park Name	Park Proximity	Borough	NTA Code	NTA Name	# of Access Points
Abe Stark Skating Rink	Inside	Brooklyn	BK21	Seagate-Coney Island	6
Alfred E. Smith Playground	Inside	Manhattan	MN27	Chinatown	8
Alley Athletic Playground	Inside	Queens	QN43	Bellerose	6
Asser Levy Park	Inside	Brooklyn	BK21	Seagate-Coney Island	3
Astoria Park	Inside	Queens	QN99	park-cemetery-etc-Queens	1
Baisley Pond Park	Inside	Queens	QN76	Baisley Park	3
Battery Park	Inside	Manhattan	MN99	park-cemetery-etc-Manhattan	2
Bensonhurst Park	Inside	Brooklyn	BK27	Bath Beach	6
Blood Root Valley	Inside	Staten Island	SI05	New Springville-Bloomfield-Travis	5
Bronx Park	Inside	Bronx	BX99	park-cemetery-etc-Bronx	1
Bronx River Parkway	Inside	Bronx	BX99	park-cemetery-etc-Bronx	1
Brooklyn Bridge Park	Inside	Manhattan	MN99	park-cemetery-etc-Manhattan	1
Brooklyn Heights Promenade	Inside	Brooklyn	BK09	Brooklyn Heights-Cobble Hill	6
Brownsville Playground	Inside	Brooklyn	BK81	Brownsville	5
Bryant Park	Inside	Manhattan	MN17	Midtown-Midtown South	2
Cadman Plaza Park	Inside	Brooklyn	BK38	DUMBO-Vinegar Hill-Downtown Brooklyn-Boerum Hill	1
Central Park	Inside	Manhattan	MN99	park-cemetery-etc-Manhattan	4

## Appendix I – Open Space Wi-Fi Access Points (continued)

Park Name	Park Proximity	Borough	NTA Code	NTA Name	# of Access Points
Chelsea Recreation Center	Inside	Manhattan	MN13	Hudson Yards-Chelsea-Flatiron-Union Square	5
City Hall Park	Inside	Manhattan	MN24	SoHo-TriBeCa-Civic Center-Little Italy	1
Claremont Park	Inside	Bronx	BX99	park-cemetery-etc-Bronx	5
Clove Lakes Park	Inside	Staten Island	SI07	Westerleigh	7
Coffey Park	Inside	Brooklyn	BK33	Carroll Gardens-Columbia Street-Red Hook	4
Crotona Park	Inside	Bronx	BX99	park-cemetery-etc-Bronx	16
Cunningham Park	Inside	Queens	QN99	park-cemetery-etc-Queens	3
Devoe Park	Inside	Bronx	BX30	Kingsbridge Heights	1
Dyker Beach Park	Inside	Brooklyn	BK99	park-cemetery-etc-Brooklyn	1
East Parade Grounds	Inside	Brooklyn	BK99	park-cemetery-etc-Brooklyn	1
Ferry Point Park	Inside	Bronx	BX52	Schuylerville-Throgs Neck-Edgewater Park	2
Flushing Meadows Corona Park	Inside	Queens	QN99	park-cemetery-etc-Queens	1
Forest Park	Inside	Queens	QN60	Kew Gardens	3
Fort Greene Park	Inside	Brooklyn	BK68	Fort Greene	1
Franklin D. Roosevelt Boardwalk and Beach	Inside	Staten Island	SI36	Old Town-Dongan Hills-South Beach	16
Gravesend Park	Inside	Brooklyn	BK88	Borough Park	3

## Appendix I – Open Space Wi-Fi Access Points (continued)

Park Name	Park Proximity	Borough	NTA Code	NTA Name	# of Access Points
Gun Hill Playground	Inside	Bronx	BX44	Williamsbridge-Olinville	1
Hamilton Fish Park	Inside	Manhattan	MN28	Lower East Side	4
Heckscher Playground	Inside	Brooklyn	BK78	Bushwick South	2
Herbert Von King Park	Inside	Brooklyn	BK75	Bedford	2
Hillside Park	Inside	Brooklyn	BK09	Brooklyn Heights-Cobble Hill	1
Holcombe Rucker Park	Inside	Manhattan	MN03	Central Harlem North-Polo Grounds	1
Hunts Point Riverside Park	Inside	Bronx	BX27	Hunts Point	1
J. Hood Wright Park	Inside	Manhattan	MN36	Washington Heights South	6
Jackie Robinson Park	Inside	Manhattan	MN04	Hamilton Heights	7
Joyce Kilmer Park	Inside	Bronx	BX63	West Concourse	6
Juniper Valley Park	Inside	Queens	QN21	Middle Village	3
Kathy Reilly Triangle	Inside	Brooklyn	BK30	Dyker Heights	1
Kissena Corridor Park	Inside	Queens	QN62	Queensboro Hill	3
Lawrence Virgilio Playground	Inside	Queens	QN63	Woodside	2
Linden Park	Inside	Brooklyn	BK82	East New York	3
Lost Battalion Hall Recreation Center	Inside	Queens	QN18	Rego Park	3
MacDonald Park	Inside	Queens	QN17	Forest Hills	1
Macombs Dam Park	Inside	Bronx	BX63	West Concourse	6
Madison Square Park	Inside	Manhattan	MN13	Hudson Yards-Chelsea-Flatiron-Union Square	6

## Appendix I – Open Space Wi-Fi Access Points (continued)

Park Name	Park Proximity	Borough	NTA Code	NTA Name	# of Access Points
Manhattan Beach Park	Inside	Brooklyn	BK17	Sheepshead Bay-Gerritsen Beach-Manhattan Beach	6
Marcus Garvey Park	Inside	Manhattan	MN34	East Harlem North	9
Maria Hernandez Park	Inside	Brooklyn	BK77	Bushwick North	4
Marine Park	Inside	Brooklyn	BK99	park-cemetery-etc-Brooklyn	3
McCarren Park	Inside	Brooklyn	BK73	North Side-South Side	6
McKinley Park	Inside	Brooklyn	BK30	Dyker Heights	1
Metropolitan Recreation Center	Inside	Brooklyn	BK73	North Side-South Side	2
Owen F. Dolen Park	Inside	Bronx	BX37	Van Nest-Morris Park-Westchester Square	3
Owl's Head Park	Inside	Brooklyn	BK31	Bay Ridge	3
Parade Ground	Inside	Brooklyn	BK99	park-cemetery-etc-Brooklyn	4
Pelham Bay Park	Inside	Bronx	BX99	park-cemetery-etc-Bronx	4
Poe Park	Inside	Bronx	BX05	Bedford Park-Fordham North	4
Prospect Park	Inside	Brooklyn	BK99	park-cemetery-etc-Brooklyn	14
Red Hook Recreation Area	Inside	Brooklyn	BK33	Carroll Gardens-Columbia Street-Red Hook	5
Rockaway Beach	Inside	Queens	QN10	Breezy Point-Belle Harbor-Rockaway Park-Broad Channel	4
Rockaway Beach and Boardwalk	Inside	Queens	QN12	Hammels-Arverne-Edgemere	2

## Appendix I – Open Space Wi-Fi Access Points (continued)

Park Name	Park Proximity	Borough	NTA Code	NTA Name	# of Access Points
Rockaway Beach Boardwalk	Inside	Queens	QN12	Hammels-Arverne-Edgemere	13
Roy Wilkins Recreation Center	Inside	Queens	QN08	St. Albans	16
Saratoga Park	Inside	Brooklyn	BK35	Stuyvesant Heights	2
Snug Harbor Cultural Center	Inside	Staten Island	SI22	West New Brighton-New Brighton-St. George	9
St. James Park	Inside	Bronx	BX05	Bedford Park-Fordham North	3
St. John's Recreation Center	Inside	Brooklyn	BK61	Crown Heights North	10
St. Mary's Park	Inside	Bronx	BX39	Mott Haven-Port Morris	7
The High Line	Inside	Manhattan	MN13	Hudson Yards-Chelsea-Flatiron-Union Square	1
Thomas Jefferson Park	Inside	Manhattan	MN34	East Harlem North	9
Thomas Paine Park	Inside	Manhattan	MN24	SoHo-TriBeCa-Civic Center-Little Italy	1
Tompkins Square Park	Inside	Manhattan	MN22	East Village	1
Tony Dapolito Recreation Center	Inside	Manhattan	MN23	West Village	5
Union Square Park	Inside	Manhattan	MN13	Hudson Yards-Chelsea-Flatiron-Union Square	1
Van Cortlandt Park	Inside	Bronx	BX99	park-cemetery-etc-Bronx	2
Williamsbridge Oval	Inside	Bronx	BX43	Norwood	5
Wingate Park	Inside	Brooklyn	BK60	Prospect Lefferts Gardens-Wingate	2

## Appendix I – Open Space Wi-Fi Access Points (continued)

Park Name	Park Proximity	Borough	NTA Code	NTA Name	# of Access Points
Wolfes Pond Park	Inside	Staten Island	SI01	Annadale-Huguenot-Prince's Bay-Eltingville	5
Yankee Stadium Garages/Lots	Inside	Bronx	BX63	West Concourse	4
Baisley Pond Park	Near	Queens	QN76	Baisley Park	17
Bensonhurst Park	Near	Brooklyn	BK27	Bath Beach	1
Bowne Park	Near	Queens	QN51	Murray Hill	5
Bowne Playground	Near	Queens	QN22	Flushing	2
Brownsville Recreation Center	Near	Brooklyn	BK81	Brownsville	5
Bryant Park	Near	Manhattan	MN17	Midtown-Midtown South	4
Carroll Park	Near	Brooklyn	BK33	Carroll Gardens-Columbia Street-Red Hook	2
Chelsea Park	Near	Manhattan	MN13	Hudson Yards-Chelsea-Flatiron-Union Square	2
City Hall Park	Near	Manhattan	MN25	Battery Park City-Lower Manhattan	1
Claremont Park	Near	Bronx	BX14	East Concourse-Concourse Village	2
Coney Island Beach & Boardwalk	Near	Brooklyn	BK21	Seagate-Coney Island	19
Crotona Park	Near	Bronx	BX35	Morrisania-Melrose	12
Cunningham Park	Near	Queens	QN41	Fresh Meadows-Utopia	4
Dante Park	Near	Manhattan	MN14	Lincoln Square	1
Elmhurst Park	Near	Queens	QN29	Elmhurst	3
Ferry Point Park	Near	Bronx	BX09	Soundview-Castle Hill-Clason Point-Harding Park	8



## Appendix I – Open Space Wi-Fi Access Points (continued)

Park Name	Park Proximity	Borough	NTA Code	NTA Name	# of Access Points
Fox Playground	Near	Bronx	BX33	Longwood	1
Gertrude Ederle Recreation Center	Near	Manhattan	MN14	Lincoln Square	6
Gravesend Park	Near	Brooklyn	BK88	Borough Park	2
Gun Hill Playground	Near	Bronx	BX44	Williamsbridge-Olinville	1
Haffen Park	Near	Bronx	BX03	Eastchester-Edenwald-Baychester	5
Hansborough Recreation Center	Near	Manhattan	MN03	Central Harlem North-Polo Grounds	8
Hoffman Park	Near	Queens	QN29	Elmhurst	2
Horseshoe Playground	Near	Bronx	BX33	Longwood	1
Hunter's Point South Park	Near	Queens	QN31	Hunters Point-Sunnyside-West Maspeth	2
J. Hood Wright Park	Near	Manhattan	MN36	Washington Heights South	1
Juniper Valley Park	Near	Queens	QN21	Middle Village	5
Kissena Park	Near	Queens	QN62	Queensboro Hill	13
Lawrence Virgilio Playground /Windmuller Park	Near	Queens	QN63	Woodside	4
London Planetree Playground	Near	Queens	QN53	Woodhaven	4
Lost Battalion Hall Recreation Center	Near	Queens	QN18	Rego Park	2
Macombs Dam Park	Near	Bronx	BX63	West Concourse	2
Manhattan Beach Park	Near	Brooklyn	BK17	Sheepshead Bay-Gerritsen Beach-Manhattan Beach	9

## Appendix I – Open Space Wi-Fi Access Points (continued)

Park Name	Park Proximity	Borough	NTA Code	NTA Name	# of Access Points
Marine Park	Near	Brooklyn	BK99	park-cemetery-etc-Brooklyn	3
McKinley Park	Near	Brooklyn	BK30	Dyker Heights	3
NYC - Detective Keith Williams Park	Near	Queens	QN01	South Jamaica	6
Pelham Bay Park	Near	Bronx	BX10	Pelham Bay-Country Club-City Island	7
Phil "Scooter" Rizzuto Park	Near	Queens	QN54	Richmond Hill	5
Railroad Park	Near	Queens	QN08	St. Albans	3
Ranaqua Park	Near	Bronx	BX37	Van Nest-Morris Park-Westchester Square	2
Recreation Center 54	Near	Manhattan	MN19	Turtle Bay-East Midtown	3
Red Hook Park	Near	Brooklyn	BK33	Carroll Gardens-Columbia Street-Red Hook	6
Richard Tucker Square	Near	Manhattan	MN14	Lincoln Square	1
Rockaway Beach and Boardwalk	Near	Queens	QN12	Hammels-Arverne-Edgemere	9
Seton Falls Park	Near	Bronx	BX03	Eastchester-Edenwald-Baychester	4
Snug Harbor Cultural Center	Near	Staten Island	SI22	West New Brighton-New Brighton-St. George	5
Sorrentino Recreation Center	Near	Queens	QN15	Far Rockaway-Bayswater	4
St. John's Recreation Center	Near	Brooklyn	BK61	Crown Heights North	1

## Appendix I – Open Space Wi-Fi Access Points (continued)

Park Name	Park Proximity	Borough	NTA Code	NTA Name	# of Access Points
Staten Island Zoo	Near	Staten Island	SI22	West New Brighton-New Brighton-St. George	3
Steeplechase Park	Near	Brooklyn	BK21	Seagate-Coney Island	3
Tappen Park	Near	Staten Island	SI37	Stapleton-Rosebank	3
Tompkinsville Park	Near	Staten Island	SI37	Stapleton-Rosebank	1
Vidalia Park	Near	Bronx	BX17	East Tremont	2
Washington Square Park	Near	Manhattan	MN23	West Village	8
West 79th Street Boat Basin	Near	Manhattan	MN12	Upper West Side	1
West Harlem Piers	Near	Manhattan	MN06	Manhattanville	2
Williamsbridge Oval	Near	Bronx	BX43	Norwood	4
Wingate Park	Near	Brooklyn	BK60	Prospect Lefferts Gardens-Wingate	4
Governors Island		Borough	NTA Code	NTA Name	# of Access Points
Governors Island		Manhattan	MN99	Governors Island	30

Sources: April 2019 Hotspot Data and September 2018 Open Spaces (Parks) Data provided by DOITT and March 2019 NTA Data provided by DCP.



## **Contact Us**

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