



EAST HARLEM OPEN SPACE INDEX





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GREAT PARKS MAKE A GREAT CITY

New Yorkers for Parks is the citywide independent organization championing quality parks and open spaces for all New Yorkers in all neighborhoods.

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LETTER FROM THE EXECUTIVE DIRECTOR

New Yorkers for Parks created the Open Space Index to empower New Yorkers to advocate for the open space investments they determine are most needed in their communities. We provide the data on how their parks and public spaces stack up against citywide standards, but it's the community residents themselves who decide how to use that information to improve their neighborhoods. For example, our 2010 Open Space Index of Jackson Heights, Queens, became the springboard that civic groups and elected officials needed to garner political support and funding for a public plaza, a Play Street, and a new park in their community.

We're confident that this report, based on hundreds of hours of on-the-ground surveying and data analysis, can be a similar catalyst for East Harlem. East Harlem has many strengths to build on. It's rich with ballfields, basketball courts and playgrounds, and few parts of the city enjoy such an impressive array of community gardens. But there are ample opportunities to do more with existing resources. More than 100 acres of New York City Housing Authority (NYCHA) open space is fenced off and inaccessible. These grassy swaths certainly provide environmental benefits, but imagine how much more beneficial they might be with creative programming. The East River Esplanade and Randall's Island are tremendous nearby resources – but many residents, especially less mobile ones like children and seniors, have difficulty getting to them since pedestrian crossings can be dangerous and far apart. Some community gardens are often locked during public hours, and many school playgrounds sit empty after the final bell rings.

What if the East Harlem community and City worked together to maximize public access to these spaces? If more of NYCHA's lawns were opened up and programmed? If all community gardens adhered to GreenThumb's

rules about public use and hours of access? If the PlaNYC Schoolyards-to-Playgrounds initiative was expanded to some of the 30 area schools for off-hours public use, and if places were identified that could be transformed into new public plazas?

And what if East Harlem residents were better connected to their parks? If busy intersections at the entrances to the East River Esplanade were safer and more pedestrian friendly? If a comprehensive network of public spaces – akin to the Broadway Malls on the west side – linked the neighborhood's parks to one another? If there were more ways to get to Randall's Island?

What you'll find in this report are facts and figures, as well as some preliminary recommendations to begin a dialogue about the future of East Harlem's open spaces. The Open Space Index is just a starting point: how this data gets used is up to those who live and work and play in this neighborhood, those who best know the public spaces that we have counted and measured and compared.

It's your neighborhood. What comes next is up to you.

Holly Leicht
Executive Director

INTRODUCTION

Why We Need an Open Space Index

New Yorkers for Parks' (NY4P) Open Space Index (OSI) is a set of fifteen New York City-specific open space and sustainability standards designed to provide residents, community groups, and public officials with data about the strengths and weaknesses of local open space conditions. Communities can use the OSI to assess and prioritize their open space needs, identify environmental sustainability opportunities, and organize and build advocacy campaigns. Public officials can use the OSI to more effectively target capital spending on park improvements.

The OSI, shown on page 3, is the product of a three-year research and development endeavor by NY4P. Each target was developed through an analysis of current New York City open space conditions, a wide survey of measures used in other cities, and interviews with experts in the fields of community-based planning, environmental justice, environmental science, open space planning, and real estate.

In the spring of 2009, NY4P first piloted the OSI in the Lower East Side neighborhood of Manhattan. In 2010 we conducted an OSI assessment of the open spaces and parks of Jackson Heights, Queens, and we are pleased now to release our third OSI assessment, focusing on East Harlem. Our goal over time is to conduct enough neighborhood assessments so that the OSI grows from being a primarily local tool to being a source for citywide open space planning, helping us to identify trends across boroughs and the city, to target resources more effectively, and to plan for the future open space needs of all New Yorkers.

A Partnership with Health Researchers

NY4P is conducting the East Harlem OSI through an exciting partnership with researchers from Mount Sinai School of Medicine Children's Environmental Health Center, Departments of Preventive Medicine and Pediatrics (Mount Sinai). In order to understand the relationship between health, physical activity, and open space, Mount Sinai researchers and New Yorkers for Parks are integrating data about the people and places of East Harlem.

For over a decade, researchers from Mount Sinai have been studying the health of a group of children growing up in East Harlem. In particular, they have been examining how features of the built environment influence physical activity and health. The OSI's nuanced measures of open space will help answer questions about what types of parks inspire children to play, how different varieties of open space impact children's health, and how the quality and proximity of these spaces influence whether children use them.

The data presented in this report represents the first phase of our partnership with Mount Sinai. Each team will release additional findings in the next phase: Mount Sinai will publish their results on the relationship between access to open space and children's health in medical journals; NY4P will release policy reports with strategies for incorporating Mount Sinai's findings into park and open space planning, encouraging the design and maintenance of spaces that promote active recreation and children's health. In conjunction with the release of each publication, NY4P will share the findings with the East Harlem community and New York City public officials.

THE OPEN SPACE INDEX

Open Space Elements	Open Space Index Standards
Active and Passive Open Space	
Active Open Space & Facilities:	1 acre of Active Open Space/ 1,000 residents
Play Areas	1 Play Area/ 1,250 children
Athletic Fields	1.5 Fields/ 10,000 residents
Courts	5 Courts/ 10,000 residents
Recreation Centers	1 Recreation Center/ 20,000 residents
Passive Open Space:	1.5 acres of Passive Open Space/ 1,000 residents
Community Gardens	1 Community Garden/ 10,000 residents
Total Acres of Open Space	2.5 acres of Open Space/ 1,000 residents
Access and Distance to Parks	
Walking Distance to a Pocket Park (Less than 1 acre)	100% of residents are within a 5 minute walk (¼ mile)
Walking Distance to a Neighborhood Park (1-20 acres)	100% of residents are within a 5 minute walk (¼ mile)
Walking Distance to a Large Park (Greater than 20 acres)	100% of residents are within a 10 minute walk (½ mile)
Environmental Sustainability	
Urban Tree Canopy Cover	Neighborhood-specific goals established by the U.S. Forest Service
Permeable Surfacing within Parks	70% of surfacing permeable
Park Maintenance	
Parks Rated "Acceptable" Overall	85% of inspections "acceptable"
Parks Rated "Acceptable" on Cleanliness	90% of inspections "acceptable"



Duke Ellington Circle

EAST HARLEM OPEN SPACE INDEX

In the fall of 2011, NY4P conducted a field survey of East Harlem to assess the OSI features within the study area. Trained surveyors covered over 250 blocks on foot collecting data on the amount of Passive and Active Open Space and counting Recreation Centers, Play Areas, Courts, Community Gardens and Fields. Surveyors also took measurements of the permeable and impermeable ground surface in parks and open spaces.

In addition to taking physical measurements, surveyors made detailed drawings, took photographs, and reconciled on-the-ground data with map records publicly available from City agencies.



Surveying in Blake Hobbs Playground



Surveying in Central Park East Community Playground



The East Harlem OSI is the first in a series of reports by NY4P and Mount Sinai School of Medicine that will investigate the relationship between access to open space and children's health. NY4P conducted the OSI survey to correspond with the boundaries of Mount Sinai School of Medicine's ongoing *Growing Up Healthy in East Harlem* study. The study area stretches from the East River to Morningside Park, covering several neighborhoods, including East Harlem and a small portion of Central Harlem. The OSI study area falls within portions of Manhattan Community Boards 10 and 11, and City Council Districts 8 and 9. For maps of the political boundaries within the study area, please see Appendix C.

EAST HARLEM OPEN SPACE INDEX RESULTS

Open Space Elements	East Harlem OSI Results	OSI Standards
Active and Passive Open Space		
Active Open Space & Facilities:	.3 acres of Active Open Space/ 1,000 residents	1 acre of Active Open Space/ 1,000 residents
Play Areas	5.4 Play Areas/ 1,250 children	1 Play Area/ 1,250 children
Athletic Fields	2.1 Fields/ 10,000 residents	1.5 Fields/ 10,000 residents
Courts	8.4 Courts/ 10,000 residents	5 Courts/ 10,000 residents
Recreation Centers	.3 Recreation Centers/ 20,000 residents	1 Recreation Center/ 20,000 residents
Passive Open Space:	.9 acres of Passive Open Space/ 1,000 residents	1.5 acres of Passive Open Space/ 1,000 residents
Community Gardens	2.7 Community Gardens/ 10,000 residents	1 Community Garden/ 10,000 residents
Total Acres of Open Space	1.2 acres of Open Space/ 1,000 residents	2.5 acres of Open Space/ 1,000 residents
Access and Distance to Parks		
Walking Distance to a Pocket Park (Less than 1 acre)	93% of residents are within a 5 minute walk	100% of residents are within a 5 minute walk
Walking Distance to a Neighborhood Park (1-20 acres)	82% of residents are within a 5 minute walk	100% of residents are within a 5 minute walk
Walking Distance to a Large Park (Greater than 20 acres)	84% of residents are within a 10 minute walk	100% of residents are within a 10 minute walk
Environmental Sustainability		
Urban Tree Canopy Cover	12% existing tree canopy	39% possible tree canopy
Permeable Surfacing within Parks	71% of surfacing permeable	70% of surfacing permeable
Park Maintenance		
Parks Rated Overall "Acceptable"	81% of inspections "acceptable"	85% of inspections "acceptable"
Parks Rated "Acceptable" on Cleanliness	89% of inspections "acceptable"	90% of inspections "acceptable"

Neighborhood statistics: 1,202.4 acres; 143,104 residents; 31,977 children (2012 NYC DPR; 2010 U.S. Census SF-1 data)

Features that Meet or Exceed OSI Standards

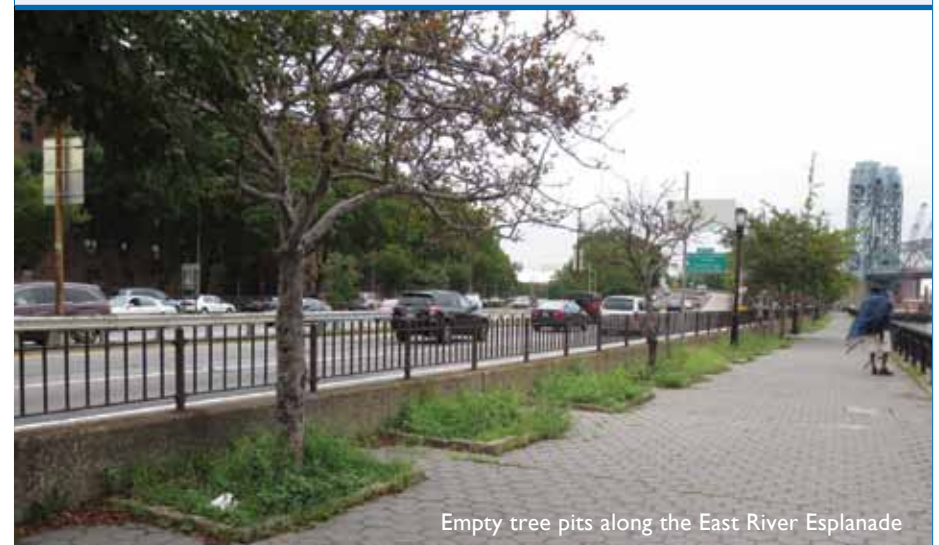
- ✓ **Fields**
- ✓ **Courts**
- ✓ **Play Areas**
- ✓ **Community Gardens**
- ✓ **Permeable Surfacing in Parks**



Mis Vecinos Garden

Features that Do Not Meet OSI Standards

- ✗ **Active Open Space**
- ✗ **Passive Open Space**
- ✗ **Total Open Space**
- ✗ **Walking distance to Pocket, Neighborhood and Large Parks**
- ✗ **Recreation Centers**
- ✗ **Overall Park Maintenance**
- ✗ **Tree Canopy Coverage**



Empty tree pits along the East River Esplanade

Active Open Space

Active Open Space and facilities offer places for recreational sports, exercise and play. This type of parkland is critical to maintaining mental and physical health.

Open Space Elements	East Harlem Open Space Measures	East Harlem OSI Results	OSI Standards
Active Open Space & Facilities:	40 acres	.3 acres of Active Open Space/ 1,000 residents	1 acre of Active Open Space/ 1,000 residents
Play Areas	139	5.4 Play Areas/ 1,250 children	1 Play Area/ 1,250 children
Athletic Fields	30	2.1 Fields/ 10,000 residents	1.5 Fields/ 10,000 residents
Courts	120.5	8.4 Courts/ 10,000 residents	5 Courts/ 10,000 residents
Recreation Centers	2	.3 Recreation Centers/ 20,000 residents	1 Recreation Center/ 20,000 residents

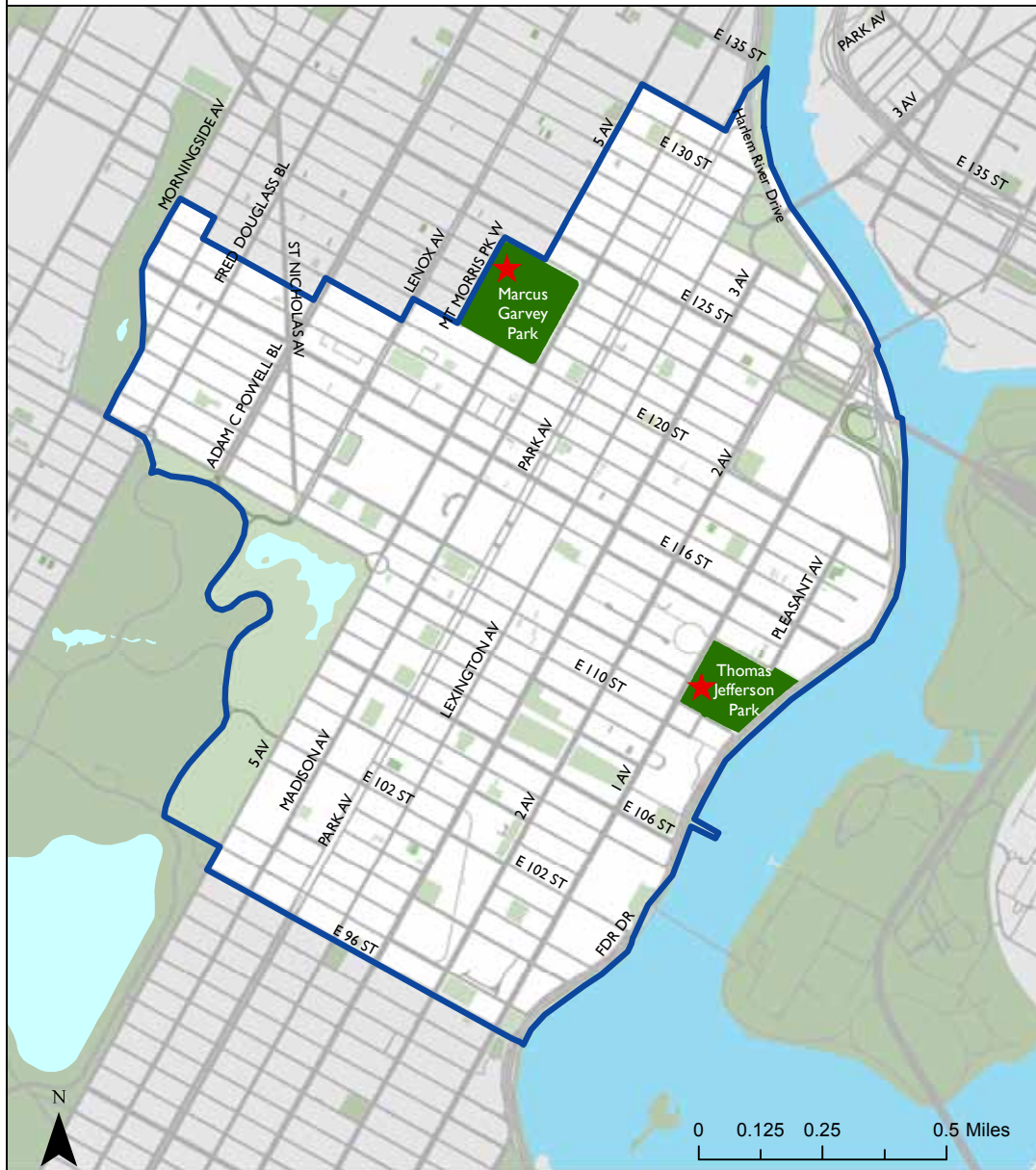


Harlem River Park Field

East Harlem exceeds the OSI standards for the number of Fields, Courts and Play Areas per resident. While there is a shortage of Total Open Space per resident, existing parks are well-stocked with a variety of recreational equipment and programmed spaces.

East Harlem Open Space Index

Recreation Center Locations



- Study Area
- Parks with Recreation Centers
- ★ Recreation Centers
- Other Park Properties



Thomas Jefferson Recreation Center

RECREATION CENTERS FALL SHORT OF OSI STANDARD

The Department of Parks and Recreation (DPR) operates two Recreation Centers in the study area: Thomas Jefferson Recreation Center in Thomas Jefferson Park and Pelham Fritz Recreation Center in Marcus Garvey Park. Both centers contain outdoor pools, indoor recreation, and computer resource facilities, and both offer active programming including dance and fitness classes. Youth under 18 have free access to DPR Recreation Centers throughout the city.

While there are many organizations in the East Harlem study area that provide valuable recreational opportunities for children, including StreetSquash and Harlem RBI, the OSI only counts Recreation Centers with DPR-comparable entrance fees and accessibility—i.e., spaces in which any child can play free of charge.

Passive Open Space

Passive Open Spaces such as lawns, esplanades, plazas, beaches, natural areas, and community gardens offer places to relax, stroll, socialize, and experience the outdoors. These spaces provide respite from city life and give residents a chance to interact with the natural environment. Parks with benches, shade and peaceful passive programming are important resources that support the healthy aging of seniors.¹

Open Space Elements	East Harlem Open Space Measures	East Harlem OSI Results	OSI Standards
Passive Open Space	122 acres	.9 acres of Passive Open Space/ 1,000 resident	1.5 acres of Passive Open Space/ 1,000 residents
Community Gardens	39	2.7 Community Gardens/ 10,000 residents	1 Community Garden/ 10,000 residents

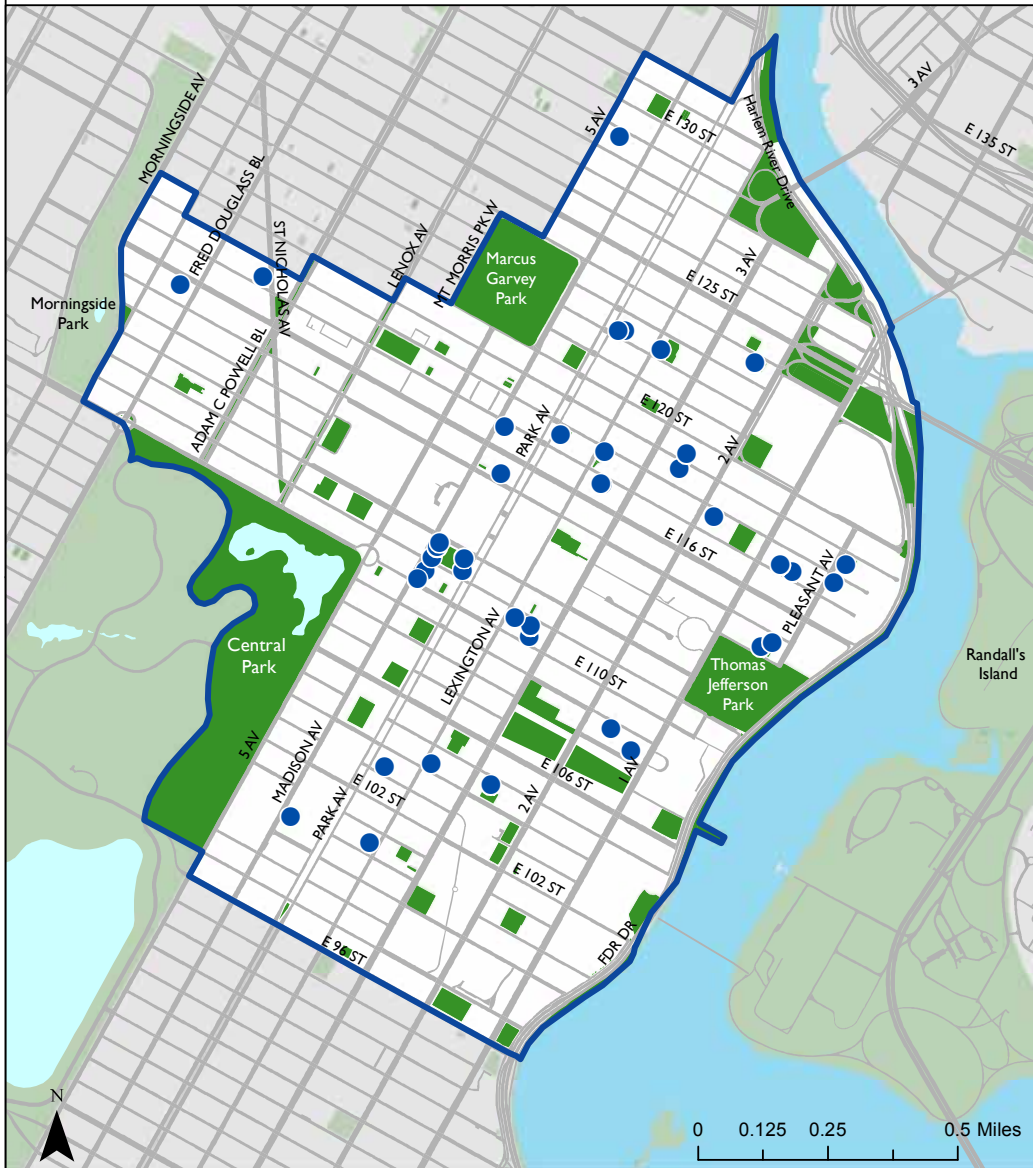


Sitting Area in Thomas Jefferson Park

East Harlem falls short of the OSI standard for total acres of Passive Open Space per resident. Most of the study area's Passive Open Space is concentrated in Central Park. Passive open spaces such as the Harlem Meer and DOT Greenstreets at the entrance to the RFK Bridge on 125th Street provide visual amenities and environmental benefits but are inaccessible to users for activities such as picnicking, sun bathing or reading.

East Harlem Open Space Index

Community Gardens



- Study Area
- Study Area Park Properties
- Community Gardens
- Surrounding Park Properties



Jardin Comunitario Pleasant

COMMUNITY GARDENS EXCEED OSI STANDARD

With 39 Community Gardens, East Harlem is home to a large and diverse stock of small passive open spaces, from family vegetable gardens to manicured rose gardens to club houses for socializing and card playing. NY4P surveyors observed well-tended gardens displaying bright colors and the remnants of summer crops when we visited in the fall of 2011.

Many organizations manage community gardens in East Harlem, including New York Restoration Project, The Trust for Public Land, and groups with license agreements through DPR's GreenThumb program. The GreenThumb program requires community gardens to post public hours and contact information. However, NY4P surveyors observed great variation in the upkeep and public accessibility of community gardens in East Harlem. Some gardens had clearly posted hours and rules for participation. Other gardens were locked during posted hours or failed to display required information. We observed gardens used for private purposes including storage and car parking. These hard-won oases of urban greenery should be accessible for all to enjoy.

Total Open Space

Total Open Space is the aggregate of Active and Passive Open Space in East Harlem. This includes courts and fields, lawns, pathways, plazas, and playgrounds—the entire spectrum of open space that provides East Harlem residents with opportunities for play, relaxation, socializing and contact with nature.

Open Space Elements	East Harlem Open Space Measures	East Harlem OSI Results	OSI Standards
Total Acres of Open Space	168 acres	1.2 acres of Total Open Space/ 1,000 residents	2.5 acres of Total Open Space/ 1,000 residents



The amount of Total Open Space per East Harlem resident falls far short of the OSI standard. However, the space that does exist is programmed for a variety of recreational opportunities, exceeding standards for Courts, Fields and Play Areas. With 39 Community Gardens, the neighborhood also contains verdant Passive Open Space.



Access and Distance

In densely populated urban areas, the distribution and accessibility of open space is critically important. While the East Harlem OSI study area is bordered by Central Park and the East River Esplanade, these parks are beyond the reach of many neighborhood residents. Residents not living in the immediate area of these parks are not likely to utilize the spaces with frequency. Tranquil open spaces are particularly important to vulnerable populations, such as the ill, disabled, and elderly, who are less likely to participate in active recreation but stand to benefit immensely from exposure to the outdoors.

Open Space Elements	East Harlem OSI Results	OSI Standards
Access and Distance to Parks		
Walking Distance to a Pocket Park (Less than 1 acre)	93% of residents are within a 5 minute walk	100% of residents are within a 5 minute walk
Walking Distance to a Neighborhood Park (1-20 acres)	82% of residents are within a 5 minute walk	100% of residents are within a 5 minute walk
Walking Distance to a Large Park (Greater than 20 acres)	84% of residents are within a 10 minute walk	100% of residents are within a 10 minute walk

For distance measurement calculations, see Appendix A.

While some East Harlem residents reside outside of the recommended walking distance to a Pocket, Neighborhood or Large Park, 100% of East Harlem residents are within walking distance of at least one type of park, and residents of all but two blocks live within walking distance to either a Pocket or a Neighborhood Park. We encourage progress toward the goal that residents live within the recommended walking distance to all three types of park, as each offers different amenities and provides different benefits to users.



16% of East Harlem residents live more than a ten-minute walk from a Large Park. These residents, including over 5,000 children, are concentrated in the eastern portion of the neighborhood.

POCKET PARK: Less than one acre

Pocket Parks usually accommodate one or two features such as a play area, a court, or a passive sitting area. Their small size limits the services they can provide to a community, yet they are critical amenities for residents without much mobility, such as caretakers with small children, the elderly and the infirm.



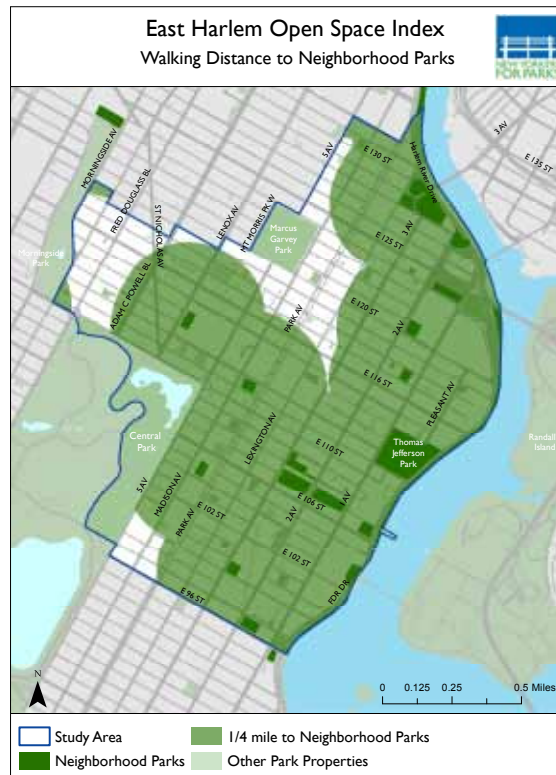
NEIGHBORHOOD PARK: 1-20 acres

Neighborhood Parks typically offer a broad range of recreational opportunities, allowing park-goers to enjoy both recreation and outdoor relaxation. East Harlem Neighborhood Parks such as Blake Hobbs and Crack is Wack Playgrounds offer multiple Courts and Play Areas, as well as seating areas and landscaped greenery.



LARGE PARK: Greater than 20 acres

The expansive acreage of Large Parks allows for the widest range of recreational activities, as well as space for distinctive resources such as lakes, golf courses, natural areas and greenways. Large Parks provide swaths of uninterrupted green lawns and natural landscaping, aesthetic features that in dense cities can often only be experienced in large parks.



Environmental Sustainability: Permeable Surfacing

Parks are critical to New York’s long-term environmental sustainability. Trees, grass and plants absorb air pollution, provide habitats for wildlife, and reduce air temperatures.² Natural ground surfacing slows stormwater runoff and provides a natural filter to contaminants before they reach our rivers and bays. Lack of green space and shade can affect the park-going experience and may dissuade parents and caretakers from bringing their children to parks.

Open Space Elements	East Harlem OSI Results	OSI Standards
Environmental Sustainability		
Permeable Surfacing within Parks	71%	70%
Permeable Surfacing within Parks – Excluding Central Park	54%	70%



The proportion of parkland in East Harlem that is covered in permeable surfacing meets OSI standards. However, if we exclude Central Park, only 54% of open space in East Harlem is permeable, and if we limit our analysis to the primary places where children play—i.e., parks that contain Play Areas and/or Courts—only 47% of the open space in East Harlem is permeable. This means that children in East Harlem are often playing on asphalt.



Environmental Sustainability: Tree Canopy

Trees provide multiple ecosystem services to New York City: they remove pollutants from the air, their leaves absorb and store carbon dioxide, they cool the air, and the permeable ground in which they grow helps absorb and manage stormwater runoff. These services are natural solutions that can save the City millions of dollars in annual pollution control.

At the request of DPR, the United States Forest Service completed an analysis of New York City’s urban tree canopy in 2006.³ The 2006 report finds that all 188 New York City neighborhoods have the potential to increase their tree canopy coverage. In light of these findings, the City initiated MillionTreesNYC, which is facilitating the planting of one million trees with the ultimate goal of achieving 30% citywide tree canopy coverage by 2030. East Harlem—with limited street tree coverage and high rates of childhood asthma—was selected as a MillionTreesNYC “Trees for Public Health” neighborhood. In these target neighborhoods, DPR conducts block-by-block street tree plantings, and nonprofit organizations, including New York Restoration Project, oversee plantings and outreach throughout the community. Between October 2007 and June 2012, MillionTreesNYC contributed street trees to the majority of streets in East Harlem.⁴

Open Space Elements	East Harlem Tree Canopy Cover	Potential Urban Tree Canopy Cover
Environmental Sustainability		
Urban Tree Canopy Cover*	12%	39%

*Average current and potential tree coverage for East Harlem North, East Harlem South, Central Harlem North/Polo Grounds, and Central Harlem South PlaNYC neighborhoods, from 2006 US Forest Service report to the City of New York.



The current Tree Canopy Cover in East Harlem falls far short of potential. Empty tree pits provide one opportunity for additional tree planting. We found 66 empty tree pits along the East River Esplanade—over one quarter of the total tree pits—and there appear to be additional areas in which more trees could be planted.

Park Maintenance

New York City’s parks serve as front- and backyards for many New Yorkers. Keeping parks clean and safe is essential to attracting visitors and ensuring they feel comfortable and welcome. DPR’s Park Inspection Program (PIP) is a systematic assessment of parks conditions. PIP scores, which provide “acceptable” or “unacceptable” ratings for overall park maintenance and cleanliness, are publicly available on DPR’s website. The OSI standards conform to the New York City Mayor’s Management Report targets for park performance.⁵

DPR also publishes the “acceptable” and “unacceptable” ratings for the 17 park features that are evaluated in the overall PIP score (see Appendix A for a complete list of features). In East Harlem, between July 1, 2008 and June 30, 2012, litter was the most common problem, followed by the quality of paved surfaces and graffiti. Different maintenance problems require different remedies. Fixing faulty pavement requires elected officials to allocate capital improvement funds, while volunteer “friends” groups can organize clean-ups to tackle litter problems.

Park Inspection Program Scores – July 1, 2008 to June 30, 2012

Open Space Elements	East Harlem	East Harlem Parks excluding Central Park	NYC Citywide*	OSI Standards
Parks Rated "Acceptable" Overall	81%	79%	83%	85%
Parks Rated "Acceptable" on Cleanliness	89%	87%	89%	90%

*City of New York Mayor’s Management Report



Fence in disrepair in Martin Luther King Jr. Playground



Deferred maintenance along the East River Esplanade has created hazardous pathway conditions

The percent of “acceptable” Cleanliness PIP Scores for East Harlem’s parks is comparable to the citywide average and to the OSI standard.

The percent of “acceptable” Overall PIP Scores falls below the citywide average and the OSI standard.

When we remove Central Park from the analysis, the remaining parks in our study area perform below the citywide average and OSI standards on both Cleanliness and Overall PIP ratings. Central Park Conservancy, a privately-funded nonprofit that manages Central Park under contract with the City, is able to dedicate resources to park maintenance that are unavailable to other parks in the study area. The portions of Central Park in our survey area are well-maintained, receiving 98% “acceptable” Cleanliness and 96% “acceptable” Overall PIP Scores.



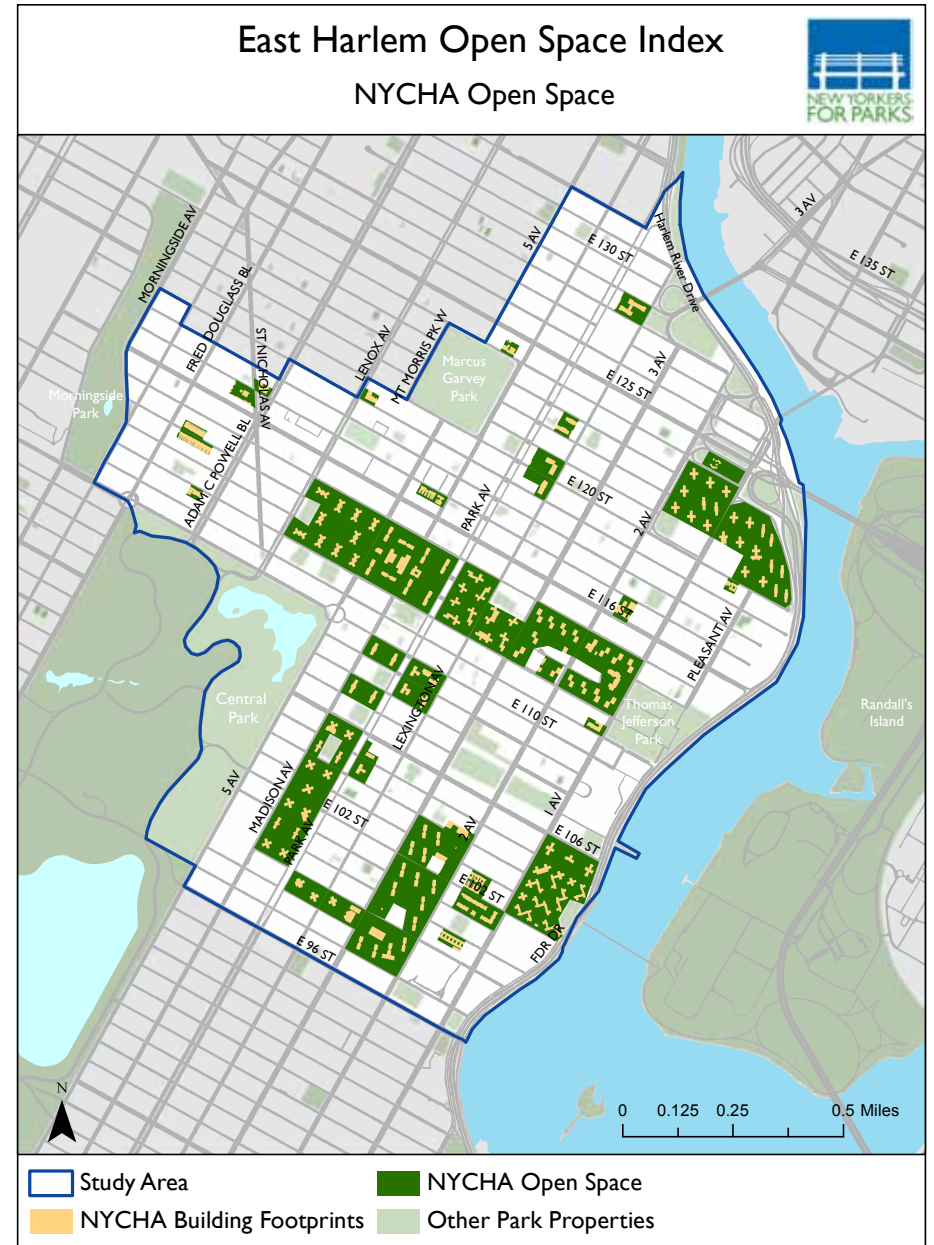
RECOMMENDATIONS

This report provides East Harlem residents and community leaders with data about their neighborhood's open space resources. There are few opportunities for parkland expansion in East Harlem,⁶ so innovative solutions are needed to ensure that all residents have safe access to open spaces with a variety of programming opportunities and landscapes. While NY4P offers the following general recommendations for public officials, City agencies, community organizations and East Harlem residents, the next step is a community dialogue to determine how to use this information to prioritize East Harlem's needs.

I Maximize Public Use of Existing Open Space

► Develop an Open Space Strategy for NYCHA Properties

The greatest untapped open space resource in East Harlem is property owned by the New York City Housing Authority (NYCHA). While tower-in-the-park planning was intended to create open space in exchange for height, the open spaces at many NYCHA developments feel like an afterthought at best, a nuisance at worst. There are over 200 acres of NYCHA-owned property in the East Harlem OSI study area, less than 20% of which is covered by building footprints.⁷ We encountered four community gardens on East Harlem NYCHA sites, but most of NYCHA's lawns and green spaces are fenced off and inaccessible. These spaces present opportunities for more community gardens, active recreation, and passive enjoyment. Certainly considerations such as the cost of maintenance, security and tenant preferences must come to bear on decisions about programming this underutilized land, but a comprehensive rethinking of these spaces could improve the health and quality of life of public housing residents and their neighbors.



► Ensure that Community Gardens are Truly Public



While East Harlem has a wealth of community gardens, public use and access varies widely. We observed gardens being used as temporary parking lots, gardens with locked gates during posted open hours, and gardens that functioned as semi-private social clubs. We also came across gardens without posted hours or contact information. Community Board 11's Fiscal Year 2013 District Needs Statement calls for compliance with GreenThumb rules to prevent "the use of their gardens for what appears to be private use by tenants,"⁸ a sentiment we share, but enforcement of GreenThumb rules is difficult given the program's limited resources and staffing. GreenThumb is perhaps the most cost-effective means of creating new open space and should be adequately funded to reflect its important role.

► Continue Successful PlaNYC Open Space Initiatives

Encourage Community Applications to DOT's Public Plaza Program

As part of the PlaNYC initiative to ensure that every New York City resident lives within

a ten-minute walk of an open space, the New York City Department of Transportation (DOT) implemented an innovative program to turn underutilized streetscapes into pedestrian plazas. Community groups can nominate spaces for this transformation with the support of their Community Board and elected officials, and DOT works with selected nonprofits to create pedestrian-friendly public spaces. DOT seeks applications from nonprofit organizations committed to the planning and upkeep of plazas, particularly in neighborhoods with limited open space.⁹ Creating public plazas with plantings and seating would provide residents of East Harlem additional passive open space and could turn impermeable roadway into permeable green landscape.

Expand the Schoolyards-to-Playgrounds Program

Schoolyards-to-Playgrounds is another PlaNYC initiative intended to bring every New York City resident within a ten-minute walk of a park or playground. Over 200 Department of Education playgrounds, formerly closed except during school hours, have been transformed into publicly-accessible play spaces, and 30 more are



EAST HARLEM CASE STUDY: PLAY STREETS

Play Streets temporarily transform city streets into traffic-free zones where children can play and neighbors can congregate.

For six Thursdays during July and August of 2010, Transportation Alternatives (T.A.) and Harvest Home Farmer's Market converted East 104th Street between Second and Third Avenues into a Play Street. Over 850 children visited the block, taking part in organized activities supervised by local and citywide organizations. The East Harlem Play Street coincided with market days, bringing physical activity together with fresh, healthy food. According to T.A., Play Streets transform roads into "havens for kids to play soccer, jump rope and take yoga lessons without fear of being hit by a car."¹⁰

Play Streets are one way to supplement park space in neighborhoods with few locations for active recreation and create community gathering spots in areas usually reserved for automobile and pedestrian traffic. The 2011 PlaNYC update includes support for and expansion of the Play Streets program. T.A. offers steps for organizing Play Streets and encourages community groups to submit Play Street Expressions of Interest with the NYC Department of Health and Mental Hygiene.¹¹

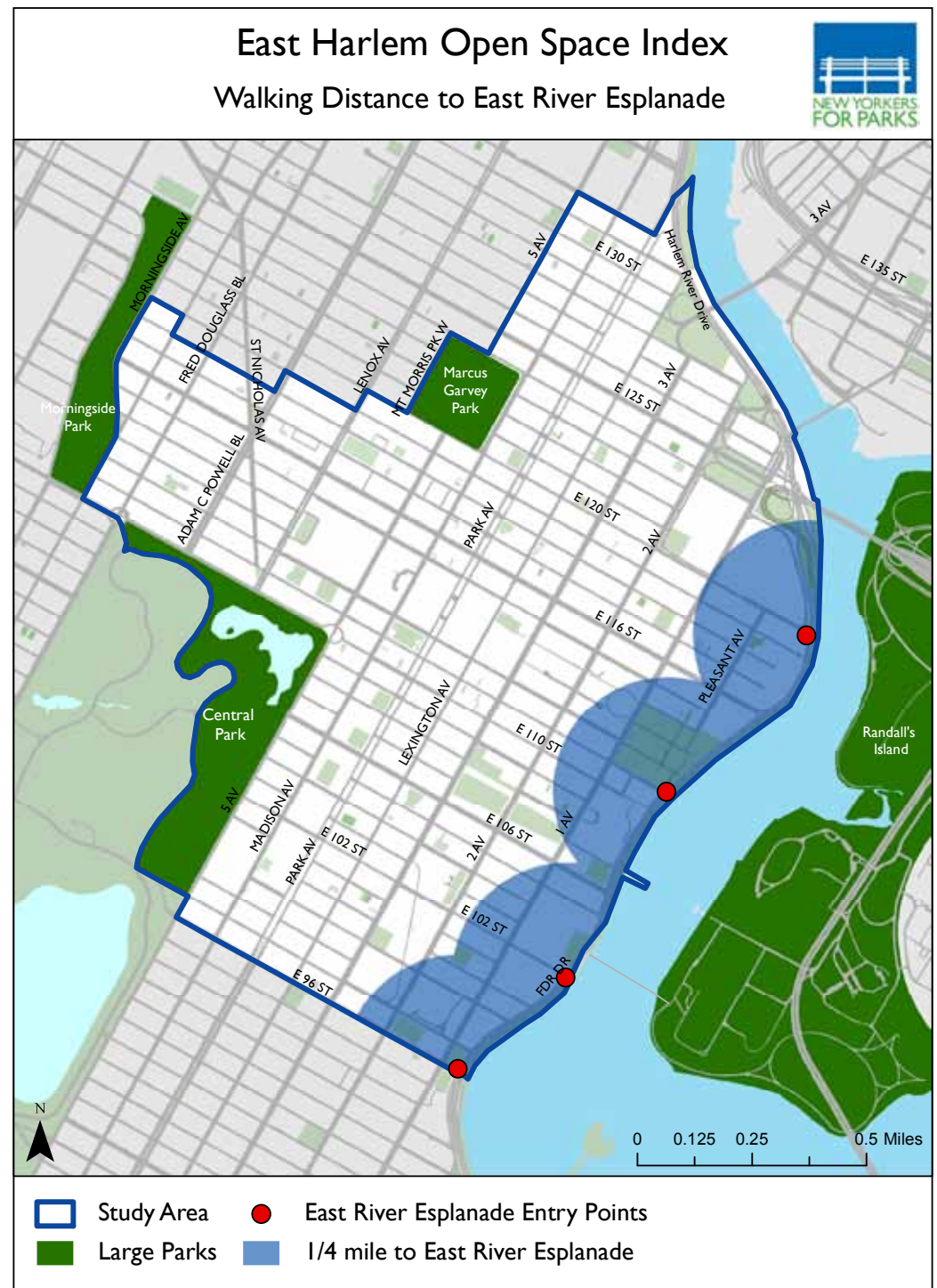
planned for development by 2013. The East Harlem OSI study area contains three Schoolyards-to-Playgrounds—P.S. 185, P.S. 241 and P.S. 208—that are now open for public use outside of school hours.

This initiative has proven effective in increasing recreational opportunities in underserved neighborhoods and should be funded to support another round of sites. With over 30 additional public schools in the East Harlem OSI study area, there are opportunities for more Schoolyards-to-Playgrounds.

► Build Upon and Enhance Existing Open Space Resources

The Community Board 11 Fiscal Year 2013 District Needs Statement recognizes the need for recreational opportunities for East Harlem youth and requests that the “currently over-utilized” Thomas Jefferson Recreation Center receive “a second floor addition to the current building to accommodate the increased usage.”¹² This would increase active recreation space for children in East Harlem.

The East River Esplanade could be enhanced with more trees to buffer the noise and emissions of the FDR Drive and make walking, running or biking on it an all-around better experience, while also adding to East Harlem’s Tree Canopy Cover. The Esplanade also suffers from serious structural deterioration, presenting hazardous conditions for pedestrians and cyclists who must navigate uneven surfaces and holes in the pathways.



2

Connect People to Parks

While open space is limited in East Harlem, there are creative ways to better connect existing neighborhood spaces into a network of diverse open space features and streetscapes. Streets and sidewalks comprise 80% of public space in New York City,¹³ but unless they are safe, accessible passageways, they can serve as barriers rather than connectors. In East Harlem, concern about pedestrian safety and a dearth of access points to the waterfront sharply curtail opportunities for connecting people to the area's existing open space resources.

The FDR Drive is a significant barrier to accessing the East River Esplanade. There are only four points at which pedestrians can cross the FDR to access the East River Esplanade and piers. And there are only two locations in East Harlem—103rd Street and 125th Street—to cross onto Randall's Island, which should serve as a major open space resource for the community (see map on page 24).

► Make Passageways to Parks Safer

If streets and sidewalks are to serve as pathways between parks, they must be safe for pedestrians and bicyclists. Today, East Harlem residents must contend with some of the most dangerous intersections on the East Side of Manhattan. The intersection of 125th Street and Lexington Avenue saw the second highest number of vehicle/pedestrian crashes on the entire East Side between 1998 and 2008. According to Transportation Alternatives (T.A.), there were 19 cyclist and

pedestrian fatalities and 3,482 injuries in Community Board 11 between 1995 and 2005.¹⁴ T.A. offers a number of suggestions for the DOT to make streets safer for pedestrians, including providing longer street crossing times; timing pedestrian crossing signals to begin before vehicular traffic signals, giving pedestrians a “head start” traversing intersections; and extending the curb where 96th, 106th, 116th and 125th Streets meet the Avenues.

CIVITAS, a neighborhood advocacy organization serving the Upper East Side and East Harlem, identified the entrance to the East River Esplanade at 96th Street as a particularly dangerous crossing point.¹⁵ CIVITAS, together with T.A., successfully advocated for a pedestrian crossing signal at the intersection of the FDR Drive and 96th Street, which DOT installed in the spring of 2012. They are currently exploring other design interventions such as increased signage, crosswalk paintings and street paver realignment to signal a transition from the FDR Drive to neighborhood streets.

► Promote Streets as Connectors Among Parks

In the summer of 2010, DPR, in conjunction with partner organizations including the NYC Department of Health and Mental Hygiene and the National Park Service, released a walking map of East Harlem with publicly-marked trails between Thomas Jefferson and Marcus Garvey Parks. Artist James De La Vega created markers and wayfinding signs along the route. The path encouraged fitness through walking, while promoting the integration of disparate spaces into a coherent neighborhood patchwork of paths and parks. Continued support for this and similar programs will encourage healthy behavior



NEARBY INSPIRATION: BROADWAY MALLS

On the west side of Manhattan, stretching from 60th Street to 168th Street, the Broadway Malls provide over 10 acres of greenery in the medians along Broadway. The Malls contain decorative plantings, shade trees, seating and pedestrian passage. The Broadway Mall Association curates temporary art installations along the length of the Malls. The current fall 2012 exhibition features seven sculptures by the Brazilian artist Saint Clair Cemin, situated along the Malls from 57th Street at Columbus Circle to 157th Street in Washington Heights. In the previous exhibition, visitors could travel the length of Broadway following a map of sculptures by Peter Woytuk while listening to an interactive cellphone audio guide.¹⁶ This is just one example of how individual streets become integrated into a larger system of walkways.

and promote the use of parks as a system of connected spaces.

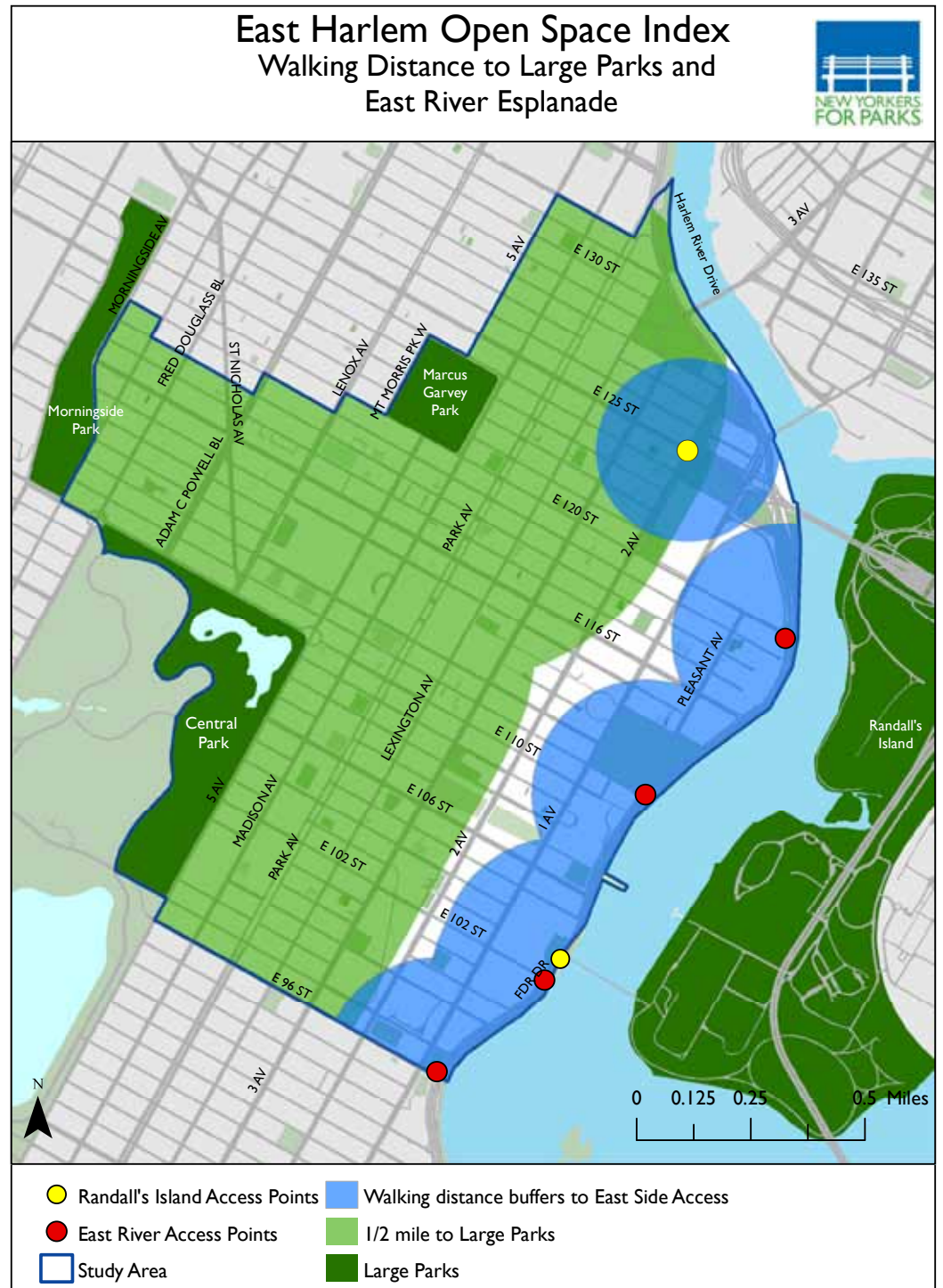
A network of sidewalks connecting people and parks must accommodate people of all ages and abilities. In October 2011 DOT launched the City Bench program, providing 1,000 benches to communities around New York City. This federally funded program encourages more walkable streets. According to a 2008 New York Academy of Medicine study on healthy aging, the majority of seniors report that places to stop and rest along the street are “very important” components of well-being.¹⁷ East Harlem, home to the city’s first “Aging Improvement District,” hosted the launch of the City Bench program with the installation of two benches in front of the Leonard Covello Senior Center on East 109th Street between 1st and 2nd Avenues. New York City residents can suggest locations for City Bench installation, and the program encourages proposals for benches near senior centers and community health centers, as well as along busy commercial and transit corridors. Applications are available online at <http://www.nyc.gov/citybench>.

► Expand Access from East Harlem to Randall’s Island

East Harlem residents have two points of access to the bike paths, fields, tennis courts, golf greens and other recreational facilities on Randall’s Island: vehicle and pedestrian access at 125th Street, and the newly-opened 103rd Street Footbridge.¹⁸ CIVITAS sponsored a feasibility study that proposed two alternate pedestrian bridge locations along the isolated stretch of land from 103rd to 125th Streets. Other proposals include ferry service and free shuttle buses.¹⁹



Pedestrian access to Randall’s Island



NEXT STEPS:

A Continuing Collaboration between NY4P and Mount Sinai

WINTER 2012-2013

Researchers from Mount Sinai analyze data on the relationship between children's health and the built environment.

SUMMER 2013

NY4P releases a follow-up report that takes an in-depth look at the relationship between open space and children's health in East Harlem based on Mount Sinai's research.

ONGOING

NY4P shares health and open space recommendations with residents, community leaders, and elected officials in East Harlem and citywide.

APPENDIX A:

Data Collection

In April 2010, New Yorkers for Parks released the first Open Space Index report. The report documented the need for and development of open space standards for New York City and applied those standards to a pilot study of the Lower East Side of Manhattan. NY4P’s development of the Open Space Index began with an extensive survey of open space policies and metrics used in other cities. While many of these standards do not work for New York City’s unique population density and geographic constraints, they provided thoughtful groundwork for developing the OSI targets. NY4P also drew upon existing New York City open space and sustainability goals, such as those laid out in PlaNYC, and recommendations by experts in relevant fields such as urban planning and environmental advocacy. The pilot study that NY4P conducted of the Lower East Side of Manhattan in the spring of 2009 helped us refine the Open Space Index. The results of the pilot study were published in the 2010 *Open Space Index* report.

Active Open Space: Play areas, fields, courts, pools, beaches, golf courses, greenways, bikeways and recreation centers

Open Space Elements	OSI Standards
Active Open Space & Facilities	1 acre/ 1,000 residents
Play Areas	1 Play Area/ 1,250 children
Athletic Fields	1.5 Athletic Fields/ 10,000 residents
Courts	5 Courts/ 10,000 residents
Recreation Centers	1 Recreation Center/ 20,000 residents

Collecting Data

Calculating a neighborhood’s active open space acreage requires measuring the play areas, courts, fields, swimming pools, beaches, golf courses, greenways, bikeways and recreation centers. Surveyors, led by NY4P staff, employ a variety of methods to obtain this data. Most courts, fields and pools follow national size standards (listed in Appendix B); however, occasionally these elements are not standard size. When a court, field or pool is shaped irregularly, surveyors use a measuring wheel to measure the areas. A measuring wheel must also be used to calculate the size of play areas. In the case of beaches, greenways, bikeways, golf courses and recreation centers, DPR can often provide data on acreage. However, when a measurement is not available, these features are measured manually as well.

Play Areas: Play equipment, such as swings and structures for climbing, contained on a contiguous section of safety surfacing

Open Space Element	OSI Standard
Play Areas	1 Play Area/ 1,250 children

Collecting Data

Collecting data on play areas requires surveying neighborhood parks on foot. Surveyors, led by NY4P staff, visit all parks and playgrounds in the study area to identify play equipment. For the purposes of the Open Space Index, play equipment situated within a contiguous section of safety surfacing equals one play area. Most New York City public play areas are operated by DPR. We also include in our calculation PlaNYC Schoolyard-to-Playground sites, NYCHA playgrounds that are open to the public, and private schoolyards with explicitly stated hours of public accessibility.

Athletic Fields: Soccer, football, cricket, baseball, and hockey fields, as well as ice rinks

Open Space Element	OSI Standard
Athletic Fields	1.5 Athletic Fields/ 10,000 residents

Collecting Data

Collecting athletic field data requires surveying neighborhood parks on foot. While DPR’s website often includes fields on park maps, sometimes the information is incomplete. Led by NY4P staff, surveyors visit all parks in the study area to confirm the number and types of fields available. When fields overlap one another, surveyors count the maximum number of fields that can be used simultaneously. For instance, if two baseball fields are drawn atop a soccer field, the area will be counted as two fields.

Courts: Basketball, handball, volleyball, tennis and bocce courts

Open Space Element	OSI Standard
Courts	5 Courts/ 10,000 residents

Collecting Data

Collecting data on courts also requires surveying neighborhood parks on foot. While DPR’s website often includes courts on park maps, sometimes the information is incomplete. Surveyors, led by NY4P staff, visit all parks in the study area to confirm the number and types of courts available. All tennis, basketball, volleyball,

handball and bocce courts are counted toward this total. When half-basketball courts are identified, they are counted as 1/2 of a court.

Recreation Centers: DPR indoor recreation facilities, and other indoor recreation facilities with comparable fees and public accessibility

Open Space Element	OSI Standard
Recreation Centers	1 Recreation Center/ 20,000 residents

Collecting Data

Data on recreation centers comes from a variety of sources. DPR lists its recreation center locations on its website.²⁰ Surveyors, led by NY4P staff, also identify community centers run by non-profits, NYCHA and other agencies through field work and in consultation with local officials. If these sites offer recreational opportunities, are publicly-accessible, and maintain a fee structure comparable to DPR recreation centers, they are included in the neighborhood’s recreation center count.

Passive Open Space: Lawns, esplanades, plazas, beaches, natural areas, planted areas, and community gardens

Open Space Element	OSI Standard
Passive Open Space	1.5 acres/ 1,000 residents

Collecting Data

Passive open space acreage is calculated using a number of sources and methods. Maps obtained from DPR and other City agencies, NYC Audubon Society, and other sources provide data on parks, beaches, community gardens and natural areas. NY4P staff uses GIS (Geographic Information Systems) mapping software to calculate the acreage of community gardens, natural areas, beaches and parks. For large parks that are primarily passive but contain some active recreation, NY4P subtracts the active space acreage from the total park acreage to obtain the passive open space acreage. For neighborhood parks that tend to be occupied primarily by active open space, NY4P calculates the passive acreage by measuring lawns, esplanades, planted areas and other passive spaces within parks using a measuring wheel. Often these spaces are permeable, and the measurements can be re-used for the permeable surfaces element of the OSI. Information on privately-owned public plazas developed through the City’s incentive zoning program are obtained from the Department of City Planning’s website.²¹ The locations of PlaNYC’s Plaza Program are obtained from the Department of Transportation’s website.²²

Community Gardens: Publicly-accessible participant-run gardens managed under the auspices of GreenThumb or another community organization

Open Space Element	OSI Standard
Community Gardens	1 Community Garden/ 10,000 residents

Collecting Data

New York City’s community gardens are owned and operated by a variety of entities including DPR, the Trust for Public Land, New York Restoration Project, and others. NY4P obtains community garden data from DPR and GrowNYC. Surveyors, led by NY4P staff, visit each garden to confirm the data.

Total Acres of Open Space: The aggregate of all active and passive open spaces in the neighborhood

Open Space Element	OSI Standard
Total Open Space	2.5 acres of open space/ 1,000 residents

Access and Distance: Walking distance to Pocket, Neighborhood and Large Parks

Open Space Elements	OSI Standards
Access and Distance	
Walking Distance to a Pocket Park (Less than 1 acre)	100% of residents are within a 5 minute walk (1/4 mile)
Walking Distance to a Neighborhood Park (1-20 acres)	100% of residents are within a 5 minute walk (1/4 mile)
Walking Distance to a Large Park (Greater than 20 acres)	100% of residents are within a 10 minute walk (1/2 mile)

Collecting Data

NY4P measures access to parks by using GIS mapping software. This tool allows NY4P to calculate walking distances to parks by drawing 1/4- and 1/2-mile radius circles, or “buffers,” around each park. NY4P calculates 1/4 mile buffers around Pocket and Neighborhood Parks and 1/2 mile buffers around Large Parks. This includes parks that are located within the recommended walking distance for neighborhood residents but fall outside of the study area. To calculate distance buffers to Randall’s Island, a Large Park accessible only by two bridges, we subtracted the length of the

bridges from one half mile, and calculated a buffer for the residual distance (1/2 mile minus the bridge length) around the bridge entry points in East Harlem. For access to the East River Esplanade, a Neighborhood Park, we calculated ¼ mile buffers around each of the four entry points to the Esplanade.

Tree Canopy: Neighborhood-level tree canopy capacity from the U.S. Forest Service

Open Space Element	OSI Standard
Urban Tree Canopy Cover	Varies by neighborhood

Collecting Data

The Open Space Index uses the potential neighborhood-level tree canopies published in the U.S. Forest Service’s 2006 study, “A Report on New York City’s Present and Possible Urban Tree Canopy,” as each neighborhood’s target. Using GIS data and aerial photography, the Forest Service calculated New York City’s existing Urban Tree Canopy (UTC) at 24%. By identifying all land not covered by water, roads or buildings as possible planting locations, the study estimated that New York City’s UTC could be expanded to 42%.²³

Permeable Surfacing: Permeable land including tree pits, natural areas, planted green areas, community gardens, natural grass fields, artificial turf fields, and other porous surfaces within parks

Open Space Element	OSI Standard
Permeable Surfacing within Parks	70%

Collecting Data

NY4P collects permeable surfacing data by surveying neighborhood parks on foot and identifying all tree pits, natural areas, planted green areas, community gardens, natural grass fields and artificial turf fields within the area’s parks.²⁴ In parks that are primarily concrete, we measure each individual permeable space with a measuring wheel. In parks with large swaths of natural surfacing, it is more efficient to measure the impermeable surfaces and subtract them from the park’s overall acreage to find the permeable surfacing acreage for that park.

Park Maintenance: DPR Park Inspection Program (PIP) “acceptable” ratings for overall maintenance and cleanliness

Open Space Elements	OSI Standards
Parks Rated “Acceptable” Overall	85%
Parks Rated “Acceptable” on Cleanliness	90%

Parks Rated “Acceptable” Overall: DPR Park Inspection Program (PIP) acceptable rating for overall maintenance of the following features: Litter, Glass, Graffiti, Weeds, Ice, Benches, Fences, Paved Surfaces, Play Equipment, Safety Surface, Sidewalks, Athletic Fields, Horticultural Area, Lawns, Trails, Trees, Water Bodies

Parks Rated “Acceptable” on Cleanliness: DPR Park Inspection Program (PIP) acceptable rating for cleanliness of the following features: Litter, Glass, Graffiti, Weeds

Collecting Data

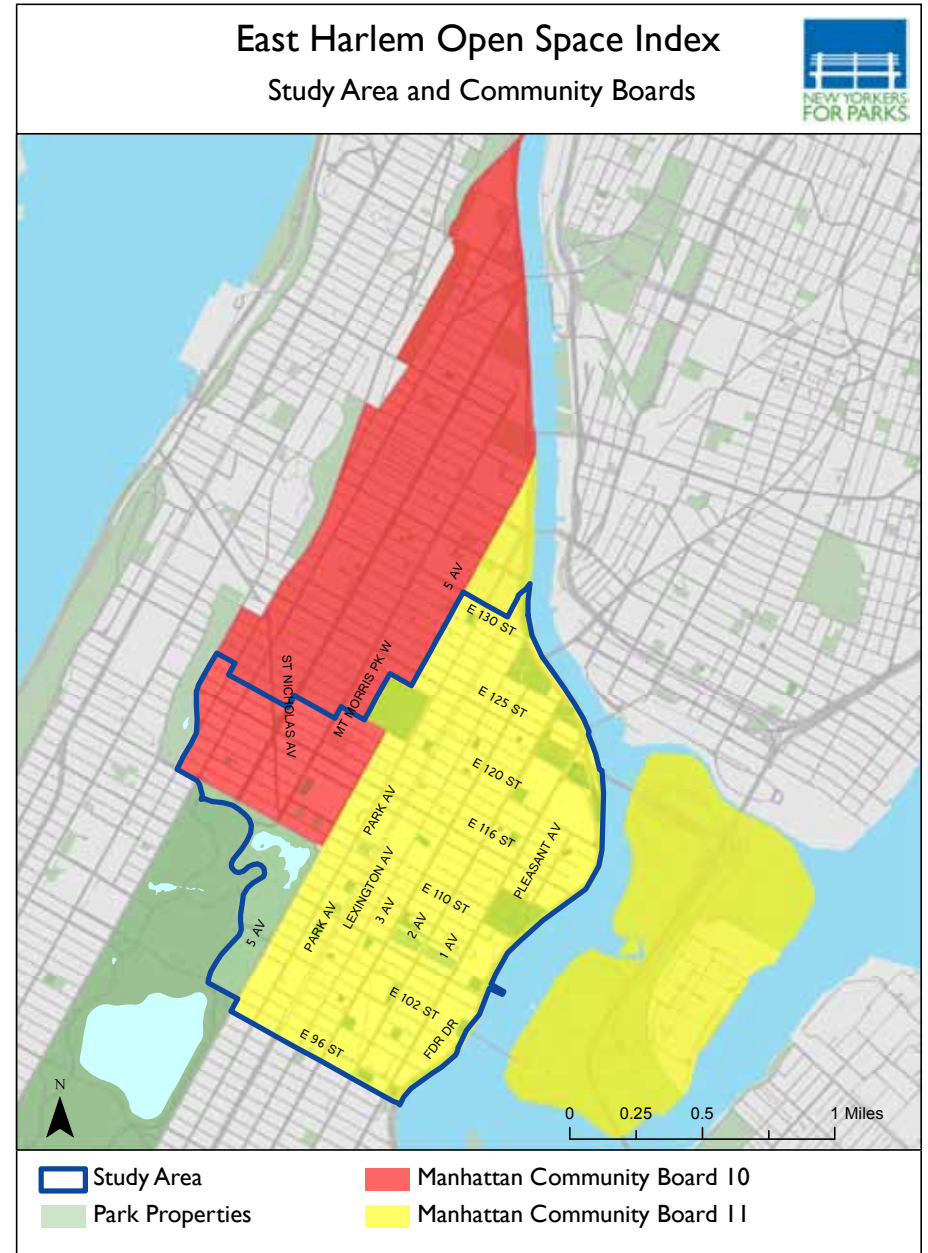
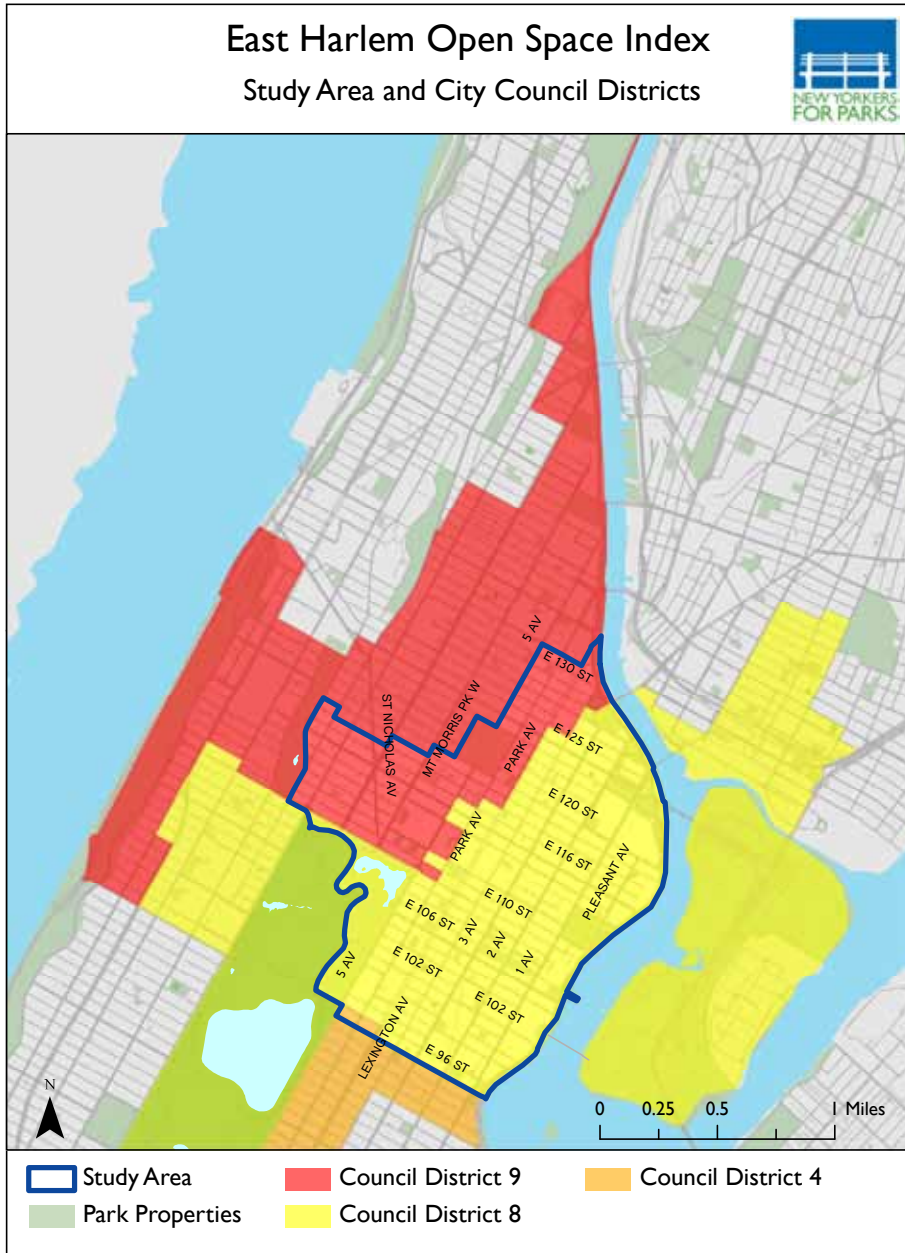
To calculate park maintenance results, the Open Space Index uses the “Overall Condition” and “Cleanliness” ratings from DPR’s Park Inspection Program (PIP) for all parks within the survey area over the last three years. The PIP results are listed on each park’s page on the DPR website. For both categories, NY4P calculates a neighborhood’s result by adding the number of park inspections that rated acceptable and dividing that number by the total number of inspections in area parks over the last four years. NY4P uses the Mayor’s Management Report park performance targets for the proposed OSI standards.

APPENDIX B:

Field and Court Dimensions

Field and Court Dimensions	
Type	Square footage
Baseball Field (Standard)	70,650 ²⁵
Baseball Field (Little League)	25,447 ²⁶
Basketball Court	4,200 ²⁷
Bocce Court	850 ²⁸
Cricket Pitch & Field	No fixed size, measure cricket fields with a measuring wheel
Football Field	57,600 ²⁹
Golf Course	No fixed size, contact course manager or use DPR website
Handball Court	680 ³⁰
Hockey Rink	17,000 ³¹
Running Track	No fixed size, measure tracks with a measuring wheel
Pool	
a) Long-Course	12,300 ³²
b) Short-Course	3,375 ³³
c) Diving Pool	4,500 ³⁴
Soccer Field (standard)	54,000 ³⁵
Soccer Field (small)	27,000 ³⁶
Tennis Court	5,940 ³⁷
Volleyball Court	1,800 ³⁸

APPENDIX C: Study Area Maps



ENDNOTES

- ¹ Finkelstein, R., Garcia, A., Netherland, J., and Walker, J. (2008). "Toward an Age-Friendly New York City: A Findings Report." The New York Academy of Medicine.
- ² Rosenzweig, C., Solecki, W., Parshall, L., Gaffin, S., Lynn, B., Goldberg, R., Cox, J., and Hodges, S. (2006). "Mitigating New York City's Heat Island with Urban Forestry, Living Roofs, and Light Surfaces." <http://www.giss.nasa.gov/research/news/20060130/103341.pdf>
- ³ Grove, J. M., O'Neil-Dunne, J., Pelletier, K., Nowak, D., and Walton, J. (2006). A Report on New York City's Present and Possible Urban Tree Canopy. http://nrs.fs.fed.us/nyc/local-resources/downloads/Grove.UTC_NYC_FINAL.pdf
- ⁴ http://www.milliontreesnyc.org/downloads/pdf/M_Summer12.pdf
- ⁵ City of New York Mayor's Management Report, September 2012.
- ⁶ Our field survey team noted 66 vacant lots. All of these sites are smaller than half an acre. According to 2008 PLUTO maps, only 15 are City owned (about 1.6 acres), and 51 are privately held (about 3.1 acres).
- ⁷ Calculated in ArcGIS from MapPLUTO data, New York City Department of City Planning, 2008.
- ⁸ Community District Needs for the Borough of Manhattan, Fiscal Year 2013. http://www.nyc.gov/html/dcp/pdf/pub/mnneeds_2013.pdf
- ⁹ NYC DOT Plaza Program: <http://www.nyc.gov/html/dot/html/sidewalks/publicplaza.shtml>
- ¹⁰ Transportation Alternatives. (2011). Play Streets: A Case Study. http://www.transalt.org/files/newsroom/reports/2011/PlayStreets_CaseStudy.pdf
- ¹¹ www.transalt.org/files/newsroom/reports/2011/PlayStreets_BestPractices.pdf
- ¹² Community District Needs for the Borough of Manhattan, Fiscal Year 2013. http://www.nyc.gov/html/dcp/pdf/pub/mnneeds_2013.pdf
- ¹³ http://nyc.gov/html/dot/pr2008/pr08_022.shtml
- ¹⁴ Transportation Alternatives. (2011). East Side Action Plan: A Community Vision for Safer East Side Streets. http://www.transalt.org/files/newsroom/reports/2011/East_Side_Action_Plan.pdf
- ¹⁵ CIVITAS 96th Street Esplanade Pedestrian Access: <http://civitasnyc.org/live/east-96th-street-pedestrian-access-to-the-esplanade/#more-2331>
- ¹⁶ <http://www.broadwaymall.org/our-programs/public-art/>
- ¹⁷ <http://www.nyam.org/news/docs/AgeFriendly.pdf>
- ¹⁸ Only 20% of East Harlem residents own vehicles (2005-2009 American Community Survey estimates for State Assembly District 68).
- ¹⁹ The RBA Group. (2006). Bridge the Gap: Connecting Manhattan and Randall's Island. <http://civitasnyc.org/live/wp-content/uploads/2011/07/Final-Report.pdf>
- ²⁰ New York City Department of Parks and Recreation. <http://www.nycgovparks.org/facilities/recreationcenters>.
- ²¹ New York City Department of City Planning. <http://www.nyc.gov/html/dcp/html/priv/priv.shtml>.
- ²² New York City Department of Transportation. <http://www.nyc.gov/html/dot/html/sidewalks/publicplaza.shtml>.
- ²³ J. Morgan Grove, Jarlath O'Neil-Dunne, Keith Pelletier, David Nowak, Jeff Walkton. "A Report on New York City's Present and Possible Urban Tree Canopy." Table 6: Existing, Possible, and Relative UTC by Neighborhood, p 20, July 2006. http://www.nrs.fs.fed.us/nyc/local-resources/downloads/Grove.UTC_NYC_FINAL.pdf.
- ²⁴ The Open Space Index does not separate out artificial turf fields into a unique permeability category because of the variety of turf systems used in city parks and the lack of public research on turf permeability.
- ²⁵ Outfield and foul ground sizes vary. See Grady L. Miller, "Baseball Field Layout and Construction," Environmental Horticulture Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL, Publication date: June 2001, Revised: July 2001. http://www.baseball-almanac.com/stadium/baseball_field_construction.shtml
- ²⁶ Ibid.
- ²⁷ ProDunkHoops is a company that provides equipment for basketball courts as well as information on basketball courts themselves. Information provided on the website is taken from the NBA, NCAA and NFHS. http://www.produnkhoops.com/support/guides/basketball_courts/court_dimensions.html.
- ²⁸ Bocce Standards Association <http://www.boccestandardsassociation.org>
- ²⁹ For Professional & NCAA football field dimensions, see the Sports-Know-How website. <http://www.sportsknowhow.com/pops/football-field-ncaa.html>.
- ³⁰ International Handball Federation. http://www.ihf.info/upload/PDF-Download/rules_english.pdf
- ³¹ Sports-Know-How. <http://www.sportsknowhow.com/hockey/dimensions/hockey-rink-dimensions.html>.
- ³² For NCAA Standards for Swimming and Diving Pools, see the Recreonics website. http://www.recreonics.com/fyi/ncaa_standards.htm.
- ³³ Ibid.
- ³⁴ Ibid.
- ³⁵ See the Sports-Know-How website. <http://www.sportsknowhow.com/soccer/dimensions/soccer-dimensions.html>.
- ³⁶ <http://www.coachingsoccer101.com/fielddimensions.htm>
- ³⁷ See the Sports-Know-How website. <http://www.sportsknowhow.com/tennis/dimensions/tennis-court-dimensions.html>.
- ³⁸ See the Sports-Know-How website. <http://www.sportsknowhow.com/volleyball/dimensions/volleyball-court-dimensions.html>

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