



# FROM THE GROUND UP

A PETITION  
TO PROTECT  
NEW YORK CITY'S  
COMMUNITY  
GARDENS

November 2020





## INTRODUCTION

Garden of Happiness.  
Photo by Sorangel  
Liriano

New York City's community gardens transform neighborhoods. Never has this transformative power been more apparent—or more essential—than during the COVID-19 pandemic. As the pandemic exacerbated longstanding racial and economic disparities, community gardeners mobilized to support their neighbors by increasing food production and distributing fresh fruits and vegetables to those in need. The pandemic attracted new attention to the benefits provided by community gardens, but these benefits are not new; community gardens have strengthened their neighborhoods for decades.

**Community gardens alleviate food insecurity.** At the height of the COVID-19 pandemic, community gardeners ramped up production and expanded distribution to community members in need. They also increased donations to food pantries, which have experienced a significant increase in traffic. These services are especially valuable because community gardens help to increase access to fresh fruits and vegetables, which are rich in nutrients that support a healthy immune system.

**By increasing access to fresh fruits and vegetables, community gardens help to confront public health disparities caused by racial and socioeconomic injustice.** Historically marginalized Black and Latinx communities often have limited access to fresh food, resulting in the increased incidence of diet-related health problems. As COVID-19 spread through New York City this spring, these communities experienced some of the highest rates of infection and death. Ninety percent of Bronx residents who died from COVID-19 had at least one underlying health condition tied to poor diet, such as diabetes, high blood pressure, and obesity. Community gardens help to combat public health disparities by expanding access to fresh fruits and vegetables, providing educational programming to share information about nutritious cooking, and promoting physical activity through gardening.



**Community gardens are a community-led response to environmental racism, helping to mitigate disproportionate air pollution and reduce susceptibility to COVID-19.** In New York City, Black and Latinx residents are more likely to live near highways, power plants, and other polluting infrastructure. As a result, these communities suffer higher rates of respiratory diseases, such as asthma, which increase susceptibility to severe illness and death from COVID-19. In fact, race and socioeconomic status are two of the most significant factors in predicting who succumbs to COVID-19. Community gardens help to mitigate air pollution by cultivating trees and other plants that filter particulate pollution from the air.

**Community gardens help to correct unequal access to greenspace across New York City.** Unequal access to greenspace trends along socioeconomic and racial lines, with lower-income communities having less access. Scientific research shows that accessing and viewing nature can alleviate stress and improve mental health. As the COVID-19 pandemic led to the closure of playgrounds and the overcrowding of large parks across the City, community gardens continued to provide an essential link to the outdoors in under-resourced neighborhoods, offering residents an important opportunity to interact with nature.

The transformative power and vital importance of community gardens, underscored by the COVID-19 pandemic, demonstrate that the gardens deserve protection. Despite the critical values that community gardens provide—at virtually no cost to taxpayers—these gardens remain vulnerable to destruction. Too often, community gardeners invest decades in working to strengthen their communities with scant assurance that their efforts will be acknowledged by government decision-makers or developers.

To achieve lasting protection for community gardens, the fifty-four organizations listed below are pleased to submit this Petition to government agencies with jurisdiction over forty representative community gardens, requesting that they designate those gardens as Critical Environmental Areas (CEAs) under the State Environmental Quality Review Act and take additional action, in consultation with community gardeners, to achieve CEA status for all City-owned community gardens. By protecting community gardens, New York City can help to ensure that gardens continue to strengthen and transform neighborhoods for decades to come.

Pleasant Village  
Community Garden.  
Photo by Sorangel  
Liriano





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Photo by  
Jeenah Moon

Growing up in the Dominican Republic, I was always climbing trees and picking their fruits, watering our garden plants, walking barefoot on the grass, and joining my grandpa at his *conuco*, or small farm plot. New York City's community gardens are these pockets of freedom reminiscent of my childhood. They are green spaces of abundant opportunity for all New Yorkers, and they deserve protection.

Sorangel Liriano



Photo by  
Jeenah Moon

What makes New York City's community gardens so special is that each garden is a unique embodiment of its neighborhood, its gardeners, and the current moment. While City parks exist from year-to-year relatively unchanged, community gardens are living, breathing greenspaces that adapt to community needs. Such dynamic greenspaces are essential in our built urban environment.

Ashley Gregor



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**If governments realized the importance of investing in community gardens, scaling localized urban food systems, and spreading sustainability education, we could cultivate unified communities, initiate green job platforms, and put ourselves on track to achieve equitable urban well-being for all.**

Samuel S. T. Pressman



*Photo by  
Jeenah Moon*

**What I've seen is that community gardens are sacred spaces for healing—healing the decades of racialized systemic inequality, healing our relationship with the land, and healing our relationships with one another. Each community garden is an act of love.**

Erica Asinas



*Photo by  
Nate Pallmer*

**Community gardens represent a safe space that is really important in creating a just city. It is crucial to protect greenspace in the City for ecosystem services as well as for mental health.**

Işıl Akgül

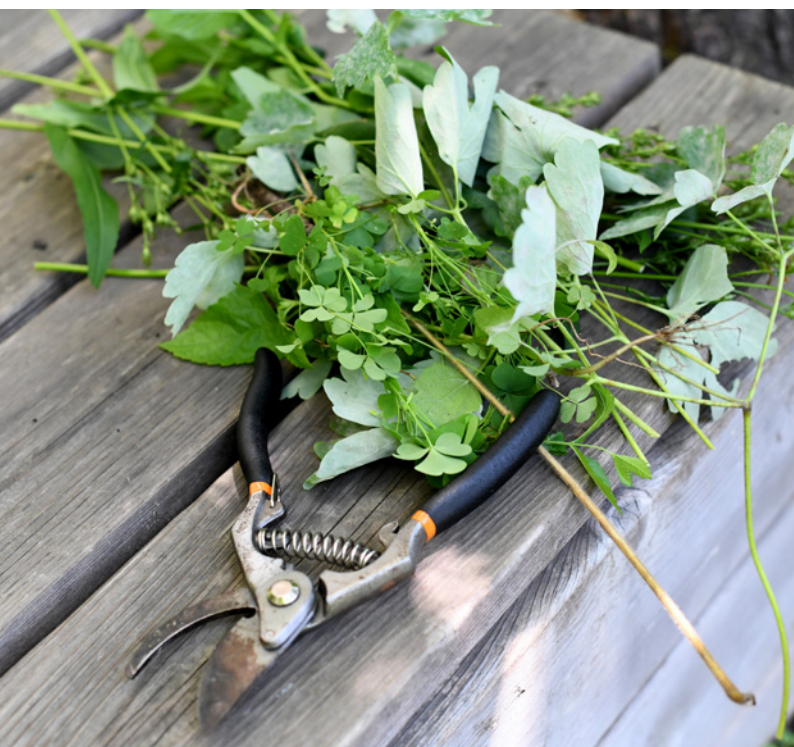


*Photo by  
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## EXECUTIVE SUMMARY

New York City's over 550 community gardens are greenspaces designed and maintained by City residents, making them uniquely adaptable to community needs. Most are located on City-owned property, while over 100 are located on privately-owned property, including property owned by land trusts. In neighborhoods underserved by public parks, community gardens offer open space, greenery, and the joy and solace of community-cultivated natural settings. In neighborhoods with little access to fresh fruits and vegetables, community gardens provide nutritious food and opportunities to teach and learn about healthful eating. Across the City, community gardens foster civic engagement and reflect the social and cultural values of their neighborhoods and gardeners. Community gardens also contribute significantly to New York City's sustainability efforts, providing ecosystem services such as flood mitigation, air filtration, heat reduction, and vital habitat for pollinators.



Know Waste Lands Community Garden. Photo by Sorangel Liriano

### **Community gardens have been neighborhood assets for decades, but today, many struggle to survive in the face of competing land interests.<sup>1</sup>**

In fact, community gardens have few legal protections. Until recently, the Department of City Planning classified gardens as vacant lots, and a 2002 Memorandum of Agreement protecting hundreds of gardens from development has lapsed.<sup>2</sup> Even now, despite their reclassification as open spaces, community gardens remain vulnerable to development and other threats. Not only that, but the 2019 licensing agreement between community gardeners and the Department of Parks and Recreation places onerous financial burdens on gardeners, which could force hundreds of gardens to close or relocate.<sup>3</sup> To preserve community gardens and recognize the contributions of gardeners to their communities, Earthjustice and the New York City Community Garden Coalition (NYCCGC) submit this Petition, together with fifty-two groups (Petitioners), requesting that New York City agencies designate forty community gardens, listed below, as Critical Environmental Areas (CEAs) under the New York State Environmental Quality Review Act (SEQRA) and take additional steps, in consultation with gardeners, to achieve CEA designation for all City-owned community gardens.<sup>4</sup>

SEQRA regulations authorize agencies to designate specific areas as CEAs if they exhibit at least one of the following characteristics: (1) a benefit to human health; (2) a natural setting; (3) agricultural, social, cultural, historic, recreational, or educational values; or (4) ecological or hydrological values that may be negatively affected by disturbances.<sup>5</sup> As the research and personal narratives set forth in this Petition make clear, each of the forty gardens satisfies all four criteria, and these four critical values are almost certainly present at other community gardens across the City. Accordingly,



Know Waste Lands Community Garden. Photo by Sorangel Liriano

the forty gardens in this Petition merit CEA status without delay, and we urge agencies to take prompt action to grant CEA designation for all City-owned community gardens.

**First, community gardens enhance human health by improving air quality, physical health, and mental health.** At community gardens across the City, trees and plants filter particulate pollution from the air and mitigate summer heat; fresh produce cultivated in the gardens benefits physical health and provides opportunities for gardeners to share healthful eating

habits; and open space provides room for movement, reflection, and uncrowded gatherings. For instance, in The West Bronx, the Garden of Happiness helps to improve air quality and public health in an area where vehicular air pollution is nearly 300 percent higher than the State average. As one gardener explains, this garden acts as “the lungs of the City.” In Queens, enterprising teenagers run the Rockaway Youth Task Force Urban Farm, educating young people about the value of a healthful diet and providing fresh fruits and vegetables to neighborhood residents who otherwise lack easy access to nutritious food.



**Second, community gardens provide natural settings. All community gardens have trees or plants, and many are located in areas significantly underserved by parks or other natural settings.**

For example, at the Joseph Daniel Wilson Memorial Garden in Harlem, which is about one-half mile from Central Park, gardeners have an open-gate policy, welcoming visitors into their verdant garden for a brief respite from the urban environment.

**Third, community gardens foster cultural and social values and provide opportunities for urban agriculture, recreation, and education.** As centers for community engagement, community gardens reflect and enhance neighborhood cultures; give people the chance to cultivate relationships and learn something new; offer plots for urban agriculture; and provide recreational space. In addition, many gardens offer creative solutions to community needs. For instance, Brook Park in The South Bronx is home to a community-based Alternatives-to-Incarceration Program that offers rehabilitation through community gardening for young people who have come into contact with the criminal justice system. The program builds social skills, offers educational opportunities, and boasts significantly lower recidivism rates for participants compared to other programs.

**Finally, the gardens support urban ecosystems and bolster the City's hydrological resilience, which is especially important as climate change strains the City's aging infrastructure.** For example, community gardens provide ecological benefits, as they grow and support native plant species and provide habitat for pollinators and other urban wildlife. In addition, forty-six community gardens on the Lower East Side of Manhattan are implementing sustainable infrastructure, such as rain-collection systems and additional pervious surfaces, to bolster the neighborhood's ability to cope with extreme weather events caused by climate change. Through this initiative, funded by a \$2 million grant from the New York State Governor's Office of Storm Recovery, gardeners are enhancing their gardens' ability to absorb runoff, thereby mitigating sewer overflow



*Garden of Happiness. Photo by Sorangel Liriano*

pollution to nearby estuaries and waterways. These efforts contribute to the City's hydrological health and reduce stress on the sewer system.

Although City agencies sometimes act to preserve the important values of community gardens when approving nearby or on-site development, their preservation efforts have been inconsistent. CEA designation will help to ensure that projects and activities likely to affect gardens are subject to consistent and rigorous environmental review that accounts for the gardens' exceptional characteristics and provides ample opportunities for public participation. Thus, CEA designation of community gardens represents a significant step toward preserving community gardens as critical parts of the City's landscape and giving community gardeners a meaningful—and necessary—voice in the decision-making process for projects that may affect gardens.



Rockaway Youth Task Force Urban Farm. Photo by Jeenah Moon

Thus, to achieve protection for City-owned community gardens, the undersigned Petitioners request that:

- (1) City agencies with jurisdiction over the forty community gardens listed below designate those gardens as CEAs under SEQRA within six months following the submission of this Petition, or by May 18, 2021;
- (2) Within twelve months following the submission of this Petition, or by November 18, 2021, the Department of Parks and Recreation's GreenThumb Program conduct an assessment of all remaining community gardens on City-owned land and confirm, in consultation with community gardeners, that these gardens meet the regulatory criteria for CEA designation; and
- (3) Within twelve months following the submission of this Petition, or by November 18, 2021, City agencies designate as CEAs all City-owned gardens within their respective jurisdictions that meet the regulatory criteria for CEA designation, based on GreenThumb's assessment.

In satisfying these requests, City agencies must analyze the values of community gardens in consultation and coordination with community gardeners. Following the submission of this Petition, Petitioners will continue to work with community gardeners to catalogue garden characteristics that satisfy the regulatory criteria for CEA status and to ensure the City's continued engagement.

Petitioners contend that all City-owned community gardens meet the regulatory criteria for CEA designation and deserve enhanced protection through CEA status. The forty gardens specifically identified in this Petition encompass a broad geographic, cultural, and demographic scope, making them representative of the greater constituency of community gardens across the City. Indeed, as recently recognized by New York City Council, community gardens as a whole are "key neighborhood assets in terms of food, education, community development, environmental protection, and improved health and quality of life."<sup>6</sup> It is time for the City of New York to ensure that community gardens receive the protection and consideration that they deserve. Current and future generations of New Yorkers will benefit.



# PETITIONERS

Petitioners are a broad coalition of non-profit organizations, community advocacy groups, and local enterprises, collectively representing the interests of tens of thousands of New Yorkers, with the common goal of preserving New York City's community gardens.

Many Petitioners have been active supporters of community gardens for decades, spearheading the community garden movement in the 1970s and mobilizing to protect community gardens from destruction in the 1990s. Other Petitioners are newer advocates for community gardens, spurred by their commitments to the critical values gardens provide. For instance, Petitioners dedicated to food equity support gardens because urban agriculture offers fresh, nutritious foods in under-resourced neighborhoods with little access to fresh fruits and vegetables. In addition, Petitioners committed to environmental and racial justice recognize that community gardens help to alleviate disproportionate environmental burdens borne by Black and Latinx communities, such as increased exposure to particulate air pollution. Petitioners devoted to slowing climate change appreciate that community gardens help to mitigate its negative consequences, including flooding and extreme heat. And Petitioners that support environmental conservation recognize community gardens as essential greenspaces in our urban environment that not only afford community members access to nature, but also provide habitat for native plant species, pollinators, and other wildlife.

Through this powerful coalition, Petitioners demonstrate that community gardens are important assets for a wide range of New Yorkers with different advocacy interests. Together, Petitioners contend that New York City's community gardens are worthy of protection through Critical Environmental Area designation.



Harlem Grown. Photo by Sorangel Liriano



350Brooklyn  
350NYC  
Banana Kelly Community Improvement Association  
BK ROT  
Brighter Green  
Bronx Climate Justice North  
Bronx Culture Collective  
Bronx Health REACH  
City Lore  
Community Food Advocates  
Concrete Safaris  
Cooperative Economics Alliance of New York City  
(CEANYC)  
CUNY Urban Food Policy Institute  
Design Trust for Public Space  
DIVAS for Social Justice  
Earth Celebrations  
Earthjustice  
East New York Farms!  
El Sol Brillante  
Food Chain Workers Alliance  
GOH Productions  
Green Guerillas  
GreenLatinos  
Justice For Families  
Latino Outdoors  
Laurie M. Tisch Center for Food, Education & Policy,  
Teachers College, Columbia University  
Lenox Hill Neighborhood House

Lower East Side Ecology Center  
LUNGS (Loisaida United Neighborhood Gardens)  
Manhattan Land Trust (MLT)  
Micro Food Hub  
New York City Community Garden Coalition  
New York City Environmental Justice Alliance  
(NYC- EJA)  
New York Lawyers for the Public Interest (NYLPI)  
North Bronx Racial Justice  
OSS Project  
Project Harmony, Inc.  
Rockaway Youth Taskforce  
Samuel's Food Gardens  
Small Axe Peppers  
The Brotherhood/Sister Sol  
The Brownsville Partnership, Inc.  
The Climate Reality Project NYC  
The Land and Sea Institute  
The Nature Conservancy  
The People's Climate Movement - New York (PCMNY)  
The Trust for Public Land  
Two Boots  
United Confederation of Taíno People  
UPROSE  
WE ACT for Environmental Justice  
We Stay/Nos Quedamos, CDC  
WhyHunger  
World Animal Protection







## FACTUAL BACKGROUND

### **Community gardens have been bedrocks of New York City's most resilient neighborhoods**

**for decades.** Generations of New Yorkers have built and maintained community gardens, nurturing the benefits and values that gardens continue to provide today. With few legal protections, however, community gardens remain vulnerable to outside threats. This lack of protection is particularly concerning at a time when City Council has recognized the social, public health, and environmental benefits of community gardens, and the gardens are helping the City to achieve its environmental, planning, and waste management goals. Numerous recent studies also make clear that gardens provide tangible benefits to their neighborhoods and the City as a whole.

### **A. BEGINNINGS OF THE COMMUNITY GARDEN MOVEMENT**

Although urban agriculture has a long history in New York City, the modern community garden movement emerged out of the fiscal crisis of the 1970s, when the City was on the verge of bankruptcy.<sup>7</sup> At that time, decreased tax revenues, deindustrialization, and widespread relocation to the suburbs led to an increased number of vacant lots across the five boroughs. In 1977, there were over 25,000 vacant lots in New York City; by contrast, there are only about 8,400 vacant lots in the City today.<sup>8</sup> **Amidst this crisis, New Yorkers took it upon themselves to transform vacant lots into productive greenspaces that would strengthen communities.**

The Green Guerrillas, an activist group on the Lower East Side of Manhattan, helped to spearhead the modern community garden movement in the 1970s. At first, the group threw “seed bombs” packed with seeds, fertilizers, and water over the fences of vacant lots. Soon, however, they began taking a more hands-on approach by removing trash, adding topsoil, installing fencing, and planting vegetable beds.<sup>9</sup> Together with neighborhood volunteers, Green Guerillas co-founder Liz Christy created New York City's first officially recognized community garden by transforming a blighted corner of Houston Street and the Bowery into a welcoming natural setting.<sup>10</sup> As Bill Brunson, an early member of the Green Guerillas, recalls, “You could not have picked a more unlikely place to start a garden. . . . To put a garden there—in what was probably the ultimate slime spot in the city—that was unheard of.”<sup>11</sup>



Liz Christy Community Garden. Photos by Donald Loggins

**We didn't expect that the garden would create such a movement throughout the City. The New York Daily News wrote a story about us, and people from across the City—Brooklyn, Manhattan, Queens—reached out for advice because it seemed unthinkable. We told them, "Listen, we did it here. You can do it!" So the garden served as a template for other community gardens.**

Donald Loggins, 69, Original Gardener, Liz Christy Community Garden



*Photo by Jeenah Moon*

According to Donald Loggins, 69, who helped to establish the garden with Christy and still runs the garden today:

Liz lived near the garden, and one day she was walking by and saw some kids playing in an old refrigerator there. They were pretending it was a boat. Liz asked the mother, "Why don't you clean it up and make it a place where the kids can really play?" The mother said, "I'm really busy. I have my kids. I can't do it. Why don't you and your friends do it?" And Liz said, "Okay!" That's how the first community garden started.<sup>12</sup>

As Donald explains, the garden immediately began to transform the neighborhood: "Once the garden was built, from the very beginning, mothers would bring their babies in baby carriages, just to walk around the greenspace, and the children could play in the garden."

*Liz Christy, Liz Christy Community Garden.  
Photo by Donald Loggins*

Although neighbors embraced the new garden, City officials initially accused the Green Guerillas of trespassing and threatened to remove them from the lot. In response, the Green Guerillas coordinated a successful media campaign to garner public support. As journalist Sarah Ferguson explains, "Christy and her compadres brought in TV cameras to show how they transformed the lot—creating soil with nothing but sifted rubble and compost."<sup>13</sup> The media blitz put public pressure on the City to preserve the garden.<sup>14</sup> As a result, in 1974, the City relented and granted a one-dollar-per-month lease for New York City's first officially recognized community garden, then known as the Bowery Houston Community Farm and Garden.<sup>15</sup> In 1986, the garden was







Liz Christy, Liz Christy Community Garden.  
Photo by Donald Loggins

re-dedicated as the Liz Christy Community Garden, in memory of its founder.<sup>16</sup> Today, the Liz Christy Community Garden is included on the National Register of Historic Places as part of The Bowery Historic District.<sup>17</sup> Through this designation, the National Park Service has recognized the Liz Christy Community Garden as “a significant reminder of the vibrant community that grew out of the economically challenged and blighted East Village in the 1970s.”<sup>18</sup>

The beautification effort of the Green Guerillas led to a new groundswell of community garden development across New York City. While gardeners initially faced bureaucratic obstacles to creating gardens, such as tracking down landowners and navigating a web of City agencies,<sup>19</sup> it did not take long for the City to realize the benefits of granting leases to community members eager to revitalize dilapidated lots. In 1978, the City launched Operation GreenThumb (now the GreenThumb Program) to grant leases and provide coordination and assistance for community gardeners on City-owned vacant land.<sup>20</sup> Early gardens often operated under token leases of just one dollar per year, but as gardens flourished throughout the 1980s, GreenThumb introduced long-term leases, creating a formal partnership between community gardeners and the City.<sup>21</sup>

As Mayor Ed Koch, who served as Mayor of New York City from 1978 to 1989 and encouraged the growth of community gardens, recognized, **“When the City was struggling to come out of its terrible financial condition, community gardeners offered their services. . . . [Community gardens] have become absolutely necessary and add back to the value of a whole neighborhood.”**<sup>22</sup>



## B. THREATS TO COMMUNITY GARDENS AND THE 2002 AGREEMENT

During New York City's economic and political tumult in the 1970s and 1980s, community gardens emerged as safe, verdant oases, offering space for urban agriculture, community organizing, and recreation in what were often marginalized and under-resourced communities. Throughout the 1990s, however, tensions emerged between government officials and community gardeners, as the City sought to sell many lots to residential and commercial developers. In 1995, GreenThumb ended its long-term lease program, replacing it with individual licensing agreements that stripped away much of the gardens' autonomy.<sup>23</sup> One year later, the City demolished seventeen gardens in Harlem and six in Bushwick to make way for public housing.<sup>24</sup> While acknowledging the pressing need for public housing, community gardeners felt that they were being targeted; in the late 1990s, the City possessed some 11,000 vacant lots that were open to development.<sup>25</sup>

In May 1998, then-Mayor Rudolph Giuliani put into motion a series of policy changes that set the stage for a standoff between the City and community gardens. Mayor Giuliani transferred ownership of many community gardens from the New York City Department of Parks and Recreation to the Department of Housing Preservation and Development.<sup>26</sup> That same year, the City's Office of Management and Budget directed the Department of Housing Preservation and Development and other agencies to "dispose of properties in their inventories, through either development or auction."<sup>27</sup> In 1999, then-New York State Attorney General Eliot Spitzer challenged the City's decision to put over 100 community gardens up for public auction. Attorney General Spitzer argued that the City skirted its responsibility to review the environmental impact of developing the lots under SEQRA and other New York State laws. The New York State Supreme Court in Brooklyn enjoined the City's auction, preventing the sale of these gardens.<sup>28</sup> The City appealed the ruling, but the injunction remained in effect through the remainder of the Giuliani administration.<sup>29</sup>

As the court battle wore on, a group of community gardeners set up an encampment in El Jardín de la Esperanza in the East Village to protest the City's actions.<sup>30</sup> After two months, the protesters were arrested, and the garden was razed.<sup>31</sup> At the same time, The Trust for Public Land, New York Restoration Project, and other like-minded non-profits rallied to save gardens from destruction by placing them in private ownership. The Trust for Public Land purchased and saved sixty-nine gardens,<sup>32</sup> and New York Restoration Project helped to save fifty-two community gardens throughout the five boroughs, which they still own and manage today.<sup>33</sup>

The longstanding tension between the City, the State, and community gardeners came to a temporary resolution in September 2002, when then-New York

Liz Christy  
Community Garden.  
Photo by Jeelah Moon



City Mayor Michael Bloomberg and Attorney General Spitzer negotiated a Memorandum of Agreement to preserve some 400 gardens, transferring most to the New York City Department of Parks and Recreation, while classifying 110 gardens as subject to development for affordable housing, pending environmental review.<sup>34</sup> However, the 2002 Agreement expired after eight years, leaving hundreds of gardens vulnerable to development.<sup>35</sup>

### **C. NEW YORK CITY'S COMMUNITY GARDENS TODAY**

There are now over 550 GreenThumb community gardens across the five boroughs. Of these, more than 300 gardens fall under the jurisdiction of the New York City Department of Parks and Recreation, while a few dozen fall under the jurisdiction of the Department of Housing Preservation and Development, the Department of Transportation, and other City agencies.<sup>36</sup> There are also over 100 privately-owned community gardens that remain in public use.<sup>37</sup> All community gardens are run by local volunteers, with the assistance of the GreenThumb Program.

GreenThumb is now the nation's largest urban gardening program and provides support to 20,000 garden members throughout the five boroughs.<sup>38</sup> GreenThumb provides programming and material support to gardeners, including workshops on advanced farming and community organizing techniques.<sup>39</sup> Gardeners, in turn, provide their neighbors with important community resources, as they cultivate greenspaces that offer social, cultural, environmental, and health benefits, among others.

### **D. COMMUNITY GARDENS AS CRITICAL CONTRIBUTORS TO THE CITY'S PLANNING, WASTE MANAGEMENT, AND SUSTAINABILITY GOALS**

Community gardens are essential to the achievement of New York City's planning, waste management, and climate-related sustainability goals. One of the City's key planning goals is the provision of 2.5 acres of total open space per 1,000 residents.<sup>40</sup> In many areas of the City where this goal remains unmet, community gardens serve as valuable open spaces that help the City to approach its goal. For example, Elizabeth Street Garden is located in Manhattan Community Board 2, where there are only 0.58 acres of open space per 1,000 residents.<sup>41</sup> Thus, for Manhattan Community Board 2, which encompasses Little Italy, SoHo, Greenwich Village, West Village, South Village, NoHo, NoLiTa, and a portion of Chinatown, this community garden is indispensable to achieving the City's planning goal.

**Community gardens contribute to the City's efforts to implement its ambitious Zero Waste initiative.** Announced in 2015, the Zero Waste initiative aims to reduce the amount of waste New York City sends to landfills by ninety percent by 2030, in part through composting food scraps.<sup>42</sup> In 2018, however, only five percent, or about 43,000 tons, of food waste produced in the City was diverted from landfills to composting through the initiative.<sup>43</sup> Composting programs in community gardens can help to bridge this gap. In 2018, for example, BK Rot at Know Waste Lands Community Garden in Bushwick moved seventy tons of food waste through its garden-based composting system. If this success were expanded





Know Waste Lands  
Community Garden.  
Photo by Jeelah Moon

and replicated at more community gardens, it would contribute significantly to the City's waste reduction goals, especially because the City has suspended its own composting program indefinitely due to budget shortfalls during the COVID-19 pandemic.

**Community gardens also help New York City advance its climate-related sustainability goals by alleviating both urban heat and street flooding.** For instance, the City has committed \$82 million through 2021 to plant trees to mitigate summer heat. Community gardens naturally enhance the City's tree-planting initiative, as they already provide ample tree cover and lush greenery, resulting in a cooler environment.<sup>44</sup> In addition, as part of its Green Infrastructure Plan, New York City's Department of Environmental Protection (DEP) intends to achieve a ten percent reduction in stormwater runoff by 2030 by reducing the total impervious surface area of the City.<sup>45</sup> This goal would lessen the stormwater burden on wastewater treatment plants by an estimated 1.5 billion gallons of water per year. Community gardens already divert approximately 165 million gallons of water each year, eleven percent of the City's goal.<sup>46</sup>

State and local government officials recognized the flood mitigation value of community gardens after Hurricane Sandy inundated the Lower East Side with record-breaking storm surges in 2012.<sup>47</sup> As a result, the New York Governor's Office of Storm Recovery awarded a \$2 million grant to the NYCCGC to build and enhance sustainability and resiliency infrastructure in forty-six community gardens on the Lower East Side of Manhattan.<sup>48</sup> Through this grant and in collaboration with the Governor's Office of Storm Recovery, the NYCCGC developed the *Gardens Rising Lower East Side Community Gardens Green Infrastructure Feasibility Study* (Gardens Rising), which uses "design, engineering, and community engagement in order to address climate change adaptation in a vulnerable coastal community."<sup>49</sup> Gardens Rising's green infrastructure and resiliency strategies include rain capture systems and graded channeling to divert runoff. By implementing various resiliency strategies and evaluating their success, Gardens Rising "serve[s] as a model for a more sustainable New York City."<sup>50</sup>

**Community gardens also provide valuable ecosystem services.** A 2019 study by Raymond Figueroa, Jr., and Samuel S. T. Pressman of the Pratt Institute (2019 Pratt Institute Study), both of whom contributed significantly to the preparation of this Petition, quantified the socio-economic benefits of community gardens through ecosystem services metrics, local development statistics, and reductions to New York City’s energy and built infrastructure expenses.<sup>51</sup> The study focused on twenty-one gardens throughout the City—chosen based on the extent to which the gardens actively work to organize community-responsive programming—that represent a wide range of geographic distribution, demographic distribution, and community influence.<sup>52</sup> In total, the twenty-one gardens account for ten percent (10.3 acres) of the approximately 100 acres of GreenThumb gardens in the City.<sup>53</sup>

Working with Dr. Paul Mankiewicz of Gaia Technologies LLP, Raymond and Samuel assigned values to the gardens’ ecosystem services, including services such as water management, temperature regulation, carbon sequestration, air particulate filtration, pollination, and biodiversity generation, and to the gardens’ potential for food production and methane mitigation from landfills through composting.<sup>54</sup> These values are based on both the current number of raised gardening beds and the overall ecological layout of the twenty-one gardens. Raymond and Samuel concluded that these gardens alone divert approximately \$1,283,116 per year from the City’s overall energy and built infrastructure expenses, not including the gardens’ significant public health, cultural, and social benefits in these communities.<sup>55</sup> **At the citywide scale, GreenThumb’s 100 acres of community gardens divert a total of \$12,831,116 per year in built infrastructure and energy costs.** Consequently, by protecting community gardens through CEA designation, New York City can more efficiently scale ecosystem services and, as a result, reap tremendous economic benefits, reinforce community resiliency benefits, and achieve overall well-being for the City.



Brook Park. Photo by Sorangel Liriano



## E. CONTINUING THREATS TO AND GROWING PROTECTIONS FOR NEW YORK CITY'S COMMUNITY GARDENS

**Community gardens have few legal protections despite their demonstrable benefits.** The 2002 Memorandum of Agreement negotiated between the State and City officials has lapsed,<sup>56</sup> and the 2019 licensing agreement between GreenThumb and community gardens features changes that put approximately 100 community gardens in danger of closing.<sup>57</sup> Among other issues, the licensing agreement fails to provide liability coverage for gardeners, limits the number of fundraisers allowed per year, and requires a strict approval process for all events.<sup>58</sup> Because of onerous indemnification requirements, gardeners are forced to expend their meager funds to insure against injuries in the garden space, threatening the survival of the gardens.<sup>59</sup>

The City has taken some steps, however, to recognize the value of community gardens. Until recently, New York City classified community gardens as vacant lots. But in late 2019, Council Member Alicka Ampry-Samuel introduced a bill to require the Department of City Planning (City Planning) “to categorize community gardens as open space, outdoor recreation, a community garden, or other similar description” and prohibit City Planning from categorizing community gardens as “vacant land.”<sup>60</sup> At a hearing of the Committee on Economic Development in September 2019, Council Member Ampry-Samuel explained:

Currently, community gardens are designated as vacant lots, and we know they are not vacant. They are full of life and contribute to healthy living and outcomes and increase the life expectancies. . . . Community gardens directly contribute to air quality and overall good health. . . . [Community gardens] provide my mother and other seniors in my district with fresh fruits and vegetables that are not easily accessible in the district.<sup>61</sup>

In February 2020, the Committee on Economic Development released a report on the bill, recognizing both the value of all community gardens and the threats posed by competing land interests:

The City . . . needs equitable access to green spaces, including through urban agriculture. Urban agriculture in New York City includes a rich history of community gardens . . . . **Even after decades of existence, some community gardens still face struggles for survival against competing land interests.** Urban agriculture spaces are key neighborhood assets in terms of food, education, community development, environmental protection, and improved health and quality of life. They are also one important tool cities have in the fight against climate change and the myriad of public health concerns that follow rising temperatures, such as asthma attacks and heat-related illnesses.<sup>62</sup>

On February 27, 2020, City Council unanimously passed Council Member Ampry-Samuel's bill, indicating New York City's growing interest in preserving community gardens. The bill was signed into law on March 29, 2020.<sup>63</sup>

While City Council's action is an admirable first step, it is not enough to protect community gardens from development. Unlike CEA designation, the change in designation from vacant lots to open spaces does not ensure protections such as full environmental review of the adverse effects of nearby construction or other potentially damaging activities on community gardens; consideration of alternatives to potentially damaging activities; transparency in the decision-making process; or the opportunity for gardeners and others to provide input on potentially damaging activities.

Moreover, although New York City's community gardens are essential greenspaces, New York courts have been reluctant to extend the protections of the public trust doctrine to community gardens.<sup>64</sup> Under the public trust doctrine, the City cannot alienate parkland or use parkland "for an extended period for non-park purposes" without first obtaining approval from the State Legislature.<sup>65</sup> Land must be either expressly or impliedly dedicated as parkland to obtain this protection. The City, however, has not expressly designated community gardens as parks and, even though community gardens provide many of the same benefits as parkland, courts to date have declined to find implied dedication absent evidence of the City's "unequivocal intent to dedicate the . . . parcels for use as public parks."<sup>66</sup> Indeed, courts have seen the City's licensing mechanism for community gardens as "evidence that the City intended the uses to be temporary, with the parcels to remain under the City's control for possible alternative future uses."<sup>67</sup> Thus, because community gardens currently are not protected as parkland under the public trust doctrine, the City

may alienate community gardens without legislative approval, leaving the gardens susceptible to the City's discretionary actions, such as the approval of developments.

Christine Johnson, 54, Garden President of Pleasant Village Community Garden, confirms that, without legal protections, gardens are vulnerable to destruction:

Our garden is assigned to a developer, and we have been fighting to save it for years. It's exhausting. It has taken some of the joy away because you have to divide your energy between taking care of the garden—which is a lot of work, but it's wonderful work—and fighting—writing letters, Xeroxing papers, getting people to sign petitions, going to meetings, going to community boards, talking to City Council, talking to people to try

Christine Johnson,  
Pleasant Village  
Community Garden.  
Photo by Sorangel  
Liriano





to save the land. I wish they would just save this land. If they develop this land, it would be a disaster for the community. The people of this neighborhood need and appreciate the beauty of the garden.<sup>68</sup>

In downtown Manhattan, Elizabeth Street Garden also faces threats from developments. Joseph Reiver, 28, Executive Director of the garden, explains:

The City wants to build a mixed-use building on the garden, including 123 units of affordable housing, luxury retail, office space for the developer, and some open space that would be privately owned. At the garden, we don't think that something as vital as a community garden and as heavily used as Elizabeth Street Garden should ever be pitted against something that is equally needed in the City, such as affordable housing. The Community Board found an alternative site that the City could use—it's a gravel lot site, and they could build higher, which would allow them to build up to five times the amount of housing that they are proposing. Community greenspace should *never* be pitted against affordable housing; neither should come at the expense of the other.

Through the voices of gardeners and prevailing researchers, this Petition shows that City-owned community gardens warrant CEA designation under SEQRA. We encourage the City to preserve these community gardens by granting CEA status without delay.



Elizabeth Street Garden. Photo by Jeelah Moon

## LEGAL FRAMEWORK

In passing the State Environmental Quality Review Act, the New York State Legislature sought to compel “all agencies to conduct their affairs with an awareness that they are stewards of the air, water, land and living resources, and that they have an obligation to protect the environment for the use and enjoyment of this and all future generations.”<sup>69</sup> Accordingly, SEQRA establishes a process by which agencies must consider the environmental consequences of the actions they fund, approve, or directly undertake.

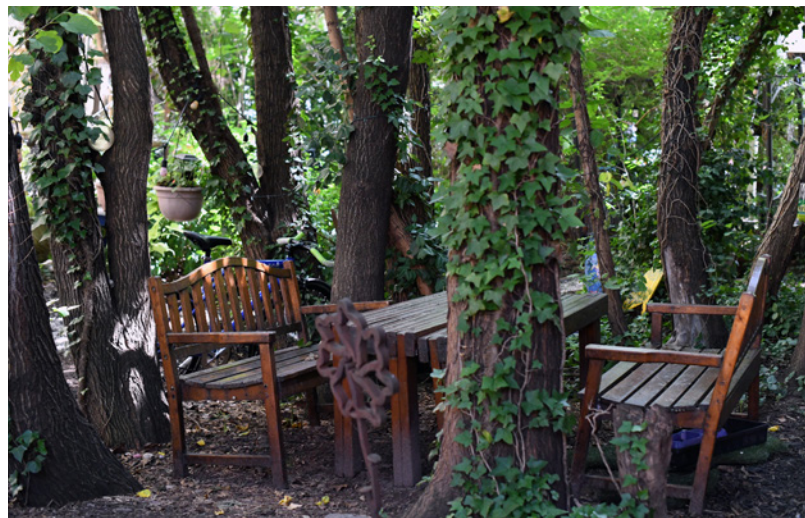
Through this process, each relevant agency must determine whether that action could have a “significant” impact on the environment.<sup>70</sup> If so, the agency must prepare an Environmental Impact Statement (EIS) detailing the environmental impact of the action, reasonable alternatives to the action, and any measures that would mitigate the action’s impact.<sup>71</sup> The agency must make the EIS available for public comment and provide an opportunity for a public hearing.<sup>72</sup> Ultimately, the agency may proceed with the action only if it “avoids or minimizes adverse environmental impacts to the maximum extent practicable,” when balanced with economic and social considerations raised in the decision-making process.<sup>73</sup>

SEQRA regulations authorize agencies to designate any specific geographical area with at least one exceptional or unique environmental characteristic as a “critical environmental area” (CEA).<sup>74</sup> To qualify for CEA designation, an area must offer or possess:

- (i) a benefit or threat to human health;
  - (ii) a natural setting (e.g., fish and wildlife habitat, forest and vegetation, open space and areas of important aesthetic or scenic quality);
  - (iii) agricultural, social, cultural, historic, archaeological, recreational, or educational values; or
- (i) an inherent ecological, geological or hydrological sensitivity to change that may be adversely affected by any change.<sup>75</sup>

Once an area achieves CEA status, agencies must evaluate the potential impact of certain actions on that area during SEQRA review.<sup>76</sup> An action that will impair the environmental characteristics of a CEA is more likely to require an EIS, meaning that members of the public would have an opportunity weigh in on that action and its effects by providing written comments or testifying at a public hearing. **Thus, CEA designation alerts agencies, businesses, and community members to the presence of important characteristics that could be threatened by construction and development, providing an opportunity to protect these characteristics before it is too late.**

The City of New York, through its agencies, may designate a CEA after public notice and a hearing.<sup>77</sup> Although the City must notify the New York State Department of Environmental Conservation (DEC) that particular areas have been designated as CEAs, DEC has no authority to deny or revoke CEA designations.<sup>78</sup> In this way, SEQRA honors local expertise in identifying areas of importance to local communities.



Joseph Daniel Wilson Memorial Garden. Photo by Sorangel Liriano



# REQUESTED ACTIONS

Pursuant to the New York City Administrative Procedure Act,<sup>79</sup> Petitioners hereby formally petition New York City, through its agencies and programs, to take the following three actions to implement greater protections for community gardens.

**First,** Petitioners request that, within six months following the submission of this Petition, or by May 18, 2021, the Department of Parks and Recreation (DPR), Department of Housing Preservation and Development (HPD), and Department of Education (DOE) designate the following forty community gardens located within their respective jurisdictions as Critical Environmental Areas.

**Second,** Petitioners request that, within twelve months following the submission of this Petition, or by November 18, 2021, GreenThumb conduct an assessment of community gardens on City-owned land and confirm, in consultation with community gardeners, that these gardens meet the regulatory criteria for CEA designation.

**Third,** Petitioners request that, within twelve months following the submission of this Petition, or by November 18, 2021, City agencies designate as CEAs all gardens within their respective jurisdictions that meet the regulatory criteria for CEA designation based on GreenThumb’s assessment. In designating CEAs, City agencies must analyze the values of community gardens in consultation and coordination with community gardeners. To assist in this consultation, Petitioners will continue to work with community gardeners to catalogue gardens that meet the regulatory criteria for CEA status.

Petitioners’ first request is limited to forty gardens because two recent studies clearly show that these gardens, in particular, satisfy the criteria for CEA



Frank White Memorial Garden. Photo by Sorangel Liriano

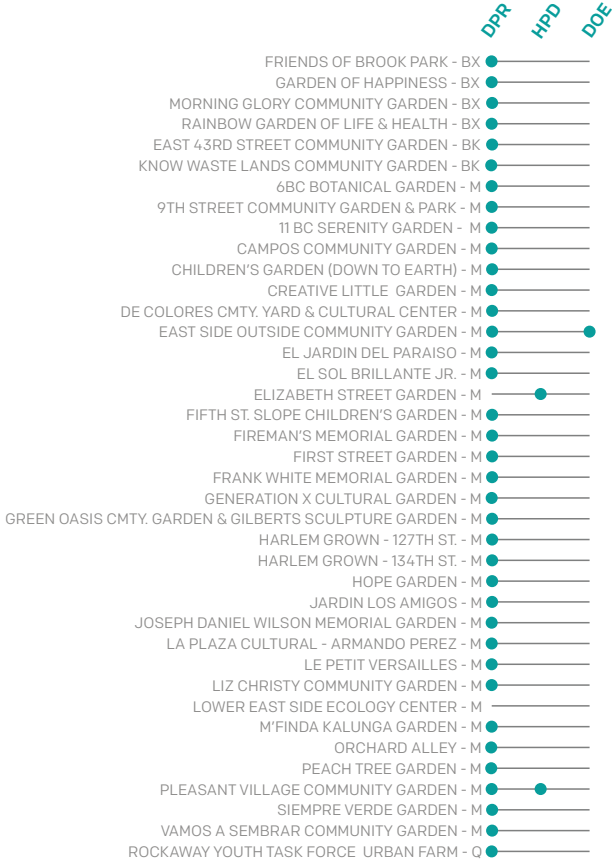


Figure 1. Community Garden Jurisdiction. Credit: Chabelli Rodríguez / Source: GreenThumb

designation. First, the 2019 Pratt Institute Study, discussed above, examined the socio-economic value and ecosystem services of twenty-one community gardens. Second, Gardens Rising by the NYCCGC and the Governor's Office of Storm Recovery described the green infrastructure resiliency efforts of forty-six gardens on the Lower East Side. By cataloguing and analyzing the gardens' characteristics, these two studies show that the gardens satisfy the criteria for CEA designation.

These forty community gardens span four boroughs and serve diverse communities. The gardens are representative of community gardens across the City. As explained more fully below, Petitioners contend that all City-owned community gardens readily satisfy the criteria for CEA status. Thus, we urge City agencies, in collaboration with GreenThumb and community gardeners, to work expeditiously to confirm all gardens' exceptional characteristics and grant CEA designation without delay. Community gardens warrant this special status.



Pleasant Village Community Garden. Photo by Jeenah Moon





Liz Christy Community Garden. Photo by Jeenah Moon



# THE FORTY COMMUNITY GARDENS IDENTIFIED IN THIS PETITION MEET ALL CRITERIA FOR CEA STATUS

The forty community gardens identified in this Petition satisfy each of the four criteria for CEA status. Specifically, the gardens exhibit: (1) benefits to human health; (2) natural settings; (3) agricultural, social, cultural, historic, recreational, and educational values; and (4) inherent ecological or hydrological sensitivities that may be adversely affected by any change.<sup>80</sup> Petitioners have included descriptions and maps of each garden as an appendix. Based on the scientific research and personal experiences summarized below, as well as Petitioners' own knowledge of community gardens across New York City, we are confident that all City-owned gardens satisfy the criteria for CEA status. We urge the City to take prompt action, in consultation with community gardeners, to confirm this conclusion and confer appropriate protections.

## A. COMMUNITY GARDENS BENEFIT HUMAN HEALTH

Scientific research and community gardeners' personal experiences clearly show that community gardens provide "a benefit . . . to human health."<sup>81</sup> *First*, community gardens enhance public health by improving air quality and mitigating the dangerous effects of climate change, including extreme summer heat. *Second*, community gardens promote physical health and nutrition by creating opportunities for gardeners to maintain their physical health, engage in physical activity, and increase their consumption of fresh fruits and vegetables. *Third*, community gardens offer mental health benefits by providing stress-reducing natural settings and places to garden. For these reasons, we urge the City to grant CEA status without delay.

### 1. COMMUNITY GARDENS ENHANCE PUBLIC HEALTH

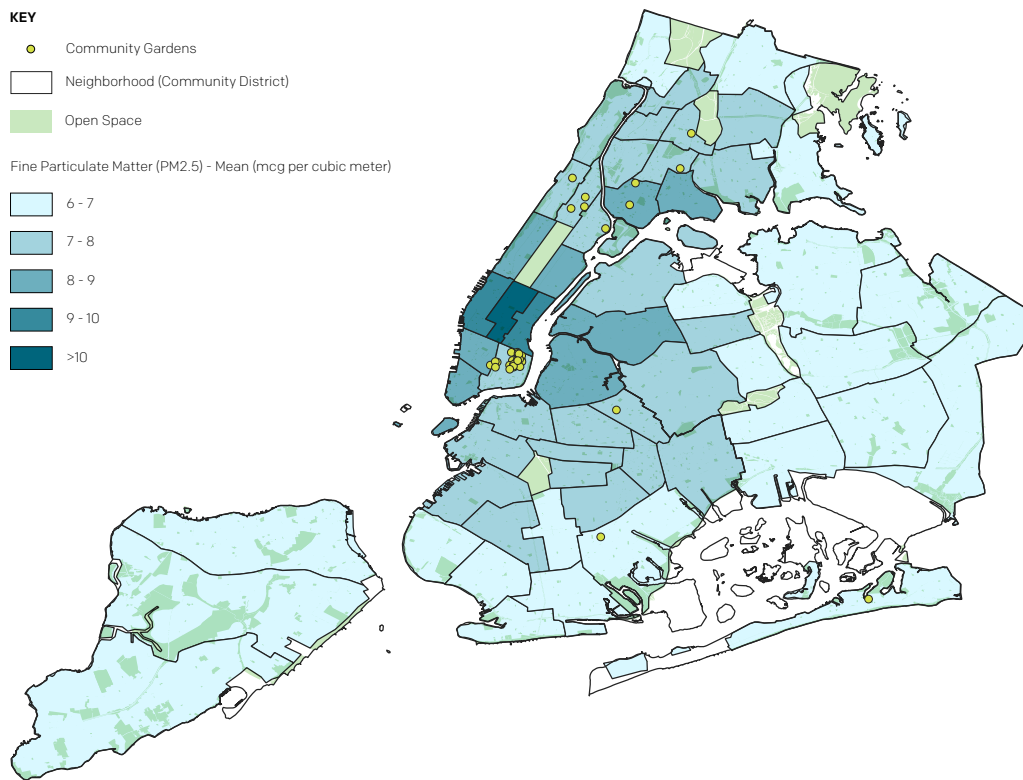
Community gardens benefit public health in a variety of ways, including by improving air quality and mitigating the effects of climate change. By supporting vegetation that filters particulate pollution from the air, **community gardens improve air quality**.<sup>82</sup> In New York City, exposure to particulate pollution from vehicles alone leads to an estimated 320 premature deaths each year,<sup>83</sup> and Black and Latinx communities often experience the greatest harm. For instance, in The West Bronx, where ninety-nine percent of the population identifies as Black or Latinx, levels of particulate pollution from cars and trucks are 270 percent higher than the State average.<sup>84</sup> Indeed, the New York City Department of Health and Mental Hygiene (Department of Health) identified some of the highest concentrations of particulate matter in the City in The Bronx.<sup>85</sup> The COVID-19 crisis cast the consequences of this disparate exposure in stark relief; The West Bronx experienced one of the highest rates of infection and death in New York City, in part because pre-existing respiratory diseases resulting from exposure to particulate pollution rendered residents especially vulnerable.<sup>86</sup>



Community gardens, such as the Garden of Happiness in The West Bronx, can help to mitigate public health risks stemming from particulate pollution because garden vegetation filters the air. Particulate pollution tends to deposit when passing close to a surface.<sup>87</sup> Because most plants, through flowers and leaves, have large surface areas relative to their volume, urban vegetation “increase[s] the probability of deposition compared with the smooth, manufactured surfaces present in urban areas.”<sup>88</sup> Thus, in overburdened areas like The West Bronx, community gardens, through their vegetation and lush greenery, can help to alleviate local air quality concerns. As Karen Washington, 66, an Activist and Original Gardener at the Garden of Happiness, explains: “We say the gardens are the lungs of the City.”



Above: Karen Washington, Garden of Happiness. Photo by Sorangel Liriano



Left: **Figure 2. Average Concentration of Particulate Matter in New York City Neighborhoods.**<sup>89</sup> Credit: Erica Asinas & Işıl Akgül / Source: N.Y.C. Dep't of Health

In addition to improving air quality, community gardens help to alleviate the negative health consequences of climate change, including the effects of exposure to extreme summer heat. According to a 2017 report, an average of thirteen people in New York City die each year from heat stroke, more than 100 die “from natural causes exacerbated by extreme heat,” and more than 450 make “heat-related emergency department visits.”<sup>90</sup> New York City experiences particularly high temperatures as a result of the “urban heat island effect,” a phenomenon



in which metropolitan areas become significantly warmer than surrounding, less developed areas because the built environment, which includes concrete, pavement, buildings, and other dark or impervious surfaces, retains heat much more readily than areas with tree cover and vegetation.<sup>91</sup> As climate change brings hotter summers, the urban heat island effect will only worsen, leading to higher incidences of heat-related illnesses and death.<sup>92</sup>

New York City has acknowledged that urban vegetation, such as that found in community gardens, helps to counteract the urban heat island effect and provide relief from high temperatures by creating shade and supporting evapotranspiration, a process through which water moves from a plant's roots to its leaves and evaporates, producing a cooling effect.<sup>93</sup> The City has committed \$82 million through 2021 to plant trees for heat reduction, a service that vegetation in community gardens already provides at virtually no cost to taxpayers.<sup>94</sup> **Indeed, the New York City Council Committee on Economic Development has recognized that community gardens, as public greenspaces, are "important tool[s] . . . in the fight against climate change and the myriad of public health concerns that follow rising temperatures."**<sup>95</sup>

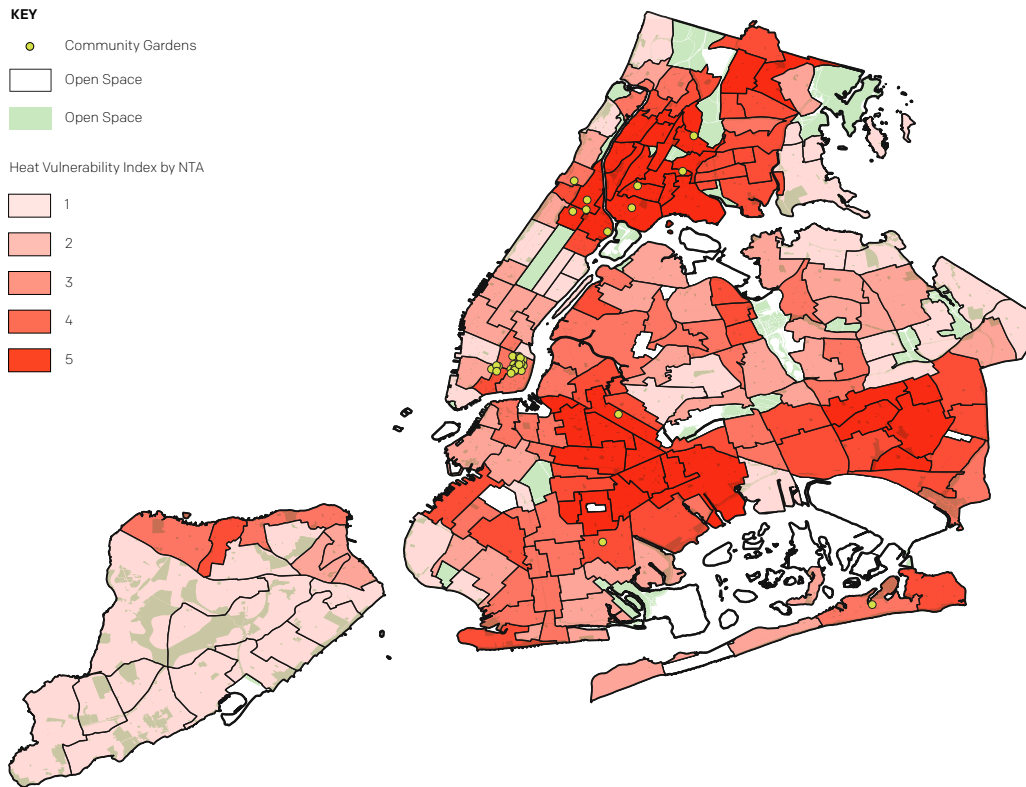
Community gardeners' personal experiences confirm that gardens provide necessary relief from rising temperatures. As Cindy Worley, 70, an Activist and Original Gardener with the Joseph Daniel Wilson Memorial Garden in Harlem, observed in July 2019, "The garden is a much cooler environment than the rest of the neighborhood. People come in to get off the hot street."



Liz Christy Community Garden. Photo by Jeenah Moon



Many of the community gardens specifically identified in this Petition are located in areas where residents are at heightened risk of heat-related illness or death, as shown by data from the New York City Department of Health. In 2018, the Department of Health assigned New York City neighborhoods a Heat Vulnerability Index (HVI) score from 1 (lowest risk of heat-related illness or death) to 5 (highest risk of heat-related illness or death), based on factors including the age and income of residents, the prevalence of home air conditioning, and access to greenspace. As shown in Figure 3, the Lower East Side and portions of The Bronx have high HVI scores. This Petition specifically identifies thirty-one community gardens in these neighborhoods, all of which help to mitigate residents' vulnerability to heat-related illnesses and death. Protecting these and other community gardens through CEA designation will help New Yorkers withstand the dangerous consequences of climate change.



**Figure 3. Heat Vulnerability Index Scores for New York City Neighborhoods.<sup>96</sup>**

*Credit: Erica Asinas & Işıl Akgül / Source: N.Y.C. Dep't of Health*

## 2. COMMUNITY GARDENS PROMOTE PHYSICAL HEALTH AND NUTRITION

**Not only do community gardens promote public health, but they also benefit community gardeners and their neighbors directly by helping gardeners maintain healthy body weights, providing opportunities for physical activity through gardening, and increasing access to fresh fruits and vegetables.** Multiple studies demonstrate that participation in a community garden helps to support healthy body weight and increased physical activity.<sup>97</sup> For instance, a study of 198 community gardeners in Salt Lake City found that these gardeners had much lower body mass indices (BMIs) than their neighbors, siblings, and spouses.<sup>98</sup> Other research examining the health of new community gardeners confirms that gardening has a significant positive effect on BMI, increases physical activity, and helps to reduce feelings

of fatigue.<sup>99</sup> In addition, adults who participate in community gardens are significantly more likely to consume fruits and vegetables, as are other members of their households.<sup>100</sup>

**Community gardens alleviate disproportionate access to fresh and nutritious foods.**

Many community gardens are located in so-called “food deserts,” areas that lack easy access to affordable, fresh, and nutritious food,<sup>101</sup> or “food swamps,” areas in which unhealthy foods dominate.<sup>102</sup>

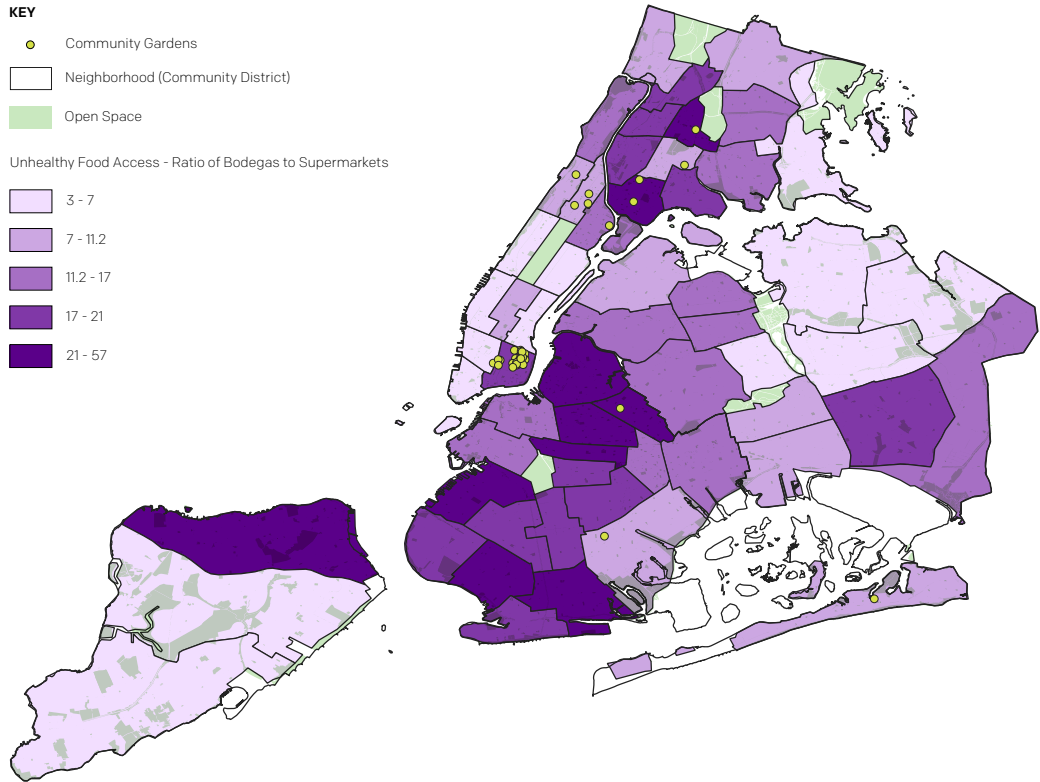
In 2016, the Department of Health calculated the ratio of bodegas to supermarkets in neighborhoods across New York City to assess local access to fresh foods.<sup>103</sup> A high ratio of bodegas to supermarkets indicates limited access to fresh foods. As shown in Figure 4, areas of The Bronx, the Lower East Side, and Brooklyn, where many of the gardens specifically identified in this Petition are concentrated, have relatively little access to fresh food. City Planning has designated these same areas as neighborhoods with a significant shortage of grocery stores providing fresh food, as shown in Figure 5.<sup>104</sup>

Community gardens can help to correct this imbalance. As Andrea Colon, 19, the Lead Organizer and Gardener with the Rockaway Youth Task Force Urban Farm, explains: “The Rockaways are a federally labeled food desert; we don’t have much access to healthy fresh foods. The garden has impacted me and my family because here we have access to it. It’s hard to eat healthy when there’s not that many options available to you.”<sup>105</sup>

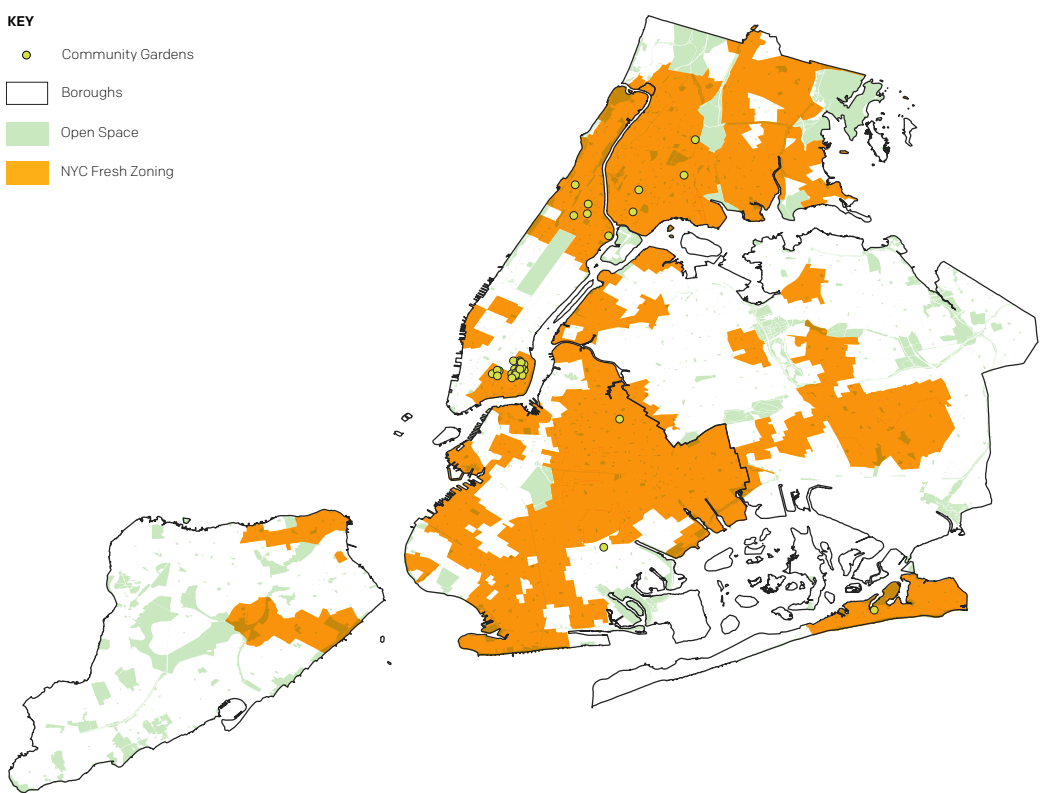


Left: Rockaway Youth Task Force Urban Farm. Photo by Sorangel Liriano; Right: Andrea Colon, Rockaway Youth Task Force Urban Farm. Photo by Sorangel Liriano





**Figure 4. Access to Fresh Food in New York City Neighborhoods.**<sup>106</sup>  
 Credit: Erica Asinas & Işıl Akgül / Source: N.Y.C. Dep't of Health



**Figure 5. New York City Food Retail Expansion to Support Health (FRESH) Zoning.**<sup>107</sup>  
 Credit: Erica Asinas & Işıl Akgül / Source: N.Y.C. Dep't of City Planning

**By promoting physical health and nutrition, community gardens, can help to reduce the incidence of diet-related diseases, such as obesity, diabetes, and heart disease, linked to increased susceptibility to COVID-19, serious health complications, and death.**

Adequate exercise and a diet rich in fresh, nutritious foods are essential for good health and a strong immune system, but under-resourced communities of color in New York City often have fewer opportunities to engage in outdoor exercise and consume fresh foods. In The Bronx, which has suffered the highest rate of COVID-19 deaths in New York City, roughly one in three adults is obese, and the relative scarcity of supermarkets and grocery stores makes it difficult for residents to change their diets.<sup>108</sup> This Petition specifically identifies four community gardens in The Bronx; these and other community gardens across the City help to increase New Yorkers' opportunities for outdoor exercise, improve access to nutritious foods, and reduce susceptibility to disease.

### 3. COMMUNITY GARDENS OFFER MENTAL HEALTH BENEFITS

**This garden is important for me because of the time in my life that the garden started. I'm an alcoholic and opiate addict, and I got sober basically right before the first garden meeting. I was looking for things to do in the community to distract myself from not drinking, and my friend suggested that I become a member of the garden. I started with the garden in early sobriety. The garden was a mess—it had needles in it, mattresses, cars, and garbage. As my sobriety has progressed and has become more solid and bloomed, the garden has also bloomed. It's very much a concrete metaphor for my life.**

Dan Gross, 35, Gardener, Know Waste Lands Community Garden<sup>109</sup>



Photo by Sorangel Liriano

By providing natural settings in an urban environment, New York City's community gardens help to promote mental health for gardeners and neighbors alike. Living in an urban environment correlates with heightened stress,<sup>110</sup> but short periods of time spent in natural settings can provide relief.<sup>111</sup> **Access to "nearby nature," such as community gardens, leads to "increased levels of satisfaction with one's home, one's job and with life in general."**<sup>112</sup> Community gardeners confirm that gardens help them cope with day-to-day stress. Celeste Leon, 30, District Manager for Brooklyn's Community Board 4 and Gardener at Know Waste Lands Community Garden in Bushwick, explains that, for her, the community garden is a place to let go and mentally reset:

There is something about being in nature and being in a space like this. There's a lot of stress that we may have depending on our circumstances, but when you come to the garden it's really about what's in front of you and why you're there. Sometimes it's just to sit and read a book, enjoy the space, if you happen to have free time. Everyone has their own way to unwind and recharge, and this garden is that for me.





Pleasant Village Community Garden. Photo by Jeelah Moon

Christine, President of the Pleasant Village Community Garden also finds that the garden offers stress relief:

When you walk in the garden, everything that is troublesome on the outside just disappears. We have our chickens, and all you have to do is look at our chickens waddle around and all of your cares just go away. This space is a garden—it is not a park, it is not a playground, it is really a place for peace. It's not frenetic. The garden allows us to get away, to unplug.<sup>113</sup>

**Not only does access to the natural settings found in community gardens offer mental health benefits, so too does gardening.** Gardening can increase life satisfaction, psychological well-being, and positive affect.<sup>114</sup> Increasingly, so-called “horticultural therapy” is used to treat depression, anxiety, and post-traumatic stress disorder.<sup>115</sup> Community gardening can also help to manage certain mental health ailments.<sup>116</sup> In fact, community gardening is associated with “enhanced health and well-being made possible not only through contact with nature, but through the social connection that arises from working on a common community task in a local natural area.”<sup>117</sup>

According to a multi-year study conducted by public health researchers in Philadelphia, the process of transforming vacant lots into community gardens also leads to improved mental health outcomes for gardeners and neighbors alike.<sup>118</sup> The study design mirrored the birth of New York City’s community garden movement in the 1970s: gardeners “greened” vacant lots by removing trash, grading the land, planting grass and trees,

installing a perimeter fence, and performing regular maintenance.<sup>119</sup> At the conclusion of the study, researchers found a significant decrease in self-reported feelings of depression and worthlessness among gardeners and neighbors.<sup>120</sup>

Community gardeners in New York City agree that gardening helps to reduce stress and promote mental health. As Raymond Figueroa, Jr., 57, President of the NYCCGC, Program Director at Brook Park Youth Farm’s Alternatives-to-Incarceration Program (ATI Program), and co-author of the 2019 Pratt Institute Study, explains:

Personally, Brook Park is a place where I can come and work very hard and be self-actualizing at the same time. And dare I say that I am not unique in that way. Anyone who comes into a place such as Brook Park feels they are able to take a breath and say, “Things are not so bad. At least I have a place to go to get my mind off of those things and refresh myself and be able to go back to those things with a renewed sense of energy.”

Karen at the Garden of Happiness puts it succinctly: “At the end of the day, this is why it’s called the Garden of Happiness—if you weren’t happy when you came in, you’re going to leave happy.”



Community gardens benefit human health by improving air quality, mitigating the dangerous effects of climate change, helping gardeners improve their physical health, enhancing access to fresh fruits and vegetables, and providing natural settings and places for gardening that support mental health. Thus, community gardens easily qualify for CEA status. We urge the City to work in consultation with community gardeners to confer this status.



Know Waste Lands  
Community Garden.  
Photo by Jeelah Moon





Liz Christy Community Garden. Photo by Jeenah Moon



## B. COMMUNITY GARDENS PROVIDE NATURAL SETTINGS

**Community gardens offer “natural setting[s]”<sup>121</sup> replete with trees, flowers, and vegetation that provide aesthetic enjoyment for gardeners and other community members.** Since sprouting throughout the City, community gardens have transformed the character of neighborhoods that were most affected by the City’s hardships in the 1970s and 1980s. Gardeners revitalized abandoned lots into scenic open spaces that continue to offer a respite from urban life. This benefit is particularly crucial in neighborhoods with little access to City parks or other greenery and for low-income residents who see the gardens as an accessible opportunity to experience nature. At community gardens, gardeners interact with nature in a more personal way, admiring and tending to the flowers that they planted, picking the fruits and vegetables that they grow each season, and catering to the birds, insects, and other wildlife that call the gardens home. Open greenspace has proved crucial during the COVID-19 pandemic, as it has given people the opportunity to enjoy the outdoors while maintaining social distancing. Accordingly, these natural settings, often in neighborhoods underserved by parks, deserve protection.



Photo by  
Sorangel Liriano

**There’s a necessity for greenspace, for open space in the community. Many people live in multiple-dwelling apartments that don’t have access to a backyard or a front yard. Community gardens are a gathering place for them to come.**

Hja Worley, 73, Original Gardener and Activist, Joseph Daniel Wilson Memorial Garden

**Community gardens provide important natural and aesthetic qualities that have helped transform the character of their entire neighborhoods, particularly those neighborhoods that historically lack greenspace.** Hja Worley, 73, an Original Gardener and Activist, explains that before he established the Joseph Daniel Wilson Memorial Garden in 1985, along with his partner Cindy and other neighbors, their community in Harlem was unattractive: “The buildings were mostly shells. The brownstones were all boarded up. It wasn’t an attractive community at that particular point.” But the community has changed significantly over the past thirty-five years, and Hja’s neighbors’ perception of the community has changed as well. According to Hja, that change “has a lot to do with the work that we were doing in the community garden.” **Through the garden’s natural setting, “people saw the possibilities of what the community could be.”**

Today, Cindy observes that visitors seem to be transported to another place when they step into the Joseph Daniel Wilson Memorial Garden: “A lot of people come by and say, ‘This doesn’t





Joseph Daniel Wilson  
Memorial Garden.  
Photo by Sorangel  
Liriano

feel like we're even in New York!' For years people have said that." Once visitors step through the garden's gates, they depart the busy streets and step into an idyllic, breezy grove of towering trees that cocoon the colorful flowers, blooming with the help of butterflies and bees.

Some community gardeners designed their gardens specifically to provide relief from the rigid grid of the City streets. According to Donald, Original Gardener at the Liz Christy Community Garden in Manhattan, "We wanted people to come and enjoy the scenery of the garden; we didn't want them to walk through quickly. That's why there are cul-de-sacs and all the paths are curved." Visitors to the Liz Christy Community Garden can enjoy the garden's unique greenery, like its Dawn Redwood tree, which Donald recalls planting decades ago: "Back when we started the garden, we planted a Dawn Redwood, which is now the tallest Dawn Redwood in the City. It's six stories high at this point!"

As Joseph, Executive Director of Elizabeth Street Garden, explains, the greenery provided by Elizabeth Street Garden is vital to the community, as it is one of the few truly natural settings in the neighborhood:

Elizabeth Street Garden provides greenspace in what is a very deprived area of the City. Little Italy and SoHo make up twenty-three percent of the population in Community Board 2, but we only have three percent of the Community Board's



open space—and that’s including parks that are predominantly paved. The park on Spring Street and Mulberry Street is a wonderful playground, but it’s predominantly paved, as is Petrosino Square. These areas are beautiful and they benefit the community in their own right, but they’re not open greenspace. They don’t have grass, nor do they have places where people can grow vegetables. It’s important to know the difference. Open space is vital to community health, but we also have to consider the *type* of open space that’s available.

**The natural settings that community gardens provide are especially significant for people living in low-income communities and communities of color.**

Access to natural settings is a traditional marker of privilege.<sup>122</sup> Low-income communities with large concentrations of Black and Latinx residents tend to have less access to natural settings than wealthier, predominantly White neighborhoods, even if those low-income communities of color are, in fact, located closer to parks, which may be paved or have limited greenery.<sup>123</sup> According to Raymond at Brook Park, community gardens help to correct this disparate access to greenspace by creating opportunities for low-income families to enjoy nature. As Raymond explains, in his community in The South Bronx:

Folks don’t have the discretionary income or the financial wherewithal to pack up their bags and take a vacation to the Hamptons or out to Yellowstone National Park. But what they can do is come out to their community garden. They can come and have a family celebration or have a family cookout. People appreciate that they have a place where they can go, that really reminds them of something else other than the four walls of their apartments and the concrete streets that they walk on daily.

Karen at the Garden of Happiness echoes this message:

This is our Central Park; this is our Hamptons; this is our Fire Island. Why don’t we deserve the same things that affluent people deserve? Why is it that only affluent people can have botanicals and gardens, flowers and trees? Why can’t people in low-income areas be afforded the same opportunity to have those things as well?



Top and bottom: Brook Park. Photos by Jeenah Moon



Celeste credits community gardens like Know Waste Lands Community Garden for offering accessible greenspace in Bushwick, a historically marginalized neighborhood underserved by public parks:

Bushwick right now is very limited. We're poor in parks. Poor in greenspace in general. Compared to the rest of the city, we're underserved. There's a huge part of the neighborhood that has no access to green space within a mile of where they live, so they would have to go out of their way to see more than the trees on the sidewalk. Community gardens help with that.

**Community gardens provide critical natural settings that are uniquely developed and shaped by members of the community.** Unlike City parks, community gardens are run by neighborhood volunteers, allowing people to interact with nature in a more tangible way and giving them a sense of freedom and ownership over the natural space. Jake Cuellar-Doran, 10, agrees that this characteristic sets the Pleasant Village Community Garden apart from other natural settings, such as his local parks: "My life would have been different without the garden because there's just buildings and parks, no place to dig. **In the garden, you can go everywhere. You can plant. You're free!**" At the garden, Jake helps with watering the trees, and he tends to his own garden plot where he digs for earthworms and plants his favorite flowers and vegetables.

Similarly, Marcos Pacheco, 56, a longtime resident of Bushwick and Gardener at Know Waste Lands Community Garden, recognizes that the garden has transformed his community's and his family's access to and interaction with nature. Before the garden's inception, he had to walk seven blocks to the nearest local park:

I've lived in this area for forty-five years, so I know how this place has changed since day one. Having the garden in front of my building is perfect, because we do not have other places like this. The garden is a place for me to stay with my children, a place to think about my wife who passed away. My wife used to say, "Why don't they make a park here, with so many empty lots, only with concrete and cars?" Now, we have plants, we have flowers, and we even have fruits to pick! We didn't have this before the garden.



Community gardens provide natural settings that offer relief from the urban environment, transform neighborhoods, help to correct unequal access to greenspace, and offer unparalleled opportunities to interact with nature. For these reasons, community gardens plainly qualify for CEA status. We urge the City to work in consultation with community gardeners to grant this status without delay.





Rockaway Youth Task Force Urban Farm. Photo by Jeenah Moon



### C. COMMUNITY GARDENS PROVIDE AGRICULTURAL, SOCIAL, CULTURAL, HISTORIC, RECREATIONAL, AND EDUCATIONAL VALUES

Community gardens satisfy the third, multifaceted criterion for CEA designation, as they provide six key values: “agricultural, social, cultural, historic, . . . recreational, [and] educational values.”<sup>124</sup> *First*, it is no surprise that community gardens—spearheaded by seed-throwing gardeners on the Lower East Side in the 1970s—provide agricultural values, giving gardeners the opportunity to grow and harvest their own fruits and vegetables. *Second*, community gardens support social values by bringing people together; in fact, many gardens employ an open-gate policy, so that community members can visit and develop social relationships with gardeners and one another. *Third*, because gardens were founded and are run by neighborhood volunteers, they reflect the cultural values of gardeners and their communities, allowing people of different backgrounds to come together in a common space. *Fourth*, having fostered community engagement for decades, community gardens also exhibit historic values, as evidenced by the memories and experiences of longstanding gardeners. *Fifth*, community gardens support recreational values by providing natural settings that gardeners, neighbors, and visitors can use for group activities, such as children’s storytelling, yoga, movie screenings, and cultural events. *Sixth*, the gardens support educational values by providing a space where community members can teach one another how to cook, garden, and engage in healthful eating habits, and by revitalizing interest in traditional gardening techniques, like composting.



Liz Christy Community Garden. Photo by Jeenah Moon

## 1. COMMUNITY GARDENS PROVIDE OPPORTUNITIES TO PARTICIPATE IN URBAN AGRICULTURE

**By providing spaces for urban agriculture, community gardens allow New Yorkers to grow their own fresh and nutritious food.** This opportunity has proved especially important for residents living in neighborhoods underserved by fresh food options. Some gardeners are even turning urban agriculture into flourishing business opportunities, as evidenced by *The Bronx Greenmarket Hot Sauce*, which is now sold at Whole Foods Markets across the City. Community gardeners are also at the forefront of innovative agricultural techniques, such



Photo by Sorangel Liriano

**At the garden, I water the plants, take care of my plot, and play with my friends. I plant tomatoes, kale, jalapeño, lettuce, mint, rosemary, strawberry, and lavender. It feels like the countryside. Without the garden, there wouldn't be any fresh greens to take home to eat. We wouldn't be able to look at the flowers that we planted.**

Jake Cuellar-Doran, 10, Gardener, Student, Pleasant Village Community Garden

as solar-powered hydroponic systems, and they are simultaneously revitalizing traditional gardening techniques, such as composting food scraps to rejuvenate the soil. This composting effort is helping the City work toward its waste reduction goals, which have faced a significant setback due to COVID-19. The agricultural values promoted by community gardens are myriad, and they warrant protection through CEA designation for gardens.

GreenThumb estimates that, in total, community gardens in New York City produce over 87,000 pounds of food every year.<sup>125</sup> The opportunity to grow food motivates community gardeners like Maximino Rivera, 69, Garden Coordinator, Activist, and Veteran, who gardens at the Rainbow Garden of Life and Health in The South Bronx, to participate in a community garden. Maximino describes his first time growing his very own food as an exciting experience:



Maximino Rivera, Rainbow Garden of Life and Health.  
Photo by Sorangel Liriano



Before the garden, I had never grown anything in my life. But in my first year, I helped grow three squash that were thirty pounds each! Through the winter, we were blessed! And, after that, I said: “Nos quedamos!” “We’ll stay!” Growing my own food was very instrumental for me to stay here in the garden.<sup>126</sup>

The opportunity to harvest fruits and vegetables continues to attract seniors to the Frank White Memorial Garden, as Nando Rodríguez, 41, the garden’s Maintenance Committee Chairperson and Environmental Coordinator with The Brotherhood-Sister Sol organization, explains:

Some of the seniors who’ve always lived here still harvest the food that we grow: collard greens, kale, tomatoes, peppers, peaches, apples, cherries, raspberries, mulberries, squash, zucchini, eggplants, okra, basil, oregano, parsley, mint, and dill. They continue to come back and harvest it, and they make their meals and teas with it.

During the COVID-19 pandemic, which heightened food insecurity, community gardeners increased capacity, distributing fresh and healthful fruits and vegetables to neighbors in need.<sup>127</sup> Gardeners also donated to New York City’s food banks, further demonstrating that community gardens, and the agricultural benefits they provide, are essential to the City.<sup>128</sup>



Top left: Rainbow Garden of Life and Health. Photo by Sorangel Liriano; Top right: Harlem Grown. Photo by Sorangel Liriano; Bottom left: Harlem Grown. Photo by Sorangel Liriano; Bottom right: Harlem Grown. Photo by Sorangel Liriano

## ECONOMIC OPPORTUNITIES THROUGH COMMUNITY GARDENS: THE BRONX HOT SAUCE

Some community gardens create economic opportunities for gardeners through the sale of produce.<sup>129</sup> *The Bronx Hot Sauce*, a product developed by the Small Axe Peppers hot sauce company represents a new economic model for urban farming. In 2014, Small Axe Peppers and GrowNYC donated serrano pepper seedlings to five community gardens in The Bronx. The project quickly attracted interest from additional community gardens in The Bronx, spreading to twenty-five gardens the following year. Collectively, these gardens yielded almost one ton of serrano peppers in 2015.<sup>130</sup> The peppers were used to make the first batch of *The Bronx Hot Sauce*.

*The Bronx Hot Sauce* has since become a hot commodity, and customers can find the sauce for sale at farmers' markets, restaurants, local stores, and Whole Foods Market locations across the Eastern United States.<sup>131</sup> Community gardens use funds from

pepper sales to support the gardeners and garden programming. Small Axe Peppers now works with more than seventy-five community gardens in fifteen cities across the United States, creating the same opportunity for economic development through community gardening.

By selling their produce, community gardeners support social, environmental, and educational programming in their gardens.<sup>132</sup> For instance, in the summer of 2015, Brook Park sold 300 pounds of serrano peppers to Small Axe Peppers, and proceeds from the sale funded small stipends for participants in the community garden's Alternatives-to-Incarceration Program, as compensation for their hard work during the pepper-growing season. The program engages young people who have had contact with the criminal justice system in community gardening as an alternative to detention.



Left: *The Bronx Hot Sauce*. Photo courtesy of Small Axe Peppers. Right: Brook Park. Photo by Jeenah Moon



**Community gardens have positioned New York City at the center of innovation in urban agriculture.**

For instance, Gabriella Rodríguez, 25, a Gardener, Educator, and Former Communications and Outreach Coordinator at Harlem Grown, who has worked in the food industry for over ten years, explains that Harlem Grown is “one of the most advanced urban farms” she’s ever seen. In fact, Harlem Grown’s new Impact Farm, a two-floor solar-powered greenhouse and vertical-farming hydroponics system, is the first of its kind in the United States. The Impact Farm engages young people through an educational and social space on its bottom floor, where young gardeners tend to seedlings. On its top floor, the vertical hydroponic system uses water and nutrient solutions to grow food on relatively small plots.<sup>133</sup> As Gabriella describes, “In urban spaces, at this point and moving forward, hydroponics is becoming more attractive because you can grow a lot in a really small space.”



Gabriella Rodríguez,  
Harlem Grown.  
Photo by Sorangel  
Liriano

**Community gardens also provide an opportunity for New Yorkers to learn traditional gardening and agricultural techniques.** For instance, community gardens are revitalizing composting, a traditional method of enriching soil and recycling organic waste, such as food and plant waste. Through composting, gardeners generate soil from organic waste—which, in turn, can be used for planting and fertilizing the garden.<sup>134</sup> When gardeners at Brook Park first broke through concrete to build the garden, they found compacted, polluted soil. Now, gardeners at Brook Park use compost to remediate the garden’s soil so that they can grow crops and plants safely. Compost-amended soil is especially valuable for gardening because it contains high levels of beneficial organisms that contribute to plant health.<sup>135</sup>

**Composting food scraps in community gardens helps to alleviate the City’s waste management burdens.** As mentioned above, Mayor Bill de Blasio introduced the Zero Waste initiative in 2015, pledging to divert ninety percent of New York City’s waste from landfills by 2030.<sup>136</sup> Food waste makes up approximately twenty percent of the City’s waste stream,<sup>137</sup> and when food waste decomposes in landfills, it releases methane, a potent greenhouse gas that is a significant contributor to climate change.<sup>138</sup>

The Zero Waste initiative includes an ambitious composting program that provides curbside brown bins for 3.5 million residents in certain neighborhoods.<sup>139</sup> Despite these efforts, the Zero Waste initiative diverted only 43,000 tons of food scraps from landfills in 2017, which amounted to just five percent of the City’s total food waste.<sup>140</sup> This shortfall was due, in part, to the fact that many people either lack access to composting bins or do not understand how to use them. For example, many South Bronx residents did not automatically receive composting bins during the composting program’s rollout; instead, qualified building representatives first had to enroll for curbside compost collection and request a bin from the City, which added

administrative hurdles.<sup>141</sup> In addition, according to Jessica Saab, a composter at Know Waste Lands Community Garden, the City did not provide adequate training on how to use the composting bins properly. As Jessica explains, “The City’s own composting program is really opaque. They just give you a bin and say, put your stuff in there, and many people are doing it wrong. Looking at the statistics of the City, only about ten percent of organics are actually being composted.” In 2020, the City indefinitely paused its composting program, citing financial constraints due to the COVID-19 pandemic.<sup>142</sup>

Community gardens such as Know Waste Lands in Bushwick support the City’s waste-reduction goals by organizing independent composting programs and teaching community members how to compost.<sup>143</sup> As Jessica explains, “Here at Know Waste Lands, it’s clear. They’re demonstrating how to compost, and you can learn it.” Bushwick residents have taken full advantage of composting operations at Know Waste Lands. Renée Peperone, 48, a Gardener and Former Co-Facilitator of BK Rot at Know Waste Lands Community Garden, reports: “Last year, we moved seventy tons of food waste through our small system. That’s a huge impact. The neighbors are totally part of this process and really engaged!” And at Pleasant Village Community Garden in East Harlem, Christine estimates that the garden takes in 10,000 pounds of organic waste each year: “This is a substantial amount. People rely on being able to drop off their compost. They want to do the right thing.”<sup>144</sup>



Renée Peperone,  
Know Waste Lands  
Community Garden.  
Photo by Sorangel  
Liriano

## 2. COMMUNITY GARDENS PROMOTE AND ENHANCE SOCIAL VALUES

Community gardens support social values by creating safe open spaces for healthy social interaction among all community members, including traditionally socially excluded groups, such as immigrants and refugees, the elderly, and young people who have had contact with the criminal justice system. Studies show that community gardens promote values that help alleviate social conflicts and stressors that may arise from City life. Community gardens create spaces for the integration of immigrants and refugees coping with the hardships of assimilation; for positive interactions between different racial and ethnic groups; and for the gathering and community participation of the elderly. In addition, with initiatives like Brook Park Youth Farm’s ATI Program, community gardens can be a vehicle for social change by providing mechanisms to fight recidivism by rehabilitating young people involved with the criminal justice system. Gardeners also recognize the power of social bonds and community ownership that results from participation in community gardens, and they have implemented strategies to enhance the social values of the gardens—from setting up public seating to upholding an open-gate policy to welcome all New Yorkers.



I met some really interesting people from the community. That's what's special about the community garden to me. When you think about the reason why people are coming to New York City, it's for that reason—to meet people that you probably would never meet—and that's a really special thing. You never know what could happen. You may be looking for an apartment, and someone has a vacant room, or you may be looking for a job, and someone may know of something. That's the beauty of community gardens, connecting in the space .

Celeste Leon, 30, Gardener & District Manager for Brooklyn's Community Board 4, Know Waste Lands Community Garden



Photo by Sorangel Liriano

As a senior in the community, the garden gives me a place to be. I have nowhere else to go for recreation. I come here every day because the garden allows me to keep connected to the community. I sit here, I rest here, and I enjoy the breeze. I feel good. I feel happy here.

Carlos Melendez, 70, Vice President, Pleasant Village Community Garden



Photo by Sorangel Liriano

**Community gardens promote social values by encouraging interaction, participation, and integration among gardeners.** Across the City, gardens welcome everyone— young and old, long-time New Yorkers and more recent arrivals—creating a sense of local community.<sup>145</sup> In particular, studies have shown that participation in community gardens may be instrumental for immigrants and refugees as they adjust to their new lives in the United States and come to terms with their past traumas.<sup>146</sup> One study, which evaluated community garden participation among Bhutanese and Karen refugees and new immigrant populations in the Twin Cities of Minnesota, found that participation in a community garden may be a meaningful way to promote mental health for populations coping with new livelihoods. Gardeners with self-reported mental health issues identified the garden as a healing place for their depression or anxiety.<sup>147</sup> Some gardeners expressed receiving emotional benefits from the garden, including a sense of identity with their former self.<sup>148</sup> In this way, community gardens connected these gardeners with their homelands. Gardening offers a reprieve from the stressors that come with immigrating, such as learning a new language or adapting to a new culture, by allowing immigrants and refugees to re-create gardening experiences from their past.<sup>149</sup>

For instance, community gardeners consider gardening to be a social activity through which they can come together to share food, knowledge, and labor, allowing them to build greater social bonds with fellow gardeners, non-gardening friends, and family members.<sup>150</sup> At the Garden of Happiness, families gather for picnics and barbeques with their neighbors using the foods that they grow, and at the Pleasant Village Community Garden, Andres Cuellar and Jake Cuellar-Doran engage in father-son bonding as they water the trees and perform other tasks around the garden. Renée notes that the opportunity for interaction provided by community gardens is hard to find in the City: “Community gardens are a safe space for people from all walks of life to cross, work together, and form bonds. There are not that many places in New York City where you can do that.”

Routine upkeep, maintenance, social events, and educational programming necessitate interaction between all participants who make use of the garden space.<sup>151</sup> By prompting collaboration, community gardens inherently build a sense of community. Cindy at the Joseph Daniel Wilson Memorial Garden credits this community-building for inspiring a sense of ownership among residents who frequent the garden, which she describes as “a community outreach post:” “Everyone in our block calls it ‘our garden,’ which is great. It’s become a great community institution.”



**As spaces that depend on collaboration, community gardens can build bridges between people from different racial and ethnic backgrounds.**<sup>152</sup> As Joseph from Elizabeth Street Garden explains:

Elizabeth Street Garden is a place that really represents New York and celebrates what people romanticize about New York. It’s this unique place that you stumble upon, that you wouldn’t expect in the center of the City. But it’s also a place that is reminiscent of old New York—that sense of community and having a melting pot of people from all walks of life congregating and celebrating and meeting each other in this space. In that way, the garden is truly a magical place.

Annette Ervin, 67, Steering Committee Chairperson and Gardener at the Rockaway Youth Task Force Urban Farm, also appreciates that gardens bring people together: “One of the things that I like most about the garden is that we’re breaking down stereotypes. People from another country that had never interacted with a Black person can do that here.

Andres Cuellar and Jake Cuellar-Doran, Pleasant Village Community Garden. Photo by Sorangel Liriano



People who have never interacted with a person from another religion can do that here. We're learning different things about different people, and cultures integrate."<sup>153</sup> Likewise, Marcos, a longtime resident of Bushwick who gardens at Know Waste Lands Community Garden, recognizes that the garden helps to bring his community together: "I see people come here and gather together at the garden, different types of people. Blacks, Whites, Hispanics, all types of people come here on a regular basis. And I think that's really important to our community."

**Many community gardeners have taken steps to enhance the social value their gardens provide.** For example, multiple community gardeners have implemented an open-gate policy. Karen at the Garden of Happiness says, "Our gate is open, and everyone is welcome!" Rafael Ocasio Barreto, 50, an Activist and Garden Designer and Planner at Rainbow Garden of Life and Health, who moved to The South Bronx after Hurricane Maria devastated Puerto Rico, completely redesigned the garden after noticing that community members could not see what was beyond the gates: "Part of the purpose of the garden is that the community sees what is happening. If there are parents who send their kids into the garden, the parents will feel more comfortable because they can see their kids in the garden from their apartments. But if I build a wall in the entrance, I limit the vision, and that limits the participation."<sup>154</sup>



Top: Rafael Ocasio Barreto, Rainbow Garden of Life and Health. Photo by Sorangel Liriano

Bottom: Pleasant Village Community Garden. Photo by Jeenah Moon



Some gardeners have set up chairs and benches near garden gates to invite interaction with community members. Annette at the Rockaway Youth Task Force Urban Farm explains that adding a bench has helped to engage local senior citizens: “There are a lot of seniors that live down this way, and when they are walking along, they need a place where they can stop and rest. This is it! They come out and sit along the bench, and they talk about the smell of the flowers, the tranquility of it all.”<sup>155</sup> Nando, with The Brotherhood-Sister Sol organization, placed chairs in front of the Frank White Memorial Garden, so that “people hang out and absorb the sun and have conversations.” According to Nando: “Having chairs available was something that the community needed and wanted. Having that openness where you can share resources makes a community come together.” This proves true for Dorothy Cherebin, 88, a longtime resident of Harlem and Original Gardener at the Frank White Memorial Garden, who enjoys sitting on the chairs outside the garden: “This is my favorite spot, right here, right outside the garden. Anyone who walks by I tell them, ‘The garden’s open, go right in!’”

In addition, many gardens have created partnerships with their local block associations, increasing the gardens’ capacity for community-building. Karen at the Garden of Happiness explains that this partnership has defined the way the community interacts with the garden: “Every year we have a block party—this will be our 30th year having a block party—where gardeners, homeowners, and apartment dwellers come together and close down the street to celebrate who we are. This garden is in the middle of the block, so it’s like the main stage, and it’s a beacon of hope and resiliency. I think the community values this garden as their own and that’s really important.”

## HARVESTING PEACE: BROOK PARK’S ALTERNATIVES-TO-INCARCERATION PROGRAM

Community gardens provide outlets for social development and criminal rehabilitation for young people who have been involved with the criminal justice system. In fact, studies show a direct link between participation in a community garden and a reduction in criminal behavior.<sup>156</sup> At Brook Park, Raymond Figueroa, Jr. and colleagues have put this principle into practice by developing a community-based initiative to engage urban youth. After the untimely, gang-related death of a young man named Ahmed, Raymond rallied his colleagues, insisting they do something to ensure that Ahmed did not die in vain: “We came to a consensus that ‘gang bangers,’ as they were, need love. They need to be embraced in a way that they actually see alternatives to their anger and sense of desperation and the violence

that they were engaged in.” In 2011, Raymond and his colleagues founded a Youth Alternatives-to-Incarceration Program (ATI Program) at Brook Park. Since then, the ATI Program has engaged dozens of young people who have had contact with the criminal justice system. Raymond also has mediated conflicts between gang- or local street organization-affiliated youth at Brook Park, both in and out of the ATI Program. For nearly a decade, the ATI Program has helped to establish Brook Park as a safe space within the community, likely preventing additional violent conflicts and deaths.

Not only does Brook Park’s ATI Program help to steer young people away from anti-social behavior, but it also uses community agriculture as a vehicle for job





Brook Park. Photo by Jeenah Moon

development. According to Raymond, by replacing detention with agricultural work and training, the ATI Program “is going to help young people develop their resumes for the green jobs that are coming.” In addition, Raymond explains that, for participants, “The ATI Program is an excellent way to promote their viability as individuals who are able to work and therefore not put themselves at risk of being re-arrested.” Some participants go on to join the community gardens’ pepper-growing collectives, working in collaboration with Small Axe Peppers and other community gardens in The South Bronx. By growing and selling peppers, these young urban farmers earn money and develop their job skills. Raymond underscores this development opportunity as one of his favorite parts of the work:

Some of the young people were involved with weighing drugs in the past, and now they’re weighing peppers that they’re going to harvest for a hot sauce company, making sure that they get the maximum return on their investment of time and energy. We cultivate the assets that they have in terms of

being productive, in terms of working in a group, and in terms of working within a process, from the compost, to the seedlings, to the cultivation, to the harvesting. So, for them to realize income from their engagement in this process is very powerful. They learn, that’s how life works—one puts the labor in, and one reaps what one sows.

Brook Park’s ATI Program has been recognized for its work helping young people overcome personal challenges and avoid recidivism. A report based on a two-year investigation confirmed that community-based ATI Programs, such as that at Brook Park, reduced recidivism at much higher rates than conventional criminal justice system programs.<sup>157</sup> These community-based initiatives are also more cost-effective.<sup>158</sup> And, when implemented at community gardens, ATI Programs benefit from and contribute to the gardens’ exceptional characteristics—in Raymond’s words, creating “a safe space, where people can be themselves and celebrate just being alive, harvesting peace.”

### 3. COMMUNITY GARDENS CELEBRATE THE CULTURES OF GARDENERS AND THEIR NEIGHBORHOODS

The garden has given us knowledge about other cultures. There are garden members from Bangladesh, and they got red spinach seeds from home. I'd never seen red spinach. At the garden, I learn about different methods of growing foods and benefit from the cultural exchange of knowing another group of people. The garden is bringing us closer together as a neighborhood.

Annette Ervin, 67, Steering Committee Chairperson and Gardener, Rockaway Youth Task Force Urban Farm



Photo by Sorangel Liriano

#### **Community gardens celebrate the cultural fabric of neighborhoods**

**across New York City.** Because many gardens are located in diverse neighborhoods with large immigrant populations, they create a link between produce and cultural heritage by allowing gardeners to plant ethnic foods, engage in traditional agricultural practices, and gather together in these shared spaces.<sup>159</sup> Growing culturally appropriate foods is especially important in helping people to reflect on and retain memories from their homelands.<sup>160</sup> At Brook Park, which is located in a predominantly Latinx area in The South Bronx, women of Caribbean heritage cultivate herbs, spices, and medicinal plants in the Anakaona Taino Women Healing Garden beds, allowing them to prepare traditional foods and engage in medicinal and spiritual practices. At the Rainbow Garden of Life and Health in The Bronx, Rafael believes in cultural empowerment through community gardening: “Because we live in a very diverse area of The Bronx, with Latinos, African Americans, and Asians, what we plant here reflects that. I see that tomato, cilantro, lettuce, and cabbage are being planted the most.” Rafael encourages gardeners to plant crops with faster turnarounds to accommodate to the New York City climate. He notes that, “Unlike the Caribbean and other places, we don’t have much time, so we want to maximize the crop yield.”

#### **Community gardens reflect the cultural makeup of the community and meet residents’ culinary needs by growing ethnic foods that are not typically available in local markets.**

At the Liz Christy Community Garden, Donald reports:

We get a lot of volunteers in the garden from other countries, including from Tibet and China. The volunteers get seeds and ask, “Can we grow these seeds here? These are vegetables from our homeland.” And we always say “Sure!” The volunteers love it. They get fruits and vegetables that they can’t find in the grocery stores, so it makes them feel at home.



Andrea, who gardens and organizes with the Rockaway Youth Task Force Urban Farm, attests to this unique benefit of urban agriculture:

If the garden never existed, I wouldn't have been able to experience fresh, organic produce, and I wouldn't be able to grow culturally-appropriate food. In my family, we eat a specific type of pepper that we're able to grow here. A lot of folks ask about callaloo,<sup>161</sup> which is something that you don't see at supermarkets, and we're able to provide that here. It just creates a community space full of culture and appreciation."

**Not only do community gardens help gardeners connect to their cultural traditions, but they also provide opportunities for gardeners to share and celebrate one another's cultures by offering cultural programming that celebrates the diversity of New York City.** As Raymond from Brook Park explains:

In the summertime, it's literally show time in community gardens around the City! Especially in The Bronx, cultural programming at the gardens celebrates the aboriginal culture of the members of the community, primarily Latinos and African descendants, and it's just very exciting. At Rainbow Garden of Life and Health, they had a cultural festival, Garden Rumba, celebrating the indigenous music of Puerto Rico, Bomba, and Plena music. It was phenomenal—the energy! That music was originally expressed in places like gardens, in rural areas of Puerto Rico. Community gardens speak to cultural affirmation in a way that's celebratory. It's just wonderful in terms of culture.



Raymond Figueroa, Jr.,  
Brook Park. Photo by  
Jeenah Moon

Each year, Brook Park hosts *El Gran Sancochazo*, which Raymond describes as a "celebration of cooperative culture." *Sancocho* is a Dominican version of stone soup, and the celebration encourages all members of the community to contribute ingredients to create a shared meal. At Brook Park's *Gran Sancochazo*, hundreds of community members contribute foods like *ñame* (yam), *yucca*, *guineo* (green bananas), chicken and other meats, vegetables, and spices, which are placed in gargantuan pots and simmered to perfection. According to Raymond, events like these demonstrate the cultural values of the gardens:

Community gardens are more than just greenspaces; they are also spaces full of meaning. By joining cultural celebrations at a garden, people really feel affirmed— notwithstanding the day-to-day struggles around poverty, paying rent, and other struggles that accrue when living in a community like The South Bronx. Here, you can really affirm that those existential conditions do not define who you are.

#### 4. COMMUNITY GARDENS PRESERVE NEIGHBORHOOD AND PERSONAL HISTORIES

**Community gardens provide historical values by cultivating the power of history, memory, and space.** As demonstrated above, community gardens have a rich history in New York City, and longstanding community gardens are monuments to their neighborhoods' resilience over time. Original gardeners remember their efforts of coming together to establish and protect the gardens. The memories that the gardeners hold, in addition to the new memories forged from the soil of their gardens, are a testament to the importance of the gardens to their communities and to the spirit of New York City as a whole. For this Petition, community gardeners shared personal memories cultivated in the gardens; together, these memories demonstrate an inherent link between the history of community gardens and the history of New York City neighborhoods.

##### MEMORIES FROM FRANK WHITE MEMORIAL GARDEN

At first, there were three buildings. In 1978, one of the buildings caught on fire, and the other two were taken down. Soon after, they had a car wreckage place; they were fixing cars and stuff. Then they had a ramp, where kids would skate. After that closed, I ran downtown to GreenThumb to see about getting a garden. I was the first one to get involved with this garden. I'm one of the originals. I think there is only one other person living, the rest of them are deceased. The people that planted the trees, they are all deceased now. Back then, the garden lot was a mess, you should have seen it. But it's beautiful now! (Dorothy Cherebin, 88)

Nando Rodríguez,  
Frank White  
Memorial  
Garden. Photo by  
Sorangel Liriano

The garden is a three-lot space where there used to be three buildings. The buildings caught on fire, and all three buildings were condemned. The City took them down, and then they became vacant lots. This was in the early 1970s, and the block association decided to take out the bricks and throw them in the dump. Then the teenagers in the community started to use the space for different purposes, including their own half-pipe skate rink. At some point, they were also playing baseball and softball in this space. After that, when drugs started infiltrating the community, this used to be a trafficking lot, with a lot of garbage. In the late 1970s, some of the community members, including Frank White, started to clean out the space and make it into a garden. Frank White was a resident of the community who used to help with closing down the street so it could be a Police Athletic League street. They used to close down the street and make it into a recreational space for young people. Frank was gunned down in a drive-by shooting while trying to protect a child. And a couple of months right after that, they changed the name of the garden to Frank White Memorial Garden. (Nando Rodríguez, 41)





## MEMORIES FROM PLEASANT VILLAGE COMMUNITY GARDEN

I've been here since 1978, when we first started this garden; I've been here since the first week. I cleaned out the debris, and all the things that littered the ground, like bricks and tree trunks. To this day, I help with garden maintenance. I still take out the garbage. Many of the same people who were here since the beginning still help with the garden, but we have a lot of young people come by. We also have a lot of volunteer groups that come to the garden, and we open the gates to teachers who bring school children to learn about the garden. (Carlos Melendez, 70)

## MEMORIES FROM JOSEPH DANIEL WILSON MEMORIAL GARDEN

In 1983, I lived across the street, and this was an empty vacant lot, full of all kinds of trash, rocks and weeds, and so on. So I talked with my landlord, Joseph Daniel Wilson, who is now the namesake of the garden, about putting a garden here. There were very few people living on this block, and most of the buildings were decimated. Maybe about seven buildings were occupied and in relatively good condition. Then a garden was born. We just got together. The City had a program called the City Volunteer Corps, where young people who had dropped out of high school were given training and a small stipend, and they would come out and help different groups in various places. They helped start the garden, and they originally designed it. A lot of children also became really active in helping out at the garden. They'd come to the door and say to my husband, "Mr. Hja is it time to go to the garden? Is it time to work?" (Cindy Worley, 70)



Cindy Worley,  
Joseph Daniel Wilson  
Memorial Garden.  
Photo by Sorangel  
Liriano

## MEMORIES FROM ELIZABETH STREET GARDEN

When my father built the garden in 1991, he planted the trees, the grass, and aligned a lot of the architectural elements. But even before that, the garden had such an interesting history. In the early 1800s, the garden space was part of P.S. 5, which was a school built by the Free School Society. In the early 1900s, it was torn down, and the City built P.S. 21, which took up the entire southern portion of the block. That was designed by architect C. B. J. Snyder who designed a lot of the public schools around the City, and they were beautiful. The school had a theme of outdoor recreation with the students learning outside with open air class sessions. They wanted to demonstrate to the students the benefit of fresh air and learning outside—and they were also trying to ward off tuberculosis. The school conducted experiments to see if learning outside could help prevent tuberculosis, which was interesting. That school was torn down in the 1970s, and the City built the Little Italy

Restoration Apartments, which was the Section 8 affordable housing on the southern portion of the block. The area where the garden is now was actually meant to be a recreational space. But that was never really followed up on. So the lot became an empty lot—it was basically a junk lot—and remained vacant for a while until 1990, when Allan Reiver, my father, decided to lease the space, and build the basis for what the garden is today. (Joseph Reiver, 28)

## MEMORIES FROM KNOW WASTE LANDS COMMUNITY GARDEN

This garden brings a lot of memories. My wife passed away six years ago, and the garden is a reminder of something that my wife wanted to see. Seeing the garden is seeing her wish come true. My children and my grandchildren come here all the time. I even have pictures with people inside here, so it's very important for me to come here. I hope to dedicate a stone memorial for my wife here at the garden. (Marcos Pacheco, 56)



Marcos Pacheco,  
Know Waste Lands  
Community Garden.  
Photo by Sorangel  
Liriano

## 5. COMMUNITY GARDENS PROMOTE COMMUNITY RECREATION

### Community gardens offer recreational values by providing much-needed open space.

As mentioned previously, New York City aims to achieve 2.5 acres of total open space for every 1,000 residents—that is, 108.9 square feet per person.<sup>162</sup> Manhattan Community Board 2, which encompasses the neighborhoods of Little Italy, SoHo, Greenwich Village, West Village, South Village, NoHo, NoLiTa, and a portion of Chinatown, has just 0.58 acres of open space per 1,000 residents. For this reason, the City classifies Manhattan Community Board 2 as “underserved” by open space.<sup>163</sup> For residents of Little Italy and SoHo, Elizabeth Street Garden is the only unpaved open space.<sup>164</sup> Little Italy and SoHo have just 0.007 acres of open space for every 1,000 residents, or about three square feet of open space per resident—roughly the same area as a New York City subway seat.<sup>165</sup>

In part because there are few nearby alternatives for open space, Elizabeth Street Garden has become a popular destination for recreation.<sup>166</sup> Thousands of visitors each year, including longtime neighborhood residents and tourists from all around the world, are drawn in by the opportunity to lay on the grass, read a book, or take in the City. They can also enjoy art, such as the stone warrior and goddess sculptures that adorn the garden, and cultural events, including live music, movie nights, poetry readings, dance performances, and children’s storytimes and crafts.<sup>167</sup> Visitors can join weekly wellness classes, including tai chi with the Chinatown YMCA, meridian tapping, Vinyāsa yoga, and moving meditation.<sup>168</sup> Joseph, Executive Director of Elizabeth Street Garden, notes:





Elizabeth Street Garden. Photo by Jeenah Moon

The sculptures at the garden bring about that magical quality. Most of the statues are from my father's gallery, though the main structural elements have actually been donated to the garden. The garden itself exists as a work of art, if you will. It's a curated design space, so in a way, it's an open air museum. There are a lot of unique pieces that have historical relevance and they also give the garden this sense of a secret garden, a "Narniaesque" feeling, which people have always loved.

Indeed, Joseph describes Elizabeth Street Garden as an artistic space, deeply intertwined with downtown Manhattan's artistic community:

We have so many painters, photographers, sculptors, dancers, performers, musicians, and poets inspired by the garden. They are creating work that is based on this space, and we celebrate that. We set up a program where every week we promote a different local artist to showcase their work linked on our website and shared to our social media. The garden is a work of art in itself, and it has led to amazing collaborations. For instance, within the film industry and the fashion industry, people really gravitate to the space because it has such a unique artistic quality.<sup>169</sup>



Uptown at Harlem Grown, recreational opportunities abound all year. According to Gabriella, these opportunities are what make the community garden so special to people of all ages:

As long as our gates are open, which is every day during the week, people are allowed to come in and explore, and enjoy the space. Saturdays are our big days. We offer free yoga at 10:00 a.m. every Saturday, so a lot of people come for that. Between 11:00 a.m. and 3:00 p.m., it's an open session for anyone who's passing by or for those who have planned their day around visiting the garden. People can volunteer alongside our farmers. They can do all kinds of farm tasks, such as caring for chickens, composting, weeding, and watering. We also have a youth drop-off program, where parents can drop off their kids, ages seven and up, and we'll do programming with them.

By engaging children and young adults, community gardens help to cultivate the next generation of urban gardeners. Christine and fellow garden leaders at the Pleasant Village Community Garden plan thematic and interactive gardening activities to entertain young community gardeners:

We have an Easter egg hunt. We have a pumpkin-carving Halloween event, where kids can pick out a pumpkin from the pumpkin patch. We have a school group of special needs students who come in, and they have a garden plot. Almost all of our events are geared toward our young community gardeners.<sup>170</sup>



Frank White Memorial Garden. Photo by Sorangel Liriano



## 6. COMMUNITY GARDENS OFFER EDUCATIONAL VALUES FOR CHILDREN AND ADULTS

**At community gardens across the City, children and adults can learn about food, farm animals, and agricultural practices.** For some participants, this means trying new foods and interacting with farm animals for the first time. For instance, according to Annette, children frequent the Rockaway Youth Task Force Urban Farm for a chance “to see the chickens, because most of the children have never seen a live chicken, and neither have a lot of the adults.”<sup>171</sup> Yolanda Belcher, 67, President of East 43rd Street Community Garden in Brooklyn, explains that community gardens allow students to discover and grow healthful foods: “At the garden, students participate in planting, weeding, watering, and harvesting plants, resulting in a robust growing season. They’ve even harvested two-pound carrots and cucumbers.”

Appreciation for fresh produce is not unique to students at the East 43rd Street Community Garden. When people engage with urban gardening, they become more conscious and educated about healthful eating.<sup>172</sup> **In other words, if they grow it, they’ll eat it!** A 2019 study found that urban gardening, when coupled with educational components, may facilitate nutrition and health improvements in marginalized populations at high risk for heart disease.<sup>173</sup> All participants in the study reported that “the gardens led to healthier eating for both adults and children, which they attributed to the greater affordability, accessibility, freshness, flavor, and convenience of their garden produce; motivation for healthy eating fostered by pride in their gardens; and/or greater nutritional knowledge.”<sup>174</sup> In this way, community gardening improves people’s recognition of, attitudes toward, preferences for, and willingness to taste fresh fruits and vegetables.<sup>175</sup>

Left: Rockaway Youth Task Force Urban Farm. Photo by Sorangel Liriano;  
Right: Brook Park. Photo by Jeenah Moon





Pleasant Village  
Community Garden.  
*Photo by Jeelah Moon*

Gabriella at Harlem Grown underscores that teaching students and families about urban agriculture is especially important in communities like Harlem:

Targeting youth is really important, especially in a place like Harlem where access to fresh local food is not so common. It's really impactful for youth to plant something, take care of it, watch it grow, and then get to eat it. They get to learn what it is, how to cook it, why it's good for them. It's a fundamental exposure that a lot of kids in the City don't have.

Research demonstrates that participation in urban agriculture can help children and adults learn about food, nutrition, cooking, the environment, technology, economics, leadership, and other cultures.<sup>176</sup> Recognizing these values, Nando from The Brotherhood-Sister Sol organization puts educational programming at the forefront of Frank White Memorial Garden's mission:

The Brotherhood/Sister Sol (Bro/Sis), a not-for-profit organization based in the community since 2000, has added a lot of educational systems for all people, specifically the youth. During the year, participants learn how to plant, weed, grow crops in raised beds, feed the fish, and feed the turtle. They learn about compost, recycling, aquaponics, hydroponics, pruning, harvesting herbs and spices, and how to make salads. On top of that, Bro/Sis has developed an Environmental Program that conducts workshops for and has created core-focused groups on food empowerment, community organizing, sustainable designs, and horticultural sciences. Bro/Sis also has established a youth farmers' market where we bring produce grown from Frank White Memorial Garden, to teach our youth and influence our community on the importance of having access to locally grown food. Little by little, we are changing the community to eat fresh and locally.



Community gardens also provide community development opportunities. Community development is the practice of “community members analyzing their own problems and taking action to improve economic, social, cultural, or environmental conditions, as well as feeling part of and identifying with the community as a whole.”<sup>177</sup> For instance, the mission of the East 43rd Street Community Garden is “to create a place to grow fresh vegetables while building a community of engaged residents and cultivating youth development skills, with students ranging from ages 5 to 17.” Yolanda takes pride in the success of the garden’s youth development programming: “We cultivate life skills training for young adults, which has led them not only to graduate from high school but also to enter college and obtain youth employment opportunities.”

Likewise, community gardeners like Andrea, the Lead Organizer at Rockaway Youth Task Force Urban Farm, and Rafael, Garden Designer and Planner at the Rainbow Garden of Life and Health, attest that local gardeners have become champions for social change in their communities. The Rockaway Youth Task Force gardeners engage in voter registration drives, town halls on health topics like vaping and cancer, and other issues facing the community.<sup>178</sup> At Rainbow Garden of Life and Health, Rafael and his colleagues aim to compel neighbors to help improve their community:

This garden is not all about agriculture. The garden can serve multiple functions, so we are taking advantage of the space. We engage schoolchildren with educational initiatives and we talk to community members about the individual rights they have



East 43rd Street  
Community Garden.  
Photo by Sorangel  
Liriano





Rockaway Youth Task  
Force Urban Farm.  
Photo by Jeelah Moon

concerning rent and immigration, so that they have better knowledge to fight for a better well-being for their family, and this reflects in the well-being of the entire community. When one person has knowledge about an important issue, they'll let their neighbors know. The garden is a space where we can accomplish everything pertaining to the community movement.<sup>179</sup>

As explained by Rafael, "If you impact one place like our garden, the things outside of its gates start to change for the better as well."<sup>180</sup>



The forty community gardens specifically identified in this Petition, along with the greater constituency of City-owned community gardens, qualify for CEA designation. These gardens provide a variety of agricultural, social, cultural, historic, recreational, and educational values, making them critical neighborhood assets deserving of protection. To recognize and protect these values, Petitioners urge the City of New York, through its relevant agencies and programs, to designate the forty community gardens in this Petition as CEAs, and work toward designating all City-owned community gardens as CEAs under SEQRA regulations, in consultation with community gardeners.





Elizabeth Street Garden. Photo by Jeenah Moon



## D. COMMUNITY GARDENS EXHIBIT INHERENT ECOLOGICAL AND HYDROLOGICAL SENSITIVITY TO CHANGE

Community gardens satisfy the fourth and final criterion for CEA designation, as they exhibit “inherent ecological [or] hydrological sensitivity . . . that may be adversely affected by any change.”<sup>181</sup> Ecological sensitivity refers to the vulnerability of an ecosystem to damage or destruction, while hydrological sensitivity refers to the vulnerability of a water system. Community gardens exhibit ecological sensitivity because they provide habitat for plants, pollinators, and other wildlife that could be damaged or destroyed by development or other nearby changes. Community gardens exhibit hydrological sensitivity because they offer water system benefits, including flood mitigation and stormwater management, which similarly could be damaged or destroyed.

### 1. COMMUNITY GARDENS PROVIDE HABITAT FOR PLANTS, POLLINATORS, AND OTHER WILDLIFE



Photo by Sorangel Liriano

I am motivated to keep on working at the garden because I am getting the immediate gratification of the kids as they learn about Mother Nature—the smiles on their faces—when I am gardening with them. They enjoy looking at slugs for the first time or at earthworms for the first time, and I explain to them the importance of the bees.

Yolanda Belcher, Garden President, 67, East 43rd Street Community Garden

**By hosting diverse plant populations, community gardens support a variety of pollinators—including bees, butterflies, birds, and bats—as well as other wildlife species.**<sup>182</sup> Pollinators enhance garden ecosystems by fertilizing plants and enabling the production of fruit and seeds.<sup>183</sup> Fruit and seeds are necessary for plant reproduction, and they serve as food for grey squirrels, migrating birds, and other animals, which, in turn, help plants spread to different areas.<sup>184</sup> As plants spread, they provide new habitat for animals like opossums, which are predators and competitors of common pests like roaches and rats.<sup>185</sup> In this way, community gardens support thriving urban ecosystems, increasing local biodiversity.<sup>186</sup>

Gardeners are well aware of their role in enhancing pollinator populations to support a vibrant ecosystem. Pleasant Village Community Garden in East Harlem, which gardeners call “Hudson Valley in Manhattan,” “specialize[s] in planting pollinator and native plants to attract and provide host plants for pollinator butterflies and bees.”<sup>187</sup> These plants include New York asters, black-eyed Susans, goldenrods, and winter rye, a plant that gardeners also use to restore nutrient-depleted soil.<sup>188</sup> According to Dan Gross, 35, a Gardener with Know Waste



Lands Community Garden, supporting pollinators is essential to the spirit of his garden: “The point of this place is that it’s owned by nobody—and it’s owned by everybody. If you want to come in here and do something that’s within the garden’s ethos and mission, which is to build space for the community and for pollinators and native plants, then you can do that.”<sup>189</sup>

**Community garden ecosystems are highly vulnerable to changes that threaten plants, pollinators, and other wildlife.** If a high-rise condominium project, for example, were to block the sunlight to a garden, plants would die, pollinators and other wildlife would lose food and habitat, and the area’s overall biodiversity and ecological productivity would decline. Injury to community garden ecosystems could also harm humans. If a community garden stopped providing habitat for opossums, which prey on and compete with pests, roach and rat populations would increase.<sup>190</sup> Thus, changes affecting community gardens could adversely affect surrounding communities.



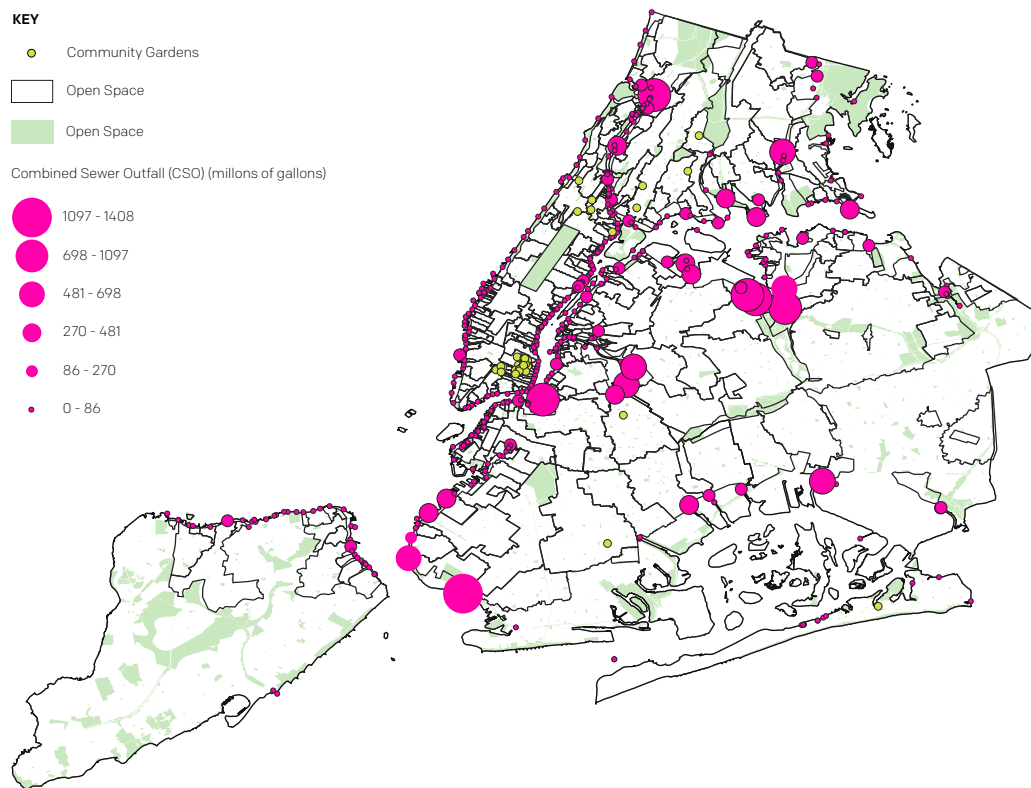
## 2. COMMUNITY GARDENS MITIGATE URBAN FLOODING AND LESSEN THE BURDEN ON THE CITY’S AGING SEWER INFRASTRUCTURE

**Community gardens play important hydrological functions, alleviating both urban flooding and rainfall-related strains on the City’s sewer system.**<sup>191</sup> In urban areas covered with impervious surfaces such as concrete and asphalt, rainwater does not percolate into the soil. Instead, rainwater either flows off impervious surfaces as stormwater, flooding streets and low-lying areas, or discharges through pipes into nearby rivers.<sup>192</sup> Stormwater runoff picks up pollutants from the streets, including oils, heavy metals, pathogens, and garbage. In addition, in many parts of the City, stormwater discharge pipes are combined with sewer pipes carrying domestic waste from buildings. Thus, when these pipes overflow to waterbodies, they discharge human fecal waste and other domestic waste, along with stormwater and street pollutants.<sup>193</sup> These combined sewer overflows (CSOs) pose

Left: Know Waste Lands Community Garden. Photo by Sorangel Liriano;  
Right: Elizabeth Street Garden. Photo by Sorangel Liriano

significant threats to public health and the environment. In New York City, as little as one-quarter inch of rain can trigger street flooding or an overflow.<sup>194</sup> The City has at least 460 CSO outfalls that collectively discharge more than 27 billion gallons of raw sewage and polluted stormwater into the Hudson River and New York Harbor each year, degrading water quality and impairing the recreational use of local waterbodies.<sup>195</sup>

Because of these significant threats to public health and the environment, it is a high priority for the City to mitigate CSO pollution. By 2030, DEP intends to divert 1.5 billion gallons per year of stormwater by increasing pervious surface areas and implementing rainwater capture systems.<sup>196</sup> Community gardens can contribute significantly to attainment of this goal because their soil, porous pavements, and other permeable surfaces allow rainwater to percolate into the ground rather than running off. In fact, community gardens already divert approximately eleven percent of DEP’s target.<sup>197</sup> This contribution will be even more important in the future because climate change is expected to increase the severity of rainfall events and hasten sea level rise, further straining the City’s aging infrastructure. As shown in Figure 6, many of the gardens in this Petition and across the City are located in areas served by combined sewers.<sup>198</sup>



**Figure 6. Map of CSO Outfalls in New York City.**<sup>199</sup>

*Credit: Erica Asinas & Işıl Akgül / Source: N.Y.C. Dep’t of Env’tl. Protection*

While pervious surfaces in community gardens already absorb a significant amount of rainfall, helping to reduce flooding and overflows, many gardens, especially those in communities most affected by rising sea levels, are implementing green infrastructure systems to divert even more rainwater. Gardens Rising, an ambitious project developed after Hurricane Sandy inundated Lower Manhattan with flooding and storm surges in 2012,<sup>200</sup> promotes flood

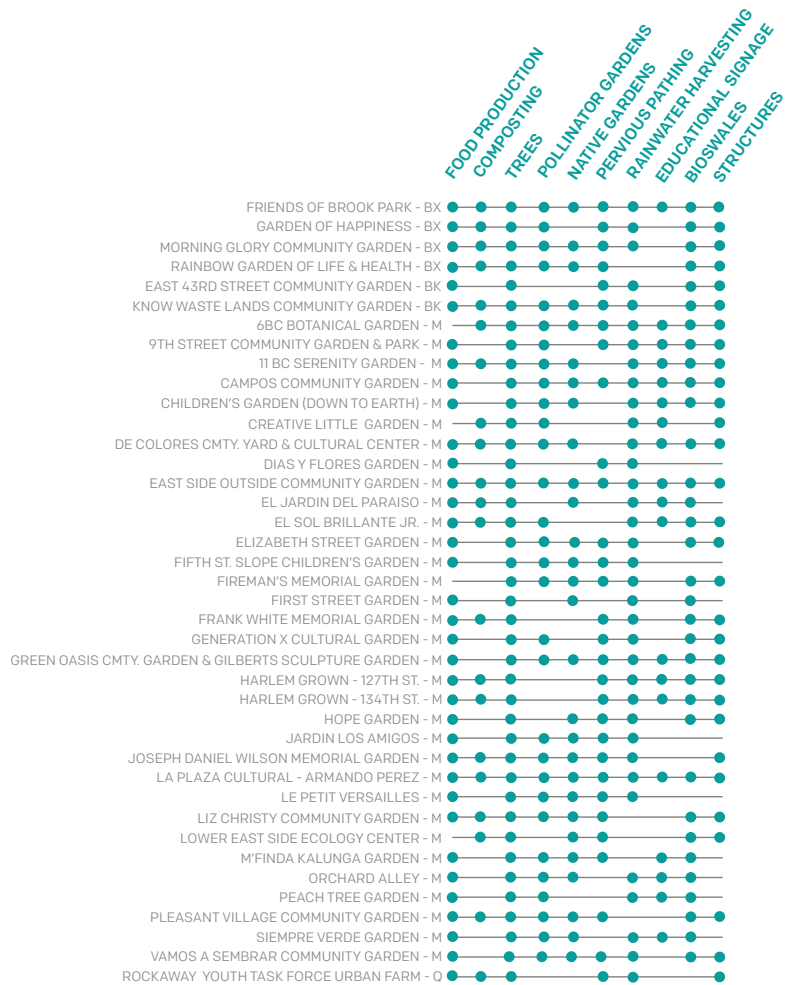


mitigation systems in community gardens such as rainwater harvesting barrels, constructed wetlands, grading and channeling, porous paving, rain gardens, bioswales, and tree pits.<sup>201</sup> For example, the Campos Community Garden on East 12th Street is implementing a rainwater harvesting system that can divert and store 1,650 gallons of rainwater per year, and the proposed bioswale and rain garden infiltration system at El Jardín Del Paraiso is designed to absorb 77,100 gallons of water per year.<sup>202</sup> Figure 7 lists the green infrastructure and ecosystem services provided by the forty gardens featured in this petition.

**Any development on or near community gardens that would impede their ability to absorb stormwater runoff would have impacts far beyond the gardens, aggravating urban flooding and CSO pollution discharged into neighboring waterways.** As demonstrated by New York State’s investment in garden-based green infrastructure to mitigate flooding in Lower Manhattan, community gardens offer unique, critical, and ultimately sensitive hydrological benefits that are deserving of heightened environmental protection through CEA status.



The forty community gardens specifically identified in this Petition, along with the over 550 City-owned community gardens across the five boroughs, qualify for CEA designation because they exhibit ecological and hydrological sensitivities that would be adversely affected by change. Without greater protections for community gardens, New York City risks losing the gardens’ critical ecosystem services and green infrastructure mechanisms that help the City achieve its sustainability goals. Consequently, we request that the City of New York designate the forty community gardens in this Petition as CEAs and, in collaboration with community gardeners, work to grant CEA status to all City-owned community gardens to ensure their continued protection.



**Figure 7. Community Garden Green Infrastructure and Ecosystem Services.**

*Credit: Chabeli Rodríguez / Sources: Gardens Rising & 2019 Pratt Institute Study*

## CONCLUSION

Community gardens have numerical benefits, from food production to sustainability. They help in terms of climate change, air quality, and stormwater runoff. But there are also those benefits that are hard to quantify. It is the sense of community that is provided by gardens. It is really meaningful to have seniors, young people, and everyone in between meeting in a shared space and meeting one another. The garden improves people's health and the community's health. Thus, when you take a community garden, and pit it against something else that is needed, it is a bit of a false choice. There are ways of achieving the required housing and development without destroying these community spaces. Greenspace, once developed, is never turned back into greenspace. The City is not working to take down buildings to build more greenspace. Once it is gone, it is gone. And that is why we need to preserve as many community gardens as we can.

Joseph Reiver, 28, Executive Director, Elizabeth Street Garden



Photo by Sorangel Liriano

Community gardens are uniquely reflective of their neighborhoods and gardeners, yet they share important characteristics warranting preservation and protection. The gardens contribute to public health, provide physical and nutritional benefits, and promote mental health. The gardens feature natural settings that support plants and wildlife and offer New Yorkers bucolic beauty in the midst of our urban environment. The gardens support neighborhoods by providing agricultural, social, cultural, historic, recreational, and educational values. Finally, the gardens exhibit ecological and hydrological sensitivity, as they support crucial biodiversity and mitigate urban flooding in our changing climate.

Community gardens are essential to helping New York City achieve its planning, waste management, and sustainability goals at virtually no cost to the City or to taxpayers. As New York City strives to increase open space, community gardens provide greenspace in neighborhoods significantly underserved by public parks. Community garden composting programs divert tens of thousands of pounds of food waste from landfills each year, making a significant contribution to the City's ambitious, yet struggling, Zero Waste initiative. Trees and vegetation in community gardens also alleviate summer heat at a time when our climate is warming and the City is aiming to increase urban tree cover. Similarly, while the City has committed to upgrading its aging infrastructure, particularly its heavily polluting stormwater outfalls, community gardens, through their pervious surfaces, divert millions of gallons of rainwater per year. Because of these benefits, community gardens are indispensable to the achievement of the City's policy goals.



The forty community gardens featured in this Petition—and all City-owned community gardens across New York City—satisfy the criteria for CEA designation under SEQRA. Thus, to achieve protection for community gardens, Petitioners respectfully request that, *first*, City agencies with jurisdiction over the forty community gardens designate those gardens as CEAs under SEQRA within six months following the submission of this Petition, or by May 18, 2021. *Second*, Petitioners request that, within twelve months following the submission of this Petition, or by November 18, 2021, GreenThumb conduct an assessment of all remaining community gardens on City-owned land and confirm, in consultation with community gardeners, that these gardens meet the regulatory criteria for CEA designation. *Third*, Petitioners request that, within twelve months following the submission of this Petition, or by November 18, 2021, City agencies designate as CEAs all City-owned gardens within their respective jurisdictions that meet the regulatory criteria for CEA designation, based on GreenThumb’s assessment. It is essential for the City to act without delay, not only to preserve the unique and exceptional characteristics of the gardens, but also to recognize the countless contributions that gardeners have made to the City of New York.



Photo by Sorangel Liriano

**Gardens are these oases in the middle of the concrete jungle. It’s extremely precious what the garden does for me, in terms of being able to touch the soil and to see the green of the leaves, breathe the air, and hear the birds singing. There are no words for it.**

Raymond Figueroa, Jr., 57, President, NYCCGC; Program Director Brook Park Youth Farm’s Alternatives-to-Incarceration Program

**Submitted to New York City agencies on November 18, 2020**

# RESOURCES

## TOOLS

### **Governor's Office of Storm Recovery & New York City Community Garden Coalition (NYCCGC),**

*Gardens Rising Lower East Side Community Gardens Green Infrastructure Feasibility Study* (2019), [https://issuu.com/wedesignnyc/docs/161205\\_report100\\_compressed](https://issuu.com/wedesignnyc/docs/161205_report100_compressed).

Gardens Rising is a community-based sustainability and green infrastructure initiative to reduce flooding and provide ecological services on the Lower East Side of Manhattan. Gardens Rising provides information on how community gardens can bolster their climate resiliency and sustainability initiatives.

**GreenThumb**, *Gardener Resources*, [https://greenthumb.nycgovparks.org/news.html?news\\_id=469](https://greenthumb.nycgovparks.org/news.html?news_id=469).

GreenThumb, the largest community garden program in the nation, provides resources on how to join, find, and start a community garden; grow and sell produce; care for trees, vegetation, and wildlife; maintain structures and winterize gardens; and develop garden programming, among many other topics.

**GrowNYC**, *Green Infrastructure Toolkit*, <https://www.grownyc.org/gardens/green-infrastructure-toolkit>.

GrowNYC's Green Infrastructure Toolkit is designed to educate homeowners, community gardeners, and the public on stormwater management techniques

## MEDIA

**Eric Adams**, *Healthy at Last: A Plant-Based Approach to Preventing and Reversing Diabetes and Other Chronic Illnesses* (2020).

The Brooklyn Borough President chronicles his journey from a diabetes diagnosis to restored health, and maps a path for African American communities to engage in healthful eating habits, including through community agriculture.

that can help minimize the polluting effect of rainfall on waterbodies in cities that have combined sewer overflows, like New York City.

**Hunter College NYC Food Policy Center**, *NYC Foodscapes 2020 Reports*, [https://www.nycfoodpolicy.org/nyc-foodscapes-2020/?utm\\_source=Foodscape+2020&utm\\_campaign=foodscape+2020&utm\\_medium=email](https://www.nycfoodpolicy.org/nyc-foodscapes-2020/?utm_source=Foodscape+2020&utm_campaign=foodscape+2020&utm_medium=email).

NYC Foodscapes 2020 Reports compile data and research in an accessible format to provide a community-level snapshot of each New York City neighborhood's food environment. These data include fresh food availability, economic and living conditions, health and disease statistics, and the presence of community gardens.

**NYC Department of Health and Mental Hygiene**, *Environment & Health Data Portal*, <http://a816-doh.besp.nyc.gov/IndicatorPublic/>.

The NYC Environment & Health Data portal provides interactive visualization tools, over 250 downloadable datasets, and scientific research on variables affecting New Yorkers' health. These resources can help New Yorkers discover and share data-driven stories about community health, including air quality, heat vulnerability, and healthful food availability.

**Anna Angelidakis**, *Rooted in the Hood: An Intimate Portrait of New York City's Community Gardens* (2020). *Rooted in the Hood* is a photo essay celebrating the community gardens of New York City and the people who create, cultivate, and enjoy them.



**Barbara A. Huff & Peter Ziebel**, *Greening the City Streets: The Story of Community Gardens* (1990). *Greening the City Streets* is a photo essay tracing the urban gardening movement in the United States, with a special focus on the Sixth Street and Avenue B Garden in Manhattan.

## ARTICLES AND REPORTS

**Christopher A. Airriess & David L. Clawson**, *Vietnamese Market Gardens in New Orleans*, 84 *Geographical Rev.* 16 (1994). Local gardens in a Vietnamese enclave of New Orleans perpetuate the culture and culinary traditions of immigrants who reside there.

**Katherine Alaimo et al.**, *Fruit and Vegetable Intake Among Urban Community Gardeners*, 40 *J. Nutrition Educ. & Behav.* 94 (2008). The participation of just one member of a household in an urban community garden may improve fruit and vegetable intake among all adults in the household.

**Donna Armstrong**, *A Survey of Community Gardens in Upstate New York: Implications for Health Promotion and Community Development*, 6 *Health Place* 319 (2000). Community gardens can facilitate neighborhood development and promote public health. Particularly in low-income neighborhoods, gardens help to facilitate community organizing.

**Lauren E. Baker**, *Tending Cultural Landscapes and Food Citizenship in Toronto's Community Gardens*, 94 *Geographical Rev.* 305 (2004). Toronto's community food-security movement uses community gardens as one strategy to regenerate the local food system and provide access to healthful, affordable food.

**Katherine H. Brown & Anne Carter**, *Urb. Agric. Comm. of the Cmty. Food Security Coal., Urban Agriculture and Community Food Security in the United States:*

**Sorangel Liriano**, *Meet Community Gardeners of New York City*, Earthjustice (2020), <https://earthjustice.org/features/community-gardeners-new-york-city>. Meet Community Gardeners of New York City is a photo essay highlighting community garden leaders and their contributions to their communities.

*Farming from the City Center to the Urban Fringe* (2003), <https://community-wealth.org/sites/clone.community-wealth.org/files/downloads/report-brown-carter.pdf>.

Urban agriculture is a major tool against hunger and poverty. The production, processing, and distribution of locally grown foods help to increase food security and enhance overall public health.

**Patricia Carney et al.**, *Impact of a Community Gardening Project on Vegetable Intake, Food Security and Family Relationships: A Community-Based Participatory Research Study*, 37 *J. Cmty. Health* 874 (2012).

Community gardening programs can reduce food insecurity, improve dietary intake, and strengthen family relationships.

**Victoria Egli et al.**, *The Development of a Model of Community Garden Benefits to Wellbeing*, 3 *Preventative Med. Rep.* 348 (2016).

Participation in community gardens correlates with healthy body weight, increased physical activity, food security, ownership and pride, urban beautification, and community cohesion.

**John Ferris et al.**, *People, Land and Sustainability: Community Gardens and the Social Dimension of Sustainable Development*, 35 *Soc. Pol'y & Admin.* 559 (2001).

Health, education, and community development are linked to the use of greenspace in towns and cities. Greenspace for parks and gardens is closely associated with environmental justice and equity.

**Raymond Figueroa, Jr. & Samuel S. T. Pressman**, *Money Does Grow On Trees: An Equitable Perspective for Increasing Urban Well-Being via Greening Land Valuation and Scaling Ecosystem Services in Communities*, Graduate Ctr. for Planning & The Env't (2019), [https://commons.pratt.edu/sesresearch/wp-content/uploads/sites/157/2020/02/2019\\_Fall\\_Samuel\\_Pressman\\_Report.pdf](https://commons.pratt.edu/sesresearch/wp-content/uploads/sites/157/2020/02/2019_Fall_Samuel_Pressman_Report.pdf).

The study assigns values to the ecosystem services of twenty-one community gardens in New York City, including water management, temperature regulation, carbon sequestration, air particulate filtration, pollination, and biodiversity generation, as well as the potential for food production and methane mitigation from landfills through composting. These gardens divert approximately \$1,283,116 per year from the City's overall energy and built infrastructure expenses.

**Mark Francis et al.**, *Community Open Spaces: Greening Neighborhoods Through Community Action and Land Conservation* (1984).

In the 1970s, New York City residents began transforming vacant neighborhood land into community greenspaces, including gardens, sitting areas, and playgrounds. People recognized the ecological, social, and psychological importance of greenspaces in everyday life.

**Chantal Gailloux**, *Politics of the Commons* (forthcoming 2020).

Especially in New York City, the political process of choosing the best possible use for vacant land often involves weighing the ecological and social value of community gardens against the economic and political value of affordable housing.

**Christina M. Gigliotti & Shannon E. Jarrott**, *Effects of Horticulture Therapy on Engagement and Affect*, 24 *Can. J. on Aging* 367 (2005).

Horticulture or horticultural therapy facilitates higher levels of productive engagement and positive affect. Gardening is a viable activity for individuals with cognitive limitations, such as adults with dementia.

**Mara Gittleman et al.**, *Estimating Stormwater Runoff for Community Gardens in New York City*, 20 *Urb. Ecosystems* 129 (2017).

Community gardens in New York City and other urban environments serve as critical green infrastructure, as the gardens absorb stormwater runoff and mitigate flooding.

**Marianne Thorsen Gonzalez et al.**, *Therapeutic Horticulture in Clinical Depression: A Prospective Study of Active Components*, 66 *J. Advanced Nursing* 2002 (2010).

Horticultural therapy can be a beneficial intervention for individuals with clinical depression because it helps to disrupt maladaptive rumination and promotes restoration of depleted attention capacity.

**Ashley Gregor**, *Toward a Legal Standard of Tolerable Heat*, 44 *Colum. J. Envtl. L.* 479 (2019).

There is no standardized approach to protecting populations from extreme heat, let alone a legal standard of acceptable heat applicable to the workplace, housing, or other affected environments. In urban areas, tree cover and vegetation can mitigate the effects of extreme heat exacerbated by climate change.

**Kari A. Hartwig & Meghan Mason**, *Community Gardens for Refugee and Immigrant Communities as a Means of Health Promotion*, 41 *J. Cmty. Health* 1153 (2016).

Refugee and immigrant gardeners express physical and emotional benefits from community gardening, including a connection with their former identity. Community gardens may serve as a meaningful health promotion intervention for refugees and immigrants.

**Hunter College NYC Food Policy Center, Laurie M. Tisch Center for Food, Education & Policy, & The CUNY Urban Food Policy Institute**, *New York Food 20/20: Vision, Research, and Recommendations During COVID-19 and Beyond* (2020), <https://www.nycfoodpolicy.org/wp-content/uploads/2020/10/ny2020-finalv2.pdf>.



New York City's food-related policies and programs were not designed to deal with the scope of the challenges caused by the COVID-19 pandemic. COVID-19 has given New York City the opportunity to reimagine its policies and programs to ensure that the City emerges from the pandemic with a stronger, healthier, more just, and sustainable food system.

**Valerie Imbruce**, *Bringing Southeast Asia to the Southeast United States: New Forms of Alternative Agriculture in Homestead, Florida*, 24 *Agric. Hum. Values* 41 (2007).

Immigrant farmers from Southeast Asia have brought knowledge of tropical fruit and vegetable production from their home countries to Florida. In their "homegardens," gardeners successfully manage crop diversity as an economic strategy.

**Sara Janhäll**, *Review on Urban Vegetation and Particle Air Pollution—Deposition and Dispersion*, 105 *Atmospheric Env't* 130 (2015).

Urban vegetation provides ecosystem services by filtering particulate matter from the air. The height and density of urban vegetation determines the filtration effects.

**Stephen Kaplan**, *The Restorative Benefits of Nature: Toward an Integrative Framework*, 15 *J. Env'tl. Psychol.* 169 (1995).

Access to nature helps individuals recover from fatigue by providing restorative experiences.

**Iyad Kheirbek et al.**, *The Contribution of Motor Vehicle Emissions to Ambient Fine Particulate Matter Public Health Impacts in New York City: A Health Burden Assessment*, 15 *Env'tl. Health* 1 (2016).

In New York City, ambient particulate matter from motor vehicles contributes to a large number of avoidable premature deaths and diseases. A reduction in motor vehicle emissions, especially from trucks and buses, could produce significant health benefits and reduce disparities in impacts across locales.

**Kelly G. Lambert et al.**, *Brains in the City: Neurobiological Effects of Urbanization*, 58 *Neurosci. Biobehav. Revs.* 107 (2015).

Living in an urban environment is associated with higher levels of social and psychological stress.

**Laura J. Lawson**, *City Bountiful: A Century of Community Gardening in America* (2005).

Urban garden programs, or cooperative enterprises that provide space and resources for urban dwellers to cultivate vegetables and flowers, first emerged in the 1890s. Since then, there have been significant recurring themes in garden programs: reintroducing nature to the urban environment; offering educational opportunities; and providing a democratic space to bring diverse groups together in mutual self-interest.

**Jill S. Litt et al.**, *The Influence of Social Involvement, Neighborhood Aesthetics, and Community Garden Participation on Fruit and Vegetable Consumption*, 101 *Am. J. Pub. Health* 1466 (2011).

Neighborhood aesthetics, social involvement, and community garden participation are significantly associated with fruit and vegetable intake. Community gardens increase local opportunities to eat more nutritious foods, making participation in a garden a beneficial health intervention.

**Cecily Maller et al.**, *Healthy Nature Healthy People: 'Contact with Nature' as an Upstream Health Promotion Intervention for Populations*, 21 *Health Promotion Int'l* 45 (2005).

Contact with nature can be a useful upstream health intervention and may provide an effective population-wide strategy to alleviate mental health ailments.

**Art McCabe**, *Community Gardens to Fight Urban Youth Crime and Stabilize Neighborhoods*, 7 *Int'l J. Child Health & Hum. Dev.* 1 (2014).

Community garden programs can strengthen civic engagement and foster neighborhood stability while simultaneously cutting down on youth violence. Community garden programs are a cost-effective way of addressing public health challenges ranging from obesity to substance abuse.

**Lorien Nesbitt et al.**, *Who Has Access to Urban Vegetation? A Spatial Analysis of Distributional Green Equity in 10 US Cities*, 181 *Landscape & Urb. Planning* 51 (2019).

There is a strong positive correlation between urban vegetation and higher education and income across most cities. Urban vegetation measures, such as the development of community gardening programs, can alleviate urban greenspace inequity.

**Kartika Palar et al.**, *Nutrition and Health Improvements After Participation in an Urban Home Garden Program*, 51 *J. Nutrition Educ. & Behav.* 1037 (2019).

Participation in a community garden is associated with greater food access, increased consumption of fresh produce, a shift towards home cooking, and decreased fast food consumption. Gardeners report increased motivation to stay healthy, greater nutritional knowledge, and improved physical activity, mental health, and stress management.

**Sin-Ae Park et al.**, *Gardening Tasks Performed by Adults Are Moderate- to High-Intensity Physical Activities*, 24 *Am. Soc’y for Horticultural Sci.* 58 (2014).

The exercise intensity of gardening helps adults meet the recommended physical activity levels for health benefits.

**Michela Pasquali**, *Loisaida: NYC Community Gardens* (2006).

Community gardens on the Lower East Side of Manhattan, or “the Loisaida,” strongly reflect the personal tastes, interests, and cultures of neighborhood residents.

**Kathryn A. Peters**, *Current and Emerging Issues in the New Urban Agriculture: A Case Study*, 7 *J. Food L. & Pol’y* 297 (2011).

Many community gardens are located in areas that lack affordable, fresh, and healthful food for low-income residents. Community gardens can help to alleviate the lack of nutritious food options.

**Michelle M. Ratcliffe et al.**, *The Effects of School Garden Experiences on Middle School-Aged Students’ Knowledge, Attitudes, and Behaviors Associated with Vegetable Consumption*, 12 *Health Promotion Prac.* 36 (2011).

School gardening may affect children’s vegetable consumption through improved recognition of, attitudes toward, preferences for, and willingness to taste vegetables. School gardening also increases the variety of vegetables eaten by children.

**Laura Saldivar-Tanaka & Marianne E. Krasny**, *Culturing Community Development, Neighborhood Open Space, and Civic Agriculture: The Case of Latino Community Gardens in New York City*, 21 *Agric. & Hum. Values* 399 (2004).

In addition to growing traditional and conventional fruits and vegetables, Latinx community gardens serve to promote community activism and host numerous social, educational, and cultural events, including neighborhood and church gatherings, holiday parties, children’s activities, school tours, concerts, health fairs, and voter registration drives.

**Kimberly J. Shinew et al.**, *Leisure Spaces as Potential Sites for Interracial Interaction: Community Gardens in Urban Areas*, 36 *J. Leisure Res.* 336 (2004).

Leisure settings, such as community gardens, can be ideal environments for interracial interaction to occur, as participation relies on free choice and self-determination.

**Masahi Soga et al.**, *Gardening Is Beneficial to Health: A Meta-Analysis*, 5 *Preventive Med. Rep.* 92 (2017).

Participation in community gardens is associated with reductions in depression, anxiety, and body mass index, as well as increases in life satisfaction, quality of life, and sense of community.

**Joan Twiss et al.**, *Community Gardens: Lessons Learned from California Healthy Cities and Communities*, 93 *Am. J. Pub. Health* 1435 (2003).

Through community garden initiatives, cities have enacted policies for interim land and water



use, improved access to produce, elevated social consciousness about public health, created culturally appropriate educational materials, and strengthened community building skills.

**Union of Concerned Scientists**, *Inequitable Exposure to Air Pollution from Vehicles in New York State: Who Bears the Burden?* (2019), <https://www.ucsusa.org/sites/default/files/attach/2019/06/Inequitable-Exposure-to-Vehicle-Pollution-NY.pdf>.

Communities of color in New York City are exposed to higher levels of particulate matter pollution from cars, trucks, and buses than white communities. State programs to support clean transportation should target affected communities.

**Sarah Wakefield et al.**, *Growing Urban Health: Community Gardening in South-East Toronto*, 22 *Health Promotion Int'l* 92 (2007).

Community gardeners in Toronto report that gardens provide numerous health benefits, including greater access to healthful food, improved nutrition, increased physical activity, and improved mental health. Community gardeners also find that gardens promote social health and community cohesion.

**Ming Wen et al.**, *Spatial Disparities in the Distribution of Parks and Green Spaces in the USA*, 45 *Annals of Behav. Med.* S18 (2013).

Neighborhood poverty and residential segregation can result in environmental inequalities, such as unequal access to parks and open spaces. Environmental inequities prevent residents of predominantly Black, Latinx, and low-income neighborhoods from being active and meeting aerobic physical activity guidelines.

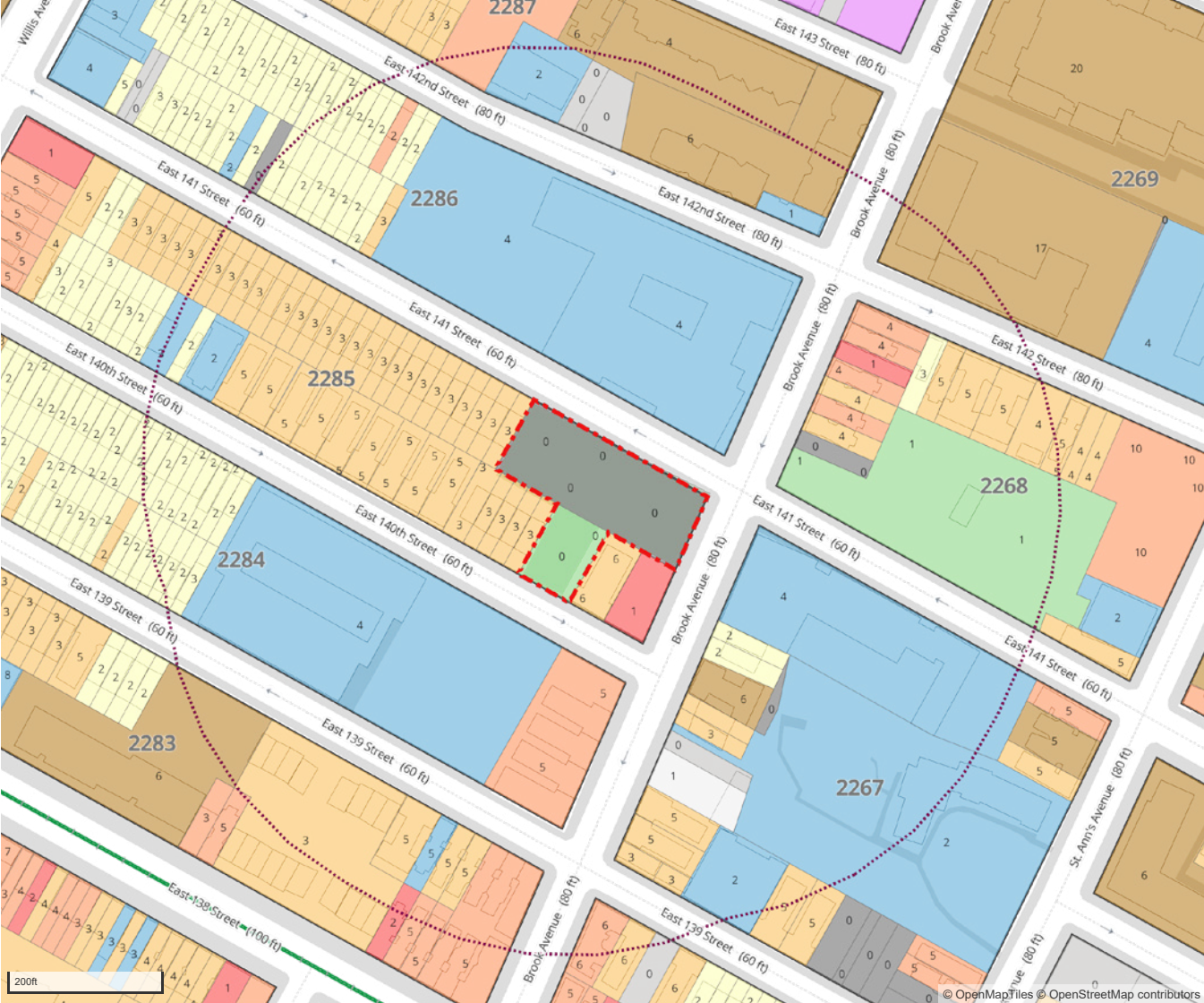
**Cathleen D. Zick et al.**, *Harvesting More Than Vegetables: The Potential Weight Control Benefits of Community Gardening*, 103 *Am. J. Pub. Health* 1110 (2013).

Community gardening merits increased attention from public health officials because the health benefits of community gardening go beyond enhancing the gardeners' intake of fruits and vegetables.

# APPENDIX

## FRIENDS OF BROOK PARK AREA MAP

Address: 494 E. 141st St., Bronx, NY 10454  
 Size: 33498 sq. ft.  
 Founding Year: 1999  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

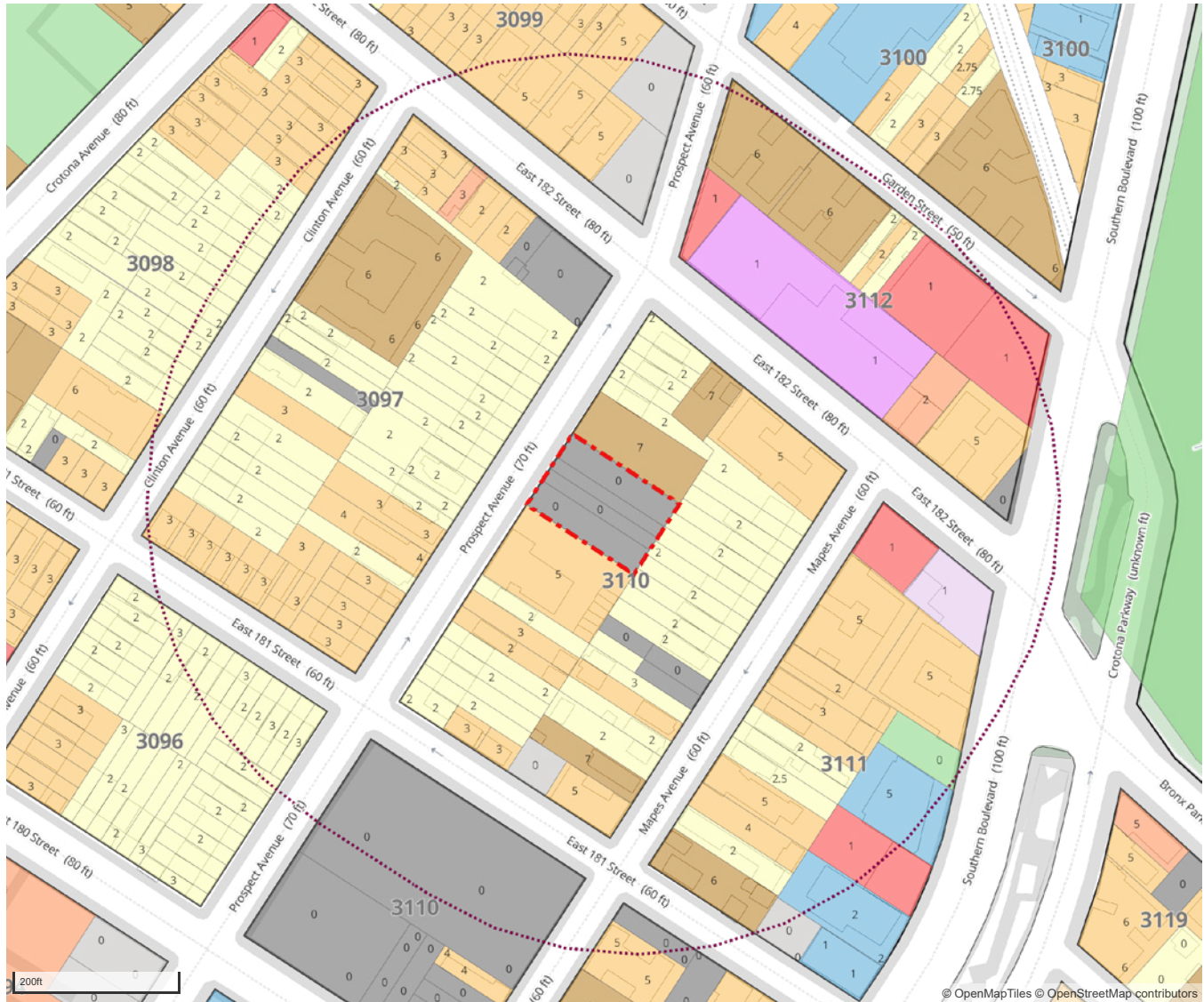
- Subway Stop
- Subway Entrance

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 districts (May 2020); digital-citymap (May 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# GARDEN OF HAPPINESS AREA MAP

Address: 2158 Prospect Ave., Bronx, NY 10457  
 Size: 14842 sq. ft.  
 Founding Year: 1988  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

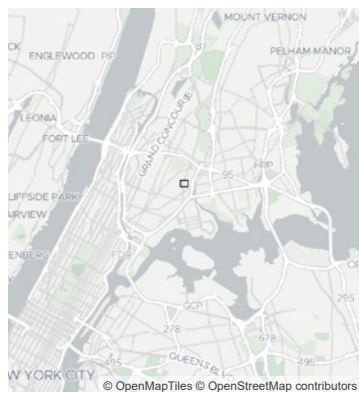
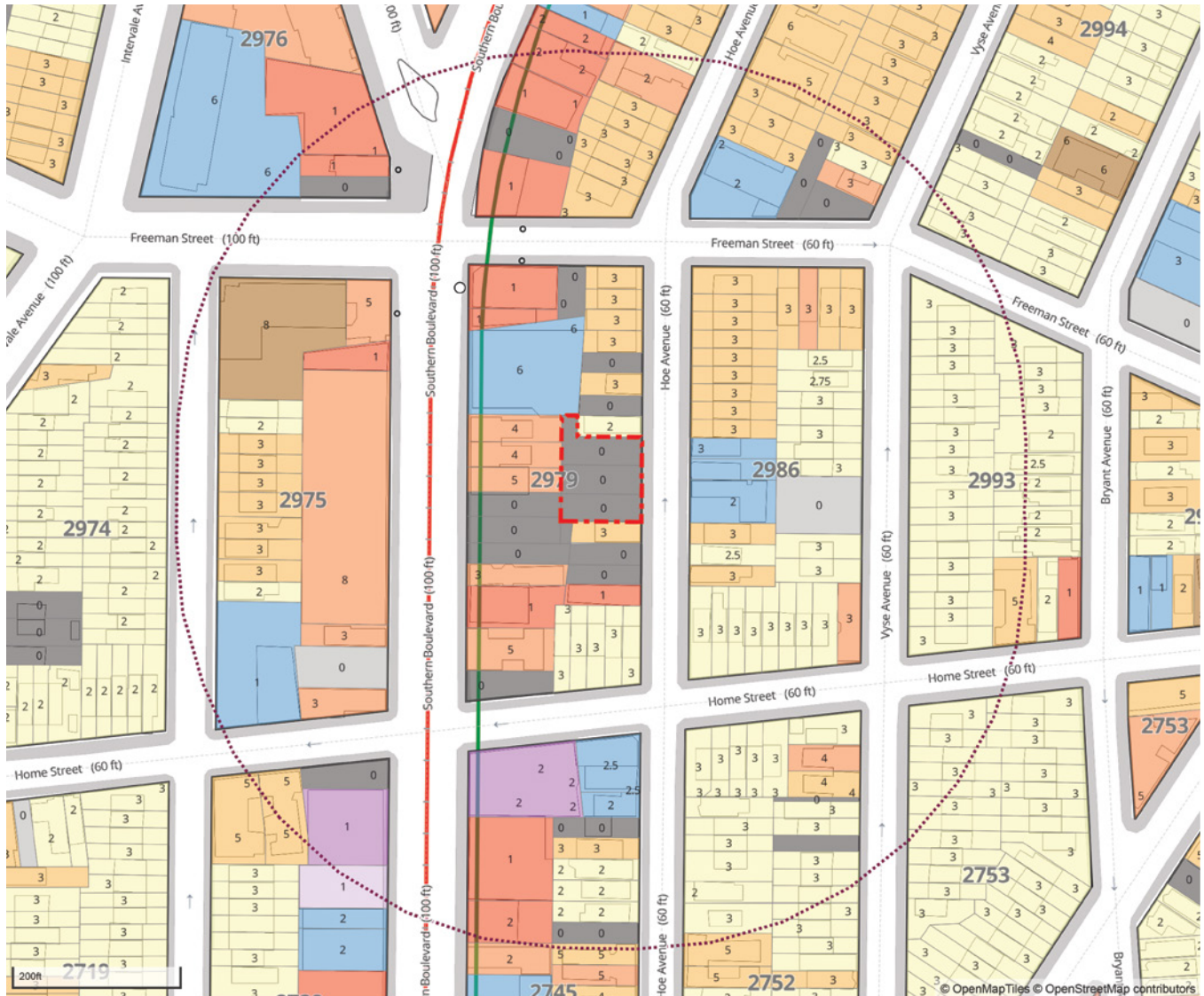
**Transportation**

- Subway Stop
- Subway Entrance

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 pluto MapPLUTO™ 20v4, Bytes of the Big Apple (July 2020); zoning  
 districts (June 2020); digital-citymap (June 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (June 2020)

# MORNING GLORY COMMUNITY GARDEN AREA MAP

Address: 1219 Hoe Ave., Bronx, NY 10459  
 Size: 9799 sq. ft.  
 Founding Year: 2014  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 1:17pm  
 Data Sources: layers-and-planning/labs/myciv1/sources/planets/Map/LUTO™ 20v4; Bytes of the Big Apple (June 2020); zoning-districts (May 2020); digital-citymap (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# RAINBOW GARDEN OF LIFE & HEALTH AREA MAP

Address: 762 Melrose Ave., Bronx, NY 10451  
 Size: 10866 sq. ft.  
 Founding Year: 2013  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

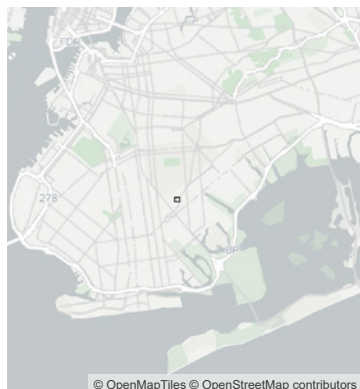
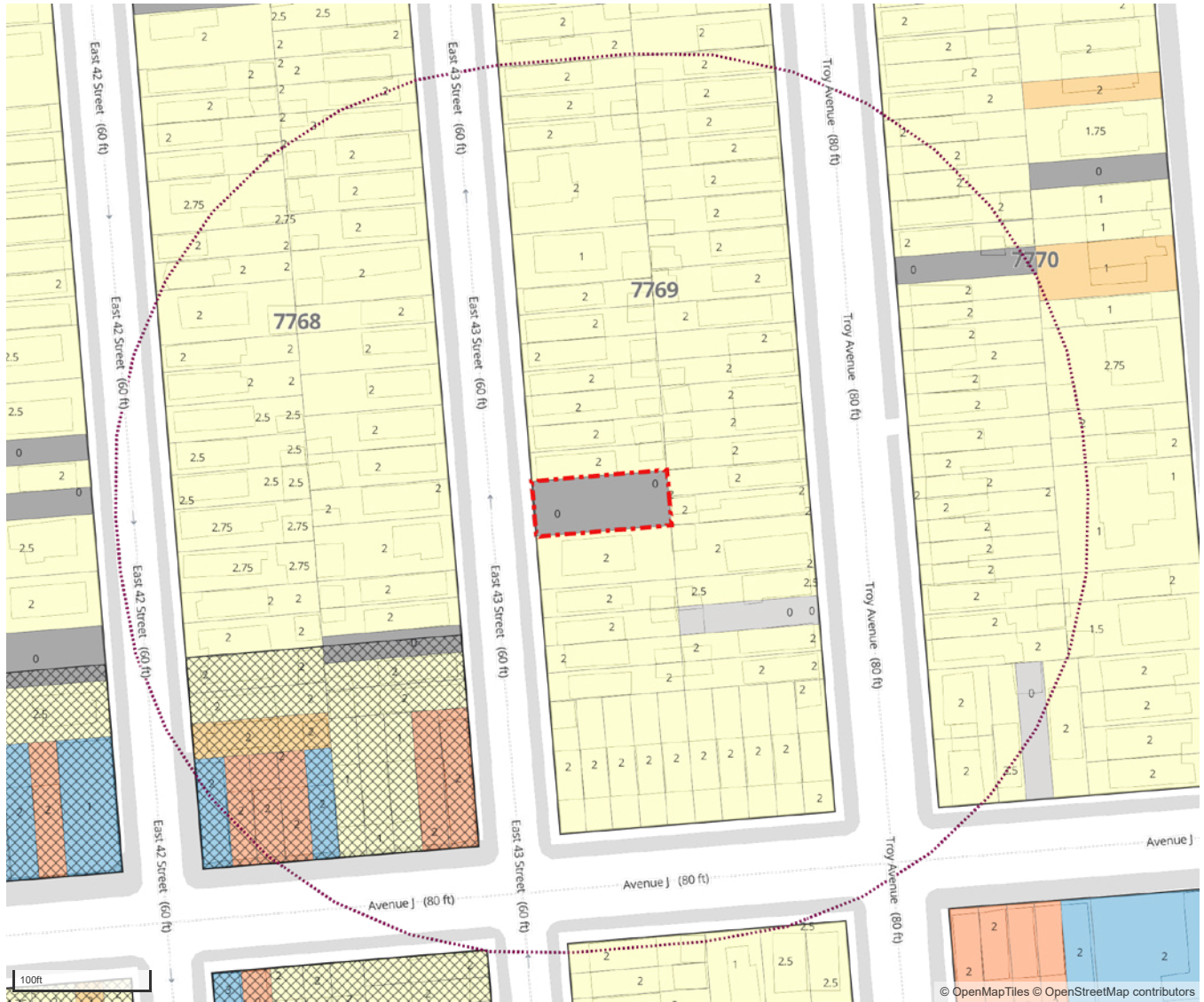
**Transportation**

- Subway Stop
- Subway Entrance

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# EAST 43RD STREET COMMUNITY GARDEN AREA MAP

Address: 1087 E. 43rd St., Brooklyn, NY 11210  
 Size: 4000 sq. ft.  
 Founding Year: 2015  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

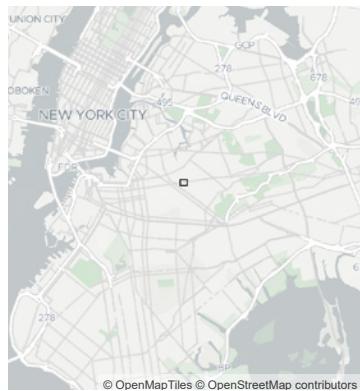
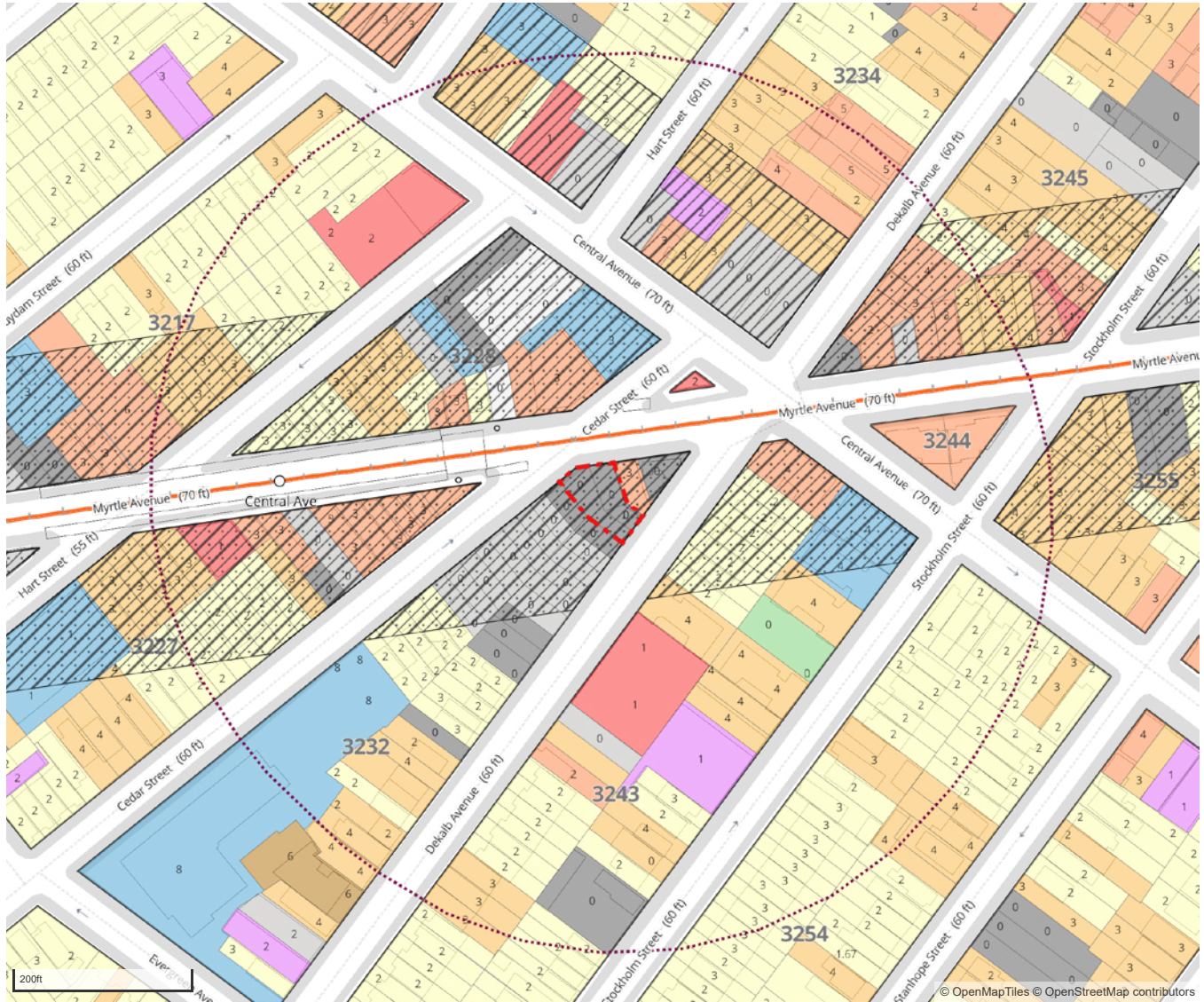
- Subway Stop
- Subway Entrance

Map Created: Jul 22, 2020, 1:11pm  
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 pluto MapPLUTO™ 2014, Bytes of the Big Apple (June 2020), zoning-districts (May 2020), digital-city-map (May 2020), planimetrics (26 February 2019), transportation (21 November 2017), supporting-zoning (May 2020)



# KNOW WASTE LANDS COMMUNITY GARDEN AREA MAP

Address: 1278 Myrtle Ave., Brooklyn, NY 11221  
 Size: 4326 sq. ft.  
 Founding Year: 2014  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 12:52am  
 Data Sources: layers-and-planning-labs.nyc.gov/sources-pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-districts (May 2020); digital-city-map (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# 6BC BOTANICAL GARDEN AREA MAP

Address: 620 E. 6th St., New York, NY 10009  
 Size: 11680 sq.ft.  
 Founding Year: 1981  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 2:03pm  
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 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# 9TH STREET COMMUNITY GARDEN & PARK AREA MAP

Address: 144 Ave C & 9th St., New York, NY 10009  
 Size: 20948 sq. ft.  
 Founding Year: 1979  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 2:10pm  
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# 11 BC SERENITY GARDEN AREA MAP

Address: 626 E. 11th St., New York, NY 10009  
 Size: 2370 sq. ft.  
 Founding Year: 1986  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

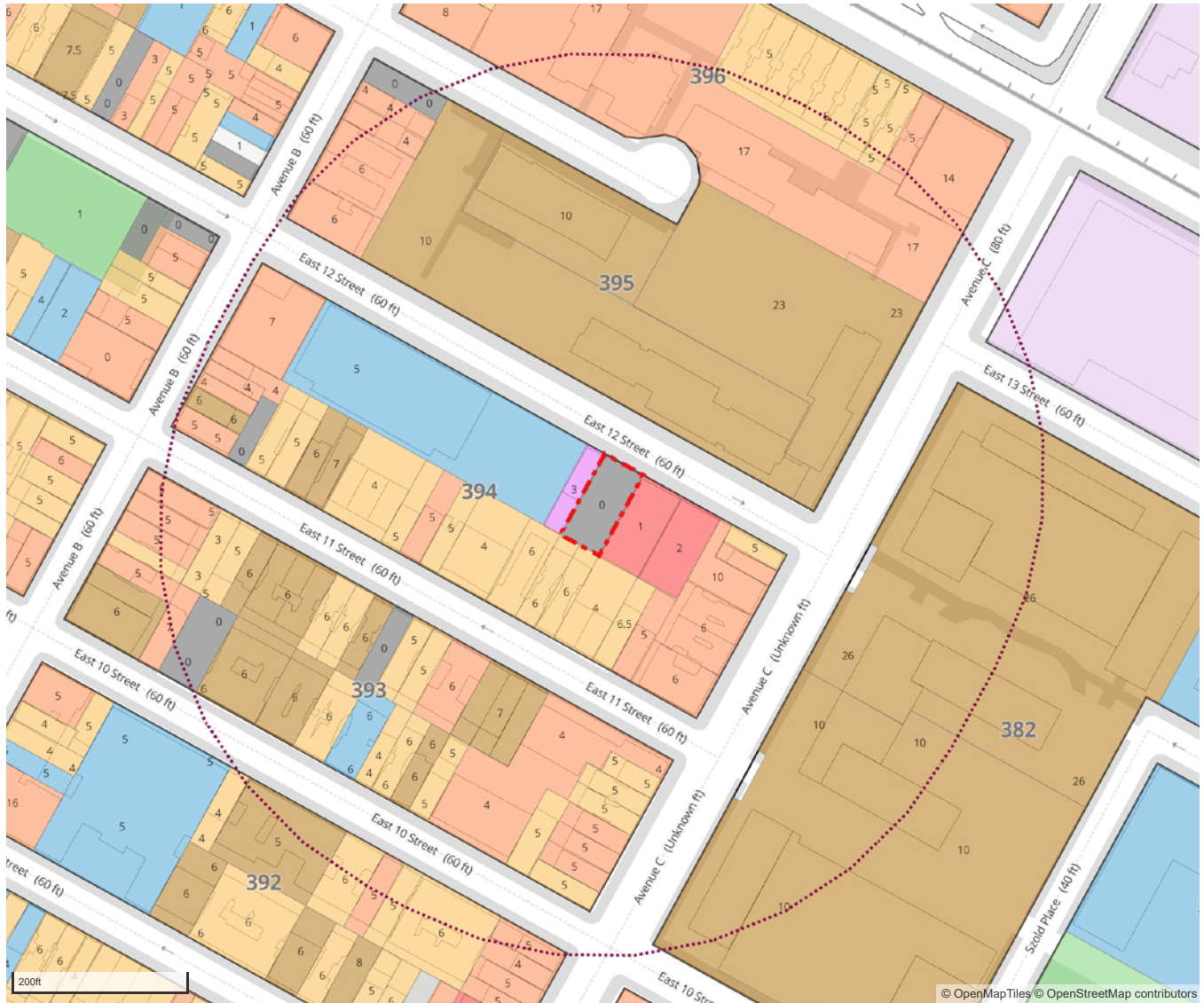
- Subway Stop
- Subway Entrance

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# CAMPOS COMMUNITY GARDEN AREA MAP

Address: 640–644 E. 12th St., New York, NY 10009  
 Size: 5163 sq. ft.  
 Founding Year: 1983  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

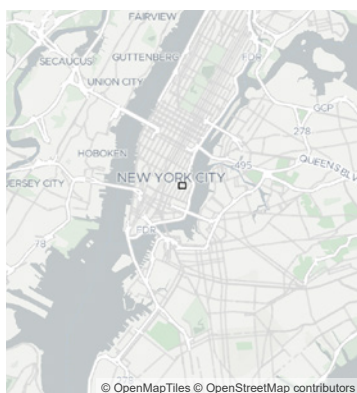
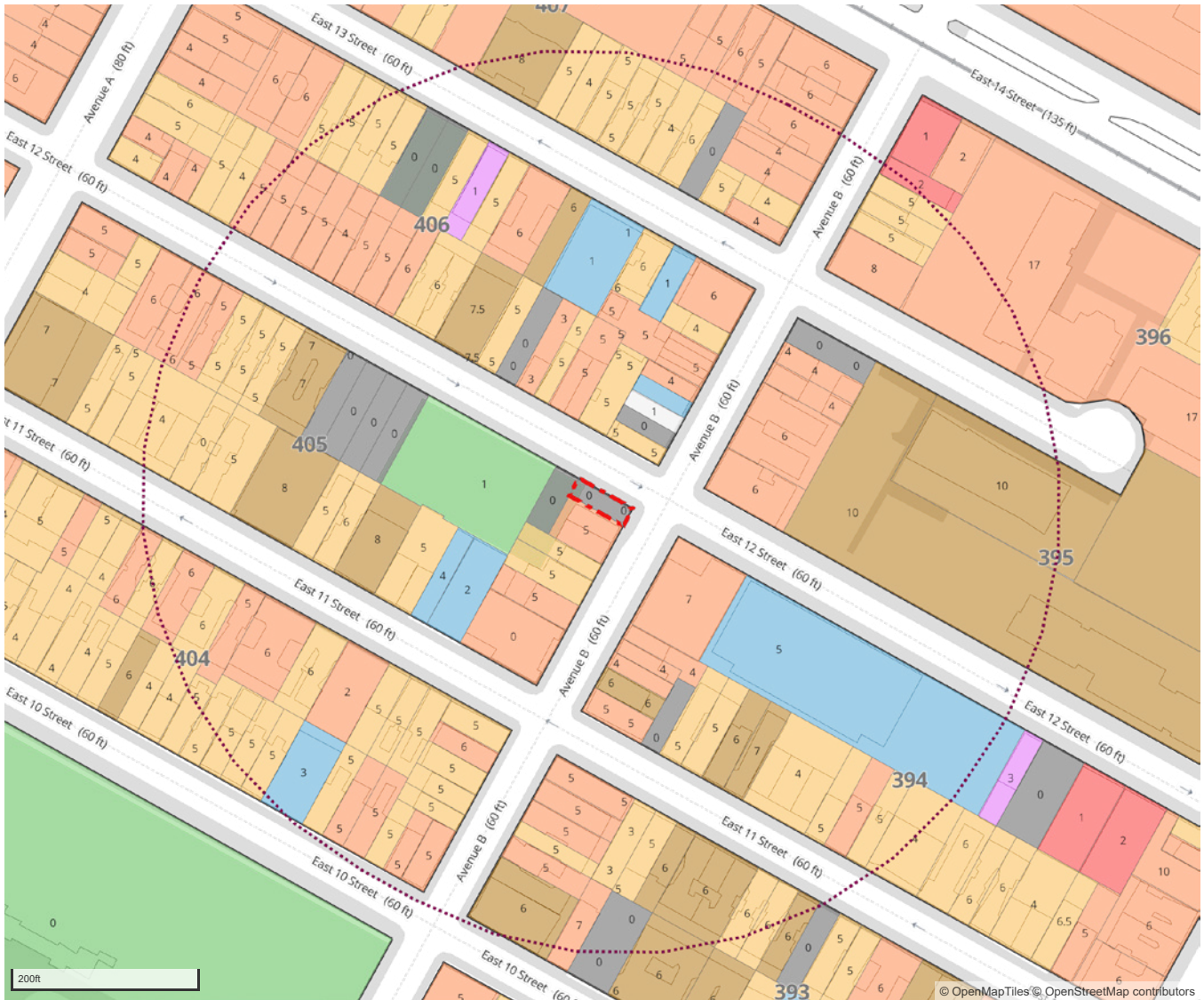
**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 2:22pm  
 Data Sources: layers-geo-planninglabs.nyc.gov/sources-pluto MapPLUTO™ 2014, Bytes of the Big Apple (June 2020), zoning-districts (May 2020); digital-citymap (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)

# CHILDREN'S GARDEN (DOWN TO EARTH) AREA MAP

Address: 194 Ave. B, New York, NY 10009  
 Size: 1261 sq. ft.  
 Founding Year: 1993  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

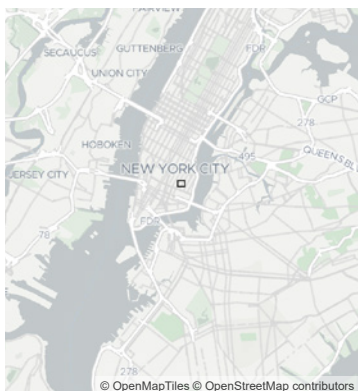
- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 2:25pm  
 Data Sources: layers-aqi.planninglabs.nyc/v1/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-  
 districts (May 2020); digital-citymap (May 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# CREATIVE LITTLE GARDEN AREA MAP

Address: 530 E. 6th St., New York, NY 10009  
 Size: 2271 sq. ft.  
 Founding Year: 1978  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

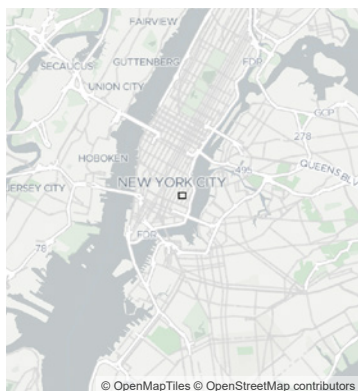
**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 4:47pm  
 Data Sources: layers-and-planning-labs.nyc.gov/sources-pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-districts (May 2020); digital-city-map (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)

# DE COLORES COMMUNITY YARD & CULTURAL CENTER AREA MAP

Address: 530 E. 6th St., New York, NY 10009  
 Size: 2887 sq. ft.  
 Founding Year: 1996  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

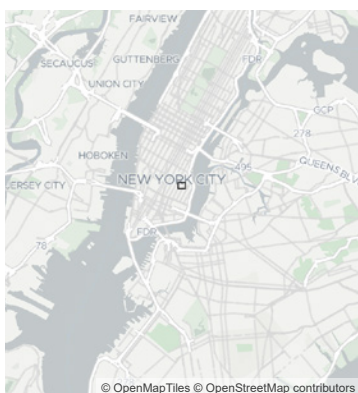
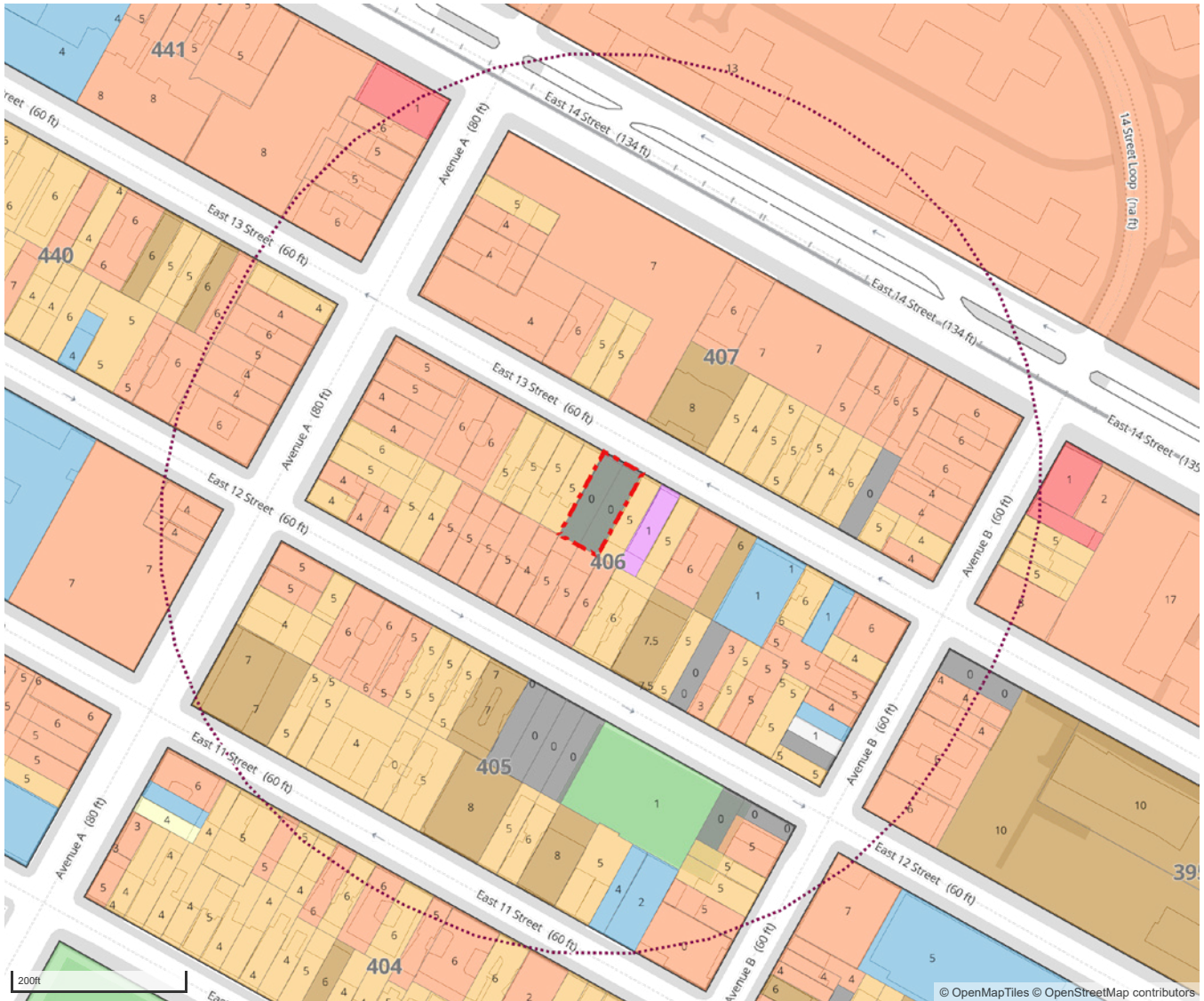
- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 4:49pm  
 Data Sources: layers-api.planninglabs.nyc/v1/sources-pluto MapPLUTO™ 2014, Bytes of the Big Apple (June 2020); zoning-districts (May 2020); digital-citymap (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# DIAS Y FLORES GARDEN AREA MAP

Address: 520–522 E. 13th St., New York, NY 10009  
 Size: 5162 sq. ft.  
 Founding Year: 1978  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

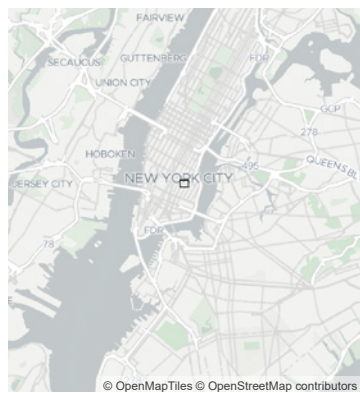
- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 4:51pm  
 Data Sources: layers-aqi.planninglabs.nyc/v1/sources  
 pluto MapPLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-  
 districts (May 2020); digital-citymap (May 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# EAST SIDE OUTSIDE COMMUNITY GARDEN AREA MAP

Address: 404 E. 12th St., New York, NY 10009  
 Size: 19602 sq. ft.  
 Founding Year: 1993  
 Jurisdiction: DPR & DOE



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Aug 14, 2020, 10:28am  
 Data Sources: layers-and-planning-labs.nyc.gov/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (July 2020); zoning-districts (June 2020); digital-citymap (June 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (June 2020)



# EL JARDÍN DEL PARAISO AREA MAP

Address: 706 E. 5th St., New York, NY 10009  
 Size: 31831 sq. ft.  
 Founding Year: 1981  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

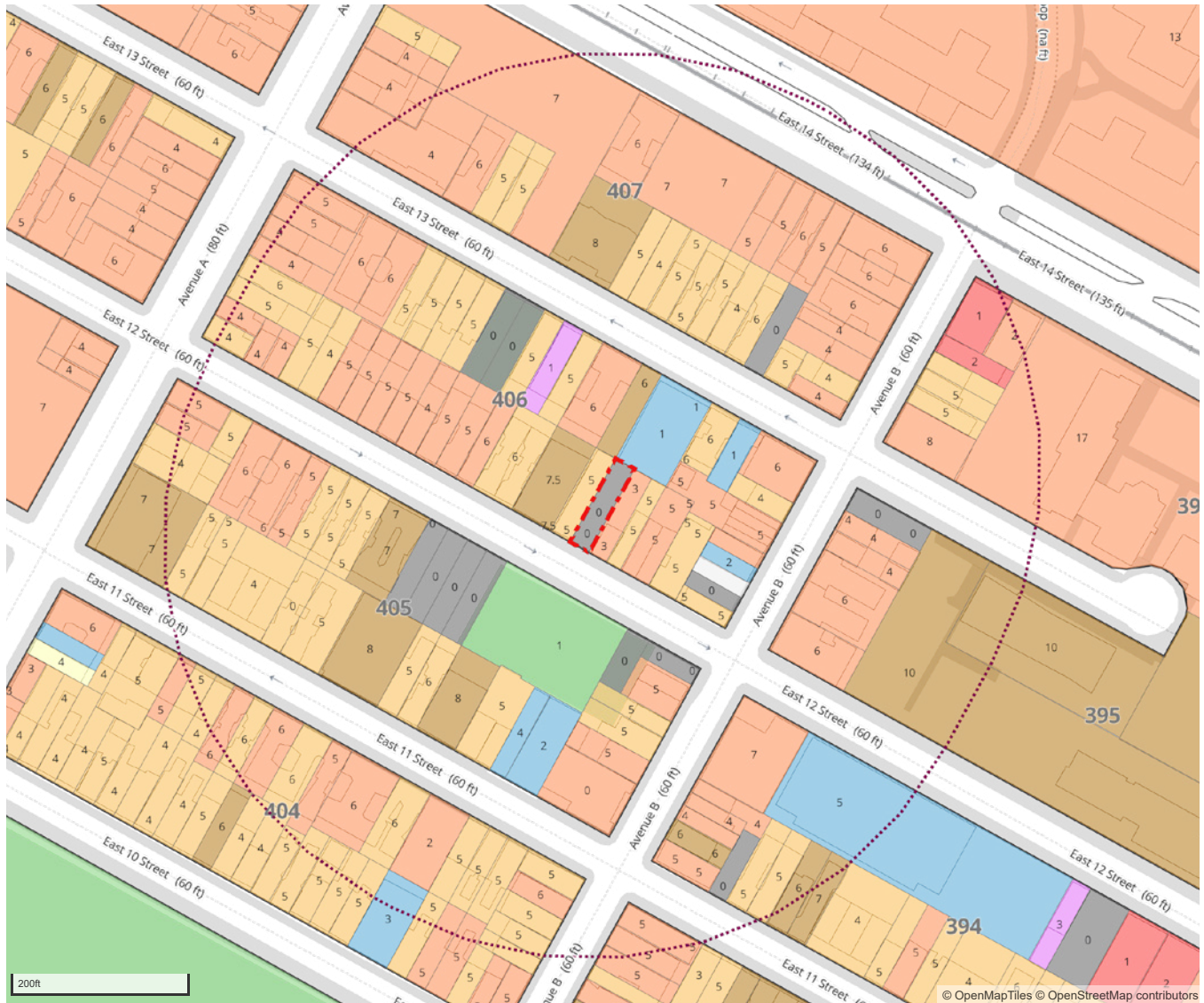
- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 5:46pm  
 Data Sources: layers-and-planning-labs.nyc.gov/sources-pluto MapPLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-districts (May 2020); digital-citymap (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# EL SOL BRILLANTE JR. AREA MAP

Address: 537 E. 12th St., New York, NY 10009  
 Size: 2581 sq. ft.  
 Founding Year: 1981  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

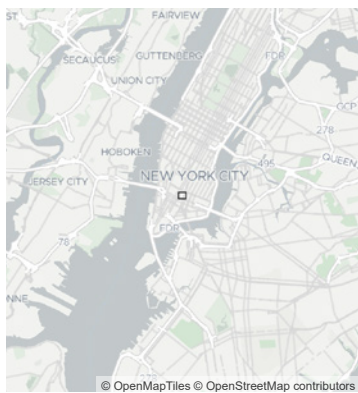
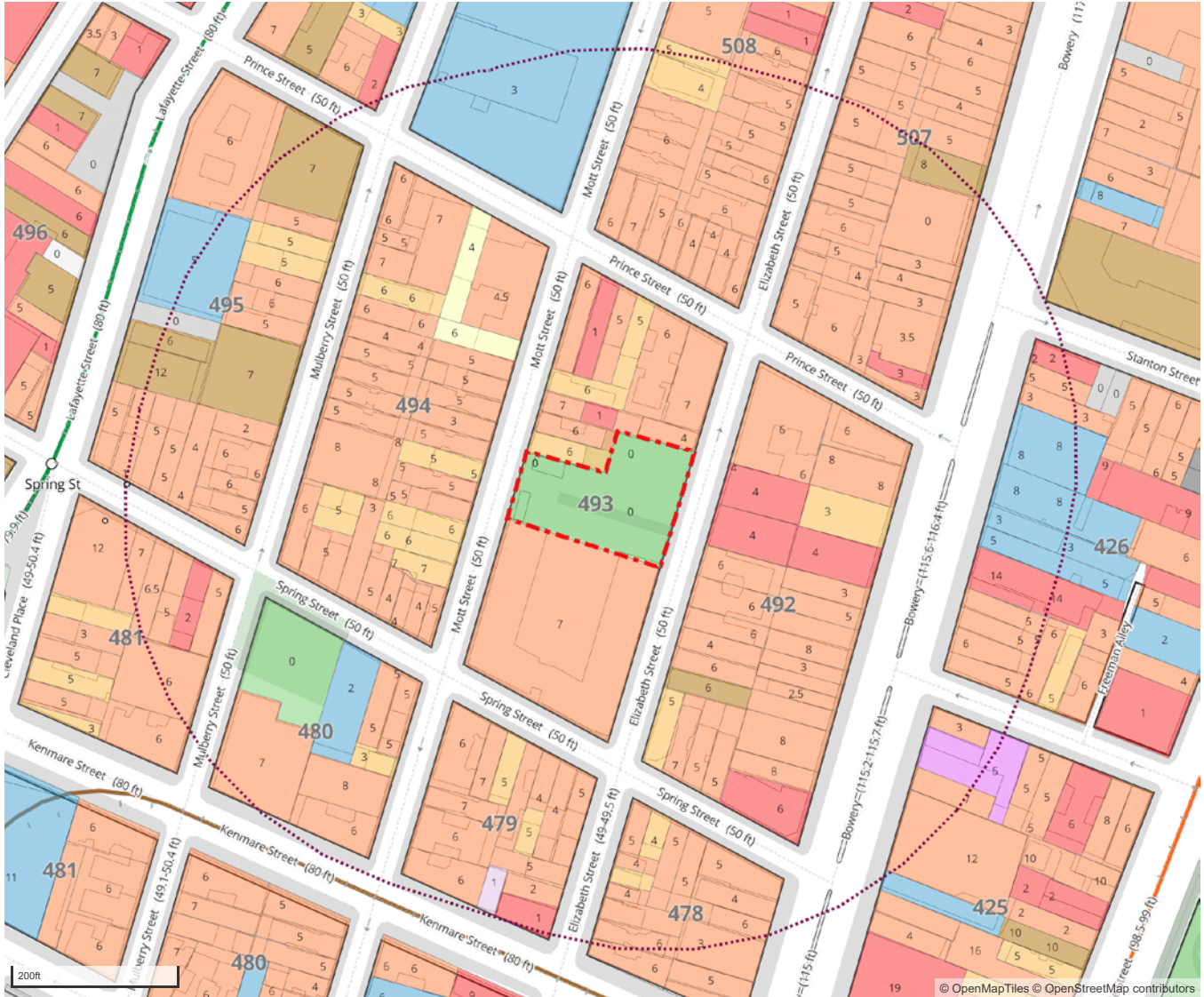
- Subway Stop
- Subway Entrance

Map Created: Sep 18, 2020, 3:25pm  
 Data Sources: layers-aqi.planninglabs.nyc/v1/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (July 2020); zoning districts (June 2020); digital-citymap (June 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (June 2020)



# ELIZABETH STREET GARDEN AREA MAP

Address: 209 Elizabeth St., New York, NY 10012  
 Size: 20110 sq. ft.  
 Founding Year: 1991  
 Jurisdiction: HPD



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 6:26pm  
 Data Sources: layers-gis-planning-labs.nyc.gov/1/sources-pluto MapPLUTO™ 2014, Bytes of the Big Apple (June 2020), zoning-districts (May 2020), digital-city-map (May 2020), planimetrics (26 February 2019), transportation (21 November 2017), supporting-zoning (May 2020)



# FIFTH ST. SLOPE CHILDREN'S GARDEN AREA MAP

Address: 629 E. 5th St., New York, NY 10009  
 Size: 4014 sq. ft.  
 Founding Year: 1993  
 Jurisdiction: HPD



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

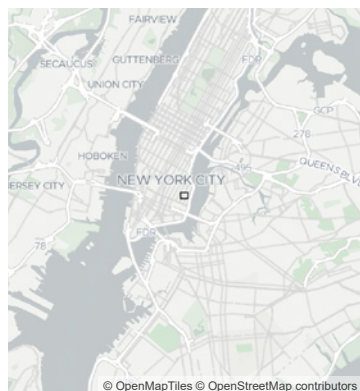
- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 6:28pm  
 Data Sources: layers-api.planninglabs.nyc/v1/sources-pluto MapPLUTO™ 2014. Bytes of the Big Apple (June 2020); zoning-districts (May 2020); digital-city-map (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# FIREMAN'S MEMORIAL GARDEN AREA MAP

Address: 358 E. 8th St., New York, NY 10009  
 Size: 7337 sq. ft.  
 Founding Year: 1979  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

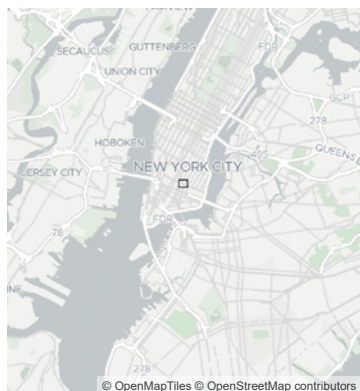
- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 6:31pm  
 Data Sources: layers-geo-planninglabs.nyc.gov/sources-pluto MapPLUTO™ 2014, Bytes of the Big Apple (June 2020), zoning-districts (May 2020), digital-citymap (May 2020), planimetrics (26 February 2019), transportation (21 November 2017), supporting-zoning (May 2020)



# FIRST STREET GARDEN AREA MAP

Address: 48 E. 1st St., New York, NY 10003  
 Size: 2402 sq. ft.  
 Founding Year: 1999  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

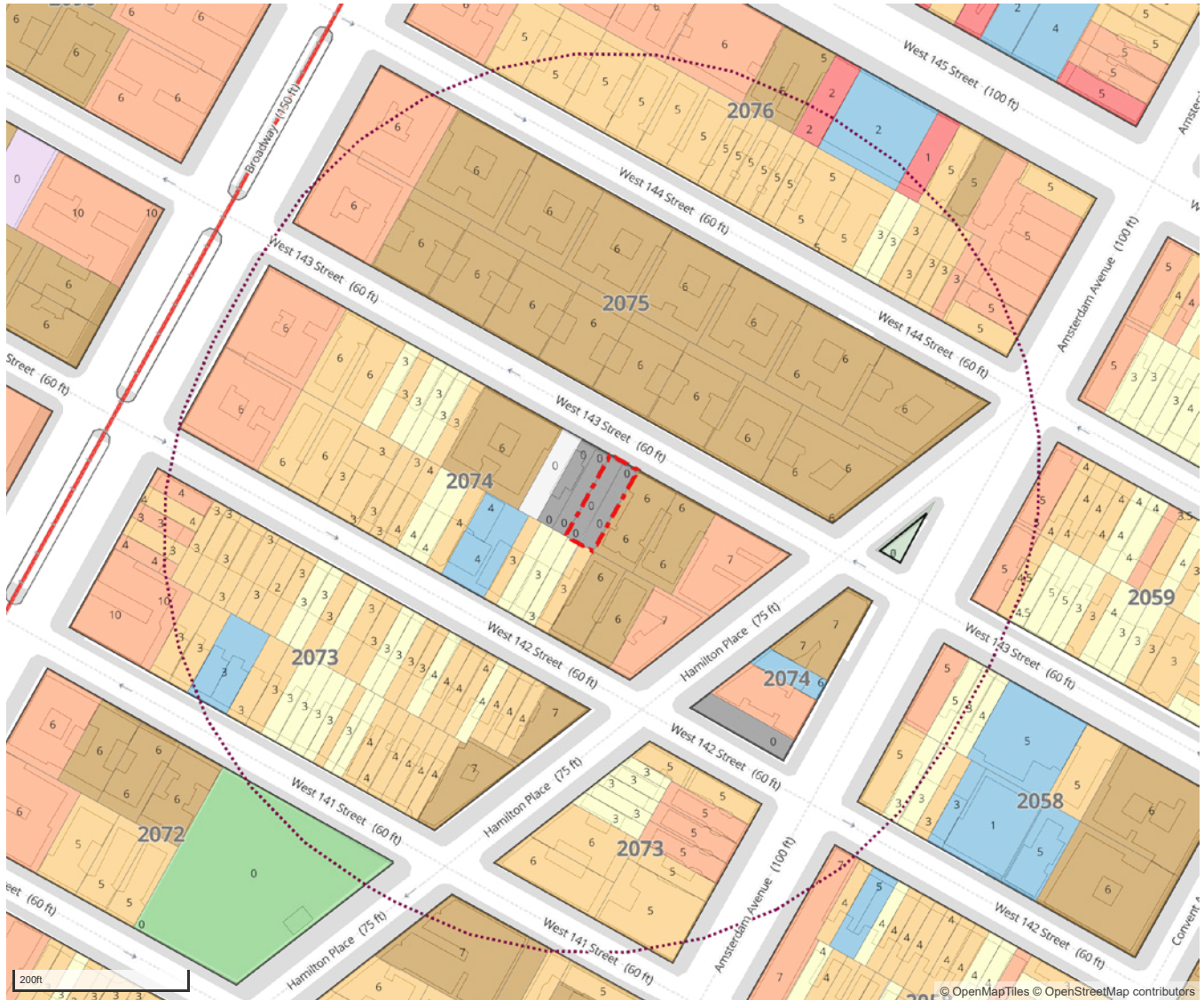
- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 6:33pm  
 Data Sources: layers-aqi.planninglabs.nyc/v1/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-  
 districts (May 2020); digital-citymap (May 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# FRANK WHITE MEMORIAL GARDEN AREA MAP

Address: 508 W. 143rd St., New York, NY 10031  
 Size: 3746 sq. ft.  
 Founding Year: 1970s  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

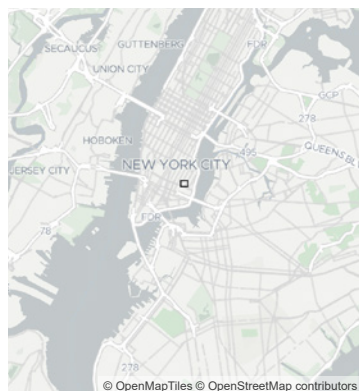
- Subway Stop
- Subway Entrance

Map Created: Jul 24, 2020, 10:34am  
 Data Sources: layers-geo-planninglabs.nyc.gov/sources-pluto-map-PLUTO™ 2014, Bytes of the Big Apple (June 2020), zoning-districts (May 2020), digital-city-map (May 2020), planimetrics (26 February 2019), transportation (21 November 2017), supporting-zoning (May 2020)



# GENERATION X CULTURAL GARDEN AREA MAP

Address: 270 E. 4th St., New York, NY 10009  
 Size: 4760 sq. ft.  
 Founding Year: 1970s  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

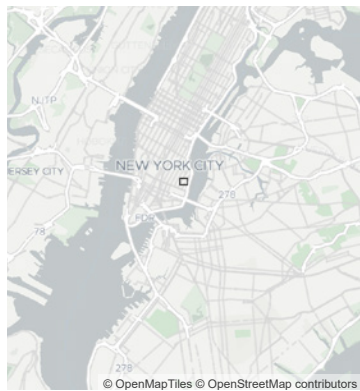
- Subway Stop
- Subway Entrance

Map Created: Jul 24, 2020, 10:35am  
 Data Sources: layers-and-planning-labs.nyc.gov/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-districts (May 2020); digital-city-map (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# GREEN OASIS COMMUNITY GARDEN & GILBERT'S SCULPTURE GARDEN AREA MAP

Address: 370 E. 8th St., New York, NY 10009  
 Size: 16836 sq. ft.  
 Founding Year: 1981  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

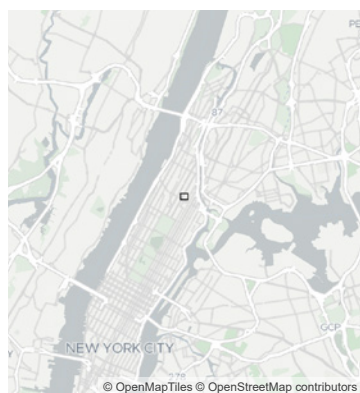
- Subway Stop
- Subway Entrance

Map Created: Jul 24, 2020, 10:36am  
 Data Sources: layers-aqi.planninglabs.nyc/v1/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-  
 districts (May 2020); digital-citymap (May 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# HARLEM GROWN - 127TH ST AREA MAP

Address: 127 W. 127th St., New York, NY 10027  
 Size: 7543 sq. ft.  
 Founding Year: 2010s  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

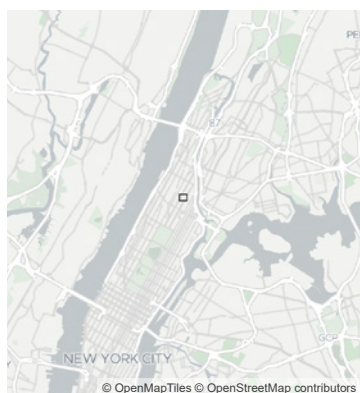
- Subway Stop
- Subway Entrance

Map Created: Aug 14, 2020, 10:07am  
 Data Sources: layers-api, planninglabs.nyc.gov/sources  
 pluto Map PLUTO™ 2014, Bytes of the Big Apple (July 2020); zoning-districts (June 2020); digital-citymap (June 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (June 2020)



# HARLEM GROWN - 134TH ST AREA MAP

Address: 118 W. 134th St., New York, NY 10030  
 Size: 13939 sq. ft.  
 Founding Year: 2011  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

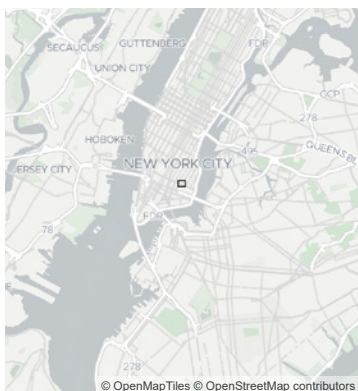
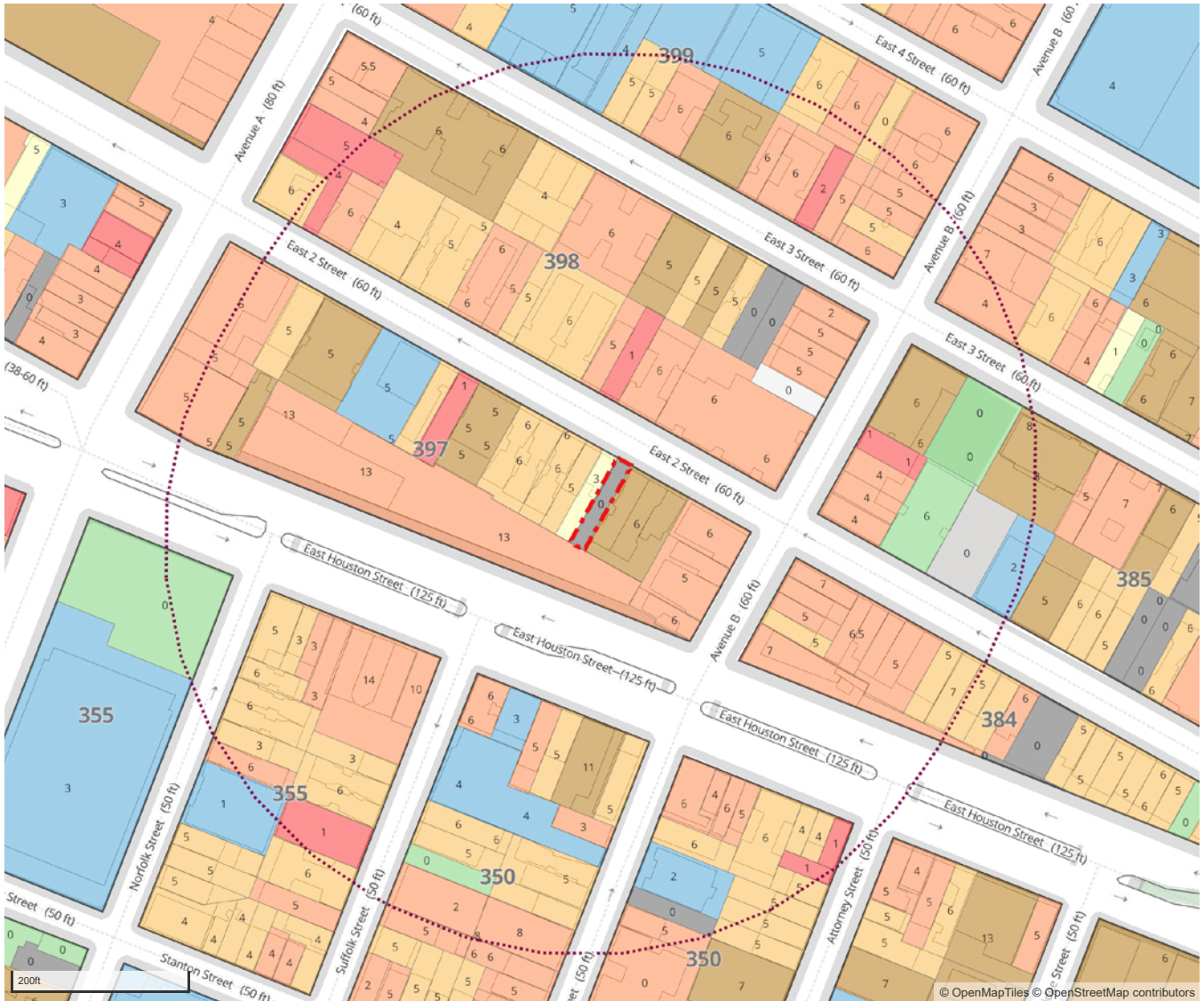
- Subway Stop
- Subway Entrance

Map Created: Aug 14, 2020, 10:10am  
 Data Sources: layers-api, planninglabs.nyc.gov/sources  
 pluto Map PLUTO™ 2014, Bytes of the Big Apple (July 2020); zoning-districts (June 2020); digital-city-map (June 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (June 2020)



# HOPE GARDEN AREA MAP

Address: 193 E. 2nd St., New York, NY 10009  
 Size: 2048 sq. ft.  
 Founding Year: 1994  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Jul 24, 2020, 11:24am  
 Data Sources: layers-and-planning-labs.nyc.gov/sources  
 pluto Map PLUTO™ 20v4. Bytes of the Big Apple (June 2020); zoning-districts (May 2020); digital-citymap (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# JARDÍN LOS AMIGOS AREA MAP

Address: 221 E. 3rd St., New York, NY 10009  
 Size: 2652 sq. ft.  
 Founding Year: 1996  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

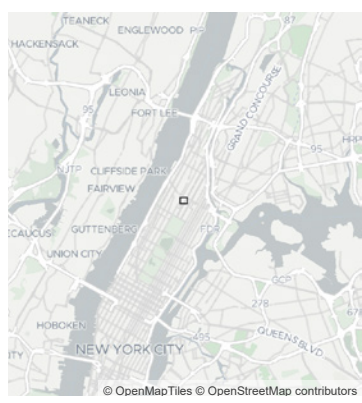
- Subway Stop
- Subway Entrance

Map Created: Aug 14, 2020, 10:19am  
 Data Sources: layers-and-planning-labs.nyc.gov/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (July 2020); zoning districts (June 2020); digital-citymap (June 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (June 2020)



# JOSEPH DANIEL WILSON MEMORIAL GARDEN AREA MAP

Address: 219 -225 West 122nd St., NY 10027  
 Size: 5044 sq. ft.  
 Founding Year: 1985  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

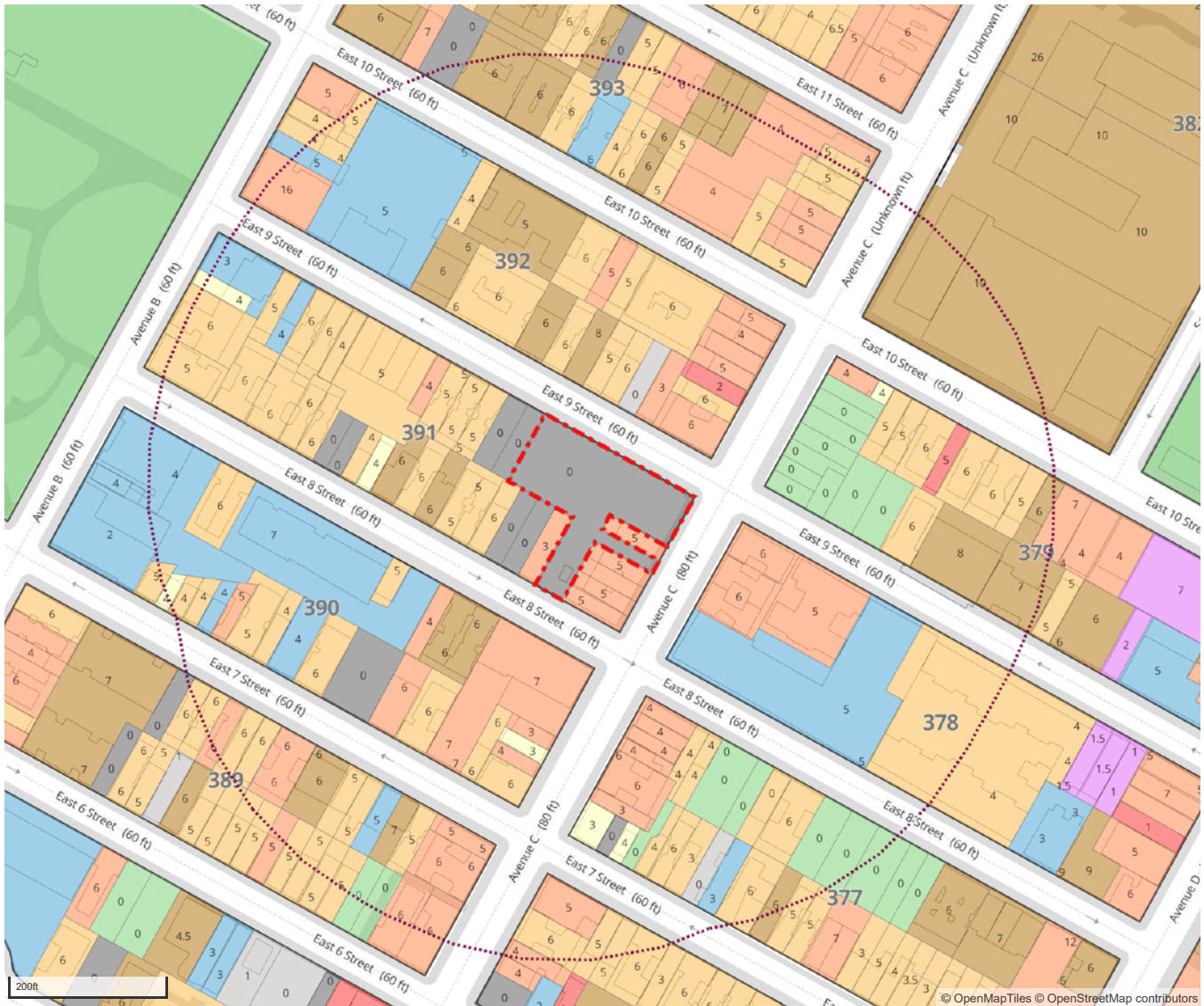
- Subway Stop
- Subway Entrance

Map Created: Sep 18, 2020, 3:22pm  
 Data Sources: layers-geo-planninglabs.nyc.gov/v1/sources  
 pluto Map PLUTO™ 2014, Bytes of the Big Apple (July 2020); zoning-  
 districts (June 2020); digital-city-map (June 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (June 2020)



# LA PLAZA CULTURAL - ARMANDO PEREZ AREA MAP

Address: 193 E. 2nd St., New York, NY 10009  
 Size: 22862 sq. ft.  
 Founding Year: 1976  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

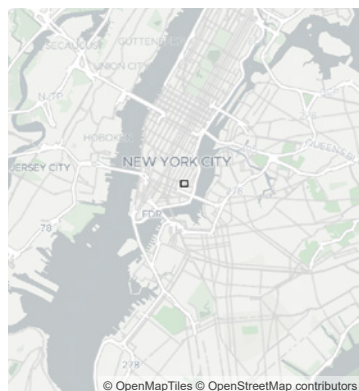
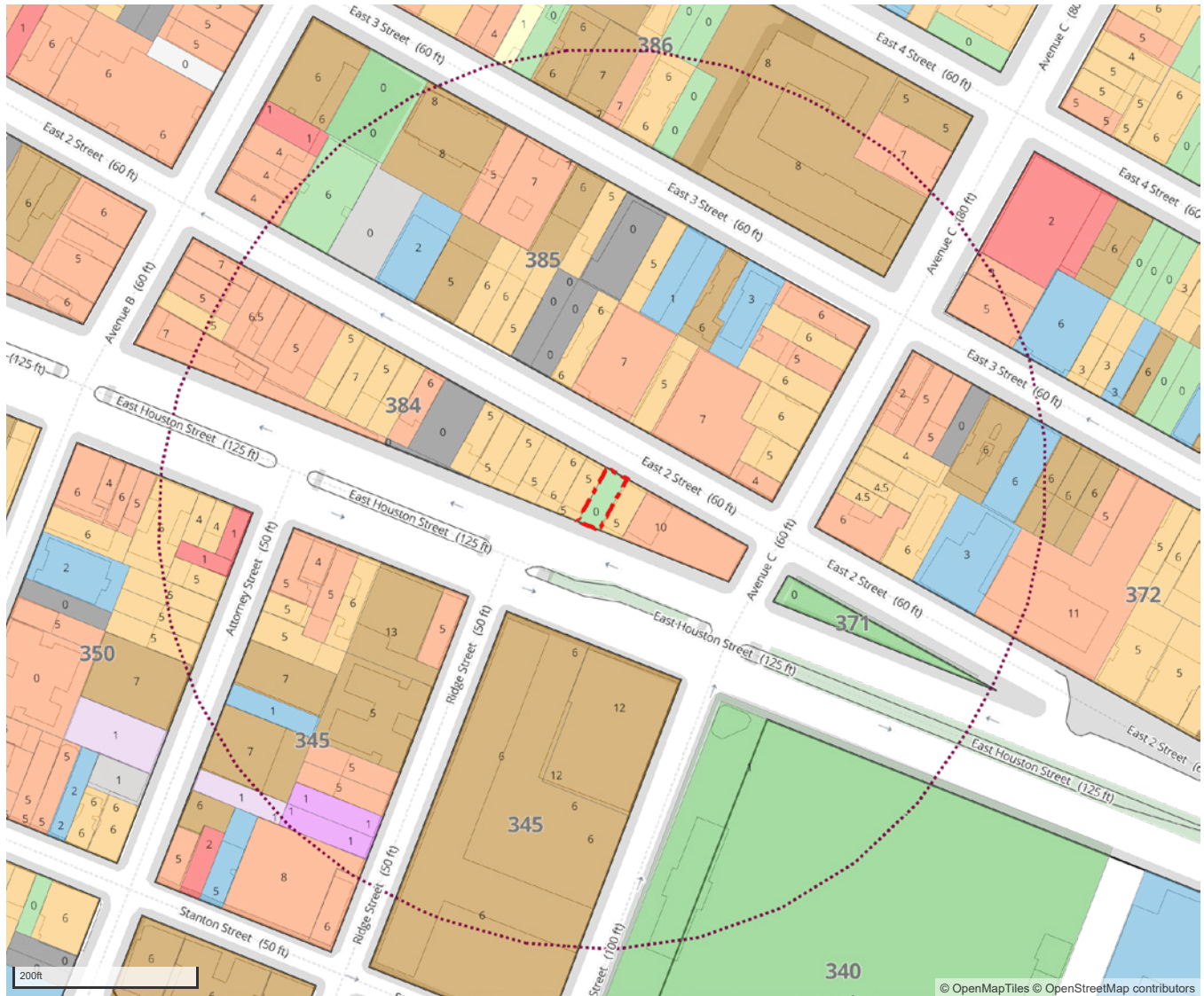
- Subway Stop
- Subway Entrance

Map Created: Jul 24, 2020, 11:31am  
 Data Sources: layers-and-planning-labs.nyc.gov/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-districts (May 2020); digital-citymap (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# LE PETIT VERSAILLES AREA MAP

Address: 247 E. 2nd St., New York, NY 10009  
 Size: 1525 sq. ft.  
 Founding Year: 1996  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

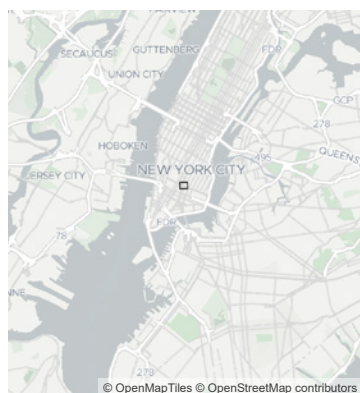
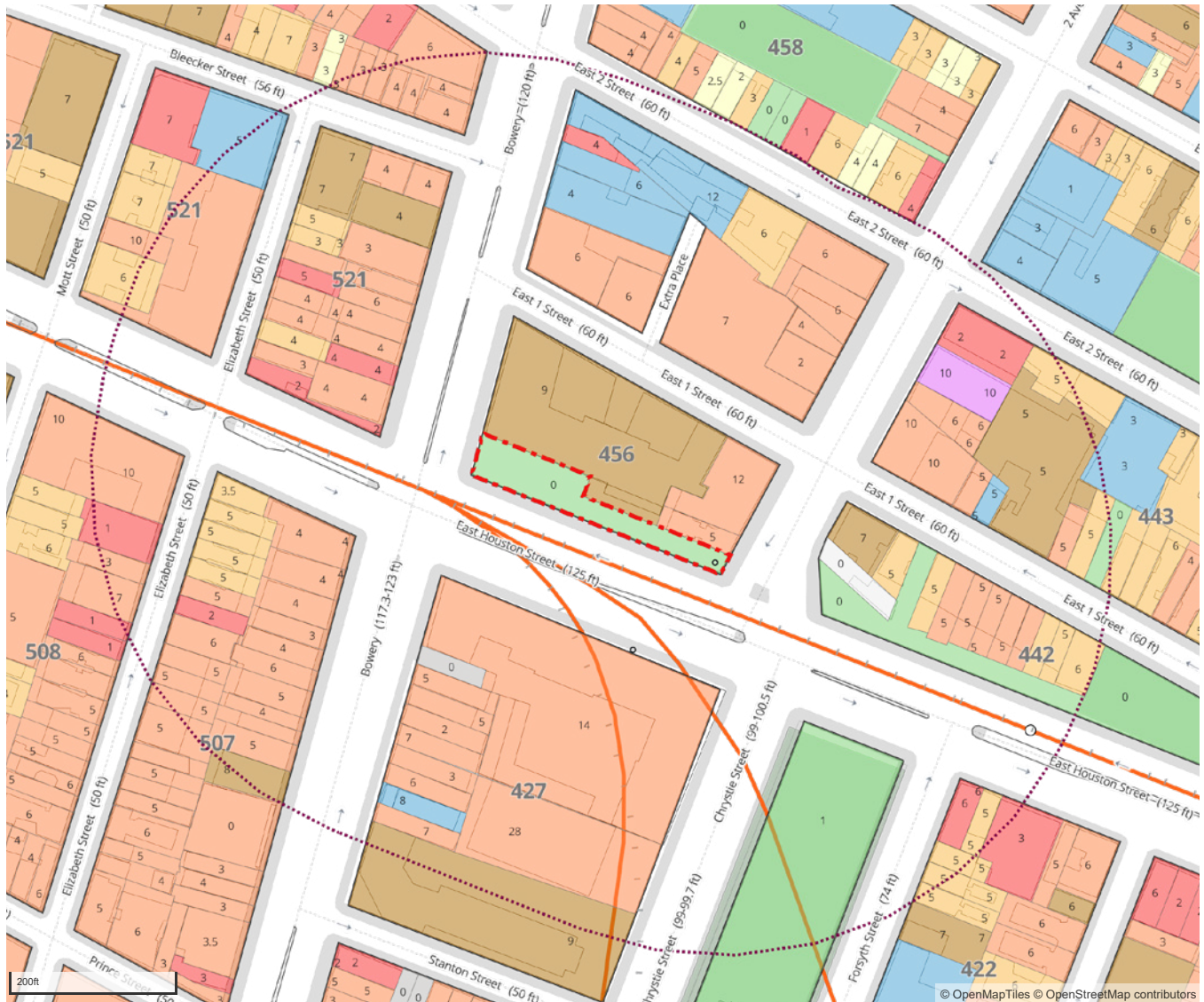
- Subway Stop
- Subway Entrance

Map Created: Jul 24, 2020, 11:33am  
 Data Sources: layers-aqi.planninglabs.nyc/v1/sources-pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-districts (May 2020); digital-citymap (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# LIZ CHRISTY COMMUNITY GARDEN AREA MAP

Address: 285 Bowery, New York, NY 10003  
 Size: 11285 sq. ft.  
 Founding Year: 1973  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Jul 24, 2020, 11:37am  
 Data Sources: layers-and-planning-labs.nyc.gov/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-  
 districts (May 2020); digital-citymap (May 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# LOWER EAST SIDE ECOLOGY CENTER AREA MAP

Address: 213 E. 7th Street, New York, NY 10009  
 Size: 6,000 sq. ft.  
 Founding Year: 1990  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

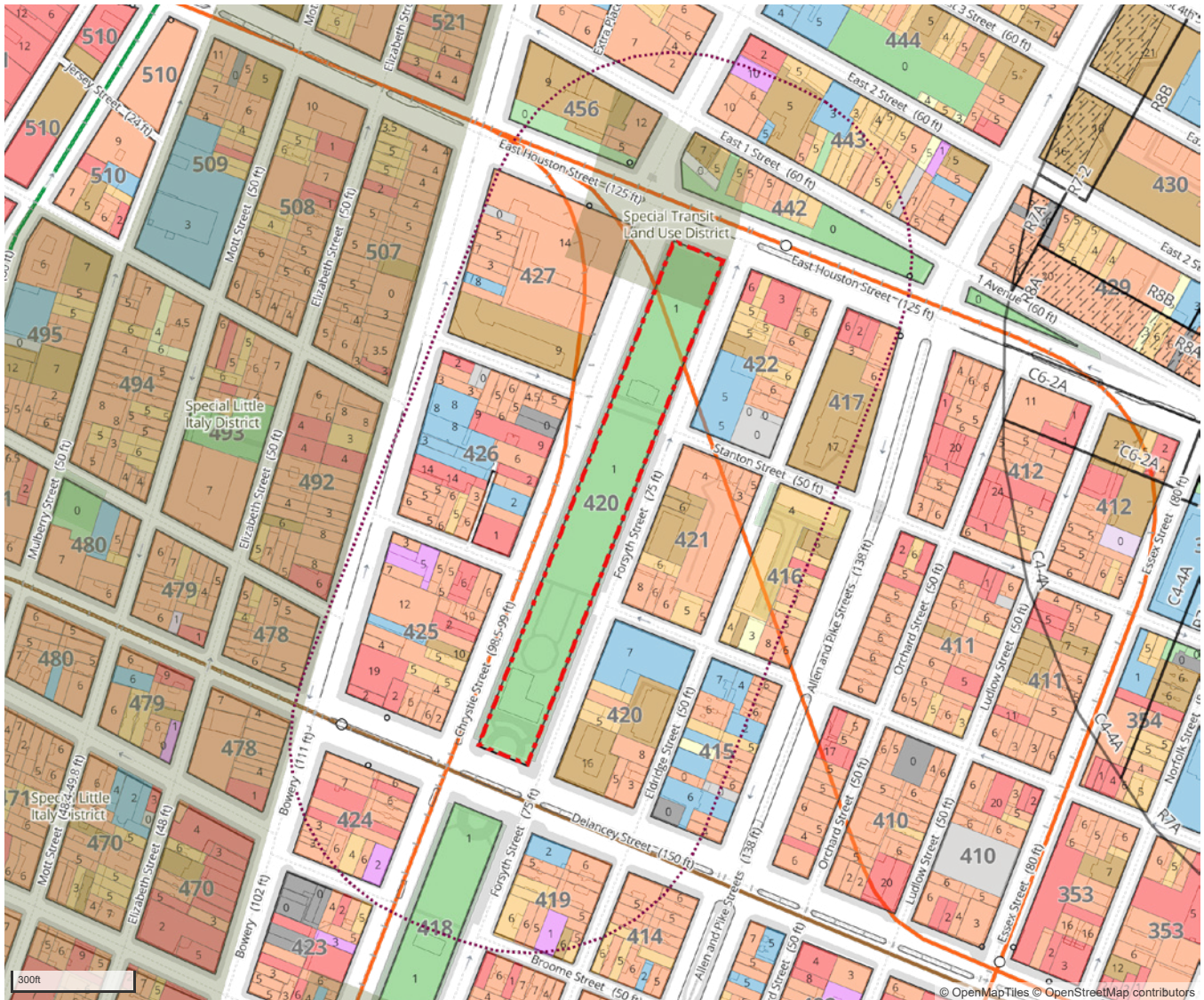
- Subway Stop
- Subway Entrance

Map Created: Nov 11, 2020, 4:12pm  
 Data Sources: layers-api.planninglabs.nyc/v1/sources  
 pluto MapPLUTO™ 20v4; Bytes of the Big Apple (July 2020); zoning-  
 districts (June 2020); digital-citymap (June 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (June 2020)



# M'FINDA KALUNGA GARDEN AREA MAP

Address: 165 Forsyth St., New York, NY 10002  
 Size: 20908 sq. ft.  
 Founding Year: 1982  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

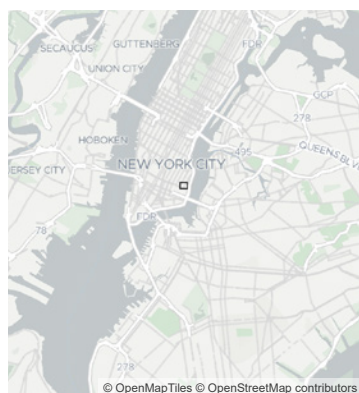
- Subway Stop
- Subway Entrance

Map Created: Aug 14, 2020, 10:23am  
 Data Sources: layers-geo-planninglabs.nyc.gov/sources-pluto MapPLUTO™ 2014, Bytes of the Big Apple (July 2020); zoning-districts (June 2020); digital-city-map (June 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (June 2020)



# ORCHARD ALLEY AREA MAP

Address: 350 E. 4th St., New York, NY 10009  
 Size: 8493 sq. ft.  
 Founding Year: 1989  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

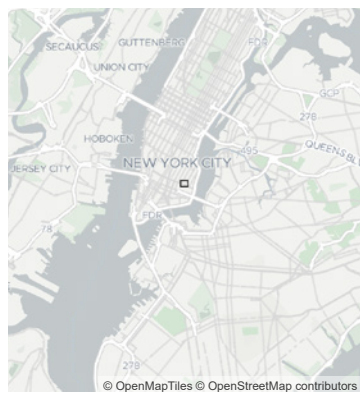
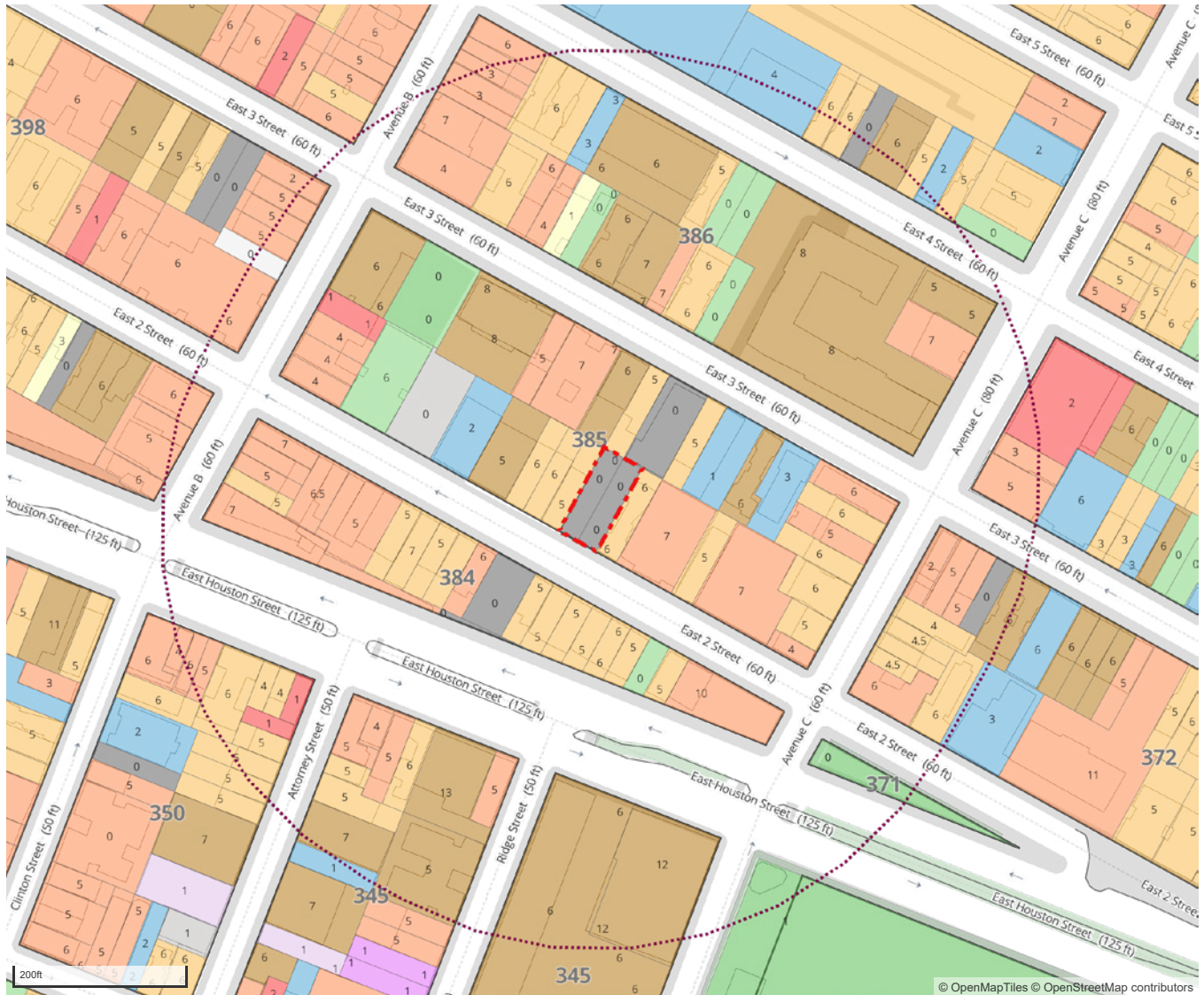
- Subway Stop
- Subway Entrance

Map Created: Aug 14, 2020, 10:22am  
 Data Sources: layers-and-planning-labs.nyc.gov/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (July 2020); zoning districts (June 2020); digital-citymap (June 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (June 2020)



# PEACH TREE GARDEN AREA MAP

Address: 238 E. 2nd St., New York, NY 10009  
 Size: 5295 sq. ft.  
 Founding Year: 1980  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

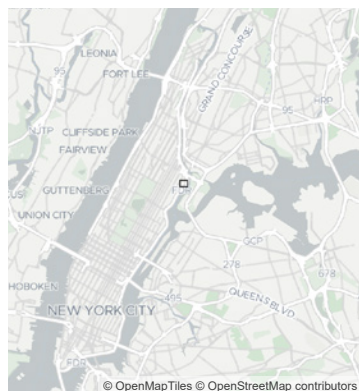
**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Jul 24, 2020, 12:37am  
 Data Sources: layers-and-planning-labs.nyc.gov/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-districts (May 2020); digital-city-map (May 2020); planimetrics (26 February 2019); transportation (21 November 2017); supporting-zoning (May 2020)

# PLEASANT VILLAGE COMMUNITY GARDEN AREA MAP

Address: 342 Pleasant Ave., New York, NY 10035  
 Size: 16723 sq. ft.  
 Founding Year: 1978  
 Jurisdiction: DPR & HPD



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

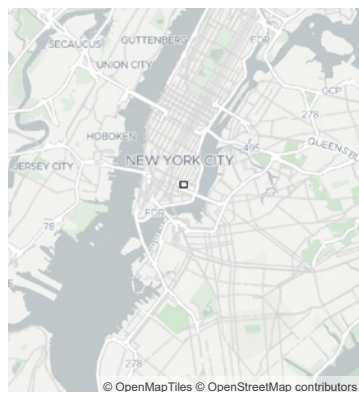
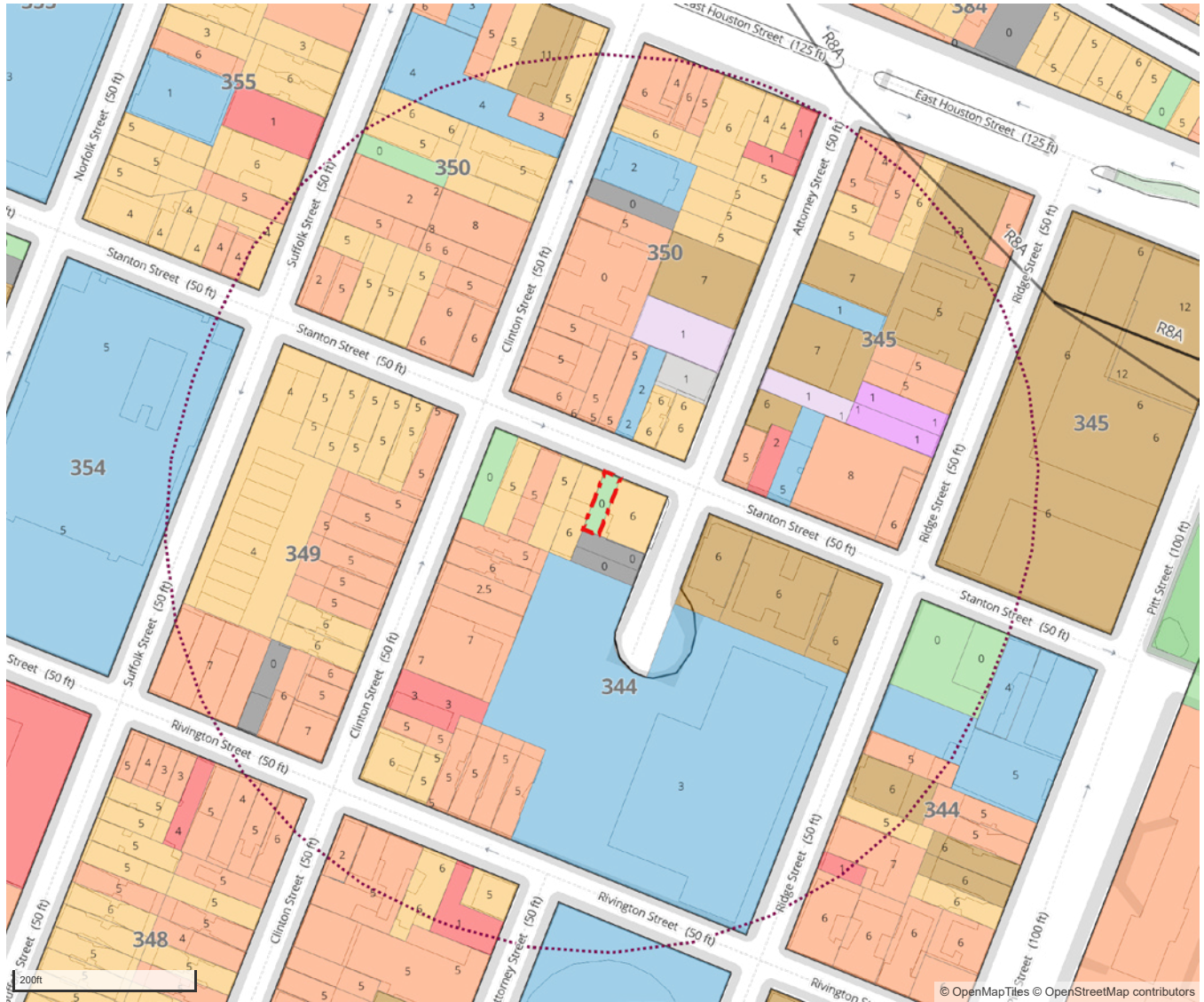
- Subway Stop
- Subway Entrance

Map Created: Jul 24, 2020, 12:38am  
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 districts (May 2020); digital-citymap (May 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# SIEMPRE VERDE GARDEN AREA MAP

Address: 181 Stanton St., New York, New York 10002  
 Size: 1197 sq. ft.  
 Founding Year: 2012  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

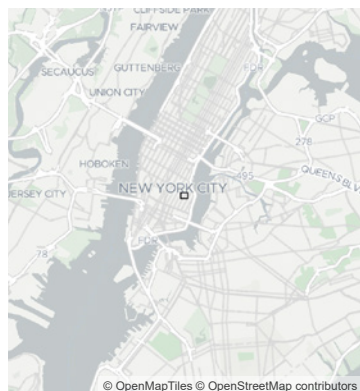
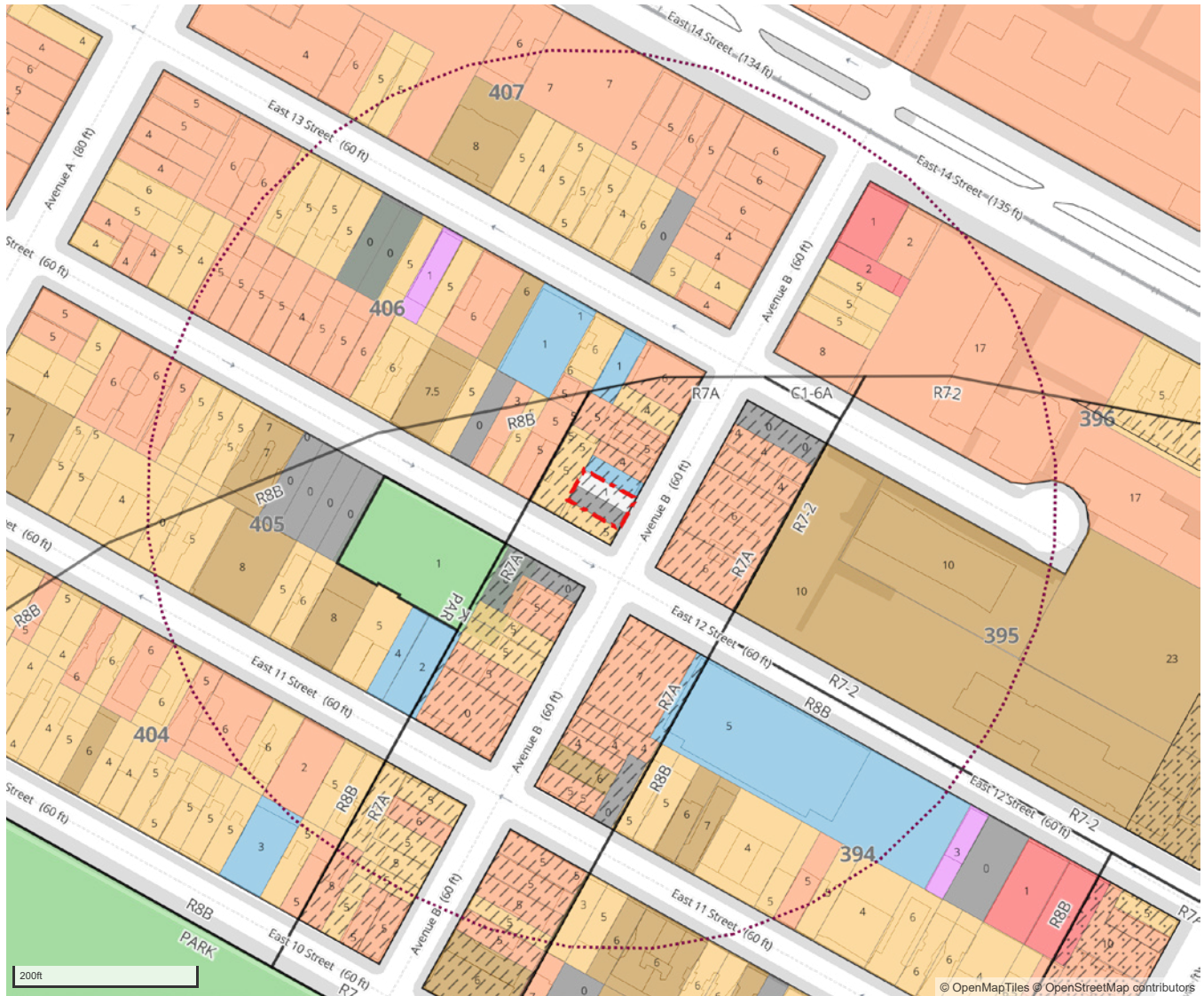
- Subway Stop
- Subway Entrance

Map Created: Jul 24, 2020, 5:22pm  
 Data Sources: layers-and-planning-labs.nyc.gov/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-  
 districts (May 2020); digital-city-map (May 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (May 2020)



# VAMOS A SEMBRAR COMMUNITY GARDEN AREA MAP

Address: 198 Ave. B, New York, NY 10009  
 Size: 1100 sq. ft.  
 Founding Year: 1999  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C1-1
- C1-2
- C1-3
- C1-4
- C1-5
- C2-1
- C2-2
- C2-3
- C2-4
- C2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mig
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

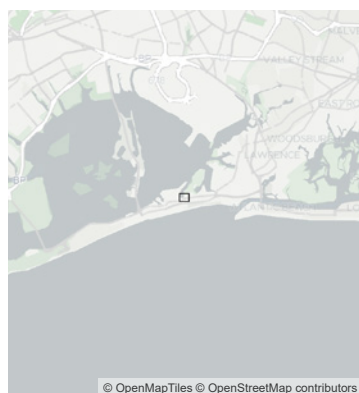
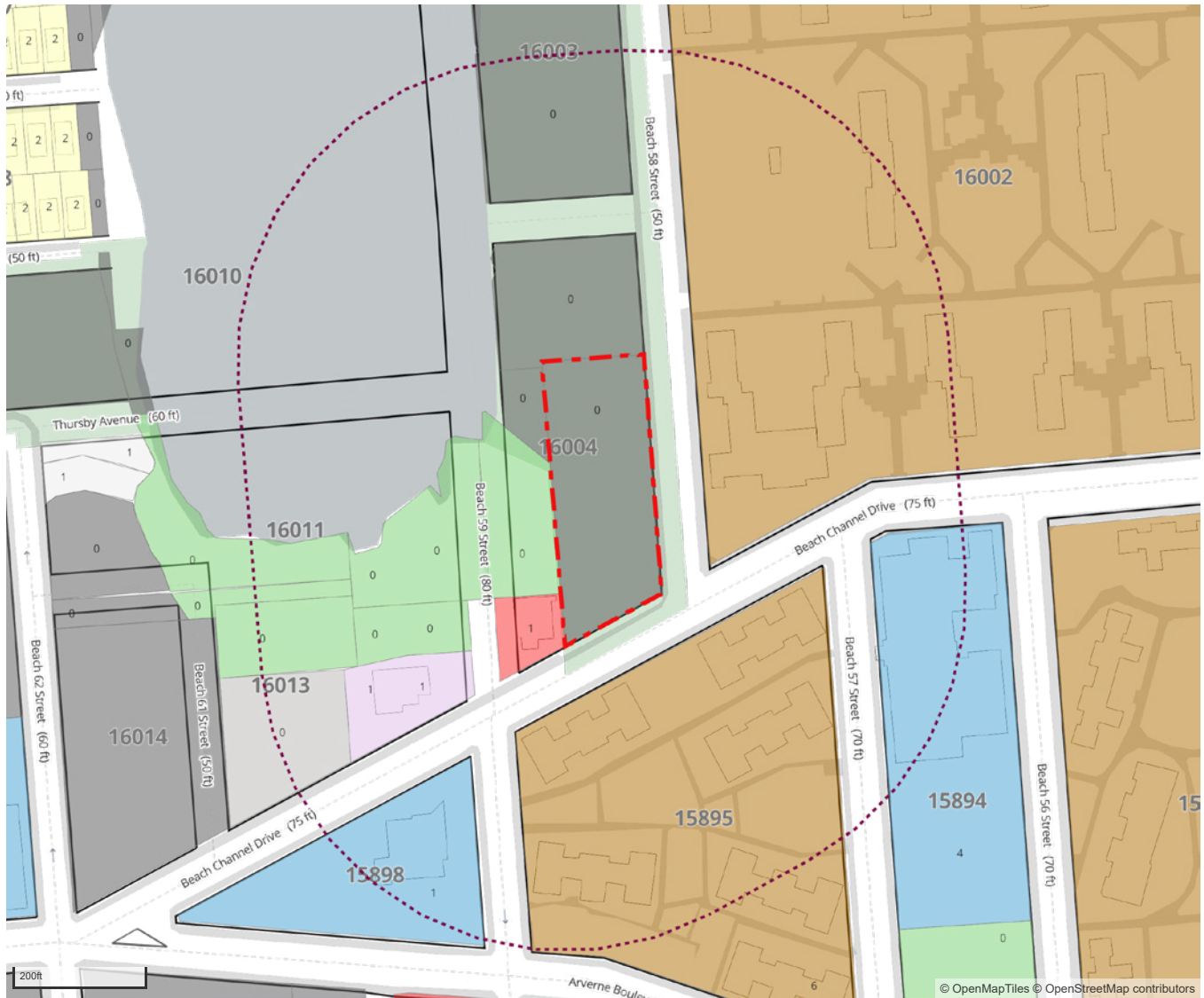
- Subway Stop
- Subway Entrance

Map Created: Jul 24, 2020, 5:53pm  
 Data Sources: layers-gis-planninglabs.nyc.gov/1/sources-pluto MapPLUTO™ 2014, Bytes of the Big Apple (June 2020), zoning-districts (May 2020), digital-citymap (May 2020), planimetrics (26 February 2019), transportation (21 November 2017), supporting-zoning (May 2020)



# ROCKAWAY YOUTH TASK FORCE URBAN FARM AREA MAP

Address: 310 Beach 58th St., Arverne, NY 11692  
 Size: 61047 sq. ft.  
 Founding Year: 2011  
 Jurisdiction: DPR



**Project**

- Project Area
- Rezoning Area
- Development Site
- 600 Foot Radius

**Zoning**

- Zoning District
- C-1-1
- C-1-2
- C-1-3
- C-1-4
- C-1-5
- C-2-1
- C-2-2
- C-2-3
- C-2-4
- C-2-5
- Special Purpose District

**Land Use**

- 1-2 Family Residential
- Multifamily Walkup
- Multifamily Elevator
- Mixed Commercial/Residential
- Commercial & Office
- Industrial & Mfg
- Transportation & Utility
- Public Facilities & Institutions
- Open Space & Outdoor Recreation
- Parking
- Vacant/No Data
- Other

**Transportation**

- Subway Stop
- Subway Entrance

Map Created: Jul 23, 2020, 1:07pm  
 Data Sources: layers-and-planning-labs.nyc.gov/sources  
 pluto Map PLUTO™ 20v4, Bytes of the Big Apple (June 2020); zoning-  
 districts (May 2020); digital-citymap (May 2020); planimetrics (26 February  
 2019); transportation (21 November 2017); supporting-zoning (May 2020)

## ENDNOTES

- 1 See Int. No. 1652-2019, N.Y.C. Council, <https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=4085859&GUID=9E8F96B3-3137-4B8A-AD4F-E8EED71B555B&Options=&Search=> (follow link for “12. Committee Report 2/25/20”) (last visited Aug. 27, 2020).
- 2 See Memorandum of Agreement, State of N.Y. by Eliot Spitzer, Att’y Gen., State of N.Y., and the City of N.Y. by Michael A. Cardozo, Corp. Couns., City of N.Y. § 10 (Sept. 17, 2002) (Memorandum of Agreement), [http://www.nyc.gov/html/om/pdf/community\\_gardens\\_agreement.pdf](http://www.nyc.gov/html/om/pdf/community_gardens_agreement.pdf) (“A garden lot shall remain subject to this Agreement until any of the following occurs: . . . [if] eight (8) years have elapsed from the date the Agreement is fully executed by the Parties.”).
- 3 See Scott Enman, *City Could Lose Nearly 100 Community Gardens over Contract Dispute*, Brooklyn Eagle (Oct. 16, 2019), <https://brooklyneagle.com/articles/2019/10/16/nyc-could-lose-nearly-100-community-gardens-over-contract-dispute/>; see also Press Release, N.Y. State Sen. Brad Hoylman, Elected Officials Demand NYC Parks Department Save Community Gardens at Risk due to New Licensing Agreement (Oct. 31, 2019), <https://www.nysenate.gov/newsroom/press-releases/brad-hoylman/elected-officials-demand-nyc-parks-department-save-community>.
- 4 See N.Y. Comp. Codes R. & Regs. tit. 6, § 617.14(g).
- 5 See *id.* § 617.14.
- 6 See Int. No. 1652-2019, *supra* note 1 (follow link for “12. Committee Report 2/25/20”).
- 7 See *History of the Community Garden Movement*, N.Y.C. Dep’t of Parks & Recreation, <https://www.nycgovparks.org/about/history/community-gardens/movement> (last visited July 31, 2020).
- 8 See Mark Francis et al., *Community Open Spaces: Greening Neighborhoods Through Community Action and Land Conservation* 43 (1984).
- 9 See *History of the Community Garden Movement*, *supra* note 7.
- 10 *Id.*
- 11 Sarah Ferguson, *A Brief History of Grassroots Greening in NYC*, New Village J. (2001), <https://www.newvillage.net/Journal/Issue1/briefgreening.html> (quoting Bill Brunson, an early member of the Green Guerrillas).
- 12 Interview by Sorangel Liriano with Donald Loggins, Original Gardener, Liz Christy Community Garden, in New York, N.Y. (July 10, 2020) (Unless otherwise noted, Sorangel Liriano conducted all interviews with community gardeners. Interviews were conducted from July 2019 to July 2020.).
- 13 Ferguson, *supra* note 11.
- 14 *Id.*
- 15 *Id.*
- 16 See *History of the Community Garden Movement*, *supra* note 7.
- 17 See *The Bowery Historic District*, Nat’l Park Serv., <https://www.nps.gov/nr/feature/places/13000027.htm> (last visited Sept. 17, 2020).
- 18 See Nat’l Park Serv., *National Register of Historic Places Registration Form—The Bowery Historic District* (2013), <https://www.nps.gov/nr/feature/places/pdfs/13000027.pdf>.
- 19 See Olive Evans, *Making New York Green Involves Reams of Red Tape*, N.Y. Times (Apr. 25, 1975), <https://timesmachine.nytimes.com/timesmachine/1975/04/15/76348720.html?pageNumber=56>.
- 20 See *History of the Community Garden Movement*, *supra* note 7.
- 21 *Id.*
- 22 *It’s My Park: Community Gardens Interview with Mayor Ed Koch*, GreenThumb, <https://greenthumb.nycgovparks.org/about.html> (last visited July 31, 2020).
- 23 See Laura J. Lawson, *City Bountiful: A Century of Community Gardening in America* (2005).
- 24 *Id.*
- 25 See *Where We Stand and How We Got Here*, NYCCGC, <http://nyccgc.org/about/history/> (last visited July 31, 2020).
- 26 See Lawson, *supra* note 23.
- 27 *Id.* at 261.
- 28 See *State of N.Y. v. City of N.Y.*, 713 N.Y.S.2d 360 (2nd Dep’t 2000) (affirming the temporary restraining order issued by the New York State Supreme Court in Brooklyn).
- 29 See Anne Raver & Jennifer Steinhauer, *City in Talks to End Lawsuit over Community Gardens*, N.Y. Times (Apr. 26, 2002); Robert Fox Elder, Note, *Protecting New York City’s Community Gardens*, 13 N.Y.U. Envtl. L.J. 769 (2005).
- 30 See Chantal Gailloux, *Politics of the Commons* 17 (forthcoming 2020).
- 31 *Id.*
- 32 See *Community Gardens*, Trust for Pub. Land, <https://www.tpl.org/our-work/community-gardens> (last visited July 31, 2020).
- 33 See *Mission & History*, N.Y. Restoration Project, <https://www.nyrp.org/about/who-we-are/history> (last visited July 31, 2020).
- 34 See Memorandum of Agreement, *supra* note 2; see also Amy Eddings, *City Settles Fate of Community Gardens*, WNYC News (Sept. 19, 2002), <https://www.wnyc.org/story/85574-city-settles-fate-of-community-gardens/>; Elder, *supra* note 29.
- 35 See Memorandum of Agreement, *supra* note 2, at § 10 (“A garden lot shall remain subject to this Agreement until . . . eight (8) years have elapsed from the date the Agreement is fully executed by the Parties.”). See also Elder, *supra* note 29.



- 36 See GrowNYC, *Community Garden Survey New York City Results 2009/2010* (2010), [https://www.grownyc.org/files/GrowNYC\\_CommunityGardenReport.pdf](https://www.grownyc.org/files/GrowNYC_CommunityGardenReport.pdf).
- 37 See *Mission & History*, *supra* note 33; see also *About Us*, Brooklyn Queens Land Trust, <https://bqlt.org/about> (last visited July 31, 2020); GrowNYC, *supra* note 36.
- 38 See *History of the Community Garden Movement*, *supra* note 7.
- 39 See *It's My Park: Community Gardens Interview with Mayor Ed Koch*, *supra* note 22.
- 40 See N.Y.C. Mayor's Office of Env'tl. Coordination, *CEQR Technical Manual 2014*, Ch. 7: Open Spaces (2014), [https://www1.nyc.gov/assets/oec/technical-manual/07\\_Open\\_Space\\_2014.pdf](https://www1.nyc.gov/assets/oec/technical-manual/07_Open_Space_2014.pdf). This figure is based, in part, on guidelines by the National Recreation and Park Association.
- 41 See Friends of Elizabeth Street Garden, *Friends of Elizabeth Street Garden Annual Report 4* (2014), [https://elizabethstreetgarden.org/wp-content/uploads/2015/05/Friends\\_of\\_Elizabeth\\_Street\\_Garden\\_2014\\_Annual\\_Report.pdf](https://elizabethstreetgarden.org/wp-content/uploads/2015/05/Friends_of_Elizabeth_Street_Garden_2014_Annual_Report.pdf).
- 42 See Lisa M. Collins, *The Pros and Cons of New York's Fledgling Compost Program*, N.Y. Times (Nov. 9, 2018), <https://www.nytimes.com/2018/11/09/nyregion/nyc-compost-zero-waste-program.html>.
- 43 *Id.*
- 44 See City of N.Y., *Cool Neighborhoods NYC 11* (2017), [https://www1.nyc.gov/assets/orr/pdf/Cool\\_Neighborhoods\\_NYC\\_Report.pdf](https://www1.nyc.gov/assets/orr/pdf/Cool_Neighborhoods_NYC_Report.pdf).
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- 46 See Mara Gittleman et al., *Estimating Stormwater Runoff for Community Gardens in New York City*, 20 *Urb. Ecosystems* 129, 137 (2017).
- 47 See N.Y.C. Dep't of Parks & Recreation, *Design and Planning for Flood Resiliency: Guidelines for NYC Parks* (2017), [https://www.nycgovparks.org/pagefiles/128/NYCP-Design-and-Planning-Flood-Zone\\_5b0f0f5da8144.pdf](https://www.nycgovparks.org/pagefiles/128/NYCP-Design-and-Planning-Flood-Zone_5b0f0f5da8144.pdf).
- 48 See Governor's Office of Storm Recovery & NYCCGC, *Gardens Rising Lower East Side Community Gardens Green Infrastructure Feasibility Study* (2019) (Gardens Rising), [https://issuu.com/wedesignnyc/docs/161205\\_report100.compressed](https://issuu.com/wedesignnyc/docs/161205_report100.compressed).
- 49 *Id.* at 5.
- 50 *Id.*
- 51 See Samuel S. T. Pressman & Raymond Figueroa, Jr., *Money Does Grow On Trees: An Equitable Perspective for Increasing Urban Well-Being via Greening Land Valuation and Scaling Ecosystem Services in Communities*, Graduate Ctr. for Planning & The Env't (2019) (2019 Pratt Institute Study), [https://commons.pratt.edu/sesresearch/wp-content/uploads/sites/157/2020/02/2019\\_Fall\\_Samuel\\_Pressman\\_Report.pdf](https://commons.pratt.edu/sesresearch/wp-content/uploads/sites/157/2020/02/2019_Fall_Samuel_Pressman_Report.pdf).
- 52 *Id.*
- 53 *Id.*
- 54 *Id.*
- 55 *Id.*
- 56 See Memorandum of Agreement, *supra* note 2, at § 10.
- 57 See Enman, *supra* note 3; see also Press Release, N.Y. State Sen. Brad Hoylman, *supra* note 3.
- 58 See N.Y.C. Dep't of Parks & Recreation, 2019-005483, *GreenThumb Community Garden License* (2019), <https://nyccgc.org/wp-content/uploads/2019/04/GreenThumb-License-Agreement-2019-002.pdf>; see also N.Y.C. Dep't of Parks & Recreation, *GreenThumb Gardeners' Handbook* (2019), <https://nyccgc.org/wp-content/uploads/2019/04/greenthumb-gardeners-handbook-2019-compressed.pdf>.
- 59 See Enman, *supra* note 3; see also Press Release, N.Y. State Sen. Brad Hoylman, *supra* note 3.
- 60 Int. No. 1652-2019, *supra* note 1 (follow link for "19. Int. No. 1542-A (FINAL)"). In this bill, land use categories refer to the "value assigned by [City Planning] to each tax lot in the primary land use tax lot output database that describes how such tax lot is primarily used." *Id.* § 25-116.
- 61 Int. No. 1652-2019, *supra* note 1 (follow "Attachments" link for "10. Hearing Transcript 9/18/19").
- 62 *Id.* (follow "Attachments" link for "Committee Report 2/25/20").
- 63 *Id.* (follow "Action Details" link for "2/27/2020 Approved By Council").
- 64 See, e.g., *Matter of Glick v. Harvey*, 25 N.Y.3d 1175 (2015) (holding that the City did not impliedly dedicate LaGuardia Corner Gardens as public parkland); *Matter of Coney Island Boardwalk Cmty. Gardens v. City of N.Y.*, 172 A.D.3d 1366, 1367 (2nd Dep't 2019) (finding that the City's actions and declarations did not unequivocally manifest intent to dedicate a community garden as parkland protected under public trust doctrine).
- 65 *Friends of Van Cortlandt Park v. City of N.Y.*, 95 N.Y.2d 623, 630 (2001) (citing *Miller v. City of New York*, 15 N.Y.2d 34, 37 (1964)).
- 66 *Glick*, 25 N.Y.3d 1175, 1180 (2015).
- 67 *Id.* at 1181.
- 68 Interview by Erica Asinas with Christine Johnson, President, Pleasant Village Community Garden, in Harlem, N.Y. (July 20, 2019).
- 69 N.Y. Comp. Codes R. & Regs. tit. 6, § 617.1(b).
- 70 See *id.* § 617.7. SEQRA regulations provide numerous criteria for determining significance. The list of criteria includes, but is not limited to:
- (i) a substantial adverse change in existing air quality, ground or surface water quality or quantity, traffic or noise levels; a substantial increase in solid waste production; a substantial increase in potential for erosion, flooding, leaching or drainage problems;
  - (ii) the removal or destruction of large quantities of vegetation or fauna; substantial interference with the movement of any resident or migratory fish or wildlife species; impacts on a

- significant habitat area; substantial adverse impacts on a threatened or endangered species of animal or plant, or the habitat of such a species; or other significant adverse impacts to natural resources;
- (iii) the impairment of the environmental characteristics of a critical environmental area as designated pursuant to section 61714(g) of this Part;
- (iv) the creation of a material conflict with a community's current plans or goals as officially approved or adopted; [and]
- (v) the impairment of the character or quality of important historical, archeological, architectural, or aesthetic resources or of existing community or neighborhood character[.] *Id.* § 6177(c) (1).
- 71 *See id.* § 6179.
- 72 *See id.*
- 73 *Id.* § 61711. Under this framework, an agency may not approve a proposed action unless it makes “an explicit finding that the requirements of [SEQRA] have been met and that consistent with social, economic and other essential considerations, to the maximum extent practicable, adverse environmental effects revealed in the environmental impact statement process will be minimized or avoided.” *Matter of Jackson v. N.Y. State Urb. Dev. Corp.*, 67 N.Y.2d 400, 416 (1986) (citing N.Y. Envtl. Conserv. Law § 8-0109) (internal quotation marks omitted). “Social, economic, and other essential considerations” include eradicating blight and stimulating economic development in the impacted area. *Id.*
- 74 *See* N.Y. Comp. Codes R. & Regs. tit. 6, § 6172.
- 75 *Id.* § 61714(g)(1) (emphasis added).
- 76 *Id.* § 6177(c). Under SEQRA, actions may be classified as Type I, Type II, or Unlisted. Type I Actions include, among other things, the construction of large residential buildings. *See id.* § 6174. Type II Actions are generally less disruptive, such as “maintenance or repair involving no substantial changes in an existing structure or facility.” *Id.* § 6175(c)(1). Unlisted Actions are “all actions not identified as a Type I or Type II.” *Id.* § 6172(al). “[T]he potential impact of any Type I or Unlisted Action on the environmental characteristics of the CEA is a relevant area of environmental concern and must be evaluated in the determination of significance” of an action’s environmental impacts. *Id.* § 61714(g)(4). Thus, Type I or Unlisted Actions that could impair a CEA are more likely to trigger the preparation of an EIS. *See id.* § 6177.
- 77 *Id.* § 61714(g). The public notice of CEA designation must identify the boundaries and specific environmental characteristics of the area warranting CEA designation. The City must then file a written justification, map, and proof of public comment with the New York State Department of Environmental Conservation. *Id.*
- 78 *See id.* § 61714(g)(3) (“[CEA] designation shall take effect 30 days after filing with the [New York State Department of Environmental Conservation] commissioner.”) (emphasis added).
- 79 Under the New York City Administrative Procedure Act, “[a]ny person may petition an agency to consider the adoption of any rule.” N.Y.C. Charter, Ch. 45, § 1043(g).
- 80 *See* N.Y. Comp. Codes R. & Regs. tit. 6, § 61714.
- 81 *See id.* § 61714(g)(1)(i).
- 82 *See* 2019 Pratt Institute Study, *supra* note 51.
- 83 *See* Iyad Kheirbek et al., *The Contribution of Motor Vehicle Emissions to Ambient Fine Particulate Matter Public Health Impacts in New York City: A Health Burden Assessment*, 15 *Envtl. Health* 1, 2, 5 (2016).
- 84 *See* Union of Concerned Scis., *Inequitable Exposure to Air Pollution from Vehicles in New York State: Who Bears the Burden?* 2 (2019), <https://www.ucsusa.org/sites/default/files/attach/2019/06/Inequitable-Exposure-to-Vehicle-Pollution-NY.pdf>.
- 85 *See* *Fine Particulate Matter (PM2.5)*, N.Y.C. Dep’t of Health & Mental Hygiene, Env’t & Health Data Portal, <http://a816-dohbsp.nyc.gov/IndicatorPublic/VisualizationData.aspx?id=2023,719b87,122,Summarize> (follow “Map” link) (last visited July 30, 2020).
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- 90 City of N.Y., *supra* note 44, at 7. City of N.Y., *Cool Neighborhoods NYC* 7 (2017), [https://www1.nyc.gov/assets/orr/pdf/Cool\\_Neighborhoods\\_NYC\\_Report.pdf](https://www1.nyc.gov/assets/orr/pdf/Cool_Neighborhoods_NYC_Report.pdf).
- 91 *See* Ashley Gregor, *Toward a Legal Standard of Tolerable Heat*, 44 *Colum. J. Envtl. L.* 479, 542 (2019).
- 92 *See id.* at 484.
- 93 *See* City of N.Y., *supra* note 44, at 7.
- 94 *Id.* at 12.
- 95 Int. No. 1652-2019, *supra* note 1 (follow “Attachments” link for “12. Committee Report 2/25/2020”).
- 96 *See* N.Y.C. *Heat Vulnerability Index (HVI)*, N.Y.C. Dep’t of Health & Mental Hygiene, Env’t & Health Data Portal, <http://a816-dohbsp.nyc.gov/IndicatorPublic/VisualizationData.aspx?id=2191,719b87,07,Map,Score,2018> (follow “Map” link) (last visited July 31, 2020).
- 97 *See* Victoria Egli et al., *The Development of a Model of Community Garden Benefits to Wellbeing*, 3 *Preventative Med. Rep.* 348, 349 (2016); *see also* Sin-Ae Park et al., *Gardening Tasks Performed by Adults Are Moderate- to High-Intensity Physical Activities*, 24 *Am. Soc’y for Horticultural Sci.* 58 (2014); Cathleen D. Zick et al., *Harvesting More Than Vegetables: The Potential Weight Control Benefits of Community Gardening*, 103 *Am. J. Pub. Health* 1110 (2013).



- 98 See Zick et al., *supra* note 97. Body Mass Index (BMI) is a measure of body fat based on height and weight, calculated by dividing a person's weight by the square of the body height. While not dispositive of overall health, BMI is one indicator of whether an individual has a healthy weight. See *About Adult BMI*, Ctrs. for Disease Control & Prevention, [https://www.cdc.gov/healthyweight/assessing/bmi/adult\\_bmi/index.html#Reliable](https://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/index.html#Reliable).
- 99 See Masahi Soga et al., *Gardening Is Beneficial to Health: A Meta-Analysis*, 5 *Preventive Med. Rep.* 92, 94 tbl.1 (2017).
- 100 See Katherine Alaimo et al., *Fruit and Vegetable Intake Among Urban Community Gardeners*, 40 *J. Nutrition Educ. & Behav.* 94 (2008); see also Jill S. Litt et al., *The Influence of Social Involvement, Neighborhood Aesthetics, and Community Garden Participation on Fruit and Vegetable Consumption*, 101 *Am. J. Pub. Health* 1466 (2011).
- 101 Kathryn A. Peters, *Current and Emerging Issues in the New Urban Agriculture: A Case Study*, 7 *J. Food L. & Pol'y* 297, 300 (2011).
- 102 See Lea Ceasrine, *New York City's Biggest 'Food Swamps'*, *City Limits* (May 21, 2018), <https://citylimits.org/2018/05/21/new-york-citys-biggest-food-swamps/>.
- 103 See *Unhealthy Food Access—Ratio of Bodegas to Supermarkets*, N.Y.C. Dep't of Health & Mental Hygiene, Env't & Health Data Portal, <http://a816dohbesp.nyc.gov/IndicatorPublic/VisualizationData.aspx?id=2389,719b87,104.Summarize> (follow "Map" link) (last visited Nov. 16, 2020).
- 104 See *FRESH Food Stores*, Dep't of City Planning, Zoning Tools, <https://www1.nyc.gov/site/planning/zoning/districts-tools/fresh-food-stores.page> (follow "Areas of Applicability" drop down) (last visited July 30, 2020).
- 105 Interview by Erica Asinas with Andrea Colon, Lead Organizer & Gardener, Rockaway Youth Task Force Urban Farm, in Far Rockaway, N.Y. (Aug. 27, 2019).
- 106 Based on data from the New York State Department of Agriculture and Markets, the study defined bodegas as food purchasing establishments with less than 4,000 square feet, excluding specialty stores, such as vitamin stores and bakeries. The study defined supermarkets as retail food purchasing establishments with greater than or equal to 10,000 square feet or have a chain supermarket name, regardless of size. A high ratio of bodegas to supermarkets indicates limited access to fresh, nutritious food. See *Unhealthy Food Access—Ratio of Bodegas to Supermarkets*, *supra* note 103.
- 107 See *FRESH Food Stores*, *supra* note 104.
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- 109 Interview by Erica Asinas with Dan Gross, Research Engineer & Gardener, Know Waste Lands Community Garden, in Brooklyn, N.Y. (July 13, 2019).
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- 111 See Cecily Maller et al., *Healthy Nature Healthy People: 'Contact with Nature' as an Upstream Health Promotion Intervention for Populations*, 21 *Health Promotion Int'l* 45, 48 (2005).
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- 113 Interview by Erica Asinas with Christine Johnson, *supra* note 68.
- 114 See Soga et al., *supra* note 99, at 93; see also Christina M. Gigliotti & Shannon E. Jarrott, *Effects of Horticulture Therapy on Engagement and Affect*, 24 *Can. J. on Aging* 367 (2005).
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- 116 See Soga et al., *supra* note 99, at 93.
- 117 See Maller et al., *supra* note 111, at 49.
- 118 See Eugenia C. South et al., *Effect of Greening Vacant Land on Mental Health of Community-Dwelling Adults: A Cluster Randomized Trial*, 1 *JAMA Network Open* 1 (2018).
- 119 *Id.*
- 120 *Id.*
- 121 N.Y. Comp. Codes R. & Regs. tit. 6, § 617.14(g)(1)(ii).
- 122 See Lorien Nesbitt et al., *Who Has Access to Urban Vegetation? A Spatial Analysis of Distributional Green Equity in 10 US Cities*, 181 *Landscape & Urb. Plan.* 51 (2019).
- 123 See Ming Wen et al., *Spatial Disparities in the Distribution of Parks and Green Spaces in the USA*, 45 *Annals of Behav. Med.* S18 (2013).
- 124 N.Y. Comp. Codes R. & Regs. tit. 6, § 617.14(g)(1)(iii).
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- 126 Interview by Erica Asinas with Maximino Rivera, Garden Coordinator, Activist & Veteran, Rainbow Garden of Life and Health, in The Bronx, N.Y. (June 10, 2019).
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- 10, 2020), <https://www.nytimes.com/2020/04/10/dining/community-garden-coronavirus.html>.
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- 131 See Winnie Hu, *Hot Peppers Becoming a Cash Crop for Bronx Community Gardens*, *N.Y. Times*, (July 19, 2015), <https://www.nytimes.com/2015/06/20/nyregion/hot-peppers-becoming-a-cash-crop-for-bronx-community-gardens.html>.
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- 138 See *Methane Emissions from Landfills*, EPA, Landfill Methane Outreach Program (LMOP), <https://www.epa.gov/lmop/basic-information-about-landfill-gas#methane> (last visited Aug. 2, 2020).
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- 143 *Id.*
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- 148 *Id.*
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- 151 See Gardens Rising, *supra* note 48, at 12.
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- 163 *Id.*
- 164 See Friends of Elizabeth Street Garden, *supra* note 41, at 2.
- 165 *Id.* at 4.
- 166 See Gardens Rising, *supra* note 48, at 12.
- 167 See Friends of Elizabeth Street Garden, *supra* note 41, at 16.
- 168 *Id.* at 20.
- 169 *Id.*
- 170 Interview by Erica Asinas with Christine Johnson, *supra* note 68.
- 171 Interview by Erica Asinas with Annette Ervin, *supra* note 153.
- 172 See Johnson, *supra* note 125, at 55.
- 173 See Kartika Palar et al., *Nutrition and Health Improvements After Participation in an Urban Home Garden Program*, 51 J. Nutrition Edu. & Behavior 1037, 1043 (2019).
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- 188 See *Image Slideshow*, Pleasant Village Community Garden, Inc., <https://pvcghpdland.wixsite.com/pleasantvillagegarde/garden-photos> (last visited Aug. 2, 2020).
- 189 Interview by Erica Asinas with Dan Gross, *supra* note 109.
- 190 See Gardens Rising, *supra* note 48, at 31; see also *Wildlife in New York City*, *supra* note 185.
- 191 See N.Y.C. Dep’t of Env’tl. Protection, *supra* note 45, at 4.
- 192 See Gittleman et al., *supra* note 46.
- 193 See *Combined Sewer Overflows*, N.Y.C. Dep’t of Env’tl. Protection, <https://www1.nyc.gov/site/dep/water/combined-sewer-overflows.page> (last visited Sept. 17, 2020).
- 194 See Riverkeeper, *How Is the Water? Sewage Contamination in the Hudson River Estuary 2006-2010* (2011), [https://www.riverkeeper.org/wp-content/uploads/2011/08/RvK\\_How-Is-the-Water\\_2006-10.pdf](https://www.riverkeeper.org/wp-content/uploads/2011/08/RvK_How-Is-the-Water_2006-10.pdf).
- 195 See *Combined Sewer Overflows (CSOs)*, Riverkeeper, <https://www.riverkeeper.org/campaigns/stop-polluters/sewagecontamination/cso> (last visited July 9, 2020); See also *Combined Sewer Overflows*, *supra* note 193.
- 196 See N.Y.C. Dep’t of Env’tl. Protection, *supra* note 45, at 4.
- 197 See Gittleman et al., *supra* note 46, at 137.
- 198 See Melissa Denchak, *Green Infrastructure: How to Manage Water in a Sustainable Way*, NRDC (Mar. 4, 2019), <https://www.nrdc.org/stories/green-infrastructure-how-manage-water-sustainable-way>.
- 199 See *Combined Sewer Overflows*, *supra* note 193.
- 200 *Id.* at 31.
- 201 See Gardens Rising, *supra* note 48, at 29, 32, 34–35, 40–41.
- 202 *Id.* at 54–55, 72–73.





**EARTHJUSTICE**

